Industry **Sector Report**

Comisión del Mercado de las Telecomunicaciones

2011

CMT

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Letter from the Chairman

The trends in the electronic communications industry in Spain in 2011 were similar to those seen in the rest of the European Union. Despite the economic crisis, there was an increase in service penetration, except for fixed telephony, while consumption increased. Revenues from most end services also fell. The only exception was an increase in mobile broadband services.

Broadband services in fact produced the most positive figures in 2011. Fixed broadband lines increased 4.8% to over 11 million active accesses and a penetration of over 24 lines per 100 inhabitants. The number of mobile broadband users was up 65% to 19.3 million, with a penetration of around 42 lines per 100 inhabitants. This spectacular surge in mobile broadband has its origin in the use of smartphones, tablets and other similar devices.

The turnover of the telecommunications services and audiovisual industry was a combined 38,000 million euros, including revenues from the provision of both retail and wholesale services. This figure represents a fall of 4.6% on 2010.

Operators invested a total of 4,357 million euros in 2011, down 2.6% on the previous year. This figure does not include the 1,562 million euros spent by operators on the acquisition of frequencies in the auction organised by the Ministry of Industry, Tourism and Trade in June and November 2011. The measure made available 310 MHz for the market in the 800 MHz, 900 MHz, 1800 MHz and 2.6 GHz bands. It was one of the most important auctions ever in the industry, as it will enable networks for fourth-generation mobile communications networks to be rolled out in Spain.

In 2011 there was a general fall in prices of electronic communications services. Mobile communication prices fell by over 16%, and the price of a standard fixed telephony and broadband package fell by over 7.5%. In addition, there has been growth in the customer base for fixed telephony with flat-rate deals, generally bundled with broadband or TV.

Two factors lie behind this fall in prices. First, the economic crisis has encouraged users to look for the best offers and obliged operators to react by cutting prices or improving their offers. Second, the ease with which user can change operator while maintaining their number has boosted the promotions and special deals offered by operators. The volume of number transfers recorded in Spain, where it is normally very high compared with other European Union countries, hit an all-time high in 2011 in both mobile and fixed telephony, with portability rates of 5.6 and 1.9 million, respectively.

Another important factor that explains the falling prices of services is the regulatory activity by the Comisión del Mercado de las Telecomunicaciones (CMT). As a result of the steadily falling voice call termination prices for mobile communications networks established by the CMT, the price paid by operators for these calls in the networks of other operators fell from 5.6 Euro cents per minute in 2010 to 4.6 Euro cents per minute in 2011. These falls in wholesale rates tend to be passed on at least in part to the prices paid by end users for the service.

In addition, in 2011 the capacity of both the fixed and mobile access networks continued to improve, thus providing operators with a greater number of services and more bandwidth. Cable operators have updated their networks by incorporating DOCSIS 3.0 technologies, which allow

them to offer broadband access at 100 Mbps in 95.3% of their network, and provide coverage to 9 million potential users. Telefónica has continued to roll out its fibre optic to the home (FTTH) network, and reached 1.6 million users in 2011.

It has also improved the capacity of its mobile communications networks, with coverage by the 3G/UMTS networks reaching 95% of the population and the first pilot tests of 4G with LTE technology in Madrid and Barcelona.

As a result of increased network capacity, 54% of existing fixed lines with broadband access had a bitrate of 10 Mbps or over in 2011, putting us above the European average in this respect.

Competition has been particularly intense in the provision of broadband and mobile telephony services. In broadband, Telefónica dropped below the 50% threshold for market share for the first time, with a loss of 3.5 percentage points over 2011. The alternative operators using the Telefónica network achieved a market share of 30.4%, with an increase of 3.6 percentage points; while the cable operators' share remained stable at 19.2%.

With respect to the mobile communications market, Movistar continued the market leader with a share of over 39% of lines, although it lost 2.7 percentage points in 2011. Vodafone's share was down 1.3 percentage to 28.2%. Orange maintained its share of 20.5%, while Yoigo and the mobile virtual network operators (MVNOs) increased their market share by 1.3 points and 2.4 points to 5.3% and 6.8% respectively.

Activity in the audiovisual sector has also been affected by the economic crisis. Turnover in television and radio services amounted to 4,125 million euros, a year-on-year fall of 6.7%. This drop was the result of falling advertising revenues, which were 10.1% down to 2,328 million euros. However, it is worth highlighting the good performance of the pay TV service, both in terms of revenues and number of users. Its turnover was over 1,700 million euros, 1.4% up on the figure for 2010, with a total of 4.51 million users, 32,540 more than in the previous financial year.

In compliance with the Sustainable Economy Law, in 2011 the Board of Directors of the CMT approved its Action Plan for the following financial year. The plan defines the objectives and priority actions, both of a regulatory nature and in terms of transparency and management, which are to govern the activities of the CMT in 2012.

Finally, I would like to thank the workers of the CMT for their efforts and dedication in preparing this 2011 Industry Report.

Bernardo Lorenzo Almendros
CMT Chairman

Barcelona, 14 June 2012

2011 FINANCIAL YEAR HIGHLIGHTS

Turnover in the industry as a whole amounts to 37,950.9 million euros, down 4.6% on the previous year

Both retail and wholesale services suffered falls on the previous year's figures (down 5.3% and 1.2% respectively).

The only retail service whose revenues increased was mobile broadband, which was up by 23.5%. Total revenues from wholesale services dropped, due mainly to the falls in interconnection revenues in both fixed networks and mobile communications.

Increased market penetration in nearly all the end services

The number of fixed broadband lines increased by 515,334, a rise in year-on-year terms of 4.8%. The total number of active mobile lines (voice plus datacards increased by 2.2%, or over a million new lines. There was also an increase in the number of pay TV customers, with 32,540 new subscribers. At the same time, fixed telephony penetration fell, with a net loss of 343,055 lines.

Also notable was the increased penetration of broadband through mobile communications networks, at 41.8 lines per 100 inhabitants. This increase was notably based on the leading role of smartphones, tablets and other similar devices.

Consumers change operator more frequently as private consumption contracts

In 2011 the level of portability in the Spanish market hit record highs, at 1.9 million in fixed telephony and 5.6 million in mobile telephony. The main beneficiaries of this portability surge were the alternative operators and mobile virtual network operators (MVNOs).

Operators react to weak demand by offering better prices

The fall in service prices was either direct through standard offers, more aggressive promotions by the operators or by bundling various services together. The operators' price reductions were also supported by the fall in wholesale prices regulated by the CMT, which were passed on to end prices. Particularly notable was the 16.6% fall in the average price per minute of mobile-to-mobile calls, and the 12.1% fall in fixed-to-mobile calls. At higher bitrates of 30 Mbps or more, the average price fell by 4.4% in 2011.

In terms of actual expenditure by households in Spain, average consumption for most electronic communications services fell last year. For example, the cost associated with subscribing to fixed-line access with a twin package including national voice and broadband fell by 7% compared with the previous year. The average consumption of a typical household on this combination of services was 37.6 euros per month.

Investment

Total investment by the operators in the industry amounted to 5,919.4 million euros. This figure includes payments made for the radio spectrum licences granted in 2011. Not including the 1,562 million declared by the operators for this item, investment was 4,357.3 million euros, down 2.6% on the figure for 2010.

NGA network roll out

Cable operators improved their hybrid cable and coaxial (HFC) networks with the roll out of technology using the DOCSIS 3.0 standard, which can give the end user bitrates of 50 or 100 Mbps. At the end of the financial year, total HFC accesses with this technology numbered 9 million, 95.3% of the total accesses by HFC networks.

Telefónica continued to roll out its fibre optic to the home (FTTH) network with a total of 1.6 million accesses installed.

FIXED COMMUNICATIONS

The economic crisis once more had a significant effect on the fixed-telephony service in the business market

The total number of active lines fell by 343,055, nearly all in the business segment. At the same time, the level of revenues, at 5,298.7 million euros, remained similar to previous years, with a fall of 9.2%. Traffic fell, but less so, leading to a reduction in average prices.

The portability rate hits an all-time high, with nearly two million changes of operator recorded

The beneficiaries of portability were alternative and cable operators, which at the end of 2011 accounted for over 36% of market share in the fixed-line telephony market.

Prices of fixed-telephony services continue to fall

All the average revenues per minute of the main destinations for calls from the fixed network fell in 2011. There was a particularly notable fall of 12.1% in fixed-line to mobile calls to 14.95 Euros per minute. The falling price was based on the cut applied by the CMT to the wholesale call termination rates in the mobile communications network. Prices of calls between national fixed-line numbers, which also fell, could also have been affected, though indirectly, by the significant reduction in the regulated fixed-line interconnection rates that the CMT introduced at the end of 2010.

MOBILE COMMUNICATIONS

An exponential rise in subscriptions to mobile broadband services through voice terminals

A total of 19.3 million mobile lines accessed the Internet through mobile communications networks, an increase in demand for these services of 65.5%. Most mobile broadband connections (82.5%) were through voice terminals. A total of 15.9 million users connected through these terminals, while 3.4 million did so from exclusively data devices, mainly datacards and PC tablets.

The total number of mobile lines continues to grow

In 2011, the total number of mobile telephony lines increased by 1.2 million voice lines to 52.6 million (excluding M2M and *datacards*). This growth occurred in both the prepaid and post-paid segments, with year-on-year increases of 2% and 2.5% respectively. The revenues from these services amounted to 13,448.3 million euros. Lines associated with telemetric or telecontrol services (M2M) numbered 2.5 million last financial year, a year-on-year increase of 16.9%.

The significant increase in revenues from mobile broadband services does not offset the fall in voice and messaging services

Total revenues from the mobile market amounted to 13,448.3 million euros, a fall of 4.1% compared with the previous year. This fall is largely the result of lower revenues from voice and messaging services, which fell by 8.3% and 10.2% respectively. In contrast, revenues from mobile broadband services increased by 23.5% to 2,420.6 million euros.

Mobile-to-mobile call costs fall by 16.6%

In 2011 prices of mobile telephony continued to fall, in line with previous financial years. The average revenue per minute of a mobile call fell by 16.6% last year, with similar falls in *off-net* and *on-net* calls.

Operators with lowest market share win the biggest share of lines

In 2011, the main market operators reduced their market share of mobile voice lines; in contrast, Yoigo and the MVNOs increased theirs to 5.3% and 6.8% of the total, respectively.

FIXED BROADBAND

The number of broadband lines increases to over 11 million

The number of broadband lines increased by 4,8% last year to 11.16 million active accesses, with a penetration of 24.2 lines for every 100 inhabitants. By technologies, active xDSL accesses continue to account for the majority, at 8.7 million, followed by HFC, at over two million.

Revenues amounted to 3,913.3 million euros.

Telefónica de España's market share falls below 50% for the first time

Last year 515,334 new broadband lines were added to the market. Telefónica lost 124,422 lines, and for the first time its market share fell below 50%.

Connection bitrates increase in broadband lines, as do promotional commercial offers bundling broadband and voice

The steady improvement in networks and new access technologies have allowed operators to offer services with higher connection bitrates. This is reflected in increased bitrates in broadband services. As a result of the roll-out of new generation networks, connections with subscribed bitrates of 30 Mbps or over numbered 712,386 compared with 168,918 in 2010.

Of these ultra-high speed connections, 133,224 were via fibre optic to the home (FTTH), most of them Telefónica's. Active broadband access services through HFC networks with DOCSIS 3.0 technology offered by cable operators posted even better figures, at 480,457 lines.

At the same time, Telefónica reduced average effective prices in its commercial offers in all bitrate bands last year. At the higher bitrates of 30 Mbps or over, the average price for all the operators with active offers fell by 4.4% in 2011.

New indirect access service (NEBA)

Despite the investment by alternative operators in co-locating at local exchanges to unbundle the subscriber loop (at the end of the year there were a total of 2.88 million unbundled loops), there are still areas where these operators do not use this service. In these cases, they have indirect broadband access available through the GigADSL and ADSL-IP services, which support the connection for 716,000 lines and allow them to offer services throughout Spain.

The limited differentiation offered by the current wholesale indirect access services compared with those offered by Telefónica led to a new indirect access service being specified and fully deployed in 2011 (the new broadband Ethernet service NEBA). This will gradually replace GigADSL and ADSL-IP. The new service will provide wholesale access to the whole Telefónica network and will offer differentiated added-value services such as IP telephony, with guarantees of quality.

TELEVISION AND RADIO SERVICES

Advertising revenues fall 10.1%

Turnover in television and radio services amounted to 4.124,7 million euros, a year-on-year fall of 6.7%. Including subsidies, total revenues were 6,459.2 million euros.

This fall was due to a reduction in advertising revenues, which were down 10.1% to 2,328.1 million. As a result, turnover for free TV services was down 13.1% to 2,029.6 million euros and 3.6% down for the broadcast radio segment to 391.5 million euros.

The number of pay TV subscribers continues to grow, despite the drop in satellite TV numbers

Pay TV services recorded positive figures in both revenues and subscribers, with turnover of 1,703.5 million euros, 1.4% up on the figure for 2010, and subscribers up 32,540 to 4.52 million.

The TV-IP and pay DTTV platforms increased their subscriber bases to 0.9 and 0.4 million respectively. The number of subscribers to pay cable TV fell by 2.9% to under a million and a half.

Although it lost 16.671 subscribers over the year, the leading pay satellite TV platform was Canal +, which closed the year at 1.76 million customers.

Fall in DTTV revenues

Digital terrestrial television (DTTV) had the highest revenues, at 2,187.2 million euros, though it recorded a year-on-year fall of 8.2%. The leading operator in the segment by advertising revenues was Mediaset España, which after its merger with Cuatro obtained 42.2% of the total (816.7 million euros). Next came Antena 3, at 616.4 million euros, or 31.8% of the total. These two operators between them thus accounted for 74% of total advertising revenues.

1. THE TELECOMMUNICATIONS INDUSTRY

1.1. The Spanish industry in the European context

Although the economic crisis affected the different countries in the EU differently, in the electronic telecommunications industry some of the trends were common to the Community environment. Thus the penetration of the most important services such as mobile, broadband and pay TV increased, while overall turnover in the EU as a whole fell. The drivers of the sector were mobile data services, where there was very significant growth.

The governments of the EU Member States have adopted policies to boost the information society, and throughout 2011 they made a very significant amount of radio spectrum available to the operators, either through migration to DTTV (digital dividend), new spectrum bands or through a more flexible use of previously assigned bands. All this makes possible an extension of the 3G-UMTS networks and roll out of the 4G-LTE networks. In 2009 the regulatory framework of electronic communications was reformed, and in May 2011 it began to be implemented in all the EU countries. In addition, the Digital Agenda for Europe establishes ambitious common objectives for the roll out and use of very high speed networks. One of these objectives is to ensure that by 2020 all European citizens have access to the Internet at bitrates of 30 Mbps or higher, and that half the households in Europe should be subscribers to Internet connections of 100 Mbps or more.

IDATE[1] estimates that in 2011 the telecommunications industry reduced its turnover in the EU-27 by 1.9%, although the prospects for the 2012-2014 period are more positive, and they estimate slight increases in overall turnover. In any event, the industry is expected to grow at under GDP, as has happened in recent years.

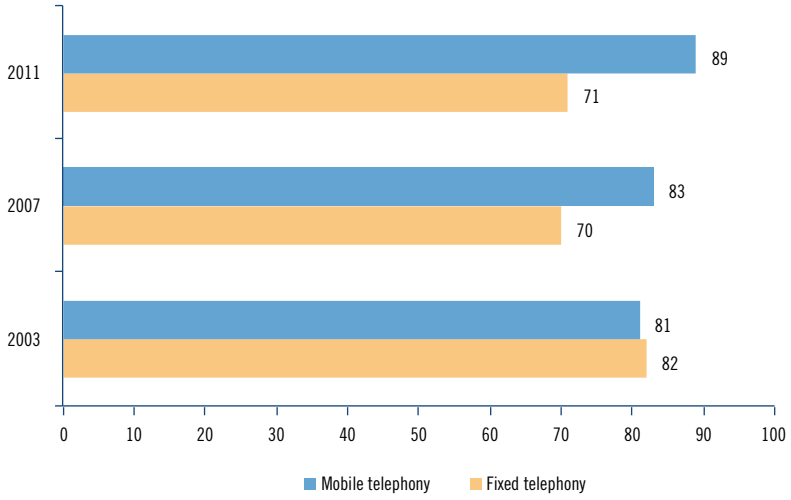
In a context of a very sluggish emergence from the economic crisis, and with some countries in recession, the operators have reacted by cutting prices. The basket of communications services used to calculate the consumer price index (CPI) in the EU-27 as a whole fell by 0.4% on the 2011 figure, according to Eurostat.

Fixed telephony

In 2011, the EU-27 estimates there was a drop of 10 million, or 5.5%, in the number of fixed lines. Forecasts indicate that this trend will probably be maintained in the coming years for revenues derived from these services as well, although to a lesser extent. Whether through replacement of fixed access by mobile or the use of applications that allow VoIP calls, fixed telephony in the EU as a whole has been shrinking in terms of lines and revenues since 2003.

[1] *World Telecom Services Market. Markets and Data, I*DATE*, March 2012 and Digiworld Yearbook 2012, IDATE,* May 2012.

Fixed telephony and mobile telephony penetration in households in the EU-27, July 2011



Source: E- communications survey, 2011

Mobile telephony

In Europe, mobile telephony penetration is very high, with 132 lines per 100 inhabitants. Even so, in 2011 the total number of mobile telephony subscribers increased by 2.4%.

IDATE estimates that global mobile telephony revenues fell by 0.5% over the year as a result of moves in two different directions: while voice revenues fell by 5.8%, mobile broadband revenues were up 14.1%.

There has been a trend in the EU for a fall in the prices of voice calls. This has occurred both on the domestic front, boosted by cuts in termination rates introduced by the national regulatory authorities (NRAs), and in Europe as a whole, due to regulations on roaming in the EU introduced in 2007. The prospects for the upcoming years are for major reductions in both rates, which will continue to be regulated.

A significant event in 2011 at the regulatory level was the entry into force of the new European regulatory framework defined in 2009. Member States should have implemented the new aspects of this framework by 25 May 2011.

Once of the consequences of this is the increased role taken on by the European Commission in reviewing the regulatory actions adopted by the NRAs. If a measure in a specific market is proposed by an NRA, the Commission may express "serious doubts" and even veto the proposed implementation when it is a case of significant market restriction an operator with significant market power (SMP) has been identified. In the initial months of the new regulatory framework, the Commission made use of these new powers and initiated an investigation on a specific proposal affecting mobile termination rates proposed by an NRA. For the first time, as a result of the new regulatory framework, BEREC had to prepare a formal opinion on the serious doubts expressed by the Commission. This opinion must be taken fully into account by the Commission before it adopts its final decision.

With respect to roaming, the European Commission published a proposal for a new Regulation on 6 July 2011. It will entry into force on 1 July 2012, and will be for a period of ten years. As an advisor to the European institutions, BEREC contributed its opinion on the proposed regulation, in particular with respect to the supply costs and the design of alternative solutions to price limitation.

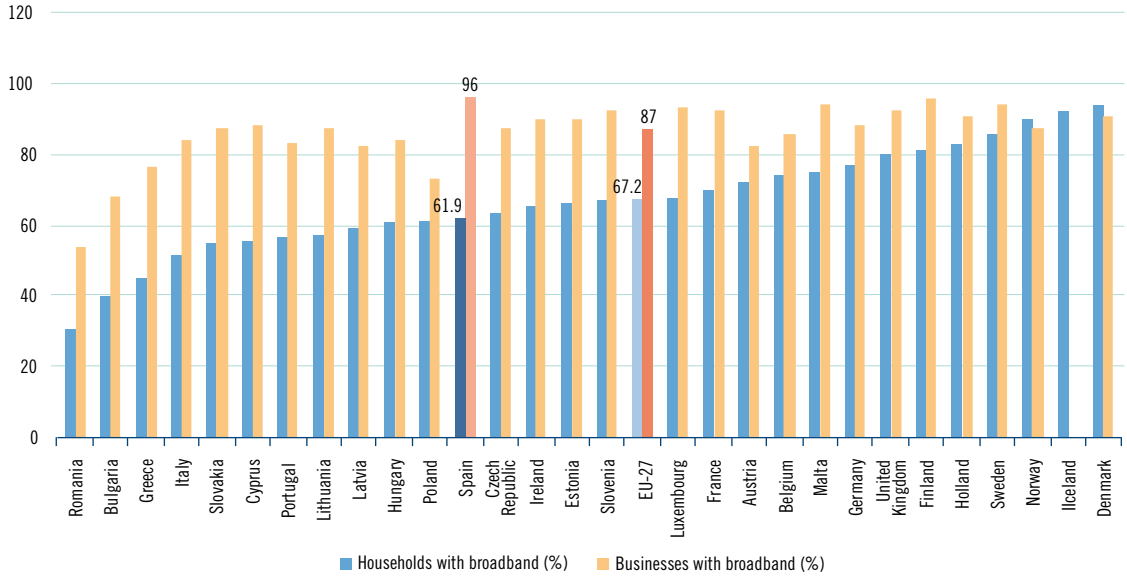
The new roaming regulation includes important changes with respect to the current situation. The aim is to address the lack of competition in this market. Starting in July 2014, mobile operators will have to allow users to subscribe to roaming services separately from domestic services; at the same time, they will have to give wholesale access to these services to any other operator (including mobile virtual network operators and resellers). In any event, the Regulation will extend the current rules limiting prices as a temporary measure, although with reduced rates, so that the new structural measures can be implemented and developed.

Broadband

The number of Broadband connections via fixed networks increased in the EU by 5.4% in 2011, the same rate as penetration, which stood at 27.9 lines per 100 inhabitants. It is expected to continue to grow at annual rates of 4.9% on average over the next three years.

In 2011, broadband penetration via fixed networks in the EU-27 amounted to 67% of households and 87% of companies. In Spain, penetration in the business segment was higher than the EU average. Household penetration was slightly lower, at 62%, with a strong rate of growth over the past year. Since 2009 broadband penetration in Spanish households has increased by nearly 11 percentage points.

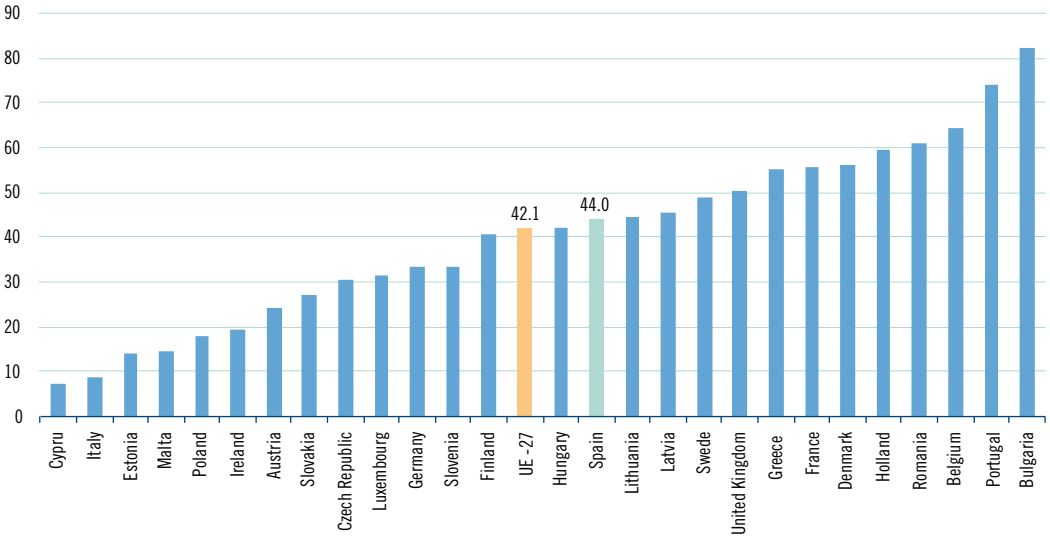
BROADBAND PENETRATION IN HOUSEHOLDS AND BUSINESSES, JULY 2011



Source: European Digital Scoreboard

The bitrate of broadband connections via fixed networks has increased significantly. In 2009, only 17% of all connections in the EU-27 had a nominal download bitrate of 10 Mbps or higher. Two years later, 42.1% of lines enjoyed these bitrates, and 1% had bitrates of 100 Mbps or more. A similar trend can be observed in Spain. In 2009, the proportion of lines with bitrates of 10 Mbps or higher was 13.3%; in July 2011 the rate had increased to 44% of total connections[2] and by the end of the year it had reached 54%.

PROPORTION OF FIXED BROADBAND LINES WITH DOWNLOAD BITRATES OF 10 MBPS OR HIGHER, JULY 2011

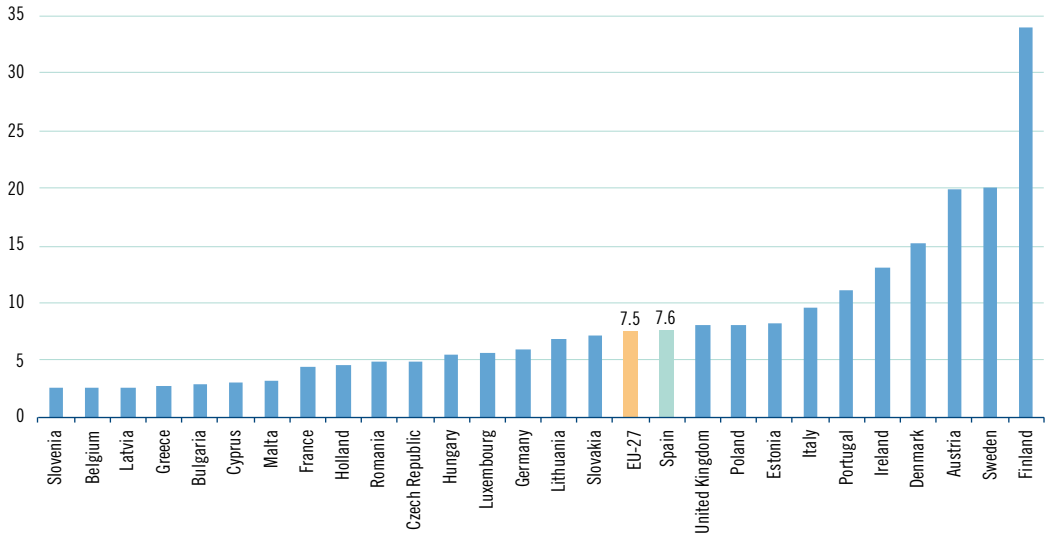


Source: European Digital Scoreboard

The strongest growth was in Internet connection via mobile communications networks. In the EU-27, medium 3G-UMTS coverage reached 90% of the population in 2011. This extensive coverage has been able to satisfy the growing demand for mobile connectivity on the part of users, who connect either through USB modems to "large screen" devices such as computers and traditional laptops, or through tablets, netbooks or smartphones, which is becoming increasingly popular. In the period 2009-2011, the penetration of datacards doubled in the EU-27, and also in Spain, with a rate of 7.6 datacard lines per 100 inhabitants. Figures from Eurostat show a boom in the use of mobile Internet access via 3G-UMTS networks, both through smartphones and small computers. In the EU-27, 20.8% of the population said that they accessed the mobile Internet through one of these devices in 2009; in 2011, this percentage had risen to 31.7%. In Spain the growth and penetration figures were similar.

[2] European Digital Scoreboard, European Commission (2012).

MOBILE BROADBAND PENETRATION VIA *DATACARDS* (*DATACARDS*/100 INHABITANTS), JULY 2011



Source: European Digital Scoreboard

The recorded increase in broadband penetration and traffic, combined with expectations of very high medium-term growth, mean that operators have to undertake major investment projects in technology to satisfy demand. One of the problems identified by operators in this respect is that revenues from data traffic (broadband), whether fixed or mobile networks, are not offset by falls in revenues received from other items (basically voice revenues).

In any event, it is a fact that in the medium term it will not be possible to satisfy the estimated growth in traffic if new ultra high-speed networks are not deployed. With respect to mobile communications networks, both the European Commission in 2009 and the governments of the different countries have laid the foundations for a more harmonised and open spectrum policy. Directive GSM 87/372/EC, modified, and Decision 2009/766/EC introduced the principle of service and technology neutrality. One of the consequences of applying this principle is that the operators with a licence in the 900 MHz and 1800 MHz band spectrum will be able to use not only GSM systems but also other standards such as UMTS and LTE-4G. The European Commission Decision 2008/477/EC harmonised the roll out of the new 2.6 GHz band, which is ideal for data transmission, and some countries have already assigned it to operators. At the same time, many EU countries have migrated to digital terrestrial television (DTTV). This process has liberated part of the 800 MHz spectrum that had until now been used by television and has now been made available to electronic communications operators, thus allowing the roll out of high-speed mobile communications networks.

In the EU, the roll out of 4G-LTE technology is at a very early stage[3]. In Sweden once the government makes the digital dividend band available to operators, it will trigger a more extensive roll out of this technology. In Germany, the first EU country to award the digital dividend, also still had a very limited number of users.

[3] *LTE 2012. Markets and Trends,* IDATE, 2011.

At the same time, the regulatory environment allows infrastructure and joint investment projects to be shared, provided that the existing competition legislation is not infringed. The new European regulatory framework grants powers to the NRAs to boost the shared use of physical resources in order to promote the roll-out of new generation access networks (NGAs)[4]. The recommendation by the European Commission regarding the roll out of these networks[5] also includes co-investment mechanisms through which the different operators can undertake joint network roll out.

Some operators have developed collaboration agreements to share roll out costs of these LTE networks, as in the case of Orange and Deutsche Telekom, which concluded an agreement to share the roll-out costs of LTE-4G networks in Poland, Romania and Austria. In a BEREC report on sharing mobile infrastructures a clear interest was detected by the NRAs to promote[6] this kind of agreement.

The European Commission set itself a number of ambitious targets for the period 2011-2020 related to roll-out and use of ultra-high speed broadband, as reflected in the Digital Agenda for Europe (DAE). The aim is to have ultra-high speed broadband coverage for the whole population by 2020; and in terms of penetration, with 50% of households using broadband at a speed of at least 50 Mbps. Although these targets are still distant, in 2011 there was progress in the general extension of the DOCSIS 3.0 standard in cable operator networks. These offer ultra-high speeds to a significant proportion of the EU population. One example of this can be seen in Spain, where cable operators have undertaken improvements using DOCSIS 3.0 in 95.3% of their access networks.

In June 2011, network coverage using fibre optic to the subscriber's home (FTTH/B) was only over 20% in Denmark, Sweden, Portugal and France. Coverage of HFC networks using DOCSIS 3.0 was much higher, and at least 50% in Holland, Portugal, Belgium, Hungary, the Czech Republic, Romania, Denmark and Spain. The objective of the DAE is for 100% of households to have an Internet connection available at bitrates of 30 Mbps or more by 2020.

In terms of achieving the second DAE target of at least 50% of European homes having subscribed connections at bitrates of 100 Mbps by 2020[7] only Sweden had more than 10% of households subscribed to NGA. Three other countries - Denmark, Hungary and Portugal - had a penetration rate of over 5%. Once more, DOCSIS 3.0 technology showed better figures, no doubt as a result of the greater coverage of this kind of network in the EU: eight countries, including Spain, had a penetration rate of over 10% of households with ultra high-speed connections based on HFC networks. In all, in June 2011 the average penetration rate of connections of 100 Mbps or over was still very low in the EU-27, at under 1% of households. As pointed out, whilst roll out of NGA networks is now well established in significant areas of some countries, demand for this type of connection is only growing slowly.

1.2 The electronic communications industry in Spain

The difficulties of the Spanish economic situation in recent years have also impacted the electronic communications industry. The gross domestic product (GDP) increased by 0.7% in 2011 in real terms, but there was a clear slowdown as the year progressed. Operators had to address a fall in private consumption in the economy of 0.1% and users who were more active in searching for the best offers. They reacted by lowering prices, increasing the number of promotions for services or adding additional services as discounts to existing packages. As a result of these strategies, the level of prices of services included in the "Communications" item of the CPI basket in Spain fell by 0.8% after steady falls over the last decade.

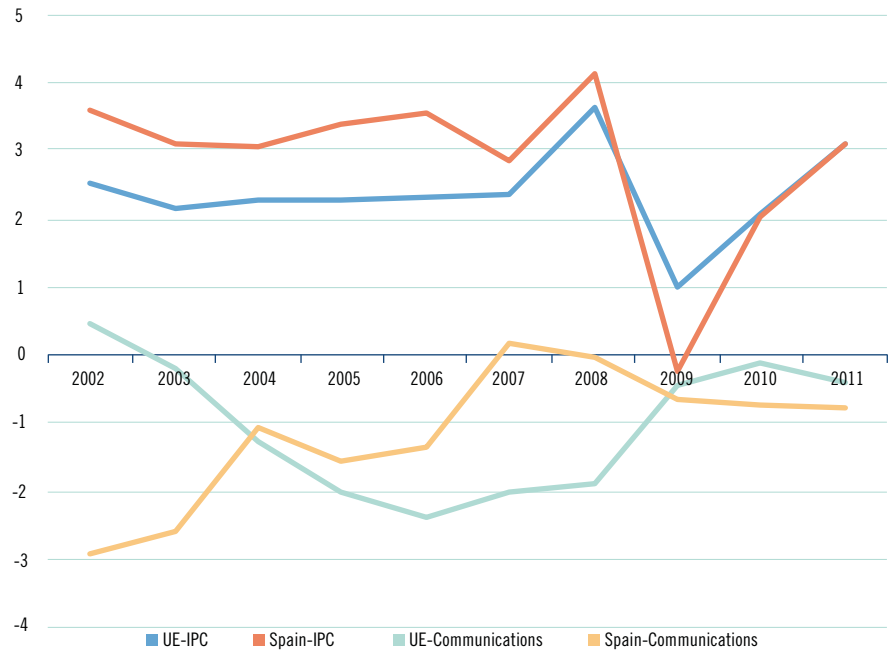
[4] Directive 2009/140/EC amending Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services.

[5] Commission Recommendation 2010/572/EU of September 2010 on regulated access to Next Generation Access Networks (NGA).

[6] BEREC-RSPG Report on Infrastructure and Spectrum Sharing in Mobile/Wireless Networks, http://www.erg.eu.int/doc/berec/bor_11_26.pdf.

[7] NGA Progress Report, WIK-Consult, March 2011.

RATE OF CHANGE IN HARMONISED CPI AND COMMUNICATIONS INDEX IN THE EU-27 AND SPAIN



Source: Eurostat

The price reductions had a negative impact on the revenues of most of the end services, but did not reduce either the penetration rate or consumption by users. Throughout 2011, the broadband, pay television and mobile telephone service penetration rates all increased. There was a notable increase in the broadband penetration rate through mobile communication networks, in particular through smartphones, tablets and other devices.

Revenues

In line with the figures for the last three years, in 2011 turnover in the sector continued to fall: overall turnover was 37,950.9 million euros, a fall of 4.6% compared with the previous year.

Revenues from end services fell by 5.3%. By segments, revenues from fixed telephony fell, although traffic did so to a lesser extent; revenues also fell in mobile communications, despite the increase in volume of minutes consumed and the total number of active lines. Revenues from broadband connections via fixed networks and from audiovisual services also posted negative growth in 2011. The only service with higher revenues was mobile broadband.

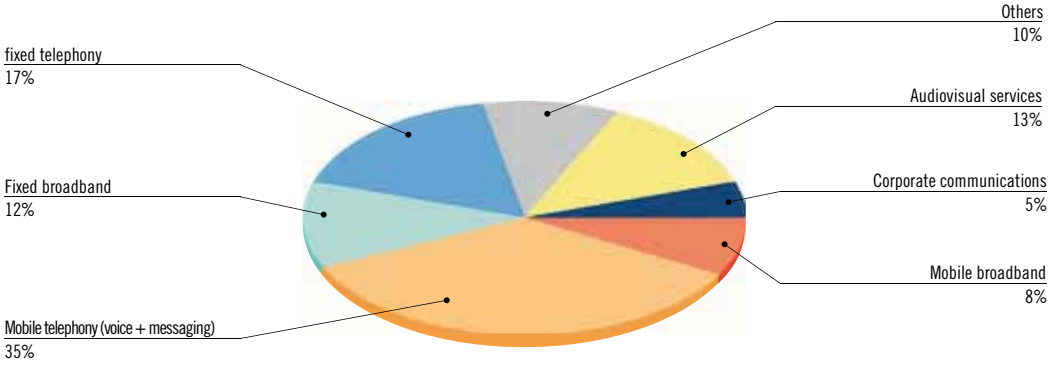
REVENUES FROM END SERVICES 2010-2011 (million euros and percentage)

	2010	2011	CHANGE 2011/2010
Fixed communications	9,862.22	9,212.05	-6.6%
Voice	5,834.12	5,298.73	-9.2%
Broadband	4,028.10	3,913.32	-2.8%
Mobile communications	14,023.94	13,448.30	-4.1%
Voice + messaging	12,064.41	11,027.65	-8.6%
roadband	1,959.53	2,420.65	23.5%
Business communications	1,496.46	1,502.91	0.4%
Audiovisual services	4,421.49	4,124.69	-6.7%
Other services	3,505.38	3,252.47	-7.2%
Total end-service revenues	**33,309.49**	**31,540.42**	**-5.3%**

Source: CMT

In 2011, 43% of total revenues from end services came from the services provided through the mobile communications networks. Fixed telephony accounted for 17% of revenues, but reduced its share slightly, as did the audiovisual services segment, which includes free and pay television.

BREAKDOWN OF REVENUES FROM END SERVICES (percentage)



Source: CMT

Revenues from wholesale services fell by 1.2%, due above all to falling prices for the most popular interconnection services in fixed and mobile networks.

REVENUES FROM WHOLESALE SERVICES 2010-2011 (million euros and percentage)

	2010	2011	CHANGE 2011/2010
Interconnection	4,352.46	4,114.10	-5.5%
Circuit rental	730.92	741.54	1.5%
Data transfer	41.21	41.98	1.9%
ADSL Services	454.50	545.57	20.0%
Transport and broadcasting	394.99	413.51	4.7%
Other services	517.25	553.78	7.1%
Total wholesale revenues	**6,491.33**	**6,410.48**	**-1.2%**

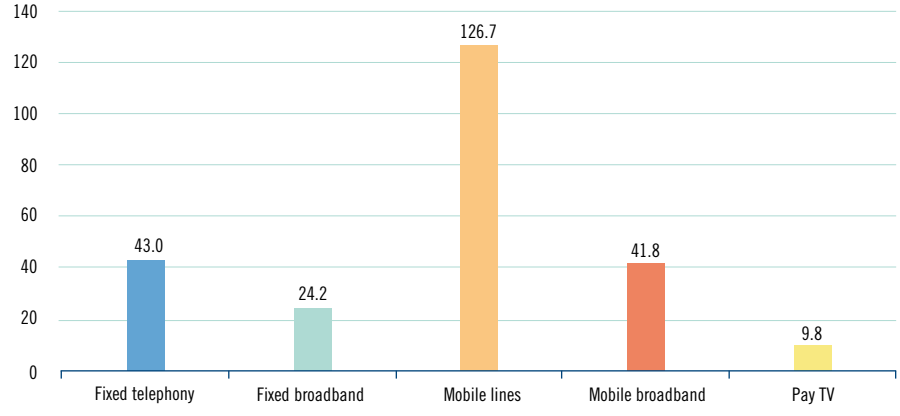
Source: CMT

In contrast, revenues from wholesale ADSL services increased significantly due to the growth in demand by alternative operators.

Penetration rate of end services[8]

The penetration rate increased in nearly all telecommunications end services. Specifically, broadband lines, with 515,334 new connections, were up 4.8%. The same occurred with the customer base for pay television, which was up by 32,540 subscribers, and with the total number of mobile voice lines, up 2.4%. In contrast, fixed telephony fell: its penetration rate was down from 43.9 lines per 100 inhabitants in 2010 to 43.0 lines in 2011. These trends are common to all EU countries over the last few years.

PENETRATION RATE OF THE MAIN SERVICES (lines/100 inhabitants)



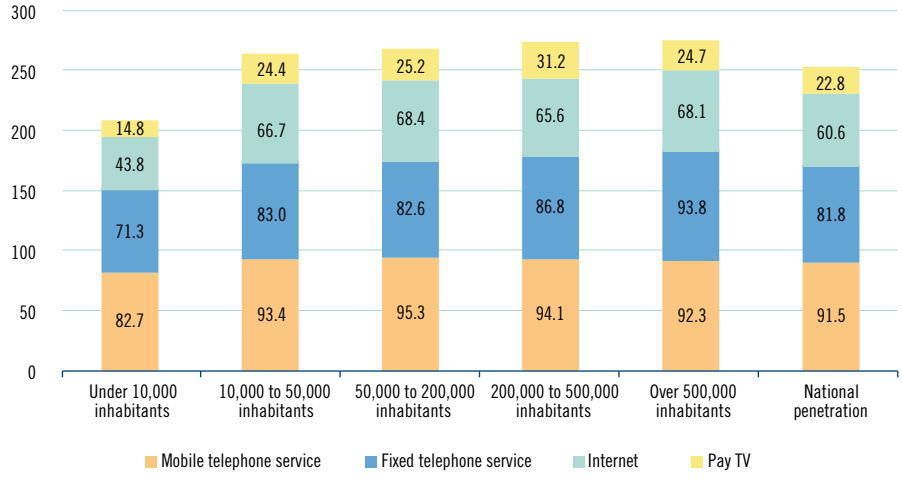
Source: CMT

[8] The figures for penetration in this section are not the same as those included for Spain in the section "The Spanish sector in the European context". This is because here we consider figures to December 2011, while the European section only includes figures to July 2011.

The growth in broadband penetration by mobile communications networks in Spain was fairly marked, in line with the clear surge in this service in other EU countries. A significant proportion of broadband users via 3G-UMTS networks use USB modems, datacards or desktop/large screen connections. In Spain 3.4 million active datacards were registered. Adding to this the number of users connecting to a 3G-UMTS network via smartphone terminals or other small devices, mobile broadband penetration amounted to 41.8 subscriptions per 100 inhabitants.

The Panel de Hogares CMT-Red.es household survey indicates an increased penetration rate of all electronic communications services in the residential segment. If the penetration rate is measured by households with a service subscribed, it can be seen that 81.8% of households had a fixed-telephony service, while 91.5% had a mobile phone. In addition, around 23% of households had pay television and more than six out of ten already had Internet access. There was a notable growth in Internet penetration among households, at over 8% year-on-year.

PENETRATION OF TELECOMMUNICATIONS END SERVICES IN HOUSEHOLDS BY SIZE OF HOUSEHOLD
(percentage)



Source: CMT-Red.es Household Panel

However, penetration in the different services is not distributed evenly in geographical terms. Penetration in households in towns with fewer than 10,000 inhabitants was under the national average, in particular in the case of pay television and broadband.

Household expenditure and prices

The economic crisis has meant that consumers are more sensitive to what they spend, but the volumes actually demanded are not falling. An analysis of the actual expenditure of households in Spain shows that in the last year average spending on most services has fallen. In particular, there have been falls in the fixed telephony service plus Internet (including access) and in subscriber mobile telephony, of over 6% year-on-year in both cases. This spending is on average 37.6 and 31.5 Euros per month, respectively.

AVERAGE MONTHLY EXPENDITURE ON THE MAIN SERVICES BY HOUSEHOLD (euros/month)

Source: CMT-Red.es Household Panel

These falls in household expenditure were partly the result of the operators cutting prices over the year or making discounts on rates, as well as the major use of portability in 2011. A total of 1.9 million fixed lines changed operator in 2011, generally with the aim of finding a better price for fixed-line voice and broadband services. In mobile telephony, the volume of lines that changed operator was even higher (over 5.6 million), accounting for over 10% of total active mobile lines. Those benefitting from the high volumes of portability were Yoigo and mobile virtual network operators (MVNOs), which in general offered the cheapest rates on the market.

The fall in service prices was either direct through standard offers, more aggressive promotions by the operators or by bundling various services together. The operators' price reductions were also supported by the fall in wholesale prices regulated by the CMT, which were passed on to end prices. Particularly notable was the 16.6% fall in the average price per minute of mobile-to-mobile calls, and the 12.1% fall in fixed-to-mobile calls. With respect to broadband, the average effective price of offers with bitrates of between 10-15 Mbps fell by nearly 9% over the last two years.

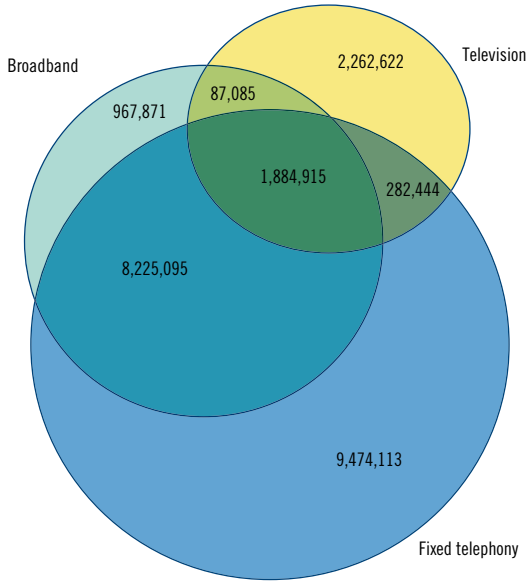
A comparison with five other EU countries carried out by Strategy Analytics/Teligen for the CMT compares the total spending based on the best existing rates in 2011 in the market per household, taking into account all the subscribed services. In Spain, the average household subscribes telephony and fixed broadband services and an average of two mobile lines, one of which uses data to a limited extent. The television service is free and fixed telephony and mobile phone consumption is average or low. The expenditure of this profile of household is matched to the best rates offered by the three biggest market operators in each of the countries, giving expenditure per month (in PPP euros including VAT).

Total household expenditure associated to this package of subscribed services in Spain is 70.3 Euros/month, slightly more than the average for the rest of the countries analysed, at 68.1 Euros/month. Of the components of the baskets analysed, expenditure on mobile telephony can be seen to be of a comparable levels to the best rates of the operators in the other countries when consumption is not very high. Expenditure increases significantly for bigger users of voice via mobile communications.

Service convergence

Throughout 2011 bundled subscription of telecommunications end services continued to grow. From 10 million packets in 2010 it increased to 10.5 million one year later. The importance of this form of subscription is clear. It is continuing to grow in all the most important services. In December 2011 for the market as a whole, 52.3% of the fixed telephony lines were bundled; and 50% of subscriptions to pay TV and 91.3% of broadband lines had also been subscribed together with other telecommunications end services.

NUMBER OF BUNDLED PACKAGES OF FIXED-NETWORK SERVICES (lines or subscribers)

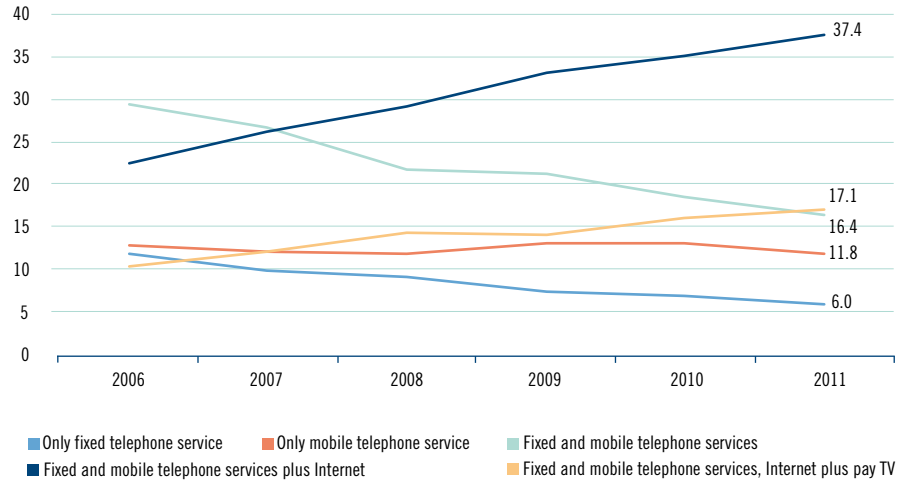


Source: CMT

The following chart, based on the Panel de Hogares CMT-Red.es household survey, shows subscription levels to the five most common combinations of electronic communications services in households in 2011. The most common combination of services (fixed telephony, mobile and Internet) increased by 67% between 2006 and 2011, while the percentage of households with only fixed telephony fell by nearly 50% in the same period.

A breakdown of households according to the services they subscribe to shows that the two most popular combinations are fixed telephony, mobile and Internet services (37.4% of households), and these services plus pay television (17.1% of households). More than half the households in Spain now have some form of these two service combinations.

SUBSCRIPTION OF END SERVICES (percentage)

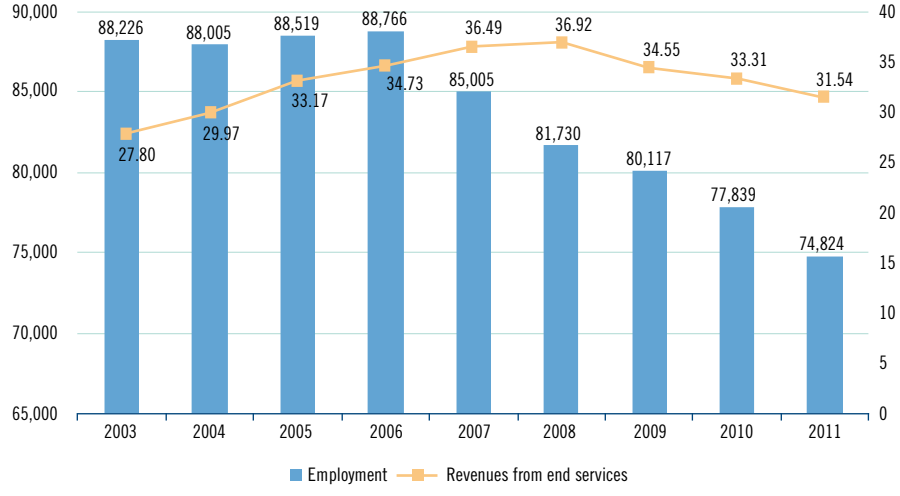


Source: CMT

Employment in the industry

In 2011, employment in the electronic communications industry, including audiovisual operators, fell more sharply than in previous years, by 3.9% on 2010. This fall includes the reduction of nearly 2,000 in the Telefónica workforce. Thus the number of direct employees in the industry has fallen steadily since 2007 to 74,824 in 2011.

EMPLOYMENT AND REVENUES FROM END SERVICES IN THE INDUSTRY
(employees and billion euros)



Source: CMT

Investment

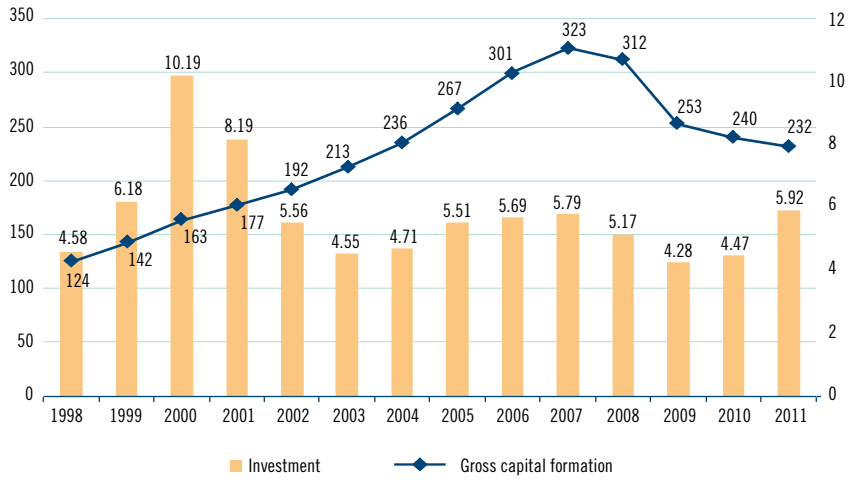
Total investment in the industry in 2011 was 5,919.4 million euros. This figure includes investment declared by operators for the radio spectrum licences they were granted through an auction or public tender in June and November 2011.

A comparison of this investment with previous financial years, which is key for an analysis of the industry, has to discount the 1,562 million euros of declared investment in the spectrum licences by the operators. In comparable terms, overall investment for the financial year, including audiovisual operators, fell by 2.6% on the figure for the previous year (4,357 million euros in 2011 compared with 4,474 million in 2010).

Operators invested 2,000 million euros overall for all the frequencies assigned. This extension of the spectrum arises from the digital dividend (800 MHz band) and the new spectrum made available to operators in the 2.6 GHz band with the aim of promoting the roll-out of networks for new generation mobile communications networks (LTE).

Except for Vodafone, which has used an accounting criterion of only including frequencies that it can already use, the other operators have already accounted for all the investment in radio spectrum licences granted in 2011 in their assets. Thus Vodafone has only included the 78.3 million euros corresponding to the 2.6 GHz band, as the rest granted in the 800 MHz band will not be available until 2014.

INVESTMENT IN THE INDUSTRY AND GROSS FIXED CAPITAL FORMATION (billion euros)



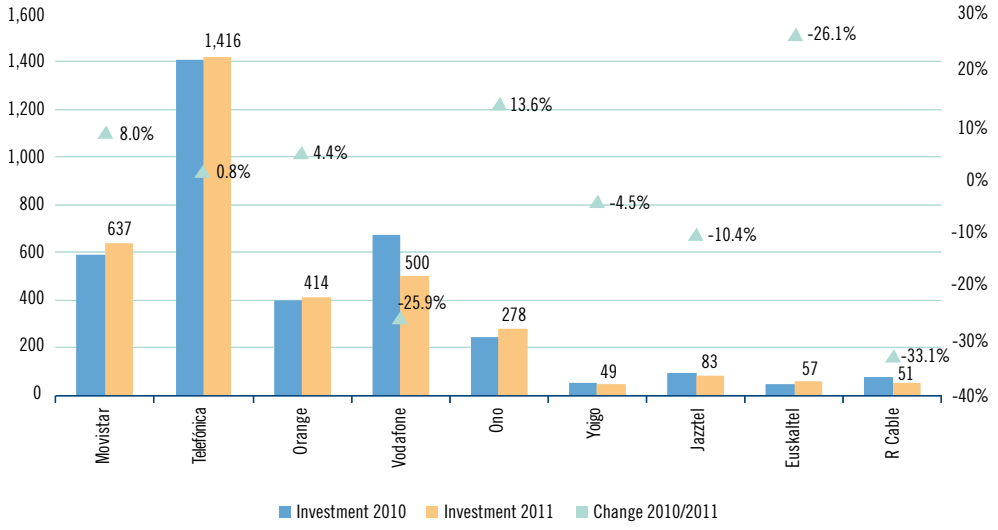
Source: CMT

If we analyse the data by operator9 without including the amount invested in the spectrum licences, it can be seen that most reduced their investment efforts with respect to 2010. Of the four main operators, Movistar and Orange slightly increased investment in 2011, Telefónica maintained practically the same level as the previous year, and Vodafone cut investment significantly, by 26%. If we consider only investment on the improvement or extension of the fixed or mobile networks, then the three main operators invested the same amount in 2011 as in the previous year, and that Vodafone invested 35% less.

[9] The operators are referred to by their commercial brand, except in the case of Telefónica de España S.A.U., for which Telefónica rather than Movistar is used.

With respect to the main cable operators, Ono and Euskaltel recorded positive rates of growth. The migration of their networks to DOCSIS 3.0, which can offer the end user ultra high speeds, was focused above all in 2010, with less investment this financial year.

INVESTMENT BY OPERATOR (EXCLUDING SPECTRUM) AND RATE OF CHANGE (millions of euros and percentage)



Source: CMT

Investment in fixed networks

The improvement in the access networks for both fixed-line and mobile communications, and in the backbone networks, is a key factor for offering consumers better and newer services that require more bandwidth. They are therefore an opportunity for boosting growth in the industry.

The operators have over recent years made significant investment efforts to improve both fixed-line and mobile communications access networks. Despite the improvement and optimisation of copper-pair based technologies, their limited capacity will lead to a gradual migration from these access networks to new-generation fibre-optic based networks. As a result, there will be an increase in the capacity of the backbone networks to process and increase the volume of traffic that will result from the intensive use of new applications, particularly online video transmission.

In the 2011 financial year, access through fixed networks continued to be the most popular for voice and data services. Of the forms of access installed, copper pair are still the most common, at 16 million accesses. Both the incumbent operator and alternative xDSL operators that unbundle the loop use these accesses to offer their voice and data services.

These traditional copper accesses that connect subscribers to local exchanges are no longer the only form of access to users with xDSL technology. As well as conventional local exchanges, there are other elements in the Telefónica network, called remote nodes, which in general connect with a few hundred loops, There can be multiple remote nodes within the area of one local exchange. Each of these nodes is connected to the local exchange through a fibre optic link. They are deployed to improve the broadband services in areas that are far from the local exchange and also

to provide a service to new urban areas. Thus the broadband Internet access services using these loops are provided from remote nodes. This improves the bitrate compared with that obtained if the service were supplied directly from the local exchange. As of the close of 2011, there was a total of 5,811 remote nodes in the Telefónica network, with 645,395 loops dependent on them.

With respect to new-generation access networks (NGAs), Telefónica made significant progress during the financial year in rolling out fibre optic to the home (FTTH) access. At the end of 2011, of the total number of 1,607,108 FTTH accesses installed, 98.5% were Telefónica's. This figure represents an increase of more than a million new FTTH accesses in a year.

Despite this significant roll-out, active or actually subscribed FTTH-based broadband accesses numbered only 177,122. Telefónica plans to reach three million FTTH accesses installed by September 2012.

At the end of 2011 the number of HFC (hybrid fibre coaxial, with fibre to a node and coaxial cable to the subscriber) accesses installed was 9.5 million, practically the same figure as in 2010. Access networks continued to improve over the financial year, with migration and installation of new equipment and accesses using DOCSIS 3.0 technology, which gives bitrates of over 100 Mbps. At the end of 2011, the total number of accesses installed in nodes with DOCSIS 3.0 technology was 9 million, accounting for 95.3% of the total HFC accesses, compared with 71.9% in 2010.

ACCESSES INSTALLED[10]

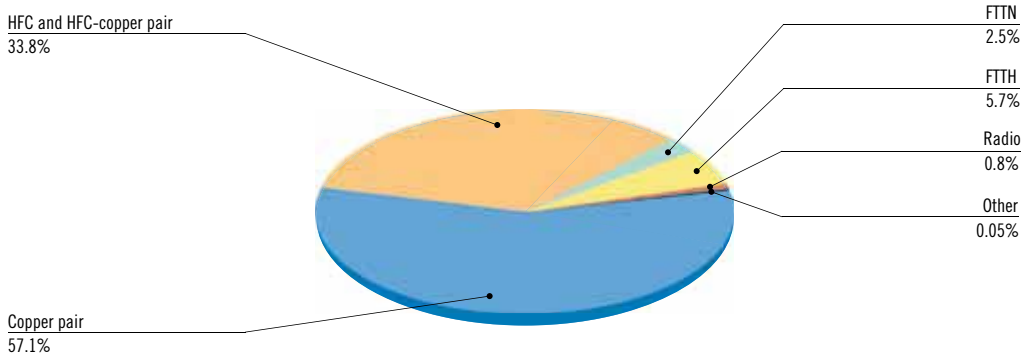
	2007	2008	2009	2010	2011
Copper pair	16,325.07	16,100,379	15,865,857	15,996,403	16,065,690
HFC and HFC-copper pair	8,778,068	9,146,308	9,307,653	9,439,863	9,497,692
FTTN	436,783	604,620	628,494	668,724	691,435
FTTH	0	0	396,065	524,370	1,607,108
Radio	192,698	217,252	219,517	226,186	235,807
Other	23,706	20,699	25,349	20,027	14,207

Source: CMT

The number of copper pair accesses installed accounts for 57.1% of fixed-network accesses, a slight increase on the previous year. The amount of HFC accesses installed by cable operators remained stable, at around 34%. There was a notable increase in the fibre optic to the home (FTTH) accesses installed, with a share of 5.7% in 2011, compared with 2% in 2010.

[10] The copper pair accesses installed do not include vacant copper pairs. Radio accesses include those installed using LMDS, WiMAX and Wi-Fi technology.

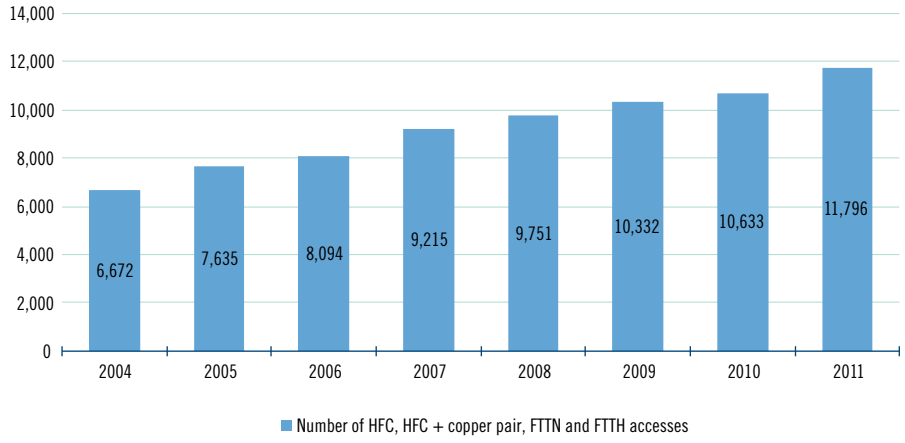
ACCESSES INSTALLED BY TYPE OF SUPPORT (percentage)



Source: CMT

The next chart shows the number of HFC and fibre-optic accesses installed. A total of 11.8 million accesses were installed using these supports at the close of 2011. This figure represents an increase of 10.9% on the figure for 2010. The increase is mainly due to the FTTH accesses rolled out by Telefónica.

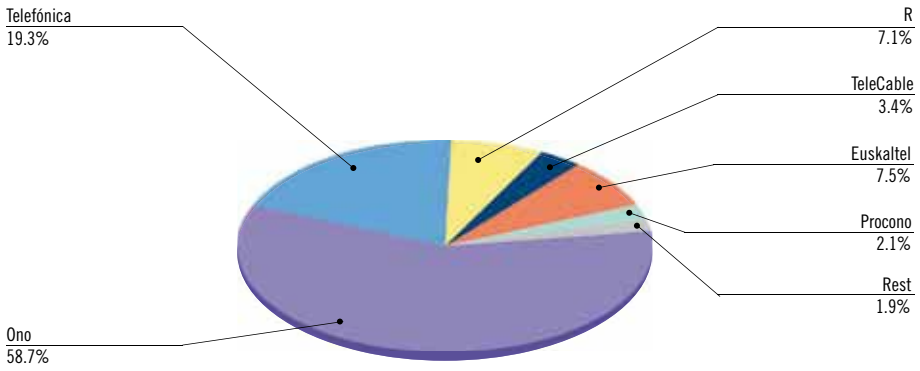
HFC AND FIBRE ACCESSES INSTALLED (thousands of accesses)



Source: CMT

The breakdown by operator of the HFC and fibre optic accesses installed (FTTN and FTTH) shows that the cable operator Ono, which has its own network across most of Spain, reached a share of 58.7% of these accesses. This figure represents a fall of nearly 6 percentage points, due to the progress made by Telefónica in its fibre-optic roll out. Telefónica closed the financial year with a 19.3% share in accesses, compared with 10.7% in 2010, including fibre-to-the-node (FTTN) and fibre-to-the-home (FTTH). The other regional cable operators, with roll out in specific parts of Spain, had a share of 22% of accesses.

SHARE OF HFC AND FIBRE ACCESSES INSTALLED BY OPERATOR (percentage)

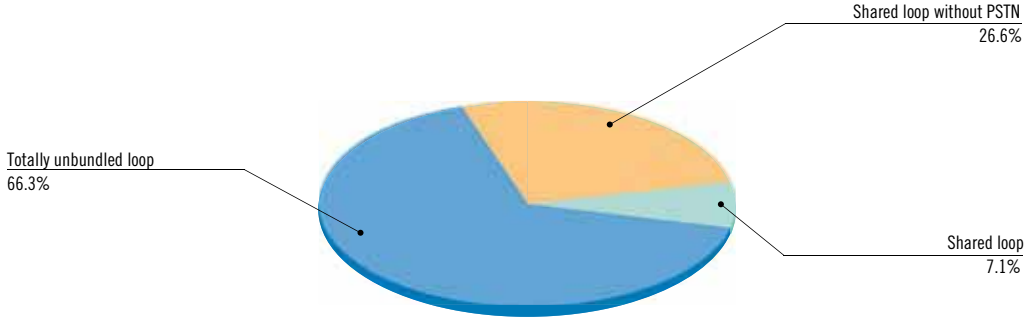


Source: CMT

In 2011 the number of local exchanges with at least one co-located operator increased by 221. In the whole of Spain, there was a total of 1,024 local exchanges with alternative xDSL operators present, offering their services through local loop unbundling.

In 2011, the wholesale local loop unbundling service continued to be the main form of access to the retail market by the alternative xDSL operators. At the end of the financial year, the figure amounted to 2,881,140 unbundled loops, a year-on-year increase of 16.3%. The next chart shows the breakdown of the different forms of unbundling as a percentage.

BREAKDOWN OF THE FORMS OF UNBUNDLED LOOP (percentage)



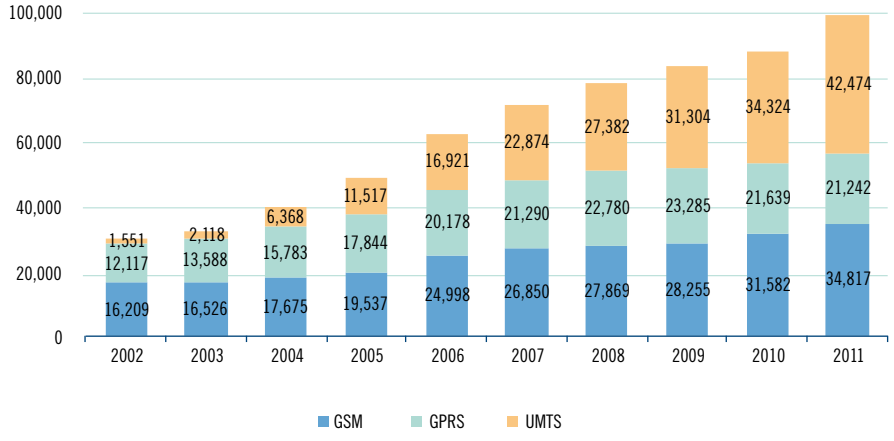
Source: CMT

Total local loop unbundling and the shared loop without the basic telephone service (PSTN) continued to increase over the year. Between the two they numbered 2.68 million local loops, an increase of 21%. The operators using this form offered the various voice and data services over a copper pair without using Telefónica's telephone service. In contrast, the rest of the local loops corresponding to the shared unbundled loop fell by 22.3%.

Network mobile communications infrastructures

In recent financial years, mobile operators have made a major investment effort to roll out 3G technology networks. An example of this was the number of 42,474 active UMTS base stations declared in 2011. These already accounted for 43.1% of total stations deployed across the country. The figures show that the rate of growth over the last financial year was greater than that in previous years: the 3G base stations installed in 2011 increased in number by 23.7%, while in 2010 the increase was 9.6%.

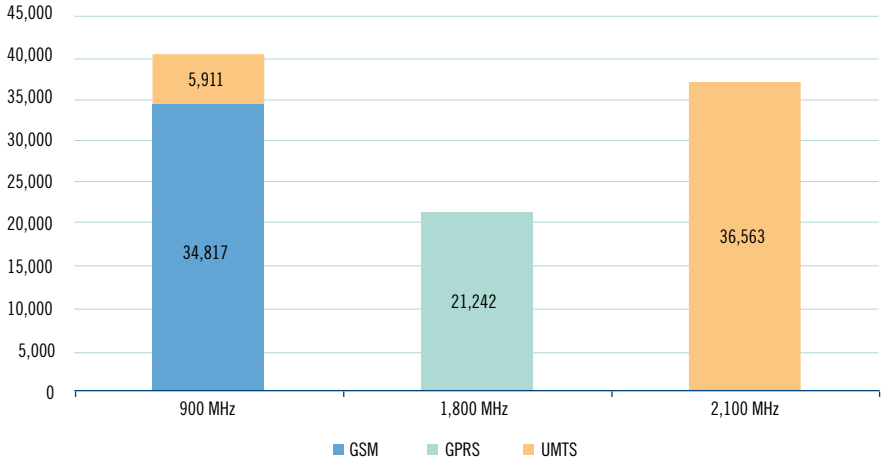
NUMBER OF BASE STATIONS BY TECHNOLOGY



Source: CMT

The amended GSM Directive 87/372/EC and Decision 2009/766/EC introduced the principle of technological and service neutrality at a European level. One of the consequences of applying this principle is that 900 MHz and 1800 MHz bands can be used not only for systems based on GSM technology, but also for other systems that allow greater data transmission bitrates, such as those based on UMTS or LTE or other compatible technology. This measure may help boost the roll-out of systems that provide access to mobile broadband, particularly in rural areas. The following chart gives a breakdown for 2011 of base stations by technology and frequency band used. It can be seen that the use of systems other than GSM in the 900 MHz band is already a reality.

NUMBER OF BASE STATIONS BY TECHNOLOGY AND FREQUENCY BAND IN 2011

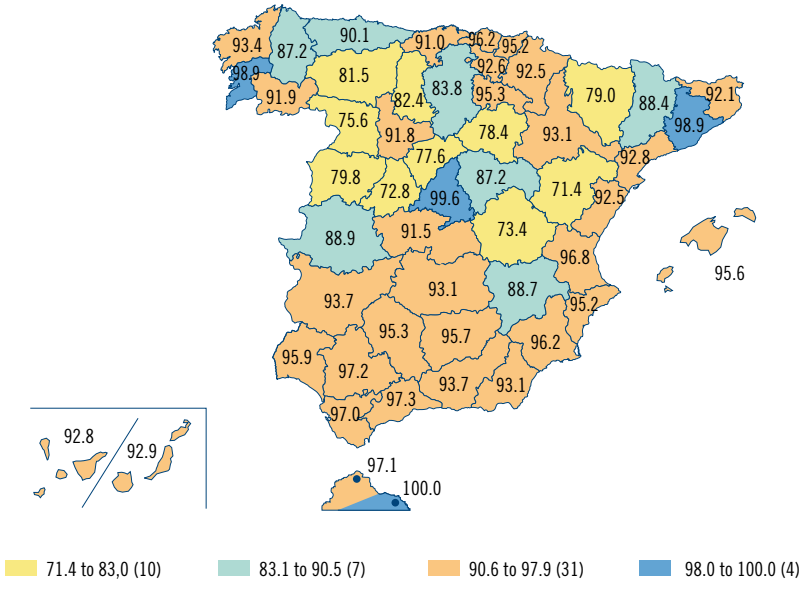


Source: CMT

According to data submitted by the four mobile operators with their own networks, in 2011 94.8% of the Spanish population was covered by at least one third-generation network[11]. The reduction of the level of coverage compared with the previous year was a result of the application of a new more demanding criterion for coverage.

In general, the provinces where the population is most concentrated in urban areas had better coverage, as can be seen in the following map.

POPULATION WITH ACCESS TO 3G[12] NETWORKS (UMTS/HSDPA (percentage)



Source: CMT

[11] The declared coverage of 3G services guarantees data traffic at bitrates of over 300 Kbps.

[12] The intervals have been set using the mean ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

1.3 Outlook for the industry

Moderate growth is expected in the total number of fixed-network broadband lines and very high double-digit growth in mobile broadband networks. Mobile broadband will be boosted in particular by the penetration of tablets, *smartphones* and other smaller-size devices. The availability of new frequency bands granted to operators in 2011 will facilitate the roll-out of high-speed mobile communications networks, which will be able to absorb the expected high rates of growth in traffic.

In terms of new-generation access networks (NGAs), the Digital Agenda for Europe sets out some ambitious targets in terms of coverage and real penetration. Although demand for ultra-high speed connections is still very limited compared with the total, the effort made in 2011 by Telefónica and the most important cable operators has resulted in significant coverage by fibre-to-the-home and HFC networks with standard DOCSIS 3.0, which allow access at ultra high speeds. The roll-out of FTTH networks is also expected to take off in the near future.

A number of different trends can be seen in mobile communications. First, penetration and intense use of the most traditional services such as voice continue to rise, although at an increasingly slower pace, due to the high existing penetration rate of these services among the population. At the same time, turnover in voice and messaging services is falling. A number of factors lie behind this development: greater sensitivity to expenditure by consumers in the context of the current economic crisis; strong competition and over-the-top messaging services; as well as significant reductions in regulated termination rates introduced by the NRAs and the EU, particularly in Spain. As will be explained below, these trends can be expected to gain pace in the near future.

Broadband

Currently, the segment growing most is mobile broadband. Its prospects for the future are very positive; at the same time, fixed-network broadband continues to grow, although not at the same pace as before.

The broadband market will change significantly over the coming years, with improvements to access networks that will enable consumers to be offered newer services, higher access bitrates and better quality service. The European Union has established its objectives in the Digital Agenda for Europe (DAE)[13]. Among them is to ensure that by 2020 all European citizens have access to the Internet at bitrates of 30 Mbps or higher, and that half the households in Europe should be subscribers to Internet connections of 100 Mbps or more. EU governments have also adopted policies to support growth in the industry by making available extensive sections of the radio spectrum to the market. In the near future this will allow the roll out of new ultra-high speed networks to extend the use of mobile connections through the devices that are becoming increasingly common among the population.

With respect to the market for fixed-network broadband access, the number of connections continued to grow in 2011, both in the EU-27, where it rose by 2.8%, and in Spain, where it did so by 4.8%. For the last six years the annual increases have been lower, though it is expected that in the period 2011-2016 the total number of fixed-line network connections will continue to grow at rates of around an annual average of 3%[14].

The volume and bitrates of data traffic through the networks will increase sharply due to the new services demanded by the market. According to a study by Cisco, IP traffic in 2010-2015 is expected to multiply by a factor of four in volume, with the average household in Europe generating traffic of 98 GB per month in 2015.

[13] Communication of 19 May 2010, from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, entitled A Digital Agenda for Europe [COM(2010) 245 final]. Among its objectives is to create a single market capable of providing the benefits of the digital age, improve ICT standards and their interoperability, increase confidence and security, extend access by Europeans to fast and ultra-fast Internet access, boost research and innovation in ICT, provide all Europeans with digital skills and inclusive online services, and harness the potential benefits to society offered by ICT.

[14] IDATE, World Internet Usage and Markets, 2012.

Traffic is expected to increase above all in the residential segment and will be determined by video-on-demand and high-definition films.

Cisco[15] also estimates that average bitrates (download) of Internet connections in Europe will increase by a factor of nearly four. They are expected reach 36 Mbps in 2015, with 57% of all connections being at bitrates of at least 10 Mbps.

In the EU the situation varies significantly between countries, but in general it can be said that we are still far from complying with the DAE objectives for 2020 in terms of coverage and penetration by ultra high-speed broadband connections. Although cable operators have made improvements in implementing technologies under the DOCSIS 3.0 standard in their networks overall, the roll-out of FTTH, both by incumbent operators and alternative operators, is still limited.

In June 2011, network coverage using fibre optic to the subscriber's home (FTTH/B) was only over 20% in Denmark, Sweden, Portugal and France. Coverage of HFC networks using DOCSIS 3.0 was much higher, and at least 50% in Holland, Portugal, Belgium, Hungary, the Czech Republic, Romania, Denmark and Spain. The objective of the DAE is for 100% of households to have an Internet connection available at bitrates of 30 Mbps or more by 2020.

In terms of achieving the second DAE target of at least 50% of European homes having subscribed connections at bitrates of 100 Mbps by 2020; in mid-2011[16] only Sweden had more than 10% of households subscribed to NGA. Three other countries - Denmark, Hungary and Portugal - had a penetration rate of over 5%. Once more, the rate for DOCSIS 3.0 technology was higher, no doubt due to the greater coverage of these networks in the EU: in eight countries, including Spain, the penetration rate for ultra-high speed based on HFC networks was over 10%. Overall, in June 2011, the average penetration rate of connections of 100 Mbps or over was still very low in the EU-27, at under 1% of households.

As pointed out, whilst roll out of NGA networks is now well established in significant areas of some countries, demand for this type of connection is only growing slowly.

The objectives of the regulatory measures approved by the CMT and adopted following analysis of the broadband access markets, which are being implemented throughout 2012, are to balance incentives for new generation access networks to increase competition in infrastructure and services; to ensure continuity of wholesale regulatory policies enabling operators to offer services in areas where there is no infrastructure competition; and at the same time to incentivize an effective transition from traditional networks to new generation networks by operators who have made significant investments in local loop unbundling services.

At the end of 2011, cable operators were making a positive contribution to development of NGA networks in Spain, but development of FTTH networks was only just beginning. We expect a significant increase in the roll out of this technology throughout 2012, particularly by Telefónica, which expects to have rolled out three million accesses by September.

Roll out of new generation access networks reached almost 10.5 million accesses in 2011. Despite the significant scope of this coverage, only a small number of accesses had effectively been contracted for these very high speed networks: a total of 712,183 broadband lines have bitrates equal to or higher than 30 Mbps (6.4% of the total).

Whilst growth in fixed network broadband continues to slow, the outlook for mobile connectivity is of continuing double-digit growth over the coming years[17]. This segment has the highest

[15] Cisco Visual Networking Index, IP Traffic Forecast 2010- 2015, Cisco 2011.

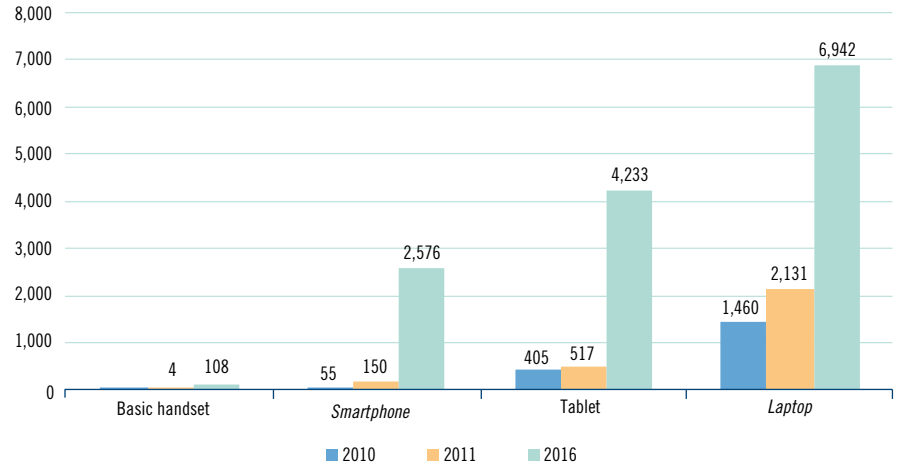
[16] NGA Progress Report, WIK-Consult, March 2011.

[17] Virtual Network Index, Cisco, 2011.

growth in traffic, customers and revenues, in Spain and the EU as a whole. The effective growth rate in this market is exceeding expectations due to the spread of Internet access, the proliferation of connectable devices and demand for content, particularly video.

According to Cisco, traffic over mobile communications networks globally doubled in 2011 compared to 2010; and traffic using *smartphones* tripled in the year, whilst traffic using tablets, *netbooks* and laptops increased even more rapidly. The outlook is for continuing rapid growth to 2016.

AVERAGE MOBILE BROADBAND TRAFFIC BY DEVICE (MB/month)



Source: Cisco, 2011

Users have been observed to use mobile connections over different devices. Operators have now launched multi-device subscriptions, allowing a number of devices to use a single broadband subscription.

Users are expected to use mobile broadband for video services and for cloud computing. Cisco estimates that 50% of traffic over mobile communications networks in 2011 was for video, and they expect this to increase to 70% by 2016.

This increase in traffic has been possible so far because of the parallel increase in average connection bitrates. Traffic growth is expected to continue to increase rapidly with the emergence of 4G-LTE networks, LTE networks accounted for only 0.2% of all the lines in the EU in 2011, but users of these networks accounted for 6% of total traffic. at double-digit rates

In the medium term, new high-capacity mobile communications networks need to be rolled out to satisfy this estimated demand. In 2009, both the European Commission and national governments established the base for a more harmonised and open spectrum policy. Directive GSM 87/372/EC, modified, and Decision 2009/766/EC introduced the principle of service and technology neutrality. One of the consequences of applying this principle is that operators with spectrum licences in the 900 MHz and 1,800 MHz spectrums will be able to use GSM systems and also other standards such as UMTS and LTE-4G. Decision 2008/477/EC of the European Commission harmonised the opening up of the new 2.6 GHz band at the European level; this band is ideal for data traffic. Several European countries have already assigned this to operators. In addition, all EU countries have started -and completed in some cases- the migration to Digital Terrestrial Television (DTTV), freeing up the part of the 800 MHz band that had been used for television. This band has been made available to electronic communications operators to enable them to roll out high speed mobile communication networks.

In 2011, Spain's government decided to assign the new 2.6 GHz spectrum; reassign usage rights for bands that had previously been auctioned (900 MHz and 1,800 MHz); and assign the digital dividend (800 MHz). It made available a total of 310 MHz between June and November of 2011 through a mixture of auctions and public tenders.

Two public tenders were held in 2011 to assign a 10 MHz block in the 900 MHz band and three blocks in the 1,800 MHz band. The results of these tenders are shown in the table.

Frequency	*Frequency division duplex* (FDD)	Geographic area	Operator
900 MHz	10 MHz	State	Orange
1800 MHz	30 MHz	State	Yoigo

Source: CMT

A public bandwidth auction open to all operators was held in June; the results of this are shown in the table.

Frequency	*Frequency division duplex* (FDD)	Geographic area	Operator
800 MHz	60 MHz	State	Telefónica / Vodafone / Orange
900 MHz	10 MHz	State	Telefónica
2.6 GHz	240 MHz	State / Regional	Telefónica / Vodafone / Orange Euskaltel / Jazztel / ONO / R TeleCable / Telecom CLM

Source: CMT

However, frequency blocks in the 900 MHZ and 2.6 GHz bands remained to be allocated. A second auction was held in September, when these frequencies were allocated as shown in the table.

Frequency	*Frequency division duplex* (FDD)	Geographic area	Operator
900 MHz	9.6 MHz	State	Telefónica
2.6 GHz	140 MHz	Regional	Orange / Vodafone / TeleCable R / Cota / Euskaltel

Source: CMT

The auction results show that cable operators took part in the auction and obtained spectrum in the 2.6 GHz band, which allows for regional spectrum allocations. These operators were already active in the market as MVNOs.

The significant growth in mobile broadband services over the last two years has been accompanied by gradually slowing increases in the number of fixed network broadband connections.

In 2011, the CMT published research on the degree of substitution between fixed broadband and large-screen mobile broadband services in the residential segment (USB modems or *datacards*). This research involved personal surveys of 2,248 households[18]. One of the most significant findings of this report was the difference in the degree of packaging of fixed broadband services (four out of five households declared they had contracted this as a package with one or more other services) and that of large-screen mobile broadband, where only 21.9% of those surveyed said this was part of a package.

More than 6 out of 10 households with Internet access answered no when asked if they believed that large-screen mobile broadband was a real alternative to fixed broadband. However, over 60% considered that, whilst not being a real alternative to fixed broadband at present, mobile broadband would be in the immediate future.

3.8% of these households only accessed the Internet with large-screen mobile broadband. This type of access was most common in single-person households Over three quarters of these households stated that they had not had a fixed Internet service prior to contracting mobile broadband. In other words, they did not replace fixed broadband with mobile broadband; rather, they contracted large-screen mobile broadband directly.

This research provides no clear evidence of whether there is a substitution pattern for these two types of access. One possible reason for a lack of substitution between the two services is the different download bitrates they offer. The average bitrates declared by the households surveyed for fixed broadband was double that for large-screen mobile broadband (8.4 Mbps and 4.1 Mbps respectively). These bitrate differences are also reflected in the intensity of use of the two types of access. The percentage of households stating that they downloaded films or videos using their fixed broadband access was more than double that for households with mobile broadband access.

However, with the appearance of new offers, packages and higher bitrates from mobile communication networks, market dynamics may mean that in the near future there will be a reduction in the differences perceived by users in the characteristics of the two access types, encouraging greater substitution between them.

Termination prices in mobile communication networks

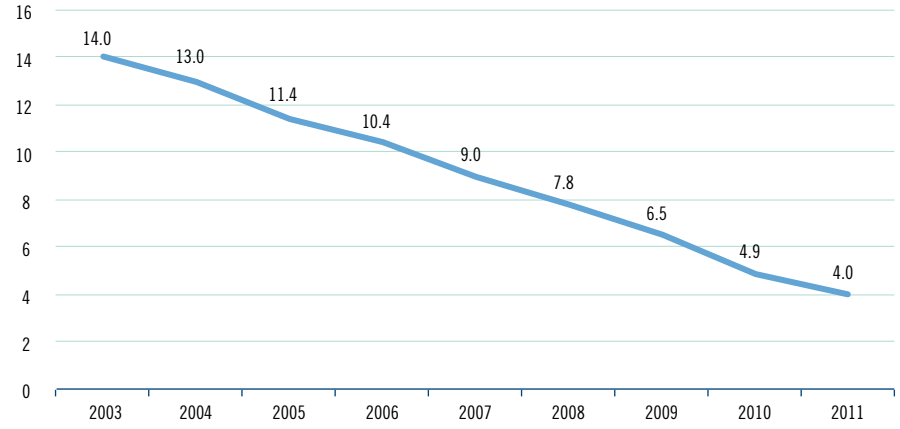
The price of mobile voice services has decreased significantly over recent years[19]. There are a number of reasons for this. One of the most important of these factors is termination prices. These are the prices mobile operators charge each other for ending a call that originated in a different network. These prices are regulated throughout the EU, with NRAs defining decreasing maximum price paths for operators identified as having SMP.

The following chart displays the major reductions in this price, measured as the simple average of average revenues of all EU(27) operators for this service to December 2011. The average reduction over the last eight years was 8.9% per year, with the pace of change increasing over the last three years.

[18] *Research on the degree of substitution between fixed broadband and large-screen mobile broadband services in the residential segment*, CMT, 2011.

[19] For further information, refer to the section on competition in the mobile communications market.

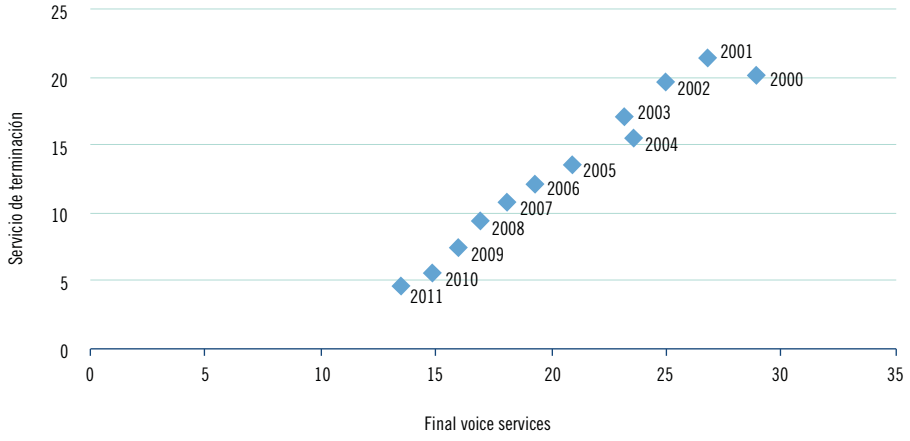
CHANGES IN THE AVERAGE TERMINATION PRICE FOR ALL EU(27) COUNTRIES (euro cents/minute)



Source: Termination rates benchmark snapshot in the EU, BoR (12) 56, BEREC, 2012

There is a very clear relationship between the average per minute voice price paid by the user and the termination price, although not all calls start and end on two different networks. The following chart shows changes in the average price in Spain since 2000, comparing the final voice service price (per minute) with the termination price (regulated). The positive relationship between these prices is clear over the period.

RELATIONSHIP BETWEEN THE PRICE OF FINAL VOICE SERVICES AND THE TERMINATION SERVICE (euro cents/minute)



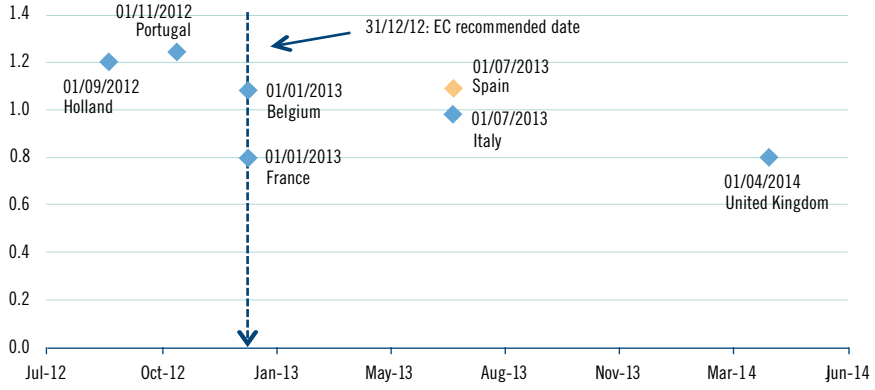
Source: CMT

This downward trend in mobile communications network termination prices is present throughout the EU. European Commission Recommendation 396/2009/EC on termination prices introduced long term incremental cost as the standard cost to be used in establishing this price. As a result, most NRAs are

currently analysing this wholesale service and defining new downward pricing paths for this service. The following chart shows termination prices and implementation dates for countries that had adopted regulation in this regard at the start of 2012.

The CMT has defined a downward path for these prices to 2013, when the price will be 1.09 euro cents per minute, with substantial reductions in these regulated prices. This will help to lower prices for voice services.

EUROPEAN COMPARISON OF VOICE SERVICE TERMINATION PRICES AND TIMESCALES (euro cent/minute)



Source: CMT

Furthermore, there is a global trend in the market towards progressive integration of mobile communications into service packages, resulting in offers combining fixed and mobile services, and even promotions combining telephone, Internet access (fixed and mobile), TV and mobile services. The main operators in the market offer both types of networks.

It is to be expected that we will see a consolidation of the flat rates that currently exist, and that these will include voice services and mobile broadband; this will further help with the termination price reductions referred to previously. 12.8 million mobile lines were linked to flat rate data packages in Spain in 2011. Of this total, 3.4 million lines had rates combining mobile voice and data traffic. The future downward path of termination prices in mobile communications networks may affect price structures and result in the appearance of quadruple packages, where the customer pays a fixed amount per month for a range of services, whether provided by fixed or mobile networks.

Audiovisual segment

There are some major challenges facing the audiovisual segment. The appearance of Internet content providers, the reorganisation of the radio spectrum, recent legislative changes -particularly the removal of advertising as a source of finance for domestic public television- and the economic crisis are all causing changes to the strategies of television operators and the market structure, and to the variety of content available to the user.

- Internet and television

Internet as a content distribution medium is impacting on the models of existing television companies.

An interesting development in Spain in 2011 was the introduction of strategies by television operators to provide their content over the Internet so that it could be consumed using different devices. The main television operators transferred their content to the

Internet using multi-platform applications that enable it to be played on digital devices with Internet access. A number of new services have been launched, such as Mitele from Mediaset, Rtve.es from Televisión Española, LaSextaOn from La Sexta, YOMVI from Canal+ and Golstadium from Mediapro.

This new Internet distribution channel is opening up a new source of revenues for operators: Internet advertising. This is on an upward trend, and in 2011 became the second largest source of advertising revenues, behind television but ahead of radio. In addition, online digital content portals can be set up as pay services, accessed by subscription or on a pay-per-view basis, a model that is already being successfully exploited in other countries, such as the USA.

The Internet is also enabling new entrants to offer content to the public, such as over-the-top (OTT) agents, which offer content to the end customer using the Internet as its distribution medium. The Internet access provider only transports the IP packets, having no control over the content or the added value that the OTT agent obtains from the transaction.

These OTT agents sometimes offer content over multiple devices, not only on fixed networks, but also on mobile networks. Multi-screen TV -the possibility for the customer to access the content they want from any location using a range of devices (PC, tablet, television, *smartphone,* etc.)- is an attractive option that has already been commercialised by some cable channels in the USA. Many of the televisions screens sold today are already intelligent or connected screens (*connected TV*), allowing Internet access (via wifi, for example) in addition to content distributed over the airwaves or by satellite.

A number of services aiming to exploit these advantages have already appeared, such as Apple TV, Netflix and Google TV. OTT agents may be direct competitors for traditional television operators, whether free or paid for. Cable operators have experience in the pay content market. In addition to providing *Premium* content, some of them -such as Virgin Media in the UK and Ono in Spain- have taken advantage of the improved performance offered by cable networks to offer high definition, TV on multiple screens and content packages, together with broadband connections and other services.

Taking advantage of the possibilities the mobile communications networks offer further extends the "TV everywhere" strategy. For example. the most important cable operators in Spain obtained radio spectrum in the 2.6 GHz band in the Government's 2011 auctions; this band is very attractive for providing data at very high bitrates. Cable operators combine voice, data and content services, enabling them to offer the user mobile content access that can be accessed in their homes and also on a range of handsets and devices.

- The regional public television model

The poor advertising revenues obtained by operators, particularly regional public television operators, and the severe budget adjustments that some regional governments are confronting in the current climate of austerity and deficit control, generated a heated debate at the end of the year about the sustainability of the current regional public television model.

At the time of writing this report, the Government has submitted a draft law that would enable regional governments to privatise the running of their public television channels. The draft law also includes an option for regional governments to continue to run this service directly, although it establishes certain budget limits on this. This draft law will therefore permit the privatisation of regional public television in those regions that choose to go down this path, as regional governments are responsible for determining how this service is provided.

- Mergers of operators (market concentration in free-to-air television)

Mergers are one of the strategies being used by the leading television operators to adjust to the new DTTV market; this has resulted in a significant increase in the number of operators in the market and the number of channels offered by each. This process has been further boosted by the current economic crisis and the decreasing revenue caused by lower advertising investment.

The merger of Telecinco and Sogecuatro was completed at the end of 2010, and the Council of Ministers approved the merger of Antena 3 and La Sexta at the end of 2011. The size of the two new operators resulting from these two mergers represents a major change in the configuration of free-to-air television services: each of these will have two complete multiples, which is the equivalent of eight programming channels. These two operators will now have 16 of the 32 channels with national coverage (50% of the radio spectrum for national DTTV services); their combined revenues from advertising will account for around 85% of total advertising revenues for TV operators in Spain.

At the time of writing this report, the merger of Antena 3 and La Sexta is pending approval from the competition authorities. This merger may be subject to a number of conditions, such as those imposed on the earlier merger of Telecinco and Cuatro by the Comisión Nacional de la Competencia (CNC - National Competition Commission).

1.4 Regulatory prospects

Some important developments are expected in the common European regulatory framework for electronic communications in 2012. Following initial work on roaming within the EU in 2011, in May 2012 the Council, Parliament and Commission reached an agreement to extend and modify some important aspects of the current regulations for this service in the EU, which date from 2007.

The European Commission planned to launch a public consultation on new guidelines on state aid for the roll out of NGA networks, together with a recommendation on cost methodologies for the regulation of wholesale services. The European Commission also intends to publish a new Recommendation of Relevant Markets (markets where it is considered that ex ante regulation at the European level may be necessary) in the autumn.

Domestically, in 2011 the CMT focused on monitoring markets and the measures it has taken over recent years to assess how they were working. The CMT also carried out preparatory work for a new round of market analysis. In 2012, it will undertake a review of the most significant regulated markets.

Details of regulatory actions that the CMT had already begun at the time of writing this report and the forthcoming actions in which it will be involved are given below.

FIXED TELEPHONY

The only final service that is still regulated is access to the public telephone network, for which the subscriber pays a monthly line-rental fee to the access provider. In its last review of this market, the CMT imposed regulation based on a maximum price limit for this service on Telefónica. The line-rental price has remained constant in nominal terms since 2009. The CMT plans to begin an analysis of the public telephone access network in 2012.

In April 2012, new technical specifications were approved that will bring one-day fixed line portability into service before July 2013. This change was inspired by the 2009 Universal Service and Users' Rights Directive, which establishes this objective at the European level for all forms of portability for both fixed and mobile numbers.

The CMT is also revising and defining a methodology for determining net cost for the universal service. The current methodology includes the traditional components used in this, but does not analyse the cost of provision of 1 Mbps broadband access capacity; inclusion of this component stems from article 52 of the Sustainable Economy Act (2/2011). The methodology for calculating the net cost of the universal service needs to be revised to include broadband costs; this is planned for 2012.

At the end of 2012, the CMT plans to begin a revision of the access and termination markets for fixed networks in the wholesale sphere; this was last analysed in 2008.

The wholesale call access service for fixed networks enables the user to select a different operator to provide the call to the one providing the access. This market also includes the wholesale telephone line rental access service, as this cannot be contracted independently from the call origination service. The CMT maintains obligations on Telefónica as an operator designated as having significant market power. Obligations have been imposed on Telefónica relating to transparency, non-discrimination and responding to all reasonable access requests through two wholesale offers: the Reference Interconnection Offer (RIO) and the Wholesale Line Rental Service (WLR).

The fixed network call termination market consists of the services required to end telephone calls for subscribers of different fixed network, irrespective of whether the call originated from a fixed or mobile communications network. In this market, all operators with their own networks are considered to have significant market power, although different obligations are imposed on Telefónica than other operators. Telefónica must include in its RIO the termination prices that it offers to other operators, and these must be cost based.

European Commission Recommendation 2009/396/EC on termination prices proposed long term incremental costs (LRIC) as the reference cost model to be used in regulating these services. In addition to having started the development of the LRIC bottom-up cost model for fixed network interconnections, in accordance with the Recommendation, in 2011 the CMT also approved Telefónica's new long term incremental *top-down* cost model. These LRIC costs are obtained by considering a stricter efficiency standard than the current costs on which Telefónica's regulatory accountancy was previously based.

The last change to the RIO in 2010 reduced the prices that Telefónica is obliged to offer as the dominant market operator, both in charging for time and for capacity. Furthermore, the 2010 RIO also considered for the first time the question of IP interconnection with the telephone service. The CMT reached an agreement with the operators to establish a sector forum to discuss this issue, and this was included as an objective in the CMT's 2012 Action Plan.

With the fibre optic roll out now reaching a certain scale, the cost model and the discussions of this forum will be key aspects for defining technical aspects of IP interconnection (interfaces) in 2012, together with other questions related to invoicing and, in general, the migration from the current model of interconnection points with TDM technology to an environment with a new reference model for network interconnection, invoicing and price setting for wholesale interconnection services.

The current technical migration from circuit switching to packet switching in trunk networks, and the corresponding migration of traditional interconnections from TDM to IP, raises many questions that need to be addressed from both the technical and regulatory points of view, even though traditional interconnections will continue to exist for some time. All networks, both fixed and mobile, will be increasingly affected by this convergence, although the IP interconnection forum will initially focus on fixed termination.

The first meeting of the IP Interconnection Forum took place on 10 April 2012, with the objective of achieving the highest possible degree of agreement between the operators in order to facilitate regulatory decisions and migration. The forum aims to continue working towards more consensual regulation, as already undertaken by previous forums on the development of RUO systems and the definition of the new NEBA wholesale broadband service.

Mobile telephony

The CMT intends to undertake a review of voice call termination markets and access and network origination markets for mobile communications in 2012. It also plans to reduce the portability period for mobile numbers to one day in 2012.

The new regulations for roaming services in the EU to be adopted in 2012, which will influence the regulatory framework over coming years, is another important milestone.

- The network call termination market for mobile communications

The current regulations approved in 2009 defined a decreasing price path, known as the *glide path*, which expired in April 2012. A review of this market is therefore now required; this was begun in the second half of 2011.

There were no changes to the delimitation of the relevant market compared to the existing market. The relevant market is the service through which each mobile operator individually finishes a call on their network that originated on another operator's network. As the termination service is specific to the operator receiving the call, a different relevant market is defined for each mobile operator.

There are also no new developments in relation to the assessment of significant market power (SMP). As this is a service for which there is no substitute and there are barriers to entry, every operator is understood to have individual capacity to exercise its market power over terminations, and SMP is therefore defined for each active operator.

The final resolution approved on 30 March 2012 defined the wholesale voice call termination markets for each of the public mobile telephony networks of Movistar, Vodafone, Orange and Yoigo as operators with their own networks. Complete mobile virtual network operators do not have the right to use radio spectrum, but they do have some network infrastructure that enables them to determine termination service conditions, irrespective of the operator of the host network. As a result complete MVNOs have been classed as operators with SMP in this service. The operators included in the analysis were Euskaltel, ONO, R, Simyo, TeleCable, Jazztel, Fonyou, Digimobil, Lycamobile and Truphone.

When setting obligations on operators with SMP, the CMT observed the recommendations made by the IRG and the European Commission. The IRG published a *Common Position*[20] in 2008, that argues for symmetry in termination prices among operators. Under this, price asymmetry is only by justified in cases of differing costs caused by factors exogenous to the operator, and then only for a limited time. In 2009, the European Commission published a Recommendation (2009/396/EC) on termination prices. This established, among other things, that such prices should be guided by the long term incremental costs of an efficient operator, and the elimination of asymmetry in regulated prices in order to avoid the price discrimination seen in the market for *off-net* calls and those within the same network (*on-net*).

In its analysis, the CMT detected problems of incentives for establishing excessive termination prices in the absence of regulation, together with problems of discrimination between *off-net* and *on-net* calls, with potential distorting effects on competition. As a result, it imposed the following obligations on all the operators affected:

1) An obligation to provide termination services to all operators.

2) An obligation to offer termination services at prices based on costs. The objective of these measures was to achieve pricing based on incremental long term costs in a short period of time. In 2011, the CMT carried out a study of specific incremental costs, enabling it to establish a target price.

A downward path and timescale has been established for the termination prices of mobile operators, as shown in the table below.

[20] ERG (07) 83 Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates.

TERMINATION PRICE (euro cents/minute)

	16/04/12 to 15/10/12	16/10/12 to 29/02/13	01/03/13 to 30/06/13	FROM 01/07/13
Movistar, Vodafone and Orange	3.42	3.16	2.76	1.09
Yoigo	4.07	3.36	2.86	1.09
Full MVNOs	Price of host operator			

Source: CMT

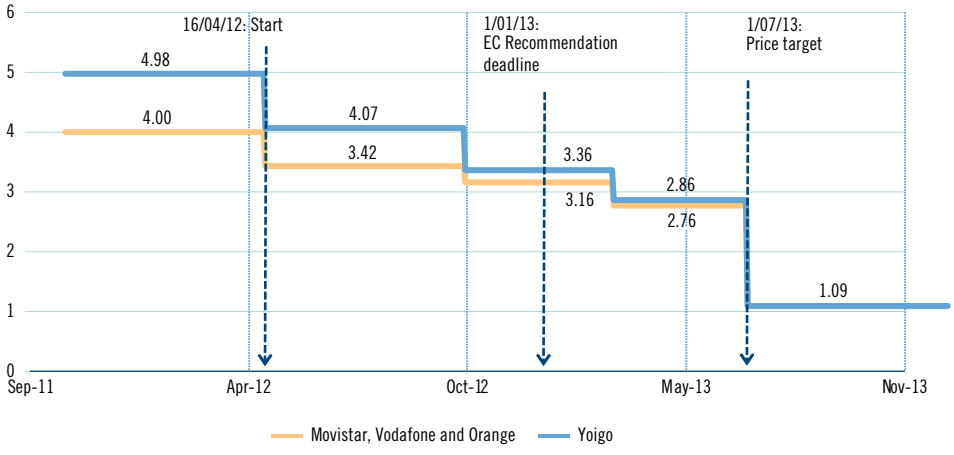
3) Movistar, Vodafone and Orange must separate their interconnection activities from their other activities.

4) Non-discrimination obligation. The operators must apply equivalent economic and technical conditions in similar circumstances to operators providing equivalent services, and must provide third party operators with services and information of the same quality as those that they supply for their own services.

5) Transparency obligation. Operators must enter into written service provision contracts for call termination and report these to the CMT within 10 days of their agreement.

On 30 March, the CMT notified the European Commission of a proposal for the termination market, including a price path to July 2013.

VOICE CALL TERMINATION PRICES (euro cents/minute)



Source: CMT

In the first quarter of 2012, Spain was one of only seven EU countries to have adopted specific measures for this market, with the others being the UK, France, Portugal, Holland, Belgium and Italy. In all of these cases, the NRAs established target prices at the end of the period based on incremental cost.

- Call access and origin market in mobile communications networks

In 2012, the CMT intends to review its analysis of the call access and origin market for mobile communication networks, assessing the impact of

MVNOs on the market; future roll out plans; the ability of operators allocated radio spectrum for the first time in 2011 to compete; and the suitability of the access obligation introduced by Decree 458/2011, on actions relating to the radio spectrum and the development of the digital society.

In this Decree, the Government introduced technological neutrality for the 900 MHz, 1,800 MHz and 2.6 GHz bands, and imposed a number of reassignment conditions, making new spectrum available to the market and aiming not to distort competitive conditions. One of the conditions imposed was for operators active in the 900 MHz band with more than 10 MHz of bandwidth to give access to this frequency band -which is ideal for voice services- to other operators This wholesale obligation will remain in effect until May 2015, when, in accordance with the Decree, the CMT will make a decision on whether to extent this time period.

- Implementation of portability in one day

The new technical specifications for one day mobile portability published by the CMT in 2011 will apply from June 2012. These will reduce the period in two ways. Firstly, the whole process will last only one working day, with the period being calculated from the moment that the user signs a new contract with their chosen operator. This will make the process more rapid, as previously the period began from the time that the donor operator received notification from the user.

Operators were found to be subsidising handsets in order to attract consumers from other companies. User behaviour surveys have found that consumers consider subsidised handsets to be a very motivating factor in their decision to change operators.

There is no need for handset subsidies to disappear as a commercial practice, as operators will continue to be able to advertise rates that include handset subsidies. However, the new shorter portability period will make it difficult for the donor operator to react or make a counteroffer when one of their customer's decides to change operator, as they will only have a few hours to identify the user and make the counteroffer.

The final result of this may be that offers will include handset subsidies or other improvements on previous conditions, or that these will be offered more uniformly to the whole customer base and not, as has recently been the case, just to that subset of well informed users that is prepared to change operator more frequently.

- International roaming service

In May 2012, the Council, Parliament and Commission reached agreement on a new regulation for European roaming services. This regulation introduces a number of changes to *roaming* that will be in effect until 2022.

This maintains regulation of the maximum wholesale and retail prices already regulated, with decreases in maximum prices throughout 2012-2014. One new feature is the introduction of regulation of retail prices for international data and mobile broadband roaming services.

RETAIL MARKET

		July 2012-July 2013	July 2013-July 2014	From July 2014
Voice calls (Euros/min)	Call made	0.29	0.24	0.19
	Call received	0.08	0.07	0.05
SMS messaging (euros/SMS)	Send an SMS	0.09	0.08	0.06
Data traffic (euros/Mb)		0.70	0.45	0.20

WHOLESALE MARKET

	July 2012-July 2013	July 2013-July 2014	From July 2014
Voice call originating in a national network (euros/min)	0.14	0.10	0.05
SMS service originating in a national network (euros/SMS)	0.03	0.02	0.02
Data traffic through a national network (euros/Mb)	0.25	0.15	0.05

As can be seen from the table, the maximum prices proposed are considerable reductions on current prices, especially the wholesale prices.

This new regulation will be in force for a longer period - from 2012 to 2022- and introduces structural measures to encourage new entrants and increased competition in international roaming.

It proposes separating sale (*decoupling)* of the *roaming* service from the call service. In other words, any mobile operator will be able to act as an alternative operator for *roaming* services, providing this service separately from services in the domestic market. This option is due to be available to consumers in July 2014.

Furthermore, it adds an obligation for operators with their own network to meet all reasonable demands for wholesale roaming services, for which it must publish a reference offer. This wholesale service must also be offered to any mobile virtual network operator active in each country.

Another new proposal is that visitors to EU countries will be able to contract data (or broadband) services from a local operator, whilst maintaining voice and messaging services with their domestic operator.

The proposal also includes a requirement for the operator to notify users when they are spending a lot on data services (*bill-shock*), not just within the EU, which was already regulated in the 2009 regulation, but wherever they are in the world.

The European Commission will propose amendments to this package of measures in June 2016 when it assesses the results of the structural measures and decides on increases, extensions or changes to maximum prices and changes to structural measures to boost competition between operators.

FIXED NETWORK BROADBAND

In 2012, the CMT plans to analyse access to the broadband (indirect access) and network infrastructure markets for the provision of broadband services (direct access).

The regulatory measures the CMT will introduce after analysing the direct and indirect infrastructure access markets will aim to achieve a balance between: a) incentivising investment in new generation access networks to boost competition in infrastructure and services; and b) maintaining wholesale regulatory policies that enable services to be offered in areas where there is no infrastructure competition, whilst enabling an effective transition from traditional networks to new generation networks by operators who have made significant investments in local loop unbundling. These objectives are stated in the European Commission's Recommendation on regulation of NGA networks (2010/572/EU).

The CMT's regular geographical broadband analysis has found that the presence of alternative xDSL operators co-located in central exchanges offering services through local loop unbundling in densely populated municipalities and areas significantly reduces Telefónica's market share. Telefónica also loses broadband accesses to alternative operators in less densely populated areas which such operators enter through indirect access. The CMT will assess existingcompetitive conditions in various areas to decide whether it would be sensible to segment the market or regulatory measures to distinguish the more competitive areas from those where rivals to the incumbent operator do not have a significant presence.

The CMT will also evaluate the roll out and actual demand for new generation connections with very high bitrates. Spain has ample coverage of HFC networks improved by the DOCSIS 3.0 standard, whilst the roll out of FTTH is still at an early stage.

In 2011, the CMT approved Telefónica's reference offer for the new indirect broadband access service, which is planned to be available from July 2012. This service arose from consensus in the discussion forum of the CMT and the operators to improve competition in broadband services, where this is still insufficient and where alternative operators offer broadband services through wholesale indirect access services. A mutually agreed solution was reached, which translated into the specification of the "NEBA" (NEBS - New Ethernet Broadband Service). This service differs from Telefónica's current wholesale indirect access services –GigADSL and ADSL-IP– because of its Ethernet interface, its price structure and the definition of three different service quality levels with explicit information transmission guarantees. This includes *real time* quality, which is suitable for provision of IP telephony (which is ideal for selling *naked* access, i.e. where there is no telephone line).

The NEBA service includes both connections based on the copper network and those based on the new fibre-optic network; this regulatory measure is therefore suitable for the current network transformation. This will allow entry into provincial areas and the transmission of information through an Ethernet service with no involvement of the Telefónica's IP network; this will make offers based on NEBA independent from those of Telefónica. This differentiation will also be facilitated by the new pricing structure, which is not linked to the nominal bitrates offered but to a charge per access and a charge for aggregate capacity at the delivery point.

As a result of a regulatory decision, the NEBA service will not include mechanisms for the provision of IP television or bitrates in excess of 30 Mbps. It also has coverage limitations, and these will need to be monitored. NEBA is an innovative and complex service with great potential. It is expected to boost competition in areas without local loop unbundling, and is ideal for migration to unbundling, whether through installation of nodes or closure of local exchanges. In addition to defining prices, in 2012 the CMT will monitor the launch of this service from July (according to the 2012 Action Plan). The next step will be verification of effective availability; this will enable the start of deregulation of the current GigADSL and ADSL-IP services.

With regard to Telefónica's current wholesale indirect access services, in May 2012 the CMT approved a precautionary measure reducing prices, which had last been revised in September 2009. Improvements to network management and the increase in connections to these services have resulted in Telefónica's costs having fallen. The CMT therefore decided to apply a 14% decrease to all maximum prices (-13.7% for GigADSL and provincial ADSL- IP and -14.2% for national ADSL-IP).

AUDIOVISUAL SIGNAL BROADCAST

Audiovisual services can be transmitted and broadcast using a number of different network types and telecommunication infrastructures, such as satellite, cable (HFC) and fibre and copper pair networks. Although most pay TV services use one of these networks, free-to-air TV in Spain has traditionally been broadcast using terrestrial waves in particular radio spectrum bands.

Free-to-air TV operators contract their signal broadcasting service from a third party. As there is a legal obligation in licences to broadcast over the airwaves, a special characteristic of the service is that the broadcasting network must transmit the signal over the airwaves at high quality to a large part of the population, although this has to be complemented with other technologies in order to cover almost 100% of the population.

Achieving sufficient coverage requires a very dense network of broadcasting and rebroadcasting centres, often in unique locations from the technological and economic points of view.

The CMT carried out its first analysis of this market in 2006, identifying very high barriers to entry and only a very small number of companies providing this service. The two largest of these were Abertis and Axión, whilst the smaller companies focused on specific regional areas. Abertis' market share of over 88% established it as having significant market power (SMP), and a number of conditions were placed on its behaviour as a result to promote competition.

The CMT carried out a second analysis of this market in 2009. This resulted in a number of obligations being placed on the Abertis Group:

· To provide access to specific network resources and to offer subsidiary interconnection services to third-party operators when access or co-location were not possible. This obligation was imposed for both national and local demand.

· To control prices, which have to be based on costs, and to separate accounting for the regulated service from other services.

· To publish a reference access offer valid for any third party operator, in order to boost transparency.

· Non-discrimination, with a prohibition on any practices that restrict competition.

Following this second review, in October 2010, the CMT adopted a Reference Offer (ORAC) for access by third parties to Abertis' national network centres. The ORAC regulated prices, conditions, periods and the forms in which operators with SMP would provide access to its centres for broadcast of TV signals.

The CMT has been regulating the broadcasting market since 2006 in order to increase competition. However, the evidence suggests that current regulations have not resulted in the effective entry of operators into the market. The CMT has therefore decided to carry out a further review of this market in 2012 to assess the suitability of current regulations and to identify future actions to promote effective competition in the market. In accordance with the CMT's 2012 Action Plan, the analysis and review of this market will begin in 2012.

1.5 Actions by the public sector

Public sector involvement in electronic communications can take many forms. The Government is responsible for basic legislation covering the sector, adopting the regulatory framework defined at the European level, and defining nationally-relevant projects and assigning and defining usage rights for scarce public resources, such as the spectrum. The public sector can also be involved in investment in telecommunications networks and providing public services.

Once particularly important public sector action is the Government's plan to promote ICT usage in Spain. In 2006, the Government approved the Avanza Plan to boost the roll out of networks and increase Internet usage by the public and companies. Through the Secretary of State for Telecommunications and the Information Society, the Ministry of Industry, Tourism and Trade invested 10,600 million euros in the 2006-2010 Avanza Plan. In 2011, the Government approved further aid for 2011-2015 under the Avanza 2 Plan.

One of the key areas of the Avanza 2 Plan is the promotion of infrastructure to extend fixed and mobile communication networks to provide internet access to the whole population. The Government also implemented two major reforms to achieve this objective.

Firstly, article 52.1 of Act 2/2011, of 4 March on the Sustainable Economy, established that connection to the public communications network with functional Internet access, as guaranteed by the universal service (the set of services guaranteed to all end users, irrespective of their location at a certain quality and affordable price), should enable broadband data communications at download bitrates of 1 Mbit per second. Secondly, in May 2012, the Government published Royal Decree 726/2011 on the Universal Service and Users' Rights, establishing the terms in which this service was to be provided. The Government also allocated 310 MHz of spectrum to operators that wished to take part in the auctions and tenders organised for this service in 2011. These frequencies were, or would become, vacant through the migration to DTTV, or were new frequencies that would permit more flexible use by operators that had already been awarded spectrum. As part of the allocation process for some frequency bands, network coverage obligations were imposed on operators for mobile communications in sparsely populated areas.

This section describes actions arising from different regional or local administration plans for the roll out of fixed networks in specific areas of the territory and the roll out of broadband services with local wireless (Wi-Fi) networks.

Aid granted by public administrations for specific projects is subject to the regime established by the Treaty on the Functioning of the EU (TFEU), which ensures that aid does not distort the prevailing conditions of competition or affect trade between Member States, since in these cases the TFEU itself expressly prohibits the granting of State aid in general.

For example, this was the basis on which the European Commission approved the Avanza Plan proposed by the Spanish government.

However, the TFEU also provides for exceptions to the general principle of non-intervention. Thus, it recognises that public intervention is appropriate when aimed at promoting social or territorial cohesion by driving development in areas with high unemployment or special needs.

As an exception to the general principle, the TFEU also provides for a system of exemptions by categories for certain cases that should not be subjected to this regime. Another important exception to the principle of non-intervention is that of the public administration acting as if it were simply another private investor. Financing with state funds is not inconsistent with the principle of private investment if the contributions from public funds are made under the same conditions and bear the same risk as private contributions.

The European Commission is the body responsible for monitoring compliance with this legislation and determining, if appropriate, whether a specific intervention constitutes state aid or, even if this is so, it is compatible with the Treaty and thus is to be allowed and, if so, under what conditions.

The main concern reflected in Community legislation is to strike a balance between the goal of minimising potential distortions of competition caused by public intervention and the goal of alleviating market deficiencies or problems of cohesion or equity detected in specific areas or cases.

In the field of electronic communications, in 2009 the European Commission published directive[21] on the application of State aid rules for the roll out of broadband networks. These directives were aimed at providing greater legal certainty and transparency in decision-making by the different EU public administrations on measures to promote the roll out of networks (whether traditional, broadband or next-generation networks). These guidelines set out the criteria for evaluating proposals for publicly funded projects and the conditions to be met by the projects in order to limit distortion of competition.

[21] Community guidelines on application of the rules on state aid for rapid roll out of broadband networks (2009/C 235/04).

Moreover, at national level, the General Telecommunications Act 32/2003 (LGTel) expressly confers power on the CMT to impose special conditions on public administrations to ensure that no distortion of competition results from any interventions on their part.

In order to clarify and classify the various types of intervention that are possible and to make the CMT's intervention more transparent, Circular 1/2010[22], on the conditions under which a public administration can operate a network or provide a telecommunications service, was published in August 2010.

In general, three main types of actions involving the injection of public funds were distinguished: 1) public administration funding for a general interest service; 2) the public administration acting in the market as if it were a private actor (i.e., following the private investor principle in a market economy); and 3) financing a project that is executed directly by the public entity or that is undertaken by a private operator in receipt of public funds that could constitute state aid, with the justification of social cohesion, territorial or other grounds.

The first case has little application in the industry discussed here, since effective implementation of the concept of a Service of General Economic Interest (SGEI) has been very limited in the field of electronic communications. Setting up a service as an SGEI requires the public administration to define, prior to the pertinent funding, the scope of the general interest service, and then to award provision of the service to a specific agent through an open and transparent procedure.

The criteria for determining when these cases are beyond the scope of state aid were set out in the well-known Altmark judgement[23]. An example of this type of intervention is found in the field of audiovisual services for the definition of the public television service, which requires specific objectives to be set prior to its allocation and funding[24].

The second type of intervention requires the CMT to verify that the public administration acts as any other economic agent, undertaking a project in expectation of obtaining future profits. To this end, Circular 1/2010 establishes that public administrations must provide the CMT with a business plan demonstrating that their action conforms with the principle of a private investor in a market economy; furthermore, the administration must submit annually separate accounts for its electronic communications activities. Both obligations allow the CMT to ensure that public intervention adheres to market rules.

The third type of action, which is the one that most affects the electronic communications industry and requires greater CMT involvement, is public administration funding for the roll out of a network or for the provision of an electronic communications service. This type of intervention is usually justified by the need to mitigate a market deficiency that can result in private incentives not being sufficient to justify the roll out of certain network types, for example, in scarcely populated areas where intervention is justified on grounds of social cohesion.

Since Circular 1/2010 was published, some local authorities and regional governments have submitted plans to the CMT to extend broadband networks and have made queries of all kinds. These projects involve the allocation of public funds and generally their goal is to contribute to roll out of NGA networks in areas where there is no significant presence of either operators or such networks and where their roll out is not expected in the medium-term. The aim is to reduce the digital gap and promote cohesion in the affected regions.

[22] Circular 1/2010, of 15 June 2010, which regulates the conditions for the use of networks and the provision of electronic communications services by Public Administrations.

[23] ECJ Judgement of 24 June 2003 in Case C-280/00, Altmark, rep. I-7747.

[24] An example in the field of electronic communications is the European Commission's decision declaring compatible the fibre optic measure in Catalonia (Xarxa Oberta) (C (2010) 5696), which excluded the *self-provisioned sub-project* from its analysis on finding that the Spanish authorities gave assurances that they would only grant such aid to public entities that undertake an economic activity in the form of compensation for SGEI services, under the conditions established to this end by the Commission itself (decision 2005/842/EC).

Without prejudice to the corresponding duty to notify, where appropriate, the measure to the European Commission for its approval, the CMT, in exercise of the powers attributed to it, has prepared the reports and has processed the cases of imposition of conditions and enquiries, as detailed below.

During 2011 the CMT issued several reports on aid projects for the roll out of broadband networks in some autonomous regions

Regional Government of Valencia

The Regional Government of Valencia requested a report from the CMT on its aid project for the roll out of basic broadband networks – of at least 3 Mbps – and NGA networks in areas with insufficient coverage. The project planned for the networks to be developed by private operators, which would be obliged to offer wholesale access to the subsidised infrastructures for a minimum of seven years.

The CMT concluded that the actions undertaken by the Regional Government of Valencia[25] adhered to the provisions in circular 1/2010. The affected areas were towns where there was not a sufficient presence of operators, whether to provide the traditional broadband service or the high-speed service with NGA networks. The CMT asked the Regional Government of Valencia to guarantee that the wholesale services would allow third party operators to replicate the services offered at retail level by the selected operator, in cases where the latter is a vertically integrated operator.

La Rioja

The Government of La Rioja presented an aid project for the construction of a high-capacity transport network in 51 rural municipalities. The CMT requested the Government of La Rioja to conduct further public consultation in order to learn from the active operators of any possible overlaps between this network and its roll out plans for fixed or mobile NGA networks. It also requested broadening the technologies and potential solutions in order to provide these municipalities with very high-speed services and requested clarification on how duplication was to be avoided in public aid allocations for this project with respect to the Avanza Plan programme of the Ministry of Industry, Energy and Tourism, which already had actions defined for the La Rioja region.

Government of Catalonia

Finally, in 2011, the Government of Catalonia presented a proposal to the CMT to expand its Xarxa Oberta project – already approved by the European Commission for 261 municipalities – to the remaining 946 municipalities of Catalonia. The goal of this action is to make a fibre optic transport network available to private operators, in addition to offering self-provision services to the Government of Catalonia's offices. In its analysis, the CMT distinguished municipalities covered by one or more backbone networks and with the presence of co-located operators in Telefónica's central exchanges from the rest, which did not have a backbone NGA network.

The CMT supervised the prices of various public tenders

Government of Catalonia

As stated in the European Commission's decision N407/2009, the CMT must supervise and approve prices for wholesale services in the Xarxa Oberta project, which was approved by the EC and affects the municipalities of Catalonia. Thus, the CMT approved most of the prices submitted by the Government of Catalonia for dark fibre services and leased lines, as these were similar to the average prices of comparable services in competitive areas or to prices regulated by the CMT. However, it was considered appropriate to revise upward the prices of Gigabit Ethernet circuits (1000 Mbps), since they were lower than both the regulated prices and the prices for comparable services in the most competitive area of Catalonia (Barcelona). After this change, all Xarxa Oberta prices complied with the requirements set by the European Commission.

[25] Delimitation of territorial scope based on the absence of operators providing similar services; description of the technical conditions of projects and the conditions imposed on aid recipients; preparation of a competition report and carrying out public consultation to learn of investment projects by potential operators.

Castile-La Mancha

Another project examined was an action by the Government of Castile-La Mancha, which in 2010 awarded the company Telecom Castilla La Mancha S. A. (Telecom CLM) a tender to supply a wireless network to provide broadband services and VoIP in 461 villages in rural areas with a low population density. The CMT concluded that this entity must change the offer of prices for its wholesale indirect access service, in order to allow third party operators to supply equivalent retail services with a sufficient margin. The contract between the Government of Castile-La Mancha and Telecom CLM should also include a returns clause such that, if there is an increase in demand or a change in the business figures representing a modification to Telecom CLM's profits over and above average industry percentages, a percentage of the excess profit would be returned to the Government of Castile-La Mancha, equivalent to the percentage of aid received as a proportion of the total investment.

The CMT answered several enquiries about the conditions for operating electronic communications networks

City Council of Mérida

In the light of growing demand from operators seeking to roll out a fibre-optic network, the City Council of Mérida asked the CMT for clarification on whether public tendering was the correct mechanism for occupation of the public domain or whether the City Council had to sign bilateral agreements with each of the interested parties

The CMT replied that tendering for occupation of the public domain can not be linked to an official call to tender, since the LGTel states that the competent authority must grant the operator a permit to exercise this right. If this cannot be granted under any of the conditions assessed in the LGTel itself, shared use of the infrastructures must be declared.

The CMT suggested that, given the scarcity of the available space, it would be appropriate for the City Council to organise sharing of this asset in accordance with the principles of equal treatment and non-discrimination among operators. This would require a public information process to be opened in order to explain the reasons behind the intention to arrange shared use.

As for the possibility of formalising bilateral agreements with stakeholders, the CMT stated that it had no objection, provided that such agreements did not exclude the right of other operators to occupy the public domain, in observance of the principles of equality and non-discrimination among operators set out in the telecommunications regulations.

City Council of Vitoria-Gasteiz

Euskaltel explained to the CMT that, following a request for use of the public domain, the City Council of Vitoria-Gasteiz had authorised the installation of a new civil infrastructure on the public domain. However, the City Council had limited its use to the roll out of copper pairs, preventing the parallel roll out of the coaxial cable used by Euskaltel, for which the City Council required Telefónica's MARCo Offer to be used.

The LGTel requires Public Administrations to guarantee exercise of the right of occupation on equal terms, and that any limitation on this right be proportionate to the public interest that is to be safeguarded.

After analysing the proportionality of the restrictions imposed by the City Council and the public interest to be protected, the CMT concluded that the City Council's decision to approve the occupation of the public domain limited the use of the infrastructure to the roll out of networks of a determined technology and for a specific use (provision of voice services), and that this was done without specifying the reasons of public interest underlying such a decision. It was concluded that the conditions of roll out imposed by the City Council should be considered a restriction with no objective justification, contrary to the right of occupancy of inalienable property covered in Article 26 and 29 of the LGTel.

Town Council of Rentería

The Town Council of Rentería issued a call to tender for fixed and mobile communications services in which it established ownership of the network for fixed and mobile telephony services as a criterion of evaluation.

Euskaltel consulted with CMT as to whether this criterion affected the principles of free access to service provision and equality among potential tenderers.

The CMT stated that in the case in question the criterion of ownership of the lines or equipment could interfere with free access to the provision of services because it did not constitute a criterion directly or indirectly related to the conditions of quality in which the service must be delivered, nor had an objective reason been given to justify it.

Town Council of Sant Cugat del Vallés

The Town Council of Sant Cugat del Vallés asked the CMT if it was necessary to register a company that was partly owned by the Town Council in the Register of Operators as an electronic communications operator, when this company operated as a developer of public housing in which it planned to install an internet access network using Wi-Fi technology, contracting the internet access service from a registered operator.

The Wi-Fi network would come to form part of the common elements of the buildings owned by the company that was partly owned by the Town Council. As an internal telecommunications network for which the entity provided no service it did merit the status of a public electronic communications network and, therefore, it was not necessary to register the entity in the Register of Operators.

2. ANALYSIS OF THE INDUSTRY IN SPAIN

2.1. Fixed communications

2.1.1. Situation of the industry

Fixed telephony

Despite the penetration of fixed telephony gradually decreasing since 2002, in 2011 this service still accounted for 16.8% of revenues from final electronic communication services.

Whilst fixed telephony traffic has remained practically constant, final revenues fell by 9.2% in the year. Average revenues per minute fell for all traffic, with a particularly sharp fall for fixed network calls to mobile networks, which fell by 12.1%.

At a time of falling disposable income, consumers are continuing to look for the best prices, resulting in portability hitting an all time high of two million. It is therefore no surprise that alternative operators -who usually have the cheapest offers - gained around 720,000 new lines and a market share of over 35%, whilst the total number of lines fell by over 340,000.

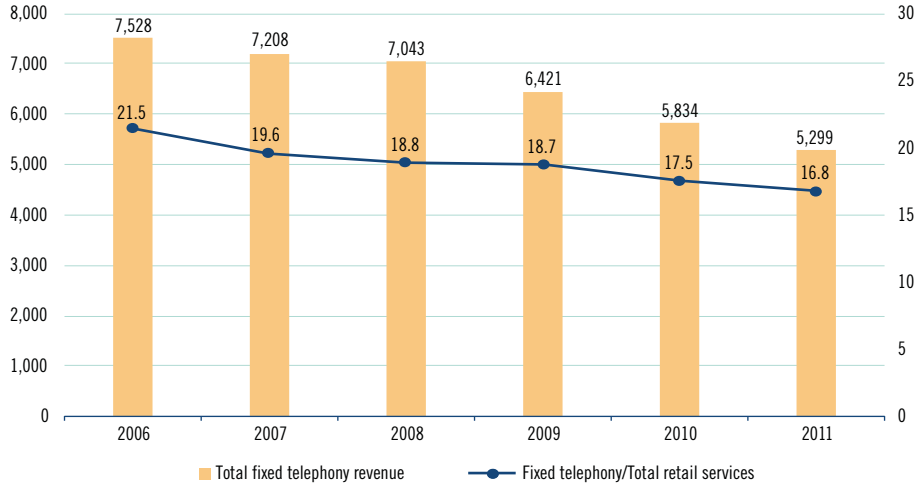
Alternative operators continued gaining ground in this market through the wholesale instruments regulated by the CMT; these enable them to offer direct access services to their final customers, particularly through fully unbundled loop and shared loop without basic telephone service (PSTN). In addition, in 2011 these operators saw a reduction in their interconnection costs with Telefónica due to new access and termination prices, which were set in the 2010 Reference Interconnection Offer with substantial reductions in rates, particularly for time-based services.

- Revenues

Revenues for retail fixed telephony services amounted to 5,298.7 million euros, 9.2% lower than the previous year.

51.1% of revenues from fixed telephony services were for connection or access (connection and monthly fees, fees for additional facilities, etc.) and the remainder was for traffic services.

EVOLUTION OF RETAIL FIXED TELEPHONY REVENUES AND CONTRIBUTION TO TOTAL RETAIL SERVICES SECTOR[26] (million euros and percentage)



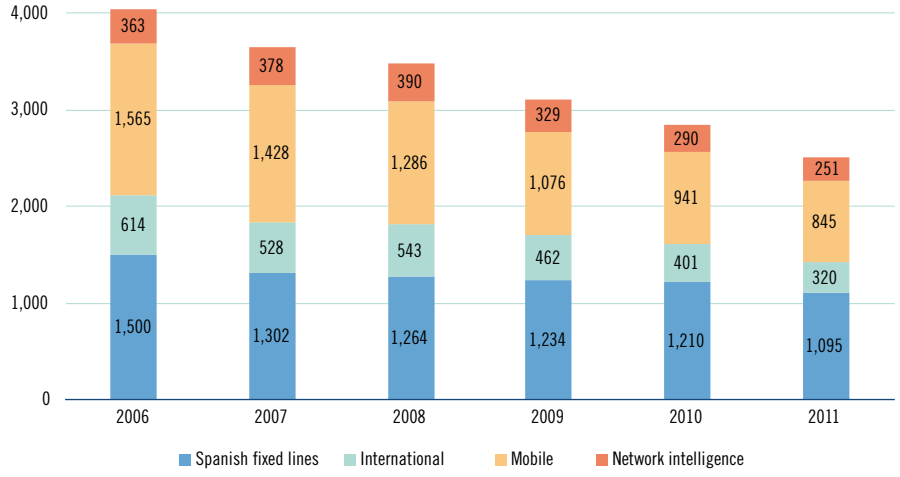
Source: CMT

[26] Includes converged services.

Traffic revenues fell by 11.6% on the previous year. This decrease can be explained by the decrease in the number of fixed lines and the minutes used by this segment.

The main decreases were in international calls, which fell by 20.2%. This drop is consistent with the 17.9% fall in this traffic in 2011. Despite a slight increase of 2.1% in traffic to mobile phones, revenues from such calls fell by 10.3%.

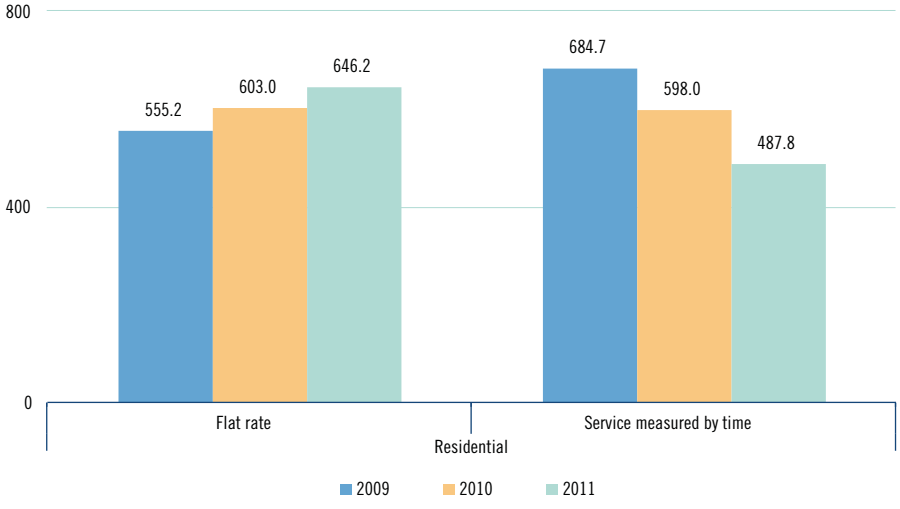
EVOLUTION OF REVENUES FROM FIXED TRAFFIC SERVICES (millions of euros)



Source: CMT

In the residential segment, flat-rate traffic revenues were up 7.2% against the previous year. This is now the largest source of residential fixed telephony revenues, accounting for 57%, seven percentage points higher than the previous financial year.

PERFORMANCE OF TRAFFIC REVENUES BY TARIFF TYPE IN THE RESIDENTIAL SEGMENT[27] (million euros)



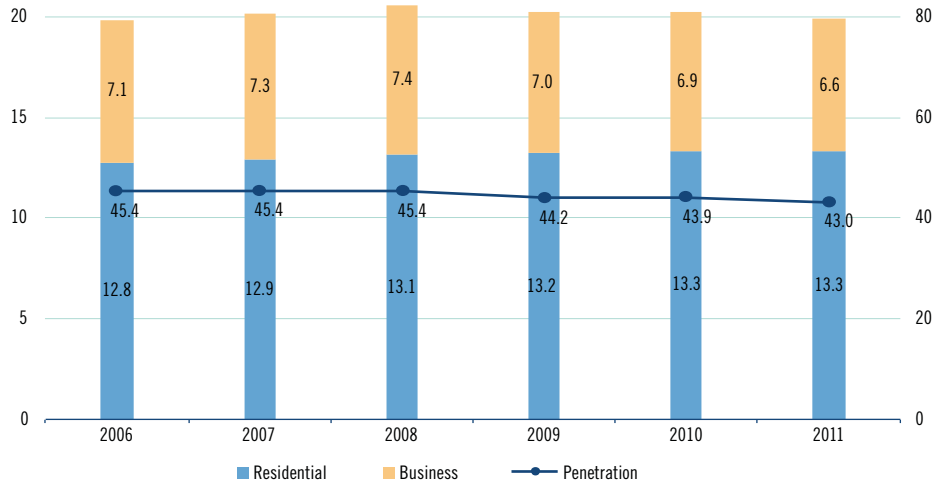
Source: CMT

[27] Includes revenues from national calls, calls to mobiles and international traffic.

- Lines

There were 19.9 million fixed telephony lines in service, down 343,055 on the previous year. The business segment fell by 4.4% year-on-year, with a total of 6.6 million lines. The total number of fixed residential and business lines fell by 37,828 and 305,227, respectively.

CHANGES IN FIXED TELEPHONY LINES AND PENETRATION (million lines and lines/100 inhabitants)



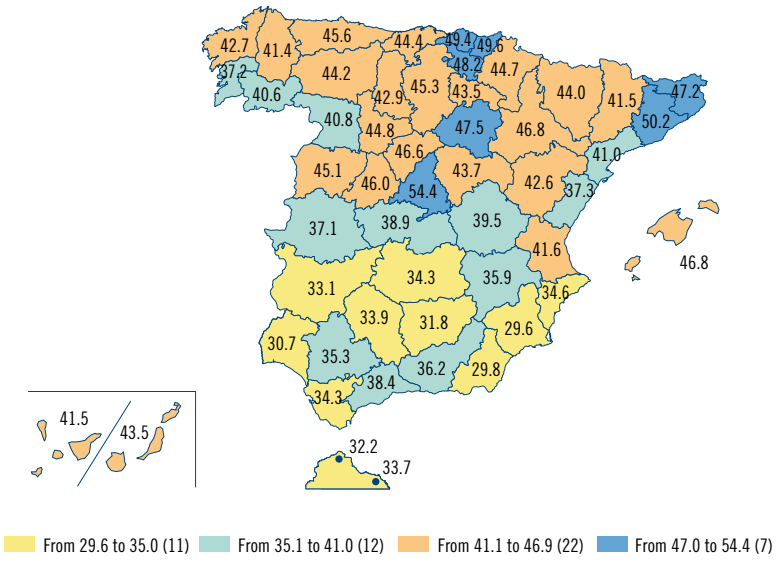
Source: CMT

Fixed telephony penetration per inhabitant[28], defined as the number of active lines in the full residential and business segment per 100 inhabitants, was 43.0. This figure is slightly below that for 2010, which was 43.9.

At the province level, there were slight variations between geographic areas. At the provincial level, Madrid and Barcelona had the highest penetration of fixed lines, whilst Murcia and Almeria had the lowest percentage of fixed lines per 100 inhabitants.

[28] Calculated based on total fixed telephony and the 2011 population figure, calculated by way of the updated census: 46,152,925 inhabitants (source INE).

FIXED LINE PENETRATION BY PROVINCES[29] (lines/100 inhabitants)



Source: CMT

According to the results of a survey conducted on more than 3,000 households[30], the percentage of households with access to fixed telephony service was 81.8%. This figure indicates that penetration remained virtually constant with respect to the previous year and, therefore, followed the trend towards stagnation of recent years. However, penetration was not homogeneous across the different types of municipalities. The service thus reached its maximum level of penetration in cities of over 500,000 inhabitants, at 93.8%, whereas in smaller towns (less than 10,000 inhabitants) the fixed telephony service was subscribed to by 71.3% of households.

17.4% of households only have mobile telephony, while 7.6% only have the fixed telephony service, thus continuing the downward trend displayed by this type of household, as seen in the graph. Finally, 74.2% of households enjoy both fixed and mobile telephony.

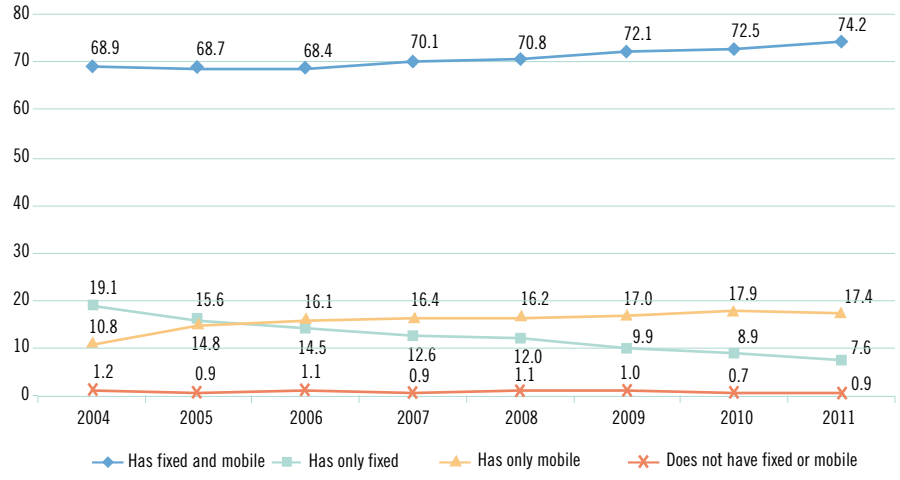
It is worth highlighting the different demographic profile of households with only fixed telephony and those with only mobile telephony. Thus, of those households with only fixed telephony, 82.6% were 65 years of age or over and just 3.5% were under 50 years of age. By contrast, in the case of households with only mobile telephony, just 12.1% were 65 years of age or over and the majority, 68.8%, were under 50 years of age.

[29] The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

[30] CMT-Red.es Household Panel.

EVOLUTION OF PENETRATION IN HOUSEHOLDS BY SERVICE TYPE

(percentage of total households)



Source: CMT – Red.es Household Panel

A study conducted by the CMT and based on the CMT-Red.es Household Panel revealed that the reduction in fixed lines observed in recent years could be, at least partially, the result of a process whereby users are switching from fixed lines to mobile lines. Thus, the annual replacement rate between fixed and mobile accesses has increased more than fourfold in the 2004-2011 period, reaching 0.9% in 2011.

Such a significant increase in the replacement rate over recent years could be due to a combination of two effects. On the one hand, the boom in mobile broadband, which has meant that fixed access is no longer the only alternative for enjoying broadband Internet access and, on the other hand, the higher propensity towards mobile technology exhibited by younger households.

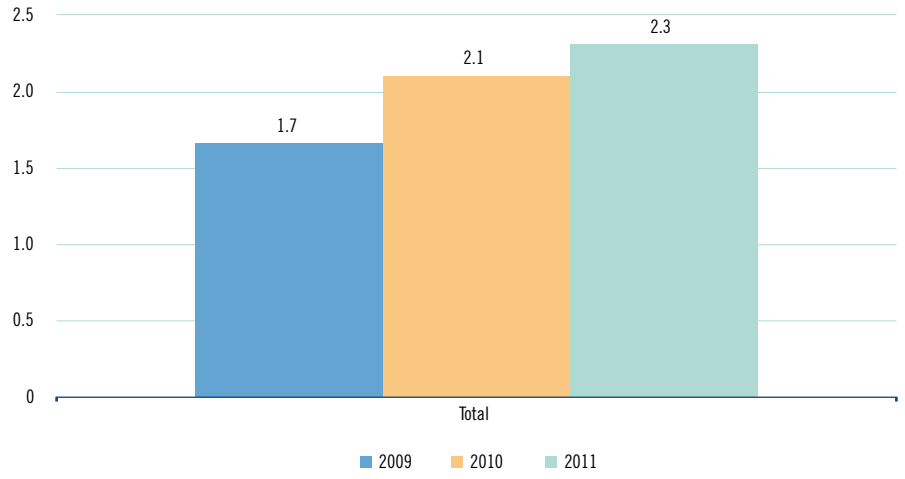
Of the total number of fixed lines on the market, 7.3% were offered via VoIP and 2.3% corresponded to convergent services, which combine fixed telephony and mobile services in a single terminal in the same commercial offer.

Alternative operators using wholesale loop rental without PSTN and "naked" bit-stream access tended to provide fixed voice services using IP technology.

Thus, the development of VoIP recorded year-on-year growth of 28.1%, with a total number of VoIP lines of 1.4 million. In this regard, it should be noted that this figure does not include the use of applications that allow phone calls over the Internet. Orange and Vodafone were the operators that stood out for choosing VoIP as an alternative to traditional voice.

Convergent services maintained their presence in the market throughout 2011. The total number of lines with these services rose to 7.8%, bringing the total to 457,721 lines, highly concentrated in the corporate segment, where they reached 6.4% of the total.

STRENGTH OF CONVERGENT SERVICES IN THE FIXED TELEPHONY MARKET (percentage of total fixed telephony lines)



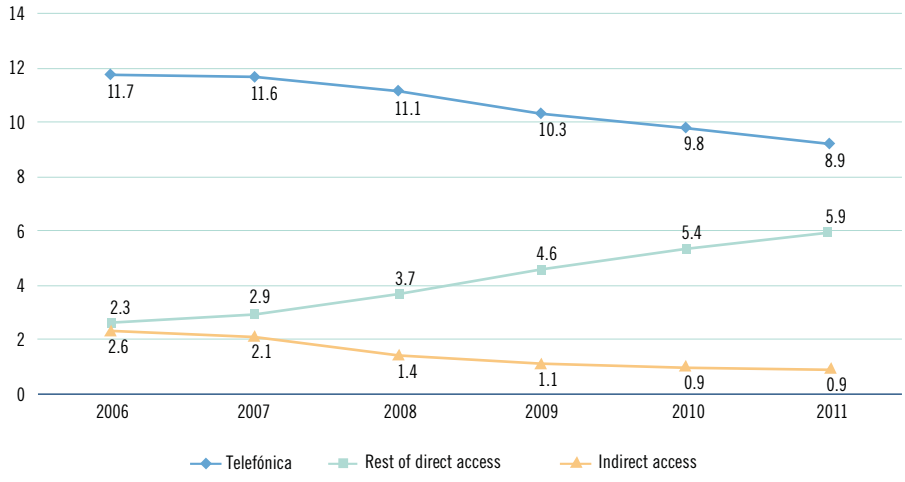
Source: CMT

- Customers

A service provider can offer fixed telephony in two ways: with direct access, via its own network or employing a wholesale access method, or by way of an indirect access service - WLR or pre-selection -, whereby the operator can offer final services by using the incumbent operator's telephony network under regulated prices and conditions.

By the end of the year, there were 15.7 million fixed telephony customers, of which 94.5% were direct access customers and just 871,069 had some kind of indirect access modality.

EVOLUTION OF DIRECT AND INDIRECT ACCESS CUSTOMERS (millions of clients)



Source: CMT

The historic evolution of the number of indirect access customers has clearly been declining in recent years and only represented 5.5% of the total in 2011. This evolution follows the same trend as observed in pre-selected lines. The main reasons for this evolution are:

- Greater competition as regards infrastructures led to a reduction in the number of Telefónica customers while increasing the direct access customers of other operators.

- The increase in local loop unbundling, full or shared without PSTN, allowed alternative operators (Jazztel and Orange in particular) to acquire Telefónica clients via bundle offers with both switched and VoIP services, thanks to the combined offer of services and access.

- The growth in naked bit-stream access in wholesale broadband allowed direct access clients to be acquired through the provision of VoIP services.

- The development of WLR as a means of accessing final customers allowed alternative operators to enjoy a full commercial relationship with the customer, including access, which was no longer billed by the incumbent operator.

- Convergent services allowed operators with mobile communications networks to offer telephony services using pricing plans employed for fixed telephony.

number of customers per segment in 2011

	RESIDENTIAL	% / TOTAL	BUSINESS	% / TOTAL	TOTAL
Direct access	12,439,567	79.0	2,427,397	15.4	14,866,964
Indirect access	710,642	4.5	160,427	1.0	871,069

Source: CMT

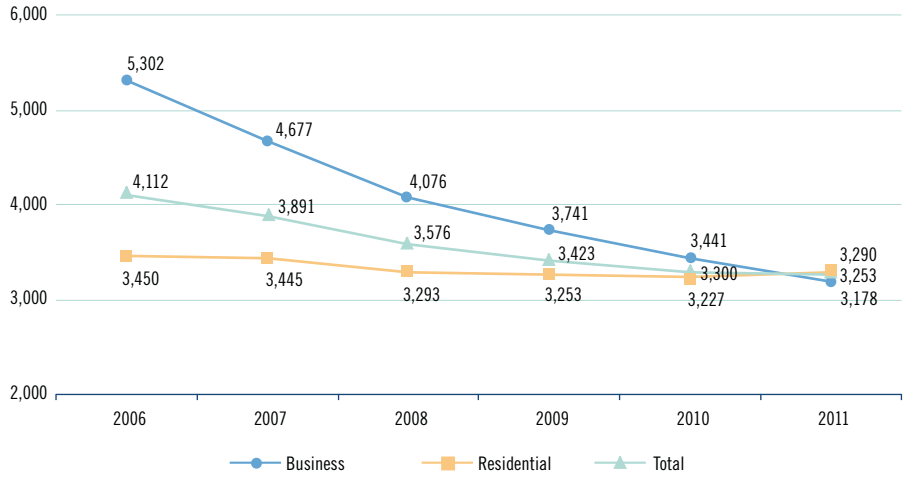
- Traffic

The traffic processed - not including dial-up Internet access - was less than in the previous year, maintaining however the decreasing trend that began in 2002. A total of 64.2 million minutes were registered, which represents a 2.1% year-on-year drop. In this regard, it is worth mentioning that fixed telephony service traffic showed an inverse result to mobile service traffic, which exhibited a slight increase of 1.5%.

Traffic per line reflected two opposing trends that were also observed in the evolution of the total number of lines. While in the residential segment the minutes per year and line grew slightly, by 2%, in the business segment minutes-per-line consumption exhibited a significant fall of 7.6%.

For the first time ever, minutes per line in the residential segment exceeded those of the business segment. This may have been due to the complex economic situation and the reduced economic activity in the business world throughout 2011.

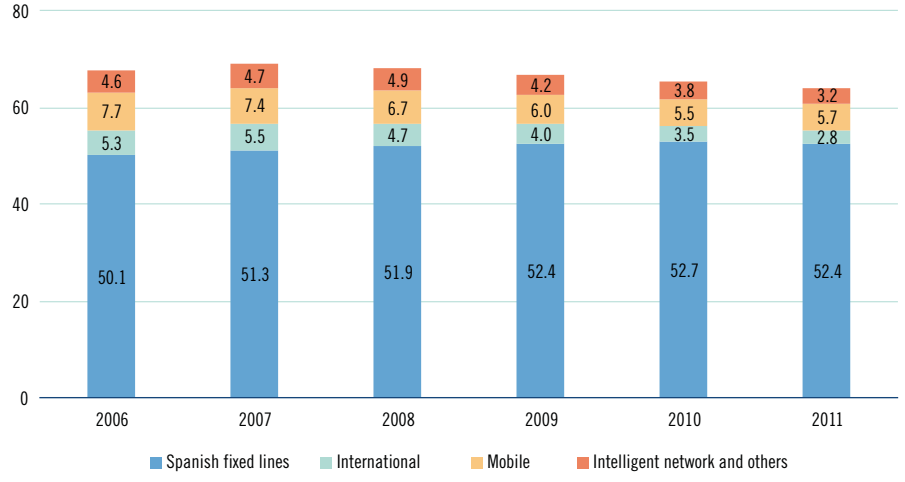
MINUTES PER LINE AND PER SEGMENT (minutes/line/year)



Source: CMT

As for the evolution of the traffic types processed through fixed networks, traffic between fixed lines in Spain remained practically stable. In contrast, dramatic decreases were observed in international and intelligent network calls, as well as others, where traffic fell 17.9% and 16.9%, respectively. The traffic to mobile lines exhibited the second largest volume and rose by 2.1%.

EVOLUTION OF TRAFFIC ORIGINATING ON FIXED NETWORKS (billions of minutes)

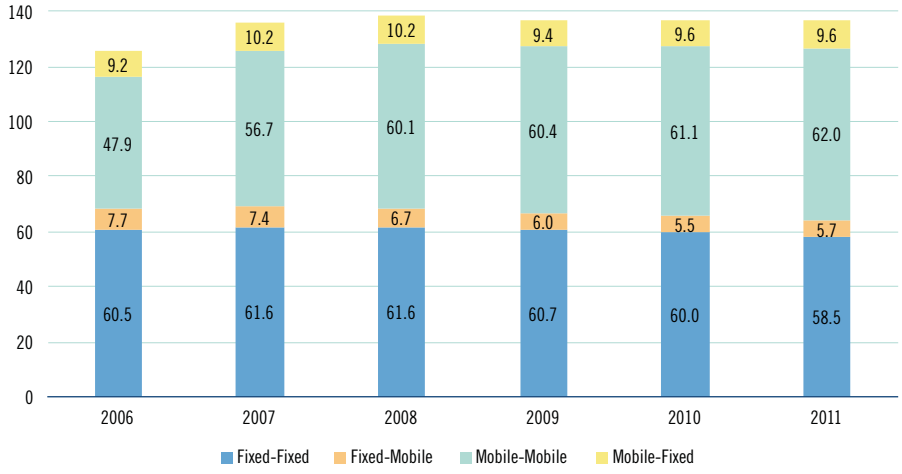


Source: CMT

One of the reasons that may explain the growth in fixed-to-mobile traffic is the fact that most operators began including a free number of minutes for calling mobiles within bundle offers for fixed telephony and broadband.

Once again this year, voice traffic via mobile communication networks exceeded that of fixed networks and the gap between them increased. Traffic originating on mobile networks represented 52.8% of the total voice traffic handled by any type of network and exceeded the total amount handled by fixed networks, which reached 47.2% of the total.

EVOLUTION OF TRAFFIC BY ORIGIN AND DESTINATION[31] (billions of minutes)



Source: CMT

Company communications

Company communications encompass circuit rental services, data transmission and corporate communications for the business segment. This sector generated turnover of 1,502.9 million euros, which represented an increase of 6.5 million euros. This increase was due to the circuit rental services, which increased by 23.8 million, i.e. a year-on-year growth of 5.0%. By contrast, both corporate communications services and data transmission services saw revenues decrease by 1.5% and 1.7% and amounted to 82.4 and 924.7 million euros, respectively.

If we analyse the revenues from data transfer per operator, it can be seen that Telefónica continued to lead the way, with a revenue share of 55.4% and a total of 512.2 million euros, followed by BT, with 21.2% and 196.2 million euros.

Colt followed a long way behind, with 4.0% and 37.4 million euros for the whole of the financial year.

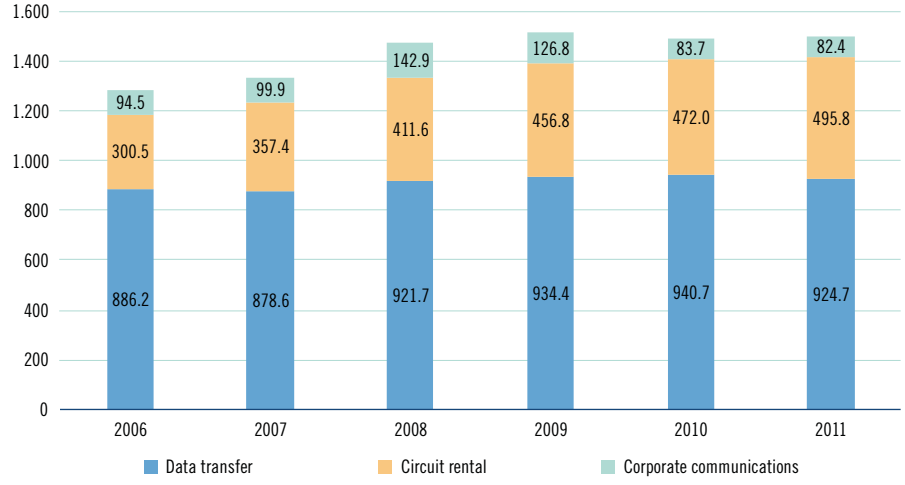
A breakdown of leased circuits by technology type revealed that the greatest weight corresponded to traditional circuits, which registered a slight year-on-year fall of 0.9%. In second place were Ethernet circuits, with a 34.3% share of the total revenues and a year-on-year increase of 9.4%, probably due to the 2010 updating of the Reference Line Rental Offer (RLO) and whose reduced pricing had an impact in 2011.

[31] Fixed-to-fixed traffic does not include local calls to narrowband Internet. Traffic from mobiles is calculated in air-minutes.

The third most relevant type of circuit was Fast Ethernet, which represented 16.6% of the total revenues and registered a significant revenue increase of 23.2% compared to the previous year. Finally, Gigabit Ethernet circuits accumulated 12.4% of total revenues from leased circuits, recording a year-on-year increase of 23.2%.

In terms of operators, Telefónica had a market share of 78.2% by revenues from circuit rental, which increased said figure by 3.5 percentage points with respect to the previous financial year. The next operator was Euskaltel, with 5.4%, followed Ono with 4.5%; both maintaining their shares with respect to the previous year.

REVENUES FROM COMPANY COMMUNICATIONS SERVICES (millions of euros)



Source: CMT

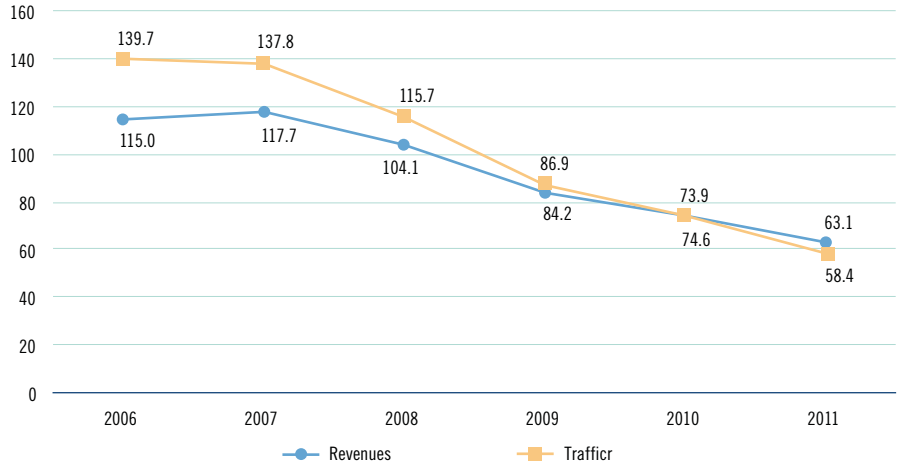
Telephone information services

Telephone information services are offered by different fixed network or mobile companies, or by companies that do not have their own networks and use other means of distribution, such as Internet, to offer end users information about subscribers to fixed network services.

One reason for the downward trend in the demand for these services is that similar or equivalent services are available on the Internet for free. The data in this section corresponds only to the revenues for fixed network operators that provide telephone information services.

The aggregate annual turnover was 63.1 million euros, 15.4% less than the previous year, a similar fall to that registered in the volume of minutes and calls made to these services.

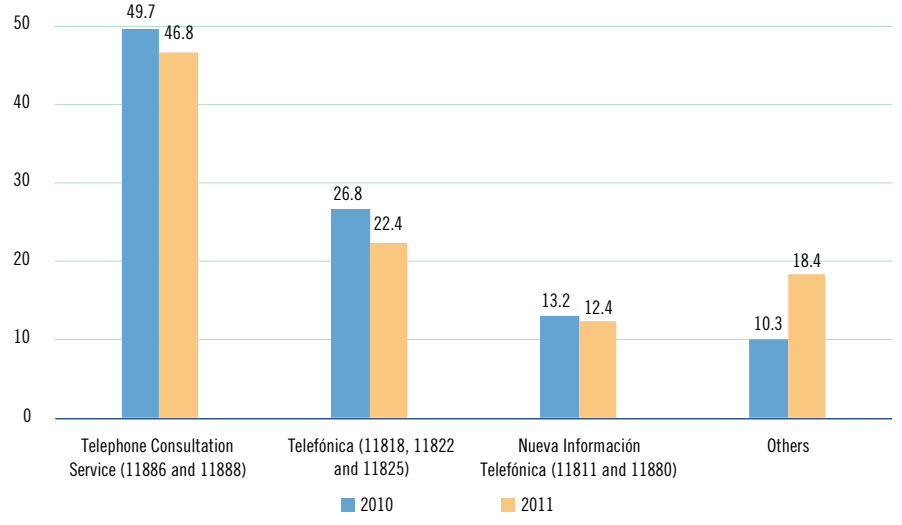
REVENUES AND TRAFFIC OF INFORMATION SERVICE PROVIDERS (millions of euros and millions of minutes)



Source: CMT

The most representative agents in the market were, firstly, the Number Consultation Service (11888 number for domestic numbers and 11886 for international numbers) representing 46.8% of market revenues. In second place was Telefónica (using the 11818 number for the Universal Service, 11822 for the domestic service and 11825 for the international service), with 22.4%, registering 4.4 percentage points less than in 2010. Third was Nueva Información Telefónica (using the 11811 for the domestic service and 11880 for the international service), with 12.4%. It is worth highlighting that, during this financial year, Telefónica de España stopped offering telephone information services through the 11822 and 11825 numbers, which were instead offered by Atento Teleservicios España (included in the Others section) as from the fourth quarter of 2011.

REVENUE MARKET SHARES OF INFORMATION SERVICE PROVIDERS (percentage)



Source: CMT

As regards turnover for the 11818 telephone information number, which until 31 December 2011 pertained to the universal service and was provided by Telefónica, it amounted to 947.4 thousand euros. These revenues represented 6.7% of total revenues from these services for Telefónica.

REVENUES AND TRAFFIC OF TELEPHONE INFORMATION SERVICE PROVIDED AS A UNIVERSAL SERVICE BY TELEFÓNICA (millions of euros, millions of calls, millions of minutes)

	REVENUES	CALLS	TRAFFIC
11818	0.9	2.6	2.8
Year-on-year variation	-37.7%	-37.6%	-38.9%

Source: CMT

2.1.2. Competition

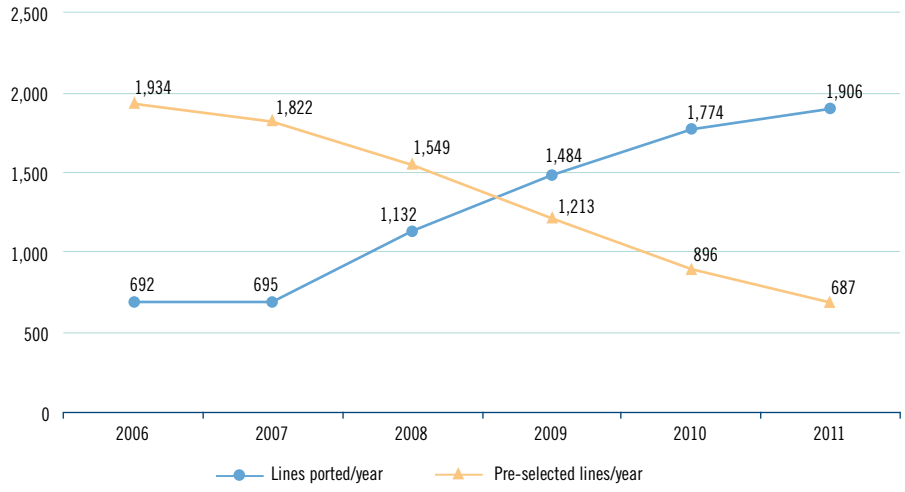
The portability rate reached an all-time high, while the number of pre-selected lines continued to fall. In turn, average revenue also fell for the most in-demand traffic, whereas the bundling of fixed-voice together with an additional service in the residential segment represented 67.6% of all fixed telephony lines. This all led to a reduction in the power held by Telefónica, both in market share and the net gain in lines, as well as an increase in the participation of alternative operators in the overall market.

- Pre-selection and portability

Pre-selection and portability are two mechanisms that have encouraged competition in the fixed voice market. The growing offer of direct access from alternative operators has led to less use of pre-selection. Portability recorded the highest figures since it was first introduced, with over 1.9 million numbers churned, mainly due to the transfer of customers from Telefónica to alternative operators. Of the total number of portability instances, 108,719 transactions were intra-operator; i.e. number transfers between companies of the same corporate group.

The volume of active pre-selected lines fell to 687,231 lines, 23.3% less than in the previous year. The falling trend in the number of pre-selected lines is due to operators focusing their strategies on direct access. In 2011, just 5.5% of the 15.7 million fixed telephony customers corresponded to indirect access. Thus, the importance of the pre-selection mechanism as an option for generating greater competition in the fixed telephony market has gradually declined.

PORTABILITY AND PRE-SELECTION OF FIXED LINES (thousands of lines)



Source: CMT

An indicator as to the level of competition within the fixed telephony segment is the volume of portability instances throughout the year; i.e. the number of consumers switching operator whilst maintaining their fixed telephone number.

The volume of lines that an operator imported from other operators minus the volume of lines that the same operator exported to the other operators, i.e. the net portability balance, revealed how Telefónica, with a negative balance of 727,174 lines, lost ground against its competitors. Jazztel was the operator that gained the highest number of ported lines, with 294,499, followed closely by Vodafone, with an overall balance of 264,533 lines gained over the year. Orange also recorded a positive portability balance, gaining 111,024 lines. Meanwhile, cable operators showed a positive balance of 29,032 lines and the remaining alternative operators registered a gain of 28,086 lines.

It is also worth analysing portability transfers between operators and not just the net balance. The following graph shows the movements of net portability between operators that occurred in 2011. It was thus revealed that Vodafone and Jazztel were the main recipients of portability from Telefónica. Significant movements also occurred in the opposite direction, from alternative operators to the incumbent operator, though to a far lesser degree.

PORTABILITY TRANSFERS PER DONOR OPERATOR IN 2011[32]

RECIPIENT OPERATOR	DONOR OPERATOR: Telefónica	Orange	Vodafone	Jazztel	Cable operators	Other operators
Telefónica	-	36,659	86,233	60,081	87,901	45,897
Orange	177,766	-	7,613	3,610	4,266	2,031
Vodafone	326,239	10,364	-	25,108	52,590	3,006
Jazztel	333,062	22,283	30,019	-	52,584	9,891
Cable operators	162,133	13,328	23,860	36,992	-	13,011
Other operators	44,745	1,628	5,049	27,549	22,951	66,878

Source: AOP - CMT

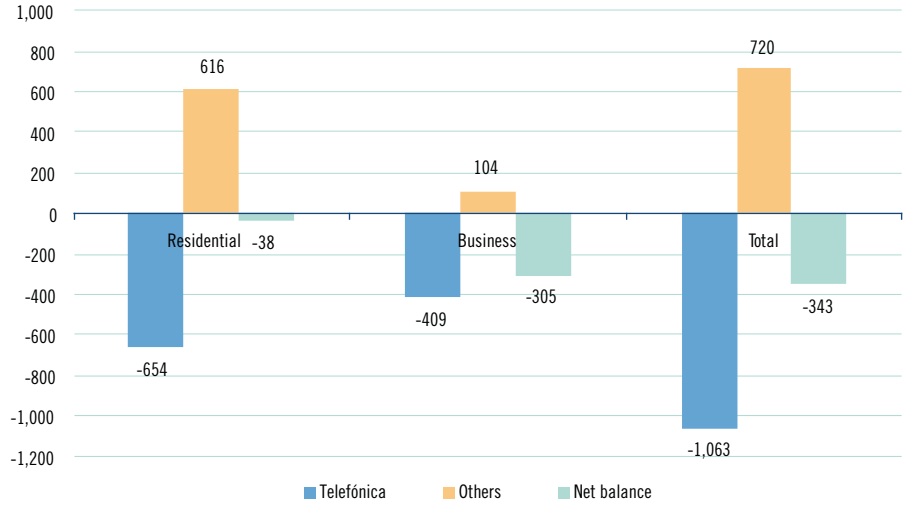
- Gains and losses of lines

The evolution of the total number of Telefónica lines showed a clear downward trend, with a reduction of 1,063,294 lines during the year.

It was in the residential segment where alternative operators managed to gain the largest number of lines from Telefónica. While Telefónica lost 654,308 lines, alternative operators gained 616,480.

The business segment also saw alternative operators increase their number of lines, gaining 103,759 lines by the end of the financial year. Even so, the losses recorded by Telefónica over the year meant that the final balance in this segment was negative, specifically down 305,227 lines.

FIXED LINE GAINS AND LOSSES BY SEGMENT IN 2011 (thousands of lines)



Source: CMT

[32] This does not include intra-operator portability instances, which represent a total of 108,719 transactions.

There are various reasons behind the growth in line migration between Telefónica and alternative operators, linked to an increase in competition stimulated by regulation from the CMT. Firstly, the trend at the wholesale level of increased local loop unbundling continued, particularly in full unbundling, which allows the alternative operator to offer the full range of services to the final customer, including access. Secondly, shared loop access without PSTN allowed alternative operators to gain customers and offer them a full range of services at competitive prices. The increases of 298,417 in fully unbundled loops and 164,571 in loops without PSTN that took place over the year clearly show that the operators' strategy is to meet the final customer's requirements as far as possible. Over the year, both types recorded positive month-on-month growth, as did naked bit-stream access, which recorded 297,625 accesses by the end of 2011, increasing the total number by 49.4% against the previous year.

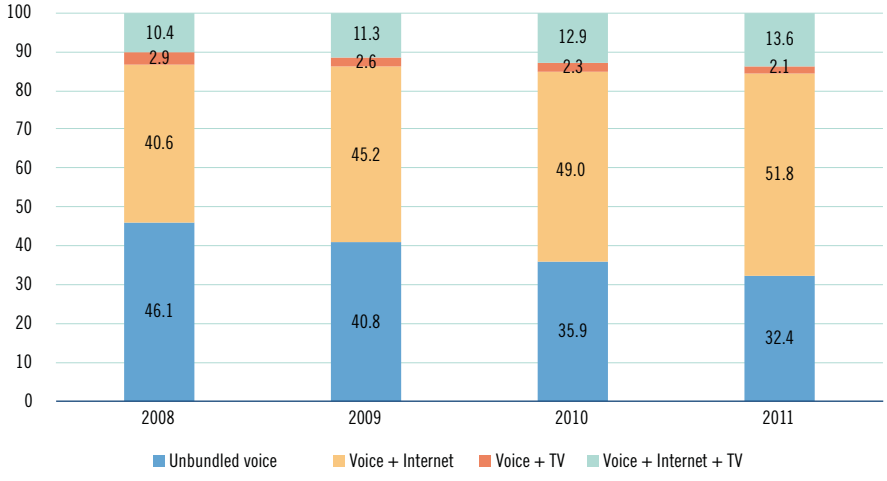
The number of unbundled loops continued to rise in 2011, reaching 2.88 million. Another wholesale regulatory measure implemented by the CMT that led to strong growth in the year was Wholesale Line Rental (WLR) offered by Telefónica. By the end of the year, a total of 453,544 WLR lines had been recorded in the market, with a year-on-year growth of 48.3%. Orange, BT Spain and Jazztel were the operators that made the greatest use of this method, which allows operators to issue their customers with a single bill encompassing the monthly subscriber fee (previously billed by Telefónica), and the cost of the voice traffic service. Subsequently, the alternative operator pays Telefónica for the access service provided. WLR allowed alternative operators to present more commercial offers as well as telephony and broadband bundles in order to compete more efficiently with the dominant operator.

- Voice bundles

Analysis of voice bundles in the residential segment shows that by the end of the year, 67.6% of lines contracted bundled voice, while fixed voice plus Internet was the primary contracted bundle, with 51.8% of the total share.

In turn, analysis of the historic series reveals that commercial offers consisting of bundled services continued to gain ground in the market, thus confirming the trend that had already been observed in previous years.

PROPORTION OF BUNDLED AND UNBUNDLED VOICE (percentage of residential voice lines in service)



Source: CMT

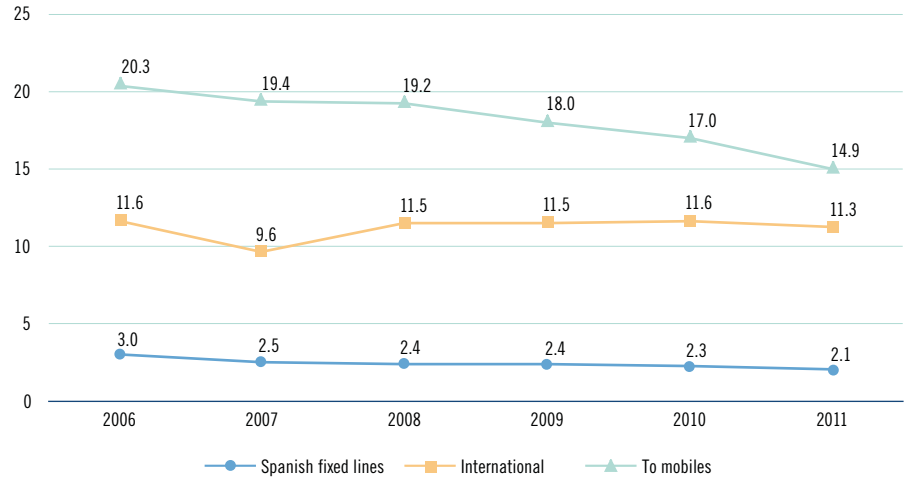
- Pricing

Joint service subscription involves a flat rate for the voice service, which co-exists with the traditional time-based rates. Such a diverse rate structure means that the average revenue per minute closely approximates the average price that consumers pay per unit of service consumed.

The average revenue from calls to national fixed numbers fell 9.1%, due to an increase in flat rates with bundled voice services, and amounted to 2.1 Euro cents per minute. The fall in this average revenue was due, on the one hand, to the 2.7-million increase in flat-rate customers. Secondly, though more indirectly, it was due to the significant reduction in the regulated wholesale pricing of fixed interconnection, which the CMT introduced in November 2010.

Average revenue from calls to mobile networks also fell by 12.1%, reaching 14.9 cents per minute. This price decrease was underpinned by the reduction that the CMT applied in 2011 to the wholesale pricing of call termination in the mobile communications network.

AVERAGE REVENUE FROM TRAFFIC TO SPANISH FIXED LINES, INTERNATIONAL AND TO MOBILES (Euro cents/minute)

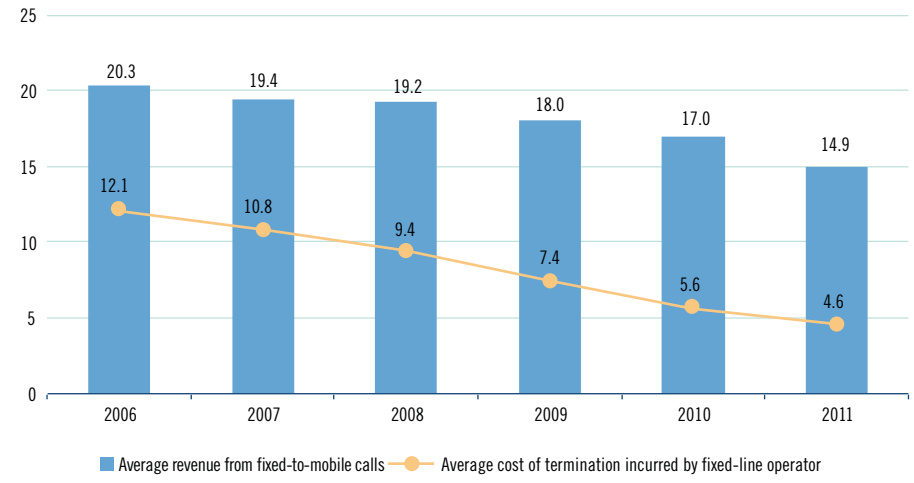


Source: CMT

In November 2011, Telefónica modified its nominal rates and increased the call set-up rate to 15 Euro cents for those calls charged by the minute. For local and national calls, it removed time bands and the price became the existing prime time cost, i.e. 0.15 and 0.72 Euro cents per minute, respectively.

Furthermore, it is worth jointly analysing the average revenue from calls to mobiles and the termination price incurred by the fixed-line operator. For the 2006-2011 period, the termination price in mobile communication networks has been regulated by way of a downward price path, leading to an average annual reduction of 12.4%. This reduction, however, was not fully passed along to the retail market. The price of a call from a fixed to a mobile network also fell, but to a lesser degree, by a yearly average of 5.3% in the same period.

RETENTION MARGIN OF FIXED-TO-MOBILE CALLS (Euro cents/minute)



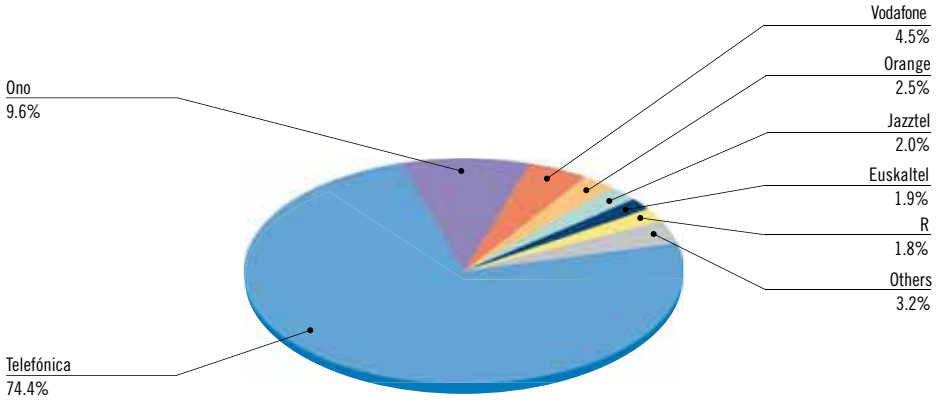
Source: CMT

- Market shares

The market weighting of the incumbent operator, Telefónica, continued to decline throughout the year. Alternative operators, both cable and xDSL, increased their market shares in the number of lines as well as in customers, traffic and revenues.

As regards revenues, Telefónica represented 74.4% of total revenues from fixed telephony, whereas the next operator in terms of revenues was Ono, with 9.6% of the total share.

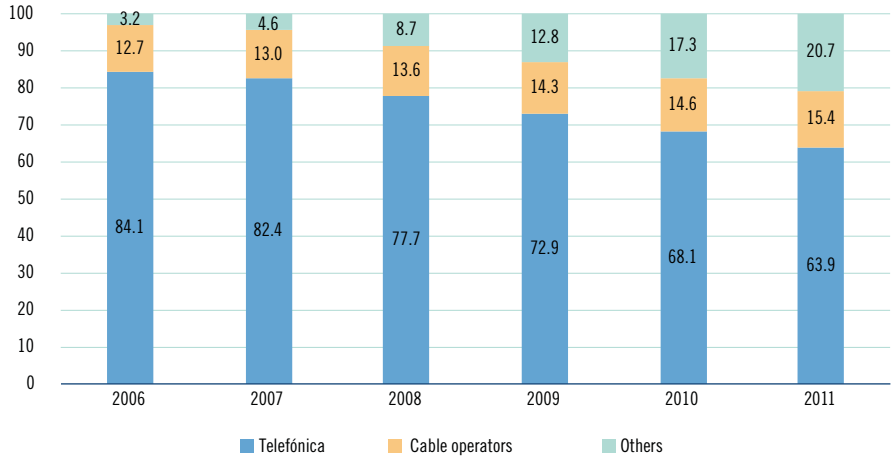
MARKET SHARES BY TOTAL REVENUES FROM FIXED TELEPHONY IN 2011 (percentage)



Source: CMT

In terms of lines, Telefónica held a market share of 63.9%, while the leading cable operators held 15.4% and other operators held the remaining 20.7%.

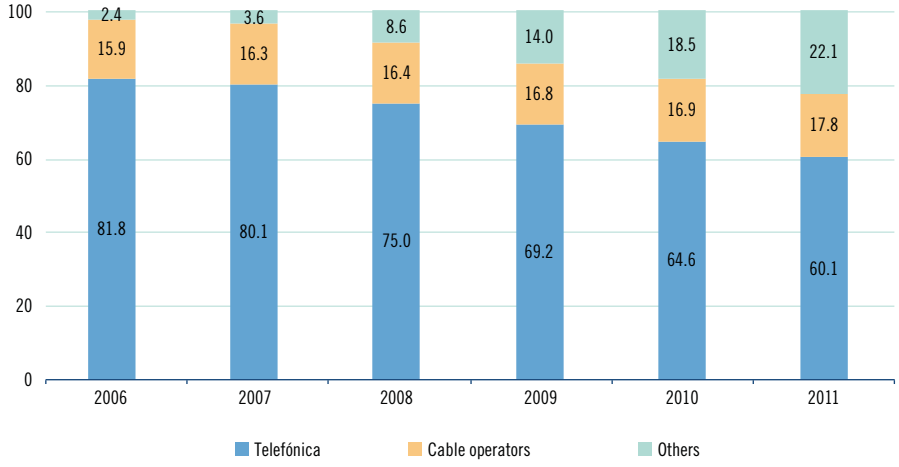
MARKET SHARES PER FIXED TELEPHONY LINES (percentage)



Source: CMT

In terms of the number of direct access customers, Telefónica achieved a market share of 60.1%, falling back 4.5 percentage points in one year. Cable operators gained 17.8% of all direct access customers, mostly in the residential segment. Other alternative operators obtained 22.1%, which meant a year-on-year increase of three and a half percentage points. Within this group, Vodafone, Orange and Jazztel stood out.

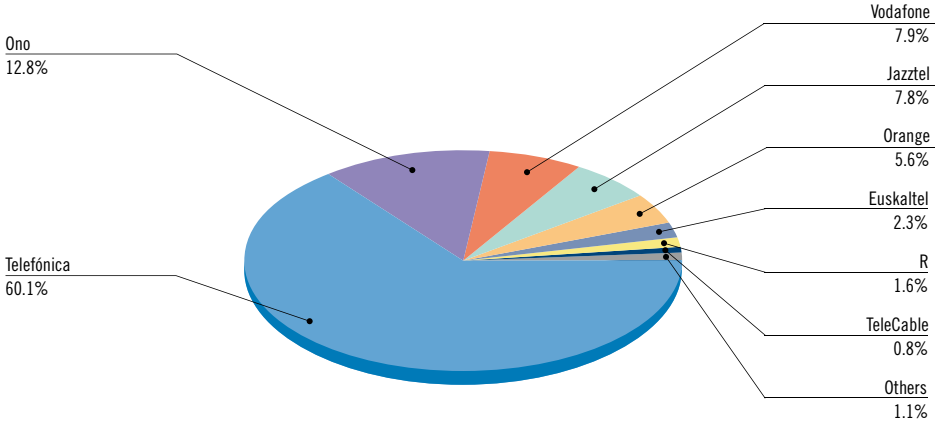
MARKET SHARES OF DIRECT ACCESS CUSTOMERS (percentage)



Source: CMT

Analysis of the individual market shares per operator in terms of direct access customers revealed that Telefónica maintained relevant though clearly decreasing market weighting over time, covering 60.1% of the market total in 2011. Ono remained the second largest operator with a market share of 12.8%. Vodafone substantially expanded its number of direct access customers, obtaining 7.9% of the total market, moving it up to third place. Jazztel followed close behind with 7.8%, 1.7 percentage points more than the previous year. Orange held 5.6%, while regional cable operators maintained their shares stable with respect to 2010.

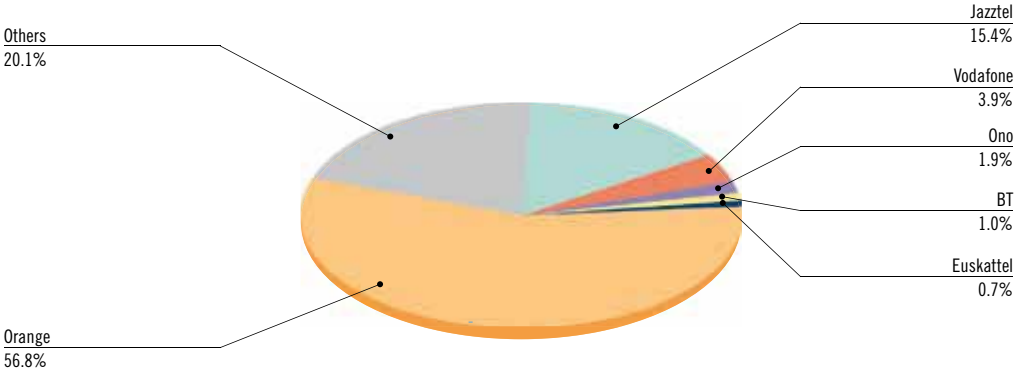
MARKET SHARES BY DIRECT ACCESS CUSTOMERS IN 2011 (percentage)



Source: CMT

Indirect access as a means of acquiring users continued to decline and, in 2011, recorded a total of 871,069 customers. Orange was again the operator with the largest number of customers in this category, with 56.8% of the total, followed by Jazztel and Vodafone.

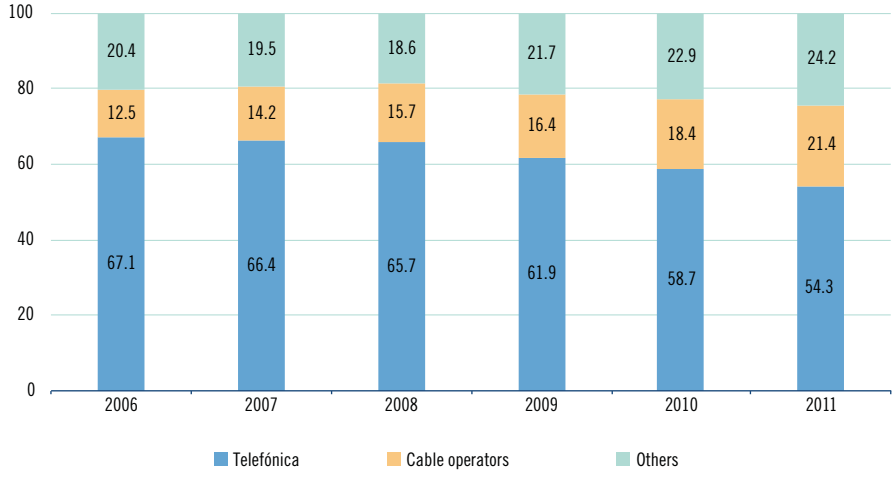
MARKET SHARES BY INDIRECT ACCESS CUSTOMERS IN 2011 (percentage)



Source: CMT

During the year, Telefónica continued to hold a leading position in total traffic, reaching a market share of 54.3%. Cable operators increased their positions, rising from 18.4% in 2010 to 21.4% in 2011. The remaining operators also gained market share, representing 24.2% of the total.

MARKET SHARES BY TRAFFIC (percentage)



Source: CMT

2.1.3. Wholesale services

This section looks at the wholesale services provided by fixed network operators. Firstly, interconnection services that are provided between operators to exchange their traffic. Secondly, circuit rental services to operators, which guarantee transmission capacity between two points. Finally, data transmission services, including dedicated data lines, regardless of the technology used, as well as Internet access services and other information services.

Turnover for wholesale interconnection services reached 1,668.4 million euros; 25.8 million euros less than the previous financial year. Transit services represented 61.7% of total interconnection revenues. Revenues from data transfer and circuit rental to operators remained stable.

2011 saw the new interconnection prices reflected, which were approved through the November 2010 Reference Interconnection Offer (RIO) and the 2010 wholesale Reference Line Rental Offer (RLO).

Traffic interconnection services

The exchange of traffic from one operator's network to the network of another operator is made possible by interconnection between the both networks. Such interconnection can be performed employing two different billing methods, by time or by capacity.

The basic interconnection services are access and termination. In the case of access, the operator that provides the line to the subscriber receives revenue for delivering interconnected traffic selected by the operator, short numbers, narrowband Internet access (909) and access components of special-rate (intelligent network) services for their network. In the case of termination services, the operator with its own fixed network obtains revenues from calls that terminate at customers of its network.

These services are complemented by the transit service, which allows one operator to deliver calls to another with which it is not directly interconnected, via an operator that has an interconnection with both.

There are other services such as special rates, telephone number information, short numbers, etc., for which interconnection services are also necessary.

With regard to the two existing billing methods for interconnection, the time-based method employs a billing system based on the traffic processed in minutes. Meanwhile, in the capacity method the services are billed based on the contracted connection capacity, regardless of the volume in minutes processed. Therefore, the average revenue per minute from this method varies depending on the actual use of connections. In terms of Telefónica regulated interconnection conditions, only access and termination services can be processed through interconnection by capacity, while transit services and other services are processed through interconnection in their entirety by time[34].

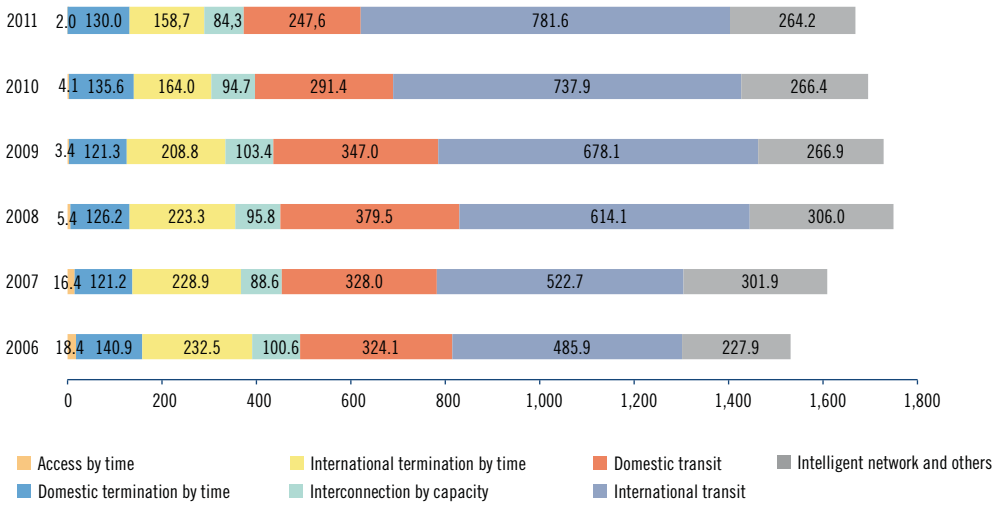
In any case, only Telefónica is obliged to offer its access and termination interconnection services using both methods, meaning the capacity method is generally only offered by Telefónica through its regulated offer. There are currently 14 fixed-line operators interconnected with this method at different points of interconnection.

- Revenues

Revenues from interconnection services amounted to 1,668.4 million euros, 1.5% less than the previous year.

The services that showed the greatest negative variations were those of access, which included time and capacity, and domestic transit[35], with reductions of 33.1% and 15.0%, respectively. International transit grew by 5.9%, while all other services (i.e. termination by time, whether originating in Spain or abroad, intelligent networks and other services) showed moderate falls with respect to the previous year.

REVENUES FROM INTERCONNECTION SERVICES[36] (millions of euros)



Fuente: CMT

[34] With the exception of access components of intelligent network services, which can indeed be processed by capacity. However, the weighting of this component in total revenues and interconnection traffic is very low.

[35] Domestic transit services include: calls of domestic origin to geographic numbers, calls of domestic origin to mobile numbers, calls of domestic origin to intelligent network numbers and other items (telephone information services). International transit includes traffic originating in Spain or abroad in which a Spanish fixed network operator acts as the transit operator.

[36] Telefónica has performed an adjustment of its revenues from access and national termination using the time method for the 2011 financial year.

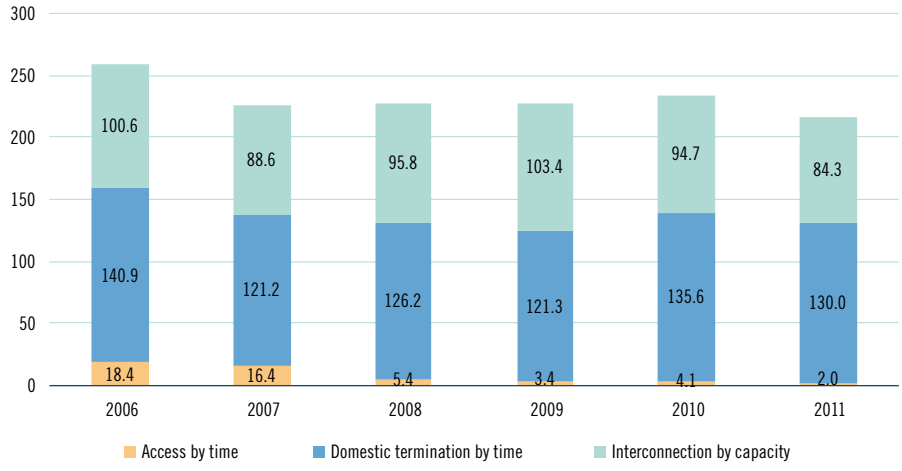
- Revenues from domestic interconnection

Total revenue from domestic access and termination services, using both the time and capacity methods, was 216.3 million euros. This figure implies a 7.7% fall with respect to the figure recorded the previous year, attributable to the reduction of interconnection prices regulated in the 2010 RIO, since the traffic volume of these services did not fall similarly in 2011.

Revenues from access and termination services using the time method experienced a consolidated fall of 5.5%. The interconnection by capacity method registered a fall of 11.0% with respect to 2010. The time-based method once again generated the most revenue, representing 60.1% of total revenues.

Also, the larger proportion of domestic termination traffic billed by time is due to traffic originated by mobile operators, which do not use the capacity method to terminate on fixed networks.

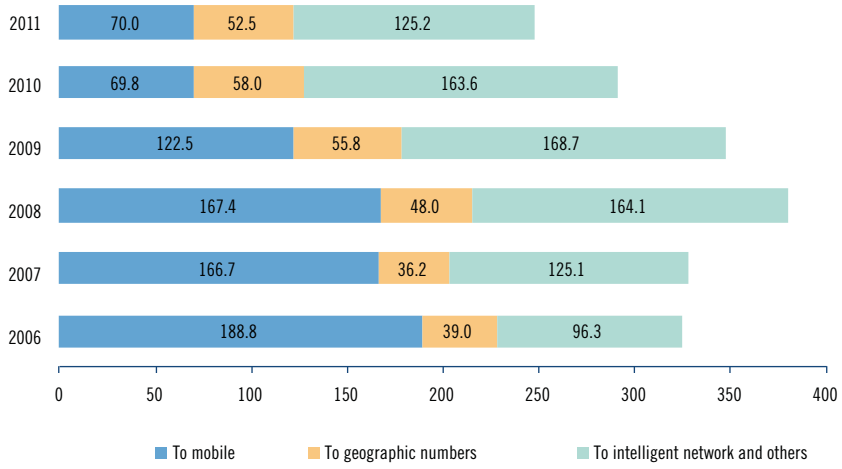
EVOLUTION OF ACCESS AND TERMINATION REVENUES BY METHOD (millions of euros)



Source: CMT

Billing for domestic transit services increased to 247.6 million euros. It is important to highlight the fall in revenues from transit to intelligent networks and other services, which was 125.2 million for 2011; i.e. 23.5% less than the previous year. By contrast, revenues from transit to mobiles remained stable with respect to 2010, while revenues from transit to geographic numbers fell by 9.5%.

REVENUES FROM DOMESTIC TRANSIT SERVICES (millions of euros)

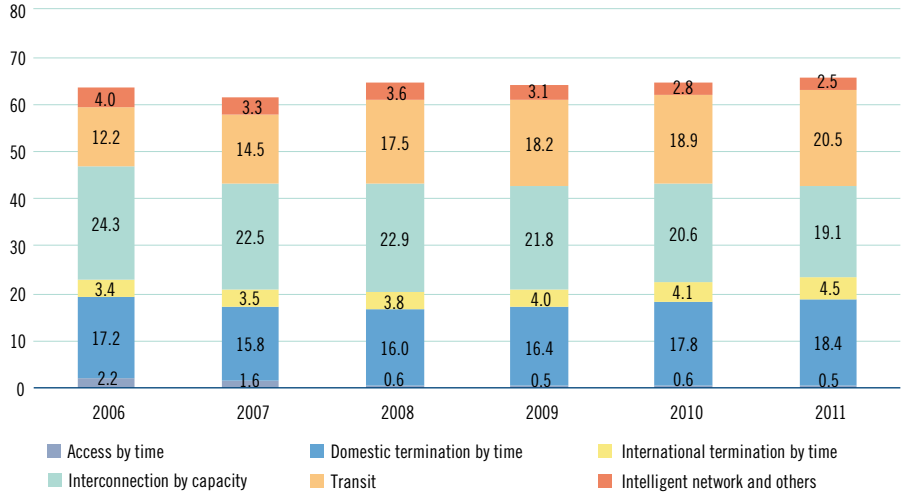


Source: CMT

- Traffic

The volume of interconnection service traffic was 65.6 billion minutes. This figure reflects a slight increase of 1.2% with respect to the total traffic from last year.

TRAFFIC FROM INTERCONNECTION SERVICES (billions of minutes)



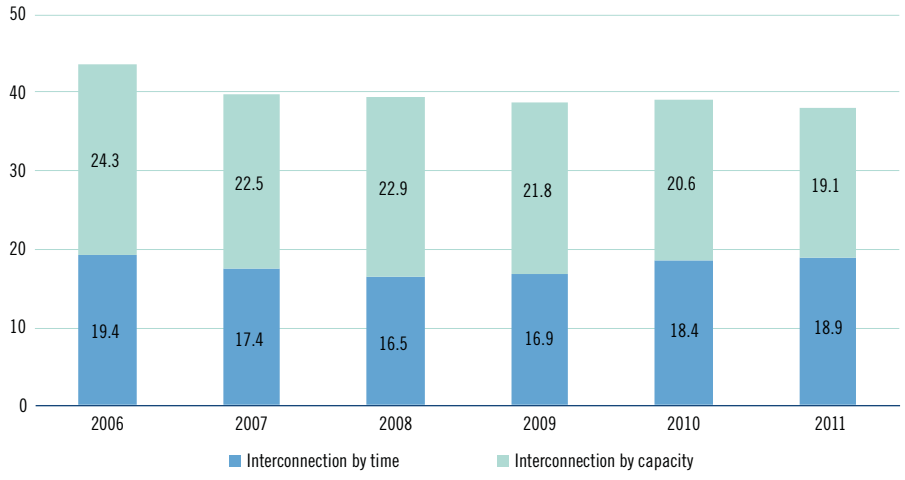
Source: CMT

- Breakdown of traffic

The total domestic access and termination interconnection traffic remained stable with respect to the previous year, with a slight year-on-year decrease of 2.5%. Both traffic types displayed opposing behaviour patterns, as traffic processed by capacity fell 7.2%, whereas the time-based method grew by 2.7%.

Meanwhile, total access service traffic fell by 23.7%, in line with a progressive reduction of customers using the bit-stream access method (call by call operator selection and pre-selection) and its traffic, even though the number of customers using WLR increased[37].

INTERCONNECTION TRAFFIC OF DOMESTIC ACCESS AND TERMINATION SERVICES BY METHOD
(billions of minutes)



Source: CMT

Traffic by capacity represented 50.4% of total interconnection traffic, with all other traffic pertaining to the time-based method.

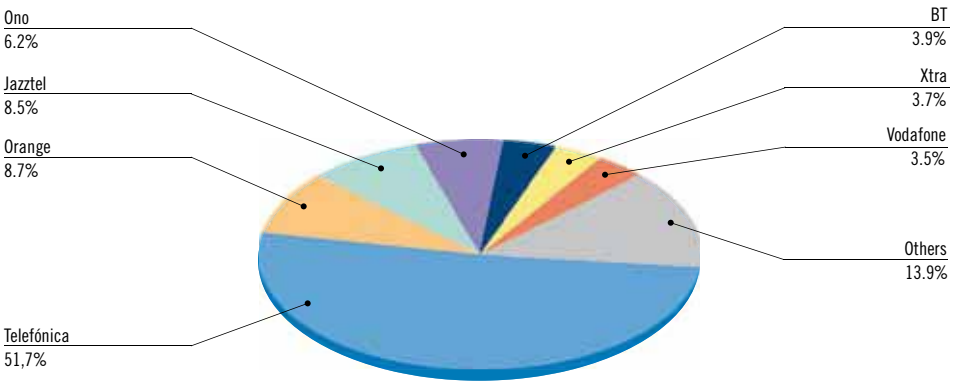
Of the total traffic by capacity, termination represented 77.3%, with the remaining 22.7% corresponding to access by the aforementioned method. This represents an evolution with respect to previous years, when access represented a greater percentage with respect to termination by capacity.

- Market shares

Average revenue market shares per operator for this year showed a reduction in Telefónica's share from 55.4% in 2010 to 51.7 % at the close of 2011. In turn, Orange and Jazztel increased their weightings in global sales to 8.7% and 8.5% of the market, respectively. It is also worth highlighting the 6.2% weighting of Ono.

[37] WLR customer traffic uses access interconnection services, since wholesale line rental is done through pre-selection.

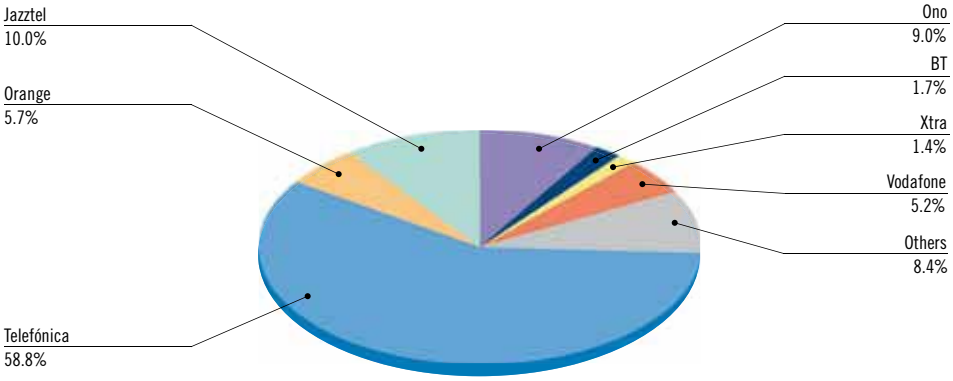
MARKET SHARES BY REVENUES FROM INTERCONNECTION SERVICES (percentage)



Source: CMT

Market shares by volume of traffic of interconnection services showed a similar pattern to previous years. Telefónica thus represented 58.8% of the market total. Ono and Jazztel increased their weighting in total traffic with 9% and 10% of the market, respectively. Orange and Vodafone also increased their importance in the interconnection market.

MARKET SHARES BY TRAFFIC OF INTERCONNECTION SERVICES (percentage)



Source: CMT

Circuit rental services to operators

Wholesale circuit rental services are rentals between operators to provide specific transmission capacity between two points. Wholesale circuit rentals are divided into two categories: terminal circuits, intended to make up part of the access network of the operator that requires the services, and trunk circuits, which connect two nodes of the operator's trunk network.

A review of the Reference Line Rental Offer (RLO), adopted in December 2010, caused a significant reduction in the price of Telefónica's terminal circuits. Meanwhile, one important addition was regulation of lines rented with high capacity Ethernet interfaces and underwater trunk lines on routes where it was determined, through market analysis, that there was no real competition. Telefónica was designated as an

operator with significant market power (SMP) on the Peninsula-Canary Islands route and 10 other new underwater trunk routes that connect the Balearic Islands, Ceuta and Melilla.

This section includes aggregate data on the trunk lines, terminals and lines used to connect RUO facilities (Reference Unbundling Offer). The lines that Telefónica provides for Telefónica Móviles are also included. Therefore, lines provided under regulated terms (the majority of terminals plus connections for RUO facilities) and under commercial conditions (the majority of trunk lines and those provided by Telefónica to Telefónica Móviles) are included.

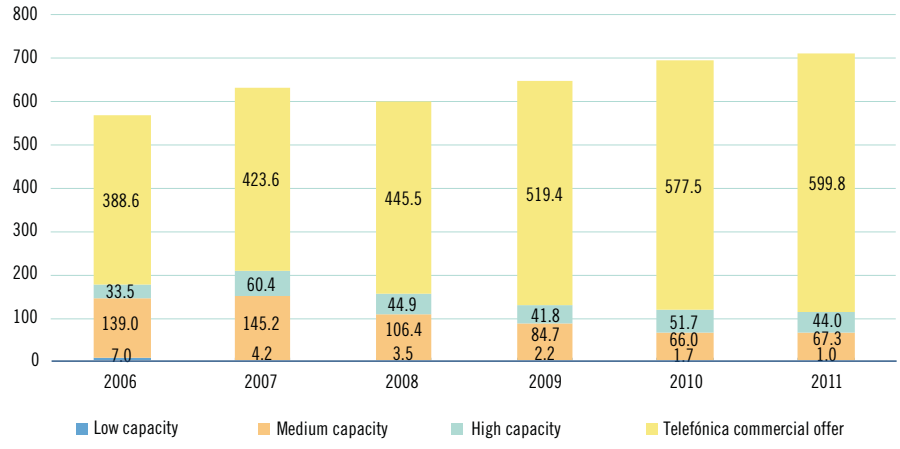
- Revenues

Total revenues from such circuit rentals increased 2.2% against the previous year and recorded an annual turnover of 712.1 million euros.

Revenues for low and high capacity circuits fell 38.8% and 14.9% respectively compared to the previous year. However, medium capacity circuits increased by 2.0%.

Telefónica's revenues from circuits rented under commercial conditions, which represent 84.2% of the total, increased by 3.9% with respect to 2010.

REVENUES FROM CIRCUIT RENTALS TO OPERATORS[38] (million euros)



Source: CMT

- Number of circuits

The number of circuit rentals to operators remained practically stable with respect to the previous year. As regards circuit type, high capacity circuits provided by Telefónica grew by 75.9%, while low and medium capacity circuits were down by 50.4% and 11.7%, respectively. Telefónica's circuits represented 79% of the total. The number of circuits offered by other operators increased by 24.2%, with 89.6% of these being medium capacity bitrates.

In the 2011 financial year, the number of high capacity circuits (bitrates starting from 10 Mb) increased by 65.7%, representing 12.8% of total circuits at the year end. In turn, medium capacity circuits weighed in at 85%, down 5.5% against the previous year. The predominance of these circuits has been maintained since 2006.

[33] Revenues from *other circuits* or *other revenues* are not included.

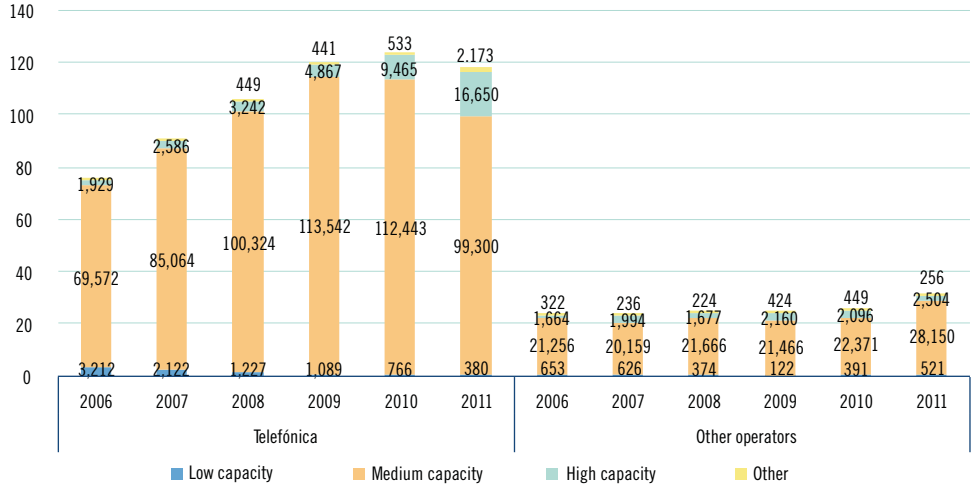
It is worth underlining that leased circuits are playing a vital role in the increased coverage of local loop services throughout Spain, especially at small and medium-size local exchanges. Indeed, while alternative operators connect to large Telefónica local exchanges using their own means, in order to access small local exchanges they make notable use of the RUO backhaul service via lea sed circuits, whereby operators can connect RUO rooms with circuits regulated in the Reference Line Rental Offer (RLO). The following table shows the number of local exchanges connected with the different capacities of leased circuits (the total number of local exchanges with co-location is around 1,000):

CIRCUIT BITRATE	NUMBER OF LOCAL EXCHANGES
2 Mbit/s	1
34 Mbit/s	8
155 Mbit/s	438
Fast Ethernet (100 Mbit/s)	41
Gigabit Ethernet (1000 Mbit/s)	326

Source: CMT

As from the most recent market review, it is also permissible to use RLO circuits for connecting base stations of mobile operators. Mobile operators are making use of this facility in order to extend the coverage of their 3G networks. In 2010, Telefónica leased some 7,300 circuits of this type to other mobile operators. By early 2012, this figure had risen by over 20% to around 9,000 circuits.

NUMBER OF CIRCUITS LEASED TO OPERATORS BY BITRATES

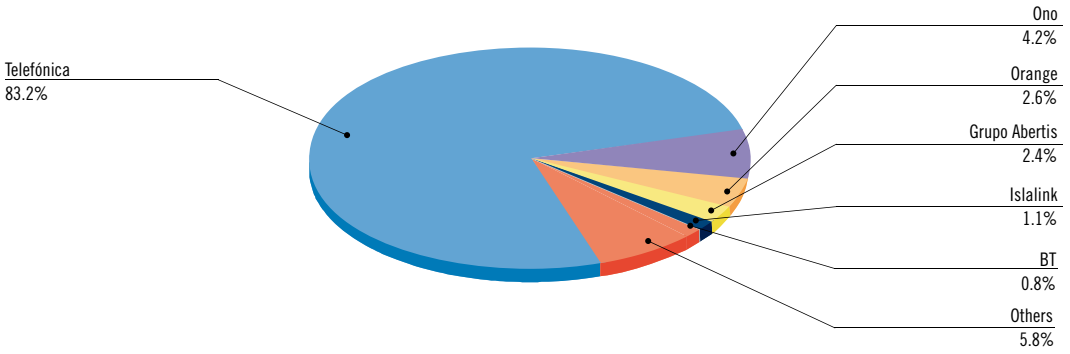


Source: CMT

- Market shares

Telefónica retained its leading position by market share in the wholesale circuit service, with 83.2% of total revenue. Alternative operators saw their consolidated share reduced, despite Ono, Orange and Grupo Abertis maintaining their shares at 4.2%, 2.6% and 2.4%, respectively.

MARKET SHARES IN REVENUES FROM CIRCUITS LEASED TO OPERATORS (percentage)



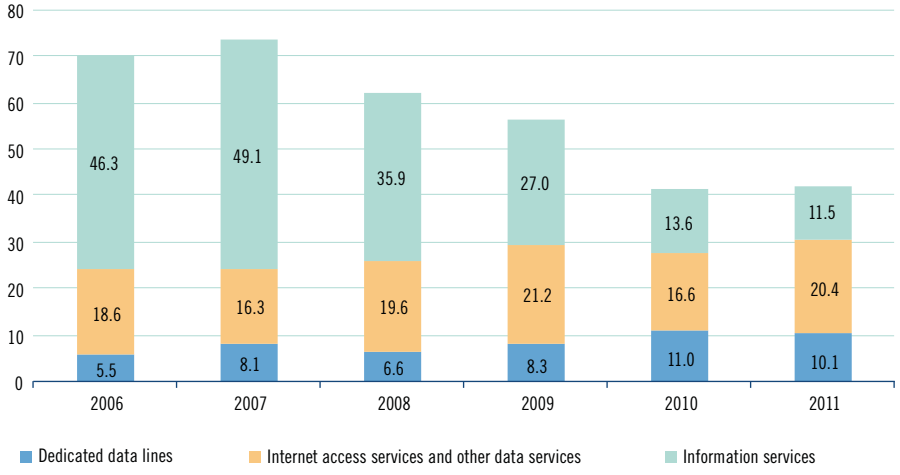
Source: CMT

Data transfer services to operators

Wholesale data transfer services include dedicated data lines for any technology type, as well as Internet access services provided to operators.

Turnover for data transmission services totalled 42.0 million euros, 1.9% more than the previous year. This increase in total revenues reverses the downward trend of previous financial years, but with significant changes in its composition. Thus, the 10.1 million euros associated with revenues from dedicated data lines were down by 7.5% during the year, while Internet access services and others rose by 22.7% with a total of 20.4 million euros.

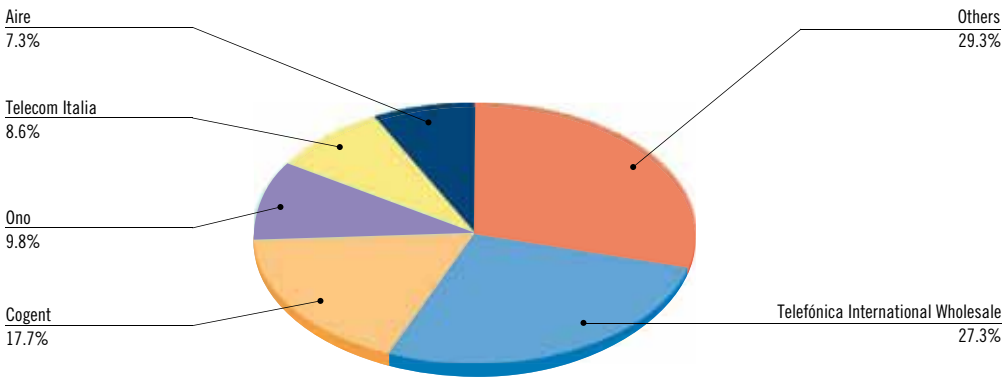
REVENUES FROM DATA TRANSFER SERVICES TO OPERATORS (millions of euros)



Source: CMT

Market shares by revenues from data transfer placed Telefónica International Wholesale as the market leader, followed by Cogent, with a significant lead over the remaining operators. These two accounted for 45% of revenues from data transfer to operators. Ono and Telecom Italia followed at some distance as the third and fourth placed operators, respectively. The remaining operators weighed in at 36.6% of the market total.

MARKET SHARES OF DATA TRANSFER SERVICES TO OPERATORS BY REVENUES (millions of euros)



Source: CMT

2.1.4. Regulatory actions

Fixed telephony is the only electronic communications service in which retail service regulation still exists: that of access to the public telephony network, for which the customer pays a monthly fee.

However, as in all other markets, most regulatory actions by the CMT occur in wholesale service markets. Considering that 2011 was a year of transition, in which the only procedure for reviewing the relevant markets subject to ex ante regulation was that corresponding to the network call termination market for mobile communications, most regulatory decisions focused on the implementation of pre-existing specific obligations. As a result of the efforts made to clarify and improve the reference offers over recent years, there was a reduction in the number of disputes between operators relating to access and interconnection.

Existing regulations on access to the public telephony network imposes a maximum limit on the monthly fee collected by Telefónica. In 2011, it was decided to maintain the monthly fee at 13.97 Euros for a further year, the same pricing that was set in 2009.

Over recent years, the success of the bundle offers on the market has reduced the number of subscribers to the fixed telephony service alone. From data on the Spanish market, 52% of fixed lines subscribed to the telephony service jointly with those of access and broadband in exchange for a fixed monthly fee. In the case of alternative and cable operators, the proportion of bundles was even greater. Thus, for a large part of the final market, the pricing of access is just another component within the range of services that are offered jointly to consumers.

As occurs with mobile number portability, the Directive on Universal Service and Users' Rights (2009/136/EC) establishes the obligation for all Member States to introduce a maximum period of one working day for fixed network number portability. This obligation has also been incorporated into the Spanish General Telecommunications Act by way of the corresponding transposition of the Directive approved through Royal Decree Law on 30 March 2012.

Throughout 2011, the CMT initiated preparations for modifying the technical particulars required to reduce fixed number portability from its current five days to just one, taking into consideration the inherent difficulties when switching fixed network operator which, in most cases, requires coordinated modification or change of the subscribers physical access in order to make such portability effective.

In the wholesale ambit, the CMT approved a 20% reduction in the monthly fee that operators pay Telefónica for Wholesale Line Rental (WLR) for digital access while keeping the fee for analogue lines at the same level.

2.2. Mobile communications

In 2011, revenues from mobile telephony fell 8.6% to 11,027.7 million euros. This fall is due to many factors, including the negative economic situation, the reduction in the use of certain services (SMS messages), and a substantial drop in final prices. However, mobile service operators partially compensated for this result thanks to revenues originating from the growth of the mobile broadband service, which increased by 23.5% to 2,420.7 million.

The total number of mobile services, which includes lines associated to mobile telephony, *datacards* and machines, rose by 2.4% in 2011 to 126.7 mobile lines per 100 inhabitants. Voice service traffic via mobile communication networks also rose.

The dynamism of the market was led, on the one hand, by smaller operators such as Yoigo and mobile virtual network operators (MVNO) and, on the other hand, by consumers who, within a context of economic crisis, proved highly sensitive to spending and, instead of reducing consumption, switched operators and kept their originally assigned numbers. Portability reached 5.6 million in 2011, breaking all previous records.

The volume of revenues recorded in wholesale services, those provided on an operator-to-operator basis, fell by 8% in 2011, continuing the downward trend of recent years. However, it is worth highlighting the 12.7% increase in wholesale traffic, partially driven by the increased demand in mobile communications network access services from third party operators (mainly MVNO).

2.2.1. Mobile telephony

This section analyses mobile telephony services, mainly those relating to the provision of voice calls and messaging. Services linked to data traffic are analysed in section 2.2.2 dedicated to mobile broadband.

2.2.1.1. Situation of the industry

Total mobile telephony final service revenues were 11,027.7 million euros, a figure that represented a drop of 8.6% against the volume recorded in 2010. All services making up the mobile communications market saw revenues fall, although processed voice traffic rose slightly by 1.2%. Through 2011, SMS and MMS messaging services recorded a fall in the volume of traffic.

In contrast, the growing trend in the demand for lines seen in previous years continued, although less robustly, recording growth of 2.4% in 2011. In the business segment, however, the total of lines in service fell by almost 134,000 over the year. It was the demand from the residential segment, with 1.34 million new lines, which managed to increase mobile service penetration as a whole: this figure reached 114 mobile telephony lines per 100 inhabitants. The highest growth rates were observed in the most recently introduced services, such as that based on lines associated to machines (telemetry or telecontrol).

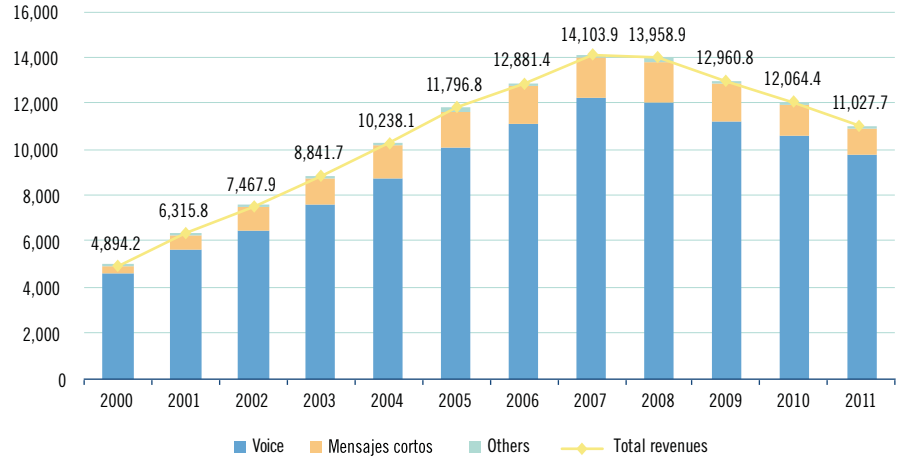
Consumers put number portability to extensive use in order to switch operator. The major beneficiaries of this were Yoigo and the mobile virtual network operators (MVNO), which managed to increase their market weighting and achieve a market share of 12.1% of active lines.

Revenues

In 2011, revenues corresponding to final services reached 11,027.7 million euros. This figure represented a fall of 8.6% compared to the previous financial year.

Sharp falls were recorded in voice and short messaging services, whose revenues fell by 8.3% and 10.2%, respectively.

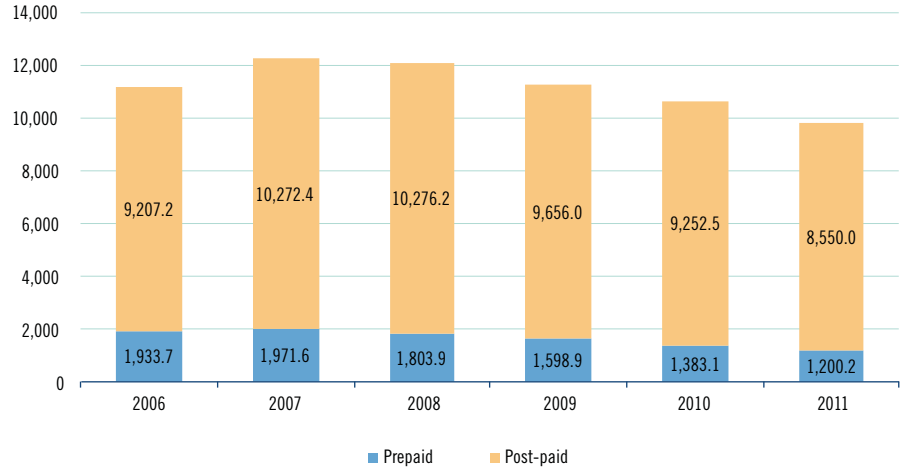
EVOLUTION OF REVENUES FROM END SERVICES[39] (millions of euros)



Source: CMT

The drop in revenues from voice traffic was recorded in both the prepaid and post-paid methods, although the prepaid method registered a sharper decline of 13.2%. In addition, revenues from subscription fees and monthly fees represented 16.5% of from voice traffic services, against the 11.3% recorded in 2010. This result confirms the proliferation of offers linked to mobile voice flat rates as well as flat rates that bundle voice service and mobile Internet access.

EVOLUTION OF REVENUES FROM VOICE TRAFFIC (millions of euros)

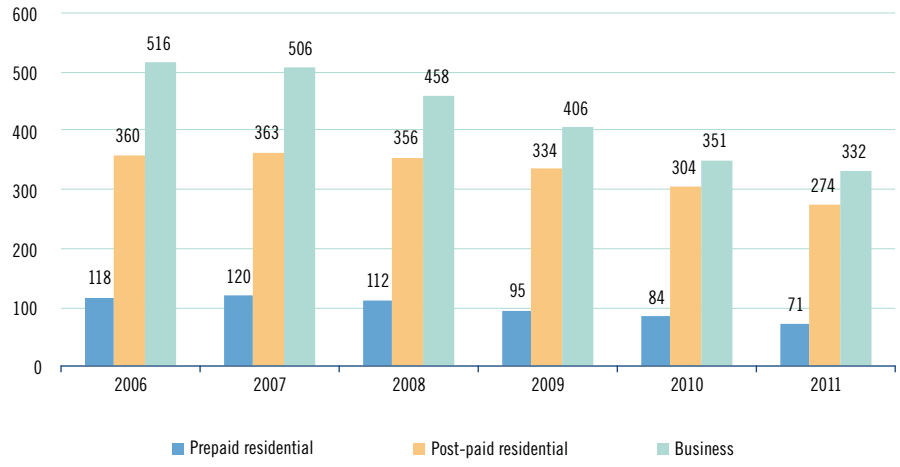


Source: CMT

[39] The final services analysed include voice (revenues from voice traffic as well as connection and monthly fees), short messages and the remaining services (the TETRA radio mobile system, the SPICA network and telemetry or telecontrol services).

Average revenue per line, or ARPU, for mobile operators has deteriorated over recent years. Thus, the ARPU for the prepaid residential segment fell by 15.6% compared to 2010, with average revenue of 71 Euros per line per year. The business segment, in which subscription is undertaken by way of the post-paid method, showed a decline of 5.4%. Finally, the post-paid residential segment also recorded a fall in the average revenue per line, in this case of 10%.

AVERAGE REVENUE PER LINE (euros/line/year)



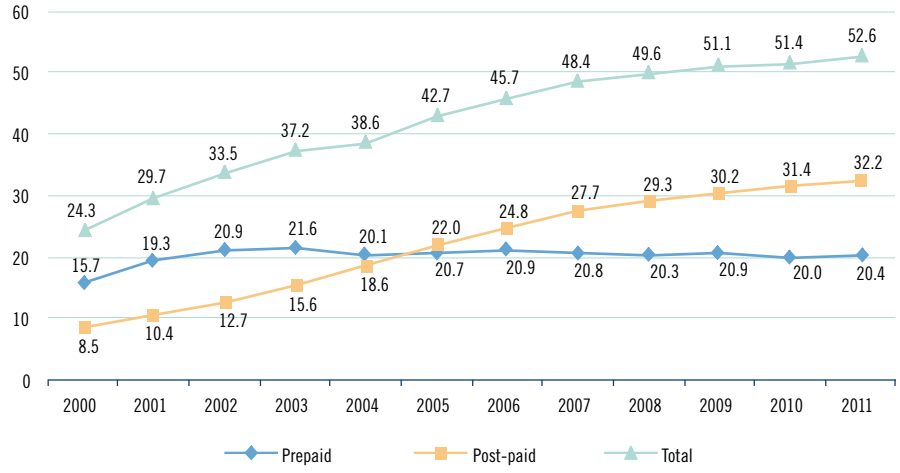
Source: CMT

Lines

In 2011, the total number of voice lines exceeded 52.6 million; i.e. a gain of 1.2 million lines over the year. Such growth was observed in both the post-paid segment, with an increase of 2.5%, and the prepaid segment, which recorded a year-on-year growth of 2%. On the other hand, the total number of lines associated to machines, namely lines linked to telemetry or telecontrol services, reached 2.5 million, an increase of 18.1% with respect to the previous financial year.

Private voice lines, excluding mobile lines linked to datacards or machines, reached a level of penetration of 114 lines per 100 inhabitants, which represented a rise of 5.5 percentage points in one year.

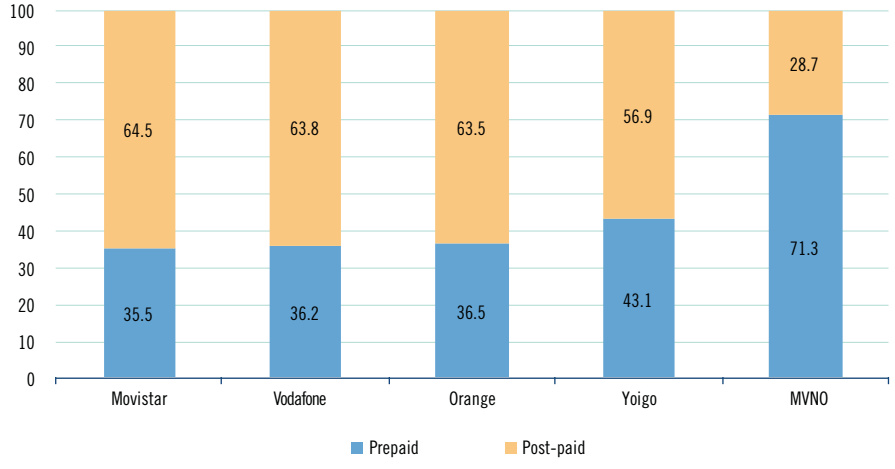
EVOLUTION OF MOBILE LINES (millions)



Source: CMT

The following graph shows the total number of mobile lines according to subscription method: prepaid or post-paid. A significant correlation can be observed between the operator's market share and the weighting of contract customers with respect to its overall portfolio. Thus, a predominant proportion of Movistar and Vodafone customers, the operators with the largest market share, is concentrated in the post-paid method. Such weighting becomes less as the market share of the operator in question shrinks. In this regard, it is worth noting that post-paid lines represent the method with the highest revenues per line. Thus, in the residential segment, a post-paid line generates 3.7 times more revenue than a prepaid line.

TOTAL LINES BY SUBSCRIPTION METHOD (percentage)



Source: CMT

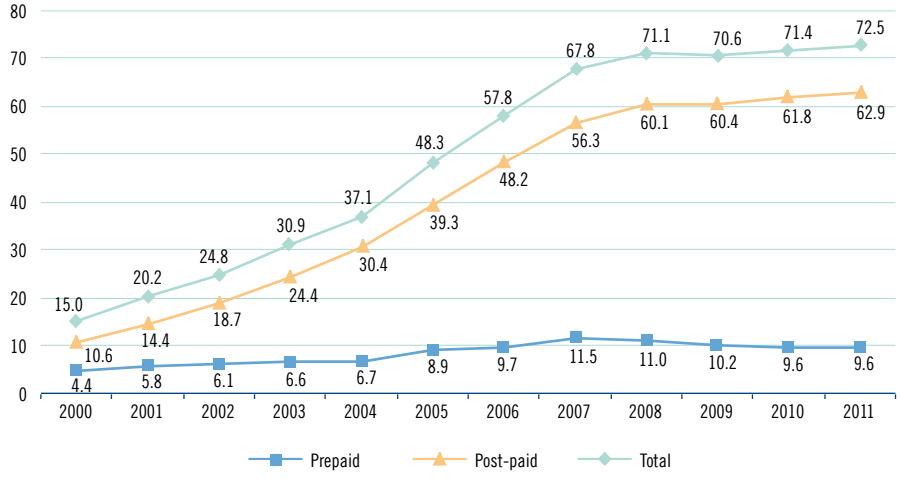
Traffic

- Voice[40]

As with the number of lines, voice traffic also rose in 2011. The highest growth was observed in traffic to international destinations, driven by offers from MVNO specialising in this market segment. Specifically, total voice traffic recorded a rise of 1.5% compared to 2010.

However, while the post-paid segment registered a year-on-year increase in voice traffic of 1.8%, the prepaid segment recorded a fall of 0.6%.

EVOLUTION OF MOBILE COMMUNICATIONS NETWORK TRAFFIC (billions of minutes)



Source: CMT

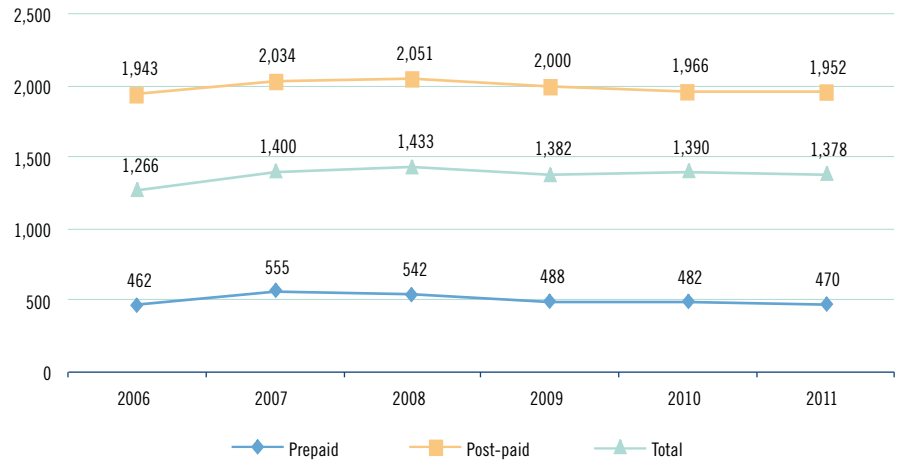
The sharpest decline, 5.4% with respect to the previous year, was recorded in calls to fixed networks. Traffic between mobile communications networks was largely stable, although traffic handled within a single network (*on-net* traffic) was slightly down (1.4%), while traffic between different mobile communications networks (*off-net* traffic) was up 4.6%. This evolution has been observed in previous financial years and is probably due to the progressive decline in the degree of market concentration.

As regards international communications, the international roaming service grew by 10.9%, while the international calls service grew by 31%.

The rise in total mobile voice consumption did not translate in all cases into an increase in consumption per mobile telephony line. Therefore, by analysing traffic consumption per line according to subscription method, it can be observed that the post-paid segment fell by 0.7%, while the prepaid segment recorded a decrease of 2.6%.

[40] Voice traffic has been calculated based on actual minutes used (not minutes billed).

MINUTES PER LINE AND YEAR BASED ON SUBSCRIPTION METHOD[41] (minutes/line/year)



Source: CMT

Traffic distribution according to call destination has varied over the years. Domestic traffic from mobile communications networks to fixed networks represented 20.7% of the total in 2002. Nine years on, the weighting of this traffic with respect to the total has fallen to 8.5%. The other side of the coin corresponds to traffic between mobile communications networks, which has seen a 3.5-fold increase in volume over the same period, which in 2011 represented 84% of total traffic. Likewise, total traffic handled within each of the networks (*on-net*) represented just under half of total voice traffic in 2010, specifically 48.9%; in contrast, traffic between different networks (*off-net*) represented 35%.

The disaggregation of traffic between the different market segments highlighted clearly differentiated consumption patterns. The prepaid segment thus exhibited a percentage of traffic in international calls that was significantly higher than all other segments while, on the other hand, the business segment recorded the greatest proportion of calls to fixed networks.

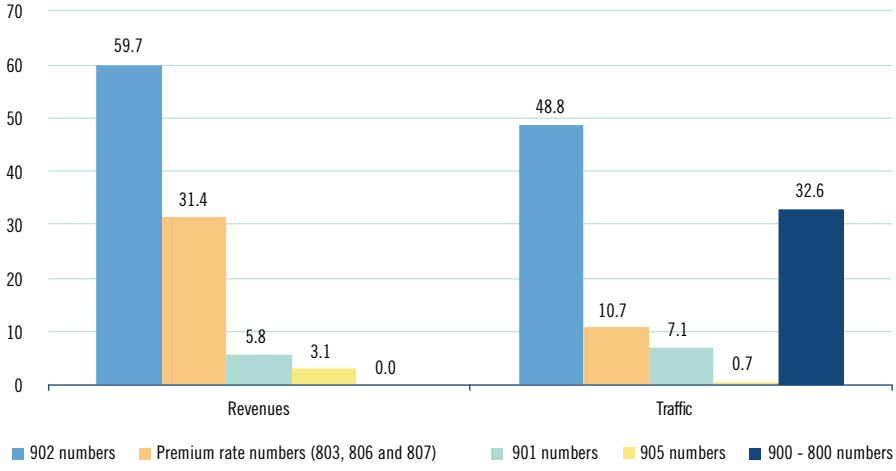
[41] The "Total" item shows average consumption per line and takes into account the weighting of each segment of the market (prepaid and post-paid).

DISTRIBUTION OF TRAFFIC BY DESTINATION BASED ON SUBSCRIPTION METHOD (percentage)

Source: CMT

As regards special rate services, or network intelligence services, in 2011 the total turnover was 291.34 million euros linked to the provisioning of such services. The graph below shows the weighting, both in revenues and traffic, of the different intelligent network services, in accordance with the numbering to which each one is linked.

DISTRIBUTION OF THE DIFFERENT SPECIAL RATE SERVICES (percentage)



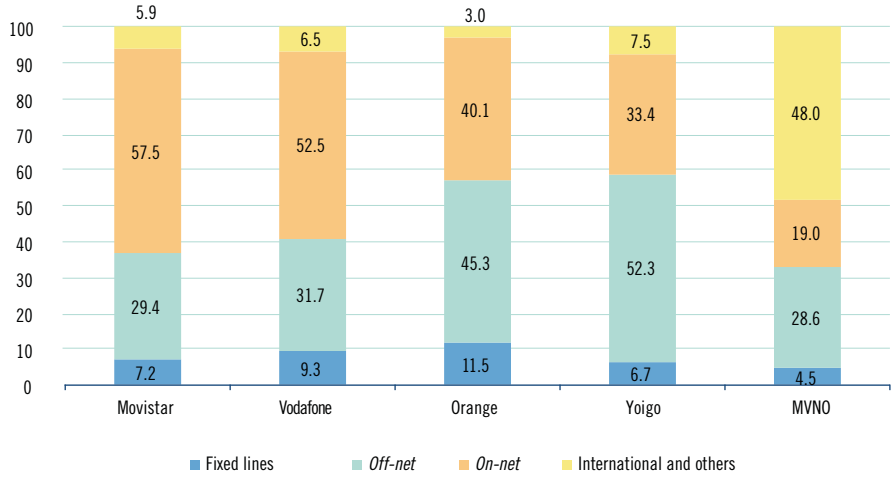
Source: CMT

As can be observed, the service with the greatest volume of revenues and traffic was that based on the 902 numbering, which is paid in its entirety by the user who originates the call; the next services in terms of revenue volume were those corresponding to the 803, 806 and 807 numbering. Such numbers encompass diverse services, such as leisure and entertainment or strictly adult services. These were followed by services employing the 905 numbering for mass call management. The next service in terms of revenue volume is that based on the 901 numbering, whose principal feature is that costs are shared between the caller and the call recipient. Last place in terms of total volume of revenues corresponds to those services employing the 900-800 numbering, as final customers have free access to these services. In contrast, their traffic makes up 32.6% of the total.

Analysis of traffic distribution generated by customers of each operator reveals the clear differences that exist between them. Those operators with the largest market shares generated traffic that mostly terminated on the operator's own network. By contrast, in the case of operators with smaller market shares, most of their traffic terminated on other networks (off-net calls). This result is logical given that the larger the operator's market share, the more likely it is that a customer is communicating with another customer of the same company.

The high levels of traffic that international calls represent for MVNOs is also worth highlighting; this phenomenon is largely due to the existence of several MVNOs specialising in these services, such as Lycamobile, Lebara Móvil, Orbitel, Happy Móvil or Hits Mobile, among others. The volume of international traffic is so high among these operators that some even surpass the total international traffic declared by Movistar, who boasts the largest market share in mobile telephony.

DISTRIBUTION OF TRAFFIC BY DESTINATION AND BY OPERATOR (percentage)



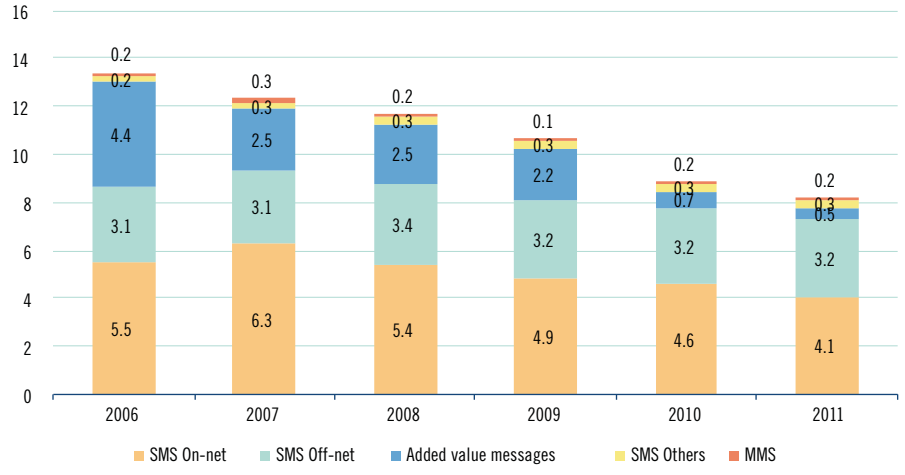
Source: CMT

Messages

Mobile communications based on short messages (SMS and MMS) have seen traffic levels fall in recent financial years. Specifically, in 2011 SMS traffic between subscribers (excluding added value SMS) fell 6.1%. It was the fourth consecutive year of falling traffic from this service. The fall was mostly recorded in SMS sent between subscribers of the same operator (on-net messages), which were down 10.2% year-on-year.

The volume of MMS messages stood at 165.7 million. This figure is evidence that demand for this service is well below demand for SMS, of which 7.271 million were sent in the same period. According to these figures, one MMS message is sent in the Spanish market for every 44 SMS messages.

EVOLUTION OF MESSAGE TRAFFIC (billions)

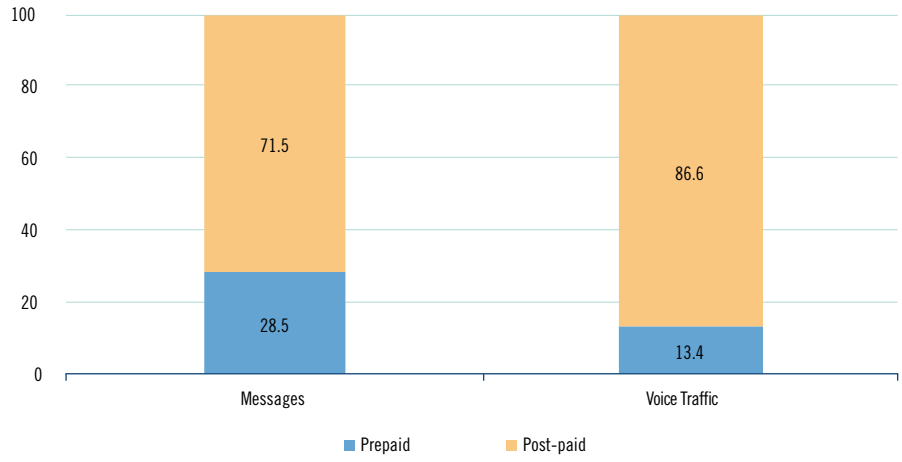


Source: CMT

On the other hand, the boom in mobile broadband in voice terminals may be giving rise to a process whereby traditional SMS are replaced by new Internet-based messaging services, such as WhatsApp, Facebook and others. The use of such *over-the-top*, or OTT, services goes some way towards explaining the fall in messaging volume demands. Thus, according to data from the CMT-Red.es Household Panel, the percentage of persons with mobile phones who claim to send or receive SMS on a daily basis fell from 18.7% in the third quarter of 2010 to 16.6% in the same period of 2011.By contrast, the percentage of persons with mobile phones who claim to chat on their mobile phone daily using an OTT application rose considerably over the same period, from 0.3% in the third quarter of 2010 to 4.1% a year later.

The graph below illustrates the differences that exist in consumption trends for the different services based on prepaid and post-paid methods. Prepaid customers accounted for 13.4% of total voice traffic and also generated 28.5% of total message traffic.

SHORT MESSAGE AND VOICE TRAFFIC BY SUBSCRIPTION METHOD (percentage)



Source: CMT

2.2.1.2. Competition

With respect to previous years, 2011 saw greater competition in the mobile communications market and this competitive pressure led to better prices for consumers, especially those of low consumption. On the one hand, user were highly active in terms of switching service provider and looked for better prices or greater reductions when purchasing terminals. Portability was at record levels and an average of 460,000 portability instances were registered each month. On the other hand, Orange, and small operators such as Yoigo and the MVNOs, launched appealing offers that succeeded in attracting consumers.

This translated into a certain buoyancy as regards line-based market shares: While the leading operators in the market saw their shares fall by two percentage points each year, the remaining operators enjoyed increased shares. Specifically, recently-incorporated operators such as Yoigo and the MVNOs saw the greatest gains, reaching a combined market share of 12.1%.

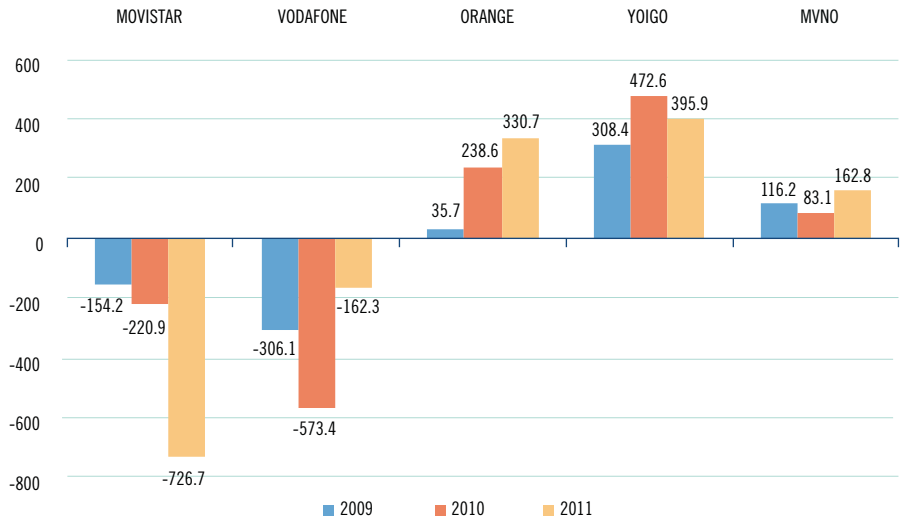
Portability

One of the most effective mechanisms for creating competitive conditions within the mobile telephony market is number portability; i.e. the option for consumers to switch operator whilst maintaining their telephone number. In Spain, the process of portability is free for the final user and is performed within an average of five days, though this will be reduced to one day as from June 2012.

This regulation reduces the switching costs for users and, in 2011, it became far more widespread than in previous years: 5.6 million portability transfers were carried out. This figure represents the highest number of effective portability instances in a single year since it was introduced in June 2000, whereby 10.6% of mobile lines switched operator whilst keeping their telephone number in 2011.

By analysing the net flows of inter-operator portability, it seems clear that consumers favoured operators offering more economical rates for their consumption patterns. In the following graph, it can be observed that the two leading operators in the market, Movistar and Vodafone, recorded a negative net portability balance, losing a combined total of 889,041 numbers. By contrast, Yoigo was the best performing operator, with a net gain of 395,876 lines in 2011.

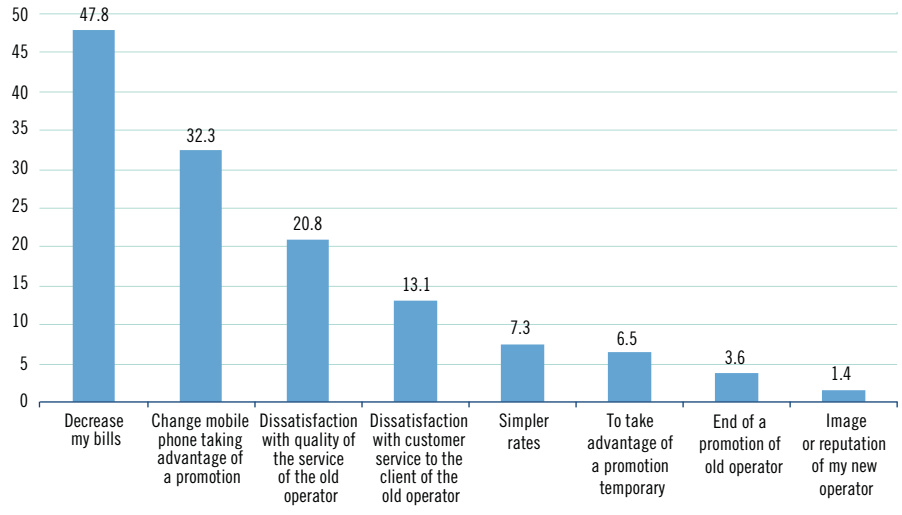
NET PORTABILITY BALANCE BY OPERATOR (thousands of lines)



Source: CMT

The following chart, shows the reasons given by consumers to change mobile operator, based on data from the CMT-Red.es Household Panel. It is notable that almost half of the users wanted to lower their bills and that almost one in three indicated that they wanted to change their mobile terminal by taking advantage of a promotion.

MAIN REASONS FOR CONSUMERS USING PORTABILITY (percentage)



Source: : CMT-Red.es Household Panel

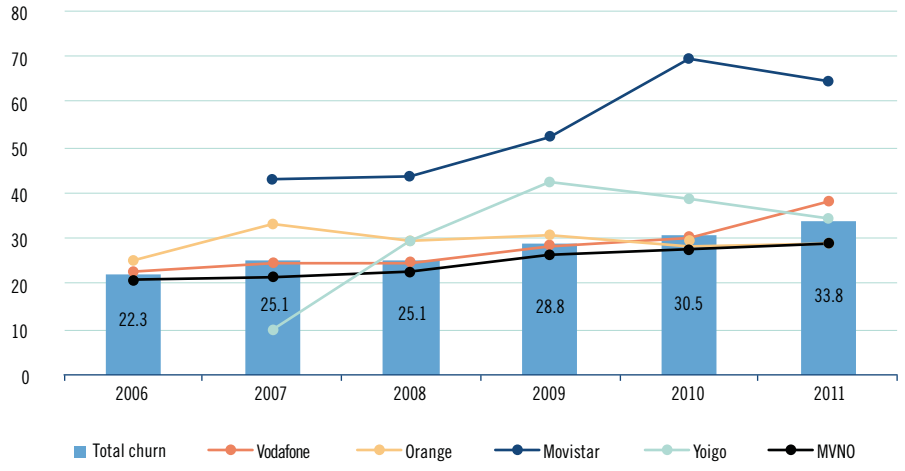
Churn rate (*churn*)

The customer turnover rate - or *churn*rate - is the ratio between the number of lines an operator has lost and the average total of lines that said operator has held in the market over the last two years[42].

The churn rate is used to estimate the level of loyalty that customers maintain with their mobile telephony operator. The overall market churn rate registered a significant increase of 10.3%. The rate is at its highest ever level, and reached 33.8% at the end of the year.

Taken individually, while the largest operators in the market - Movistar and Vodafone - increased their churn rate, the rest of the operators (Orange, Yoigo and the MVNOs) saw their churn rate decrease. However, it should be noted the starting churn rates for Movistar and Vodafone were significantly lower.

CHURN RATE *(CHURN)* (percentage)



Source: CMT

Evolution of unit revenues by service[43]

- Average revenues for voice services

Mobile telephony services are characterised for offering a wide range of rates, many of which are not linear; that is, the operators do not charge rates by unit of time. Thus, the price of calls for a user can depend on the time frame rate or the destination or can be affected by all kinds of discounts per volume, bonuses or flat and semi-flat rates. Given this variety and complexity of rates, it is difficult to summarise the price of calls in a single indicator, although the mean revenue per minute is commonly used as an approximation; that is, the quotient between total revenues from voice traffic and total minutes consumed by the users.

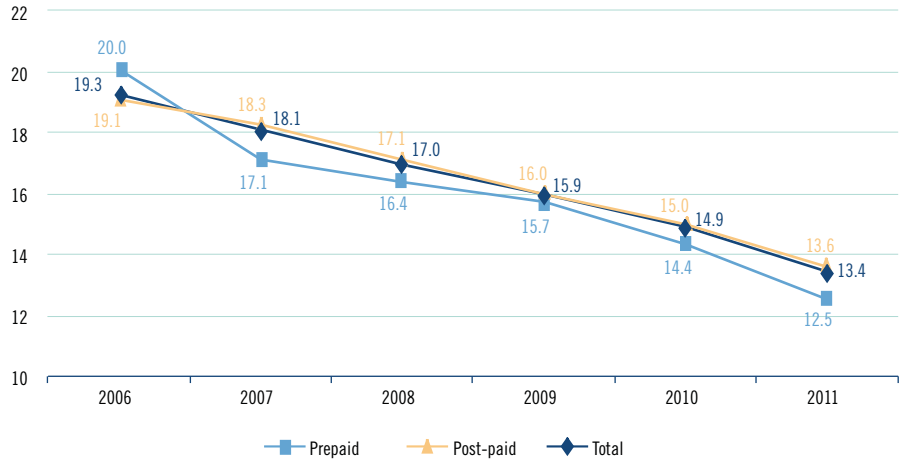
[42] $\text{Churn rate}_{it} = \dfrac{\text{nº of churned lines}_{it}}{\dfrac{\text{total lines it} + \text{total lines}_{it-1}}{2}}$, where the sub-index i refers to the operator and t refers to the period (year).

[43] In this section it has been decided to use the average revenue per minute and average revenue per message - unit revenues - as approximate measurements of final price levels observed in the market.

If this variable is analysed, it can be seen that, for the seventh consecutive month, the average revenue for all voice services[44] has decreased with respect to the preceding year; in 2011 this reduction was 9.6%, placing the average revenue per minute at 13.4 cents of Euro per minute. In the last 10 years, the total decrease in average revenue has been over 50%.

As in the previous year, average revenues from various market segments (prepaid and post-paid) were similar: 12.5 cents per minute for the first and 13.6 cents per minute for the second.

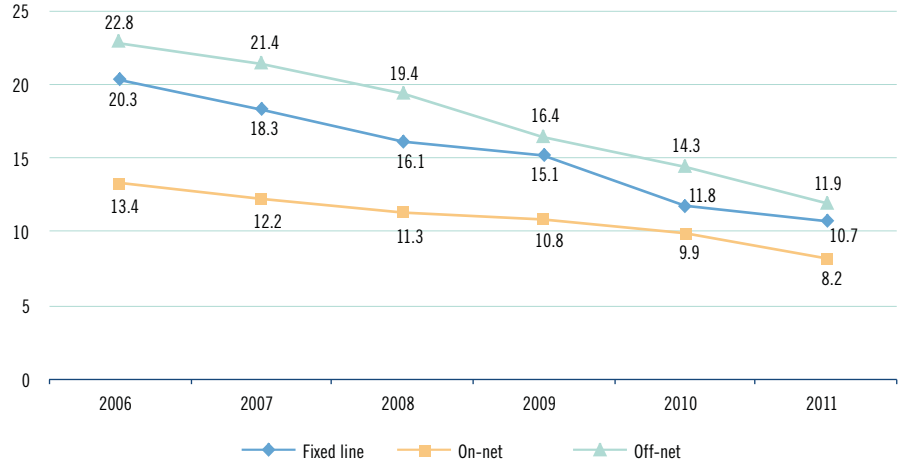
EVOLUTION OF AVERAGE REVENUE PER MINUTE ACCORDING TO CONTRACT MODALITY (Euro cents/minute)



Source: CMT

The following chart shows that the average revenue of an *off-net* call is higher than that of an *on-net* call, although the difference between both has decreased over time.

EVOLUTION OF AVERAGE REVENUE PER MINUTE ACCORDING TO THE TYPE OF NATIONAL TRAFFIC (Euro cents/minute)



Source: CMT

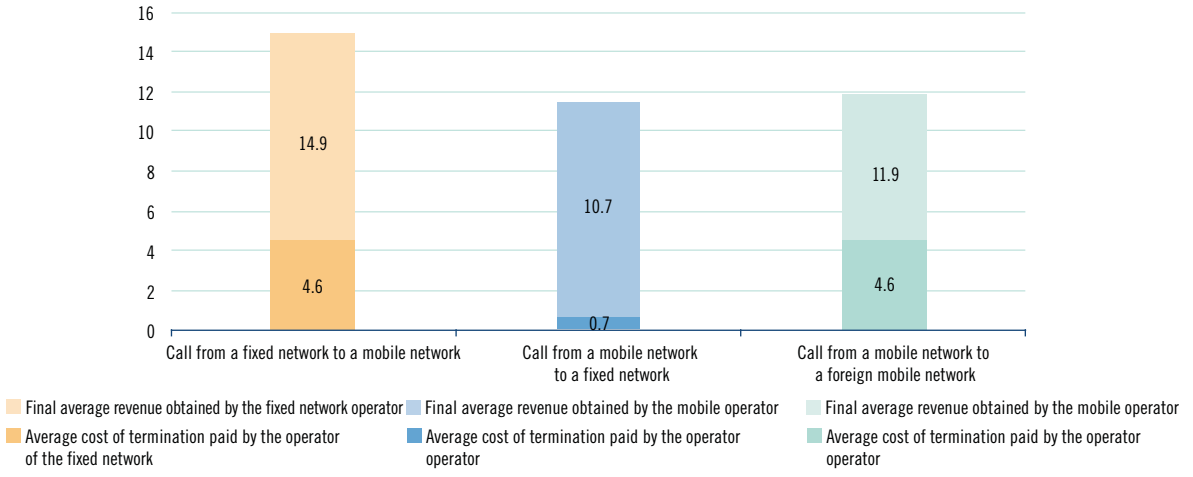
[44] The voice services concept includes calls to national destinations (to a mobile or fixed network), international destination, network intelligence numbers and international roaming.

In recent financial years, the price of the three services with the highest demand has dropped significantly, although the calls with the highest price reduction are *off-net* calls, with an average revenue decrease per minute of 30% since 2009: in seven years, the average price for this type of call has fallen 56%. Part of the cost of these calls is the mobile termination service, paid by the originating operator to the operator that ends the call. The service termination price is regulated by the CMT, which has reduced it from 20 to 4 Euro cents since 2002, a reduction of 80%. As shown in the chart above, the reduction in termination costs has caused sparked a significant decrease in prices set for *off-net* calls, bringing them gradually closer to *on-net* prices.

The regulation of termination prices has been an essential in explaining the downward evolution of final prices, especially as regards calls with an origin and destination in different networks. In addition, in 2006 the CMT introduced the obligation for mobile communications to provide access to the existing networks. This obligation opened the door to the market for new agents, the MVNOs. Both regulatory measures have had clear effects on the market over these years: more competition due to the higher number of agents providing offers, lower levels of concentration year after year, lower prices for final services and even the appearance in 2011 of flat rates that combine data and voice services in the same commercial offer.

The chart also shows that the average revenue for a call completed within a fixed network (10.7 Euro cents per minute) was lower than that for an *off-net* call (11.9 Euro cents per minute). However, to obtain the retention margin[45] that the mobile operators obtained for each of these services, the price of termination that these same operators paid to the owner of the network where the communication ended must be taken into account. Thus, in 2011 the cost of terminating a call on a mobile communications network was 4.6 Euro cents per minute, which is a significantly higher cost than for terminating a one-minute call on a fixed network (0.7 Euro cents per minute). As a result, the retention margin obtained by a mobile telephony operator when one of its customers made a call to a fixed number was higher than that obtained by a minute of service completed in another mobile network (*off-net*).

RETENTION MARGIN OF A CALL AS A FUNCTION OF THE NETWORK OF ORIGIN AND DESTINATION
(Euro cents/minute)



Source: CMT

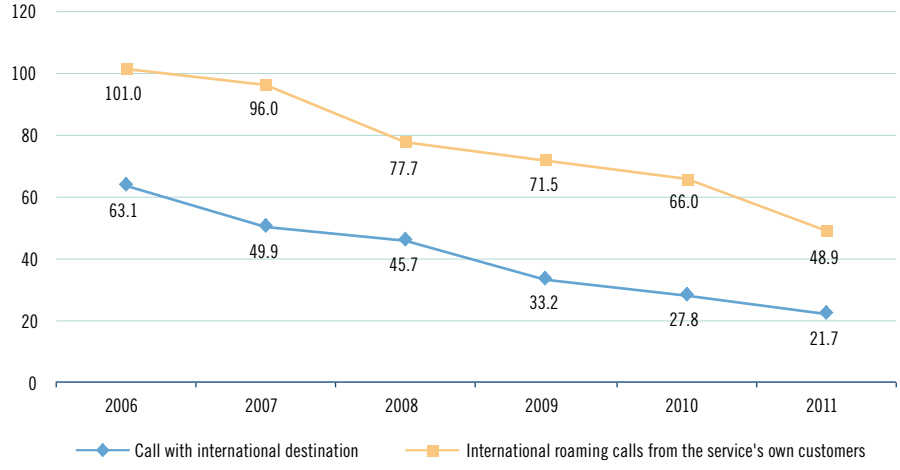
[45] The retention margin is defined as the difference between revenue earned by an operator on billing its services to end customers, and the interconnection cost associated with this service that the operator must pay to the operator that owns the destination network for use of its infrastructure.

There were also significant reductions in average revenues per minute as regards international communication services, i.e., calls to international destinations and international roaming calls. In the case of international calls, this revenue fell by 21.9% and revenue from international roaming calls fell by 26.1%.

This downward trend in average revenue from international calls is largely explained by the entry, from 2007, of numerous MVNOs specialising in providing international communications services at very competitive prices.

The reason for the reduction in average revenue from international roaming services is very different: in this case, the reduction has been due to the regulation applied to these services in the European Community since June 2007 (Regulation no. 717/2007), which set a downward path for roaming voice communications prices in the EU territory. This regulation was updated in June 2009 by EC regulation 544/2009 of the European Parliament and the Council, which extended the period of regulation of the prices for these types of services until 2012. In parallel, the regulated services offered in international roaming, such as SMSs and data services were extended.

EVOLUTION OF AVERAGE REVENUE PER MINUTE ACCORDING TO THE TYPE OF TRAFFIC (Euro cents/minute)



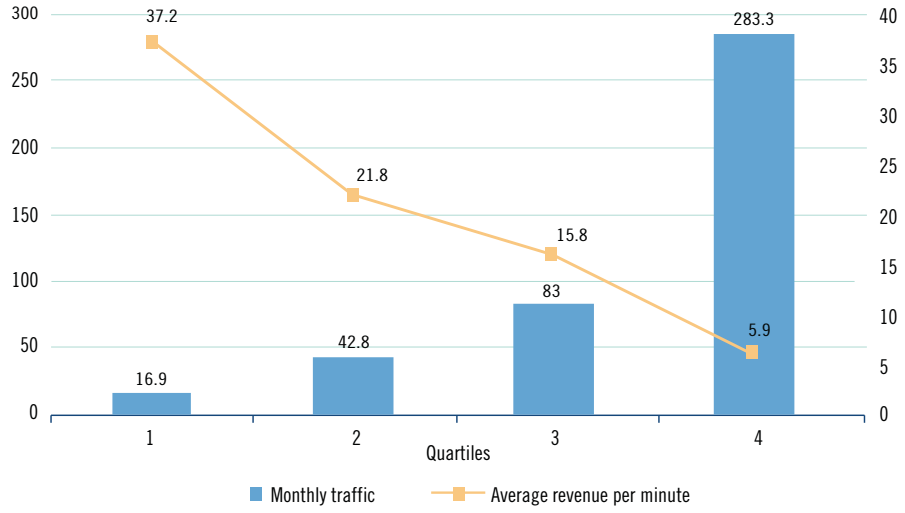
Source: CMT

According to the data from the CMT-Red.es Household Panel on the group of users that declared that they had travelled to a European country in the last year, more than 4 out of 10 declared that they had not used their mobile telephony during those trips and more than a third stated that they had used it, but much less than in Spain. When these individuals were asked why they had not used their mobile phone or had used it much less than in Spain, 45.2% mentioned that it was too expensive and 24.8% said they did not know the price, but supposed it was too expensive. On the other hand, when these individuals were asked whether they used an alternative to their mobile phone to communicate, it is notable that more than one fourth said they did not use an alternative to save money on calls and 38.5% stated that they sent SMSs instead of calling.

The following chart divides post-paid mobile telephony users into four groups according to the monthly volume of traffic consumed per user. The first group includes the 25% of users that consumed the least number of minutes in calls from their mobile (average of 16.9 minutes per month); the groups are included this way in succession until the fourth group,

which includes the 25% of users that consumed the most minutes (average of 283.3 minutes per month). On the other hand, the chart also shows the average revenue per minute from each group. It is interesting to note that the average revenue is not homogeneous in the various groups since the higher the volume of minutes consumed, the lower the average revenue. In addition, if the average revenues from each group are compared according to the volume of minutes consumed to these same groups in 2010, it can be seen that the average revenues have fallen in all four groups, but that the intensity varies greatly. Thus, in the group with the least consumption and highest average revenue (37.2 Euro cents/minute) the decrease was small, which contrasts with the reduction of almost 30% in the group with the highest consumption and lowest average revenue (5.9 Euro cents/minute). These results were prepared using data from the CMT-Red.es Household Panel.

MONTHLY TRAFFIC AND AVERAGE REVENUE BY VOLUME OF MINUTES CONSUMED
(minutes/month and Euro cents/minute)

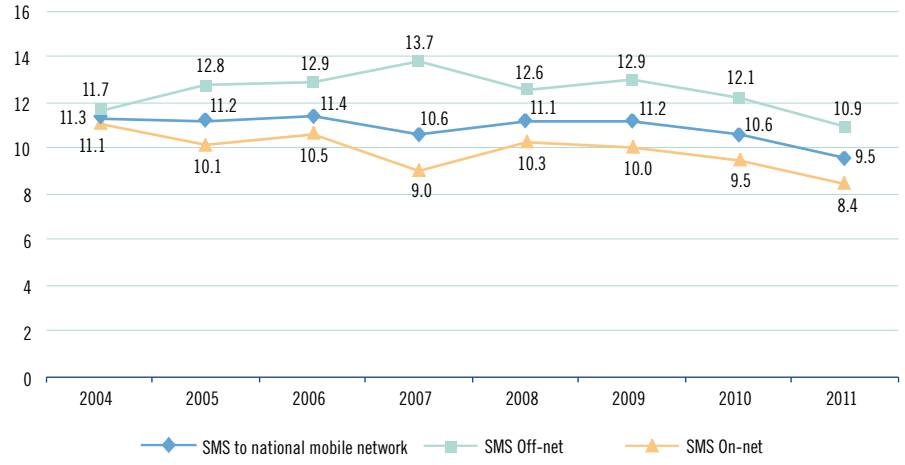


Source: CMT-Red.es Household Panel

- Average revenue for message services

Lastly, the average revenue from the SMS message service with a national mobile phone destination fell for the second straight year; specifically, it reached 9.5 cents per SMS cent, a decrease of 9.9% compared to 2010. This is the first time ever that the average the average price of sending an SMS has fallen under 10 cents. The significant reduction in the price of the service, after having remained at constant levels for years, can be explained by the fact that they have been replaced by certain OTT applications that are available on mobile phone Internet.

EVOLUTION OF AVERAGE REVENUE PER MESSAGE (Euro cents/message)

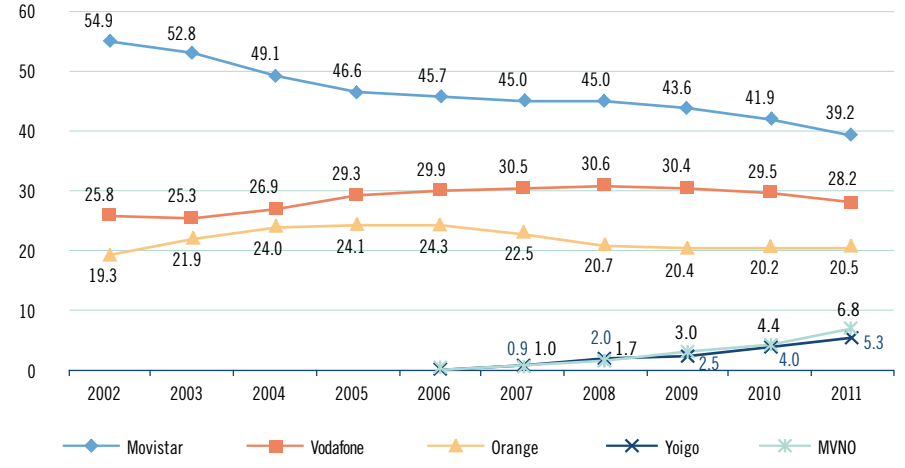


Source: CMT

Market shares

In 2011, the two operators with the largest market share reduced their share of the market as regards number of lines and other operators (Yoigo and MVNOs) increased their share. These figures confirm the trend observed in recent years. Yoigo and the MVNOs obtained a joint market share of 12.1%, while Orange increased its share slightly.

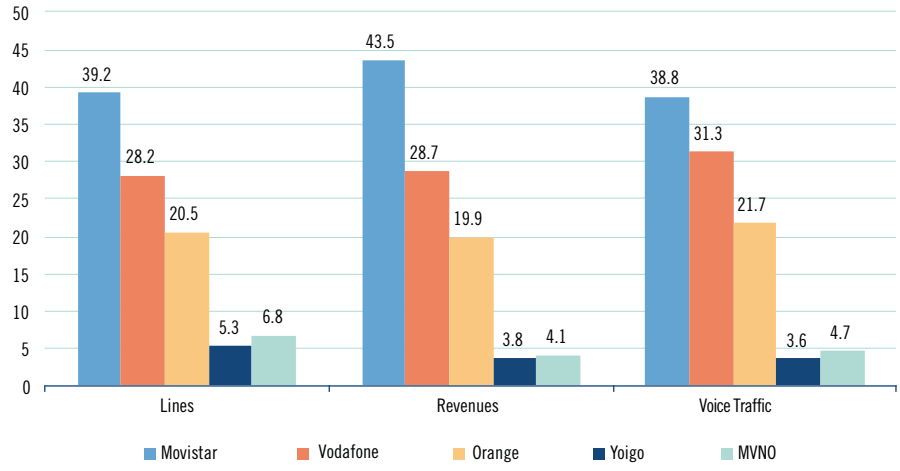
EVOLUTION OF MARKET SHARE BY ACTIVE LINES (percent)



Source: CMT

As indicated by the chart below, operator shares of traffic and revenues are significantly different when compared to shares of total mobile lines. Specifically, market shares per revenues and traffic indicate greater market concentration by the two main operators. The main cause was that the customers of these operators presented higher intensity in the use of various mobile telephony services and, as a result, the operators registered proportionally larger volumes of revenues and traffic. On the other hand, Yoigo and the MVNOs showed less presence in revenues and traffic than in mobile lines.

MARKET SHARES IN 2011 (percent)

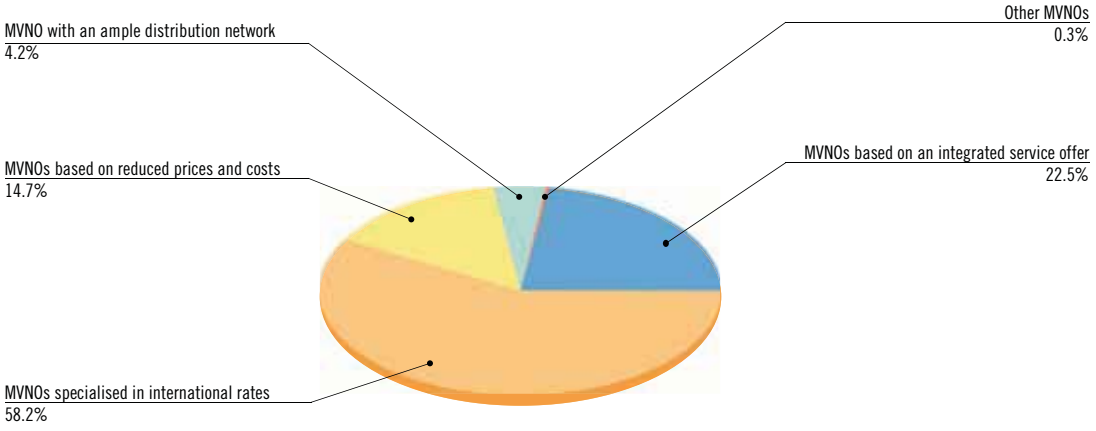


Source: CMT

In 2011, total revenues earned by MVNOs in the retail mobile market amounted to 454.9 million euros. This figure implied an increase of 40.7% with regard to revenues obtained the previous year. This significant increase is not the result of a single strategy carried out by the various MVNOs; on the contrary, these operators used very different strategies. These strategies can be grouped into: 1) operators with a specialised offer in competitive international rates; 2) operators based on a mobile service offer integrated with other services provided by fixed networks; 3) operators who hold extensive distribution networks through which they can offer their mobile services to a large number of customers and; 4) operators whose main selling point is the offer of very competitive national mobile rates through the elimination of additional services, allowing the operator to make significant savings in current costs.

As shown in the following chart, the operators with a competitive offer of international rates were those that obtained the largest percentage of total revenues accounted for by all the MVNOs. This is the result of the high degree of dynamism observed in these types of operators. Evidence of this dynamism is that some of these operators registered a higher volume of international calls than those declared by the main mobile telephony operators, despite their low market share.

MARKET SHARE OF MVNOS IN TERMS OF BUSINESS STRATEGY (percent)



Source: CMT

2.2.2. Mobile broadband

In 2011, a total of 19.3 million users accessed the Internet via mobile communications networks, an increase of 65.1% over 2010. Of the total of active wireless Internet users, 15.9 million connected via their voice terminal and 3.4 million via *datacards* or USB modems.

In turn, the volume of revenues continued its upward trend of recent years, reaching 2,420.7 million Euros in 2011. This result is a year-on-year increase of 23.5% for the revenues associated with this service. To illustrate the point, it can be said that this amount is more than double the revenues obtained from SMS and MMS message services (1,131 million Euros) in the same period.

The main mobile telephony operators also had the highest concentration of active wireless Internet lines. However, over the last year, Yoigo and the MVNOs significantly increased their offer of wireless Internet rates and thus exceeded 1.5 million active lines associated with this service.

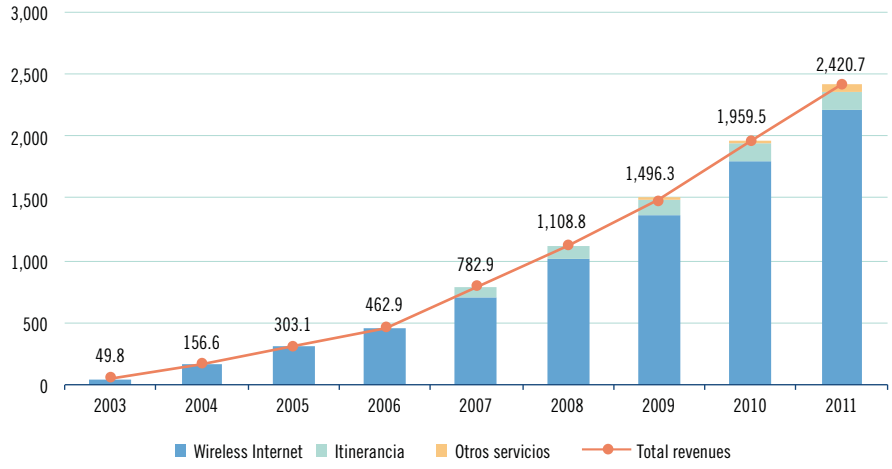
2.2.2.1. Situation of the industry

First, note that there are several options for connecting to wireless Internet service: 1) connecting via a mobile device that is exclusively associated with data traffic services, such as *datacards*, USB modems, *ebooks*, *notebooks*, *tablet PCs*, etc; or 2) connecting via a mobile voice telephone that simultaneously provides voice services, SMS messaging and Internet access, among others. Included in this category would be *smartphones*.

Revenues

As occurred in 2010, the only service that significantly increased its revenues was mobile broadband (by 23.5%). Its turnover was 2,420.7 million euros.

EVOLUTION OF MOBILE BROADBAND REVENUES (millions of euros)

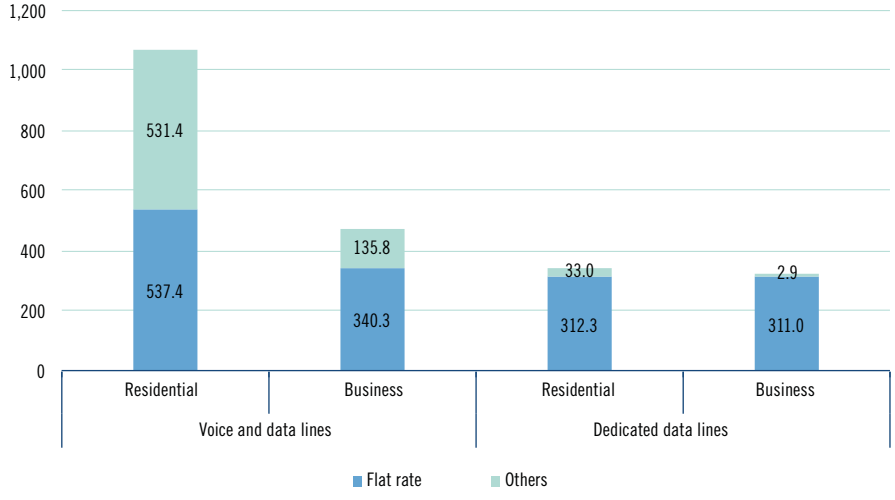


Source: CMT

The chart above shows that nearly all revenues from the mobile broadband market -91.1%- was related to marketing wireless Internet rates at the national level. The remainder of revenues were from the international roaming data traffic service -6.1%- and other services -2.9%-, notable among which was downloading of content from in-house portals or *m-commerce*services.

Below is a breakdown of the total revenues according to the type of device used to access the wireless Internet service. The "Voice and data lines" concept refers to mobile phones, while "Dedicated data lines" refers to *datacards* or USB modems.

WIRELESS INTERNET REVENUES BY TYPE OF DEVICE AND SEGMENT (millions of Euros)



Source: CMT

Note that most of the revenues came from the residential segment - this counted for 64.2% of total revenues accounted for - while the business segment only generated 35.8% of the revenues.

It should also be noted that practically all the data lines (e.g., USB modems) were marketed with flat rates, that is, the customer had a specific volume of megabytes in exchange for a repeated rate. On the contrary, the figure for voice and data lines - mobile phones - fell to nearly half; the rest of the revenues came from lines associated with different kinds of rates - mainly rates that billed per connection.

The fact that flat rates were a majority in dedicated date devices (USB modems) can be due to the fact that users of this type of terminal make more intensive use of wireless Internet service. Along these same lines, the Cisco consulting agency estimated that the average volume of data per mobile phone was 150 MB per month, while the average consumption for a laptop with a USB modem was 2.1 GB per month.

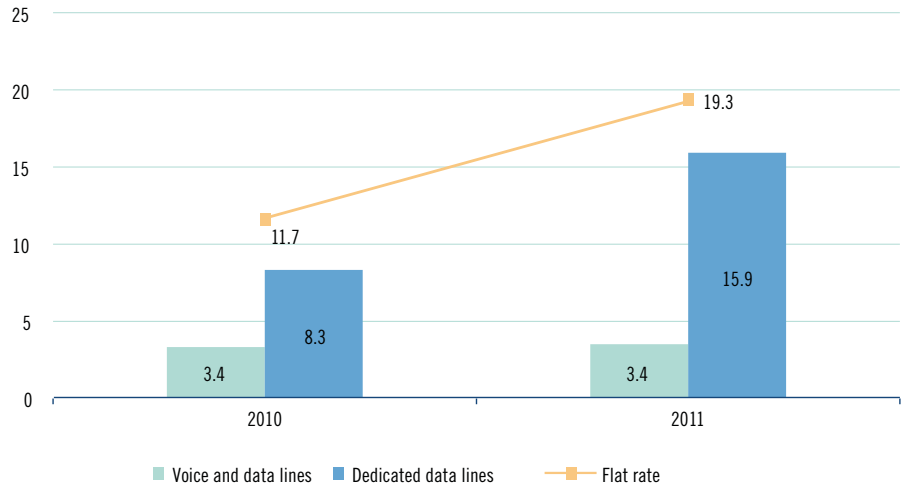
It is important to note that the proliferation of offers associated with flat rates for data is a phenomenon that has been encouraged recently by mobile operators, with a significant degree of satisfaction by the end users. In previous years, most users could only connect to wireless Internet using rates per connection, volume or time consumed.

lines[46]

In 2011, 19.3 million lines connected actively to the wireless Internet service, representing a service penetration of 41.8 lines per 100 inhabitants.

The following chart shows the variation of this figure from 2010, as well as its breakdown according to the type of device used to access Internet.

EVOLUTION OF ACTIVE WIRELESS INTERNET LINES (millions of lines)



Source: CMT

[46] When calculating the volume of active lines associated with this type of service, a count was made of all the lines associated with a dedicated rate that implied payment of a recurrent rate (e.g., a flat rate) in addition to all those lines with a data rate that had accessed Internet in the last 90 days, although it was not subject to the payment of a recurrent amount.

The lines associated with voice and data devices - that is, mobile phones and *smartphones*- that connected actively to wireless Internet numbered 15.9 million. This figure implied an increase of 91.3% with regard to the number of active lines the previous year.

As regards dedicated data lines-mainly *datacards* and USB modems- in 2011 there were 3.4 million lines actively connected to wireless Internet services, the same volume as in 2010.

As regards the proliferation of flat rates offered on the market, mobile operators that there were 13.5 million mobile lines associated with a flat rate for data. Of this total, 3.4 million lines had rates that combined mobile voice and data traffic. Undoubtedly, joint marketing of voice and data services has been inspired by the double offers for fixed network services, where packaging Internet and voice calls has been a very common practice for many years.

Along the same lines, according to the data from the CMT-Red.es Panel of Households, one in ten households had access to "large screen" mobile broadband (access via *datacards* or USB modems). This percentage increased to 37.2% in companies with 10 or more employees, as concluded from the TIC use and e-commerce survey of companies in the INE. In addition, according to the same source, 39.6% of the companies had mobile broadband via mobile terminals (*smartphones*).

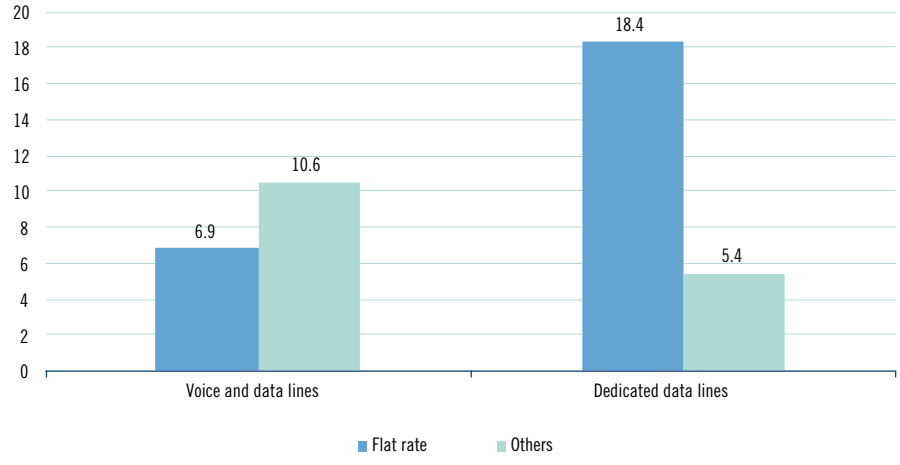
Traffic

Subscriber growth for wireless Internet access services, either through data lines -*datacards*- voice and data lines -3G wireless terminals or *smartphones*- resulted in significant growth of data traffic registered on wireless communication networks. Total traffic of 90,500 Terabytes associated with this type of service was recorded, 40.7% higher than the previous year.

2.2.2.2. Price competition

The information presented in the preceding sections show that the lines that have increased the most in recent financial years are voice and data lines, as regards both the number of active lines and revenues earned. However, the analysed data show that average revenue per line -or ARPU- of dedicated data lines is higher than that of voice and data lines. The reason for this may be that customers who contract a dedicated data line use these services more intensively; as a result they need to contract rates that allow a greater volume of data traffic.

MONTHLY REVENUE PER LINE (ARPU) (euros/line/month)

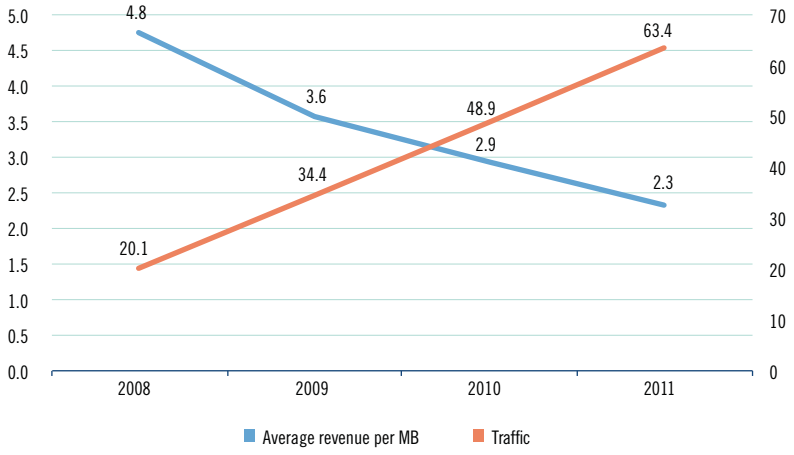


Source: CMT

As regards the international roaming data traffic service, the following chart shows a clear downward trend of average revenue per megabyte, a variable used as an approximation of the price level of this service. From 2008, average revenue has fallen 52%, to 2.3 Euros per megabyte (MB).

In this respect, a new European community regulation on international roaming services is expected to be approved in 2012; among other novelties, the regulation will establish a maximum price per megabyte for roaming data traffic. A maximum price of 70 cents per megabyte for roaming services in EC countries is expected to be established in July 2012.

EVOLUTION OF AVERAGE REVENUE PER MB AND VOLUME OF INTERNATIONAL ROAMING TRAFFIC
(Euros/MB and TB)



Source: CMT

Market shares

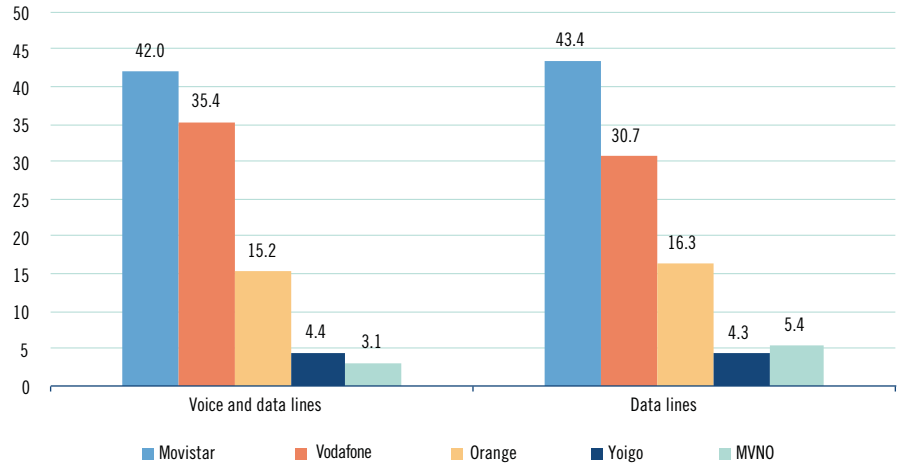
The following chart shows the market shares of the various operators in wireless Internet services, as regards both voice and data devices (mobile phones) and dedicated data lines (USB modems).

First of all, note that the joint market share in Internet service via voice and data lines of the two largest operators -Movistar and Vodafone- is greater than the share in mobile telephony. This higher level of concentration is probably due to the fact that these operators were pioneers in promoting wireless Internet services for their voice customers.

Secondly, Internet service via dedicated data lines was headed by Movistar, with the largest market share (43.4%), followed by Vodafone (30.7%).

Also notable was the market share of the MVNOs (5.4%). This position of MVNOs in wireless Internet access services is due to a large part of these operators having focused their activity on the business segment in order to offer services that are complementary to Internet access via fixed networks. For example, in December Ono declared that it had twice as many more mobile lines linked to *datacards* than its total number of mobile phone handsets.

MARKET SHARES IN 2011 (percent)



Source: CMT

2.2.3. Wholesale services

The wholesale mobile telephony market consists of various services intended to allow third party access to a mobile communications network and to interconnect all the networks, whether fixed or mobile. The most important interconnection services are as follows: national termination, i.e., the service that allows termination of mobile communications originating in a network other than the destination network; international *roaming* service, used by foreign operators' customers who, although their operator does not have its own infrastructure in the country, can continue to access mobile services via national off-net access; international termination service, allowing termination of calls originating abroad in a national mobile network; and access service by third party operators without their own infrastructure.

The revenues for these wholesale services fell by 8%, while total traffic increased by 13.2%, basically due to the increase in recent years of traffic associated with the access service to mobile communications networks by the MVNOs.

Revenues

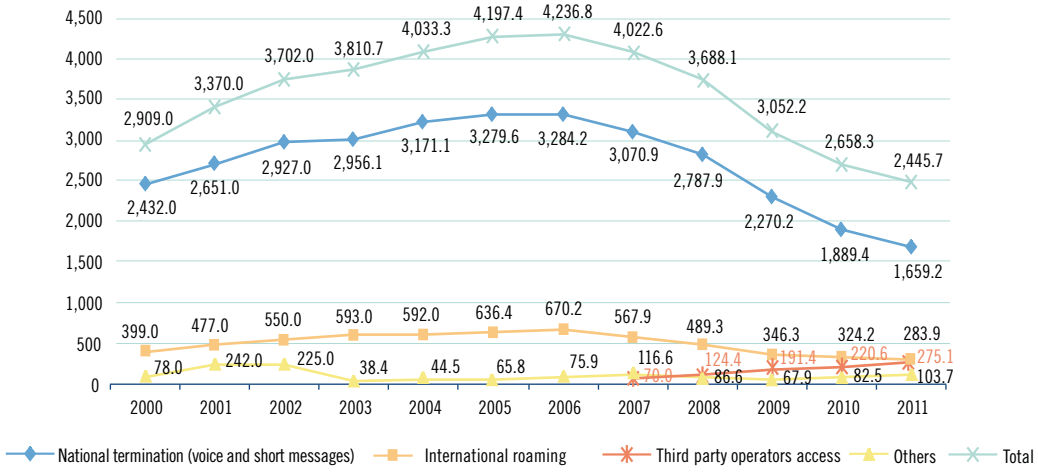
In 2011, total revenues for the wholesale market was 2,445.7 million Euros, a decline of 8% over the previous year, as mentioned above. In addition, it was the fifth consecutive year that recorded a drop in billing. In absolute terms, taking wholesale revenues obtained in 2006 as a reference, revenues from this year showed a decrease of 42.3%.

The national mobile termination service - the service with the most volume in the wholesale sector - reported a y-o-y decline in revenues of 14.1%. The main cause of this decline was regulatory intervention by the CMT, which has established a downward trend in prices -*glidepath*-.

On the other hand, international roaming services showed a decline in revenues of 12.4%. These results confirm the downward trend that began in 2007, as a result of the EU regulation effective from July of this year, which fixed both retail and wholesale prices for international roaming services in the European Union.

However, in 2011 there were services in the wholesale market that showed a definite upward trend. This was the case of mobile communications network access service by third party operators, mainly the MVNOs: this service experienced a 24.7% increase in billing, with a total business volume of 275.1 million Euros.

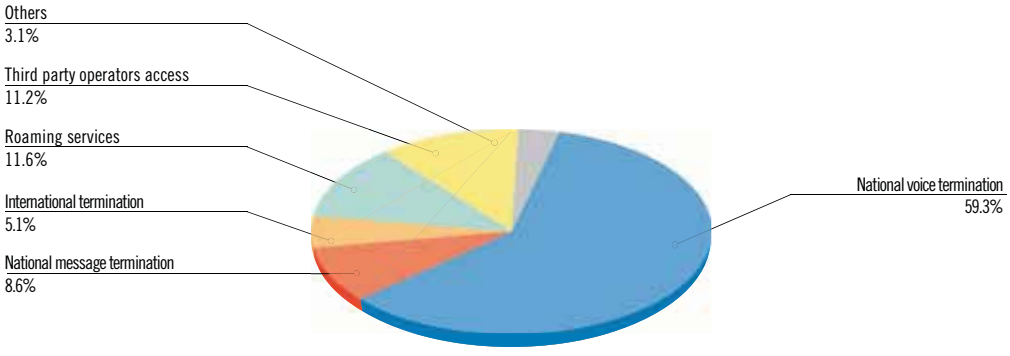
EVOLUTION OF WHOLESALE REVENUES (millions of Euros)



Source: CMT

Despite falls in their revenues, national voice termination and international roaming services were, for another year, those with the largest participation among total wholesale market revenues. Specifically, the national voice termination service accounted for 59.3% of wholesale revenues, while the international roaming service accounted for 11.6%.

DISTRIBUTION OF INTERCONNECTION SERVICES REVENUES (percentage)

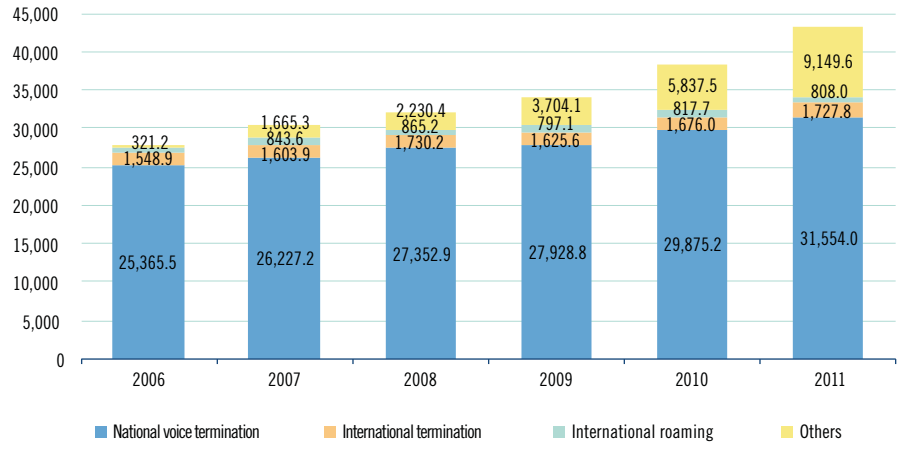


Source: CMT

Traffic

Contrary to what is observed in the revenues section, the volume of traffic in the wholesale market recorded positive y-o-y results. Total traffic volume generated in the market was 43,239.4 million minutes, which represents an increase of 13,2% when compared to the volume recorded in 2010. As discussed in the section above, this result shows that the decrease in wholesale revenues was caused by a reduction in prices -most of which were regulated- and not to a hypothetical drop in traffic.

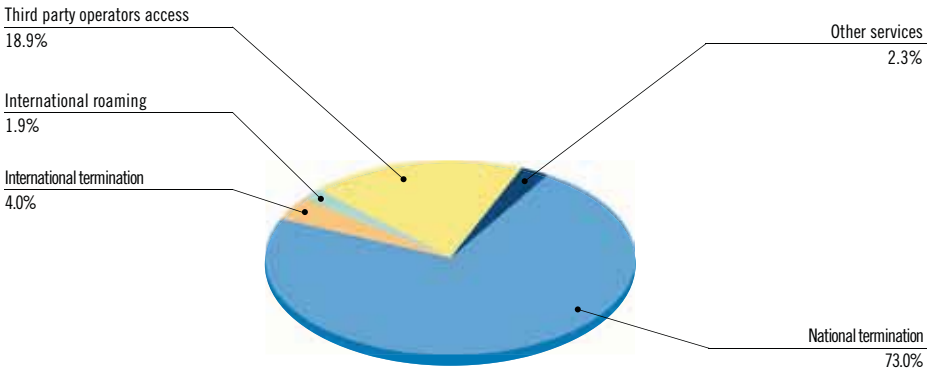
EVOLUTION OF WHOLESALE SERVICES TRAFFIC (millions of minutes)



Source: CMT

A breakdown of total traffic by service provided shows that the national termination service concentrated the largest traffic volume, with 73% of the total. The second largest was access service by third party operators, which registered the highest yearly increase in services, at 53.2%. The international roaming service - i.e. foreign operators' customers enjoying mobile services through access to a national network - was affected by the negative macroeconomic environment and experienced a slight reduction in total traffic volume of 1.2%.

DISTRIBUTION OF TRAFFIC VOLUME BY WHOLESALE SERVICES (percentage)



Source: CMT

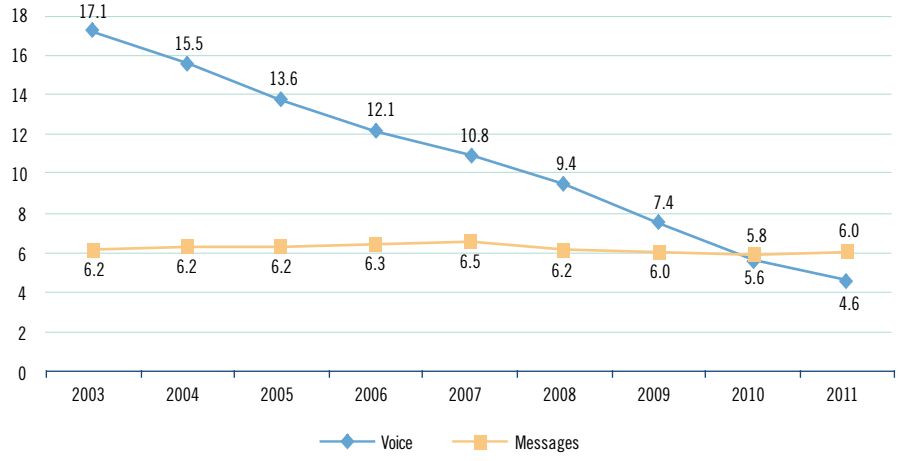
Evolution of prices

In this section, as in the retail market section, average revenue per minute is used to obtain approximate prices for the various wholesale services analysed.

The following chart shows that application of the price trend established by the CMT for voice termination services has affected average revenue per minute one more year. In 2011, the average revenue from terminating an off-net call in the customer's network fell by 18.6% to stand at 4.6 Euro cents. On the contrary, average revenue from terminating an off-net message, a non-regulated service, remained stable. The following chart shows that the current result is that terminating an off-net message is more expensive than doing the same with a voice call.

AVERAGE REVENUE PER MINUTE FOR NATIONAL TERMINATION

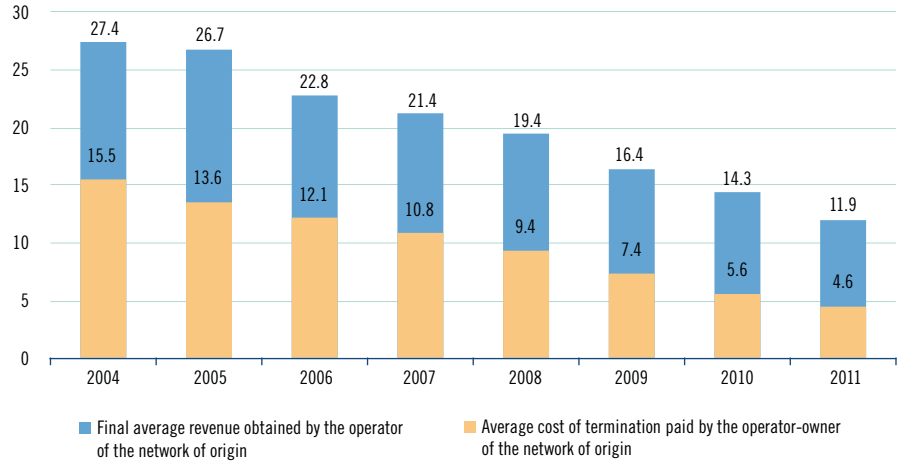
(Euro cents/minute and Euro cents/message)



Source: CMT

In turn, the average revenue per minute for call termination represents a cost to operators that offer their customers the option to make calls *off-net*. This ratio is the basis for calculating the retention margin, which is the difference between the revenues that an operator receives for an *off-net* call and the cost of termination required to complete the call. In 2011 the cost of termination of a call - which was 4.6 Euro cents per minute - represented 38.4% of the average revenue obtained from an off-netvoice call, which had an average revenue per minute of 11.9 Euro cents. There has been a significant increase in the retention margin, i.e., the weight of the cost borne by operators for termination of an off-net call has fallen against the final price these operators charge their customers for making such calls.

RETENTION MARGIN OF A CALL TO A MOBILE NETWORK DIFFERENT FROM THE ORIGINATING NETWORK (*OFF-NET*) (Euro cents/minute)



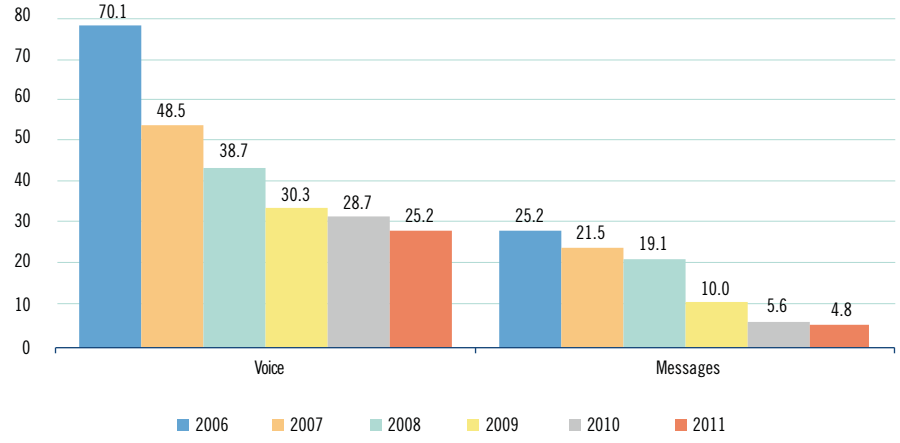
Source: CMT

International roaming wholesale services that are provided between European Union operators are regulated by EC Regulation 544/2009 of the European Parliament and the Council.

The following chart shows the effect of the EU regulation on the average revenue for roaming services.

Average revenue per minute for one call fell by 12% compared to the previous year. With this fall, the average revenue per minute in 2011 was 67% lower than that recorded in 2005. With regard to the international roaming text messaging service, there was a y-o-y fall of 13.9% to stand at an average of 4.8 Euro cents per message.

AVERAGE REVENUE FOR INTERNATIONAL ROAMING (Euro cents/minute and Euro cents/message)



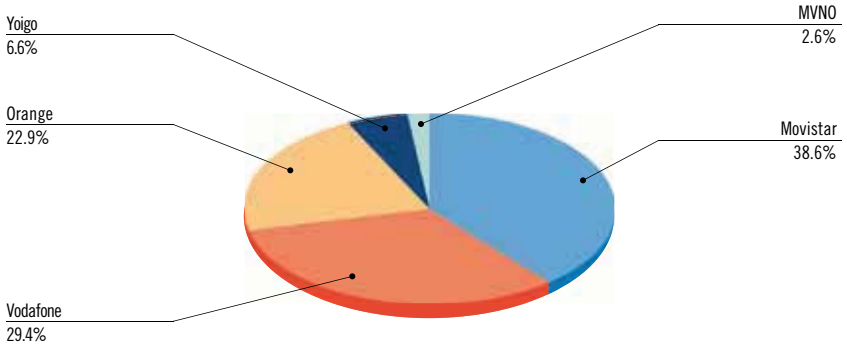
Source: CMT

Market Shares

The degree of revenues concentration in the wholesale market is traditionally higher than that seen in the retail market. This is because a percentage of the MVNOs do not have their own infrastructures; therefore, their interconnection traffic is concentrated in the networks of the largest operators, which receive an economic compensation in exchange.

Consequently, Movistar (38.6%), Vodafone (29.4%) and Orange (22.9%) accumulated the majority of total market revenues. However, an increase in the market share of operators that have recently entered into the market–Yoigo y los OMV– caused an increase in the wholesale revenues of these operators. Yoigo obtained 6.6% of the total revenues generated in this market and full MVNOs, which manage traffic termination, obtained 2.6% of the total.

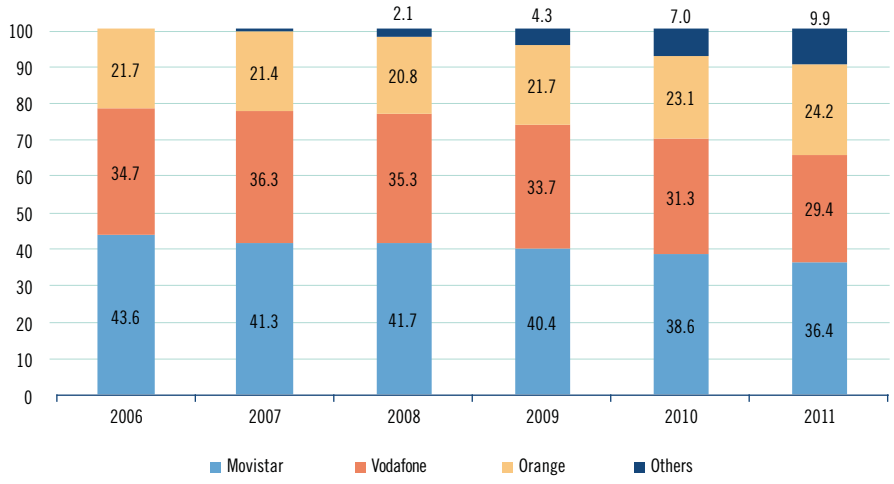
WHOLESALE REVENUES MARKET SHARE (percentage)



Source: CMT

On the other hand, national termination voice traffic was distributed among the various operators in a similar way to that of total mobile lines. Thus, Movistar obtained 36.4% of national traffic termination, followed by Vodafone with 29.4%. These figures show a parallelism between the evolution of the end market, where there a drop in market share of Movistar and Vodafone can be seen, and the changes in the wholesale market, where the percentage of participation of these same operators has also decreased. Orange, Yoigo and the MVNOs increased their market share in the end market and, therefore, also saw an increase in the national termination service.

NATIONAL TRAFFIC TERMINATION MARKET SHARES (percentage)



Source: CMT

2.2.4. Regulatory Actions

- Implementation of portability in one day

Portability is the basic mechanisms that ensures that users have the freedom to choose their operator, while keeping the number initially assigned. The option of changing between operators in Spain has been a success, given the volume of satisfied requests. In 2011 alone, the number mobile lines that made use of portability was 5.6 million. This figure represents 10% of the lines in service.

Since 2000, the CMT has been responsible for implementing and ensuring that portability works properly in both fixed and mobile telephony. As a result, the CMT is the body in charge of defining the technical specifications necessary to ensure that the coordination of this process between operators works correctly.

The Universal Service and Users' Rights Directive was published in 2009 and set out that portability had to be provided in a maximum period of one working day across the UE. To adapt the existing processes to this new deadline, throughout 2011 the CMT developed new technical specifications to guarantee mobile number portability in a maximum period of one working day from June 2012 onwards. With this objective in mind, on July 7, 2011 the CMT published the new technical specifications that required all mobile operators, whether they had their own network or not.

- International roaming service

The international roaming service in the EU has been regulated at the Community level since 2007. A second regulation (EC 544/2009) was introduced in 2009; this extended the initial regulation of data traffic and introduced a default limit of 50 Euros as maximum consumption for this service. This was tantamount to limiting the wholesale prices of data, reducing the maximum prices initially fixed for voice and also establishing a price limit for SMSs that would decrease over time. This 2009 regulation is in effect until June 2012, when a new EC regulation is expected to take effect. The CMT has participated within the framework of the ORECE in the design of this new regulatory round for international roaming in the European Union.

The current *roaming* regulation within the EU is shown in outline form in the following table.

RETAIL MARKET

		JULY 2009-JULY 2010	JULY 2010-JULY 2011	FROM JULY 2011
Voice calls (Euros/min)	Call made	0.43	0.39	0.35
	Call received	0.19	0.15	0.11
SMS messaging (euros/SMS)	Send an SMS	-	0.11	0.11
Data traffic		Setting a default limit on consumption of such services at 50 Euros.		

WHOLESALE MARKET

	JULY 2009-JULY 2010	JULY 2010-JULY 2011	FROM JULY 2011
Voice call originating in a national network (euros/min)	0.26	0.22	0.18
SMS service originating in a national network (euros/SMS)	-	0.04	0.04
Data traffic through a national network (euros/Mb)	1.00	0.80	0.50

Source: Regulation 544/2009/EC

As regards these services, the CMT prepared a report with the objective of analysing the evolution of the various volumes that make up the international roaming service in the Spanish market and to certify due compliance of the requirements set out in the EC regulation for 2011. The main conclusion of the report was that Spanish mobile operators duly complied with the obligations established in the EC regulation as regarded the maximum prices set for both the retail and wholesale segments.

- Call access and origin market in mobile communications networks

In the last analysis of the call access and origin market in mobile communications networks, carried out in 2006, the CMT decided to impose the obligation of providing access to third parties at reasonable prices on operators with their own network. Contrary to other countries, up until then in Spain there had been voluntary agreements between operators with a network and third parties interested in providing mobile services to end customers.

The access and origin services include all the technical facilities necessary so the agents without their own mobile communications network can offer voice and date services to the end customer.

The access obligation imposed in 2006 opened the way for the appearance and expansion of numerous MVNOs in the mobile telephony market. MVNOs can be grouped into two large categories: on one hand, the MVNOs that provide services for specific segments of demand (e.g., calls to international destinations) and on the other hand, operators with their own fixed network, such as cable, that want to compete by also offering multiple mobile and fixed services simultaneously and therefore require wholesale access to mobile communications networks. In 2011, the Spanish market had 23 active MVNOs that represented market share of 6.8%, calculated by number of lines. Over these years, the CMT has registered very few conflicts derived from the agreements reached between the MVNOs and network operators.

DISTRIBUTION OF MOBILE VIRTUAL NETWORK OPERATORS ACCORDING TO THE OPERATOR THAT ACCESS IS CONTRACTED WITH

	MOVISTAR	VODAFONE	ORANGE
Full MVNOs			
	ONO	Euskaltel	Jazztel
	Digi Mobil	TeleCable	E-Plus (Simyo)
	FonYou	R	
	Lycamobile		
MVNO service providers			
	Tuenti	Lebara[47]	Carrefouronline
		Pepephone	Díamóvil
		Hits Mobile	Happy móvil
		BT[48]	Moreminutes
		RACC Móvil[49]	You Mobile
		Eroski Móvil[50]	MÁSmovil
		Orbitel[51]	

Source: CMT

As seen in the table above, the most important operators with fixed networks that did not have a government licence for the use of the radioelectric spectrum, such as cable operators ONO, Euskaltel, TeleCable, R, Jazztel and BT have begun providing mobile services by reaching agreements with the most important mobile communications network operators which are vertically integrated and have both fixed and mobile lines to provide services.

[47, 48, 50, 51] The operators Eroski Móvil, BT, Lebara and Orbitel access the Vodafone network through an agreement signed with MVNO Vizzavi, that belongs to the Vodafone group.

[49] The RACC Móvil operator accesses the Vodafone network by virtue of an agreement signed with the MVNO operator, Euskaltel.

2.3. Fixed broadband services

In 2011, broadband lines increased by 4.8%, reaching a total of 11.16 million, while associated revenues were 3,477.7 million euros, dropping 1.2% from 2010.

Total Internet services - that, apart from broadband, include switched access services and others - billed 3,913.3 million euros, 2.8% less than the previous year.

For another year, alternative xDSL operators that provide their end services using Telefónica's regulated wholesale offer significantly increased their customer base with and increase of more than half a million lines during the financial year. On the contrary, Telefónica underwent a net loss of lines over the year and its market share fell under 50%.

More than 90% of broadband lines are contracted in conjunction with access and fixed telephony. The high levels of portability seen in fixed line numbers is also associated with high rates of changes in broadband providers by users. This arbitration by the demand towards providers with lower prices encouraged Telefónica to lower its prices, either through specific promotions limited in time or by introducing new rates that were significantly lower than those in place at that time.

On the other hand, the increase in connection download bitrates continued. At the end of the year, more than 53% of lines contracted had a nominal bitrate of 10 Mbps or higher.

The growth in the demand of alternative operators caused an increase in the demand for wholesale services - unbundled loops and indirect access lines - resulting in wholesale revenues of 545.6 million euros, a 20% increase over the previous year. In all, unbundled loops reached a total of 2.88 million, a 16.3% increase compared to the previous year.

This indirect broadband access service continued to make the gains in lines that began at the end of 2009 aided by the regulatory measures introduced by CMT. These measures involved a reduction in prices for indirect access services and the introduction of new types of wholesale market offers that allowed operators to make broadband contracts without Telefónica's voice service.

As for the roll-out of new generation access networks, the cable operators continued to upgrade their HFC networks to DOCSIS 3.0 - 95.3% of total installed access points - and investment continued in the roll-out of fibre optics (FTTH). As a result of these network roll-outs, active connections with contracted bitrates of 30 Mbps or higher exceeded 712,000, of which 480,000 were HFC DOC - SIS 3.0 networks.

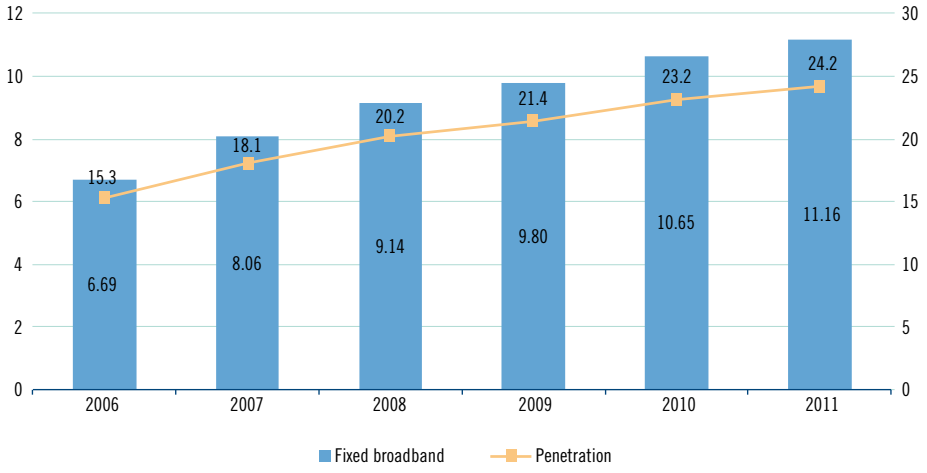
2.3.1. Situation of the industry

Lines and penetration

Broadband access in fixed networks continued to grow significantly, albeit at a slower pace than in previous years. Total broadband access points for fixed networks increased by 4.8% and reached 11.16 million access points.

The penetration of broadband lines via fixed networks reached 24.2 lines for every 100 inhabitants, an increase of one line per every 100 inhabitants in the last year.

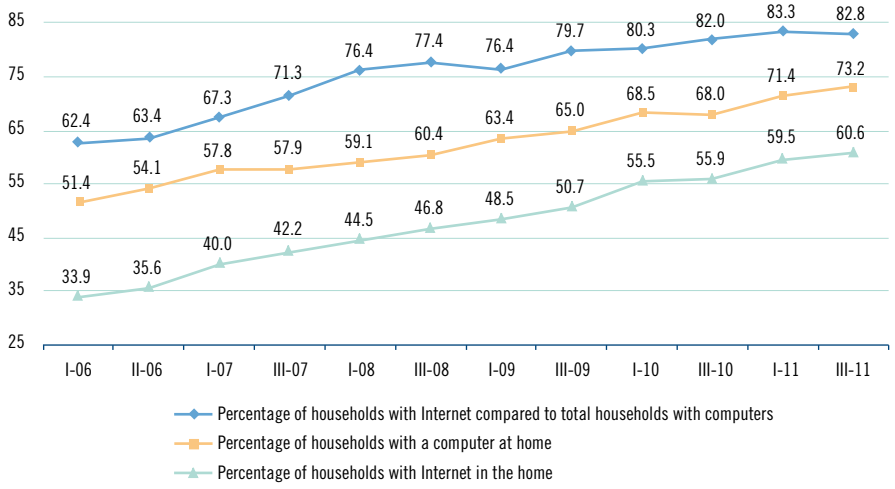
EVOLUTION OF BROADBAND LINES AND PENETRATION (millions of lines and lines/100 inhabitants)



Source: CMT

The data from the CMT-Red.es Household Panel show that in 2011 more than 60% of households had contracted Internet access service. A y-o-y increase in household penetration has been confirmed one more year, in this case in excess of 8%. The data show that 73.2% of Spanish households have a computer and more than 80% of these have contracted Internet access service. The following chart shows the evolution of growth in both Internet penetration and presence of computers in households over recent years.

HOUSEHOLDS WITH INTERNET COMPARED TO TOTAL HOUSEHOLDS WITH COMPUTERS (percentage)



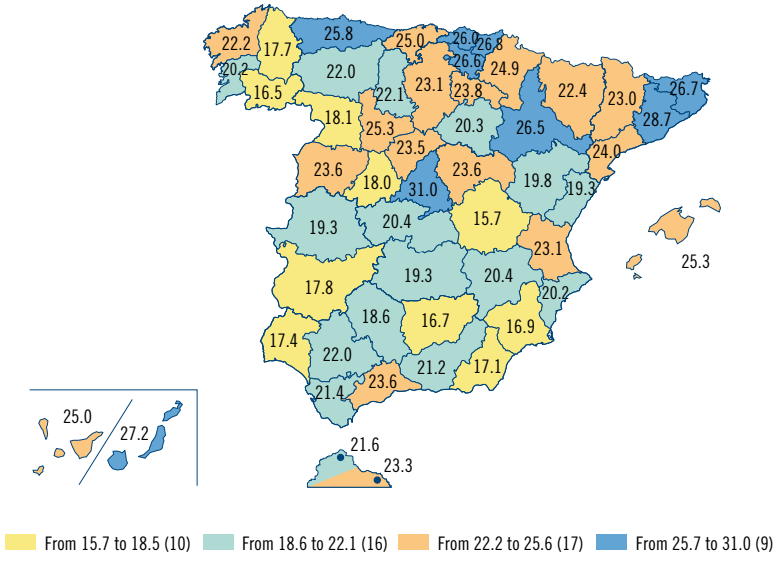
Source: CMT

The penetration of broadband services at the national level mentioned above is significantly different from the viewpoint of geographical distribution, due to the various degrees of development of broadband network infrastructure and depending on the available offer. As describe below, the penetration of broadband services and the market share of the various operators in the market exhibit significant differences in different areas.

As shown in the following map, the penetration of broadband connections varies greatly among the various Spanish provinces. A total of 14 provinces ended the financial year with a penetration higher than the national average, which was 24.2[52] lines for every 100 inhabitants. The average penetration in the previous financial year has also been higher for these same provinces. The provinces of Madrid and Barcelona had the highest penetration figure.

Among the provinces that were above the average penetration, Madrid, Vizcaya and Las Palmas were those that reached a major increase in lines per 100 inhabitants in 2011, with a figure equal to or greater than 1.6 lines per 100 inhabitants.

BROADBAND PENETRATION BY PROVINCE[53] (lines/100 inhabitants)



Source: CMT

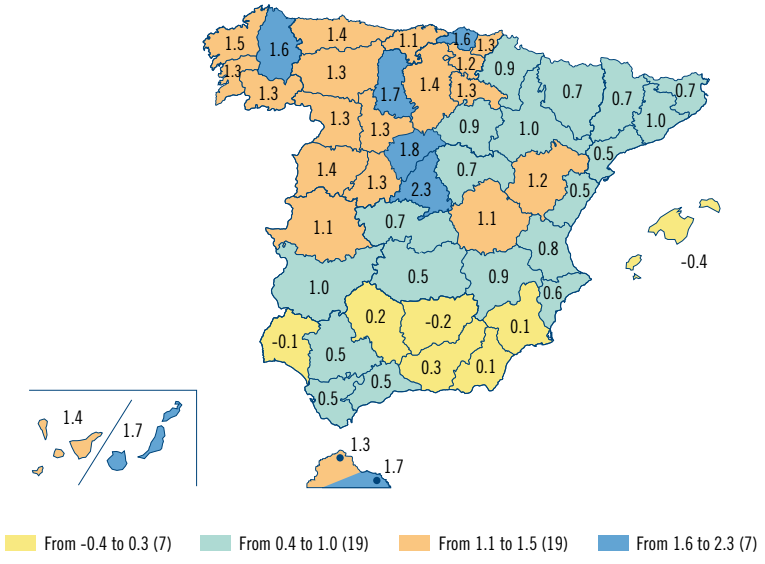
As occurred in previous financial years, the increases in penetration were moderate in most provinces and in some cases, there were declines.

The following map shows the distribution, by province, of increased penetration in the last year. A total of 29 provinces showed growth at or above the national average. The provinces of Madrid, Segovia, Las Palmas and Palencia demonstrated the highest growth in penetration, at 1.7 broadband lines per 100 inhabitants or more.

[52] Penetration calculated considering the total number of broadband lines.

[53] The intervals have been set using the mean ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

INCREASE IN BROADBAND PENETRATION BY PROVINCE[54] (lines/100 inhabitants)



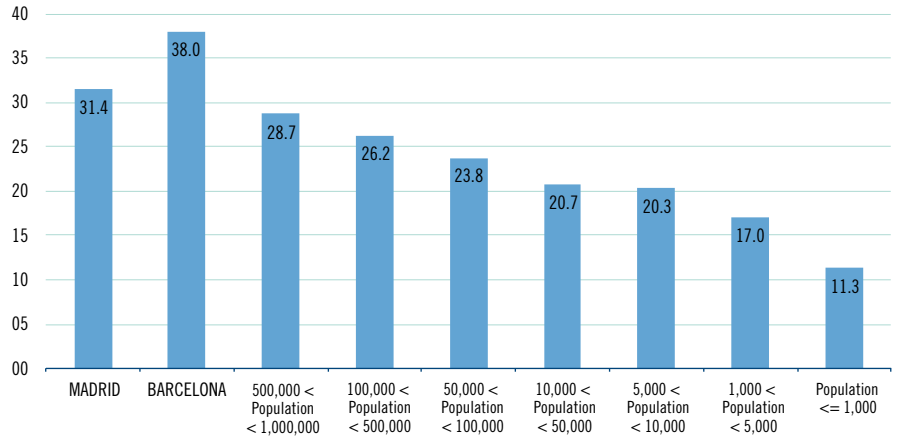
Source: CMT

As occurred in previous financial years, penetration analysis broken down by municipalities, and with data from December 2011, shows a clear decreasing penetration trend as the number of inhabitants of the municipality decreases.

Municipalities with a population greater than 100,000 showed, on average, a penetration equal to or greater than 26.2 lines per 100 inhabitants. On the contrary, only municipalities with less than 5,000 inhabitants did not surpass 17 lines per 100 inhabitants. Even so, these data represent significant increases in penetration when compared to previous financial years, and a decrease in the gap between penetration in the smallest municipalities and in those with the highest density of population. This is derived from the gradual increase in the presence of alternative operators that use local loop unbundling in smaller local exchanges and the use of indirect access to broadband in areas with less competition in infrastructure.

[54] The intervals have been set using the mean ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

BROADBAND PENETRATION BY AUTONOMOUS COMMUNITY[55] (lines/100 inhabitants)



Source: CMT

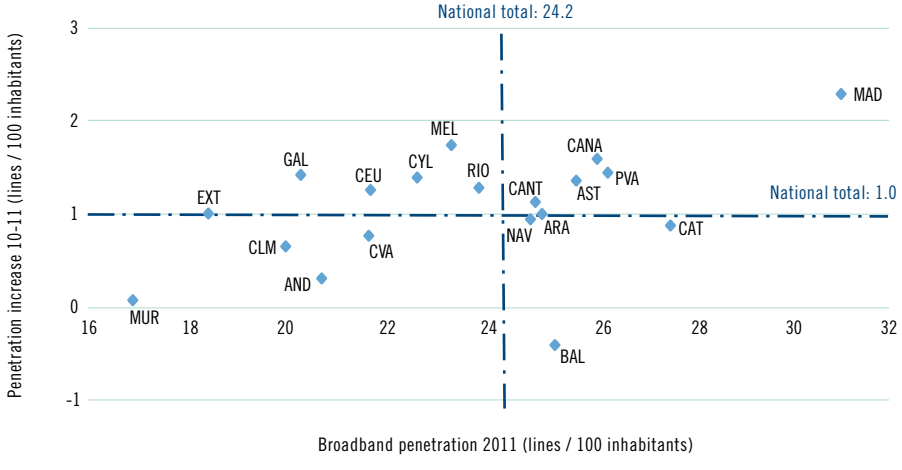
Lastly, the following chart shows the penetration[56] of broadband by Autonomous Community in 2011, as well as the increase seen in the previous year.

Again, Madrid and Catalonia were the two autonomous communities that ended the financial year with the highest penetration of the broadband service. Their broadband penetration stood at 31 and 27.6 broadband lines for every 100 inhabitants, respectively.

These figures show an increase of 2.3 and 0.9 lines per 100 inhabitants compared to 2010.

Nine autonomous communities registered higher penetration than the national average. However, Extremadura and Murcia finished the financial year with less penetration, under 20 lines per 100 inhabitants. Madrid and Melilla had the highest penetration increases.

BROADBAND PENETRATION BY AUTONOMOUS COMMUNITY (lines/100 inhabitants)



Source: CMT

[55] The December 2011 data corresponding to the geographical requirement undertaken by the CMT.

[56] Penetration calculated based on the total number of broadband lines.

Technologies

Broadband access service can be provided through multiple technology alternatives that can be classified into the following groups:

· Fixed network technologies: xDSL technologies over copper pair; cable network technologies such as HFC networks using mixed media fibre optic and coaxial cable; and lastly, fibre-optic networks technologies such as FTTH access points.

· Wireless network technologies: LMDS, WiMAX (large distance coverage) and Wi-Fi (limited coverage area).

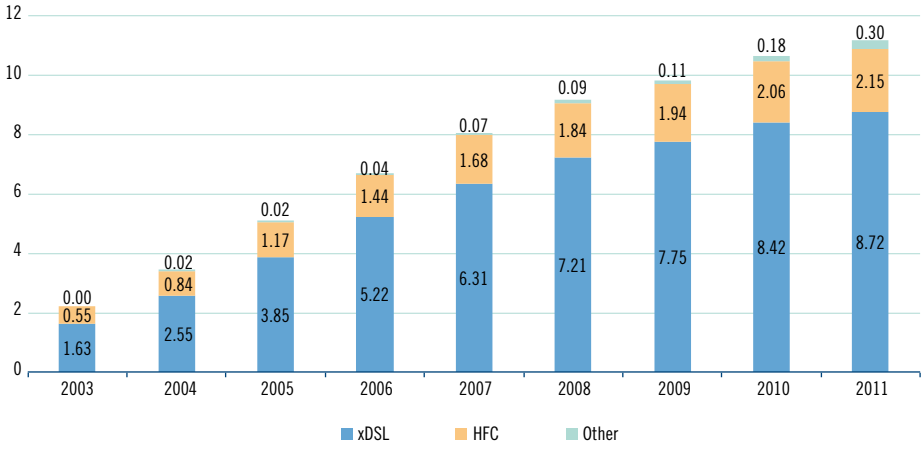
· Networks supported by satellite systems such as VSAT.

In 2011, xDSL and HFC networks continued as the dominant access technologies, and together they accounted for 97.3% of active broadband access points. The remainder of the technologies reached 296,435 access points. It is notable that in 2011, 177,122 of these latter access points were active access points via FTTH, whereas this figure was 60,000 in 2010.

Thus, the financial year closed with 8.72 million xDSL access points, an increase of 3.6% in the last year. On the other hand, total HFC broadband lines grew by 4.5% to 2.15 million access lines. In both cases, the increase fell below the average for all broadband lines, which increased 4.8% due to access losses in Telefónica, as described previously.

At the end of the year, the residential segment had a total of 9.1 million lines, while the business segment closed the financial year with 2.1 million lines, a percentage distribution very similar to those of previous financial years. In the business segment, xDSL access points lost their percentage weight in spite of a slight increase, while HFC technology slightly increased its share. In all, 78.3% of xDSL lines and 92.6% of HFC lines corresponded to the residential segment.

EVOLUTION OF BROADBAND LINES BY TECHNOLOGY (millions of lines)



Source: CMT

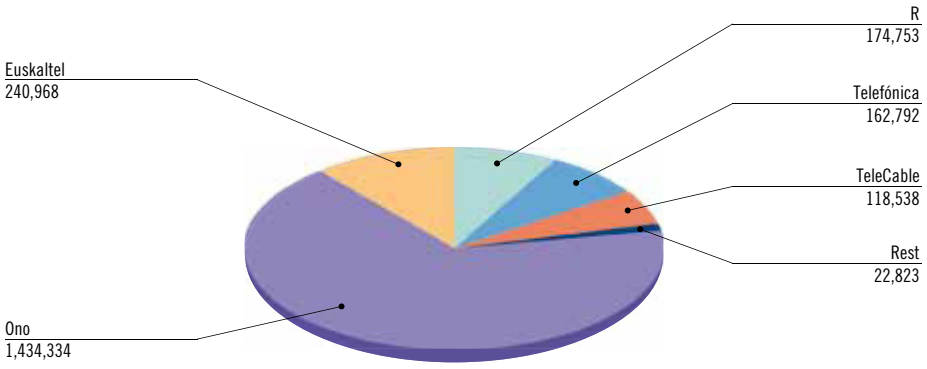
In 2011, Telefónica, alternative xDSL operators and cable operators continued their investment in upgrading access networks. Specifically, the roll-out of New Generation Access Networks (NGA) now allows the possibility of offering broadband services with higher connection bitrates.

The most notable event in NGA roll-out is the migration of HFC access networks to DOCSIS 3.0 technology by cable operators over the last two years. This technological upgrade allows them to offer higher bitrates to broadband users, providing higher connection quality and new services that require higher access speeds.

The financial year closed with 1.98 million active broadband access points belonging to a node with DOCSIS 3.0 availability. This means that 92% of the active access points belonging to cable operators were already upgraded. It is noteworthy that the bitrate in these access points depends on what is contracted by the customers, most of whom still choose connection bitrates below 30 Mbps.

On the other hand, Telefónica has installed more than one and a half million FTTH access points (fibre access points to the household). Of these, 162,792 access points were active, versus the 49,200 that existed in December 2010. The presence of active broadband access points via FTTH was insignificant on the rest of the operators.

DISTRIBUTION OF BROADBAND LINES IN NODES WITH DOCSIS 3.0 AND FTTH BY OPERATOR (lines)



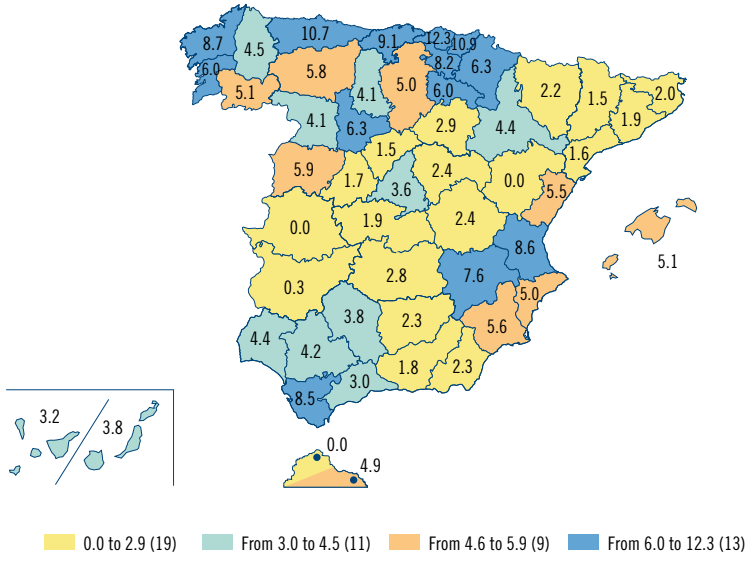
Source: CMT

The geographic development of broadband penetration according to HFC or xDSL access technology at the provincial and municipal geographical levels is analysed in the following sections.

In general terms, access to HFC grew by 4.5% in the last year, down from 6.1% in 2010. Penetration reached 4.7 lines per 100 inhabitants.

A total of 22 provinces had penetration equal to or greater than the national average at the end of the year. The highest rates were observed in the provinces of País Vasco, where the cable operator Euskatel is present, Galicia where R is present and the Cantabrian coast where TeleCable is present in Asturias. The provinces of Levante (Valencia, Albacete, Castellón, Murcia and Alicante), as well as in some other provinces, high cable penetration figures were motivated by the presence of the operator Ono and other local operators.

HFC PENETRATION BY PROVINCES[57] (lines/100 inhabitants)

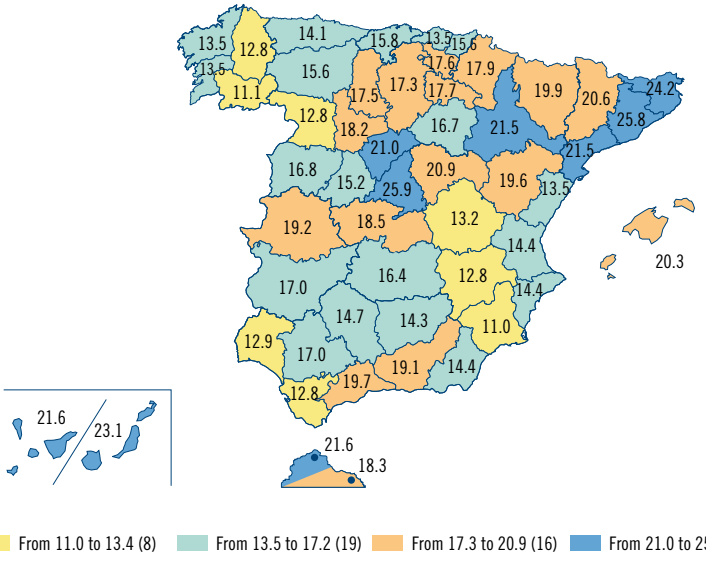


Source: CMT

In 2011, broadband lines using xDSL increased 3.6%, a much lower figure than that recorded in 2010, which was 8.6% due to the net loss experienced by Telefónica in this financial year. Average penetration was 18.9 lines per 100 inhabitants and a total of 17 provinces showed a penetration higher than the national average.

The following map illustrates the geographic distribution of xDSL lines. One year more, Barcelona, Madrid, Gerona and Las Palmas had the highest penetration rates, over 23 xDSL lines per 100 inhabitants. On the other hand, the provinces of Murcia and Orense did not even reach 12 xDSL lines per 100 inhabitants.

xDSL PENETRATION BY PROVINCES[58] (lines/100 inhabitants)



Source: CMT

[57] The intervals are set from the average ± 0.5 standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

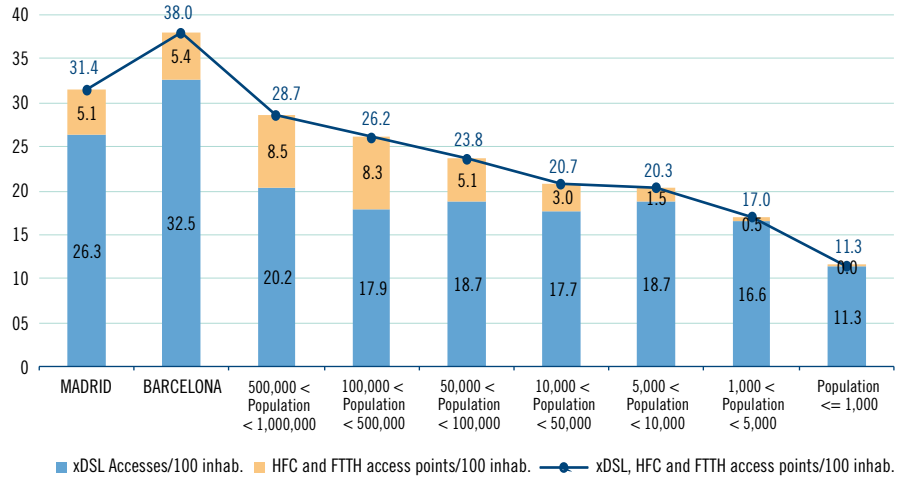
[58] The intervals have been set using the mean ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

Penetration analysis broken down by municipalities[59], with data from December 2011, shows that the smaller the size of the municipality, the greater the reduction in penetration of broadband access points (xDSL and HFC-FTTH).

Municipalities with a population over 500,000 inhabitants showed higher cable penetration than the national average, whereas smaller municipalities showed lower penetration than the national average.

By type of technology, penetration of HFC access points decreased considerably in municipalities with low populations.

xDSL, HFC AND FTTH PENETRATION BY TYPE OF MUNICIPALITY (lines/100 inhabitants)



Source: CMT

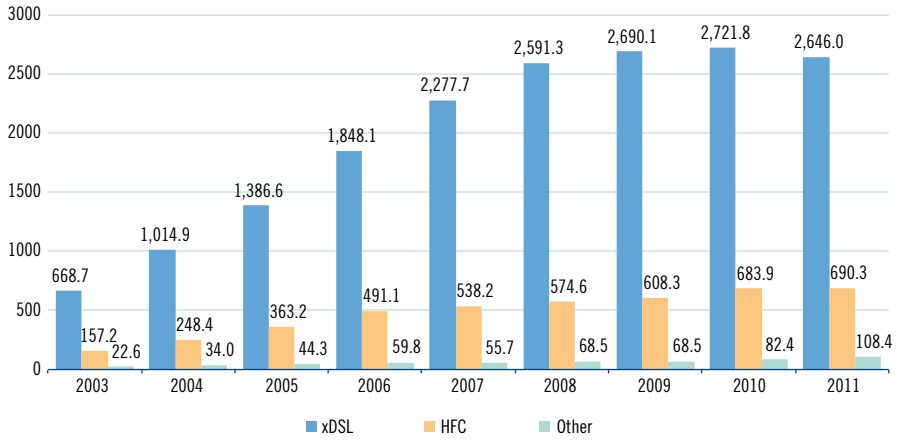
Revenues

As regards revenues, the increase in the number of broadband lines was not reflected in billing and the revenues generated exclusively by these connections fell by 1.2%.

By technology, revenues from xDSL access points fell by 2.8% to 2,646 million euros, while revenues of cable operators increased 0.9% to 690.3 million euros. Revenues for the rest of technologies (108.4 million euros) increased by 31.6% due to the increase in FTTH broadband connections.

[59] The data indicated in the municipal analysis correspond to a geographical requirement and refer to December 2011.

EVOLUTION OF BROADBAND REVENUES BY TECHNOLOGY (millions of euros)

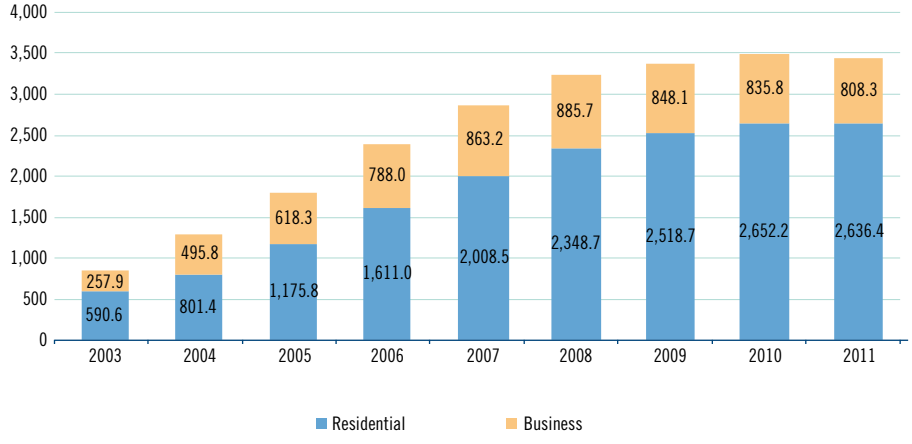


Source: CMT

In the breakdown of revenues by segment, a decrease was seen in both the residential segment and the business segment. Thus, in absolute terms, revenues in the first segment totalled 2,636.4 million euros, with a decrease of 0.6%. Revenues for the second segment decreased 3.3% to 808.3 million euros.

This implies a change in trend with regard to previous financial years, when the dynamism of the residential segment compensated for the drop in revenues from the business segment. Possible factors could be the continuing crisis in the business segment and the overall reduction of prices in broadband commercial offers, as analysed further on.

EVOLUTION OF BROADBAND REVENUES BY SEGMENT (millions of euros)



Source: CMT

2.3.2. Competition

The importance of alternative operators in this market was consolidated in 2011, since they were able to compensate for Telefónica's net loss of lines by their growth. Telefónica's market share fell below 50% for the first time, both in lines and revenues.

Effective broadband prices fell due to price bargains implemented by the incumbent operator and more than half of total access points had bitrates of 10 Mbps or higher, versus 33% in 2010. This increase was undoubtedly caused by the migration of cable operators to DOCSIS 3.0, practically completed in 2011, and by the roll-out of FTTH by Telefónica.

Market shares

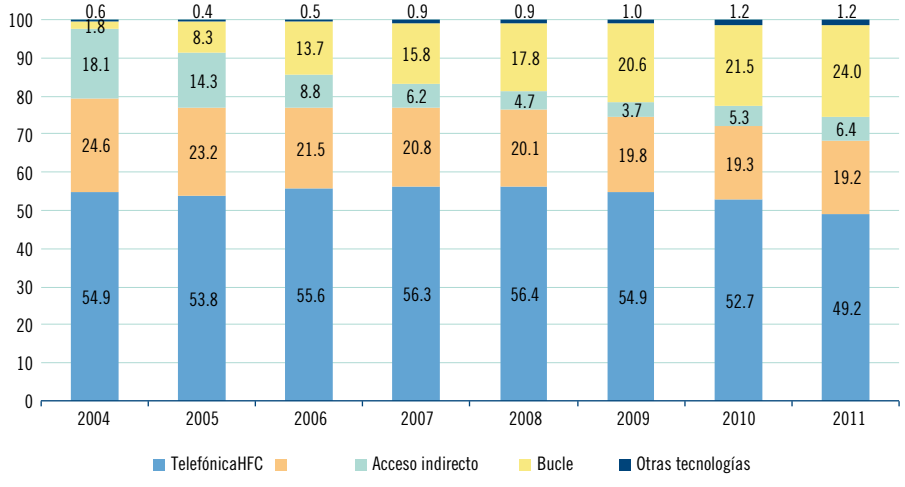
Alternative xDSL operators sharing Telefónica local exchanges to offer end services to customers through the regulated local loop unbundling wholesale offer were the ones that gained the most customers during the year. In areas where they were not present in the local exchanges to offer the service, they used the regulated indirect access service.

In 2011, those lines that used local loop unbundling to access the end user represented 24% of the total, which implies an increase of 2.5% over 2010. The models of fully unbundled or shared loops without PSTN were those most requested by alternative operators to disassociate the end user from Telefónica telephone access. The shared loop model continued falling.

Likewise, the gradual increase of broadband lines with indirect access should be noted. These reached 6.4% versus 5.3% the previous year.

As for services provided with a self-owned network, there were no significant changes in cable operator shares. Telefónica, however, lost 3.5% in one year to stand at under 50% for the first time.

EVOLUTION OF LINES BY METHOD OF ACCESS (percentage)

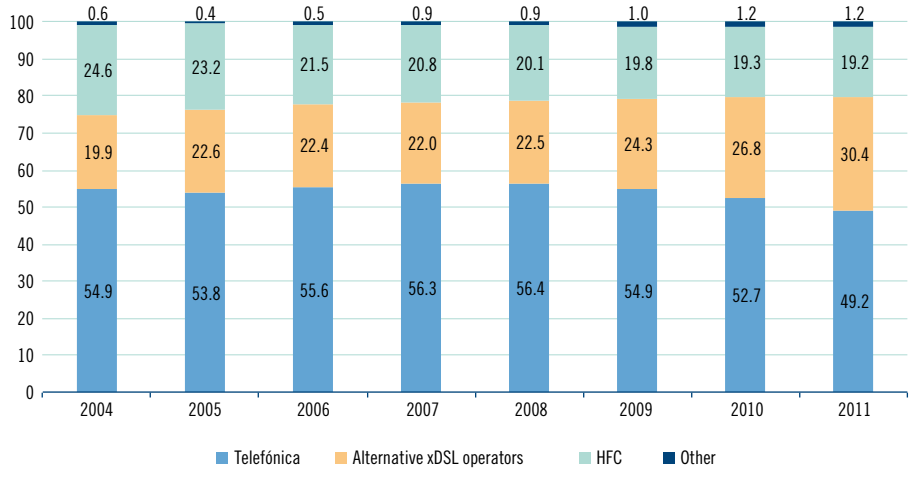


Source: CMT

The significant reduction in the share of the incumbent operator and its net loss of lines is to be highlighted. As a result, both the lines and the shares of alternative xDSL operators increased. The share of the latter increased from 26.8% in 2010 to 30.4% in 2011.

On the other hand, cable operators saw a slight decrease in their market share to 19.2%, despite the increase in their total lines.

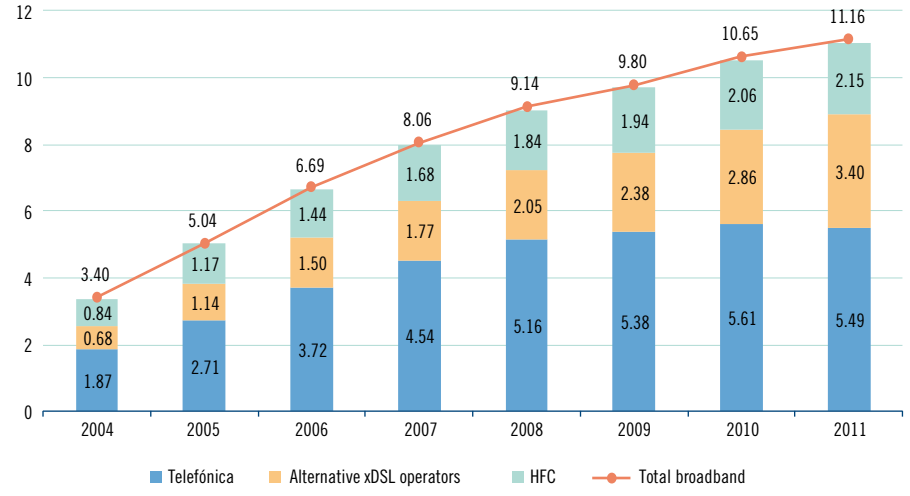
DISTRIBUTION IN BROADBAND LINES BY TYPE OF OPERATOR (percentage)



Source: CMT

In 2011, 515,334 new broadband lines were incorporated into the market. Alternative xDSL operators gained most of these lines, whereas cable operators gained a smaller amount. In contrast, Telefónica lost 124,422 broadband lines.

EVOLUTION OF BROADBAND LINES BY TYPE OF OPERATOR (millions of lines)



Source: CMT

The breakdown of lines and shares by operator shows that the incumbent operator lost the over-50% market share that it had held thus far, reflecting the fall of 2.2% recorded in its total number of connections. Ono's market share of lines remained unchanged and Orange[60], which had seen a fall in its share in 2010, increased it by almost a percentage point in the last financial year. Jazztel made the biggest gains, it market share increasing from 8% of broadband lines in 2010 to 10%, thus closing the gap on its nearest competitor.

MARKET SHARES PER NUMBER OF BROADBAND LINES AND SEGMENT (lines and percentage)

	LINES IN 2010	MARKET SHARE (%)	LINES IN 2011	MARKET SHARE (%)
Telefónica	5,612,385	52.7	5,487,963	49.2
Ono	1,521,028	14.3	1,595,918	14.3
Orange	1,121,238	10.5	1,265,343	11.3
Jazztel	855,109	8.0	1,112,641	10.0
Vodafone	742,173	7.0	845,817	7.6
Euskaltel	229,790	2.2	248,685	2.2
R	187,656	1.8	199,741	1.8
TeleCable	115,745	1.1	119,600	1.1
Others	264,508	2.5	289,258	2.6
Total	**10,649,632**	**100**	**11,164,966**	**100**

Source: CMT

In 2011, Jazztel, Orange and Vodafone were the operators that most increased their number of lines and market shares. Their relative positions remained the same as last financial year. However, the distance between Orange - the third operator by number of lines - and Jazztel was shortened, both obtaining shares of over 10% in 2011.

The weight in the broadband market of the other regional cable operators remained unchanged.

The breakdown of broadband lines by market segment reflected Telefónica's leadership in the business segment. However, last year it lost 4.4 percentage points, falling to 74.3%. The other operators had little percentage weight in this segment and none exceeded Vodafone's 6.6% share.

The relative positions of the above-mentioned operators remained the same in the residential segment for the combined total of the lines market. However, Telefónica suffered a notable loss of market share in this segment, closing the financial year with 43.3% of the total, compared to 46.7% in 2010.

[60] The figures given for Orange lines include those of the Orange Business Services operator.

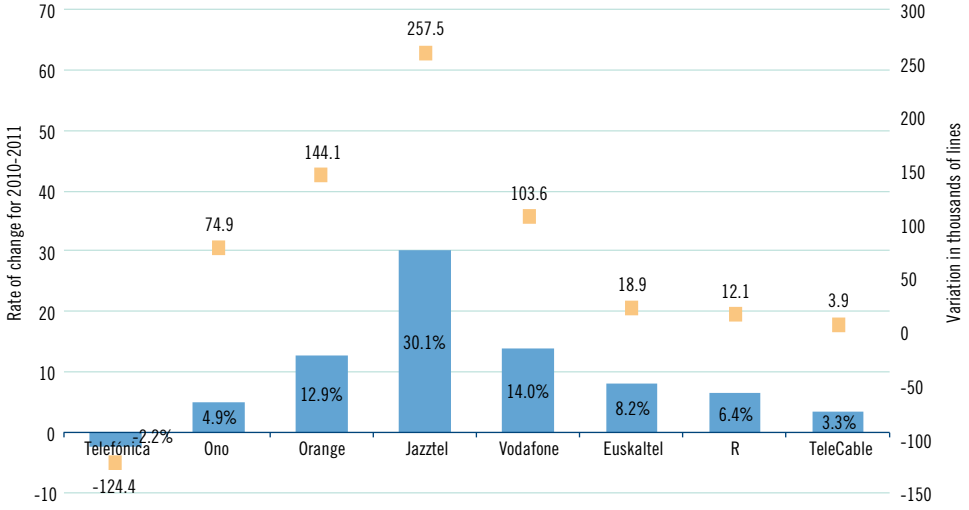
MARKET SHARES PER NUMBER OF BROADBAND LINES AND SEGMENT (lines and percentage)

	RESIDENTIAL LINES	RESIDENTIAL SHARE (%)	BUSINESS LINES	BUSINESS SHARE (%)
Telefónica	3,930,217	43.3	1,557,746	74.3
Ono	1,511,675	16.7	84,243	4.0
Orange	1,169,326	12.9	96,017	4.6
Jazztel	1,056,016	11.6	56,625	2.7
Vodafone	708,003	7.8	137,814	6.6
Euskaltel	213,121	2.4	35,564	1.7
R	158,030	1.7	41,711	2.0
Telecable	107,225	1.2	12,375	0.6
Others	215,312	2.4	73,946	3.5
Total	**9,068,925**	**100**	**2,096,041**	**100**

Source: CMT

The following graph shows the increase in the number of broadband lines in the last year. Jazztel, Orange and Vodafone had the biggest increases, both in absolute and percentage terms. In 2011, these operators increased their total broadband lines by 30.1%, 12.9% and 14%, respectively.

NET CHANGE IN BROADBAND LINES BY OPERATOR AND YEAR-ON-YEAR VARIATION (2010-2011)
(thousands of lines and percentage)



Source: CMT

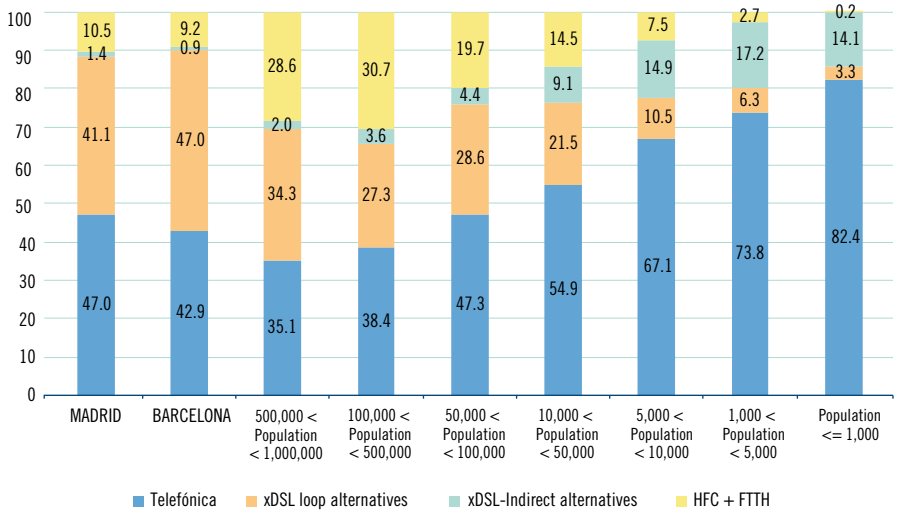
In absolute terms, these operators incorporated 257,532, 144,105 and 103,644 new access points in their portfolios, respectively. The changes in numbers of lines were positive for all other operators except Telefónica, which lost 124,422 lines.

The shares of broadband lines of the different market players showed significant differences from a geographical point of view. According to broadband line data by municipality for December 2011, the smaller the municipality's population, the bigger Telefónica's market share. It is notable that this operator saw its share fall in the largest municipalities, like Madrid and Barcelona, where it fell to below 50%. Moreover, Telefónica's market share also decreased in the other municipalities.

On the other hand, alternative operators accessing the market by means of local loop unbundling had high shares in municipalities with over 10,000 inhabitants; where their share was above 21% and reached 47% in the municipality of Barcelona. They had less market weight in municipalities with less than 10,000 inhabitants, where consumer access was provided via indirect broadband access. In these areas, Telefónica's share exceeded 67%, representing a loss of market share compared to previous financial years.

The operators that accessed the HFC and FTTH market[61] achieved the best levels of penetration in municipalities with between 100,000 and one million inhabitants, where their share was approximately 30%.

BROADBAND MARKET SHARES BY MUNICIPALITY TYPE (percentage)



Source: CMT

In 2011, growth in broadband lines of alternative xDSL operators was reflected in a considerable increase in their revenues. Jazztel was the operator with the largest increase in turnover. It revenues increased by 33.3%, to stand at 458.43 million euros. Other operators also had increased revenues, with the exceptions of the R cable operator, which experienced a slight fall, and Telefónica, which saw its turnover reduced by 12%.

[61] The Telefónica operator includes all of its accesses, both xDSL-based and through FTTH.

MARKET SHARES BY BROADBAND REVENUES (million euros and percentage)

	2010 REVENUES	2010 MARKET SHARE (%)	2011 REVENUES	2011 MARKET SHARE (%)
Telefónica	1,837.89	52.7	1,617.84	47.0
Ono	517.44	14.8	525.13	15.2
Jazztel	343.97	9.9	458.43	13.3
Orange	301.25	8.6	345.32	10.0
Vodafone	202.58	5.8	215.20	6.2
Euskaltel	76.82	2.2	84.67	2.5
R	48.81	1.4	46.64	1.4
TeleCable	38.39	1.1	38.95	1.1
Others	120.90	3.5	112.52	3.3
Total	**3,488.05**	**100.0**	**3,444.71**	**100.0**

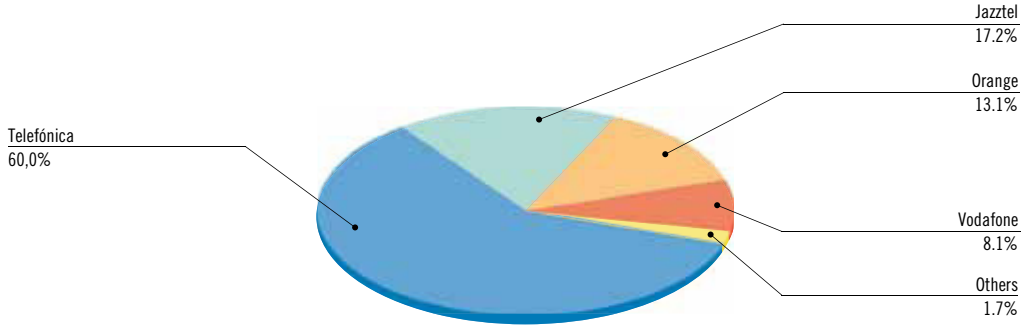
Source: CMT

As regards the breakdown of market shares by revenues, Telefónica's share of lines showed it to have lost nearly six percentage points, falling below 50% (in fact, to 47%) for the first time.

It is notable, however, that Telefónica did show an increase in FTTH line revenues, with a significant roll out in 2011. Telefónica's turnover for these FTTH lines exceeded 27.5 million euros.

Telefónica's fall in revenues and share in the overall market of broadband via fixed networks is contrasted by the advances made by alternative xDSL operators. Jazztel stood clearly as the second operator in terms of xDSL revenues, with a 4.7% increase over last year, taking it to a share of 17.2%.

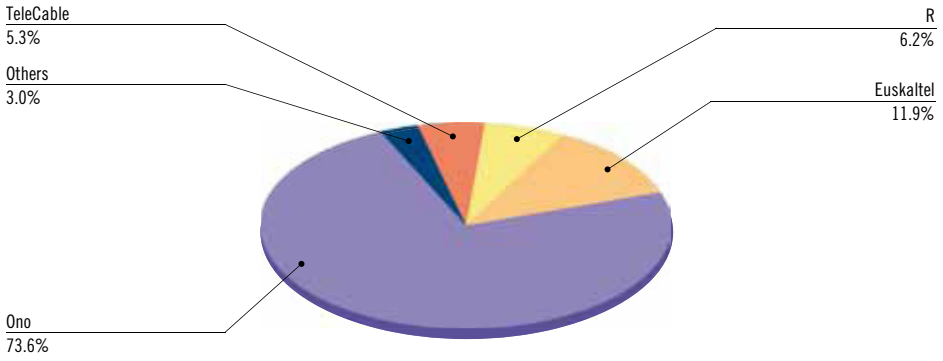
MARKET SHARES BY xDSL REVENUES (percentage)



Source: CMT

The distribution of market shares among HFC operators remained unchanged from the 2010 financial year. Ono continued to be the operator with the largest share of turnover, closing the financial year with 73.6% of the revenues. It worth noting that this operator is present in a large percentage of the country, while the other cable operators only provide their services in certain geographical areas. These last operators slightly increased their weight in turnover, with the exception of R, which lost half a percentage point in its share of revenues.

MARKET SHARES BY HFC REVENUES (percentage)



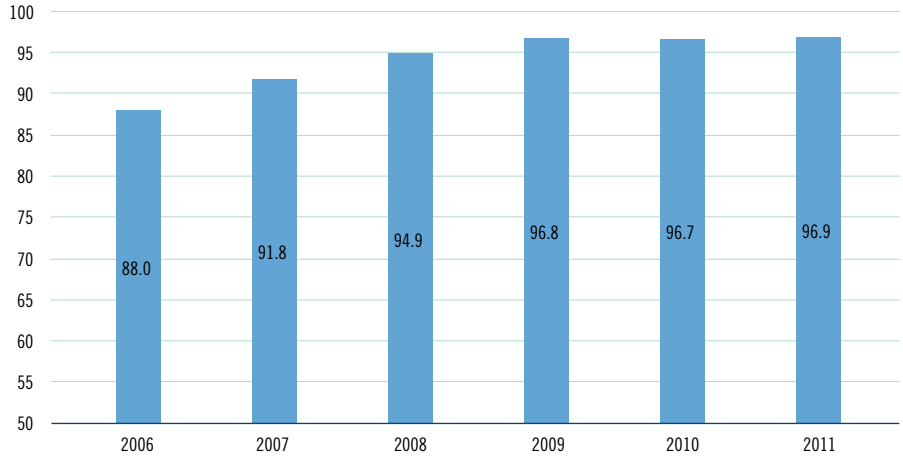
Source: CMT

Bundling

At the end of the year, the number of all broadband lines in the residential segment contracted along with another service was 8,785,503, representing 96.9% of the total lines. In the business segment, the percentage of bundling was 67.4%, with 1.41 million lines.

These figures reflect the tendency of consumers to contract services jointly. The majority of these offers market the broadband service together with the fixed telephony and/or television service. In addition, a new feature was the appearance at the end of this financial year of new bundle offers, or significant discounts on the most common bundles, for those contracting the mobile service with the same operator.

BUNDLED RESIDENTIAL BROADBAND LINES (percentage)

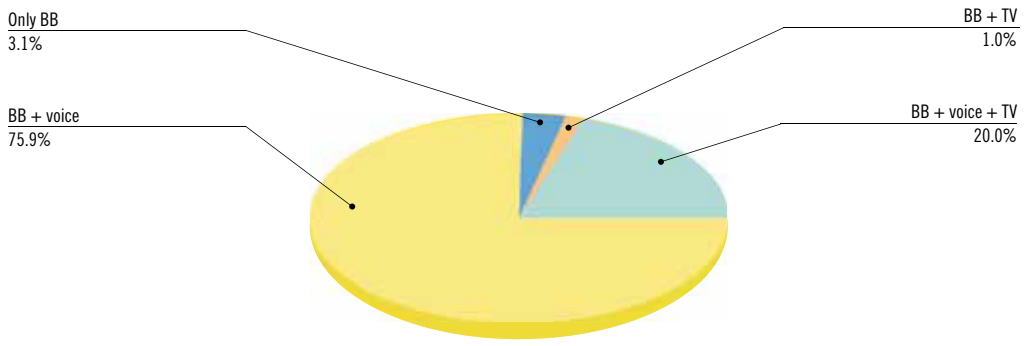


Source: CMT

At the end of the year, the joint offer of broadband and fixed telephony services reached a rate of 75.9% in the residential broadband segment, which was up slightly on the previous financial year. Meanwhile, bundles of broadband with television service suffered a slight decline.

Finally, triple *play* bundles, which include the broadband, voice and television service, had a 20% share of lines, meaning they stayed practically unchanged from the 2010 financial year.

RESIDENTIAL BROADBAND LINES PER BUNDLE TYPE (percentage)



Source: CMT

The distribution of bundled services by type of operator shows significant differences between operators providing their services via xDSL technology with copper pair and HFC operators.

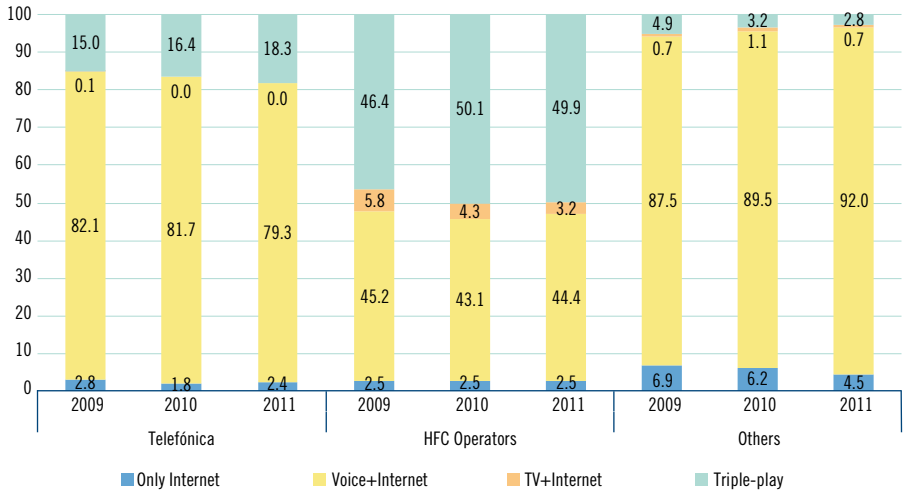
For Telefónica and alternative xDSL operators, television exhibited a low penetration in the bundles contracted; however, television continued to be important as a bundled service in HFC operators' bundled contracts. Nevertheless, in Telefónica's case, during this financial year, the percentage of *triple play* bundles increased by two percentage points to stand at 18.3%, representing 717,588 bundles.

It is noteworthy that, despite progress in the convergence of services and the upward trend in contracting bundled services, the percentage of bundles with television service from alternative xDSL operators did not experience levels comparable with fixed telephony and broadband bundles. This is explained partly by the limitations found in access networks based on copper pair. The improvement in access networks that will result from fibre optic roll out will enable these operators - which currently base their services on local loop unbundling - to market offers more focused on audiovisual services.

The percentage of double bundles with voice and broadband from Telefónica accounted for 79.3% of total residential lines. This is down on the figure for 2010, but represents an increase in *triple play* bundles. Meanwhile, alternative xDSL operators increased the proportion of bundled broadband and voice lines by almost three percentage points, and closed the financial year with 2.87 million double bundles. The presence of bundles with the TV service from these operators was evidence of this.

Finally, the television service continued to play a leading role in bundle offers made to users by HFC operators. This was also reflected in the levels of subscription to the bundles. Thus, bundles including pay-TV accounted for 53.1% of total line subscriptions, while, in absolute terms, a figure of 1.1 million bundles was reached.

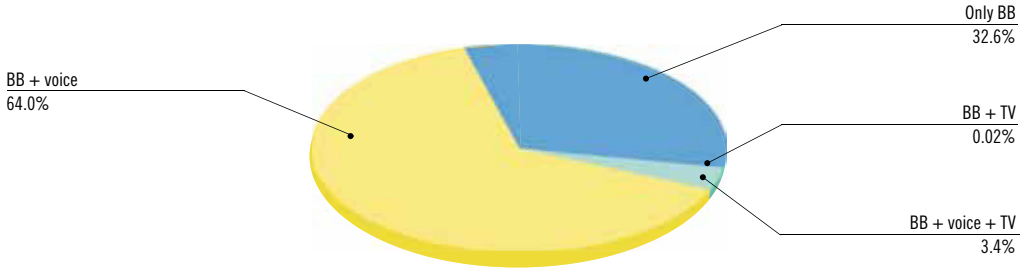
RESIDENTIAL BROADBAND LINES BY BUNDLE TYPE AND OPERATOR (percentage)



Source: CMT

The breakdown of bundled broadband lines in the business segment shows the dominance - as in the residential segment - of the broadband with fixed telephony bundle and underlines, as in previous financial years, the weight of unbundled broadband offers. These offers made up 32.6% of the total and in absolute terms, exceeded 682,000 lines. In this segment, the percentage of broadband bundles with television service included stood at 3.4%.

BROADBAND LINES BY BUNDLE TYPE IN THE BUSINESS SEGMENT (percentage)

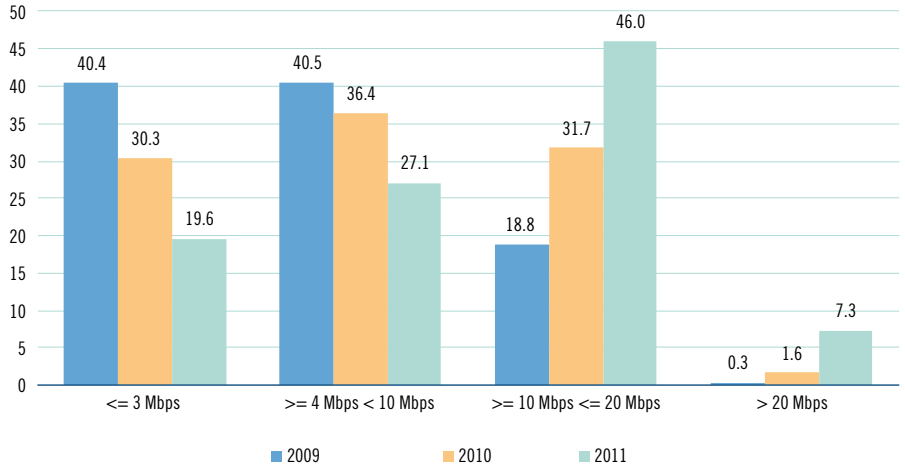


Source: CMT

Bitrate of lines

The evolution of bitrates was seen in the increase in the number of lines with faster connections. As already noted, progressive improvements to access networks - through updating of nodes in HFC networks to DOCSIS 3.0 and the roll out of FTTH accesses - allows operators to offer higher connection bitrates. Thus, the percentage of lines with bitrates exceeding 20 Mbps showed a substantial increase, 371,302 active lines having a connection bitrate of 50 Mbps or higher. 53.3% of the broadband lines subscribed to had a connection bitrate of 10 Mbps or more, compared to 33.3% in the previous year.

EVOLUTION OF BROADBAND LINES BY CONTRACTED BITRATE (percentage)



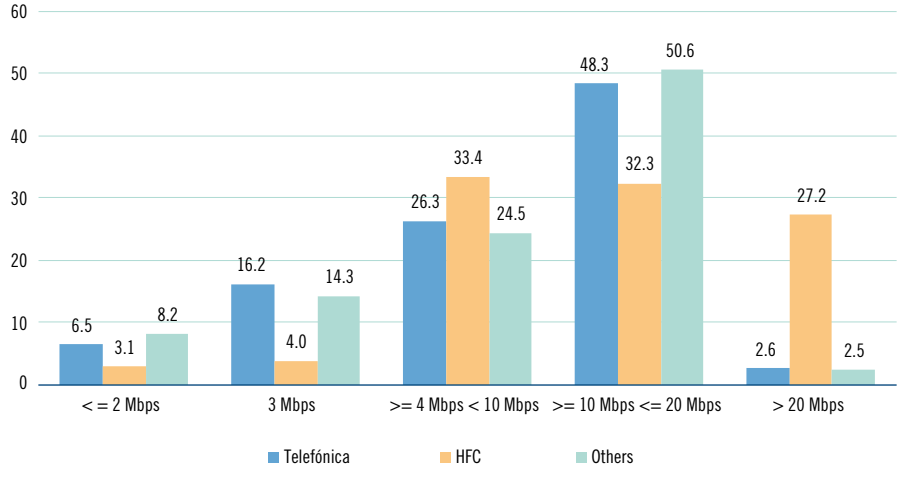
Source: CMT

By technology type, HFC and FTTH connections were those with the highest connection bitrates. 40% of HFC lines offer bitrates below 10 Mbps, but, given the roll out of these operators, the great majority of these customers could enjoy much higher bitrates. It is worth noting here that 585,034 of the HFC lines contracted (27.2%) exceed 20 Mbps.

Meanwhile, 51% of Telefónica lines contracted have a connection bitrate of 10 Mbps or higher. In absolute terms, there were 2.8 million such lines. Here it is worth noting the weight that the broadband offer with a nominal bitrate of 10 Mbps has in terms of subscription numbers, it being this operator's most successful offer with customers.

Regarding broadband connections by other operators (97% of which use xDSL technology), over 50% of the lines have a contracted bitrate of between 10 and 20 Mbps. Moreover 1.2 million of these lines were contracted with a bitrate of 20 Mbps.

BROADBAND LINES BY CONTRACTED BITRATE AND OPERATOR TYPE (percentage)



Source: CMT

Evolution of prices and commercial offers

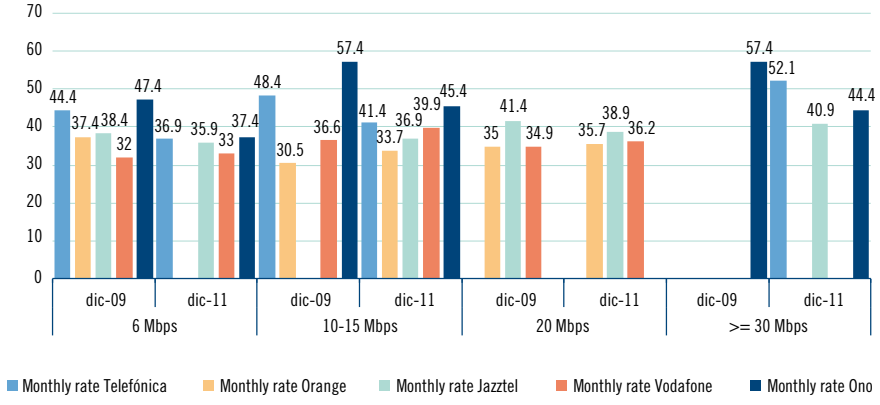
In 2011, operators maintained the business strategy of offering conditions in the price of bundled products that were more attractive than the unit prices of each of the services contracted individually. As seen in previous sections, the voice and broadband bundle alone accounted for 76% of residential broadband lines. For this reason, the comparisons discussed below focus on this type of bundling.

It should also be noted that last year the major operators launched commercial offers of double bundles of internet and fixed voice, which included significant permanent discounts for customers that have a mobile subscription with the operator. These combined offers (which are linked offers or *tyings*, as they are only offered on condition that a mobile subscription is made with the operator) were launched recently by the biggest operators and involve very significant discounts compared with the stand-alone offer in the traditional double bundle (voice, broadband and line rental).

This section gives various measurements of broadband prices in Spain and their recent evolution. Last year was characterised by an increase in offers of broadband with higher bitrates and a significant reduction in the prices of some innovative Telefónica offers, with prices closer to the offers made by alternative operators. Lastly, with regard to the method of access, most of the offers were based on direct access (own network or unbundled loop) and had prices similar to indirect access prices.

The following graph shows the evolution of the effective prices[62] of the main operators' most economic bundled offers[63] by contracted bitrate in the last three years for broadband and voice services. The effective prices of all the offers in the same range of bitrates, taken as a whole, have, on average, gone down slightly. Thus, the effective average price of offers in the range of 10-15 Mbps stood at 39.5 Euros in 2011, compared to 43.2 Euros in 2009. For higher bitrates, of 30 Mbps or higher, the average price fell by 20.2% in two years, to 45.8 Euros, although it should be noted that only Ono had offers in this bitrates range in 2009.

EVOLUTION OF THE BEST BROADBAND + VOICE OFFERS BY BITRATE FOR EACH OPERATOR, WITH PROMOTIONS (monthly payment in euros)



Source: CMT

[62] The following formula was used to calculate the cash discount price (PPD_M):

PPD_M = [PD*D + PN*(M-D)]/M. Where PD = price with discount, D = duration of the discount, PN = nominal price (without discount) and M = timeframe. In this case, M = 24 months was used.

The promotions included correspond to discounts in the price of monthly payments for the service, but do not take into account promotions for non-recurring payments (for example, connection or *Wi-Fi router fees*).

[63] The prices indicated in the offers include monthly line rental.

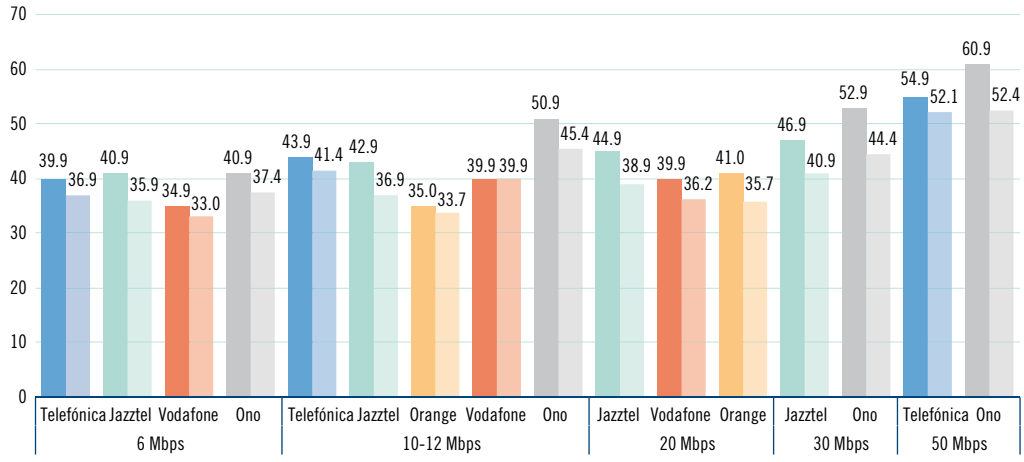
Observing the trend in alternative xDSL operators, the prices of their offers were unchanged from the previous year and some of these operators' offers for the lower bitrates - generally provided via indirect access - disappeared. In Vodafone's case, however, there was a slight increase in the effective price of some offers as the promotions in place for these offers in previous periods decreased or ended.

Ono's effective prices were lower as, while it maintained its offers' nominal prices, it ran several promotions.

Finally, the prices of Telefónica's offers were down in all bitrate ranges. This was due to the launch of offers with lower prices, such as "ADSL Duo up to 6 Mbps" and, new in December 2011, the "ADSL Duo up to 10 Mbps", which represented a 20% reduction on the standard offer.

The following graph shows price differentials between bundled broadband and voice offers, comparing their nominal prices (not including promotions or discounts) and effective prices[64] (with discounts applied to nominal prices) at 24 months - i.e., what customers pays monthly for their internet and voice service when they remain with their operator for 24 months - for commercial offers[65] with connection bitrates of 6, 10, 20, 30 and 50 Mbps.

COMPARISON OF THE BEST OFFER AND PROMOTION FOR BROADBAND + VOICE, BY BITRATES, FOR EACH OPERATOR (monthly payment in euros)



Source: CMT

[64] The following formula was used to calculate the cash discount price (PPD_M):

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The promotions included correspond to discounts in the price of monthly payments for the service, but do not take into account promotions for non-recurring payments (for example, connection or *Wi-Fi router fees*).

[65] As in the previous graph, the prices indicated in the offers include the monthly line rental payment. The offers included in the comparison are those active in December 2011.

It is noteworthy that, in general, both the promotional and nominal prices of Telefónica's best offers stood at the same levels as the offers by alternative operators and the cable operator Ono. However, in the case of the offer with a bitrate of 50 Mbps, the nominal and effective prices were below the price of the Ono offer.

In the case of alternative operators, some discounts reached 14%, as with Jazztel's 12 Mbps offer, and 16%, as in the broadband and voice double bundle offer 30 Mbps from the cable operator Ono.

The CMT-Red.es Household Panel periodically collects information on the prices of internet services contracted by households, using bills provided by the households, themselves. These bills contain information about the recurring payment for the bundle contracted by the household and about any discounts associated with it. They also provide information about households that have contracted offers recently and about those that contracted them in the past. Thus, according to the data for the last quarter of 2011, the average expenditure per household on broadband and voice bundles - also including payment for access - was 37.6 Euros per month, while in the case of triple bundles - also including pay-TV - the average expenditure was 54.5 Euros per month.

This data source can also be used to identify average household expenditure by different operator types. Thus, the average expenditure on the double bundle of voice and broadband contracted with Telefónica was 40.1 Euros per month per household, while, in the case of cable operators, the average expenditure was 39.7 Euros per month. In both cases, expenditure includes the access fee. The average expenditure of households that contracted the double bundle from an alternative operator with indirect access was 35 Euros a month (of which 13.97 correspond to the price of the access service charged by Telefónica), while the average expenditure per household per month was 31.4 Euros when the bundle was contracted from a direct access alternative operator.

It should be noted that expenditure on double bundles contracted from Telefónica fell by nearly 10% last year, while no significant changes were observed in the other cases.

2.3.3. Wholesale services

The success of alternative xDSL operators in capturing new customers was reflected in the wholesale market, with increases in both lines and revenues.

The ex ante obligations established in the wholesale markets regarding broadband services, which the CMT approved in January 2009, remained in place In 2011. There are two markets concerned: the wholesale market for access (physical) to network infrastructure (including shared and fully unbundled access) at a fixed location (market 4), and the wholesale market for broadband access (market 5).

These regulatory obligations, imposed by the CMT, allow operators that do not have their own network to access either a set of wholesale regulated broadband services, or unregulated services - as in the case of the resale service - so that they can offer broadband services to the end user.

As provided for in the 2012 Action Plan published by the CMT, a review of markets 4 and 5 is scheduled to begin in the second half of 2012.

Market regulation 4 enables alternative operators to offer fixed broadband services directly to users by guaranteeing them wholesale access to the physical infrastructure of the SMP operator (currently Telefónica). This regulation includes access to the local loop - the last section of the Telefónica network connecting its local exchanges with users' homes - and access to its passive infrastructure (ducts, channels, manholes, etc.).

With respect to the regulated wholesale service of local loop access, Telefónica offers the following access modes: fully unbundled access (using this service, Telefónica grants use of the copper pair to the operator throughout the pair's frequency range); shared unbundled access (Telefónica grants the operator use of the pair's high frequencies - above the band used by the telephone service - while Telefónica continues to be responsible for use of low frequencies in order to offer basic POTS telephony or basic ISDN access); and, finally, the shared access mode without PSTN, i.e. without telephone subscription with Telefónica. This unbundling mode, although its is equivalent to shared access in that it uses only the high frequencies rather than the entire range to offer services, allows VoIP services to be offered with a monthly rental fee for the pair equal to the fee for fully unbundled access. As in previous financial years, totally unbundled access and shared access without PSTN had the greatest increases in lines and revenues.

Market regulation 5 (wholesale access to broadband) allows alternative operators to connect to a small number of points of access to the network of the SMP operator (currently Telefónica) and, through them, to offer broadband services to all users throughout country, using part of Telefónica's access and transport network.

The connection with Telefónica's network can be made at ATM level at 109 points in different geographical locations in Spain, or at two points at national IP level: Barcelona and Madrid. At IP level, it should be recalled that by resolution of September 2009, in addition to the national service, from January 2010 Telefónica must offer the provincial service, accessible at 50 points coinciding with those in the GigADSL service and with the same prices as this service. Telefónica markets both of these types of wholesale service under the commercial names of GigADSL and ADSL-IP, respectively. As with the mode of shared loop access without PSTN, it is possible to contract the indirect access service without having a telephone service subscription with Telefónica. As will be seen later, the mode of IP concentration without PSTN was the wholesale broadband access service with the greatest increase in lines and revenues in 2011.

Over the course of the year, alternative operators continued to gain gradual access to Telefónica's ducts and to other civil infrastructure in accordance with the obligations imposed by the CMT on the incumbent operator in the framework of the duct reference offer (MARCo), which includes regulated maximum prices.

Regarding wholesale broadband access services, in 2010 a new indirect access broadband Ethernet service (NEBA) was defined. This will gradually replace the current services, will provide wholesale access to Telefónica's new fibre optic network and will allow services with higher added value to be offered with quality guarantees in order to provide Voice Over IP Telephony. NEBA will improve competition in the broadband services available to users who live in areas where there is, as yet, no competition in infrastructure (on own networks or with local loop unbundling) and where alternative operators must resort to indirect access.

Revenues

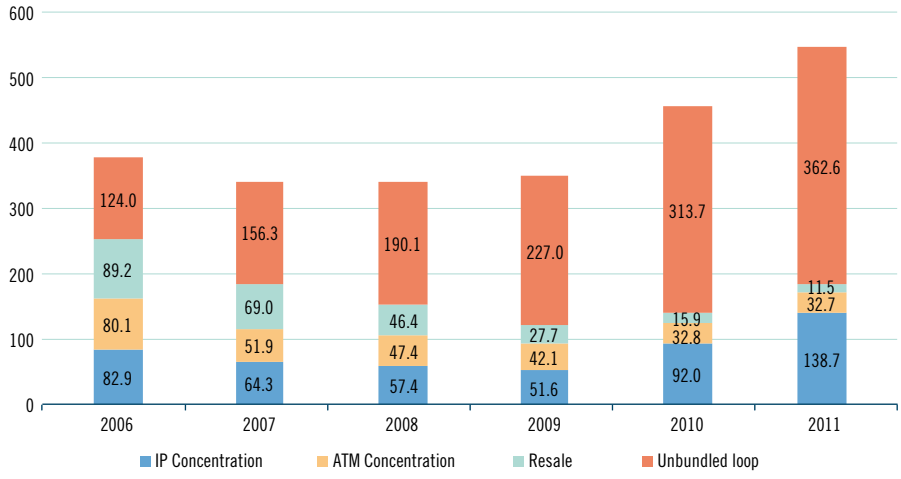
In 2011, the turnover of wholesale broadband services as a whole was 545.6 million euros, which is a 20% increase on the previous year.

Revenues were on a parallel path with wholesale accesses. Thus, there was an increase in revenues from unbundled loop services and indirect broadband access through the IP concentration service, and a fall in revenues from the ATM concentration service and the unregulated resale service.

The service category that generated most revenues was the unbundled loop service, with a year-on-year increase of 15.6% taking it to 362.6 million euros. The second service by revenues was the wholesale IP concentration service, which had strong growth of 50.7%.

By contrast, the reduction in the number of lines in the ATM concentration service and the resale service was reflected in their revenues, which fell by 0.3% and 27.5%, respectively.

BY TYPE OF WHOLESALE BROADBAND ACCESS (million euros)

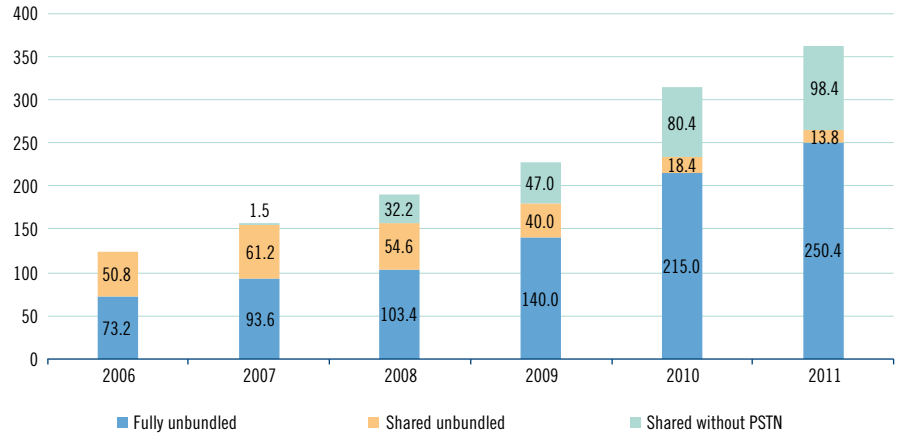


Source: CMT

Regarding revenues from the local loop unbundling service, it is worth noting the link with increased subscriptions to fully unbundled loop lines and shared loop without PSTN lines, which allow alternative operators to offer the broadband and voice service, untying the consumer from the incumbent operator.

Last year, revenues from total local loop unbundling reached 250.4 million euros, representing a 16.5% increase on the previous financial year. For its part, the shared loop service without PSTN continued its upward trend with its revenues rising to 98.4 million euros, 22.4% more than in 2010. It is of note that these types of service are used for consumer accesses by the alternative xDSL operators like Jazztel, Vodafone and Orange. In 2011, these were the operators that captured most new broadband customers. By contrast, revenues from the shared loop service fell by 24.6%.

OF REVENUES FROM THE UNBUNDLED LOOP SERVICE (million euros)



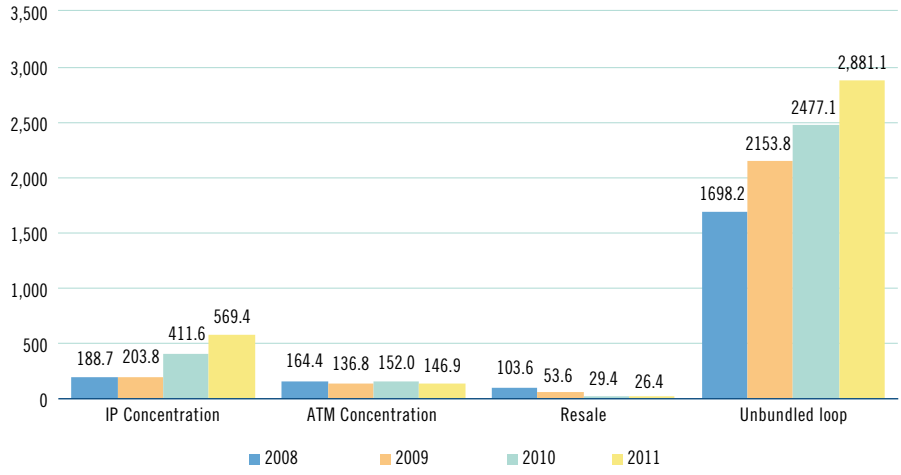
Source: CMT

Lines

Alternative operator gains in new accesses are reflected in the wholesale broadband markets, with an increase in unbundled loops and subscriptions to lines from the IP concentration service.

This indirect broadband access service continued to make the gains in lines that began at the end of 2009 as a result of regulatory measures introduced by CMT. These measures involved a reduction in prices for indirect access services and the introduction of new types of wholesale market offers that allowed operators to make broadband contracts without Telefónica's telephone service. Thus, the IP concentration mode - marketed by Telefónica under the name of ADSL-IP - had an increase of 38.4%. The ATM concentration mode, or GigADSL, fell by 3.3%. Lastly, the resale service fell by 10.1%.

LINES BY WHOLESALE BROADBAND ACCESS MODE (thousands of lines)

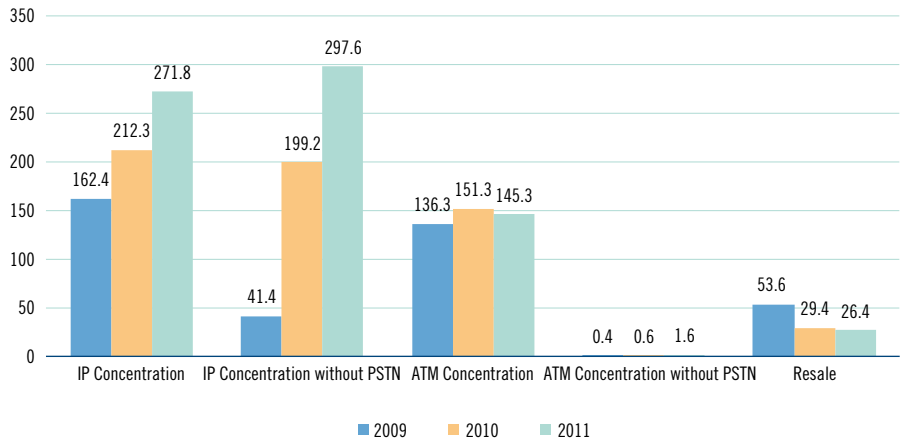


Source: CMT

The following graph shows the breakdown of indirect broadband access lines by type. It shows a strong increase in the number of IP concentration service lines, which exceeded 569,000. Of these, almost 300,000 corresponded to the indirect broadband access service without PSTN, which increased by 49.4% last year.

Finally, the ATM concentration and resale services experienced falls in their total number of lines.

LINES BY TYPE OF INDIRECT ACCESS (thousands of lines)



Source: CMT

The local loop unbundling (LLU) service was, for another year, the main mode used by the alternative operators to offer the broadband service to end consumers. These operators also continued to invest to increase their presence in more local exchanges, in order to be able to offer their services to more consumers.

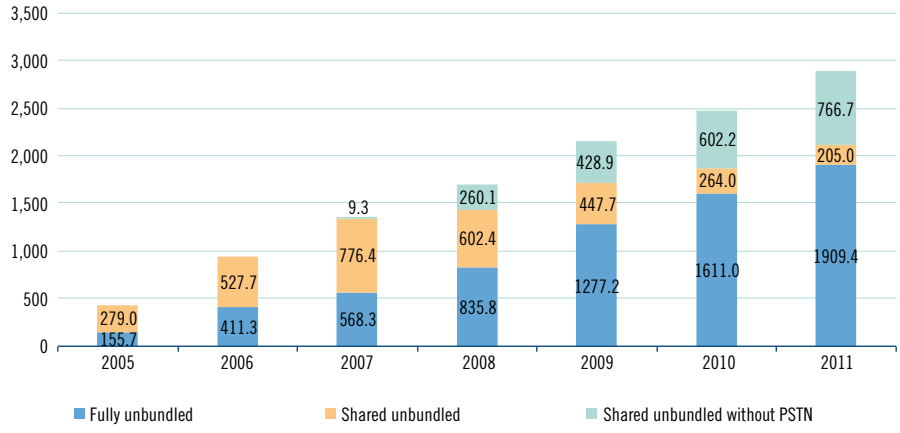
In 2011, the number of unbundled loops reached 2,881,140, representing a year-on-year increase of 16.3% with more than 400,000 new accesses.

The modes with the biggest increases in their total number of lines were fully unbundled loop and shared loop without PSTN, while the shared unbundled loop lost 22.3%.

This fall in the shared local loop unbundling had already started in 2008. It should be mentioned that, in that year those operators who offered their broadband service through a shared access service to the loop, with the telephone service provided by Telefónica, started to use the new mode of shared access without PSTN and to offer their own voice service on the loop's high band (through IP technology), thus untying their customers from their telephone subscription to Telefónica. The number of wholesale shared loop service lines without PSTN reached 766,726, an increase of 27.3% on the previous year. Almost all of these lines belonged to Orange, which is gradually migrating its shared access customer base to shared access without PSTN.

The fully unbundled loop mode, used by Jazztel and Vodafone, reached 1.9 million loops, 18.5% more than in the previous financial year. These figures represent 298,417 new access subscriptions and, therefore, a trend of parallel growth among these operators in the retail market.

EVOLUTION OF UNBUNDLED LOOPS (thousands of units)



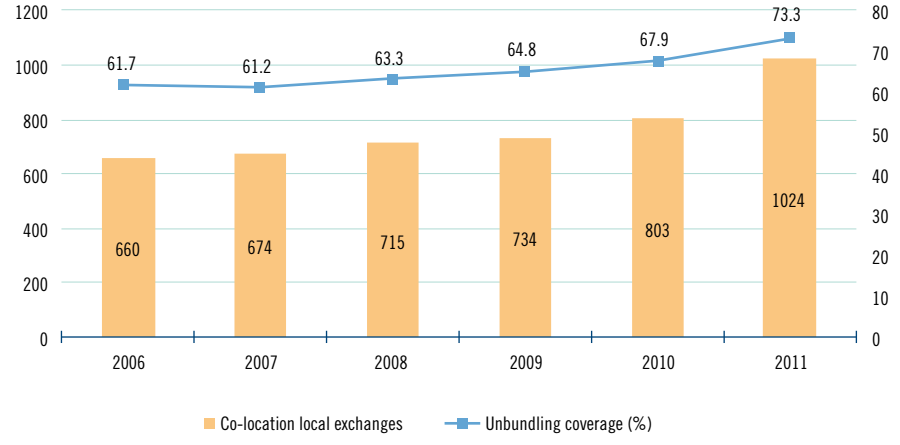
Source: CMT

In 2011, alternative xDSL operators continued to invest in the connection of new local exchanges for co-location and to be able to access a larger number of users. With co-location, these operators rent space in Telefónica's local exchanges in order to locate the equipment they use to provide services through local loop unbundling (LLU).

It should be noted that the RLO price review in December 2010, which reduced the costs of the backhaul service, caused the number of local exchanges that interest alternative operators to increase. Furthermore, in July 2010, costs to operators of energy used by their equipment fell, which also helped to improve the economic conditions for unlooped access.

The effect of the above measures, which were in place throughout 2011, is seen in the graph below, which shows that in 2011 the number of local exchanges with co-located operators reached 1,024. This represented a significant increase, with 221 new local exchanges. These co-located local exchanges allow the number of potentially accessible pairs to reach 10.72 million, which is equivalent to a 73.3% coverage of the total number of Telefónica pairs.

EVOLUTION OF LOCAL EXCHANGES WITH CO-LOCATION AND UNBUNDLING COVERAGE (units and percentage)



Source: CMT

The map below illustrates the geographical distribution of local exchanges with at least one co-located operator. The incorporation of a considerable number of new local exchanges in this financial year - reaching a total of 1,024 local exchanges - has allowed operators to have greater presence and coverage throughout the country.

GEOGRAPHICAL DISTRIBUTION OF LOCAL EXCHANGES WITH CO-LOCATION

Source: CMT

Geographical distribution of unbundled loops

The main method of access to consumers by alternative xDSL operators continued to be the unbundled loop. As noted in the analysis of the industry's evolution, alternative operators made significant investment effort to connect new local exchanges -221 last year, with a corresponding increase in their total number of retail lines.

However, as observed in the different geographical breakdowns in previous sections, there are differences in the penetration of broadband through local loop unbundling related to the density of population of the area covered by the local exchanges with co-location.

The more densely populated areas, where local exchanges cover a larger number of potential consumers, are more attractive to alternative operators as regards making a return on their investment. In the less profitable areas, where these operators do not have a presence through the local loop unbundling service, services are offered through the indirect broadband access.

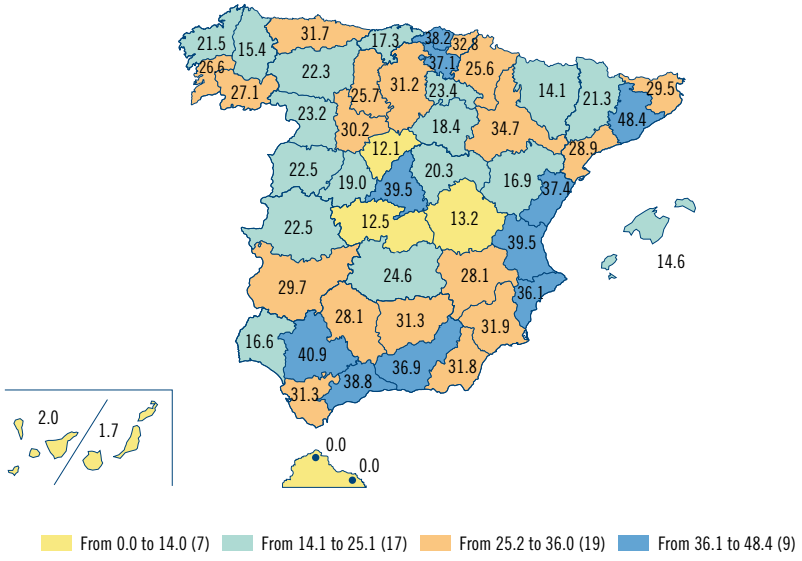
The following map shows the distribution of unbundled loops with respect to xDSL broadband lines in the retail market. In 2011, the national total of unbundled loops per 100 xDSL lines reached 33.0, representing an increase of 3.5 loops compared to 2010. The provinces of Barcelona and Seville had the highest penetration, with over 40 unbundled loops per 100 xDSL lines.

11 provinces ended the financial year with a higher percentage than the national total. Those with fastest growth included Huesca, Jaén, Murcia and Ciudad Real, which increased their number of unbundled loops per 100 xDSL lines by more than six. However, these provinces were still below the national average for penetration.

The lowest loop presence was recorded in Las Palmas and Santa Cruz de Tenerife, which were the only provinces with less than 10 unbundled loops per 100 xDSL lines. In Ceuta and Melilla there was a token presence of the unbundled loop as means of access to the market.

In provinces with little presence of unbundled loops, but high levels of broadband penetration (above 21.6 lines per 100 inhabitants), the main modes of access were Telefónica's xDSL, the regulated indirect access service, resale by alternative operators and cable (HFC).

PENETRATION RATES OF UNBUNDLED LOOPS BY PROVINCE[66] (loops/100 xDSL lines)



Source: CMT

2.3.4. Regulatory actions

Competition in broadband markets is based either on the entrance to the market of operators with their own network or on regulatory mechanisms that facilitate the entry of new agents that are permitted partial use of the incumbent operator's network. To this end, the regulation has designed a series of direct and indirect access services, which - based on the incumbent operator's network - allow the final consumer to be reached.

The part of the incumbent operator's network nearest to the end customer uses copper pairs to connect subscribers to the nearest local exchange. The emergence of xDSL technologies made it possible to increase the capacity of this copper network to accommodate high-speed data connections - broadband - along with voice services. However, to increase connection bitrates above a certain threshold, it is necessary to install new fibre-based networks, either to the subscriber's home or to a place nearby, in order to complete the connection with copper pairs or coaxial cable (HFC). These are the so-called next-generation access (NGA) networks, which permit the very high bitrates of 50 or 100 Mbps that are considered to be needed in the near future.

[66] The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

In order to promote development of these next-generation networks, the European Union embarked on a reform of the industry's regulatory framework in 2009 and, also, set a series of targets to be reached in the EU, as detailed in the European Digital Agenda[67]. One of these targets is to ensure that, by 2020, all European citizens have access to the Internet at bitrates of 30 Mbps or higher, and that half the households in Europe should be subscribers to Internet connections of 100 Mbps or more. These targets involve both network coverage, which will be require a very major investment effort by operators, and actual service penetration.

Wholesale services for market entry

Currently, most alternative operators that use regulated services for the provision of Internet service to end customers have opted for the direct access mode, the prices and conditions of which are regulated in the Reference Unbundling Offer (RUO). This method involves greater investment by operators, which have to set up their equipment in Telefónica's local exchanges before they can unbundle the last section of the network and connect it to their own. In return, however, it allows them to configure their own services for the end customer. This, at the end of the year, alternative operators were present in 1,024 Telefónica local exchanges, via co-location, and had a total of 2.9 million unbundled loops, predominantly unbundled loops and shared loops without PSTN. In both cases, the final customer is untied from the telephone subscription with Telefónica.

In 2011, the start of roll out of next-generation access networks meant that alternative operators began to access Telefónica's civil infrastructure (channels, chambers, conduits and posts), as regulated in the Framework Reference Offer for Ducts (MARCo).

Through the indirect access method, alternative operators can connect to a number of access points in the operator's network with SMP, and thereby provide the broadband service to end customers. This method allows operators to configure offers across the country and also offer services in places that their own networks do not reach.

In 2010, a new NEBA (new Ethernet broadband service) indirect access service was defined, and in 2011 the CMT approved the Telefónica reference offer, except for prices. This service will gradually replace the current GigADSL and ADSL-IP services, provide wholesale access to the new Telefónica fibre optic network and allow services with higher added-value to be offered with guarantees, as well as providing Voice Over IP Telephony. With this service (NEBA), the CMT aims to improve competition in the broadband services available to users who live in areas where there is no competition in infrastructures (on own networks or local loop unbundling) and where alternative operators make of use indirect access to provide broadband services.

[67] Communication, of 19 May 2010, of the Commission to the European Parliament, the Council, the Economic and Social Committee and the Regions Committee, "European Digital Agenda" [COM (2010) 245 final], the objectives of which include the following: create a new single market capable of delivering the benefits of the digital age, improve establishment of ICT standards and their interoperability, increase confidence and security, increase the access of Europeans to high-speed and ultra high-speed Internet, promote research and cutting-edge innovation in ICT, provide all Europeans with digital skills and accessible on-line services and release the service potential that ICTs offer to society.

2.4. Audiovisual services

In the audiovisual services market, an analysis is made of the television and radio services and another of the audiovisual signals transport services.

The evolution of both services in 2011 was uneven, and while the revenues from television and radio services fell by 6.7% to 4,124.7 million euros, the services of transport and broadcast of audiovisual signals grew by 4.7 % to reach a global turnover of 413.5 million euros.

2.4.1. Television and radio services

The audiovisual industry, including television, radio and subsidies, had turnover of 6,459.2 million euros, representing a fall of 3.4% in annual terms. This decline was driven especially by a fall in the advertising heading, directly affecting free-to-air television services.

TV consumption increased in 2011, reaching a new high of 239 minutes per viewer per day. Subscribers to pay-TV – not including mobile TV services – increased slightly, by 0.7%, especially because of the increase in IPTV subscribers and the introduction, in 2009, of the pay-DTTV mode. The penetration of households stood at 22.8% of households that said they had subscribed to a pay-TV service.

The transition to DTTV has allowed channels to proliferate and has led to greater fragmentation of audiences per channel, a situation in which theme channels – both free-to-air and by payment – have had success.

The boom of convergent communications operators in this market in recent years is also notable. In 2011, 52.6% of pay-TV subscribers, and 35.7% of subscription revenues in this segment, corresponded to telecommunications operators that normally offer the TV service along with other complementary services, such as broadband and fixed telephony. Each of the four largest providers of pay-TV services use a different platform to broadcast/ distribute the signal (satellite, cable/HFC, xDSL or the radio spectrum). The provision of this pay service has led to the emergence of inter-platform competition, with new market players.

Situation of the industry

- Total revenues and revenues by service type

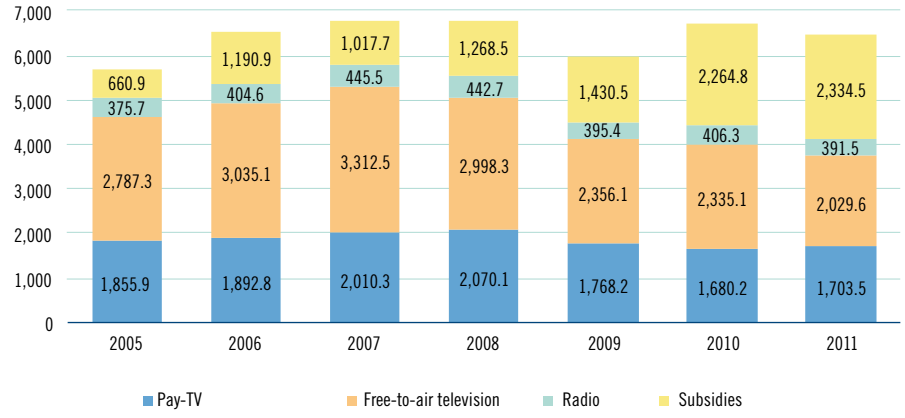
The turnover of the audiovisual services market, excluding subsidies, was 4,124.7 million euros, representing a year-on-year fall of 6.7%. If this net turnover is added to by the subsidies (2,334.5 million euros) that operators received from the different public administrations, total revenues from audiovisual services fell by 3.4% during the year to 6,459.2 million euros.

Business revenues earned by the television segment amounted to 3,733.2 million euros, representing a 7% fall on 2010. Meanwhile, revenues from the radio segment, with turnover of 391.5 million euros, fell by 3.6%.

Within the television group, there was a slight fall in free-to-air TV revenues, driven by the adverse evolution of the advertising market. With turnover of 2,029.6 million euros, it registered 13.1% fall on the figure obtained in the previous financial year. In absolute terms, the fall was 305.4 million euros.

Pay-TV was less affected by the evolution of the advertising market because its business model is based on subscription revenues. The total turnover of all operators of pay-TV – the only segment to show a slight increase over the previous year – was 1,703.5 million euros, 1.4% more than in 2010.

REVENUES IN THE AUDIOVISUAL INDUSTRY, INCLUDING SUBSIDIES (million euros)



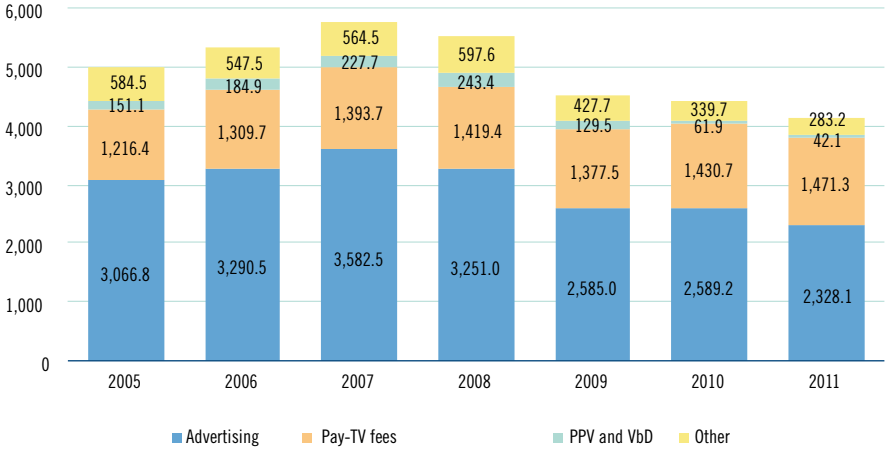
Source: CMT

- Revenues by item

By headings, the item that most influenced the fall in turnover compared to 2010 was advertising revenue. After falling by 10.1%, revenues stood at 2,328.1 million euros (261.1 million less than in 2010).

The second most important item (35.7% of total revenues), and the only one to improve on the previous financial year, was revenue from pay-TV subscriptions, which increased year-on-year by 2.8% to 1,471.3 million euros, in line with the increase in the number of subscribers in 2011.

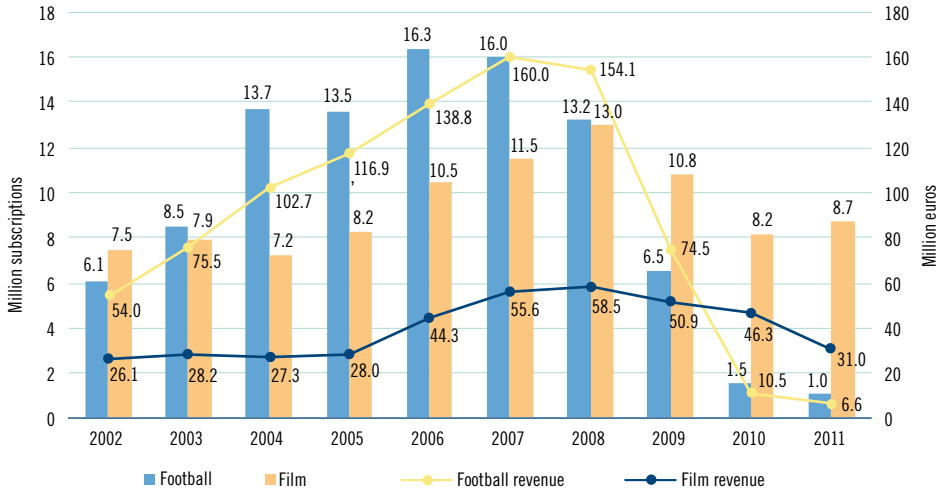
DISTRIBUTION OF REVENUE IN THE AUDIOVISUAL SERVICES SECTOR BY HEADING, INCLUDING SUBSIDIES (million euros)



Source: CMT

In line with the evolution of the last two years, revenues from pay-per-view events and video on demand fell in 2011 by 32% to 42.1 million euros. This fall was due partly to the change in the model for exploiting football competition broadcasting rights, which, since 2009, have been exploited through specialised channels rather than the traditional pay-per-view formula, and partly to strong film rental promotions offered by operators during this past year.

NUMBER OF PAY-TV SUBSCRIPTIONS AND DERIVED REVENUES
(millions of minutes, subscriptions and millions of euros)



Source: CMT

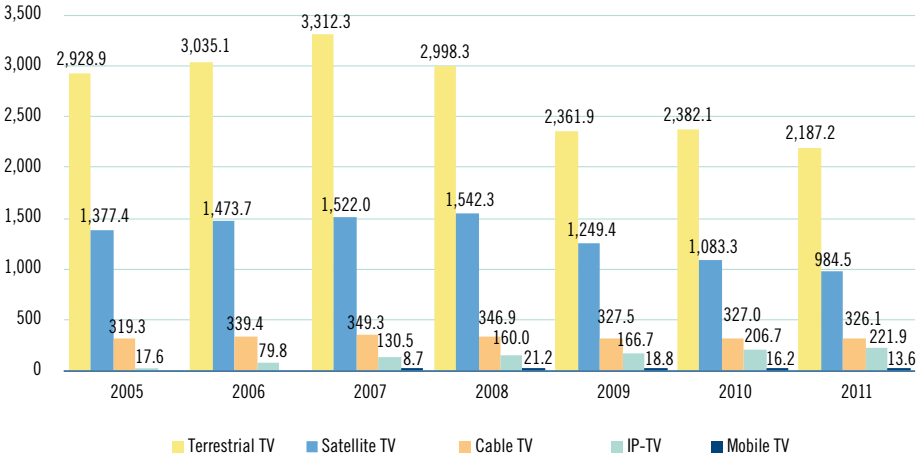
- Revenues by technology

In terms of importance in the current Spanish audiovisual model, the dominant technology platform and the one with the highest revenues is DTTV, which is used primarily to provide the free-to-air television service, but also – to a lesser extent –, since late 2009, for pay-TV services.

The position of the other technology platforms used for the provision of pay-TV services, ordered by turnover, is as follows: satellite (984.5 million euros), cable (326.1 million euros), IP-TV (221.9 million euros) and mobile television (13.6 million euros).

It is notable that, for now, mobile audiovisual content services use 3G telecommunications technology and their consumption is not equivalent to a television in the home – used by the whole family. Instead they have a sporadic, individualised consumption and are distinguished by not being directly related to the television at home, but to mobile phones and devices (*smartphones*, tablets, etc.), although it is possible to connect these to larger screens.

TELEVISION REVENUES BY TRANSMISSION METHOD, NOT INCLUDING SUBSIDIES (million euros)



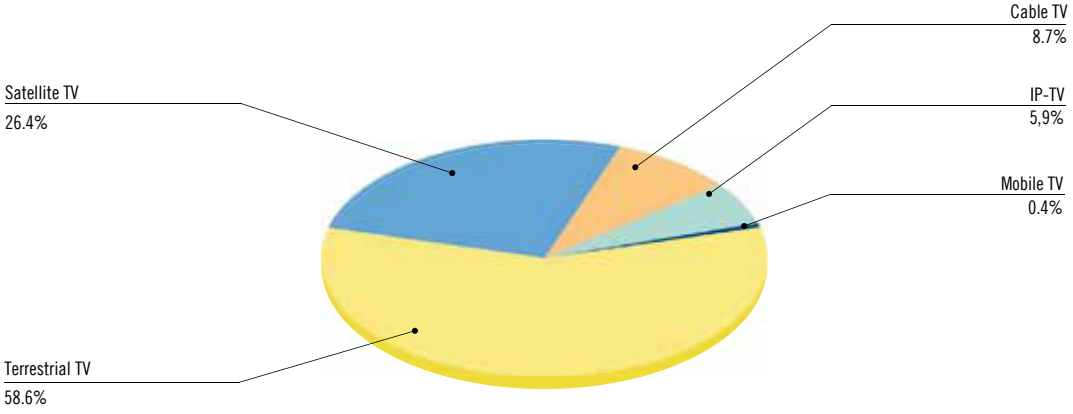
Source: CMT

A dynamic analysis of revenues by transmission method shows a fall in revenues in 2011 for all technology platforms except IP-TV, which was the only one to record growth.

However, this decrease was not equal for all services. Those with the biggest falls were mobile audiovisual contents, with a fall of 16.2% in revenues and total turnover of 13.6 million euros, followed by satellite TV, which fell by 9.1% with revenues of 984.5 million euros, and terrestrial TV, which, with 2,187.2 million euros, suffered an 8.2% fall in revenues compared to 2010.

These were followed by the cable TV services, which had a more moderate fall of 0.3%, with turnover of 326.1 million euros. Last are the IP-TV services, which were the only ones with positive growth figures: their revenues increased by 7.4% over 2010 to stand at 221.9 million euros.

DISTRIBUTION OF TELEVISION REVENUES BY TRANSMISSION METHOD (percentage)



Source: CMT

- Number of subscribers

In 2011, the number of subscribers to pay-TV services in Spain reached 4,517,066 (32,540 more than in 2010), not counting subscribers to television services via mobile terminals.

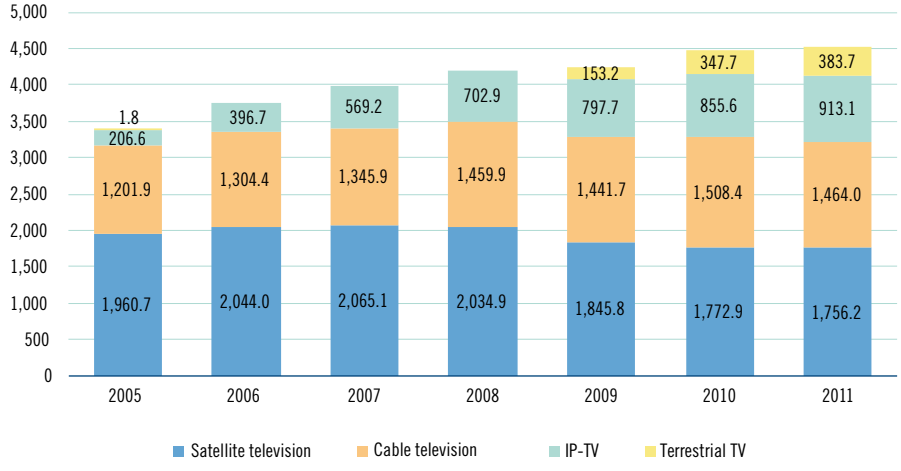
By technology types, the customer base for pay-DTTV and IP-TV platforms increased in 2011, while it decreased for satellite TV, cable TV and mobile TV.

The leading pay-TV platform in Spain by number of customers was the satellite TV platform, Canal+[68], which, although it lost 16.671 subscribers over the year, closed the period with 1.76 million customers.

After this, came cable TV, which, having lost 44,429 customers – a fall of 2.9% –, closed the financial year with almost 1.5 million subscribers.

Third place by number of subscribers was occupied by IP-TV, with 57,564 net subscribers and a total of 913,148 subscribers at the end of the year. Last, in fourth place, was the pay-DTTV service with 36,076 net subscriptions in the period and a total of 383,738 subscribers.

EVOLUTION OF THE NUMBER OF SUBSCRIBERS TO PAY-TV, BY TRANSMISSION METHOD[69]
(thousand subscribers)



Source: CMT

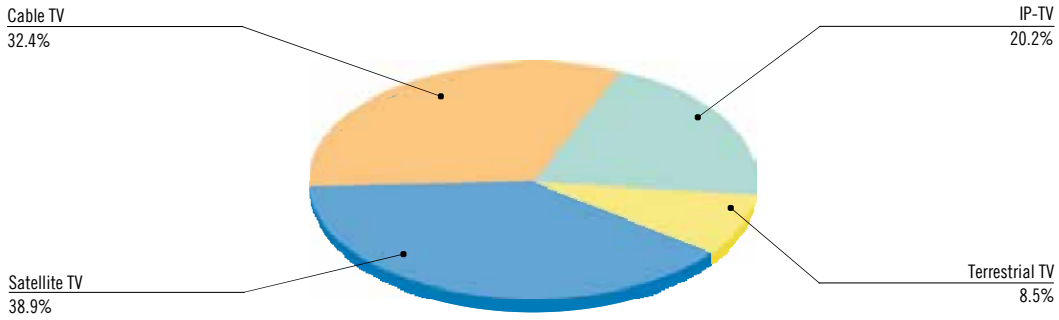
The last four financial years have seen a distribution trend of subscribers among the different technology platforms as follows: the satellite platform has decreased progressively, the number of subscribers to cable television has been relatively stable, and the number of subscribers to IP-TV and terrestrial pay-TV services has increased continuously.

At the end of 2011, the distribution of numbers of subscribers in the various platforms was as follows: 38.9% of subscribers were attributed to the satellite pay-TV service, 32.4% to cable television, 20.2% to IP-TV platforms, and the remaining 8.5% to the pay-DTTV service.

[68] In 2011, the Digital+ pay-TV service changed its platform trade name to Canal+, with the programme channel formerly known as Canal+ being renamed Canal+1, and the pay-TV platform, formerly called Digital+, being renamed Canal+.

[69] Does not include mobile television.

DISTRIBUTION OF SUBSCRIBERS TO PAY-TV, BY TECHNOLOGY[70] (percentage)

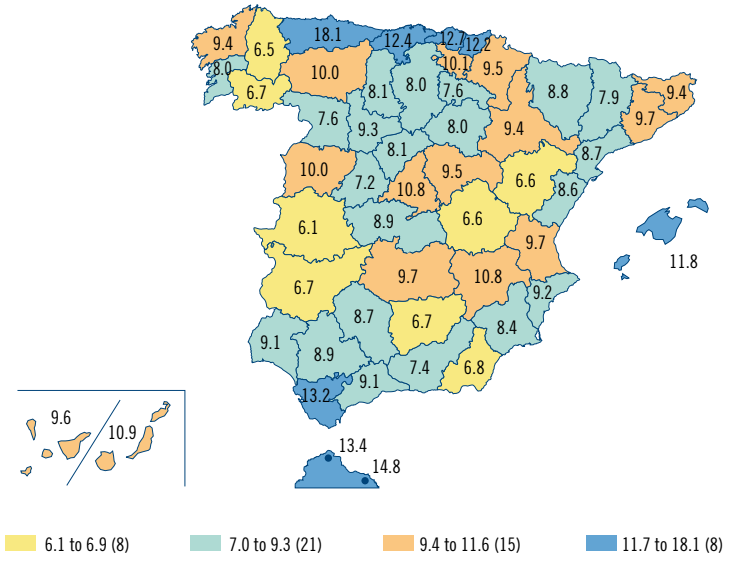


Source: CMT

- Penetration of pay-TV services

At the end of 2011, the penetration of pay-TV in Spain stood at 9.8 subscribers per 100 inhabitants. A breakdown by technology platforms shows satellite TV services to have the highest penetration, with an average of 3.8 subscribers per 100 inhabitants at the end of the year. The technology platform with the second highest penetration was cable TV, with a penetration of 3.2%, followed by IP-TV and pay-DTTV, with penetrations of 2% and 0.8%, respectively.

PAY-TV PENETRATION BY PROVINCE[71] (subscribers/100 inhabitants)



Source: CMT

[70] Does not include mobile television.

[71] Does not include mobile television. The population data corresponds to official INE figures from the last population census, made in 2001. The total population of Spain in 2011 was 46,152,925 inhabitants. The intervals have been set using the mean ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

In an analysis of the different geographical areas, the province with the highest penetration was Asturias, with 18.1 subscribers per 100 inhabitants, followed by Melilla, with 14.8, and Ceuta, with 13.4. At the opposite end were Cáceres and Lugo, with penetrations of 6.1 and 6.5 subscribers per 100 inhabitants, respectively.

- Number of operators

2011 was a year of hard adjustments resulting from the economic crisis. The first year of the merger of two market operators, Telecinco and Cuatro, was completed, and the merger of Antena 3 and La Sexta was announced (an operation that, at end of the financial year, was pending approval by the competition authorities). In addition, a new operator of satellite pay-TV (Starmax TV) attempted to enter the market. This operator ceased broadcasting half way through the year. The pay-DTTV channel, Canal+Dos. also ceased broadcasting in December.

Regional television channels were affected by a sharp drop in advertising revenues and by public subsidy cuts made by some regional governments. As a result, in 2011, some regional operators, such as Castile-La Mancha, closed their second channels, while others, such as Corporación Extremeña, Corporación Aragonesa, Radio Televisión del Principado de Asturias and Radiotelevisó Valenciana, dispensed with satellite broadcasts on their channels. The situation was similar for local television, and some large municipalities, such as Madrid and Majorca, chose to close their municipal television channels as a budget cutting measure.

Operators of pay-TV services did not suffer from the economic crisis as much as free-to-air TV operators. Pay-TV operators achieved a small gain in subscribers in 2011, as well as in revenues, although the gains were less than in the years prior to the economic crisis.

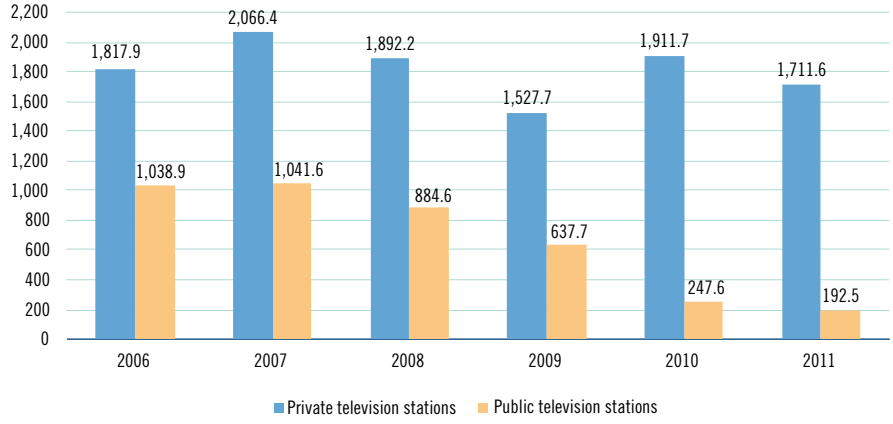
Free-to-air TV segment

- Private television compared to public television (market shares)

Most notable in the free-to-air TV industry was the fall in advertising revenues felt by most operators. Specifically, private television channels, with advertising turnover of 1,711.6 million euros, suffered a fall in advertising revenues of 200.1 million euros compared to 2010. The revenues of public television, with turnover of 192.5 million euros, fell by 55.1 million euros. In terms of year-on-year change, there was a fall of 10.5% for private television and 22.2% for public television.

As regards shares of the advertising market, in 2011 private TV obtained 89.9% of the advertising in the free-to-air TV segment. The other 10.1% went to public television. In this section, it should be noted that 2011 was the second year in which there was no advertising on Televisión Española, in accordance with this Corporation's funding model, approved in 2009.

ADVERTISING REVENUES BY OPERATOR GROUP (million euros)

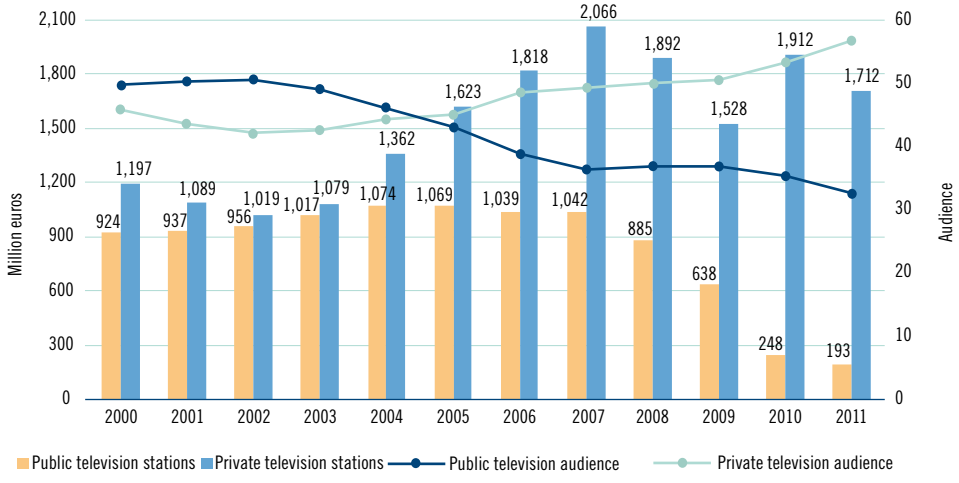


Source: CMT

Note: In this section, private television revenues include only the advertising revenues in the free-to-air TV segment. It does not include advertising revenues from pay-TV (33.3 million euros in 2011).

The new DTTV model and the emergence of new theme channels have affected the activity of regional public operators in two ways: their reduced capacity to capture advertising and their audience ratings. As shown in the graph below, the audience share of public operators, especially regional ones, has declined since new channels began to appear in 2009.

ADVERTISING REVENUES AND AUDIENCE SHARES BY OPERATOR GROUP (million euros and percentage)



Source: prepared in-house with data from CMT and Kantar Media

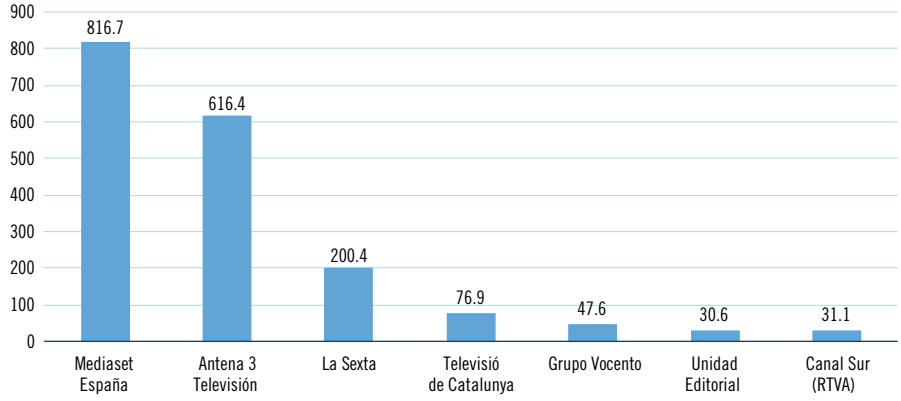
- Advertising revenues by operator

An analysis of advertising revenues by operator showed Mediaset España to be the leader. In 2011, this operator, following its merger with Cuatro, gained 42.9% of the total advertising revenues of free-to-air television channels (816.7 million euros). It should be noted that this is also the largest operator in the market, with eight programming channels, compared to four channels for the other private operators.

The second operator in terms of revenues was Antena 3, with 616.4 million euros, representing 32.4% of the total. In third place, well behind the first two, was La Sexta, with 200.4 million euros, 10.5% of total advertising turnover.

The other providers, which include regional television channels and channels operating in the multiples of Vocento[72] and Unidad Editorial[73] – obtained the remaining 14.2% of advertising investment received by free-to-air television operators. The total stood at 270.7 million euros.

ADVERTISING REVENUES OF THE MAIN FREE-TO-AIR TELEVISION OPERATORS (million euros)



Source: CMT

Note: The revenues are those of all free-to-air channels operating through the bandwidth of each group, regardless of whether the channels are operated directly or leased to another operator.

An analysis of the concentration of advertising investment in television shows that, taken as a whole, Mediaset España (which currently has seven programming channels[74]) and manages its advertising business through "Publiespaña" and Antena 3 (with four channels), which in turn channels this activity via "Atres Advertising", captured 75.3% of total advertising revenues.

If, following the effective merger of Telecinco and Cuatro, the above analysis had included the supposition of Antena 3 and La Sexta (PubliSeis) operating in 2011 as a single transmitter, the two groups taken together – which would have had 14 programming channels[75]– would have obtained 1,633.5 million euros in 2011, representing a concentration of 85.8% of total free-to-air television advertising revenues[76], to which should be added the advertising managed by other channels with national coverage run by these companies.

[72] In 2011, Disney Channel and the Intereconomía TV, MTV and La 10 channels all operated under the Grupo Vocento licence.

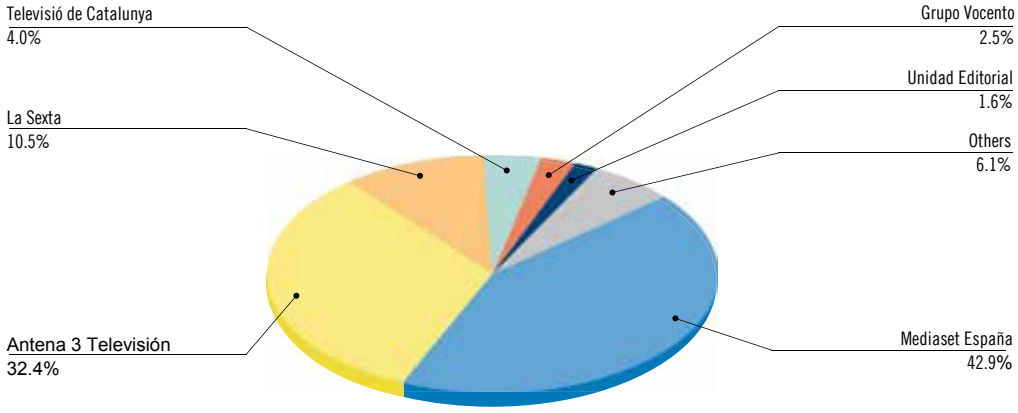
[73] Channels VEO7, AXN, Marca TV and 13TV operated under the Unidad Editorial licence in 2011.

[74] In 2011, the eighth Mediaset España programming channel was leased for transmission to the Canal+ Dos pay-DTTV channel.

[75] The calculation does not include the Gol Televisión channel, which operates under lease through one of the La Sexta programming channels, nor Canal+ Dos, which operated through one of the Mediaset España channels.

[76] The merger of Telecinco and Cuatro took place in December 2010, and at the end of 2011 an agreement was reached to merge Antena 3 and La Sexta. The latter operation has obtained the approval of the Council of Ministers and is awaiting approval by the competition authorities.

ADVERTISING REVENUES OF THE MAIN FREE-TO-AIR TELEVISION OPERATORS (million euros)



Source: CMT

- Free-to-air television audiences

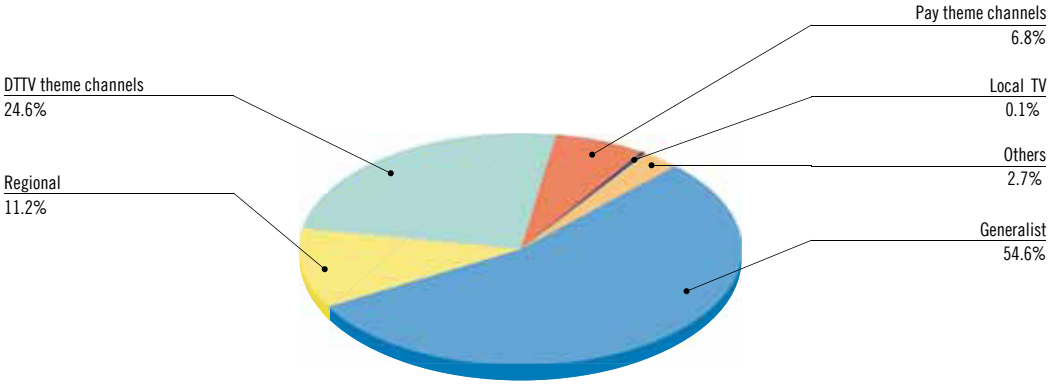
In 2011, operators continued to be immersed in the process of adjusting to the new scenario of transition to the DTTV environment and the resulting increase in the number of programming channels allocated to each of them. In recent financial years, the emergence of new channels has led to audience fragmentation, as viewers gradually spread among the greater number of channels.

The increased number of TV channels and audience fragmentation are added to by the effects of the economic crisis, affecting, above all, advertising investment in the media and especially in television services.

During 2011, operators attempted to adapt to this context with strategies involving changes to channel programming and, in some cases, the replacement of some channels by new ones in order to achieve maximum profitability in transmissions and to capture higher audience shares.

In 2011, audience fragmentation caused a drop in average audiences and audience shares for traditional programming channels (those that existed prior to migration to the DTTV environment) in favour of theme channels, which are the ones to enter the market most recently. In 2011, the theme channels taken together had an audience share of 24.6%, compared to 54.6% for generalist channels.

AUDIENCE BY CHANNEL TYPE (percentage)

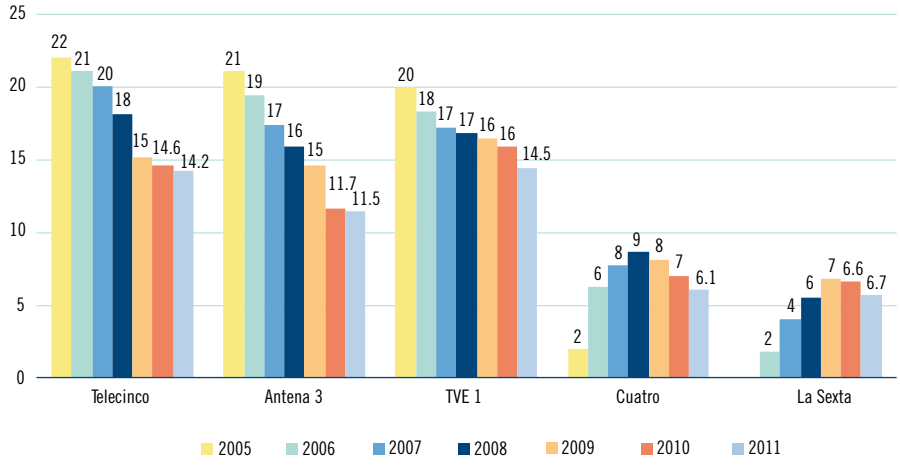


Source: Kantar Media

Traditional generalist channels not only saw their audiences fall from the previous year, but saw their audience shares at an all-time low, as shown in the graph.

With respect to regional television taken as a whole, the operators grouped in FORTA obtained an average audience of 10.4% (0.9% less than in 2010), although the decline was not homogeneous and, analysed individually, some regional channels made audience gains over the previous year. When the FORTA data is added to by private regional channel audiences, the total for the regional television audience in 2011 was 11.2%. The 0.9% fall in public regional television audiences was much lower than fall in advertising revenues felt by the same group during the year, estimated at 22.2%.

AUDIENCE OF GENERALIST CHANNELS (percentage)



Source: Kantar Media

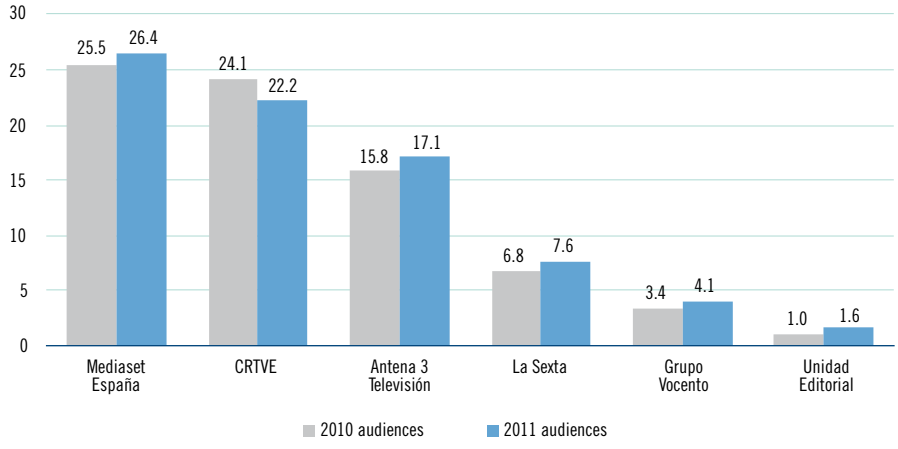
An analysis of audiences by operator, as was the case under revenues, showed the leading operator to be Mediaset España which, with its seven programmed channels, obtained a viewing rate of 26.4% – a figure that is marginally higher then the combined viewing rates for the previous financial year for the channels belonging to Telecinco and Cuatro–.

The Spanish Radio and Television Corporation was placed second, with an audience of 22.2%, a drop of 1.9 percentage points in audience share compared with August 2010. It should be noted that, with the ending of advertising slots on the Corporation's channels, the public operator's audience comprises viewers who are out of reach of advertising.

Antena 3 was placed third in terms of audience share, and was the second-largest market operator in terms of revenues. This operator's four programme channels, whose audience share increased by 1.3% compared to the previous financial year, achieved a total audience share of 17.1%.

The fourth operator in terms of viewer figures was La Sexta, which, in 2011, managed three programme channels – this operator's fourth channel was leased out to the sports channel Gol Televisión–. This operator's audience increased by 0.8% to an annual average of 7.6%. If, for example, the merger between Antena 3 and La Sexta, which was announced at the end of the year, had been in effect during 2011, the merged operator (Antena 3 + La Sexta) would have obtained a joint audience of 24.7%, which would have put it in second place, ahead of the Spanish Radio and Television Corporation.

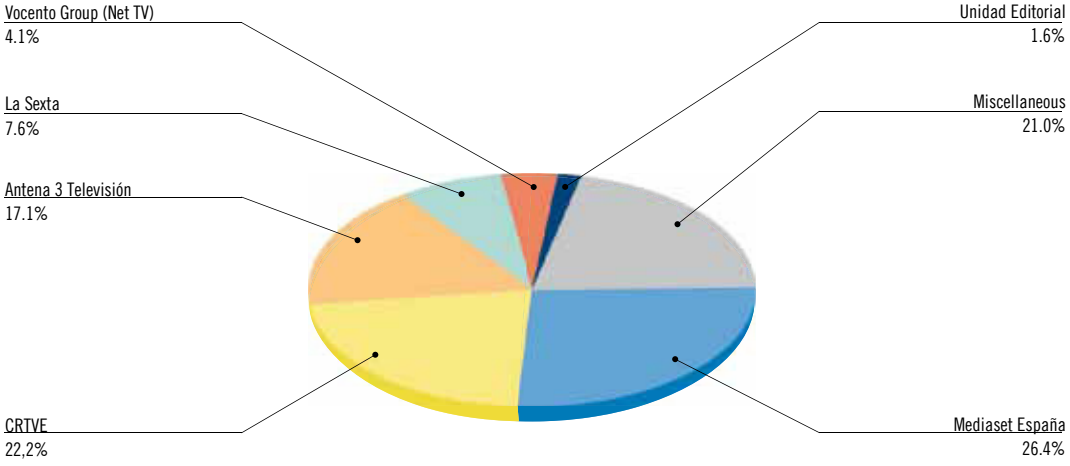
AUDIENCE BY OPERATOR (percentage)



Source: Kantar Media

Note: In order to have comparable figures, Mediaset España's audiences for 2010 included the audiences for Telecinco's channels (17.7%) and the audiences for Cuatro's channels (7.8%).

DISTRIBUTION OF AUDIENCES BY OPERATOR (percentage)

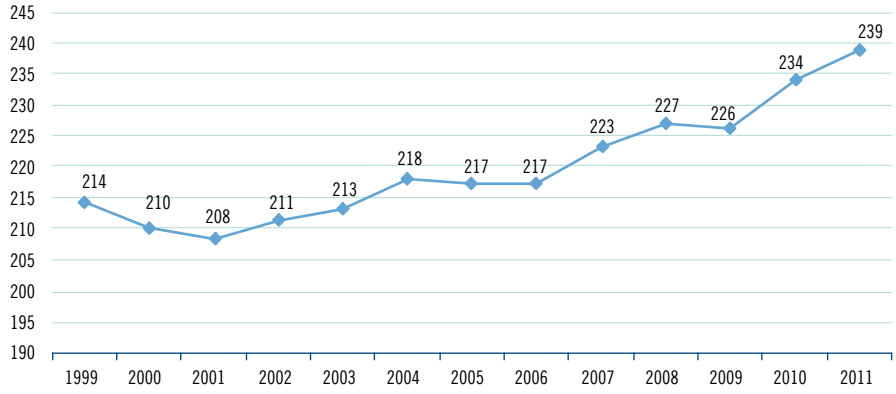


Source: Kantar Media

- Use of free-to-air television services

In 2011, the time spent by viewers watching television hit a new record for average daily viewing: 239 minutes per person per day, five minutes up from the peak figure for 2010.

AVERAGE TELEVISION VIEWING (minutes per person per day)



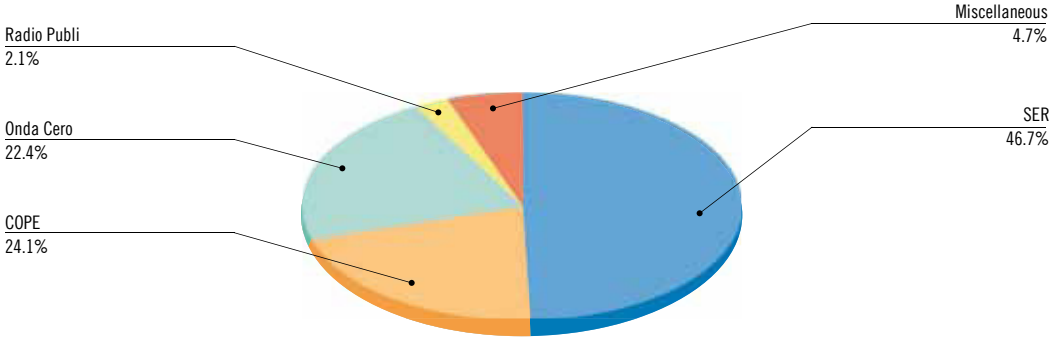
Source: Kantar Media

The breakdown of television viewing by transmission medium was very similar to the previous financial year, with approximately 80% of time going to free-to-air DTTV services and the remaining 20% to pay-per-view television via different platforms.

Radio segment

In 2011, advertising revenue for the radio segment remained highly concentrated in the three main national private operators. Thus, the group comprising Sociedad Española de Radiodifusión (SER) company of the Prisa Group, Onda Cero of the Uniprex group and Radio COPE Popular, taken together, accounted for 93.2% of business revenue. The turnover of these three groups stood at 365.1 million euros.

REVENUES OF THE MAIN RADIO GROUPS (percentage)



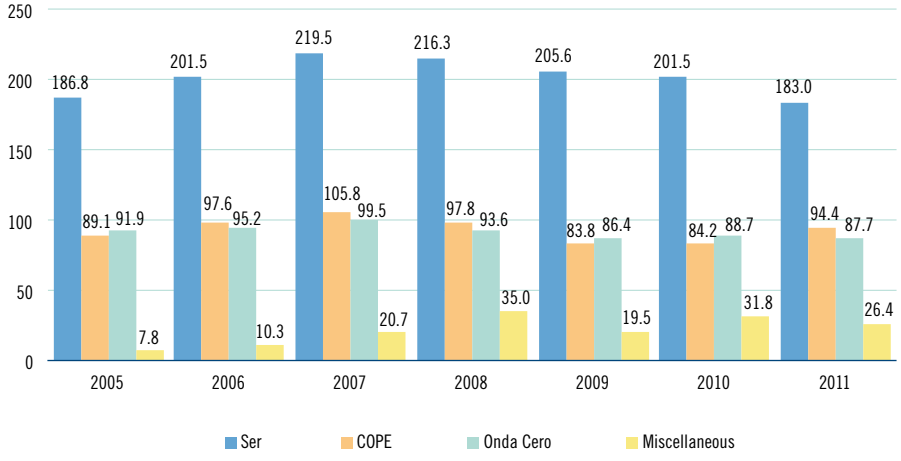
Source: CMT

The largest operator in the radio segment in terms of revenues was Sociedad Española de Radiodifusión which, despite recording a decrease of 9.2% year-on-year in its revenues, achieved a turnover of 183 million euros. This accounted for 46.7% of total market revenues.

The second-largest operator by revenue – and the only one to show growth over the previous financial year – was COPE, which grew by 12.1%, with revenues of 94.4 million euros, which resulted in a 24.1% share of total revenues for the industry.

Onda Cero came in third place, with total revenues of 87.7 million euros, down 1.2% on 2010. It was followed by Radio Publi, with a turnover of 8.2 million euros and the decline of 20.2%.

REVENUES OF THE MAIN RADIO OPERATORS (million euros)



Source: CMT

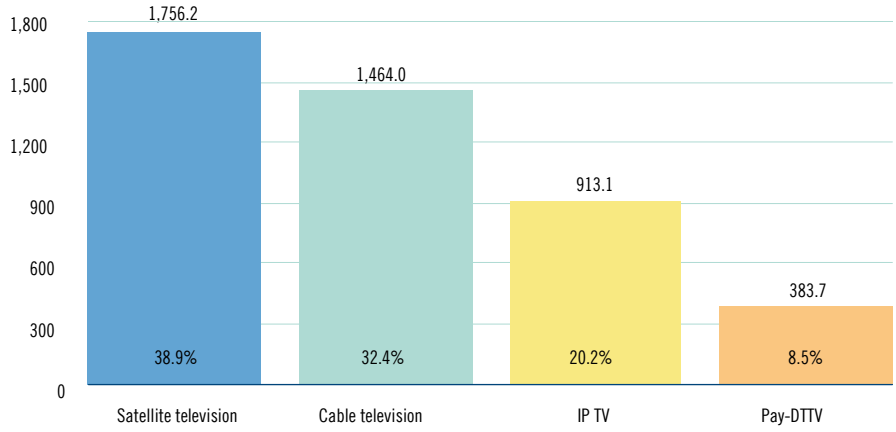
Pay-per-view television segment

- Number of subscribers by technology

The economic downturn had a less adverse effect on the revenues of pay televisions. indeed, revenues of pay-per-view television grew by 1.4% in 2011 compared with 2010.

In 2011, one characteristic of the pay-per-view television market was that the four largest operators used different technological platforms, which meant that the market was fairly evenly shared between the different operators and platforms and users benefited from a variety of services.

DISTRIBUTION OF SUBSCRIBERS BETWEEN PAY TELEVISION SERVICES BY TECHNOLOGY (thousands of subscribers)



Source: CMT

In 2011, the two largest pay television, satellite television and cable television platforms saw a reduction in their customer base by 0.9% and 2.9% respectively. However, net subscriber numbers for the IP-TV and Pay-DTTV platforms grew by 6.7% and 10.4%. It should be noted that pay-DTTV services (which hold some exclusive rights to football) appeared at the end of 2009, have made remarkable progress over these two years, and are now the fourth-largest operator on the market.

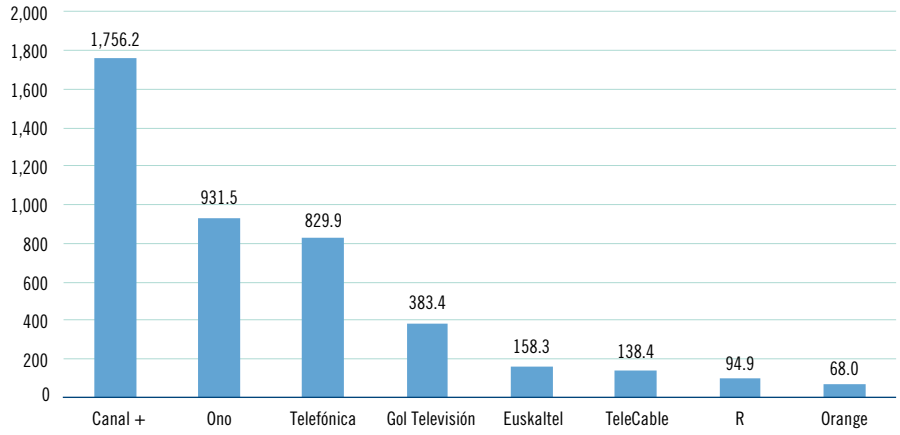
- Number of subscribers by operator

An analysis of the distribution of the number of subscribers per operator shows that the satellite pay television service Canal+ is still the largest operator, with 1.76 million subscriptions.

However, the number of subscribers to this platform has recorded a decline over recent years – by 0.9% in 2011 to be precise – and closed the last financial year with a loss of 16,671 subscribers.

The second-largest operator on the market was the pay television cable platform Ono, which had 931,503 subscribers at the end of 2011. This operator also recorded a decline of 3% over the previous year and closed 2011 with 28,695 fewer subscribers.

NUMBER OF SUBSCRIBERS OF THE MAIN PAY TELEVISION OPERATORS (thousands of subscribers)



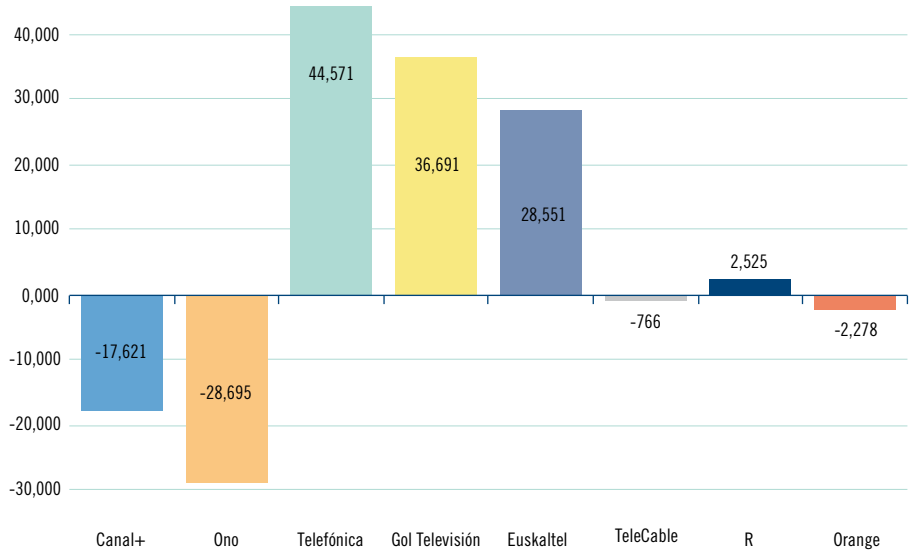
Source: CMT
Note: does not include mobile television.

The third-largest operator was Telefónica's pay television service, Imagenio. This service, since it appeared in 2005, has recorded constant growth both in subscriber numbers and revenues. The customer base subscribed to this pay television service grew by 5.7% in 2011, posting 44,571 end-of-year net subscribers and a total of 829,864 subscribers.

These three major market operators were followed by Gol Televisión's pay-DTTV services. This operator, which appeared on the market at the end of 2009 and whose service consists of one single channel that broadcasts the major football matches of the Spanish Premier league and the main European competitions, grew most strongly in 2011. It finished the year with an increase of 10.6%, 383,403 subscribers and 36,691 new subscribers.

The strategy pursued by the owners of Gol Televisión of wholesale sales by this channel to other platforms means that this channel can be contracted as a *Premium* channel on other pay television platforms. In this way, this channel can be received via pay the television services of other cable TV, IP-TV, mobile TV, etc operators. More than 30% of subscribers to this service took out their contract through an alternative platform.

ANNUAL NET VARIATION IN SUBSCRIBERS PER OPERATOR (subscribers)



Source: CMT

Note: does not include mobile television. Net variation in subscribers for Canal+ includes the reduction in subscribers to satellite television (16,671 subscriptions) and subscribers to pay-DTTV.

- Market shares[77]

An analysis of market share per operator showed that the high concentration in the three largest market operators (Canal+, Ono and Telefónica) is tending to decrease slightly as the size of the fourth largest operator, Gol Televisión, increases. Notwithstanding, the three largest market operators accounted for 77.9% of subscribers (3.5 million) and 87.6% of revenues.

These four operators, the key market players, use different technological platforms: the first offers a satellite service; Ono offers its service through cable networks; Telefónica's Imagenio, through the xDSL network; and Gol Televisión by DTTV. This degree of competition between platforms offers consumers alternatives in terms of how they access pay television services, although on occasion these choices are determined by the telecommunications services which are contracted together in the same bundle with double- and *triple-play* bundles.

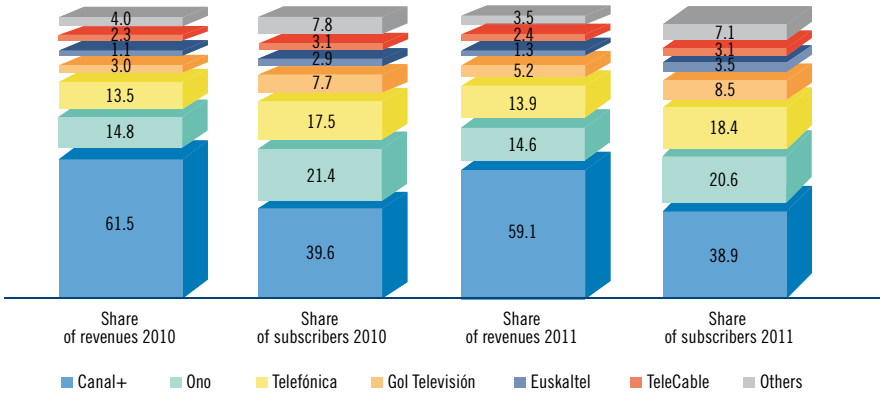
Individually, the operator with the largest market share was Canal+, which accounted for 59.1% of revenues set against subscribers (887.1 million euros) and 38.9% of subscribers. However, in the last three financial years this operator has recorded a gradual decline in its specific weight in the market.

The operator with the largest market share of pay television services was Ono, the only cable operator with national coverage. Its turnover was 218.5 million euros and its market share – with 14.6% of revenues and 20.6% of subscribers – fell by 0.2 and 0.8 percentage points, respectively.

[77] Market shares are based on subscriber revenues and not total revenues, to avoid including in the market share calculation the effect of the operators' other activities, such as, for example, wholesale marketing of *Premium* channels or sales of their own productions.

Telefónica's Imagenio service gained market shares of 13.9% of turnover (208.9 million euros) and 18.4% of customers. This operator's performance in market shares both of revenue and subscribers has shown modest but steady growth since 2005, when it began to market its pay television service.

MARKET SHARE BY OPERATOR BASED ON REVENUES AND SUBSCRIBERS (percentage)



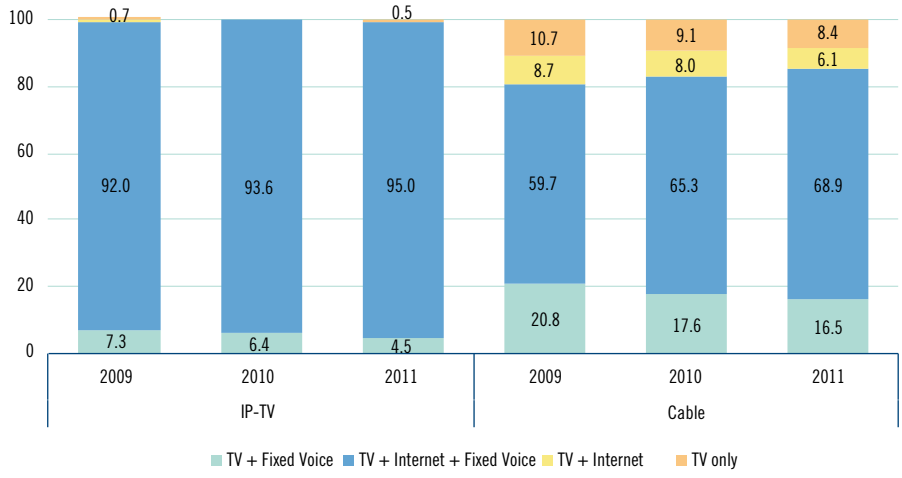
Source: CMT

Note: Subscribers and revenues from mobile television services are not included. The data used for this graph include subscriber revenues only and not total revenues, to avoid including in the market share calculation the effect of the operators' other activities, such as, for example, wholesale marketing of Premium channels or sales of their own productions.

- Commercial offers

The pay television market includes two types of operators: those which are operators of pay television services alone, such as the satellite platform Canal+ and the pay-DTTV operator Gol Televisión, and other operators whose main line of business is other than pay television (mainly telecommunications) which, over time and with improvements in telecommunications networks, have added pay television services to their initial service offer. In the case of telecommunications operators, pay television services may only be contracted in bundle offers which combine voice, data, and television services via landlines. In these cases, the pay television service involves an additional cost to the charges that users are already paying for the telecommunications services that they have contracted. The bundle works out less expensive than if they contracted all the services included in the bundle separately.

PERCENTAGE OF PAY TELEVISION SUBSCRIBERS BY TYPE OF BUNDLING AND MEANS OF TRANSMISSION
(percentage)



Source: CMT

In 2011, contracting of pay television services from telecommunications operators continued to be very closely linked to contracting combined *double-play* and *triple-play offers*. The most commonly used formula was the triple-play bundle, which combines pay television with fixed telephony and broadband telecommunications services. In the case of IP-TV operators, this type of offer accounted for 95% of subscribers to pay television services and in the case of cable operators, 68.9%.

The fact that satellite and pay-DTTV television services are unable to offer combined services of pay television and telecommunications (telephony and Internet) is a possible disadvantage. Nevertheless, since 2010, Canal+ has provided a combined offer with the telecommunications operator Jazztel, in which these two operators offer discounts if the satellite operator's pay television services are contracted together with Jazztel's telecommunication services, although each operator charges for its service separately.

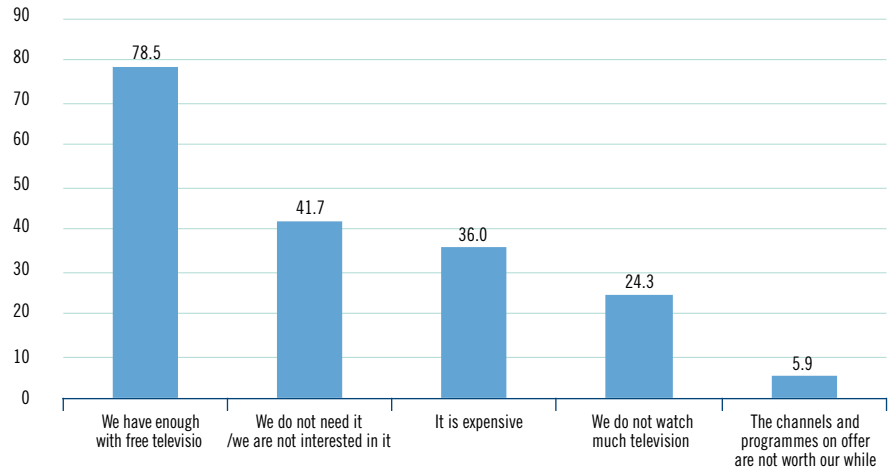
Furthermore, both Canal+ and Gol Televisión have started the wholesale marketing of their *Premium* channels to other platforms, which enables the latter to market their channels through their pay television platforms in exchange for part of the business generated by these channels.

- Penetration of pay television services by household

In 2011, the penetration of pay television in households stood at 22.8% according to data provided by CMT-Red.es Household Panel. This level of penetration contrasts with that observed in other European countries such as France, Germany and the United Kingdom, in which the penetration of pay television is more than double that of Spain.

The fact that virtually all households in Spain have free-to-air television as an alternative to pay television could explain the relatively low level of pay television penetration. Therefore, when the households of CMT-Red.es Household Panel which did not have pay television were asked for the reasons why they had not contracted this service, eight out of ten households considered that the programming offered by free-to-air television was enough for them and four out of ten households declared that they were not interested in pay television or they did not need it.

REASONS GIVEN BY HOUSEHOLDS FOR NOT HAVING PAY TELEVISION (percentage)



Source: CMT-Red.es Household Panel

2.4.2. Audiovisual signal transport and broadcasting services

The audiovisual signal transport and broadcast market refers to network services through which radio transmitters send their contents to end users. This market includes, on the one hand, audio signal transport services, which send the audiovisual signal from the production centres (contribution transport) to the head-ends, and from the head-ends to the transmission centres (distribution and transport), and, on the other hand, the broadcasting services, which make it possible to send the signal from the broadcasting and rebroadcasting centres to users' households.

Transport and broadcasting revenues

After 2009, 2011 had the second-highest revenues for transport and broadcasting services and, particularly for the transport segments, and revenues recorded for this financial year were the highest recorded for any period.

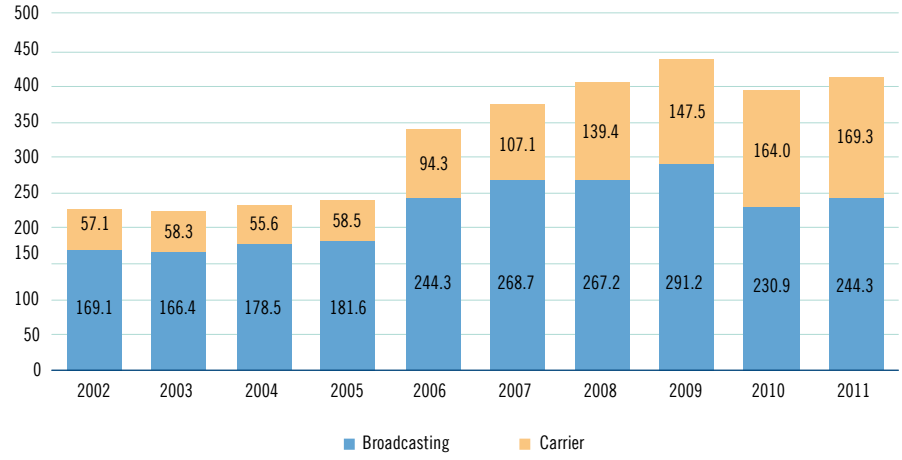
Notwithstanding, the economic crisis and austerity and budget-balancing policies were responsible for operators starting to cut costs, and some began to dispense with their second programme channels, in particular the public operators in the autonomous communities. These cuts might mean that there is less activity in the future in the wholesale audiovisual signals market if the number of programme channels broadcasting is reduced.

In 2011, revenues recorded by operators for audio signal transport and broadcasting increased by 4.7% compared with 2010 to reach a total turnover of 413.5 million euros.

Of the signal carrier operators' two main activities, audiovisual broadcasting accounted for the greatest growth in revenues. Turnover for this activity increased by 5.8% over the previous financial year and stood at 244.3 million euros, accounting for 59.1% of total revenues for these wholesale services.

The data transmission service, which accounted for the remaining 40.9% of overall turnover, reached a new high of 169.3 million euros, with a 3.2% increase in year-on-year revenue.

REVENUES FROM BROADCASTING AND CARRIER SERVICES (million euros)

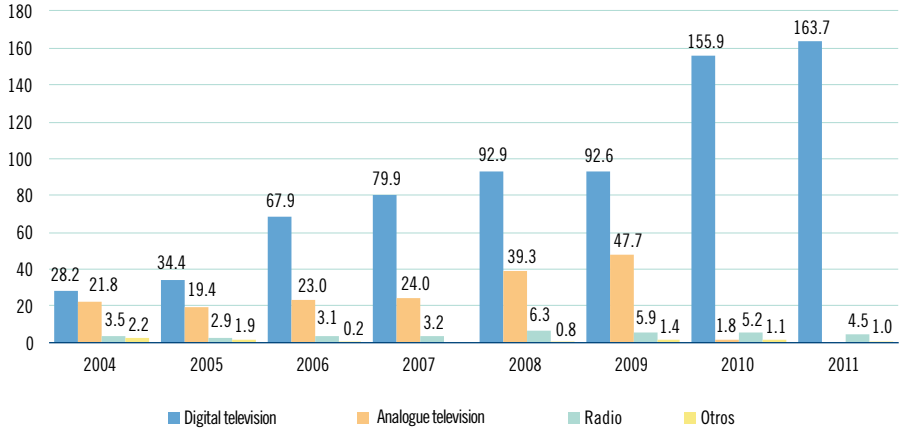


Source: CMT

Revenues by technology type

Depending on which type of audiovisual service they support, terrestrial digital television accounted for the bulk of the turnover for signal carrying which, at 163.7 million euros, represented 96,7% of total revenue. Services for carrying analogue television signals disappeared after the complete closure of this type of broadcast in April 2010. Revenues for carrying radio signals declined in comparison with the previous year, in line with the reduction in demand for digital signal coverage after the National Technical Plan for Sound Broadcasting was amended.

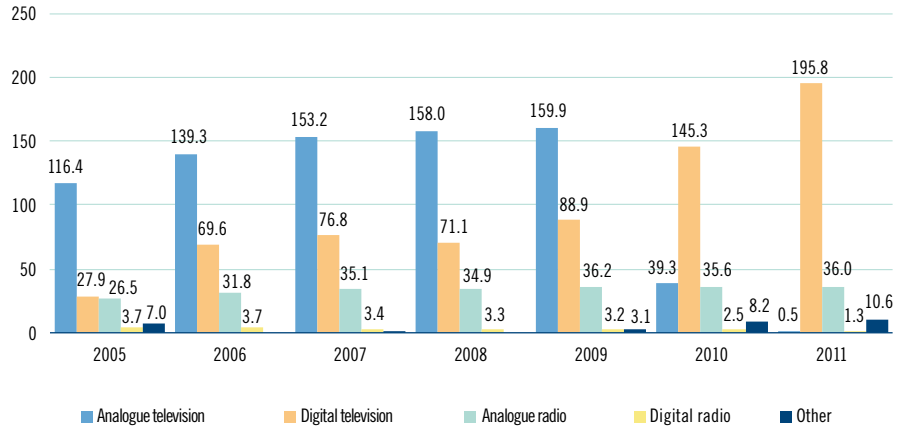
REVENUES FROM BROADCASTING AND CARRIER SERVICES BY TECHNOLOGY (million euros)



Source: CMT

The evolution of revenues from audiovisual broadcasting by type of service was similar to that of carrier services. Digital terrestrial television had the highest turnover, with a total of 195.8 million euros, and a year-on-year growth of 34.7%. This growth was related to the new DTTV channels which started to broadcast in the last quarter of 2010[78] and which were allocated to operators after the closure of analogue broadcasting. As regards the remaining services, it is worth mentioning the closure of the analogue television broadcasting services and the reduction in revenues for digital radio broadcasting which fell from 2.5 to 1.3 million euros in line with the reduction in the level of coverage required of operators[79].

REVENUES FROM BROADCASTING AND CARRIER SERVICES BY TECHNOLOGY (million euros)



Source: CMT

Revenues by operator and market shares of audiovisual signal transport services

The relative positions of the operators in the audiovisual carrier market remained the same as in the previous financial year; the most important operator in this industry, both in terms of revenues and in customer numbers, was Overon[80], with a turnover of 72.2 million euros, and 42.7% of total revenues.

The next two operators by volume of revenues were Abertis, with total revenues of 63.5 million euros, and Telefónica Audiovisual Services, with 23.5 million. The turnover of these operators stood at 37.5% and 13.9% of total revenues, respectively.

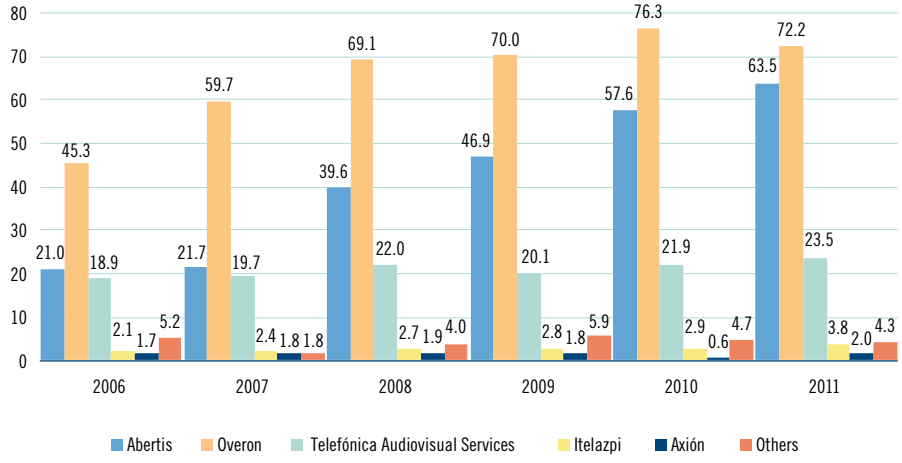
In addition to these three operators, which operate nationwide, there are the other regional operators, which accounted for the remaining 5.9% of overall turnover, that is, 10.1 million euros.

[78] Royal Decree 365/2010 of 26 March, regulating the allocation of multiple Digital Terrestrial Television, after the closure of terrestrial television broadcasting using analogue technology.

[79] Royal Decree 802/2011, of 10 June, amending the National Technical Plan for Sound Broadcasting, approved by Royal Decree 1287/1999, of 23 July.

[80] Abertis Telecom is the main shareholder in Overon.

REVENUES FROM BROADCASTING AND CARRIER SERVICES BY OPERATOR (million euros)



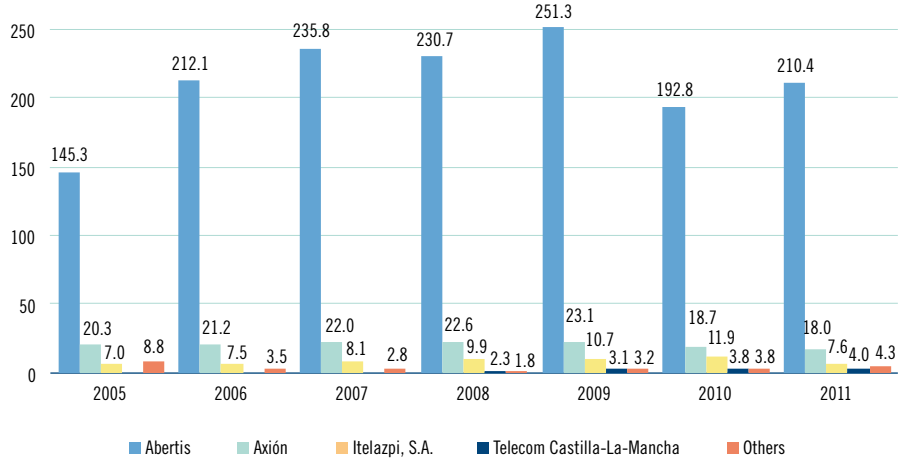
Source: CMT

Revenues by operator and market shares of audiovisual broadcasters

An analysis of broadcasting services by operators shows that Abertis, the largest operator in the market and the only one with national coverage, obtained revenues of 210.4 million euros, a year-on-year growth of 9.1%.

The next in terms of revenues was regional operator Axión, which operates in the Autonomous Community of Andalusia. Its revenues were 18 million euros, a 7.4% share of total market turnover. This was followed by Itelazpi, the third largest operator by turnover, operating in the Basque Region, with 7.6 million euros and a 3.1% share of the total market.

REVENUES FROM AUDIOVISUAL BROADCASTING SERVICES BY OPERATOR (million euros)



Source: CMT

The audiovisual broadcasting market is extremely concentrated: it has a single operator, Abertis Telecom, operating nationally and accounting for 86.2% of overall turnover. The remainder are regional operators and taken together account for the remaining 13.8% of total revenues. This wholesale market is still regulated by the CMT and, in this market, Abertis Telecom is the operator with significant market power.

2.4.3. Regulatory actions

The audiovisual market includes very varied activities: from broadcasting radio, free-to-view and pay television contents, to wholesale services offered by the operators. The activities carried out by the CMT throughout 2011 relating to these services focused on the revision of the Abertis reference offer for TV signal broadcasting (regulated service) and resolution of disputes arising from multiple digital management.

On the other hand, as regards the activity of audiovisual service operators, the transition to DDT has generated a 'digital dividend', that is the freeing up of certain radio spectrum bands (part of the 800 MHz band) which until then had been used by free-to-air televisions. Although this frequency band had already been allocated to mobile operators to develop mobile broadband networks, it has not yet been relinquished by the television operators.

- Revision of the prices of the Abertis Reference Offer for access to television broadcasting centres

The free-to-air television services requires the television signal broadcasting service to deliver their content to the end user. The CMT analysed the television signal broadcasting service in 2006 and came to the conclusion that, on the one hand, there were structural barriers to entry that prevented effective competition and, on the other hand, Abertis had significant market power since it concentrated most of its operations in this market. The CMT then decided to impose a series of obligations on Abertis with a view to promoting conditions for competition. In 2009, after further review of the market analysis, the CMT stepped up its requirement for Abertis to open its facilities to allow entry to its infrastructure to other agents. Amongst the new conditions imposed on Abertis was the requirement to publish a regulated wholesale reference offer, establishing the prices, conditions, deadlines and modes under which the operator must facilitate access to its television broadcasting centres to third-party operators.

The obligations resulting from this analysis and included in the 'Reference Offer for Access to Abertis Transmission Centres' were updated in 2011, in accordance with the cost accounting presented by the operator for 2009.

- Resolution of disputes arising from the selection of the digital multiple manager company

The DTTV audiovisual signal is transmitted through multiple equipment that broadcasts several digital channels. Digital encoding allows several channels to be compressed and transmitted simultaneously, where previously just one analogue channel was broadcast, thus optimising the use of the radio spectrum. It is common for several different television operators to share the same digital multiple. They must either reach an agreement on its management or manage it themselves or, as is more frequently the case, hire a third party to manage that channel for them.

In the last two years there have been a number of disputes, usually due to lack of agreement among the operators on the agent responsible for managing the digital multiple. The CMT is the authority responsible for mediating any disputes that arise.

At the end of 2009, the local Canary Islands operator Telelínea Local, S.A. (Telelínea) raised a dispute against Canal Ocho Medios Audiovisuales, S.L. (Canal 8) regarding the management of the TL05TF digital multiple, which at that time comprised three licence-holding entities: Telelínea, Canal 8 and RTV Islas Canarias, S.L. These licence-holding entities were unable to reach agreement on which telecommunications operator should be responsible for managing the multiple digital.

Once the dispute was lodged, the three parties met to choose an operator. The offers submitted by the two interested operators were similar with regard to service

features (coverage, quality and duration), but differed substantially in price. While Telelínea favoured Abertis as the multiple digital manager, the other licence holders preferred Difusión de Telecomunicaciones Canarias S.L., a company that was part of the same business group as Canal 8. The latter offer was finally chosen by majority vote in 2009.

When the chosen operator and one of the licence holders are part of the same business group, the CMT requires greater transparency and justification in the choice made. In these cases, CMT intervention is justified by the need to protect the interests of the minority entity within the unavoidable legal grouping represented by the multiple digital. In 2011, after analysing the operators' offers, the CMT judged that the difference between the price of the offer chosen by the majority and that of the offer of the company that was not chosen was sufficient to make the choice disproportionate and prejudicial to the interests of the minority entity. The CMT, therefore, judged that the agreement did not respect the principles required by the resolution of the dispute and called on the parties to convene a meeting and to submit new proposals for selection.

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