

Annual Report 2010

Comisión del Mercado de las Telecomunicaciones



CMT

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CMT

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BOARD

Chair:

Bernardo Lorenzo Almendros

Vice-Chair:

Marcel Coderch i Collell

Members of the Board

Ángel García Castillejo

José Pascual González Rodríguez

Inmaculada López Martínez

Xabier Ormaetxea Garai

Marta Plana Dropez

Secretary:

Jorge Sánchez Vicente

LETTER FROM THE CHAIRMAN

The electronic communications industry saw three highlights in 2010: the roll out of mobile broadband, the upturn in investment and increased competition in every activity segment. The industry's total turnover touched on 40 billion euros. However, the group of operators brought in 3.5% less, a less significant drop than recorded a year earlier. Turnover from telecommunications end services in 2010, 33.4 billion euros, represented 3.1% of the GDP, which highlights the important role that telecommunications plays in the economy.

Operators invested 4.5 billion euros, up 4.6% on 2009, which is the first increase in investment in two years. Most of these investments were targeted at upgrading mobile networks, in terms of coverage and capacity. The roll out of new generation access networks also commenced, albeit on a small scale, which allowed the first commercial fibre optic to the home offers and, especially, DOCSIS 3.0, the technology used by cable operators which reaches download speeds of up to 100 Mbps.

The recession did not prevent traffic and demand from rising in most services. One of the major driving forces was broadband, both fixed and mobile but especially the latter. In 2010, net adds of *datacard* subscribers (1.4 million) exceeded net adds of mobile voice lines (517,148 lines). By the year-end there were 10.6 fixed broadband lines and 3.3 million *datacards* or mobile broadband accesses.

The growth in Internet access via mobile technology was joined by a new breakthrough in fixed-line broadband. The total number of lines increased by 8.6% to 10.6 million, at an even faster pace than in 2009. Competition in this segment was particularly fierce. The alternative operators competing with Telefónica in the offer of services with xDSL technologies totalled 472,544 net adds, twice the number achieved by Telefónica, and 56% of the new lines recorded in the financial year. This data represents the highest net gain in fixed-line broadband achieved so far by the alternative operators, which in one year have increased their market share by 2.5 points and, together with cable operators, already account for 46.1% of the total number of broadband lines.

There was also a lot of activity in the mobile telephony segment. Although total revenue fell by 3% compared to the previous year and the total number of lines rose slightly (1%), traffic increased by 1.2%, which shows that part of the falls in aggregate sales was a result of the price drops. Average revenue per minute for mobile telephony fell 6.6% to 14.9 cents.

The regulatory measures put in place, together with the fall in wholesale prices (in both mobile and fixed-line) and improvements in the regulation of the subscriber loop with new wholesale offers, have contributed to boosting competition. Another factor was portability. The financial year posted record levels in customer switches among operators. An average of 400,000 users a month switched mobile telephony operators, compared to 140,000 in fixed line. Alternative operators gained the most from these customer transfers. Yoigo, the fourth largest operator with its own network, and the group of Mobile Virtual Network Operators, together totalled around 1.6 million customers in the year.

Bearing in mind the high level of broadband/voice bundling, fixed-line portability is closely related to purchasing Internet access and switching operator. The difference in prices between Internet access offers from alternative operators and from the established operator sparked off a frenzy of commercial activity. Increased consumer price sensitivity during times of economic crisis prompted Telefónica to offer more promotions in its services. This resulted in better prices for users, such as the 6% reduction in the average monthly spending per household in broadband, voice and access services, which dropped from 42.8 to 40.2 euros, according to the household panel prepared by the CMT and Red.es.

Activity in the audiovisual industry was marked by the adoption of a new financing model for the Spanish Radio and Television Corporation (CRTVE) which, by eliminating advertising, caused a reallocation of advertising revenues among other operators. There was also a change in commercial exploitation at football games, moving from pay per view through a single operator to a business model in which the right holder sells subscription through their own platform or platforms owned by other operators with whom they have reached an agreement. The audiovisual services industry recorded turnover of 4.4 billion euros, excluding subsidies, 2.1% less. However, in 2010 advertising revenues increased by 0.2%.

The CMT is facing future challenges that affect its structure and its role as an independent electronic communications regulator.

Regarding regulatory actions, the CMT will commence a new series of analyses of the relevant markets. These analyses, which all regulators must complete in accordance with European regulations, is important for the industry, because depending on the result regulatory measures will be established for operators with significant power in the market for the next three years.

On an institutional front, the new Sustainable Economy Law has reduced the number of directors from nine to seven and has limited CMT board membership to one single term of office (six years long). Since May 2011, the CMT has seen a new chairman and two new directors, replacing the Board members who had come to the end of their term of office.

Finally, I would like to express my gratitude to CMT's workers, whose hard work and dedication have made this report possible.

Bernardo Lorenzo
CMT Chairman

28 June 2011

2010 HIGHLIGHTS

THE INDUSTRY AS A WHOLE AND ITS ECONOMIC TRENDS.

1) The industry brought in 39.8 billion euros in turnover.

During 2010, the industry as a whole brought in 39.8 billion euros in turnover. This result was 3.5% down on the previous year, although the fall was less than recorded in 2009 (6.6%). The fall in revenue shows that the economic crisis and fragile demand continue to affect electronic communications. Another factor is the growing competition among operators which has led to a reduction in prices in some services. The fixed and mobile broadband activity segments recorded the best growth rates during the period, although these were not enough to offset the fall in total revenue. Retail services turnover reached 33.4 billion euros, 3.4% less than in 2009, while wholesale activity fell by 3.7% to 6.4 billion euros, a trend that has kept up since 2006 in the wholesale market. However, this year the rate of fall in wholesale revenue was lower than 2009 as a result of the increased use of different models of unbundling subscriber loops and bitstream access that the CMT has introduced.

The industry's progress was in line with other European economies, where turnover dropped 3.2% (almost three points more than in 2009). The US economy rose slightly, 0.8%, similar to the previous year (0.7%). Activity in the industry on a worldwide level grew by 2% and, as happened with the global economy, emerging and developing countries were the driving forces behind this growth. In Asia revenue from telecommunications end services rose 3.2%, where in Latin America it increased by 8.5%.

2) Investment on the rise for the first time in two years, driven by the roll out of new-generation mobile and fixed networks

In contrast to falls in revenue, investment by the electronic communications operators as a whole increased by 4.6% to 4.5 billion euros. This rise reverses two consecutive years of declines and shows

an improvement in operator expectations.

Investment was largely driven by extended mobile network coverage, providing 95% of the population with at least one 3G/UMTS network, almost four points more than 2009. The number of installed UMTS/3G base stations represented around 40% of the total.

As regards fixed networks, the effort by cable operators to improve networks by installing DOCSIS 3.0 technology, offering speeds of over 100 Mbps, is noteworthy. As a result, 72% of accesses installed by cable operators are now able to offer fast speeds due to this technology.

Telefónica and other operators also continued with the process to convert the copper network into a fibre-optic network. Last year they started to use the CMT-approved offer for access to underground street cabinets and ducts (MARCO) to promote investment in infrastructures through Telefónica's ducts. By the end of 2010 more than half a million FTTH accesses had been installed, 32.4% more than in 2009. Of these, almost 90% belonged to Telefónica.

The increasing number of installed FTTH and DOCSIS 3.0 accesses has not yet resulted in a significant penetration of high-speed services based on these new generation networks. However, there was an increase in the average speeds contracted by users, which means better quality offers: 33.3% of broadband lines had an average contracted speed of 10 Mbps or above, nine points more than in 2009.

3) Mobile and fixed-line broadband drive forward the penetration of telecommunications end services against a background of falling prices

In spite of the fall in total telecommunications end service revenue, service penetration and traffic continued to rise in 2010, showing that the drop in revenue was a result of the competitive pressure that led to a reduction in retail prices.

Fixed-line broadband penetration reached 22.6 connections for every 100 inhabitants, 1.6 points up on 2009. Mobile-line penetration reached 109.7 lines for every 100 inhabitants, 0.4 points up on the previous year. The largest increase came from demand for *datacards* or modems that access broadband via 3G/UMTS networks. In the last year, the number of dedicated mobile broadband lines (via *datacards*) rose 1.39 million, to 3.35 million, representing a 71% growth. Fixed telephony, on the other hand, saw a continuation of the trend observed in previous years, falling 0.3 points to 43 lines for every 100 inhabitants.

As mentioned above, against a background of growing competition, prices tended to fall. Mobile telephone prices took the biggest falls, with average revenue per minute for mobile telephony falling 6.6% to 14.9 cents per minute. Mobile telephone prices have reduced year after year since 2004, when the average price per minute was 23.6 cents.

The fixed line and broadband price trend is harder to measure due to the wide range of different types of offers on the market and the high level of bundling both services. However, in 2010 there was a dramatic increase in promotions offering considerable discounts on the nominal price, or faster connection speeds. As regards fixed telephony, an increase in the use of flat rates caused a 2.6% drop in the price of domestic fixed communications, with average revenue per minute of 2.3 cents.

Service bundling continued to grow in Spain, to 10 million contracted bundles, representing a penetration of 21.3 bundles for every 100 inhabitants. Of the total active fixed lines in Spain, 49% were contracted along with another service. In the case of fixed-line broadband, the percentage of bundled lines out of the total was 91.3%, and in the case of pay TV almost half of subscribers contracted it together with another telecommunications service.

FIXED TELEPHONE SERVICES

1) Loss of business segment lines main concern for fixed telephony

Fixed-line telephone, in particular the voice service, is one of the most mature oldest electronic communication markets. In previous years, voice traffic had recorded slight growth due to the gradual introduction of flat rates, a trend that stopped in 2010 because traffic fell by 1.8%. Revenue performed in a very similar manner to the previous year, with a 9.0% fall to 5.9 billion euros.

The recession hit the fixed communications business segment hard, which lost 216,462 lines. This drop could not be offset by increases in the residential segment, which increased by 186,557 lines.

2) Subscriber loop regulation and new wholesale offers drive competition in fixed telephony

The regulation that the CMT established in 2008 and 2009 and the falls in prices in local loop unbundling and new wholesale models (such as local loop rental without the basic telephone service, wholesale line rental (AMLT) and naked bitstream access) began to have a positive effect on competition this year. Telefónica lost around one million lines to its competitors. These competitors were the driving forces in this market, launching fixed-mobile convergence services.

One of the main features of fixed telephony is that it is increasingly sold bundled, almost always with broadband. For this reason, the growth in fixed portability goes hand-in-hand with increasing competition in broadband packages: in 2010 more than 1.7 million fixed lines were switched, 19.5% more than last year. Fixed portability has almost tripled since 2007.

MOBILE COMMUNICATIONS

1) Mobile broadband becomes the fastest-growing segment

In 2010, the number of mobile telephony lines grew 1% (517,148 new lines), an all-time low. The total number of mobile lines was 51.6 million, which equals 109.7 lines for every 100 inhabitants. In this mature market, the Spanish Home Office established a regulation to identify every mobile line user during the first half of the year, which revealed a large number of inactive lines. The prepay segment recorded a loss of 739,506 lines, while contract lines increased by 1.3 million.

Mobile broadband recorded the most noteworthy evolution. In 2010 net *datacard* adds (1.39 million) exceeded net contract mobile line adds (1.3 million). Dedicated mobile broadband access grew by 71% to 3.3 million lines, with penetration of 7.1 lines for every 100 inhabitants.

The prominence of mobile broadband was not only evident through the number of *datacard* contracts, it was also reflected in a heavier use of broadband access via *smartphones*. In 2010, a total 8.7 million lines accessed the mobile Internet service, which means that around 17% of mobile terminals used broadband actively. Although the use of Internet access via a *datacard* is greater than the recorded use of terminals, most mobile Internet users (73.9%) connected via these terminals, almost all of them *smartphones*, with connection via *datacards* coming in second place in terms of number of users.

2) Fall in revenue due to competition and reduction in wholesale terminal prices

The excellent evolution in *datacards* and M2M (which grew 15.2% to 2.1 million lines) did not prevent total revenue from falling 3% to 14.02 billion. This fall was partly due to lower voice service revenue, which dropped 5.5% to 10.6 billion. Voice services continue to be the main source of mobile telephony revenue, representing 76% of turnover. However, they did suffer a second consecutive fall in revenue even though traffic grew by 1.2%.

The recession highlighted user price sensitivity, who used portability on a large-scale in search of better offers. This means that for the seventh year in a row, average revenues per minute for mobile telephony dropped against the previous year, in this case by 6.6%, to 14.9 cents per minute.

Of the mobile telephony segments, instant messaging took the biggest fall (19.8% to 1.3 billion euros), dragged down by the drop in revenue from *Premium* services (-46%). As well as the poor evolution in *Premium* SMS and MMS, instant messaging has been affected by free mobile Internet messaging applications and services.

As well as competition, one of the factors that has prompted reductions in retail prices in the last four years has been the cut in wholesale termination prices. The CMT started these cutbacks in 2006, and in 2009 it introduced a new *glide path*, which will continue until April 2012 and will lower these wholesale prices to four cents.

3) New operators gain market share and portability achieves record levels

The most obvious sign of fierce competition among mobile operators was the high level of portability during the year: more than 4.8 million operator switches during the year, 325,076 more than in 2009. The operators that gained the most were Yoigo, the fourth largest network operator, and mobile virtual network operators (MVNO) which, mainly due to portability, raised their market share by 3.1 points, to 8.7% (4.8% relating to MVNOs and 3.9% to Yoigo).

As well as the aforementioned *glide path*, a key wholesale measure in mobile telephony during 2010 was the implementation of the centralised portability node. This allowed increased transparency and improvements in operator switching processes and it plays a key role in achieving quicker turnaround times.

FIXED-LINE BROADBAND

1) Fixed-line broadband continues to dominate, and the number of accesses rose by 8.6%, in spite of a slowdown in revenue

Fixed-line broadband access services grew in terms of revenue and number of lines. Retail services brought in 4 billion euros in turnover, 0.9% up on 2009. The number of accesses grew by 8.6%, more than in 2009 (+7.3%). By the end of 2010 there were 10.6 million accesses, with penetration standing at 22.6 lines for every 100 inhabitants. The prevailing fixed-network broadband technologies are xDSL, with 8.4 million active accesses, and cable, with 2.1 million. Out of the total lines, 8.6 million are in the residential segment, and the rest in the business segment.

One of the factors behind the slight increase in retail revenue in relation to growth in number of accesses is the fall in revenue in the business segment. In absolute terms, revenue in the business segment totalled 799.8 million euros, a 5.7% decrease. Revenues in the residential segment totalled 2,651,700,000 Euros, which represents a 5.3% increase in the last year.

Fixed-line broadband represents 11.9% of total revenue from electronic communications end services.

2) Alternative operators lead growth in accesses and gain 72% of new lines

Last year, Telefónica's competitors (cable and alternative xDSL operators) gained 589,871 lines, compared to Telefónica's 234,122 lines. This has allowed alternative operators who compete in the subscriber loop with xDSL technologies (mainly Vodafone, Orange and Jazztel) to gain 2.4 points in market share (25.5%), while Telefónica ended the year with a 52.7% market share, representing a loss of more than two points compared to a year earlier. Although cable operators increased their number of lines, they dropped half a percentage point to 19.3%.

In 2010, there were 1.7 million fixed line portability cases. This represented a 19.5% increase in relation to the number of portability cases in 2009. The monthly average number of switched lines was 147,801 lines. The high level of broadband bundling with other services, such as voice or audiovisual content, means that a significant part of operator switches in fixed portability were due to the desire to switch broadband provider.

3) Commercial offers continue to record strong growth

Alternative operators have kept significantly lower retail prices for broadband and voice packages than Telefónica. These commercial offers have allowed them to gain more customers and increase their market share, causing the established operator to adopt an aggressive promotional policy.

Broadband service prices are conditioned by a wide range of determining variables. This, together with the high level of bundling on the Spanish market and a wide range of commercial offers, means that comparing prices over time or between operators is a complicated task. However, there has been a general drop in broadband prices.

4) Growth in contracted nominal speeds

In 2010, lines with a 4 Mbps connection speed (nominal download speed) or higher attained 70%, ten percentage points more than 2009. 19.3% of broadband lines had an average contracted speed of over 10 Mbps, seven points more than 2009.

The percentage of cable operator lines with a connection speed of 4 Mbps or higher was 83%. In the case of these operators, the higher percentage of lines was in the 10 Mbps to 20 Mbps range, representing 42% of their lines compared to 19.6% the previous year.

5) Wholesale activity increased significantly due to regulatory actions

In 2010, the total turnover for various broadband wholesale services was 454.7 million euros, i.e. a 30.5% increase compared to the previous year. The growth in revenue is partly due to the wholesale offers that the CMT implemented in previous years, which are being used successfully by the market as a whole. As well as the recurring increase in local loop unbundling revenue, the bitstream IP concentration service recorded considerable growth, not seen in previous years.

Local loop unbundling revenue came in at 313.7 million euros, 38.2% more than in 2009, due to the increase in lines in the fully unbundled local loop and loop without Public Switched Telephone Network (PSTN) models. This model allows the alternative operator to provide a broadband and voice service via the same data channel, breaking the consumer's ties with the incumbent operator without needing to contract a fully unbundled local loop.

As regards the IP concentration service and unlike the situation in previous years, revenue rose 78.3% to 92 million euros. This growth was due to the IP concentration without PSTN model.

New wholesale facilities brought about the increase in the co-location and connection of new local exchanges by alternative operators. This expansion to new local exchanges will be supported by the adjusted prices under the revised Reference Line Rental Offer (ORLA) in December 2010, which has reduced the costs of backhaul services, making more local exchanges attractive to alternative operators.

Under the ORLA, the prices of the submarine cable that connects Mainland Spain to the Canary Islands were also established, as were the prices of nine new routes that connect the minor islands of the Balearic and Canary Islands, Ceuta and Melilla to Mainland Spain. In the last price adjustment, the CMT approved a 29% reduction in the price of rented submarine cable lines that connect Mainland Spain to the Canary Islands. This should improve competition on the islands.

AUDIOVISUAL

1) Advertising revenue for private televisions on the increase and emergence of new business model for pay football TV

The audiovisual services industry recorded turnover of 4.4 billion euros in 2010, excluding subsidies, which represents a 2.1% fall. This was due to reduced demand for video-on-demand and pay-per-view services. The other main revenue components, such as revenue from advertising and subscription fees from pay television, increased slightly (0.2% and 3.9% respectively).

It is worth mentioning that in 2010 advertising revenue for private television increased by 24.7% compared to the previous year. The 1.6 billion euros that these operators brought in during 2009 increased to 1.9 billion euros, which in absolute terms represents growth of 348.1 million euros. Free-to-air television brought in 2.3 billion euros altogether, and only fell by 0.9%.

The total number of pay TV subscribers rose by 7.7% to 4.56 million, with penetration of 9.7 subscribers for

every 100 inhabitants. With the change in business model for pay football TV, revenue was 1.7 billion euros, 4.9% less than 2009.

Pay TV revenue dropped due to fewer football on-demand contracts caused by the appearance of a new pay TV channel (Go!TV) with a different multiplatform football contract model which includes pay TV via Digital Terrestrial Television (DTTV), as well as cable, IPTV and mobile operators.

2) Adoption of a new finance model for RTVE

The adoption of a new finance model for the Spanish Radio and Television Corporation (CRTVE), which eliminates advertising, caused a reallocation of advertising revenue. Private operators managed to gain most of the advertising revenue no longer earned by the Spanish Radio and Television Corporation.

At the end of April, analogue signals were switched off permanently, completing migration to digital terrestrial television (DTTV). This analogue switch-off freed up a series of frequencies on the radio spectrum which allowed for the emergence of new DTTV channels.

Also, the efficient use of the DTTV radio spectrum in relation to analogue television will free up an additional spectrum (the “digital dividend”) to provide high speed mobile communication services in the future. In accordance with the decision that the Government adopted in December 2010, these frequencies will be available to agents before the end of 2014.

Another significant development was the approval in March of the new General Law on Audiovisual Communication which laid down the basic legislative framework for the activities of providers of audiovisual services in the next few years.

Annual Report 2010

Comisión del Mercado de las Telecomunicaciones

2010



1 INDUSTRY
REPORT

1. ECONOMIC CONTEXT

2010 was a year of world economic recovery, although this varied from region to region. While emerging and developing countries recovered their pre-crisis Gross Domestic Product (GDP) levels, more advanced economies did not.

After two years of crisis, this year world output grew by 5% and trade by 12.5%, according to the International Monetary Fund (IMF)¹. Most countries belonging to the Organisation for Economic Co-operation and Development (OECD) and emerging and developing countries recorded growth in total output. However, there was a marked difference between GDP growth in developed countries, around 3%, and emerging and developing countries, which experienced much lower growth, 7.3%.

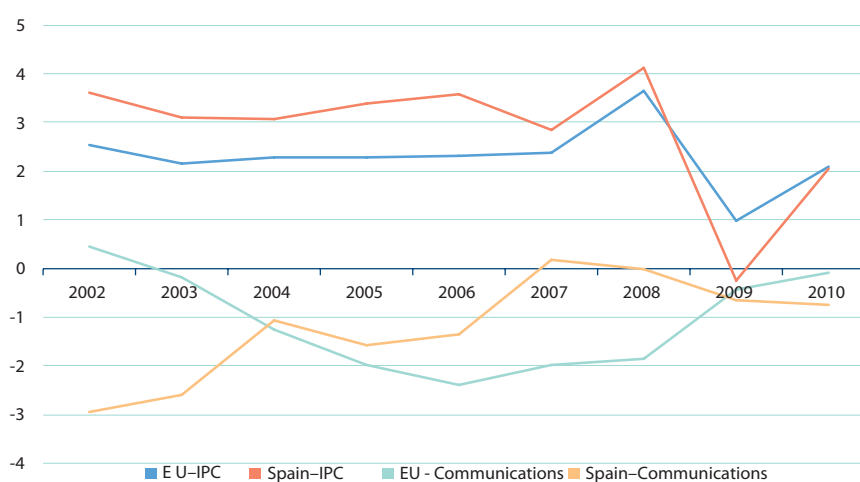
While the US and EU(27) economies recorded 3% and 1.8% growth respectively, countries like China and India recorded growth levels above 10%, and others such as Brazil and Mexico, 4%. Other countries in Africa, Asia and the Middle East on the whole saw higher growth rates than the EU(27).

While in 2008 and 2009 Governments focussed on adopting fiscal impulse measures in their economies, 2010 was a year of fiscal and financial consolidation, especially in developed economies. The reduction in public spending was gradually joined by increases in private consumption.

In the EU(27), the highest growth rate was seen in the German economy, with a 3.5% GDP growth rate. In the UK, France and Italy, growth was under 2%. The Spanish economy, still in recession, saw its GDP fall by 0.1% in real terms. Special support measures for countries in the worst financial trouble were adopted, and the European Financial Stability Facility was created. The EU used this vehicle in the Greece and Ireland rescue programs, in which the International Monetary Fund (IMF) also played a significant role.

In almost every country, monetary policies reacted to the slow recovery by keeping interest rates at very low levels. Even so, the financial institution cleanup processes in the US and the EU(27) and the need to bring down debt levels led to very low lending levels. Although the accumulated private debt volume in advanced economies dropped in the past two years, the high current account deficit and reduced private consumption growth suggest that the adjustment is not yet complete in many countries.

CHANGE IN HARMONISED CPI INDEX AND COMMUNICATIONS INDEX IN THE EU (27) AND SPAIN



Source: Eurostat

¹ *World Economic Outlook, April 2011*, International Monetary Fund.

There were slight improvements in some indicators during the year, however. Investment in machinery and equipment in developed countries recovered, as did the sale of durable goods and industrial output indexes. Positive, although small, increases in the use of production capacity, the volume of retail sales and net job creation rates were also recorded.

The Spanish economy² recorded a negative growth rate for the year, 0.1%, although the GDP in the last two quarters of the year brought in positive results. After a 4.9% fall in household consumption in 2009, 2010 saw a 1.2% increase, although this was not enough to offset the reduction in public consumption (0.7%). Gross capital formation also fell, although at a gentler rate than in 2009. However, excluding the construction industry, investment in machinery and equipment rose by 1.8%. Finally, the unemployment rate took the heaviest hit from the crisis. In two years this rate almost doubled, representing 20.3% of the working population by the end of the year. Job losses were more significant in the first few months of the year, which was when the worst GDP growth rates were recorded.

In Spain, some indicators improved as the year went on: the industrial output index, production capacity utilisation and electricity demand recorded positive variation rates compared to 2009, although they did not recover pre-crisis levels. Total borrowing in the non-financial private industry fell and exports grew at a significant pace (at a higher rate than imports), allowing the economy's traditional current account deficit to be reduced. The Government also undertook a drastic reduction in the public deficit in order to take this to 3% of the GDP by 2013, a common goal for every country in the EU(27).

In the case of advanced countries, the IMF's forecasts for 2011 are sustained although modest growth, around 2.8% for the US and 1.6% for Eurozone countries. Much more dramatic growth rates are expected in emerging and developing countries. In the case of Spain, the forecasts are 1.3%³ GDP growth, a slight increase in household consumption and lower current account deficit.

The rise in commodity prices, especially oil, pushed prices up and by the end of the year positive price growth rates were recorded –which did not happen in 2009–. In Spain prices rose by 2% and in the

EU(27) by 2.1%. Following the trend of the past eight years, there was a fall in telecommunications service prices, in accordance with the communications subindex of the consumer price index (CPI). In EU(27) they fell 0.1% and in Spain 0.8%. As explained in later sections, one of the industry's main features this year were cuts in end service prices.

To sum up it has been a year of economic crisis with falls in output and available revenue in Spain, although less significant than 2009. As explained further on, this situation affected demand for electronic communications services and especially spending on telecommunications end services.

² *Quarterly report on the Spanish economy*, Bank of Spain (2011), and INE

³ *Macroeconomic scenario 2011- 2014*, Ministry of Economy and Finance, April 2011.

2. THE TELECOMMUNICATIONS INDUSTRY

The world economic recovery was also felt in the telecommunications industry. According to IDATE estimates (2011)⁴, the market overall grew by 2% and, as happened with the global economy, emerging and developing countries were the driving forces behind this growth. In emerging Asian countries there was a dramatic rise in demand for telecommunications end services, with a 3.2% increase in revenue, and in Latin America this increased by 8.5%. On the other hand, advanced economies recorded very low growth levels, in line with the US (0.8%), or even falls in turnover, such as in the case of Europe (3.2%)⁵.

As regards telecommunications end services, the industry is estimated to have brought in more than a trillion euros, with mobility services carrying an increasing weight (their turnover rose by 4.6%). The use of *smartphones* and *datacards* and the tablet craze, as well as increased digital content consumption, pushed up user data connectivity demand, the mobile segment's real driving force, because voice service revenue showed signs of standing still.

According to IDATE(2011), on a world-wide scale the 14% increase in fixed-line broadband connections was widely overtaken by the increase in mobile network broadband, which doubled in the same period.

Fixed-line telephone service penetration has fallen in the last four years, and at the same time mobile penetration has risen. At the end of the year it is estimated there were more than 5.2 billion active mobile terminals in the world⁶, with 13.9% growth. The biggest growth in mobile telephony users was in Asia, especially China –with 15.4% annual growth–, and Africa and Latin America, with increases of over 11%. Less significant increases in the EU(27), 1.8%, and the US, 3.2%, are due to the greater level of initial service penetration in these regions. The driving force behind growth in developed countries was demand for broadband connectivity via 3G/UMTS networks, or, in some countries, via 4G networks, called *Long Term Evolution* (LTE).

The demand for greater connectivity prompted the start of the marketing phase of roll outs with LTE by some operators, which became a reality in Finland and Denmark, where the operator TeliaSonera started

marketing telecommunications end services in a large number of cities. In the US, Verizon also undertook a major LTE roll out, covering a population of 100 million inhabitants. NTT Docomo, in Japan, also hoped to be able to launch the commercial phase of 4G services by the end of the year.

One of the markets that grew in terms of importance was television, both free-to-air television -thanks to the recovery in advertising revenue- and pay television, due to the growing demand for these services. The main television broadcasting means continued to be terrestrial, followed by cable, satellite and finally IP TV, although this last broadcasting means recorded the highest growth rate in the US and in the EU(27).

2.1. The European context

a) Fixed telephony

Fixed telephony in the EU(27) continued the slow decline seen for several years. While in 2007 in France there were 45.1 lines for every 100 inhabitants, four years later penetration was 33.5, nearly 12 points lower⁷. The same trend was also seen in Italy and Germany, although not to the same degree. In the United Kingdom and Spain penetration was also down, although the falls were slower in this period.

Underlying these falling penetration figures are a lower number of total fixed telephony lines. For example, in 2010 more than two million fixed lines disappeared in Germany and France. In Spain the net loss of fixed telephony lines was slight and was caused mainly by contraction of the business segment, which suffered as a result of the economic crisis. However, the volume of revenues generated did show a significant reduction of 9.0%.

Changing operators while retaining the same number is a relatively quick process in Spain, with no cost for the consumer. Directive 2009/136/EC on Universal Service and Users' Rights, currently being included in Spain's legal framework, introduces an important new requirement for number portability on any network type: this must be completed within 24 hours, which is significantly less than the current five day average that the process currently takes.

^{4, 5, 6, 7} *DigiWorld Yearbook 2011, The challenges of the digital world*, IDATE (2011).

b) Broadband

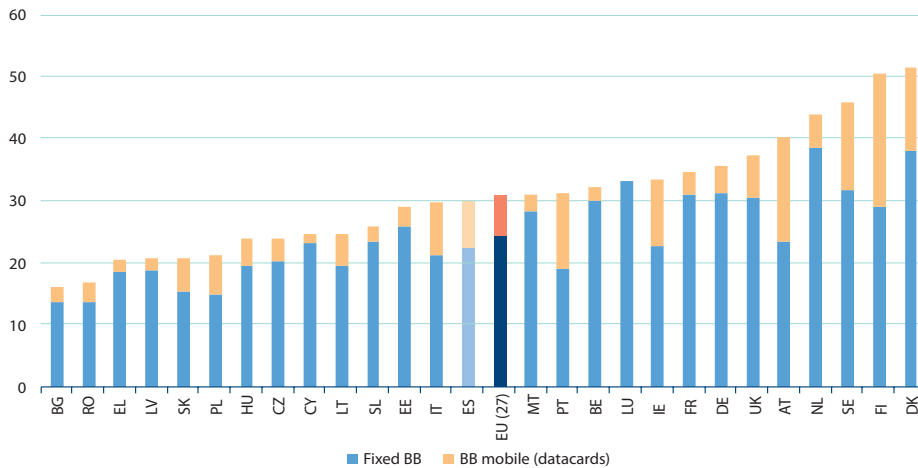
Broadband penetration in fixed networks continued to grow in the EU(27), albeit at a slower pace than in previous years. The average penetration in the EU(27) in July 2010 was 24.4 fixed line connections per 100 inhabitants, with a 1.6 point increase on average against the levels recorded in the previous year⁸.

Faster growth in broadband connections was driven by mobile networks. Largely based on 3G/UMTS networks, *datacards* (high bitrate data access cards) generated strong demand. Mobile broadband recorded average penetration of 6.1 *datacards* per 100 inhabitants in the EU(27), although penetration levels varied widely between countries. According to the latest available data (July 2010)⁹, Finland, with 21,5 connections for every 100 inhabitants, was the country with the

highest penetration, followed by Austria, Denmark and Portugal. In Spain, demand for this type of connection increased powerfully during the year, with penetration of 7.1 *datacards* for every 100 inhabitants by the end of the year.

Countries with very high penetration levels, of 30 lines or more per 100 inhabitants, such as Finland, Denmark and United Kingdom, recorded slowing growth rates. Meanwhile, these countries registered considerable growth mobile broadband use.

PENETRATION OF FIXED NETWORK BROADBAND AND *DATA*CARDS (MOBILE NETWORKS) IN THE EU(27), JULY 2010 (lines/100 inhabitants)

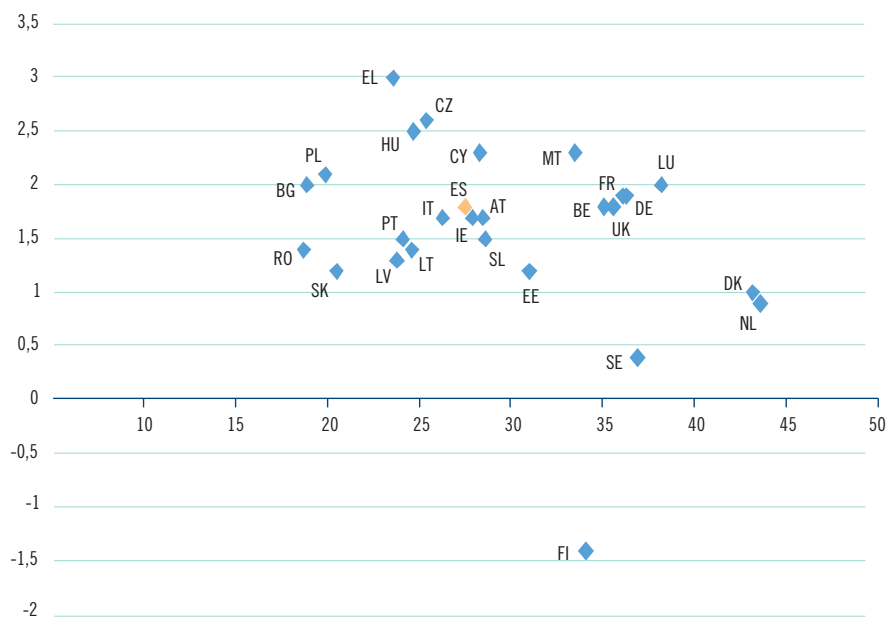


Source: CoCOM, European Commission

⁸ *Broadband access in the EU: situation at 1 July 2010*, CoCOM 10-29, European Commission (2011).

⁹ European Commission (2011).

PENETRATION OF FIXED NETWORK BROADBAND AND INCREASED PENETRATION IN THE EU(27), JULY 2010

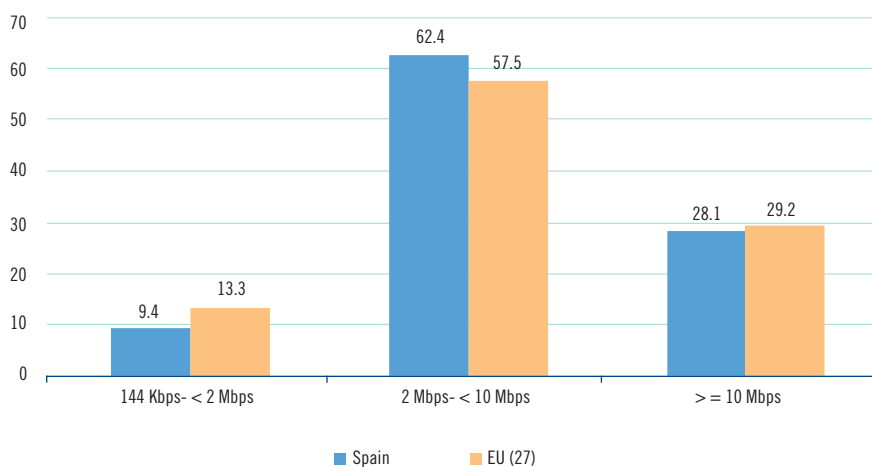


Source: CoCOM, European Commission

Furthermore, the EU(27) showed strong growth in faster fixed broadband connections. The number of lines with bitrates of 10 Mbps or more tripled in two and a half years. Midway through 2010 29.2% of fixed network connections had a nominal bitrate of 10 Mbps

or more, while just 4.9% of broadband lines in the EU(27) had a download speed equal to or greater than 30 Mbps (these were mostly found in countries such as Sweden, Slovakia, Belgium, Romania and Lithuania).

DISTRIBUTION OF BROADBAND LINES ON FIXED NETWORKS BY DOWNLOAD SPEEDS, JULY 2010 (percentage)



Source: CoCOM, European Commission

Existing networks in Europe do not generally allow internet bitrates of over 30 Mbps. New generation network infrastructure (NGN) needs to be deployed, either fixed or wireless networks, to provide the public and businesses with very high bitrates.

The European Commission and national regulators have made significant efforts to drive forward the development of new infrastructure. For example, some recent decisions regarding radio spectrum have been aimed at increasing competition between fixed and mobile infrastructure and allow for mobile network coverage in rural or sparsely populated areas, where rolling out fixed networks may not be profitable. In Spain during 2011 the market will be given access to further radio spectrum capacity, taking advantage of the digital dividend following full migration to Digital Terrestrial Television (DTTV), and also reorganizing part of the previously allocated frequencies. The European Commission is encouraging new spectrum being made available to the market and has used new regulations to introduce the principle of neutrality, in either standards or end services, as well as allowing secondary trading, or the exchange of spectrum between market agents, enabling more efficient use of this scarce resource.

Both in the EU(27) and Spain, alternative operators have been spearheading the growth of broadband connections. In the EU just 17% of new broadband

subscriptions were acquired by incumbent operators, while the remaining 83% corresponded to alternative operators¹⁰. A similar trend was observed in Spain: Over the year Telefónica lost 2.2 percentage points of market share in terms of lines.

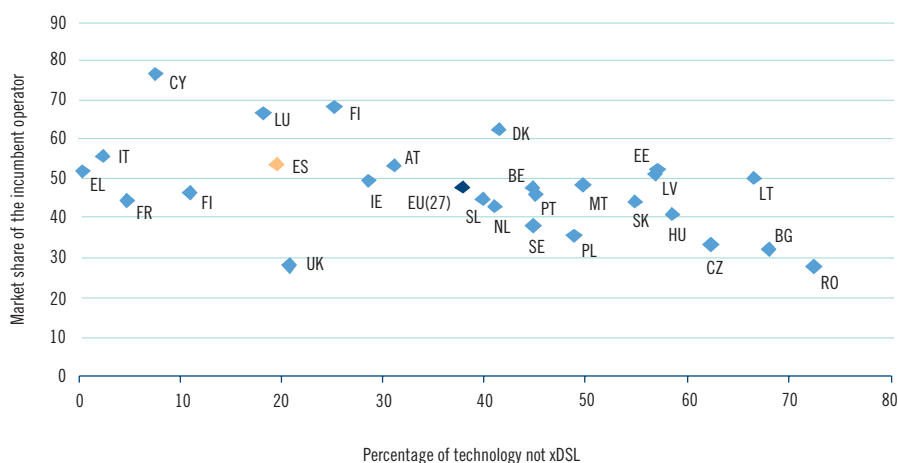
There are two reasons for this. On the one hand, cable operators made a very considerable effort to improve the performance of their fixed networks, migrating most of their lines to DOCSIS 3.0, a cable network standard that permits very high bitrates. This allowed these operators to launch commercial offers with download speeds of 50 Mbps in the last few months of the year. Meanwhile, alternative operators offered the best prices per broadband connection, whether in bundled services or not. In Spain there are still significant differences between actual connection prices and, in these times of economic crisis, demand for more economical connections offered by some alternative operators is increasing, in detriment to Telefónica. However, Telefónica reacted to this by offering bigger promotions, both in terms of price and the duration of the promotion, and even reduced its prices to the standard rate in some cases.

¹⁰ European Commission (2011).

By technologies, in the EU(27) 77.9% of fixed network broadband lines were supported by DSL, 15.6% by cable networks, and the remaining 6.5% by other

technologies. Of this last group, it is worth noting that in July 2010 just 1.7% of connections were supported by fibre optic to the home (FTTH) networks.

MARKET SHARE OF THE INCUMBENT OPERATOR AND PRESENCE OF ALTERNATIVE TECHNOLOGY TO DSL IN THE EU(27), JULY 2010



Source: CoCOM, European Commission

c) Mobile communications

The mobile communications market in the EU(27) grew at a slow pace in many of the countries, below 2%. Noteworthy from the market evolution are, on the one hand, the significant increase of more than 10% in data service billing, particularly mobile broadband connections, and on the other hand the drop in voice service revenues, which were down 3%, despite the traffic increase.

The drop in voice revenues has several explanations. On the one hand, competition between operators drove down actual service prices. On the other hand, end prices also partially reflected a drop in wholesale termination prices on mobile networks, which are regulated in the EU(27) with a decreasing price trend or *glide path*. Thus, the average mobile network termination rate in the EU(27) in December 2004 was 14.1 cents per minute, while six years later it was 4.9 cents, meaning an average annual decline of 9.3% in this regulated fee¹¹.

Other services that have been subject to regulated fees since 2007 are SMS and voice roaming within the EU(27). In this case both wholesale prices (those that operators charge each other) and final rates are fixed based on a decreasing glide path, which led to a sharp drop in prices.

Among the aims of the European Digital Agenda, one of the cornerstones of the Europe 2020 Strategy, is to ensure access to broadband connections with a download speed of 30 Mbps or more for 100% of Europeans, with 50% of households having high bitrate connections (100 Mbps) in 2020. Achieving these ambitious goals will probably require both the roll out of next-generation fixed networks and new mobile networks that allow very fast connection speeds.

¹¹ Snapshot of MTRs in the EU, BEREC, 2011.

As mentioned above, it was very noteworthy that a large quantity of new radio spectrum has been made available to the market to develop mobile broadband. New spectrum allocations were provided in Germany, Denmark, Holland, Austria and Poland over the year after frequency previously occupied by analogue television was freed up. The Spanish government has already decided that over 2011 new spectrum would be made available to electronic communications operators. Regulators in the United Kingdom and France also plan to make allocations over next year.

d) Mergers & acquisitions

It was not a busy year in terms of mergers and acquisitions in the industry. There were, though, a few operations of some significance.

As in previous years, the major European operators had their eyes set on emerging markets, which have been showing the fastest growth in recent years. France Telecom consolidated its stake in the leading Egyptian mobile operator and reached a 40% holding in the second largest Moroccan mobile operator. Telekom Austria took control of Velcom, a mobile operator in Belarus, while Vivendi, a French operator that already controls the leading mobile network operator in Morocco, took an important stake in the second largest mobile operator in India. Telecom Italia, meanwhile, managed to take a controlling stake in Telecom Argentina, an operator in which it already held a significant stake.

One of the largest operations was the acquisition by Telefónica of the stake held by Portugal Telecom in the leading Brazilian mobile operator, Vivo, for a sum of 7.5 billion euros. This saw Telefónica take control of the Brazilian operator, which was previously managed jointly by the two Iberian companies.

The Orange subsidiary in the United Kingdom and that of Deutsche Telekom (T-Mobile) in the same country, joined forces in a joint venture aimed at increasing their size in the British market, creating a common brand and jointly making acquisitions and rolling out networks. The two companies were granted authorisation for this from the European Commission on the condition that the combined company sell 25% of its spectrum in the 1800 MHz bandwidth, and honour the existing infrastructure sharing agreement with Hutchinson, the fourth largest mobile operator in the British market.

Another strategic operation that could have an impact on the industry was the deal between Nokia and Intel to develop a common operating system for mobile handsets, to challenge other more successful systems worldwide, such as Android, Windows 7 and iOS.

2.2. The Spanish industry

As mentioned at the beginning of this section, it was a year of economic crisis in Spain, with GDP (valued in real terms) falling most heavily in the first half, while some indicators improved in the second half.

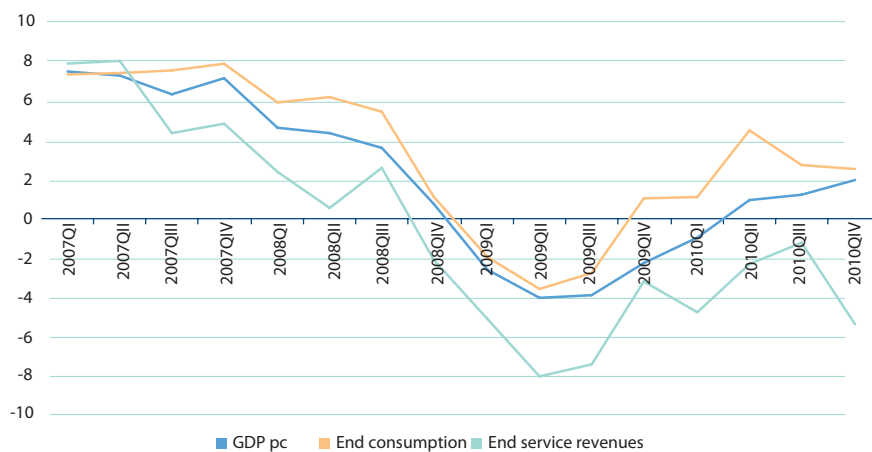
If we compare the GDP performance at current prices, without deflating the size, with the performance of billing for end services in the electronic communications industry, also at current prices, we see that while nominal GDP increased 0.85% in 2010, end services revenues in the industry decreased by 3.4% over the year as a whole. From the second quarter 2007 industry revenues have grown at a slower pace than GDP.

According to the INE, Spanish household consumption increased 1.2% against 2009, a year in which the same figure fell 4.9%, but did not recover private the consumption levels recorded prior to the crisis. This fact had an impact on demand for electronic communications services: although there was growth in terms of lines or general subscriptions for all of the major end services, such as broadband lines, with an increase of 8.6% in connections, or mobile lines, which were up 1%, and even pay-TV subscriptions, which grew 7.7%, the crisis did affect household and business spending. There was a drop in the volume of calls made from fixed line networks to mobile networks and in video on demand and *pay-per-view*, as well as a significant migration of users of services with more expensive operators to others providing the same services at cheaper prices.

Number portability played a very important role in this migration of users, both on fixed networks and mobile networks, having been put to intense use over the whole year. In fact, absolute records were market in fixed and mobile number portability.

The business segment also suffered as a result of the crisis. The disappearance of companies saw the total number of fixed lines in the business segment drop by 216,462 over the year.

YEAR-ON-YEAR GDP EVOLUTION AT CURRENT PRICES, OF END CONSUMPTION AND END SERVICE REVENUES IN THE INDUSTRY



Source: INE and CMT

Advertising revenues, the main source of financing for free-to-air television channels, slightly increased against 2009, when there was a heavy drop in revenues from this line.

In this economic climate, electronic communications

operators launched improved offers. Mobile telephony prices fell 6.6%, measured as the average revenue per minute, while offers in broadband with heavily discounted rates or improved connection speeds at the same or even lower prices became very popular. In fixed telephony, an increase in the use of flat rates for national calls also caused a drop in the average price

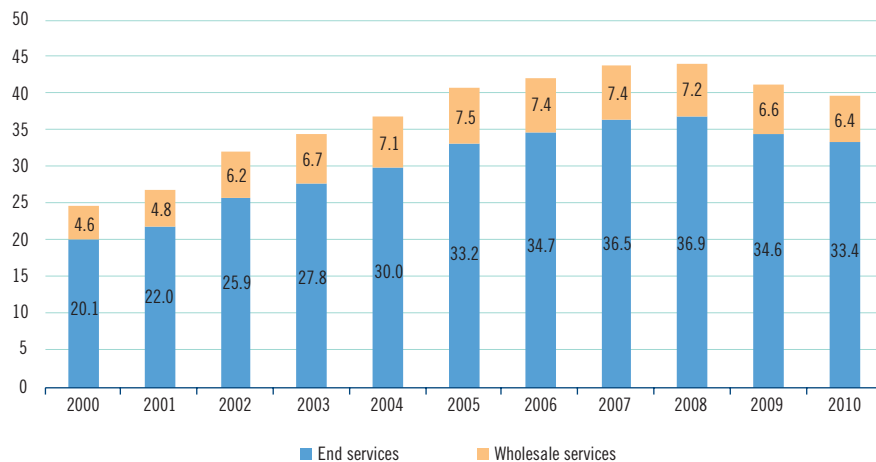
paid by users.

a) Revenues

Total turnover in the industry, including audiovisual

businesses, was 39,787,300,000 Euros, down by 3.5% against turnover in 2009. Revenues from end services fell by 3.4%, and by 3.7% in wholesale services. These falls, particularly in the wholesale

EVOLUTION OF END AND WHOLESALE REVENUES IN THE INDUSTRY (billions euros)



Source: CMT

segment, were smaller than seen in 2009. Revenues from end services totalled 33,396,300,000 Euros for the industry as a whole, including revenues from the audiovisual segment¹².

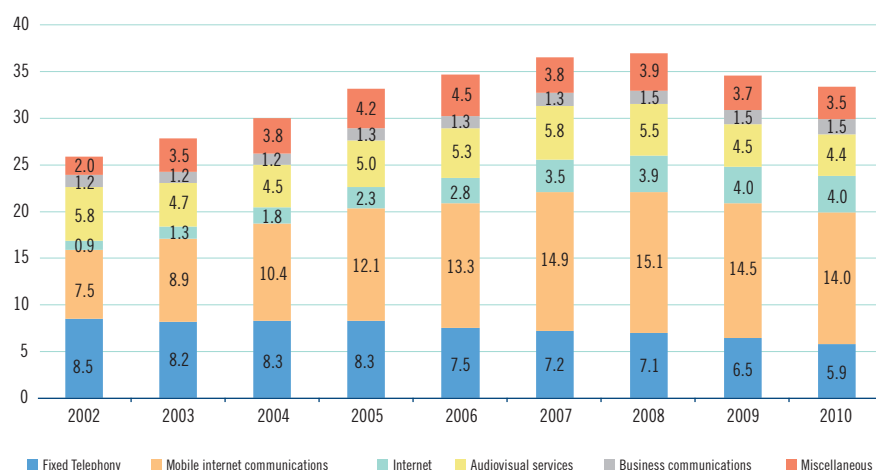
During the year the trend of falling revenues from fixed telephony continued, with a drop of 9.0%. In 2003, these represented 30% of end revenues, while seven years later they represented just 18% of the total. In mobile telephony, which includes revenues from data traffic and broadband via 3G/UMTS networks, end revenues were down by 3%, generating a total

of 14,024,000,000 Euros. The increase in revenues from broadband connections via mobile and data networks, of 30.9% in the year, failed to offset the drop in revenues from voice traffic, of 9.7%.

The number of broadband lines continued to grow, by 8.6%, but revenues from this segment grew at a slower pace of 0.9% due to price cuts, particularly promotions and discounts that operators offered throughout the year. Broadband revenues now represent 11.9% of total end revenues in the Spanish industry.

¹² Excluded are the subsidies received by state television operators.

EVOLUTION OF REVENUES FROM END SERVICES (billions euros)



Source: CMT

Revenues from audiovisual services were also down to 4,422,600,000 Euros, representing a 2.1% drop in annual terms. Despite a slight recovery from advertising on television and radio, there was a heavy drop in *pay-per-view* revenues.

Included in the “Miscellaneous” heading are revenues from telephone information services, which

fell 11.4% in the year, a trend already shown by this business over the last three years. Also included are revenues from the sale or rental of equipment to end users, which increased 4.9% to turnover of 1,776,500,000 Euros.

REVENUES FROM END SERVICES 2009-2010 (millions euros and percentage)

	2009	%/TOTAL 2009	2010	%/TOTAL 2010	CHANGE 09-10
Fixed telephony	6,456.3	18.7	5,877.2	17.6	-9.0
Mobile communications	14,457.1	41.8	14,023.9	42.0	-3.0
Internet	3,953.9	11.4	3,989.3	11.9	0.9
Audiovisual services	4,519.7	13.1	4,422.6	13.2	-2.1
Business communications	1,518.0	4.4	1,545.0	4.6	1.8
Others	3,682.1	10.6	3,538.3	10.6	-3.9
Total	34,587.1	100.0	33,396.3	100.0	-3.4

Source: CMT

Convergent services combine fixed line and mobile services in a single offer, allowing use of both number types and the option of mobility. Such services have been gaining in strength over the past two years and, at the end of 2010, represented 0.6% of total billing for end services.

Wholesale services grew powerfully when the electronic communications market was initially deregulated, from 1997 to 2004. These were mostly services regulated by the CMT. In 2010 revenues from such services between operators totalled 6,391,000,000 Euros, down by 3.7% against turnover in the previous year.

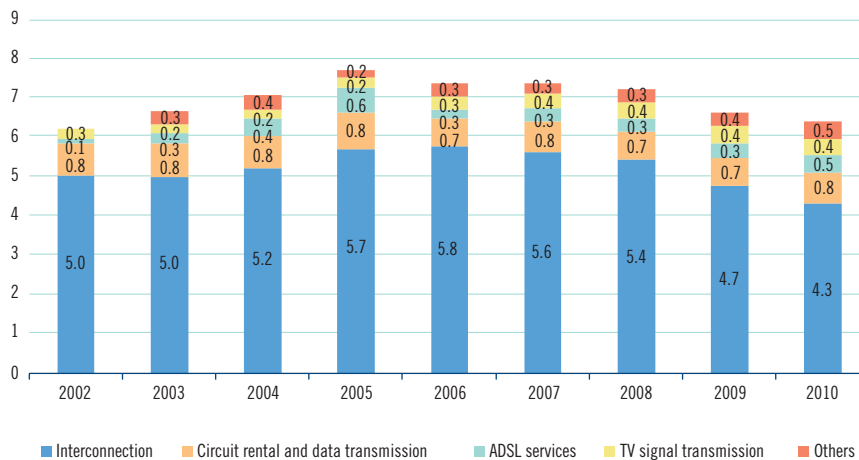
The most important of these services is interconnection, either in fixed or mobile networks. This group of services alone represents 67.6% of revenues from wholesale services. The next most important services after interconnection were circuit rental between operators, xDSL (a service provided by Telefónica de España to operators that want to provide end broadband services to their clients), and, finally, transport and television signal broadcasting, which has increased in relevance over the years.

Interconnection services shrank 9.0%, but still have the largest weighting in the market. This drop was a direct consequence, on the one hand, of the downward price glide path established by the CMT for regulated termination fees on mobile networks, and, on the other hand, a drop in absolute terms in interconnection traffic handled by fixed networks. There is still clear asymmetry between regulated interconnection rates for these two networks,

with much lower prices on fixed networks. Mobile operators generated 61.6% of total interconnection revenues, while they handled 37.3% of total interconnection traffic on fixed and mobile networks.

For some years call termination on mobile networks has been a service regulated by the CMT and, just as in the other EU(27) countries, is subject to a downward *glide path*, with substantial price reductions year after year. There is a converging trend between the termination charges on the two network types, fixed and mobile, which is set to continue for the foreseeable future.

EVOLUTION OF REVENUES FROM WHOLESALE SERVICES (billions euros)



Source: CMT

Revenues from the xDSL wholesale service increased 30.5% in the year. In 2009, the CMT substantially cut bitstream access prices for alternative operators to reach end customers via the incumbent operator's network. The introduction, by the CMT, of naked bitstream access,

much demanded by alternative operators throughout the year, and the cut in regulated ADSL-IP service prices, led to an increase both in lines requested and revenues generated.

REVENUES FROM WHOLESALE SERVICES 2009-2010 (millions euros and percentage)

	2009	%/ TOTAL 2009	2010	%/ TOTAL 2010	CHANGE 09-10
Interconnection	4,746.1	71.5	4,319.0	67.6	-9.0
Circuit rental and data transmission	736.8	11.1	764.9	12.0	3.8
DSL services	348.5	5.3	454.7	7.1	30.5
Audiovisual signal transmission	438.8	6.6	395.0	6.2	-10.0
Miscellaneous	365.9	5.5	457.4	7.2	25.0
Total	6,636.1	100.0	6,391.0	100.0	-3.7

Source: CMT

The decline in revenues from transport and television signal broadcasting was of 10%, which was to be expected once migration to DTTV was completed in March 2010 and analogue broadcast services were no longer required. This service has increased in relevance since 2002, when it represented 4.1% of wholesale revenues, compared to 6.2% this year.

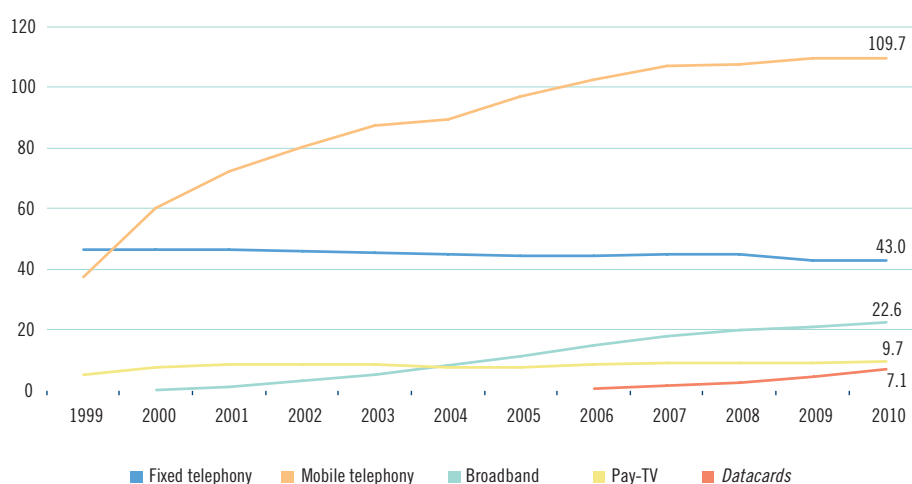
b) Service penetration

Despite the general economic climate, it was year of increased penetration for the main end services.

In line with previous year, fixed network broadband penetration reached 22.6 connections for every 100 inhabitants, up by 1.6 points in the year, while mobile line penetration reached 109.7 lines per 100 inhabitants. Pay-TV subscribers also grew,

particularly thanks to the new services offered via DTTV, seeing penetration reach 9.7 subscribers per 100 inhabitants. Fixed telephony, on the other hand, saw a continuation of the trend observed in previous years, with a gradual drop in terms of penetration to 43.0 lines for every 100 inhabitants.

The largest increase came from demand for *datacards* or modems that access broadband via 3G/UMTS networks. While at the close of 2009 there were 1.96 million *datacards* in Spain, one year later 3.35 million were registered, representing an increase of 1.39 million in just one year. Penetration reached 7.1 *datacards* for every 100 inhabitants.

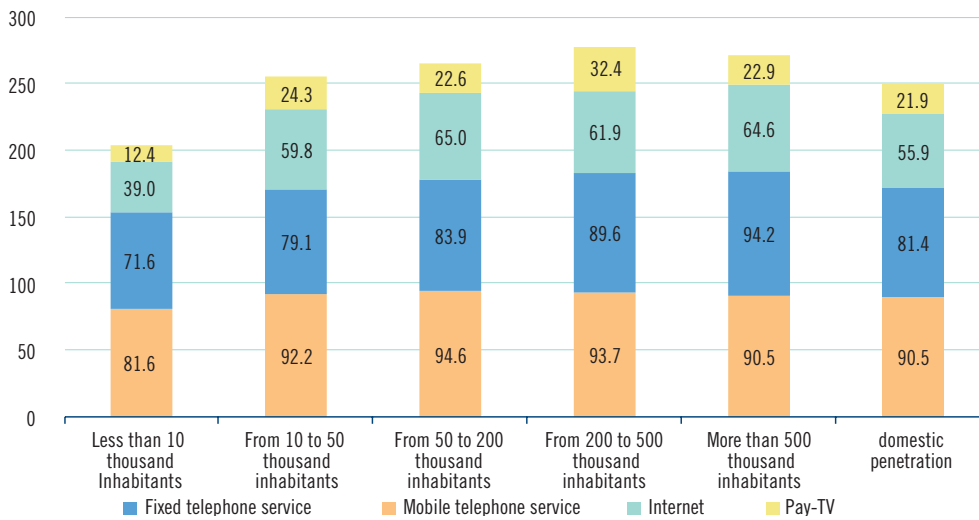
PENETRATION OF END SERVICES (lines or subscribers/100 inhabitants)

Source: CMT

Based on data from the CMT-Red.es Household Panel, penetration of all end services increased in the residential segment. Thus, the proportion of homes with fixed telephony increased to 81.4%, while the figure for one household member with a mobile telephone was 90.5% of the total and with Internet was 55.9%. Finally, pay-TV penetration nationwide was 21.9% of households.

A look at the penetration of end services shows significant differences based on the size of the settlement in question. Low population areas registered penetration levels significantly below the national average, and particularly in terms of Internet connection and pay-TV.

PENETRATION OF END SERVICES IN HOUSEHOLDS BASED ON SETTLEMENT SIZE (percentage)



Source: CMT

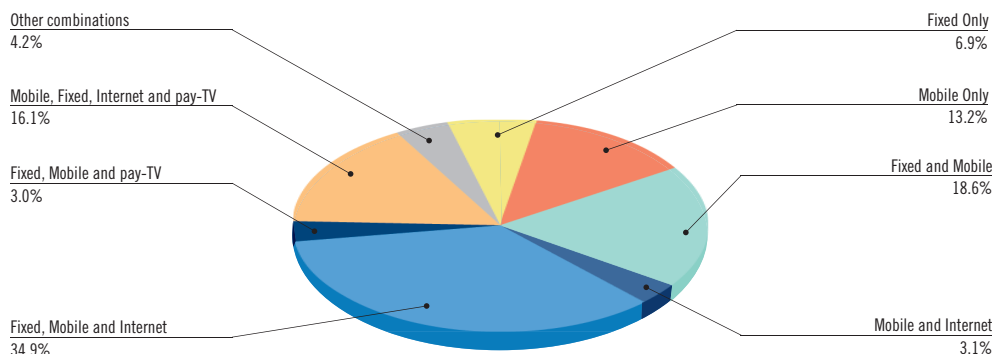
51.4% of households has a fixed broadband access, the most common type of access. However, in the residential segment, the fastest year-on-year growth came from mobile broadband. In particular, the penetration of big screen broadband services offered through *datacards* or modems that are inserted into the computer quadrupled in value against 2009, and increased from 2.4% to 6.3%.

The penetration of broadband in Spanish households was somewhat below the EU(27) average, but international comparisons should also take into account the availability of terminal equipment used to access the Internet. According to data from the CMT- Red.es Household Panel, 68% of Spanish households state that they have a computer, and the large majority of these households, 82%, had an

Internet connection. This result is in line with other data from the same source, which indicates that the main reason given by households for not having Internet services is that they do not have a computer. The second most common reason was that they had no interest in the service, and thirdly that the service seemed expensive.

The graph below shows the percentages of households that contracted the various service groups. For example, 13.2% of households only contracted mobile telephony services, while 34.9% of households contracted fixed line services and Internet access as well as the mobile telephony service.

HOUSEHOLD CONTRACTING OF FINAL SERVICES (percentage)



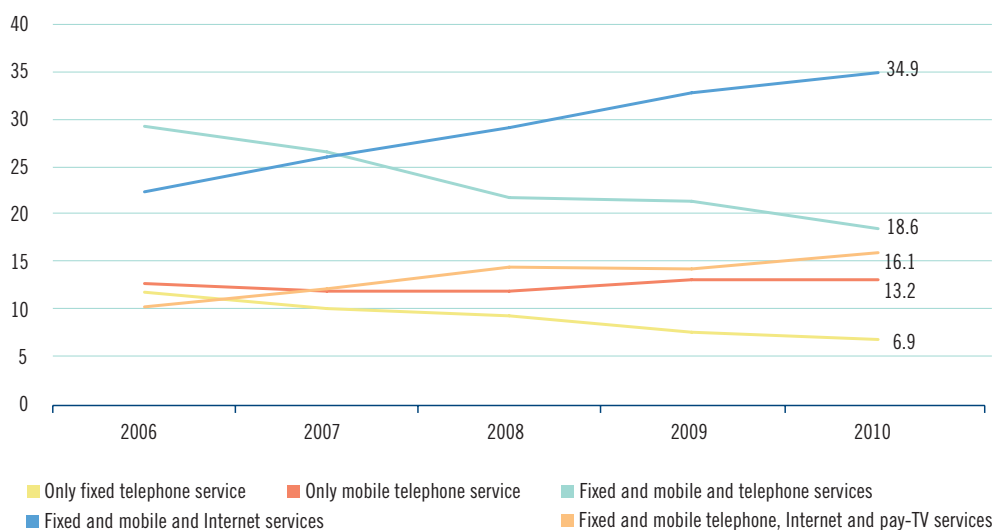
Source: CMT

c) Convergence

As has already been noted, the penetration of the main end services increased over the year. One solid trend seen for some years has been end users contracting various end services, either from a single provider (normally bundled) or contracting services individually,

possibly from different operators. The following graph clearly shows that since 2006 Spanish households have mostly and increasingly been contracting three or more services.

EVOLUTION OF SERVICE CONTRACTING BY HOUSEHOLDS IN SPAIN (percentage)



Source: CMT

While in 2006 11.9% of households had a fixed line service only, five years later this proportion was down to 6.9%. Meanwhile, the percentage of households that contract three or more services increased from 32.8% in 2006 to 51% by the end of 2010, and of this total the majority contracted fixed line, mobile telephony and broadband access. Another noteworthy aspect of household service figures was that 13.2% of households stated that they only had mobile access contracted.

it is worth pointing out the increase in commercial offers that combine voice over network or fixed number and mobile number services. This kind of convergence product, which is finding particular demand in the SMEs segment, exceeded 424,000 lines by the end of the year.

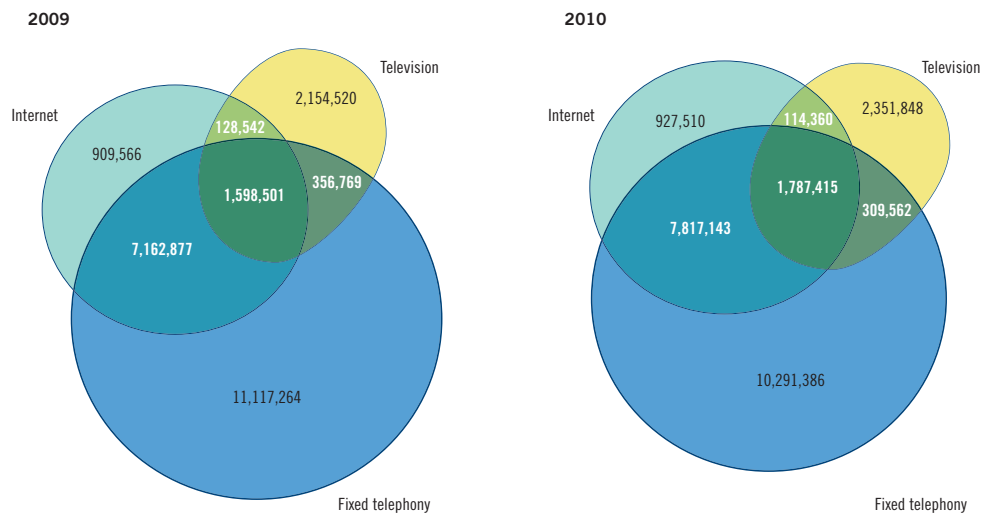
d) Service bundling

Over the last five years households have contracted an ever growing number of services, partly due to the

service bundling offered by operators. These bundles offer multiple services combined in a single contract at more attractive prices than if contracted individually.

The total number of service bundles on the market increased to 10 million, which, in terms of penetration, represented 21.3 bundles for every 100 inhabitants. Contracting of broadband and voice services grew over the year, while new subscriptions increased by 781,791. The triple-play bundle, which adds pay-TV to this service combination, also grew by 188,914 new subscribers. There was also demand for new bundles, combining broadband access by mobile and fixed networks in a single commercial offer.

NUMBER OF SERVICE BUNDLES VIA FIXED NETWORKS (lines or subscribers)



Source: CMT

Bundling has become the most successful contracting mode, both in the residential and business segments. The figures illustrate this: of the total active fixed lines in Spain, 49% are contracted along with another service, i.e. they are bundled. Thus, bundled lines as

a percentage of the total for broadband services via fixed networks was 91.3%, while the figure for pay-TV was 48.5%.

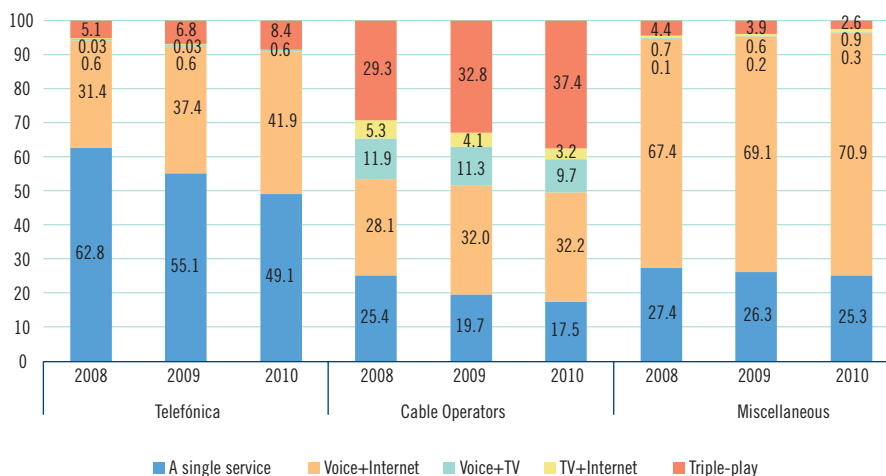
In order to offer this variety of end services to users, telecommunications operators have in recent years started providing services that were not previously available. In particular, telecommunications operators now play an important role in the audiovisual or content segments. This growth is explained by content designed specifically for such operators, such as television services from cable operators and Telefónica, and the ability to offer bundled services at attractive prices.

In particular, in 2010 there was a change in the business models of some content owners, who declined to sell some products exclusively. The pay television channel that currently owns football broadcasting rights, Gol TV, created its own distribution channel via DTTV and also sold broadcasting rights to the leading telecommunications operators in the audiovisual segment. Meanwhile, Sogecable, the owner of a significant content provider, made deals with other platforms to distribute programming that was previously offered exclusively via its satellite platform.

As for bundling, cable operators were the first to start using this business model of combining end services and were the most active operators in service bundling. The remaining alternative operators largely offered clients the then most popular bundle in Spain: the combination of access, fixed telephony and fixed network broadband. Just 25.3% of these operators' clients had individually contracted services.

Finally, as well as the double-play bundle, Telefónica had considerable success with its triple-play bundle, which added pay-TV services. 8.4% of its clients subscribed to this triple-play bundle.

SERVICE BUNDLING IN THE RESIDENTIAL SEGMENT BY TYPE OF OPERATOR (percentage of total clients)



Source: CMT

e) Household expenditure on most relevant services

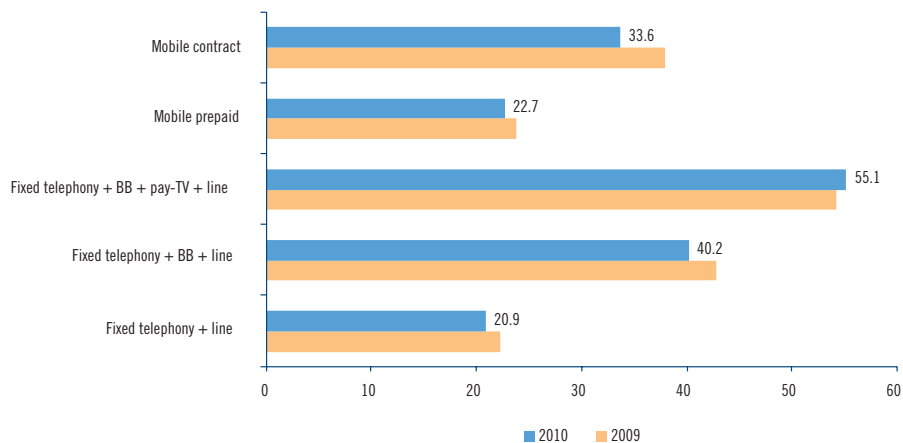
As the following graph indicates, most types of household expenditure on electronic communications services fell. This was partly due to an adjustment in household consumption and lower prices paid by households choosing cheaper alternatives or that benefited from better deals.

One important example is national fixed line calls, broadband access and line access, on which the average household expenditure was 40.2 Euros per month, 2.8 Euros less than in 2009. This reduction was due to promotions from all operators and the number of users that switched broadband operators during the

year, moving to operators that offered the same group of services at lower prices.

This household expenditure does not include consumption additional to the bundles services, such as calls from fixed lines to mobiles or intelligent network calls, which are usually excluded from the national flat rate offered in bundles. Considering the overall bill paid by households that contract fixed line voice services, broadband line and line services, the expenditure per household per month fell from 46.7 Euros in 2009 to 41.6 Euros in 2010.

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



Source: CMT

In the case of fixed line voice services, broadband, pay-TV and access, spending per household and per month increased, rising from 54.2 per month in 2009 to 55.1 Euros a year later. However, these amounts do not include some additional consumption, such as voice products not included in the bundle, decoder rental or pay-per-view. Looking at total billing corresponding these households, expenditure was 65.3 Euros per month in 2010, compared to 67.7 Euros in 2009.

There was also less expenditure on mobile telephony services. The average spending per household was 33.6 per month, representing a drop of 12.5% against

the average spending one year previously. Prepaid card users also slightly lowered average expenditure. Mobile telephony as a whole, as will be seen further on, is one of the segments where there was the most change in consumption by users.

In conclusion, average household spending was down for the majority of end services. The economic crisis led to adjustments in general household consumption in 2009 and 2010, which affected expenditure on end services. Operators adapted to this lower demand by offering new rates and sizable temporary discounts on nominal rates.

f) Employment

The electronic communications industry, including audiovisual operators, directly employed a total of 77,839 people, representing a drop of 2.8% against the previous year.

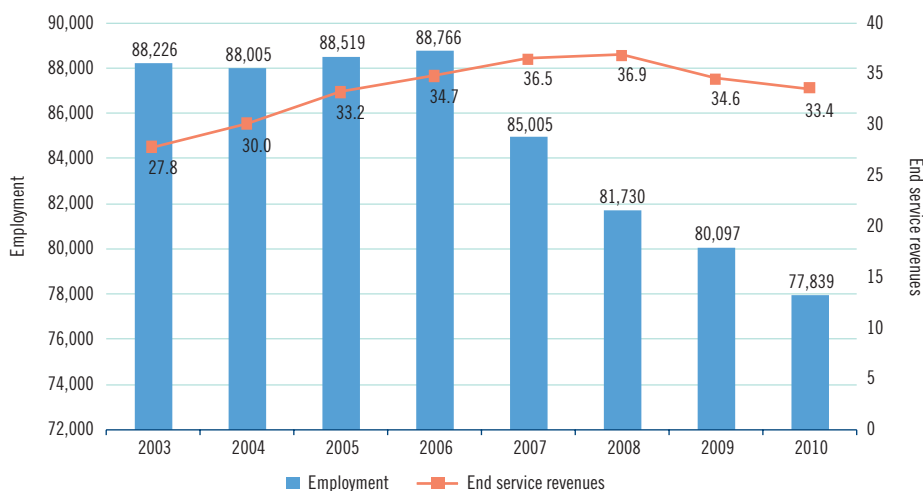
The drop in direct employment in the industry in recent years comes as operators seek to generate synergies,

leading to a significant process of acquisitions in the Spanish market.

Given the evolution of end revenues, turnover per employee has grown significantly over the last eight years, rising from 315,000 Euros per employee in 2003 to 429,000 euros in 2010.

EVOLUTION OF EMPLOYMENT IN THE INDUSTRY AND REVENUES FROM END SERVICES

(employees and billions euros)



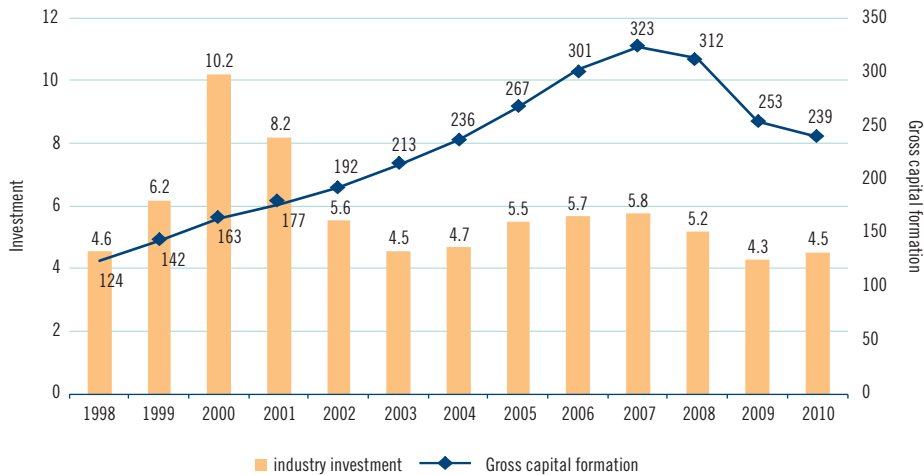
Source: INE, CMT.

g) Investment

The overriding climate of economic crisis was reflected by general investment in the economy as a whole. Gross fixed capital formation, according to the INE, fell by 5.7% to 239 billion euros. In contrast, overall investment made by all electronic communications operators combined (including audiovisual operators)

increased by 4.6% to 4,480 million euros. A comparison of this figure with 2009, a year in which the economic crisis had a significant impact, shows an improvement in operators' expectations, as well as the fact that the telecommunications industry investment cycle faces certain particular constraints not faced by the economy as a whole.

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

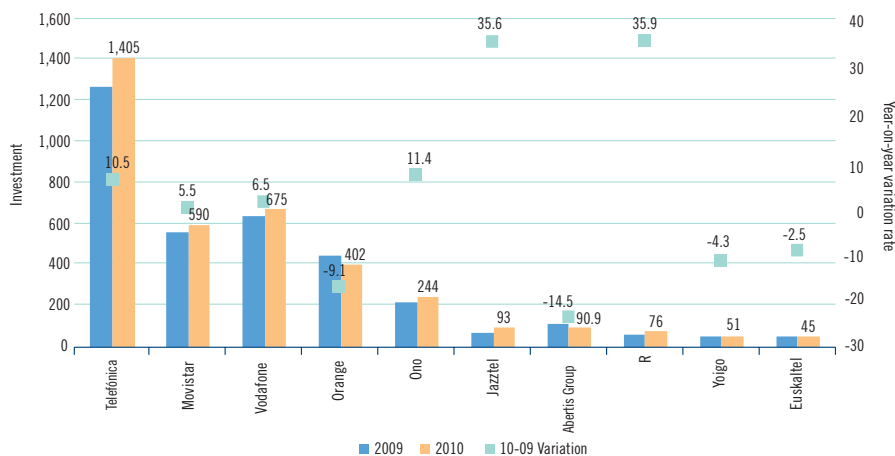


Source: CMT

Investment per operator shows that the majority of operators increased investment by more than 5%. Jazztel, TeleCable and R increased investments by more than 30% each year, while Ono and Telefónica did so by more than 10%. The two largest mobile

operators, Movistar and Vodafone, increased investments by 5.5% and 6.5% respectively. Orange¹³, by contrast, reduced total investment by 9.1%, while the Abertis group lowered investment by 14.5%. Euskaltel and Hispasat slightly decreased investments.

INVESTMENT PER OPERATOR AND RATE OF CHANGE (millions euros and percentage)



Source: CMT

The largest investments made in networks were, on the one hand, made in mobile networks and, on the other, made in cable networks to improve networks and adapt them to the DOCSIS 3.0 standard that allows very high

bitrates of between 50 and 100 Mbps for end users.

¹³ Orange includes Orange Business Services.

h) Electronic communications infrastructure

- Fixed network infrastructure

In the last year operators implemented major improvements to their access networks, both fixed and mobile, in order to increase capacity and offer a larger range of more innovative services that require greater broadband capacity.

Technologically speaking, there are few options available to increase the capacity of copper networks and therefore a gradual migration from fixed line connections to new generation networks, based on fibre optics, is required.

Fixed line connections remained the most common means of users accessing voice and data services. Copper pair connections are the most common type of access, standing at 16 million. Both the incumbent operator and alternative operators using xDSL, via local loop unbundling, operate this type of access to provide voice and data services.

Such traditional copper accesses (from the subscriber to a local exchange) are no longer the only form by which users can be accessed via xDSL technology. As well as conventional accesses, there are other network elements, called remote nodes, that generally service just a few hundred loops. Several remote nodes can exist within a single local exchange area, connecting to the network via fibre optics based on a FTTN system. These elements are rolled out either to improve broadband services in certain areas of a local exchange, or to cover new areas of population. Thus, broadband access services through these loops are provided from

remote nodes, offering better bitrates than would be possible from the local exchange due to the longer length of the copper pairs. In late 2010 a total of 5,132 remote nodes were accounted for on the network, with 607,277 loops dependent on them, which meant an increase of 16.9% against the previous year.

Telefónica continued its network transformation, making progress in the installation of fibre optic access connections to subscribers (FTTH), while other operators are also rolling out new fibre optic networks. Total FTTH accesses reached 524,370.

As for hybrid fibre-coaxial accesses to subscribers (HFC), cable operators continued to install new connections and improve capacity. There were a total of 9.49 million installed HFC access points, representing growth of 1.9% against 2009. The highlight of the year were efforts by cable operators to increase network performance by installing new equipment and accesses using DOCSIS 3.0 technology, offering speeds of over 100 Mbps. Thus, the number of installed accesses using DOCSIS 3.0 nodes reached 6.8 million, meaning 72.0% of all HFC access points run by cable operators are ready for very high bitrates.

EVOLUTION OF INSTALLED ACCESSES¹⁴

	2007	2008	2009	2010
Copper pair	16,325,077	16,100,379	15,865,857	15,996,403
HFC and HFC-copper pair	8,778,068	9,146,308	9,307,653	9,485,603
FTTN	436,783	604,620	628,494	668,724
FTTH			396,065	524,370
Radio	580,685	631,431	724,270	728,424
Miscellaneous	23,706	20,699	25,349	19,991

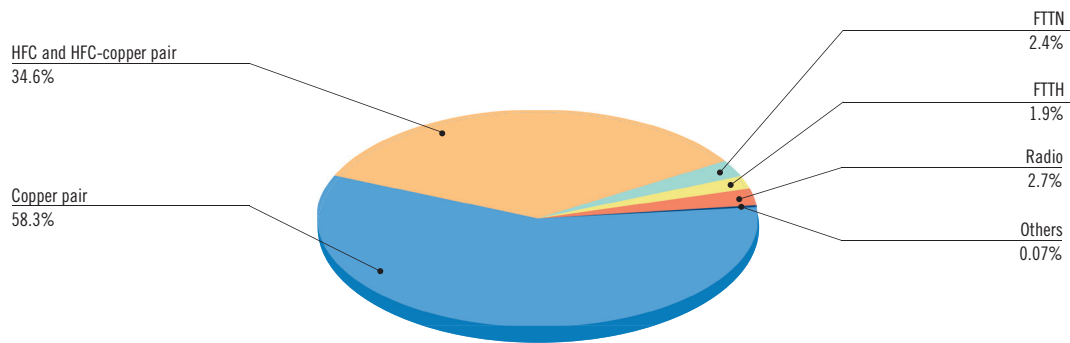
Source: CMT

¹⁴ HFC access data for 2007, 2008 and 2009, as well as radio accesses in 2009 has been amended. Installed copper pair accesses do not include vacant copper pairs. Radio connections include connections installed with LMDS technology, WiMAX and Wi-Fi.

In terms of percentages, copper pair connections represented 58.3% of fixed network connections. Meanwhile, total HFC accesses installed by cable operators increased slightly, closing 2010 with

a market share of 34.6%. Finally, the growth in fibre optic to the home (FTTH) connections stood out, with 128,305 new accesses and growth of 32.4%.

INSTALLED CONNECTIONS BY SUPPORTING TECHNOLOGY (percentage)

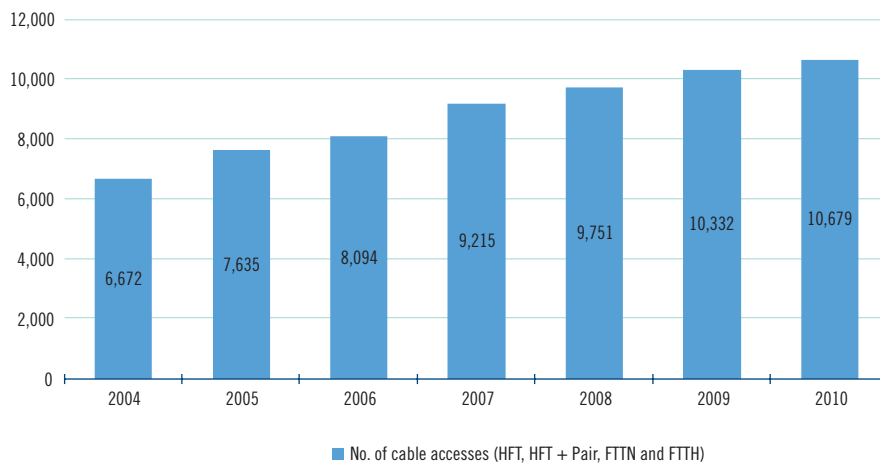


Source: CMT

The following chart shows the evolution of HFC and fibre optic accesses installed. The year closed with

a total of 10.7 million connections based on these supports, a figure that was up 3.4% against 2009.

EVOLUTION OF HFC, HFC-COPPER PAIR AND FIBRE CONNECTIONS (thousands of connections)

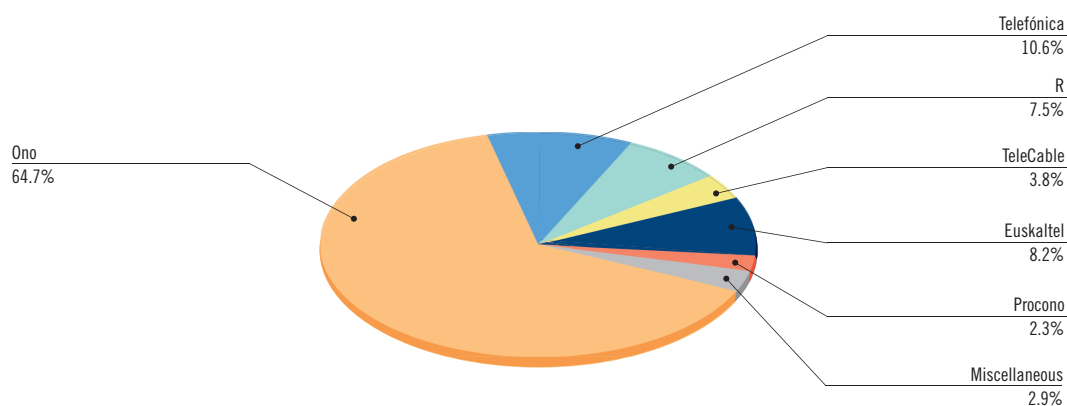


Source: CMT

The breakdown of HFC and fibre optic connections installed (FTTN and FTTH) per operator showed that the cable operator Ono, with its own network rolled out extensively over the country, reached a market share of 64.7% of connections, represented by HFC-copper pair cable. The remaining regional cable operators, with networks in specific areas, had a combined market share of 24.7% of connections.

Finally, Telefónica closed the year with 10.6% of installed fibre optic connections, taking into account fibre to the node (FTTN) and fibre to the home (FTTH). As for FTTH accesses installed, these reached a total figure of 524,370 connections, with more than 89% corresponding to Telefónica.

MARKET SHARES OF INSTALLED HFC, HFC-COPPER PAIR AND FIBRE ACCESSES BY OPERATOR (percentage)

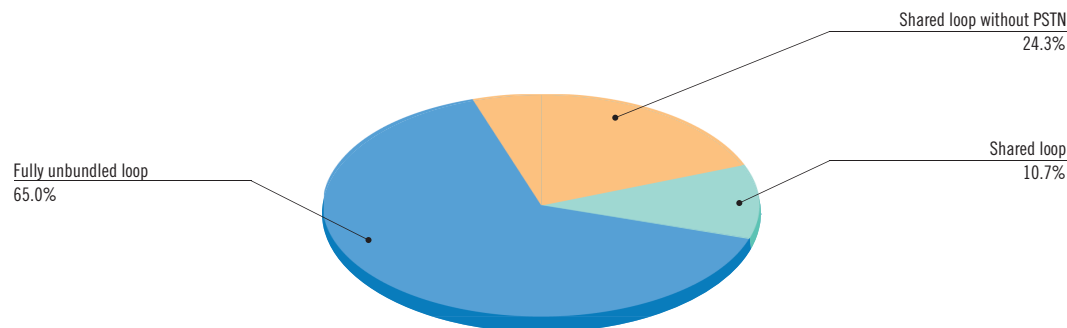


Source: CMT

Investment by operators in connecting new local exchanges, from which alternative operators provide services via local loop unbundling, continued over the year. Thus, there were 69 new local exchanges, reaching a figure of 803 local exchanges with operator co-location. In this way, wholesale local loop unbundling remained the main form of accessing the

retail market by alternative xDSL operators, with a total of 2,477,102 loops and 15% year-on-year growth. The figure below illustrates the percentage distribution of the various modalities.

DISTRIBUTION OF UNBUNDLED LOOP MODALITIES (percentage)



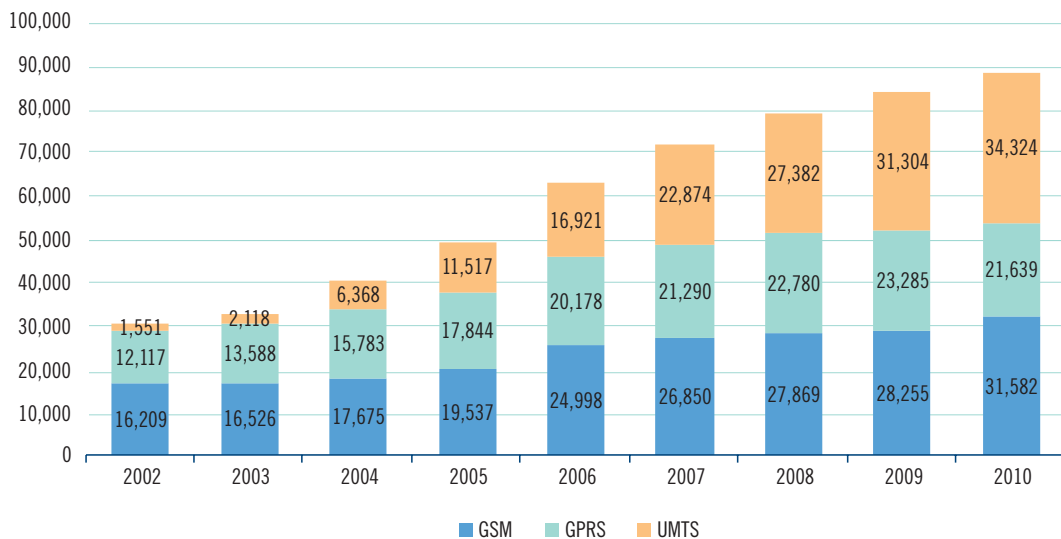
Source: CMT

Total and shared loop unbundling without basic telephone services (PSTN) from Telefónica continued to grow during the year, 29.7%, totalling 2,213,140 loops. Alternative operators making use of this modality offered different voice and data services via copper pair without making use of the Telefónica telephone service. There was a 41% drop in the year in the use of partially unbundled loops, due to migration towards the other two forms of loop unbundling.

- Mobile network infrastructure

In recent years, mobile operators have made major investments to deploy their 3G/UMTS networks. An example of this came in the 34,324 UMTS base stations declared active in 2010, which represented 39.2% of total stations rolled out nationally. However, the rate of growth in the last year was somewhat slower than in previous years: the 3G base stations installed in the year increased 9.6%, while in 2009 the change was 14.3%.

NUMBER OF BASE STATIONS GSM/GPRS AND 3G/UMTS

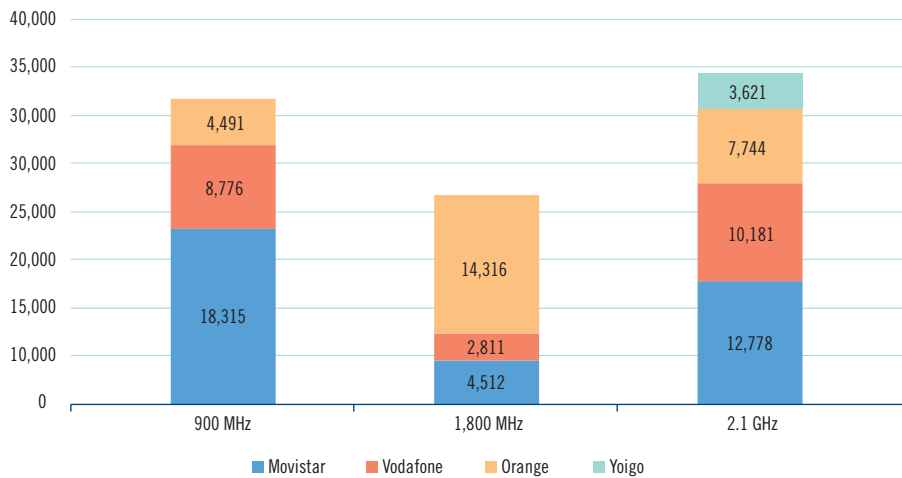


Source: CMT

The 2.1 GHz band, in which the four operators with their own networks in Spain have a licence to operate for high speed data connections, accounts for the majority of the base stations and is where the largest new station roll out efforts were made by licensed operators.

The next is the 900 MHz band, which is very attractive thanks to its properties for voice and data services. Orange had less allocated capacity in this band than the two major operators, and instead concentrated its roll out in the 1,800 MHz band. Yoigo, meanwhile, is licensed to operate 3G/UMTS only in the 2.1 GHz band, and concentrated its mobile network roll out in this bandwidth only.

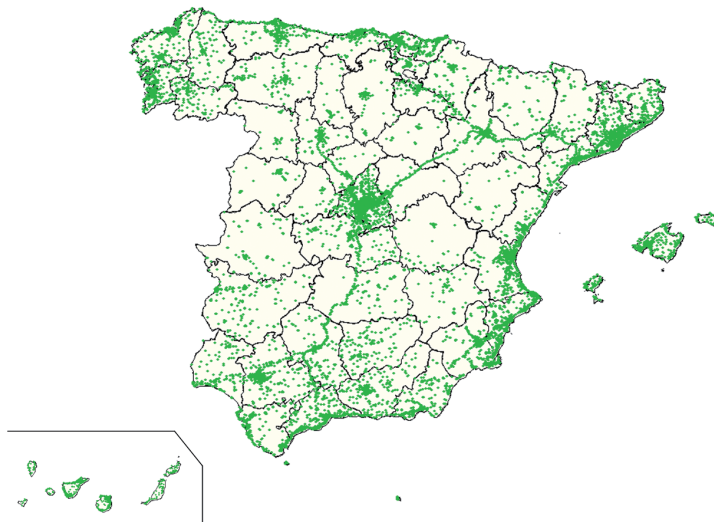
BASE STATIONS BASED ON OPERATOR AND BAND FREQUENCIES USED IN DECEMBER 2010



Source: CMT

Below is the geographic distribution of 3G base stations nationwide.

GEOGRAPHICAL DISTRIBUTION OF 3G/UMTS BASE STATIONS



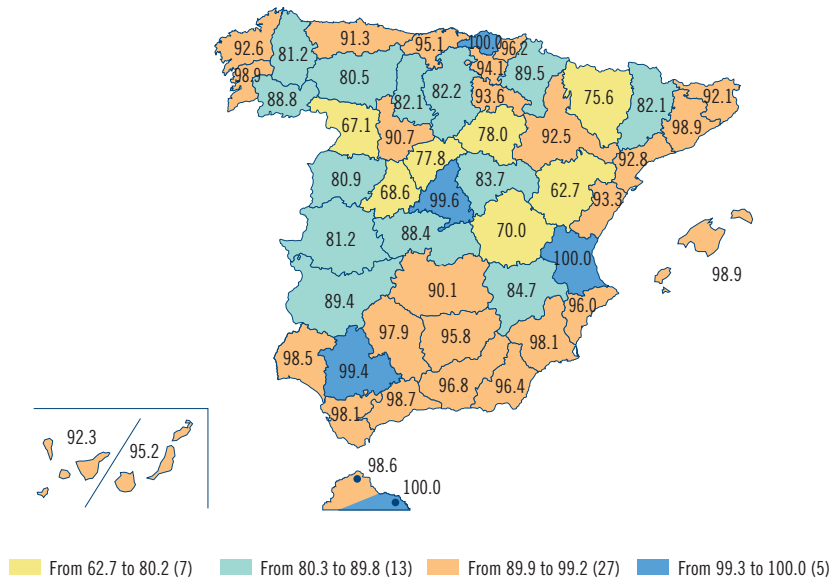
Source: CMT

The main consequence of the increase in 3G base stations was an increase in the population covered by this kind of technology. The following chart shows the mobile networks in provinces with the most extensive 3G service coverage, based on the minimum demanded quality standards¹⁵. The provinces with the highest urban populations had, in general, the largest

3G network coverage.

¹⁵ The stated 3G coverage ensured data traffic speeds of over 300 Kbps.

POPULATION WITH ACCESS TO THIRD GENERATION NETWORKS (UMTS/HSDPA)¹⁶ (percentage)

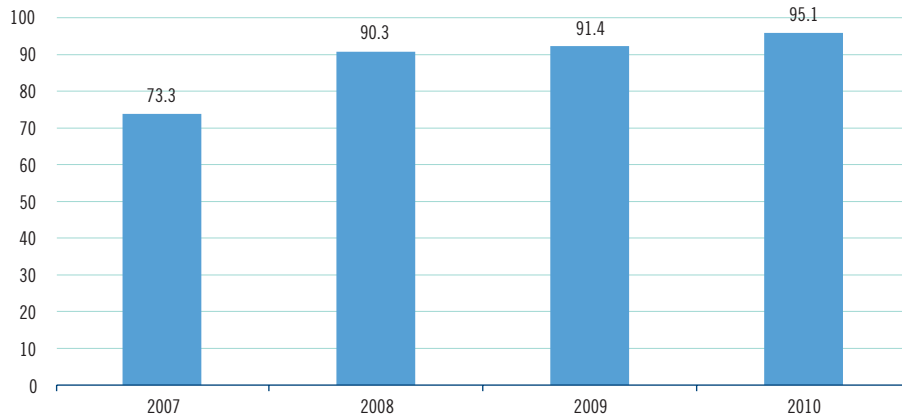


Source: CMT

According to data provided by the four mobile operators with their own networks, 95.1% of the

Spanish population is covered by at least a third generation network.

POPULATION COVERED BY AT LEAST A 3G NETWORK (percentage)



Source: CMT

¹⁶ The intervals are set ± one standard deviation from the mean. The upper and lower extremes are determined by the maximum and minimum values respectively.

3. MARKET EVOLUTIONS IN SPAIN

3.1. Fixed communications

3.1.1. Retail services

a) Fixed telephony

End services via fixed networks recorded a similar evolution to recent years, with a progressive drop in turnover, which this time was down 9.0%, and traffic generated, down 3.8% - national voice services would have to be excluded, where consumption was slightly higher thanks to extensive use of flat rates-. At the overall level, retail turnover totalled 5,877,200,000 Euros, which meant a year-on-year drop of 579.1 million euros. In general, these is a mature segment, where traditional fixed telephony is not the only option available to provide these services. There are alternatives in fixed-mobile converged services provided by mobile networks or voice services based on IP.

The economic climate had an impact on this market over the year, particularly in the business segment, in line with the trend of recent years. This led to a drop in fixed lines of 216,462 in the business segment, largely offset by the residential segment, where lines increased 186,557 over the year, generating a net negative balance for the year of 29,905 lines.

Telefónica was the operator that lost the most lines, at close to one million lines. These lines were mostly acquired by alternative operators, particularly Vodafone, Jazztel and Orange. The regulation that the CMT established based on local loop unbundling and loop rental without the basic telephone service (PSTN) helped alternative operators acquire these lines. Thus, Vodafone gained direct access to customers using the wholesale naked bitstream method, in which broadband service is contracted without the customer needing to subscribe to phone services from Telefónica. Jazztel, thanks to growth in its broadband offer, registered an increase in the number of direct access customers, by bundling voice with broadband via wholesale fully unbundled local loops. Orange acquired a significant proportion of direct access clients using shared unbundled local loops without PSTN, offering voice over IP and bundling this with broadband. This market access method, introduced

by the CMT, continued to gain ground over the year.

Vodafone sustained its offer of converged services - products that combine fixed and mobile telephony in a single terminal- while Orange launched a new product in 2010 for the business segment, combining fixed telephony from its mobile network.

As a result of the increase in direct access market share from alternative operators, the use of portability grew very rapidly, with 1.7 million numbers ported. This represented growth of 19.5% against the previous year and an average of 147,801 lines ported per month.

Meanwhile, in December 2010, more than 9.5 million clients had contracted a flat rate for voice services, compared with 8.4 million in 2009. This increase came thanks to growth in bundled offers, which increased their market weighting.

- Revenues

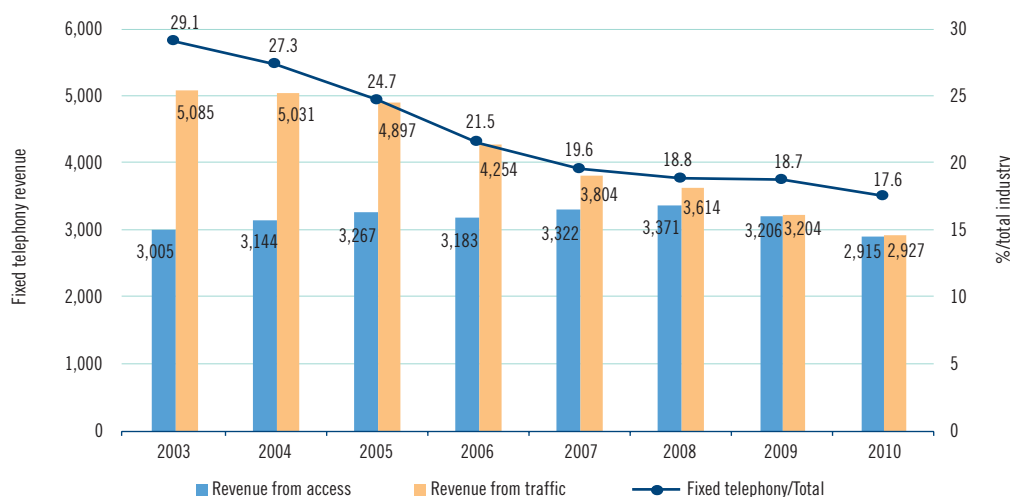
Revenues from retail fixed line services reached 5,877,200,000 Euros, representing 17.6% of total revenues generated by retail services in the industry.

49.9% of fixed telephony revenues, not including miscellaneous revenues, were accounted for by connection or access services (connection fee, subscriber fee, additional facilities, etc.), while the remaining 50.1% came from traffic services. The declining trend in traffic revenues continued over the last few years, which can be explained by the fact that most users are shifting away from time based billing to flat voice rates, which lowers operator revenues, while there was also a drop in business segment traffic.

Access turnover fell 9.1% against the figure recorded in 2009, despite access revenues in recent years increasing their proportion of total retail fixed line

revenues, due to the progressive reduction in traffic revenues. This effect can be seen in the following chart, which shows that both components are now practically on a par.

EVOLUTION OF RETAIL FIXED LINE REVENUES AND CONTRIBUTION TO TOTAL IN THE RETAIL SERVICES INDUSTRY¹⁶ (millions euros and percentage)



Source: CMT

The decline in traffic revenues was 8.6% against the 2009 figure. This decrease can be explained by a drop in the number of fixed lines and business traffic minutes, as well as a decline in average revenues per call. During the year, the minutes of use per line in the

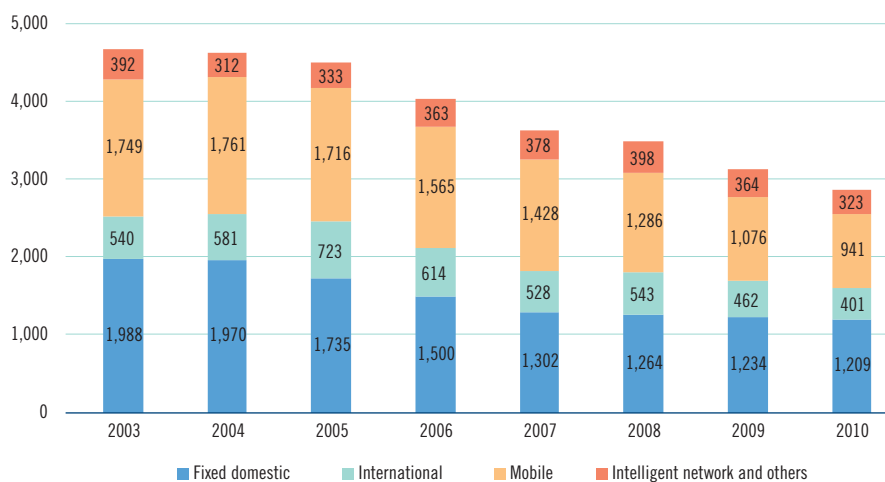
business segment fell, while in the residential segment these grew slightly, which consolidated a slight drop for total fixed line traffic.

¹⁶ Includes fees and traffic, not including the *miscellaneous* heading. Includes converged services.

The breakdown of revenues by traffic type showed that the main decline came in the section corresponding to calls to international destinations, which was down 13.2%. This drop is coherent with the fall recorded

in this traffic, of 14.2% in 2010. Revenues from calls to mobile phones fell 12.6%, while this traffic also fell 7.5%.

EVOLUTION OF REVENUES FROM TRAFFIC SERVICES (millions euros)



Source: CMT

The negative trend in both turnover and minutes consumed was reflected in the average revenue per call type, which also fell in 2010. Although average revenue per minute is an average of the different types of rates available on the market (flat rates, vouchers with limited calls or minutes, special discounts, traffic measured by time), it does present a good approximation of average prices per minute. Specifically, the average revenue from national fixed calls fell 2.7%, due to an increase in flat rates with bundled voice services.

The average revenue per call to mobile networks also fell by 5.5%. This decline could be driven by the price of fixed to mobile calls, which were slightly higher than for calls between mobiles, although operators began

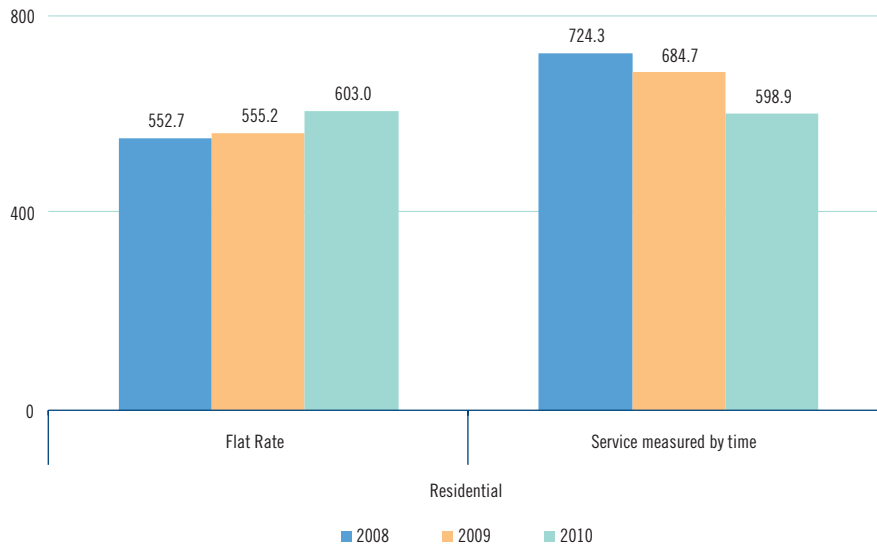
offering discount plans for fixed to mobile calls and to include certain vouchers for such calls in bundled services as of the second half of the year.

Total flat rate traffic revenues were up 5.3% against the previous year. In the residential segment the year-on-year increase was 8.6%, with this becoming the most popular option for the first time, representing 50.2% of total fixed line residential revenues.

Finally, narrowband internet revenues fell again, with a year-on-year fall of 52.1% to a total of 12.6 million euros.

EVOLUTION OF TRAFFIC REVENUES BY TARIFF TYPE IN THE RESIDENTIAL SEGMENT¹⁷

(million euros)



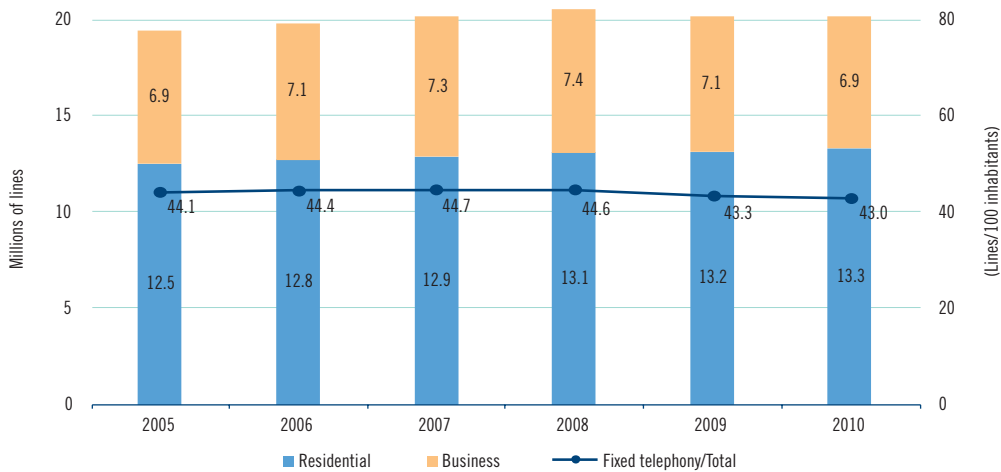
Source: CMT

- Fixed telephony lines and penetration

The number of fixed telephony lines in service was 20.2 million, a figure that was largely stable against the previous year. The business segment recorded

a year-on-year decline of 3.1%. Meanwhile, the residential segment recorded 1.4% positive growth, with a total of fixed residential lines of 13.3 million.

FIXED TELEPHONY LINES AND PENETRATION (millions of lines)



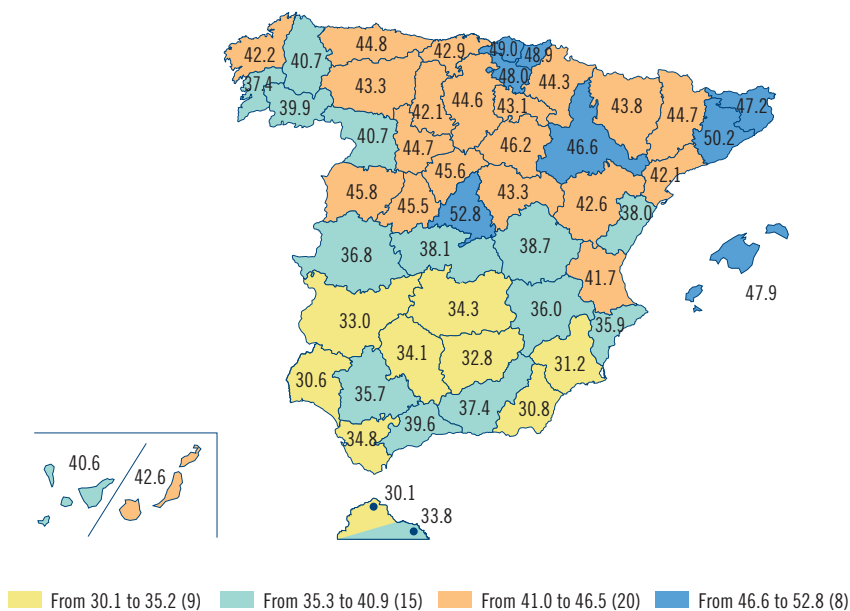
Source: CMT

¹⁷ Includes revenues from national calls, calls to mobiles and international traffic.

Fixed telephony penetration per inhabitant¹⁸, defined as the number of active lines in the full residential and business segment per 100 inhabitants, was 43.0.

The penetration figure was slightly lower than that recorded in 2009, due to an increase of 275,224 inhabitants against the previous year.

FIXED LINE PENETRATION BY PROVINCES¹⁹ (lines/100 inhabitants)



Source: CMT

The total number of fixed residential lines grew by 186,557 lines. This may be partly explained by the increase in alternatives to traditional fixed telephony being offered, such as convergent services, which combine fixed and mobile telephony in a single handset.

The evolution of total Telefónica lines in the year showed a clear falling trend, with a reduction of 996,060 lines during the year. However, this drop was lower than that registered in 2009, which was of 1,232,036 lines.

Alternative operators managed to acquire the largest number of lines from Telefónica in the residential segment. Against a loss of 697,274 lines for Telefónica, alternative operators gained 883,831 lines, giving a positive balance of 186,557 lines for the segment as a whole.

The percentage of homes with fixed telephony access

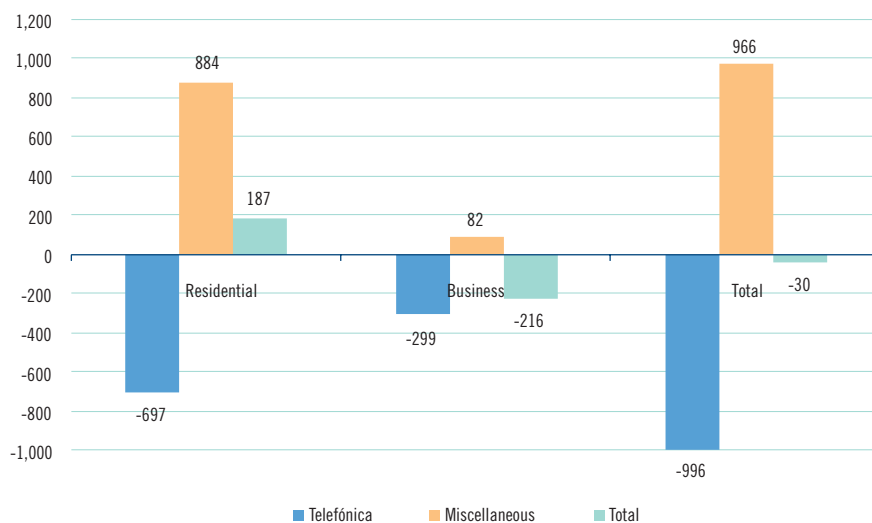
was 81.4%, down by one point against last year. Penetration for households in cities with populations of over 500,000 was 94.2%, while for smaller settlements (with less than 10,000 inhabitants), 71.6 households out of 100 had the basic telephone service contracted²⁰.

¹⁸ Calculated based on total fixed telephony and the 2010 population figure: 47,021,031 inhabitants (source INE).

¹⁹ The intervals are set ± one standard deviation from the mean. The upper and lower extremes are determined by the maximum and minimum values respectively.

²⁰ CMT-Red.es Household Panel

GAINS AND LOSSES OF FIXED LINES BY SEGMENT IN 2010 (thousands of lines)



Source: CMT

The business segment also saw alternative operators increase their number of lines, gaining 82,324 lines at the end of the year. Even so, the losses recorded by Telefónica over the year meant that the final balance in this segment was negative, specifically down 216,462 lines.

There are various reasons for the growth in line migration between Telefónica and alternative operators, largely linked to the various wholesale services introduced by the CMT. Firstly, the trend at the wholesale level of increased unbundling of the subscriber loop continued, particularly in full unbundling (which allows the alternative operator to offer a full range of services, including access). Secondly, shared loop access without PSTN allowed operators to acquire clients and offer them a full range of services at competitive prices. The increase of 333,747 in fully unbundled loops and 173,266 in loops without PSTN that took place in 2010 reflect operators' strategies of making ties with the end client as close as possible. Over the year, both types recorded positive month-on-month growth, although naked bitstream access also recorded 199,330 accesses in this method at the end of 2010, more than quadrupling the previous year's figure.

Another wholesale regulatory measure implemented by the CMT that led to strong growth in the year was wholesale line rental (WLR) from Telefónica. At the close of 2010 there were a total of 305,803 WLR lines on the market - showing year-on-year growth of 191.2% - with Orange, BT and Jazztel the operators to make most use of this method. Operators use this method to bill customers in a combined manner for the monthly subscriber fee, until now billed by Telefónica, and the cost of voice traffic. Subsequently, the alternative operator pays Telefónica for the access service provided. This service allowed alternative operators to present more aggressive commercial offers and compete more efficiently with the dominant operator.

At the retail level, convergent services and the offer based on the use of a mobile network to provide fixed line services increased their representation in the market. Such offers acquired some of the business segment lines lost by Telefónica.

However, the most competitive pressure exerted by alternative operators to attract lines away from Telefónica came in the residential industry. The main strategies employed were offers based on flat rates and bundled services, and the consolidation and extension of converging services.

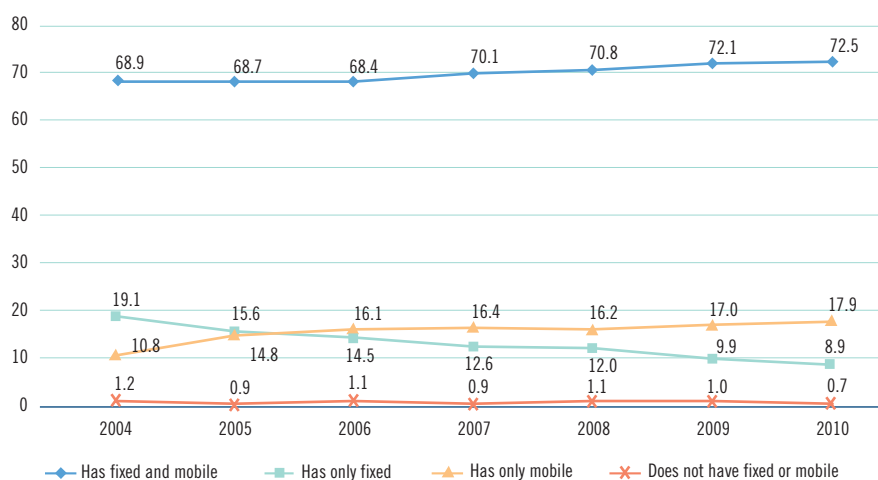
Meanwhile, although the total number of residential segment lines increased, there is already a significant proportion of households in Spain that only have mobile telephony and have ceased to contract fixed network access. Based on data from the CMT-Red.es Panel sample, in 2010 72.5% of households had fixed and mobile telephony, while 17.9% of households only had mobile line access.

At the same time 8.9% of Spanish households only had fixed telephony access. 84.3% of these were households in which the participants in the survey were older than 65 years of age, while 37.9% were located in settlements of less than 10,000 inhabitants. Among the households with fixed and mobile telephony, 48.7% were households in which the survey participants were less than 49 years of age and 68.5% were located in populations of less than 200,000 inhabitants.

Looking at the group of households that only had mobile telephony, it is noteworthy that the majority are located in populations of less than 10,000 inhabitants (32.3%) and that as the number of inhabitants in a given population increases this proportion declines very significantly. Thus, 5.6% of such households are found in populations with more than 500,000 inhabitants.

EVOLUTION OF PENETRATION IN HOUSEHOLDS BY PRODUCT TYPE

(percentage of total households)



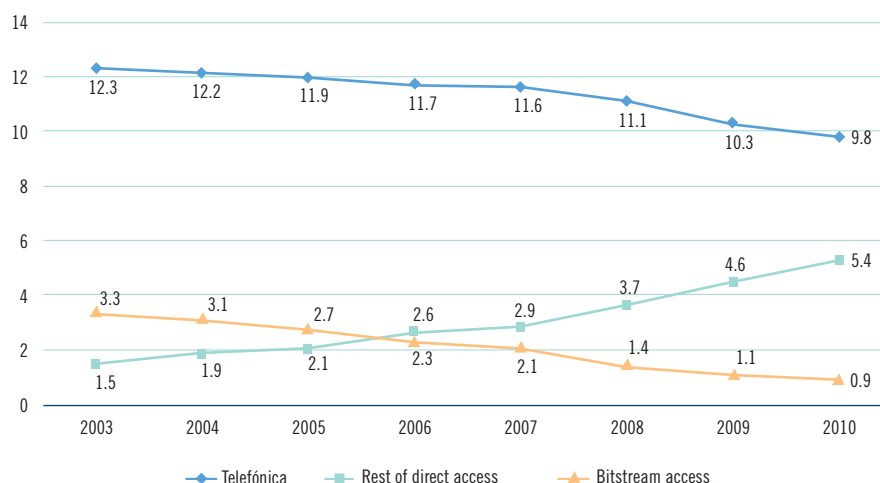
Source: CMT

- Customers

A service provider can offer fixed telephony in two ways: through direct access –offering the customer access via the operator’s own unbundled loop network- or via bitstream access, by which an operator that does not have its own network connecting to the end user, can offer end services via the incumbent operator - at regulated prices and terms-, acquiring the subscriber via operator pre-selection.

In terms of the number of fixed line service customers - a customer may have more than one line, particularly business segment customers-, the total at the end of the year was 16.1 million, of which 94.1% were direct access clients, while the number of bitstream access customers fell.

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



Source: CMT

The evolution of the number of bitstream access customers has clearly been declining in recent years, falling to below the one million level in 2010. This development follows the same trend as observed in pre-selected lines. The main reasons for this evolution are:

- The increase in subscriber loop unbundling, full or shared without PSTN, allowed alternative operators (Jazztel and Orange in particular) to acquire Telefónica clients via bundled offers with both switched and VoIP services, offering a combination of services along with access.
- The growth in naked bitstream access in wholesale

broadband allowed bitstream clients to migrate to direct access thanks to VoIP services.

- The development of WLR from Telefónica as a means of accessing end clients allowed customers to move from the incumbent operator to alternative operators.
- The popularity of convergent services allowed operators with mobile networks to offer telephony services using the flat rates offered in fixed telephony.

NUMBER OF CUSTOMERS BY SEGMENT IN 2010

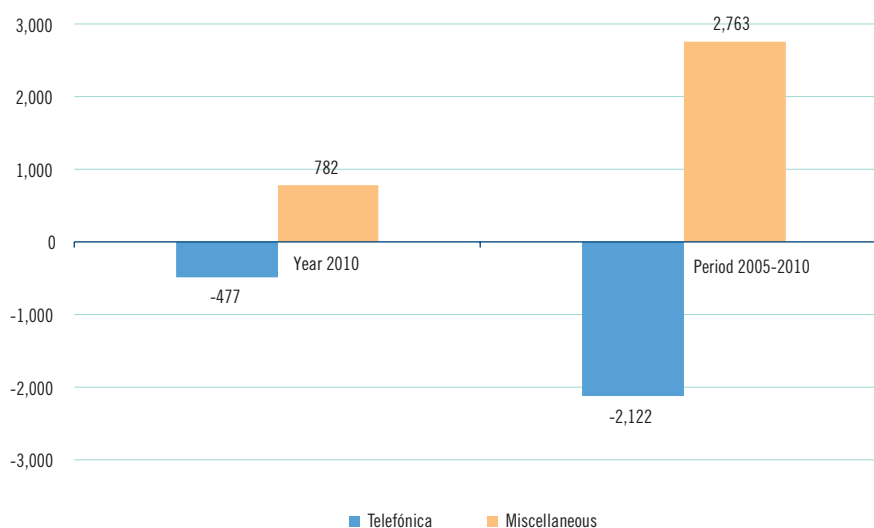
	RESIDENTIAL	%/TOTAL	BUSINESS	%/TOTAL	TOTAL
Direct access	12,537,562	78.8%	2,662,764	16.7%	15,200,326
Bitstream access	769,895	4.8%	175,031	1.1%	944,926

Source: CMT

Telefónica lost 4.6% of its direct access customers. This result may be due to investments made by alternative operators and the success of their commercial offerings, which triggered an increase in their direct customer bases, at Telefónica's expense. Likewise, help from regulatory mechanisms introduced by the

CMT in recent years, such as loop unbundling, naked bitstream access to the loop and WLR, led to a positive evolution in the number of clients with direct access, at the expense of bitstream access.

GAIN AND LOSS OF DIRECT ACCESS CUSTOMERS (thousands of customers)



Source: CMT

In this scenario, Jazztel, Orange and Vodafone stood out, managing to increase their direct access client bases significantly. This trend was in line with that recorded in the period between 2005 and 2010. This means that over this period Telefónica lost 2.1 million customers, while the rest of the operators gained 2.8 million.

- Pre-selection, portability and changing operators

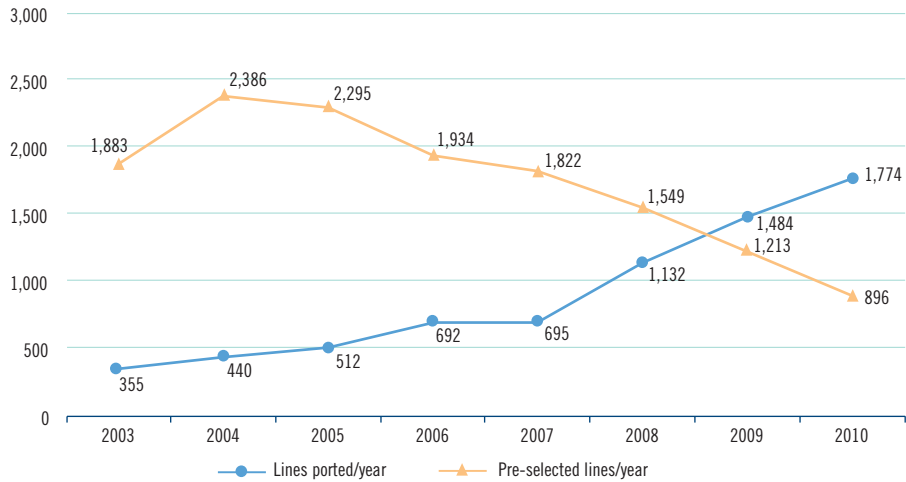
Pre-selection and portability were two mechanisms that helped encourage competition in the fixed voice market. The growing offer of direct access from alternative operators has led to less use of pre-selection, as this is linked to the number of bitstream access clients. Portability recorded the highest figures since it was introduced, with 1.7 million numbers ported, due to the transfer of customers from alternative operators to Telefónica.

- Pre-selection

operator selection allows a user to have access contracted with Telefónica to process specific traffic types using an alternative operator.

The volume of active pre-selected lines fell to 896,389 lines, 26.1% 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, migrating customers towards this access type.

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



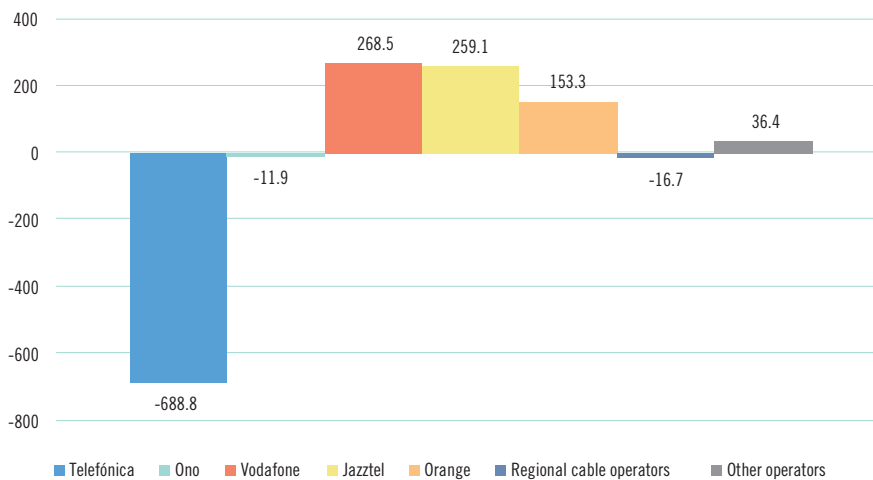
Source: CMT

- Portability

Portability is a mechanism that allows users to change telephony service providers, without having to change their telephone number. In 2010 1.8 million fixed lines were ported. This represented a 19.5% increase against the total numbers ported in 2009, with a monthly average number of 147,801 ported lines.

The economic climate in Spain was a key reason for the portability levels recorded. End consumers demonstrated sensitivity to higher spending levels. The operators chose the strategy of competing on prices with their rivals, offering the fixed voice service bundled with another service.

NET PORTABILITY BALANCE BY OPERATOR (thousands of lines)



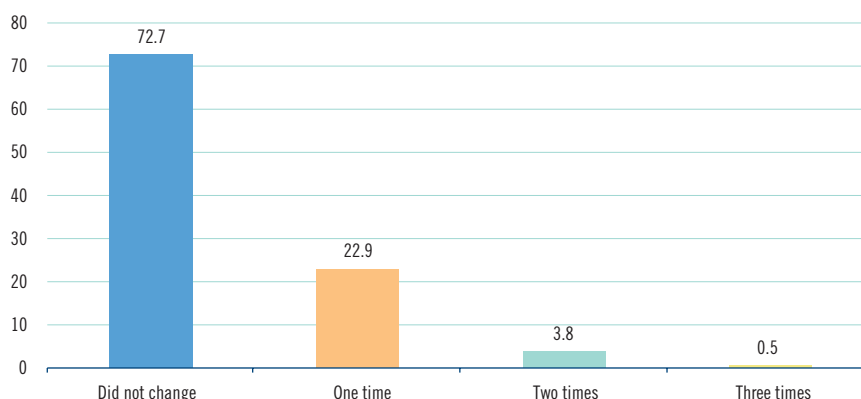
Source: CMT

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 balance of numbers ported, showed Telefónica with a negative balance of 688,783 lines, losing ground against its competitors. In contrast, Vodafone was the operator that captured the most ported customers, with 268,529 lines, followed closely by Jazztel, with an overall balance of 259,111 lines in the year. Orange also recorded a positive portability balance, gaining 153,312 lines. Meanwhile, cable operators showed negative balances (16,700 lines) and the remaining alternative operators registered a gain of 36,437 lines.

- Changing operator

This section offers information on the changes of fixed telephony service providers by Spanish households in the 2007–2010 period. The information is gathered through answers to the CMT-Red.es Household Panel survey, the field work of which took place in the first quarter of 2010, and which asked 2,553 households with fixed line services how many times that had changed operators in the last three years. As can be observed, more than a quarter of the households had changed operator at some point.

HOUSEHOLDS ACCORDING TO NUMBER OF CHANGES OF FIXED TELEPHONY OPERATOR BETWEEN 2007 AND 2010 (percentage)



Source: CMT

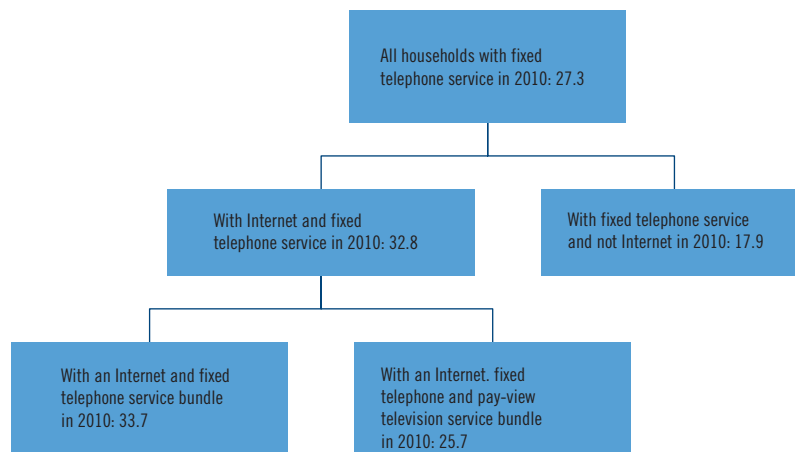
In addition, the following tree shows the percentage of households that changed fixed telephony service operator sometime in the 2007-2010 period according to the availability of services at each household in 2010. For example, 17.9% of households with fixed telephony that did not have Internet changed their fixed telephone service operator in the last three years. The chart shows that households without Internet were much less inclined to change fixed telephony operator than households with Internet. It is probable that the household's decision to change operator is significantly

influenced by the will to change Internet operator, and when Internet access is sold, often bundled with fixed voice services (flat rate national calls), there is a knock-on effect that shows itself in the 15 percentage point difference between the rates in the two groups.

Finally, there is also a significant difference in the rate of change between households that in 2010 contracted the fixed telephony service bundled with Internet and those that contracted the triple-play bundle -the combination of fixed telephony, Internet and pay-TV-. The cause of the lower churn rates for households with triple-play bundles could be: greater fidelity from these

households is plausible due to the increased level of bundling or some differentiation in television services, the difficulty substituting pay-TV services, which usually require a change in access technology, or, finally due to some households having little alternative choice to the chosen offer.

HOUSEHOLDS THAT CHANGED FIXED TELEPHONY CARRIERS BETWEEN 2007 AND 2010 ACCORDING TO THE SERVICES PROVIDED IN 2010 (percentage)



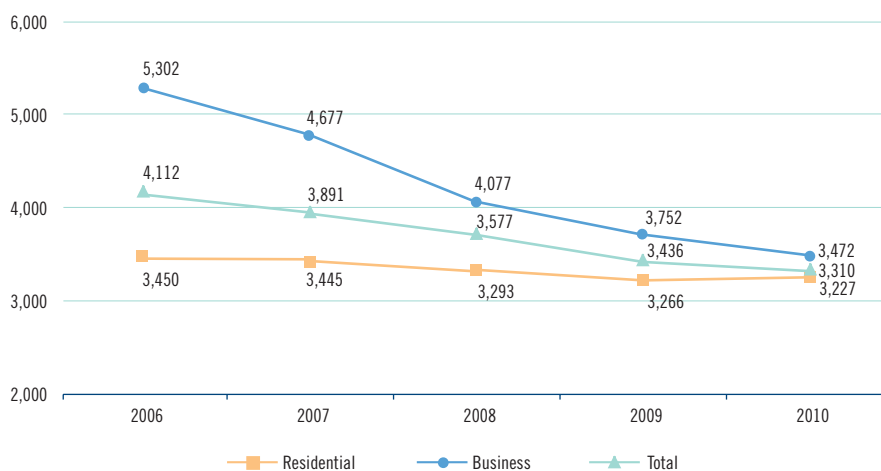
Source: CMT

- 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, registering 65.7 million minutes, which represents a 1.8% year-on-year drop. It is worth mentioning that fixed telephony service traffic showed an inverse result to mobile service traffic, which increased slightly. The volume of traffic recorded in the flat rate segment registered positive growth that should be interpreted as a trend shift, explained by an increase in fixed telephony services in the residential segment.

Looking at traffic per line, and more specifically the residential segment, there was less use by fixed telephony users, with a year-on-year decline of 1.2%. The same analysis for the business segment shows a drop of 7.5% with respect to the previous year, causing a 3.7% decrease in total traffic processed per line.

MINUTES PER LINE AND YEAR AND PER INDUSTRY (minutes/line)

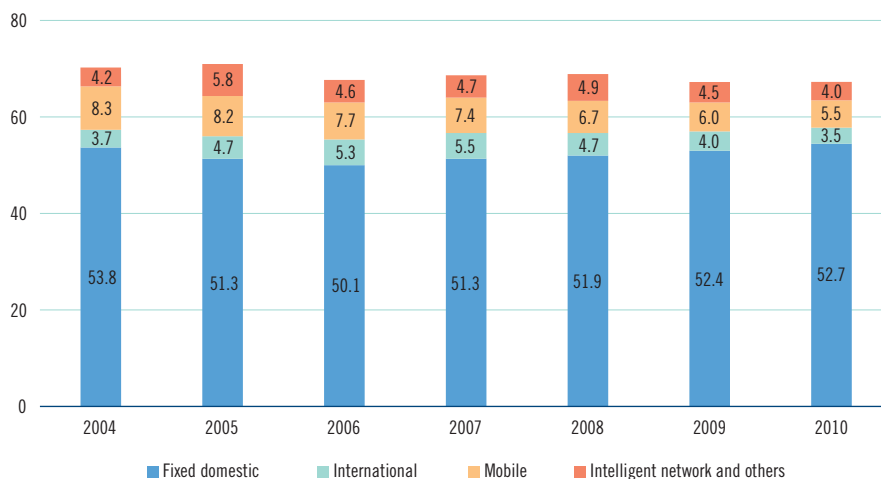


Source: CMT

As for the evolution of the traffic types processed through fixed networks, traffic to domestic fixed networks increased 0.5% year-on-year. In contrast, the most striking decreases were seen in international

and intelligent network calls, where traffic fell 14.2% and 9.5%, respectively. Calls to mobiles, which are the most expensive, fell 7.5%.

EVOLUTION OF TRAFFIC ORIGINATED IN FIXED NETWORKS (billions of minutes)



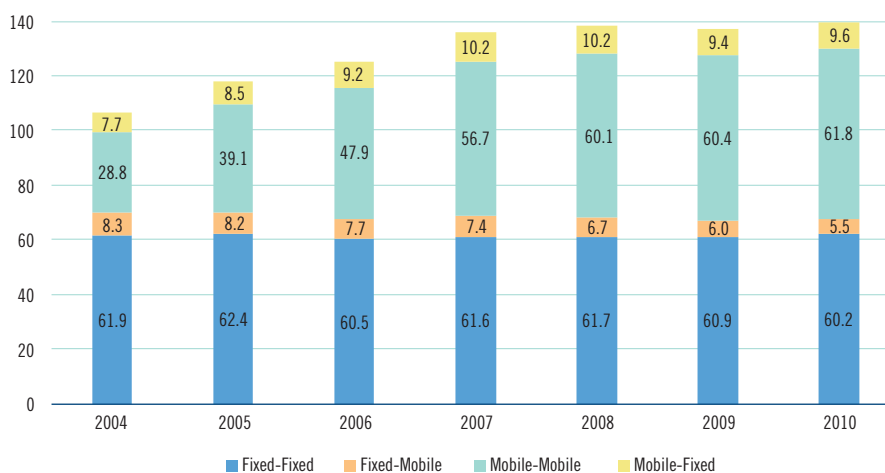
Source: CMT

- Voice traffic between fixed and mobile networks

Voice traffic between fixed and mobile networks saw a slight increase against the previous year. Specifically, call traffic from fixed networks - excluding dial-up Internet access - fell by 1.8%, while traffic originating

from mobile networks recorded positive growth of 2.2%. Also, for the second consecutive year, traffic from mobile networks was higher in relative terms, with a weighting of 52.1% compared to 47.9% of traffic originating from fixed networks.

EVOLUTION OF TRAFFIC BY ORIGIN AND DESTINATION²¹ (billions of minutes)



Source: CMT

Mobile to mobile traffic recorded the largest growth, at 2.3%, as well as call traffic from fixed lines to mobile networks. Against with these increases, fixed to fixed traffic, which in 2010 fell by 1.2% year-on-year, has shown a steady evolution over time. Call traffic to mobiles from fixed lines also suffered a year-on-year drop of 7.5%. However, the growth of bundled flat rates caused fixed to fixed calls to represent 43.9% of total traffic.

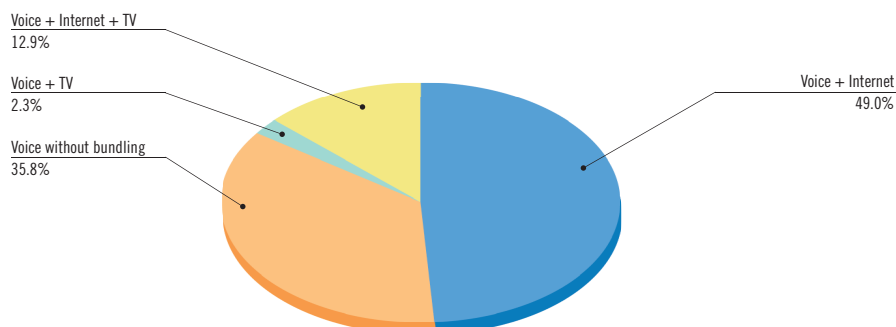
- Market development: Voice bundles, VoIP and converged services

- Voice bundles

Consistent bundled service offerings continued to gain ground in the market, in line with the trend from previous years. A look at the residential segment shows that at the end of the year 64.2% of lines came with bundled voice services, while in 2009 this figure was 59%.

²¹ Fixed-fixed traffic does not include local calls to narrowband Internet. Call traffic from mobiles is calculated in air-minutes and does not include roaming traffic.

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



Source: CMT

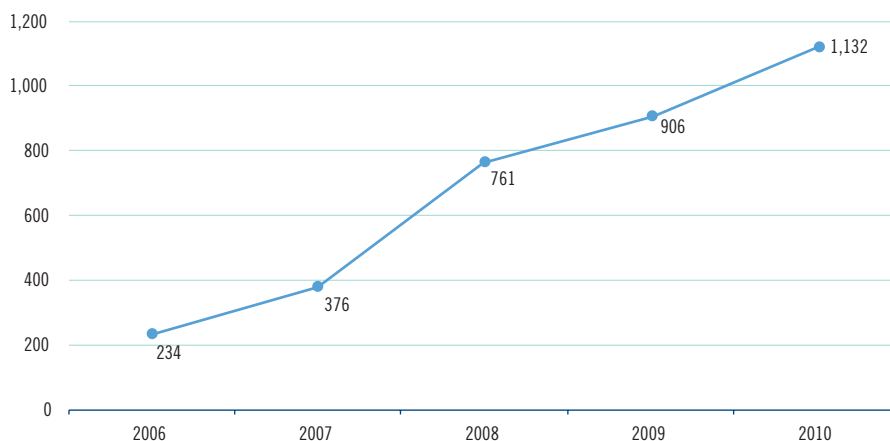
- VoIP

During the year, alternative operators using wholesale loop rental without PSTN, fully unbundled loops and “naked” bitstream access tended to provide fixed voice services using IP technology. In the residential segment, migration to IP voice lines intensified in recent years, mainly due to the growth of bundled offerings. Thus the development of VoIP recorded year-on-year growth of 24.9%, with a total number of IP lines of 1.1 million, concentrated in the residential

segment. In this regard, it should be noted that VoIP lines accounted for by the CMT do not include Internet lines used by applications that allow phone calls over the Internet (Voice over Internet Protocol).

Orange and Vodafone were the operators that stood out for choosing VoIP as an alternative to traditional voice.

EVOLUTION OF VOIP LINES (thousands of lines)



Source: CMT

- Service convergence

Service convergence acquired a strong market presence. The total number of lines grew by 26.7% and represented 2.1% of the total fixed telephony line market, making a total of 424,568 lines. Such services offer combined fixed telephony and mobile services in a single terminal, as part of the same commercial offer.

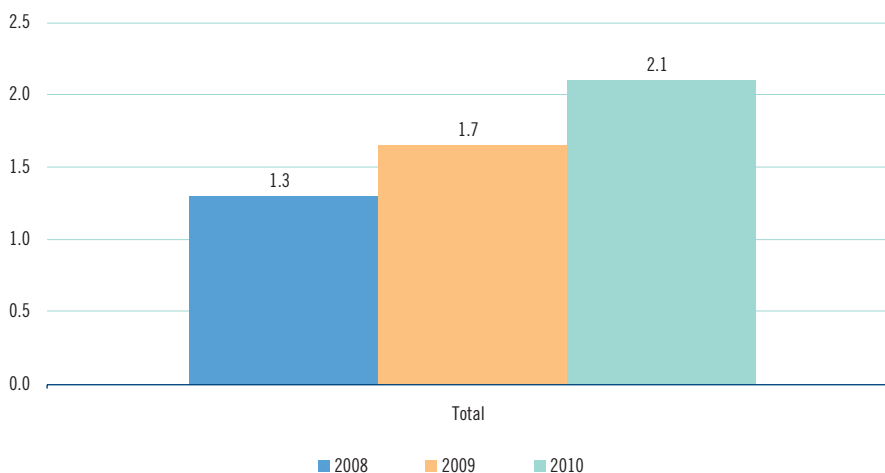
Such services introduced a competitive dynamic to the market, acquiring some of the lines lost by Telefónica. This type of line represented 5.8% of total fixed lines in the business segment. In the residential segment, convergent lines represented 0.2% of total lines in this segment.

The year-on-year growth rates for this type of line in the business and residential segments were 23.8% and 88.8%, respectively.

In addition, in the residential segment there were over half a million lines that offered traditional fixed telephony service through a mobile platform. This type of service maintained momentum during the year, eventually representing 3.8% of the total fixed residential lines at the end of the year, doubling the previous year's figure of 2.0%.

STRENGTH OF PRODUCT CONVERGENCE IN THE FIXED TELEPHONY MARKET

(percentage of total fixed telephony lines)



Source: CMT

- Price trends

Price trends in fixed telephony services were marked by the increasingly widespread use of flat rates. This type of rate sets a fixed cost per month for the service regardless of call traffic generated. In 2010, 9,509,260 customers, 59.5% of the total, chose an offer based on this pricing system. The figure for customers with a flat rate in the residential segment was 61.9%. As seen above, the extensive use of flat rates in the residential segment was thanks to nearly two thirds of residential lines, or 64.2%, having the

voice service bundled with another service.

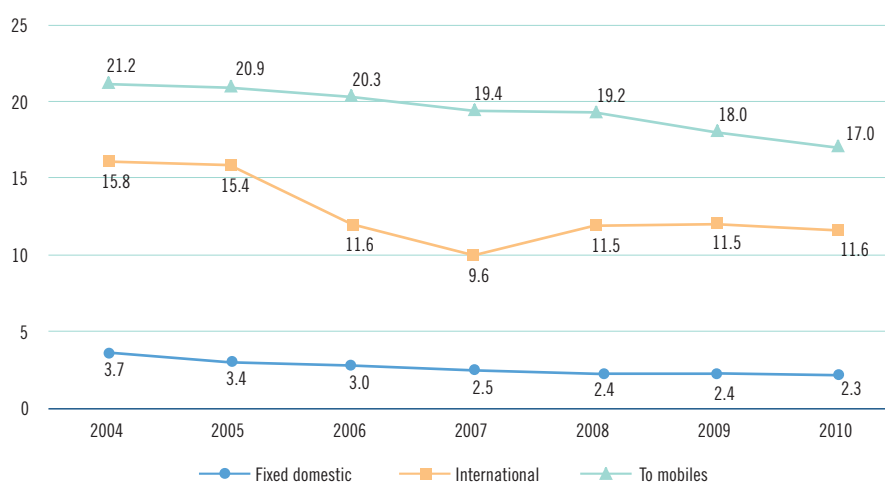
Due to the different methods of processing voice traffic used by the operators (bundling, flat rates and rate per time depending on the geographical area), it is more difficult to obtain a representative price per service unit. A good approximation of prices for voice services is average revenue per minute.

The increase in the use of flat rates resulted in a decline in average revenue per minute, which stood at 2.3 euro cents per minute.

Throughout the year, operators launched onto the market vouchers for mobile calls. Meanwhile, the majority of operators offered them for mobile-bound calls in exchange for a fixed price. Some operators, taking advantage of their presence in both the fixed telephony and mobile telephony markets, offered deals that would make them attractive in both markets.

To implement this strategy, they incorporated call vouchers into their double and triple play bundles.

AVERAGE REVENUE FROM TRAFFIC TO DOMESTIC, INTERNATIONAL FIXED AND MOBILE LINES (euro cents/minute)



Source: CMT

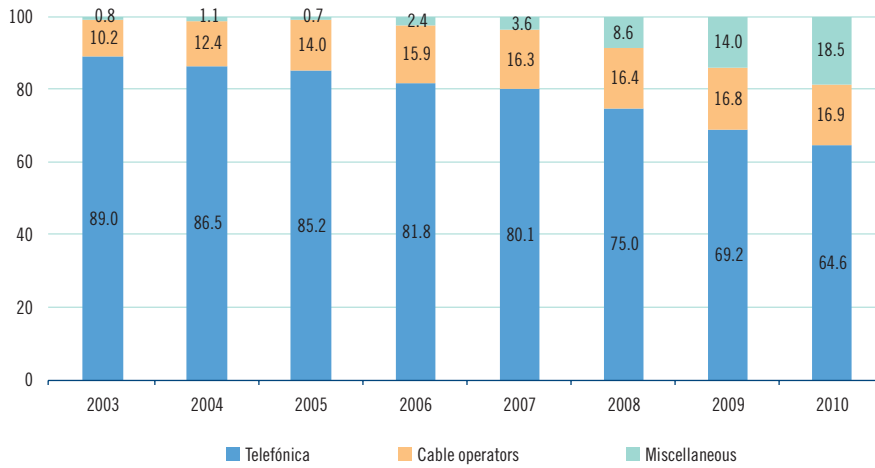
According to data from the Household Panel CMT-Red.es, the average expenditure in 2010 made per household on bundled fixed telephony and Internet services was 28.5 Euros per month. This value should be added to the access service price, resulting in a total household expenditure of 42.5 Euros per month. On the other hand, the average expenditure of households that purchased a double-play bundle with voice and Internet that included free access service was 34.5 Euros per month. Finally, the household expenditure for fixed telephony service with access stood at 20.9 euros per month.

- 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 by number of direct access customers and traffic.

By number of direct access customers, Telefónica holds a market share of 64.6%, declining 4.5 percentage points in one year. Cable operators gained 16.9% of all direct access customers, mostly in the residential segment. This figure remained stable with respect to the previous year. Other alternative operators had 18.5%, which means they increased their share of customers considerably in one year, by 4.4 percentage points. Within this group, Vodafone, Orange and Jazztel stood out.

MARKET SHARES BY DIRECT ACCESS CUSTOMERS (percentage)

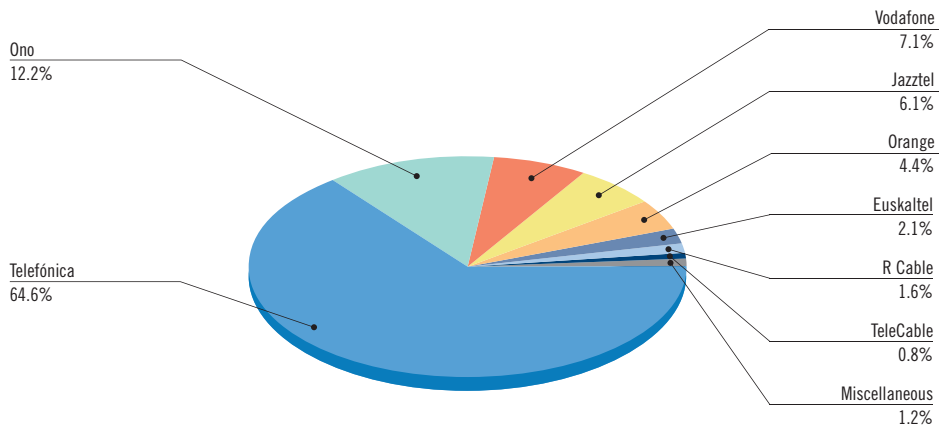


Source: CMT

In particular, looking at the individual market shares by operator in terms of direct access customers, Telefónica maintained significant numbers, although there was a decline over time, weighing in at 64.6% of the market total. Ono remained the second largest operator in the market with 12.2% of the total. Vodafone substantially expanded its number of direct access customers thanks to the convergent services that it already had in the market, and obtained 7.1% of the total market,

moving it up to third place. Jazztel increased its share 2.0 percentage points, with 6.1%. Orange increased its share 0.8 percentage points, reaching 4.4%. Also, regional cable operators maintained their shares stable with respect to 2009.

MARKET SHARES BY DIRECT ACCESS CUSTOMERS IN 2010 (percentage)

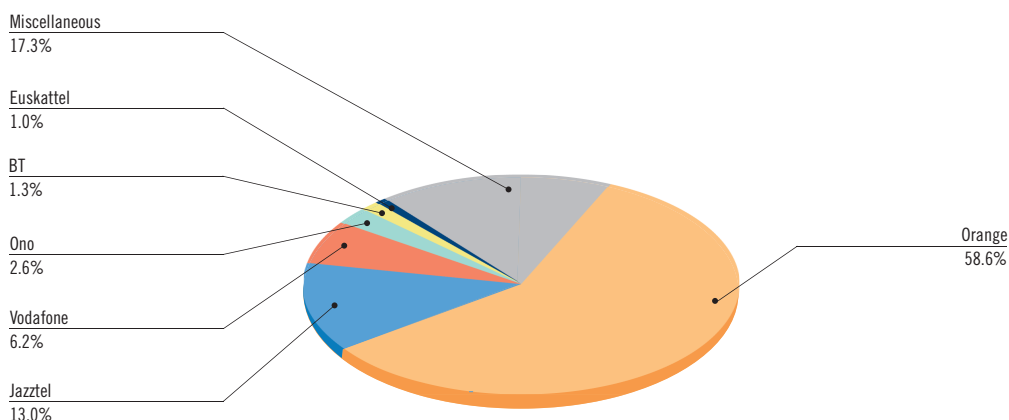


Source: CMT

Bitstream access as a means of acquiring users continued to decline. Orange, whose figures include the Orange Business Services operator, was again the operator with the largest number of customers in this category, with 58.6% of the total. The next operator with

the largest number of bitstream access customers was Jazztel, with 13.0%. Vodafone, meanwhile, accounted for 6.2% of customers with this type of access.

MARKET SHARES BY BITSTREAM ACCESS CUSTOMERS IN 2010 (percentage)

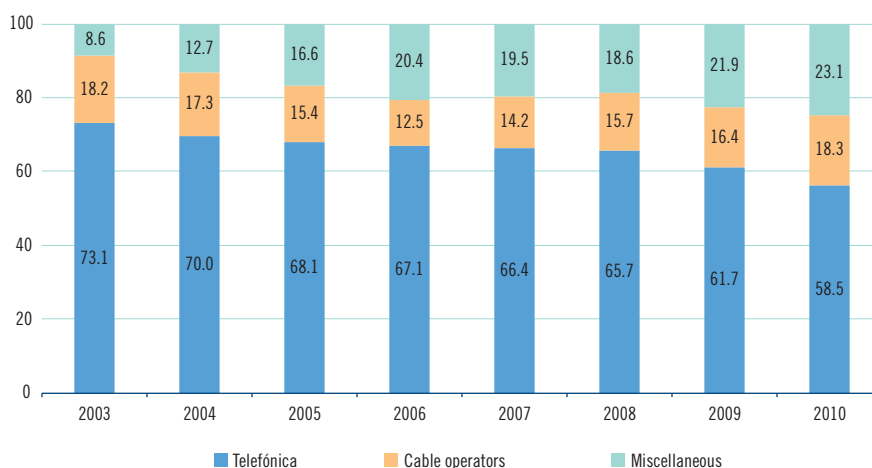


Source: CMT

During the year, Telefónica continued to hold a leading position in total traffic, reaching a market share of 58.5%. Cable operators increased their positions, rising from 16.4% in 2009 to 18.3% in 2010. The remaining

operators also gained market share, representing 23.1% of the total.

MARKET SHARES BY TRAFFIC (percentage)

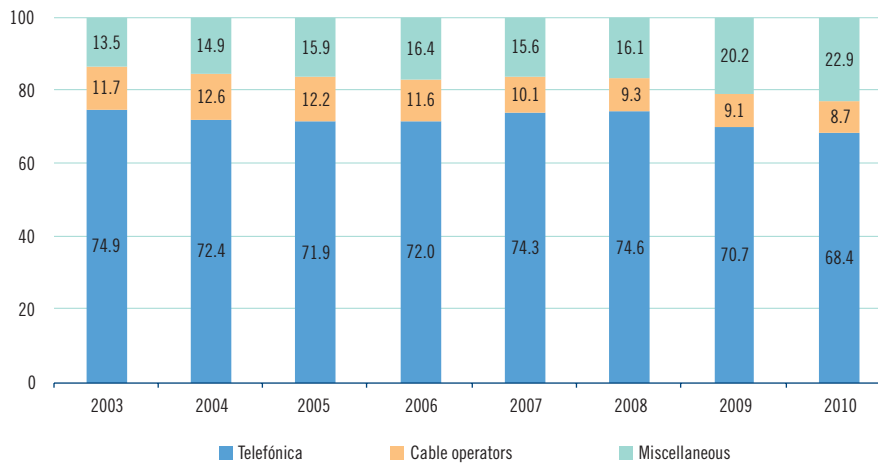


Source: CMT

Telefónica's market share by traffic revenues decreased by 2.3 points compared to the previous year and stood at 68.4%. Similarly, but to a lesser extent, cable operators lost 0.4 percentage points with respect to 2009 and came in at 8.7%. Meanwhile, alternative

operators gained market share, with a 2.7 percentage point increase against the 2009 figure, accounting for 22.9% of total traffic.

MARKET SHARES BY TRAFFIC REVENUES (percentage)



Source: CMT

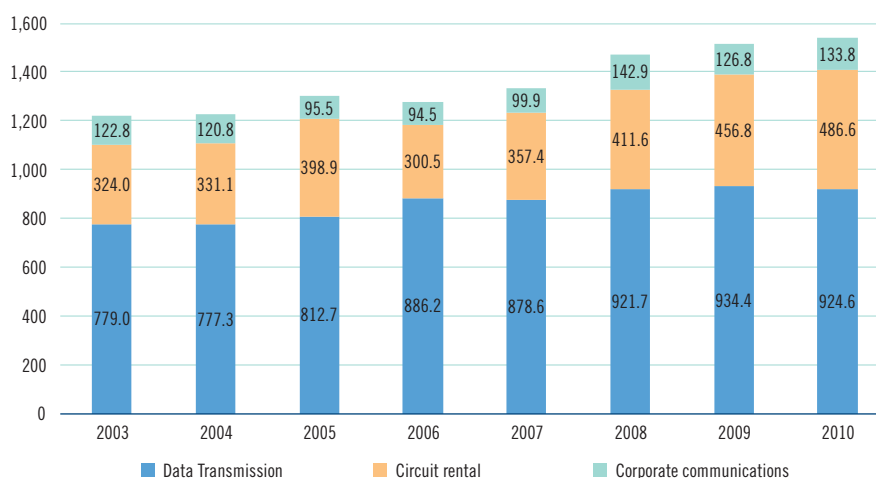
b) Business communications

Business communications include circuit rental services, data transmission and corporate communications for the business segment. This industry generated turnover of 1.545 million euros, which represented a year-on-year increase of 1.8%. This increase was due largely to the numbers for circuit leasing services, which increased by 29.8 million, i.e. a year-on-year growth of 6.5%. Corporate communications services also saw revenues growth of 5.5% compared to the previous year, with a total of 133.8 million euros, but the data transmission figures were down by 1.0 %, with a fall in turnover of 9.7 million. Looking at revenues from this item by operators, Telefónica continued to lead in data transmission, with a revenue share of 56.8%, followed by BT, with 20.0%, and at a much greater distance by Colt, with 4.2%.

The breakdown of leased lines by technology revealed that of the total of 486.6 million euros invoiced, 31.9% were represented by Ethernet circuits, with an annual increase of 16.0% due to the regulation of these circuits in the Leased Lines Reference Offer (LLRO) of 2007, amended in 2010. The price-decreasing effects of this were felt in 2011. The revenue generated by traditional circuits remained virtually stable. Fast Ethernet and Gigabit Ethernet circuits accumulated 13.8% and 10.2% of total revenues from leased circuits, respectively.

In terms of operators, Telefónica had a market share of 74.8% by revenues from leased circuits, followed by Euskaltel with 5.5%, and Ono, with 4.9%.

REVENUE FROM BUSINESS COMMUNICATION SERVICES (millions euros)



Source: CMT

c) 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 information about subscribers to end users.

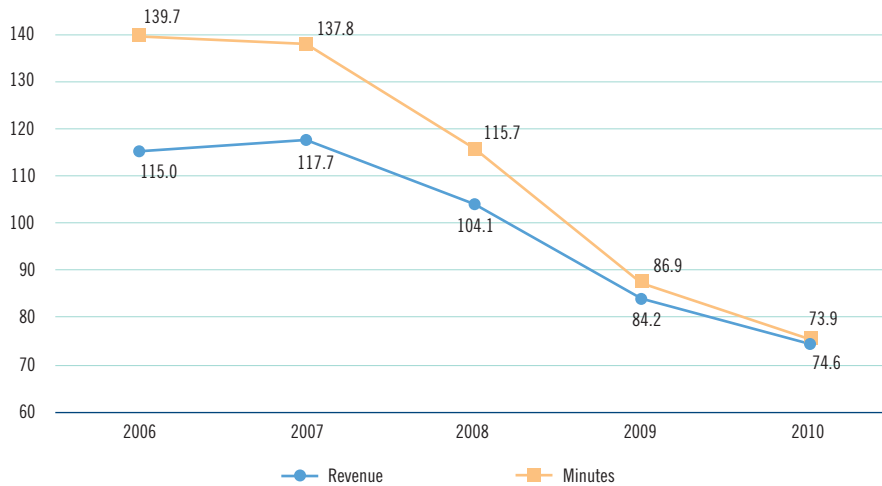
The 11818 information number provides basic information on subscriber numbers at a much lower price than other operators. This service, part of the Universal Service, is offered by Telefónica as the designated service provider.

Total annual turnover was 74.6 million euros, 11.4% less than the revenues recorded in the previous year. Furthermore, the total minutes spent on this type

of service fell by 15.0%. Following this downward trend, the number of calls recorded a negative year-on-year variation of 19.4% with a total of 40.0 million calls, meaning an absolute decline of 9.6 million calls with respect to the previous year.

One reason for decreasing demand for these services is that the same information service is provided via Internet for free. The data in this section encompass only the revenues for fixed network operators that provide telephone information services.

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

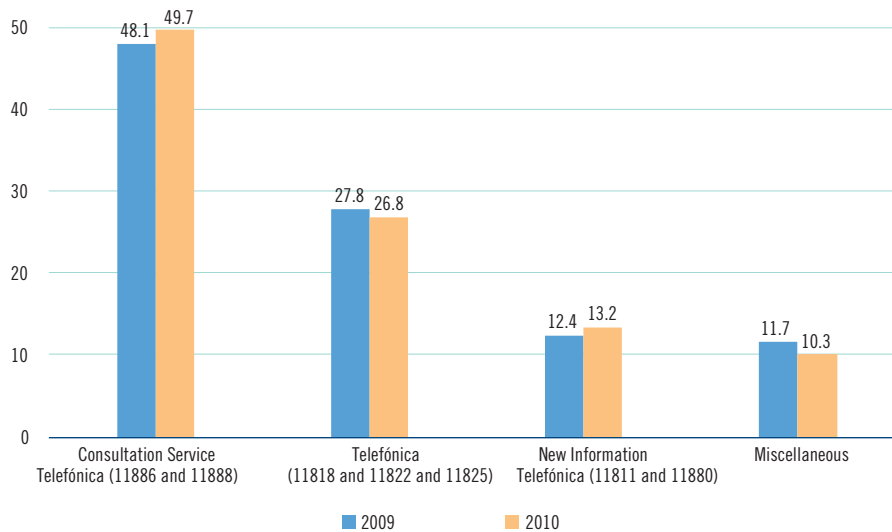


Source: CMT

The most representative agents in the market were, firstly, the Number Consultation Service (11888 number for domestic numbers and 11886 for international numbers) representing 49.7% of market revenues. Telefónica is the second placed provider (with its 11818 general service number, 11822 for

domestic queries and 11825 for international queries), with 26.8%. In third place is Nueva Información Telefónica (with its 11811 service for domestic queries and 11880 for international queries), with 13.2%.

REVENUE MARKET SHARES OF INFORMATION SERVICE PROVIDERS (percentage)



Source: CMT

Telefónica billed a total of 20.0 million euros, of which 7.6% corresponded to the Universal Service, its 11818 number. This number received 4.5 million minutes of

traffic and 4.1 million calls.

TELEPHONE INFORMATION SERVICE REVENUES AND TRAFFIC

UNIVERSAL FROM TELEFÓNICA (millions euros, millions of calls and millions of minutes)

	REVENUES	CALLS	TRAFFIC
11818	1.5	4.1	4.5
Year-on-year variation	-33.6%	-31.6%	-23.9%

Source: CMT

3.1.2. 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 leasing 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.

In terms of revenues, there was a drop in revenues from wholesale interconnection services of 2.0%, a clear reflection of the retail market situation. Migration by alternative operators to convert their bitstream access customers into direct access customers led to a drop in interconnection revenues. The weighting of transit services continued to increase within interconnection services. Revenues from data transmission also fell by 31.9%, while revenues from circuit leasing to operators recorded an annual increase of 7.3%.

New interconnection prices were approved in 2010 through the Reference Interconnection Offer (RIO) and the updated wholesale Leased Lines Reference Offer (LLRO).

The interconnection prices and conditions established by the 2005 RIO remained in force until approval of the RIO in November 2010, meaning these will be incorporated as of next year. Among the main new aspects price adjustments stand out, with reductions for the different levels of interconnection both by time and by capacity. In addition, the Telefónica transit service was deregulated, the international termination

service was eliminated and the 902 service and public information service began billing by access only.

The new version of the LLRO, adopted in December 2010, meant a significant reduction in the prices of Telefónica's terminal circuits. One new feature was the inclusion of leased lines with high capacity Ethernet interfaces –Gigabit–. As for leased submarine lines, the Peninsula–Canary Islands route were joined by the rest of the routes that connect the Balearic Islands, Ceuta and Melilla were added, where there is no real competition.

a) Interconnection services traffic

The exchange of traffic from a operator's own network to the network of another operator is made possible by interconnection between the two. Different types of traffic can be processed via this connection, based on two different billing methods, by time or by capacity.

The basic interconnection services are access and termination. For the former, 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 intelligent network service access. In the latter, the operator with its own fixed network obtains revenues from the calls that terminate on its network.

These services are complemented by the transit service, which allows one operator to deliver calls to another with which it is not interconnected, via a operator that is interconnected 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 method sees interconnection services billed depending on the traffic processed in minutes. Meanwhile, in the capacity method the services are billed per connection, regardless of the volume in minutes processed. This means a flat rate is established for circuits/interconnection links used by operators. Therefore, the average revenue from this method varies depending on the actual use of connections. Telefónica's regulated interconnection terms state that only access and termination services may be processed using interconnection by capacity, while transit services and other services are entirely processed based on time²².

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 operators interconnected using this method at different interconnection points, of which only Euskaltel had been reciprocally providing interconnection based on capacity to Telefónica since 2007, but this ceased in the second half of the year.

- Revenues

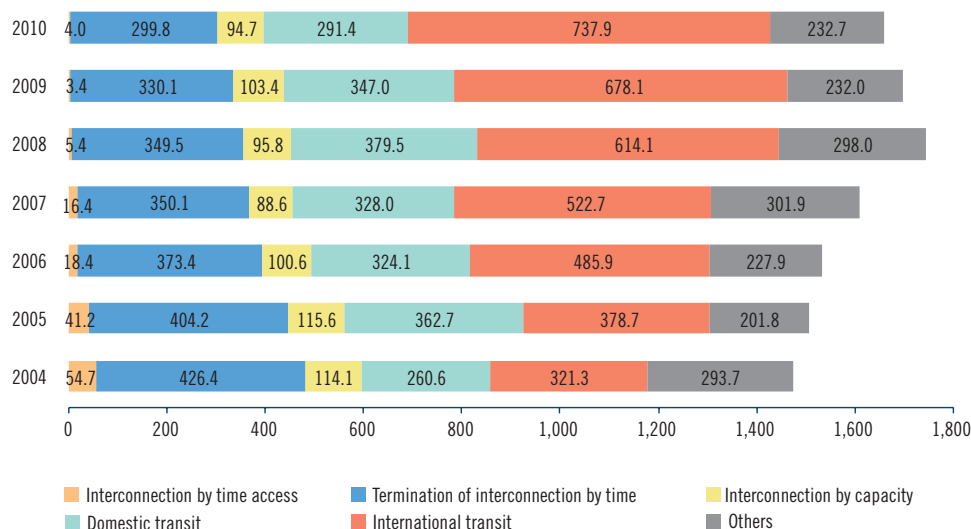
Revenues from interconnection services totaled 1,660,700,000 Euros, 2.0% less than the previous year. This decline continued the trend registered in 2009 of falling revenues from interconnection services.

The services that showed negative variations were termination by time, either originated in Spain or abroad, interconnection by capacity and domestic transit²³, with negative values of 9.2% 8.4% and 16.0%, respectively. Total revenues from access, including time and capacity, declined by 9.5%. This decline was caused by a drop in the capacity method. The rest of the interconnection services recorded positive variations, with growth in international transit services standing out at 8.8% against the previous year.

²² With the exception of access components of intelligent network services, which can be processed by capacity. However, the weighting of this component in total revenues and interconnection traffic is very low.

²³ 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.

REVENUE FROM INTERCONNECTION SERVICES²⁴ (millions euros)



Source: CMT

- Revenue from domestic interconnection

Total revenue from domestic access and termination services, both using the time and capacity methods, was 234.6 million euros. This figure represented growth of 2.9% against the figure recorded the previous year, linked to domestic termination services and access services, which declined.

Revenues from domestic termination can be influenced by two variables from the retail market: the number of direct access customers that the operators have and the total traffic generated in the retail market. The number of direct access customers at alternative operators increased during the year, which may mean increased interconnection termination traffic, taking into account that total retail market traffic also increased. In addition, revenue from termination may be influenced by variables such as the composition of traffic, among others.

With regards to billing, alternative operators can contract access and termination both based on time and capacity from Telefónica. Both models are used in combination and a specific method is selected for each interconnection point depending on the volume and type of traffic. These two parameters affect the number of minutes per link, which is the factor that

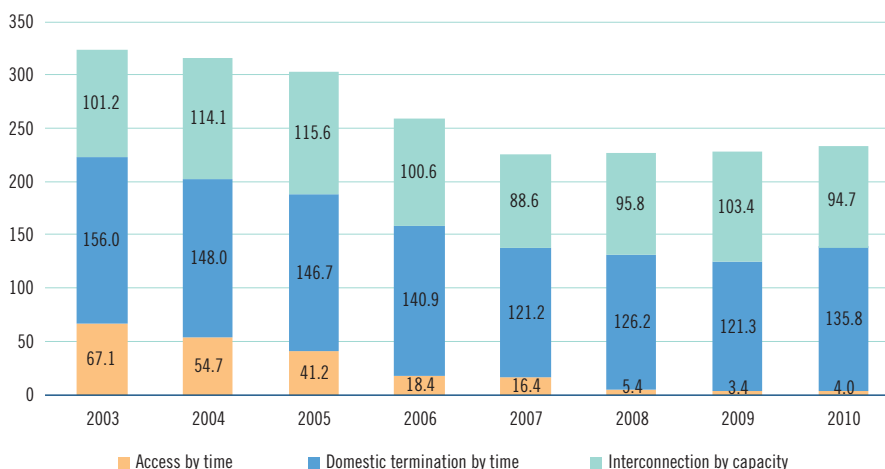
finally decides the choice between one model or another.

Revenues from access and termination services using the time method experienced growth of 12.2% at the consolidated level. In contrast, the method of interconnection based on capacity fell by 8.4% with respect to 2009. The two methods performed inversely, as can be seen, with the positive figure recorded by the time method standing out particularly. This method still generated the most revenues, representing 59.6% of total revenues, a logical consequence of the decline in traffic exchanged based on capacity compared to time.

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

²⁴ The 2008 and 2009 data on revenue from *interconnection by capacity* and *Others* has been updated by Telefónica de España.

EVOLUTION OF ACCESS AND TERMINATION REVENUES BY METHOD²⁵ (millions euros)

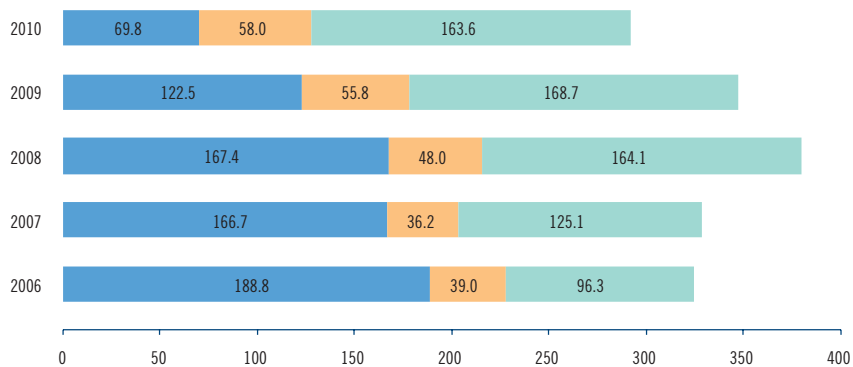


Source: CMT

Billing for domestic transit services increased to 291.4 million euros. Looking at the components of domestic traffic, revenues growth from transit to geographic numbers stands out, at 58.0 million in 2010 compared with 55.8 million in the previous year.

In contrast, revenues from mobile transit dropped 43.0% with respect to 2009, while minutes for the same service declined 25.4%, and the rest of transit revenues, which includes intelligent networks and others, declined 3.1%.

REVENUE FROM DOMESTIC TRANSIT SERVICES (millions euros)



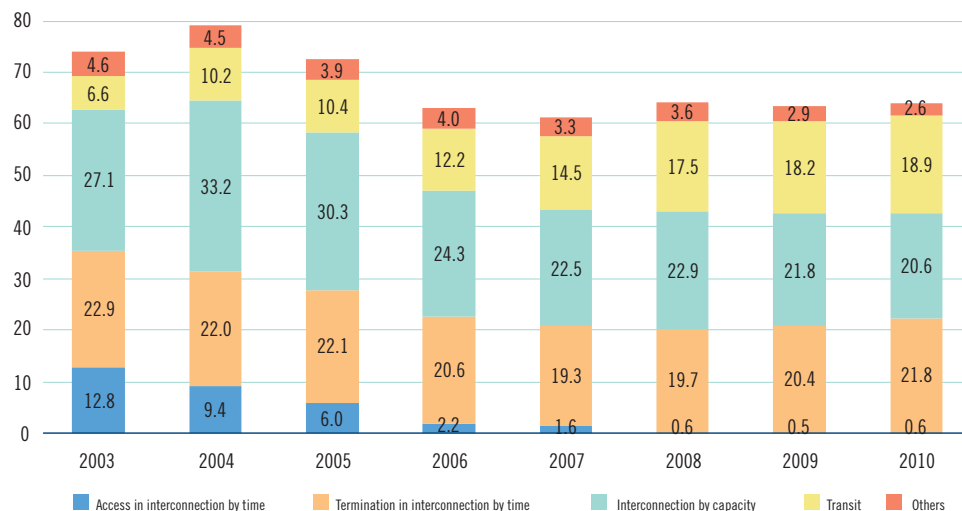
Source: CMT

²⁵ The 2008 and 2009 data on revenue from *interconnection by capacity* and *others* has been updated by Telefónica de España.

- Traffic

The volume of interconnection service traffic was 64.6 billion minutes. This figure reflects a slight increase of 1.2% against the total traffic from last year.

TRAFFIC FROM INTERCONNECTION SERVICES²⁶ (billions of minutes)



Source: CMT

- Breakdown of traffic

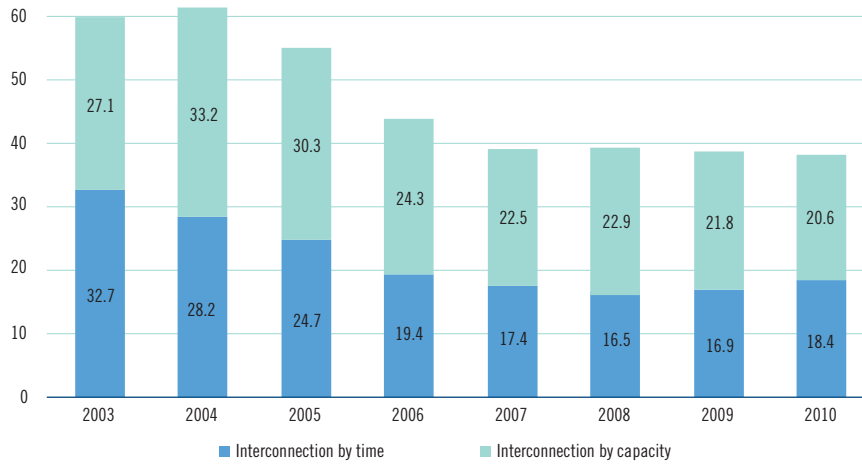
The total domestic access and termination interconnection traffic, both by time and by capacity, remained stable with respect to the previous year, with a slight year-on-year increase of 0.8%. This loss was mainly due to the decline in traffic based on the capacity method of 5.4%, which was not offset by an increase in traffic processed using the time method, which recorded year-on-year growth of 8.8%.

Meanwhile, total access service traffic fell by 19.4%, in line with a progressive reduction of customers using the bitstream access method (call by call operator selection and pre-selection) and its traffic, even though the number of customers using WLR has increased²⁷.

²⁶ The 2008 and 2009 data on revenue from *interconnection by capacity* and *Others* has been updated by Telefónica de España.

²⁷ WLR customer traffic uses access interconnection services, since wholesale line leasing is done through pre-selection.

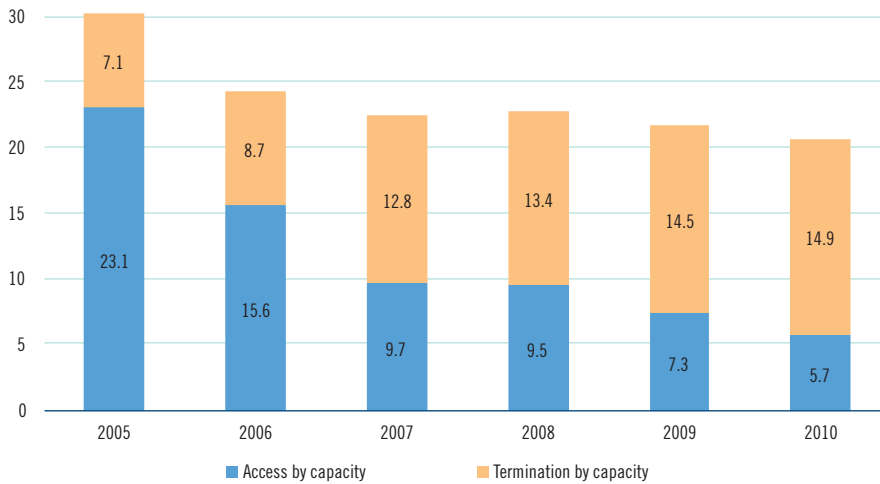
INTERCONNECTION TRAFFIC OF DOMESTIC ACCESS AND TERMINATION SERVICES BY METHOD
(billions of minutes)



Source: CMT

Traffic by capacity showed a total of 20.6 billion minutes, of which termination accounted for 72.5% and access accounted for the remaining 27.5%.

DISTRIBUTION OF INTERCONNECTION TRAFFIC BY CAPACITY (billions of minutes)



Source: CMT

- Average revenues

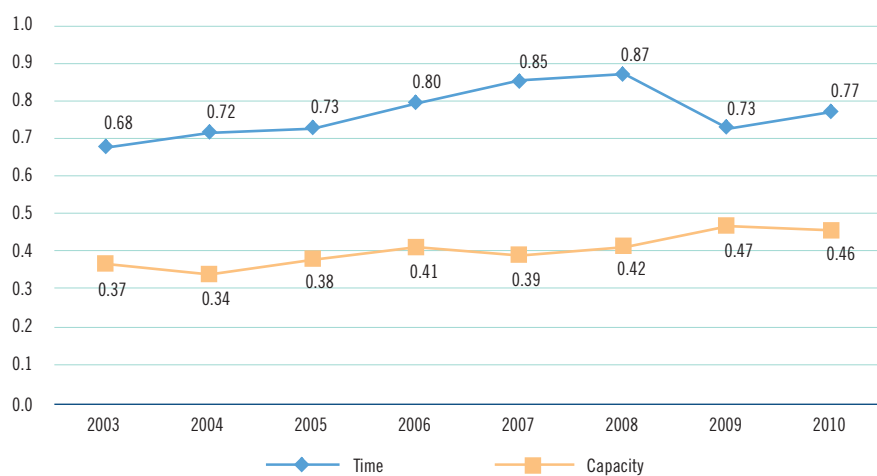
In line with the trend since 2001, when the CMT introduced the interconnection by capacity method, the average revenues from this method in 2009 was approximately half those generated from interconnection based on time.

The performance of average revenues based on time and capacity has remained fairly stable over the years. The reason for this stability is the nominal pricing established in the RIO of 2005, which was reviewed and approved in 2010 but has still not been

put into practice, as well as the stable network plans with Telefónica. The impact had by new prices can be expected over the coming year, as the RIO was approved at the end of the year.

Telefónica's total average revenue per interconnection, with access and termination, stood at 0.51 euro cents, slightly less than in 2009. In turn, the average revenue by time and by capacity stood at 0.77 cents and 0.46 euro cents, respectively.

TELEFÓNICA'S AVERAGE REVENUE FROM DOMESTIC ACCESS AND TERMINATION (euro cents/minute)



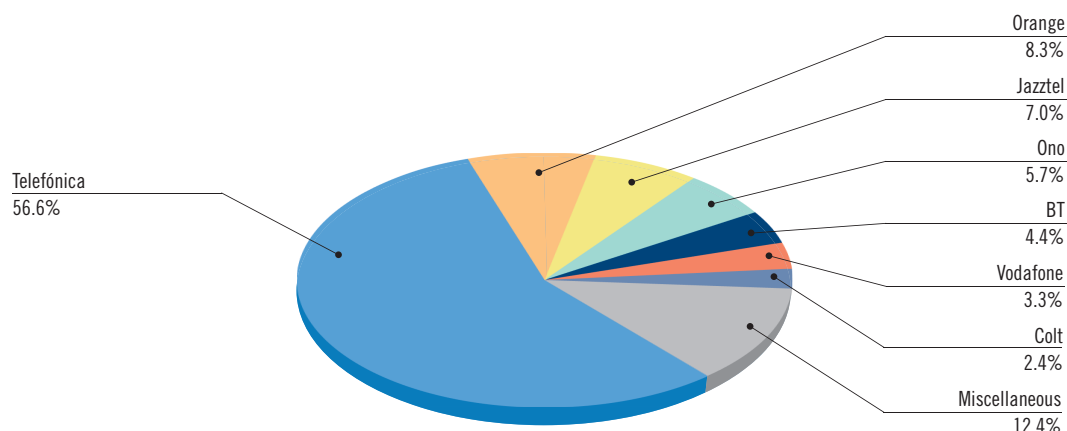
Source: CMT

- Market shares

Average revenue market shares by operator performed in line with previous years, with a reduction in Telefónica's share from 62.1% in 2009 to 56.6% at the close of 2010. In turn, Orange and Jazztel increased their weightings in global sales to 8.3% and 7.0% of the market, respectively. Likewise, Vodafone, BT and

Colt increased their positions in the interconnection market, with Vodafone's growth of 0.9 percentage points standing out. On the other hand, the cable operator Ono's share was reduced from the previous year to a market share of 5.7%.

REVENUE MARKET SHARES OF INTERCONNECTION SERVICE PROVIDERS (percentage)



Source: CMT

b) Circuit rental services to operators

Wholesale circuit leasing services are leases between operators to make available specific transmission capacity between two points. Wholesale leased circuits are divided into two types or 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 Lease Lines Reference Offer (LLRO), adopted in December 2010, caused a significant reduction in the price of Telefónica's terminal circuits. Meanwhile, one very important addition was regulation of leased lines 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 a operator with significant market power (SMP) on the Peninsula-Canary Islands route and nine 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 SLO facilities (Subscriber Loop Offer). The lines that Telefónica leases to Telefónica Móviles are also included. Therefore, lines leased under regulated terms (the majority of terminals plus connections for SLO facilities) and under

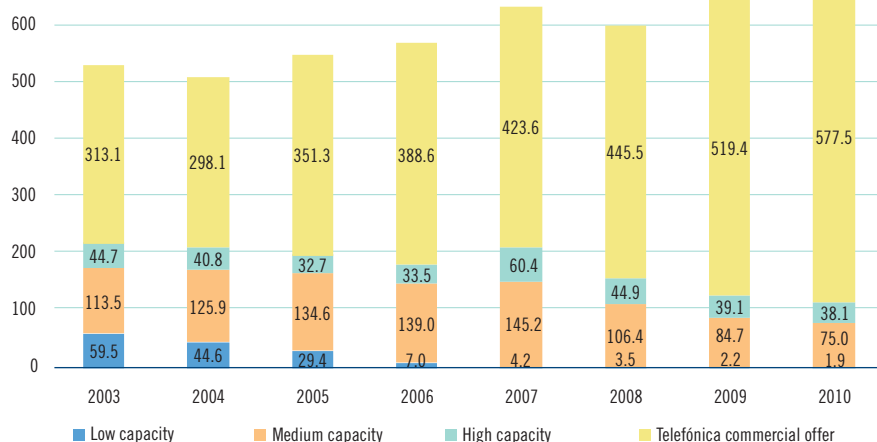
commercial conditions (the majority of trunk lines and those leased by Telefónica to Telefónica Móviles) are included.

- Revenue from circuit leasing

Total revenues from circuit leasing increased 7.3% against the previous year and recorded an annual turnover of 692.5 million euros, excluding revenue from other circuits.

Telefónica's revenues from circuits rented under commercial conditions, which accounted for 83.4% of the total, increased by 11.2% against 2009, while revenues at other operators for low, medium and high capacities decreased against the previous year by 14.0%, 11.4% and 2.4%, respectively. Thus, medium capacity revenues accounted for 10.8% of total revenues, followed by high capacity circuits, with 5.5%, while low capacity accounted for just 0.3% of total revenues for the year.

REVENUE FROM CIRCUITS LEASED TO OPERATORS²⁸ (millions euros)



Source: CMT

- Number of circuits

The number of circuits leased to operators grew by 3.2% against the previous year, up by 4,581 circuits. This increase was due to both the 2.7% year-on-year growth in circuits from Telefónica and 5.5% growth from other operators. Regarding circuit type, Telefónica's high capacity circuits grew by 94.5%, while low and medium capacity circuits were down by 29.6% and 0.2%, respectively. Telefónica's circuits represented 83.0% of the total. The number of circuits offered by other operators increased 5.5%, with 88.4% of these being medium capacity speeds.

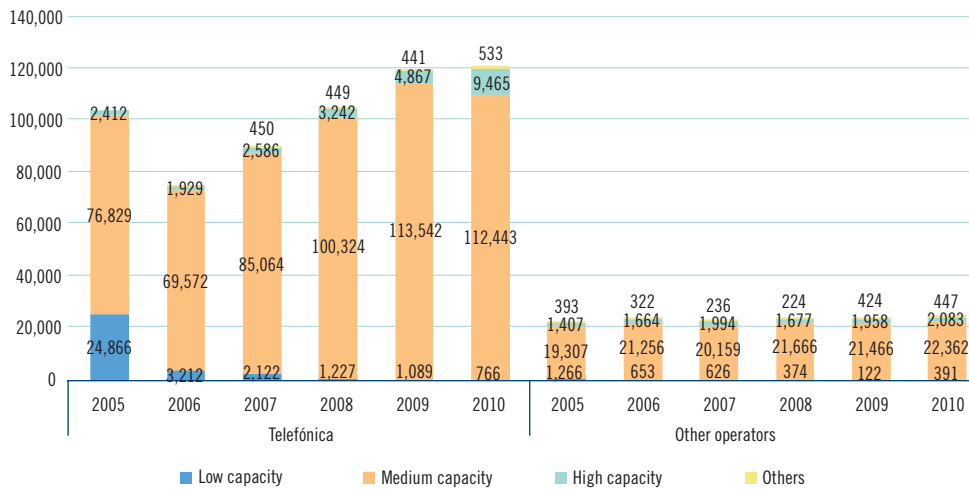
In 2010 the number of high capacity circuits (bitrates starting from 10 Mb, inclusive) increased by 69.2%, representing 7.8% of total circuits at the year end. In

turn, medium capacity circuits weighed in at 90.8%, down 0.2% against the previous year. These circuits have been prevalent since 2006, in gradual detriment to low capacity circuits.

In November 2008 Telefónica delivered the first Ethernet interface circuits under conditions regulated by the LLRO. In December 2010 the total number of wholesalers with these interfaces leased by Telefónica exceeded 1,500, including circuits used for RUO backhaul.

²⁸ Revenues from *Other circuits* are not included.

NUMBER OF CIRCUITS LEASED TO OPERATORS BY SPEED



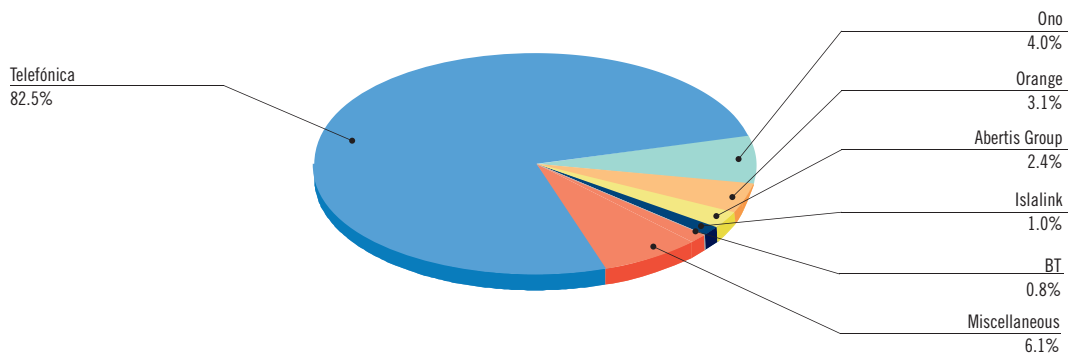
Source: CMT

- Market shares

Telefónica retained its leading position by market share in the wholesale circuit service, with 82.5% of total revenue. Although Telefónica’s total revenues increased compared to the previous year, its greater weighting was mainly due to lower revenues at other

operators, which saw their overall market share reduced to 1.1% in 2010. Ono and the Abertis Group held similar market shares to the previous year, at 4.0% and 2.4%, respectively. Orange grew to account for 3.1% of the market.

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



Source: CMT

c) Data transmission services to operators

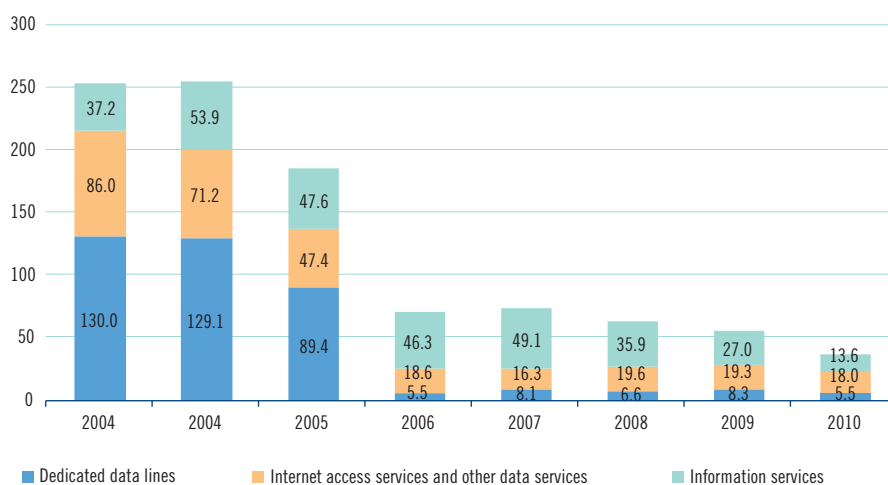
Wholesale data transmission services include dedicated data lines for any technology type, as well as Internet access services provided to operators.

Turnover for data transmission services totalled 37.2 million euros, 31.9% less than the previous year. This declining trend has been gradual but steady in recent years.

The 5.5 million euros associated with revenues from dedicated data lines were down by 33.4% during the year, due to the drop from Cogent.

Internet access services and other data services recorded turnover that was down by 6.7% this year, closing with revenues of 18.0 million euros.

REVENUE FROM DATA TRANSMISSION SERVICES TO OPERATORS²⁹ (millions euros)



Source: CMT

Market shares by revenue from data transmission showed Telefónica International Wholesale Services as the market leader, followed by Cogent, with the former holding a significant lead. These two accounted for

more than 50% of revenues from data transmission to operators. Ono and Aire Network followed at some distance as the third and fourth placed operators, respectively.

²⁹ The 2009 data on revenues from *Other information services from Telefónica International Wholesale Services* has been updated.

3.1.3. Market regulations and prospects

Despite being a mature market, there were several notable developments in fixed telephony during 2010: the growth of direct access customers at the expense of bitstream access customers, the growth and extensive use of fixed telephony service bundling, and the development and extensive use of converged services, both in the residential and business segments.

The migration of customers to direct access connections, with Orange, Jazztel and Vodafone standing out, saw portability reach record levels, in line with the trend in 2009. Thus, Telefónica lost market weighting to alternative operators, which provided more and wider ranging services as a means of making attractive offers to end users. The performance of direct access connections is an indicator of competition levels in the market. Carriers continued to offer end services with broadband and line leasing combined in a single offer. On the other hand, there was further growth in Wholesale Line Rental (WLR) as a means of accessing end customers, which the CMT introduced in 2008 and grew significantly over 2010.

Alternative operators could choose various wholesale methods to provide direct access to their customers: “naked” bitstream access, fully unbundled loop and shared loop without PSTN. Thus, Vodafone gained direct access customers using the first option, in which broadband services are contracted without the customer needing to subscribe to telephone services from Telefónica. Jazztel and Orange, meanwhile, recorded an increase in direct access customers, as they bundled voice with broadband through wholesale loop offering.

The increase of 333,747 in fully unbundled loops and 173,266 in loops without PSTN in 2010 were a reflection of operators’ strategies to create as close ties with the end customer as possible. Throughout 2010, both methods presented positive growth month by month. In addition, 199,330 connections used the “naked” bitstream access method at the close of 2010, more than quadrupling the figure from the previous year.

There was a slight increase in the number of fixed telephony lines in the residential industry and a

decrease in the business industry. The result was a drop in the number of lines against the previous year. In terms of traffic, the number of minutes per line showed a slight decline, especially in the business industry. In the retail segment, the inclusion of vouchers for calls to mobiles within the service bundles from some operators, including Telefónica, as of the second half of the year was noteworthy.

This year new converged service products were introduced by operators that had not offered such services until now. Thus, Vodafone, a pioneer in this type of service, joined Orange with a product for the business industry.

At the wholesale level, there were changes to reference wholesale offers, both in interconnection (RIO) and leased lines (LLRO). The new prices meant significant reductions in the wholesale prices from the incumbent operator, with these improved wholesale conditions likely to be reflected in the prices and conditions of wholesale services.

RIO is the offering that includes all wholesale interconnection services provided by Telefónica, coming as part of the CMT’s requirements from Telefónica for having been designated the operator with significant market power following market analysis.

The amendments of the RIO affected several key aspects. First, there was a price review following Telefónica cost accounting, which resulted in an overall reduction of interconnection prices, except at the local level using the capacity method. Fixed capacity prices were cut by 2.7% at the metropolitan level, 9% for single transit and 25.5% for double transit. Likewise, in the billing by time method, differentiation by time slots was eliminated and flat prices were introduced independently of the retail rate structures used by the incumbent operator. All this saw interconnection prices based on time fall by 0.4% at the local level, 14% at the metropolitan level, 20.2% for single transit and finally 18.8% for double transit. In addition, the Telefónica transit service was deregulated, the international termination service was eliminated and the 902 and public information services began charging based only on access billing.

The implementation of the recent LLRO amendment in 2010 saw prices for regulated terminal and submarine lines lowered. Furthermore, for the first time service provision conditions (including prices) were established for nine submarine routes that had not previously been regulated.

The new LLRO reviewed many service aspects, both technical and procedural, several of which were noteworthy. The first of these was the review of prices for terminal lines with traditional interfaces, with reductions of 15% for 2 Mbps and Nx64 Kbps lines. For 34 Mbps lines the price fixed was 10% lower than previously, while 155 Mbps line rates were lowered by 40%. The new prices for terminal leased lines with conventional interfaces are below the European average.

For prices on terminal lines with Ethernet interfaces, the reduction for Ethernet speed was 24%, while for fast Ethernet and Gigabit Ethernet the new prices were 16% and 23% lower, respectively. It is worth pointing out that Spain remains one of the few countries that has regulated wholesale Ethernet line leasing, mainly used to provide high quality corporate communications services.

Apart from the price review, the distance in traditional lines and Gigabit Ethernet was extended to the provincial limit. Likewise, the quality parameters, their transparency and billing processes were all improved, along with other aspects.

The LLRO review also amended pricing structures for Telefónica connection services. For this service - which consists of a connection between Telefónica and the operator, usually of large capacity, allowing the bundling of several end client circuits at a single delivery point - a maintenance charge was introduced, as well as the existing connection fee. Connection service prices for traditional leased lines, Ethernet lines and Gigabit Ethernet were down 44%, 28% and 25%, respectively.

There was also a service review for leased submarine trunk cables, with prices on the Peninsula-Canary Islands route lowered by 28.83% for all capacity types, while a higher bitrate was introduced: 2.5 Gbps. Prices on a further nine submarine trunk cables connecting the smaller Canary Islands, the Balearic Islands, Ceuta and Melilla were also regulated.

3.2. Mobile communications

3.2.1. Retail services

The mobile communications market was affected for the second consecutive year by the negative economic climate. Total end service revenues were 14,023,900,000 Euros, a figure that represents a drop of 3% against the volume recorded in 2009. All services making up the mobile communications market saw revenues fall, with the exception of Internet access, which registered considerable growth over the year. In contrast with the revenues evolution, total traffic processed through mobile networks was up slightly, by 1.2%.

The growing trend seen in previous years in total mobile lines continued, although less robustly, recording growth of 1%. However, the prepaid segment declined by 739,506 lines, largely due to Law 25/2007³⁰ coming into effect, establishing that mobile operators must identify all prepaid card users during the first half of 2010, with any card for which identification is not given being disconnected. In contrast, total data only lines (*datacards* and USB modems) and machine to machine lines (M2M) recorded considerable growth.

Consumers put number portability to extensive use to switch operator. The major beneficiaries of this were Yoigo and the mobile virtual network operators³¹ (hereafter MVNO), which managed to increase their market weighting and take a market share of 8.7% of active lines.

a) Revenues

Revenues from mobile telephony end services totalled 13,855,500,000 Euros, representing a 3.3% drop from the previous year. This drop in turnover may be the result of, amongst other things, the negative economic climate that has undermined demand for mobile services.

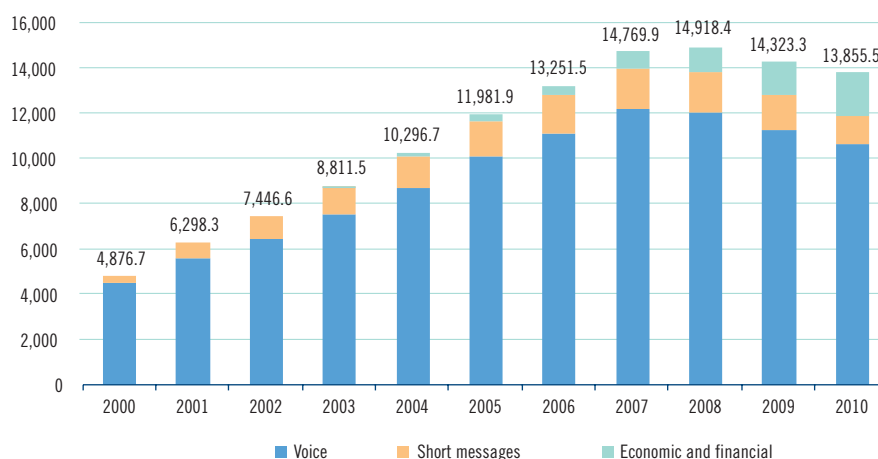
However, differentiating between the revenues based on the various mobile telephony services reveals disparate evolutions over the last few years. SMS messaging recorded a year-on-year decline of 19.8%, thereby becoming the service with the largest revenue falls. There was also a drop in voice service revenues of 5.5%, although this service again generated the bulk of revenues in the market (10,635,600,000 Euros).

By contrast, data traffic, particularly mobile Internet access services, showed the opposite trend, with revenues growth of 31%. This is the second consecutive year in which data traffic has recorded the opposite evolution to the rest of the mobile telephony market, with significant growth in both business volume and traffic.

³⁰ Law 25/2007, of 18 October, on retaining data from electronic communications and public network communications.

³¹ The MVNO heading is comprised of the following operators: Euskaltel, Lebara Mobile, Ono, MÁSmovil, Digi Mobil, BT, Jazztel, FonYou, TeleCable, E-Plus, Lycamobile, R, Carrefouronline, Pepephone, Díamóvil, Hits Mobile, Happy móvil, RACC Móvil, Moreminutes, Eroski Móvil, You Mobile and Orbitel.

EVOLUTION OF REVENUES FROM END SERVICES³² (millions euros)



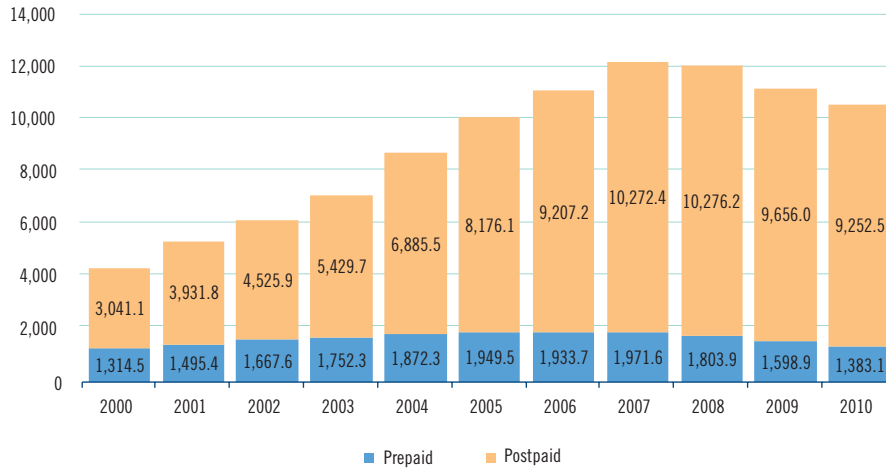
Source: CMT

The drop in revenues from voice traffic was felt in both the prepaid and postpaid segments, although the prepaid segment registered a larger decline, of 13.5% compared to 4.2% in postpaid. These results showed that the turnover evolution differed from that of total mobile lines, which grew overall by 1% (the prepaid segment was down 3.5% while the postpaid segment was up 4.2%). As a result, revenues per mobile line were down on average against the previous year.

Revenues from voice traffic are based either on recurrent fees (mostly flat rates) or charges for traffic used. Over the last few years, revenues from recurrent fees were up by a significant 38.5%. By contrast, revenues directly linked with traffic consumed were down 9.7%.

³² The assessed services include: voice (which also includes revenues from voice traffic, connection fees and vouchers), SMS and data traffic (including Internet access or browsing services, data downloads -ring tones, melodies, etc.- and other services related to data traffic on GSM/GPRS and UMTS networks).

EVOLUTION OF REVENUES FROM VOICE TRAFFIC (millions euros)

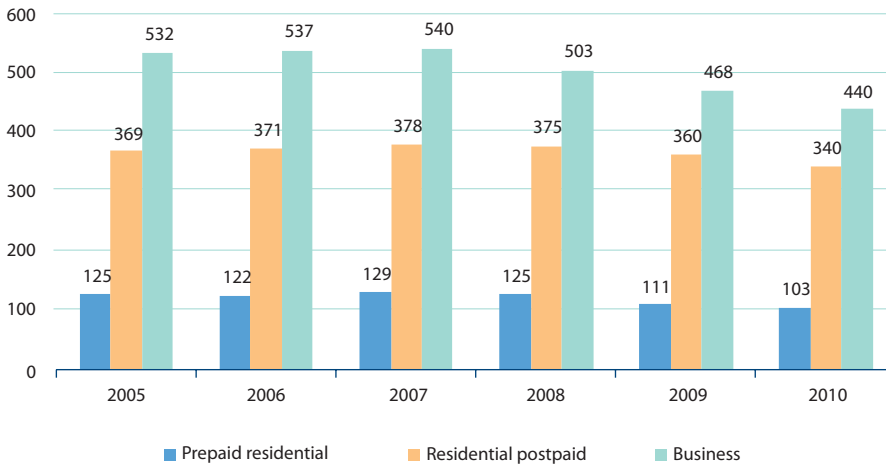


Source: CMT

The following graph shows how average revenues per line at mobile operators has deteriorated in recent years. The prepaid modality saw the largest drops

in ARPU, down 7.3% year-on-year. ARPU in the residential postpaid segment was down 5.5%, while in the business segment ARPU was down 6%.

AVERAGE REVENUE PER LINE (euros/line)



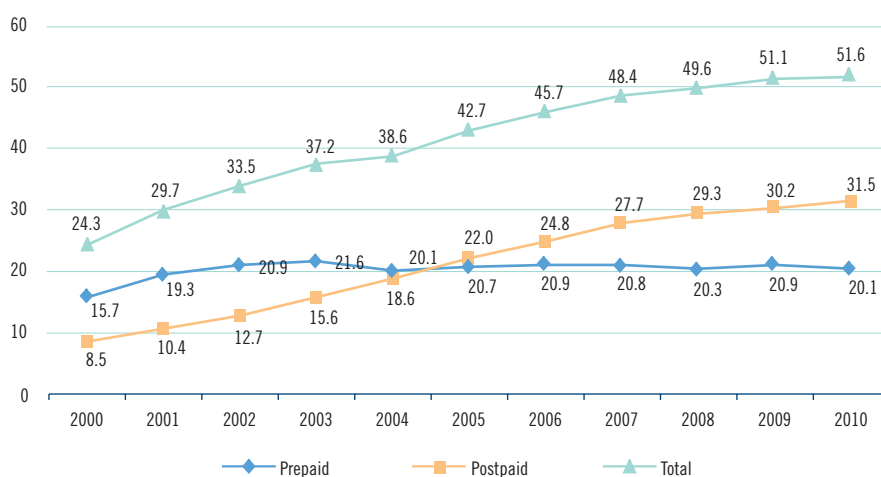
Source: CMT

b) Lines

Total lines continued to grow in 2010 with 517,148 new lines, which represents an increase of 1%. Total mobile lines therefore stood at 51.6 million. The CMT-Red.es Household Panel data reveals that 89% of individuals had at least one active terminal, while 12% stated that they had more than one active handset.

Looking at total mobile lines based on contract type, the postpaid segment drove growth, with year-on-year growth of 4.2%, while the prepaid segment fell 3.5%³³.

EVOLUTION OF MOBILE LINES (millions)



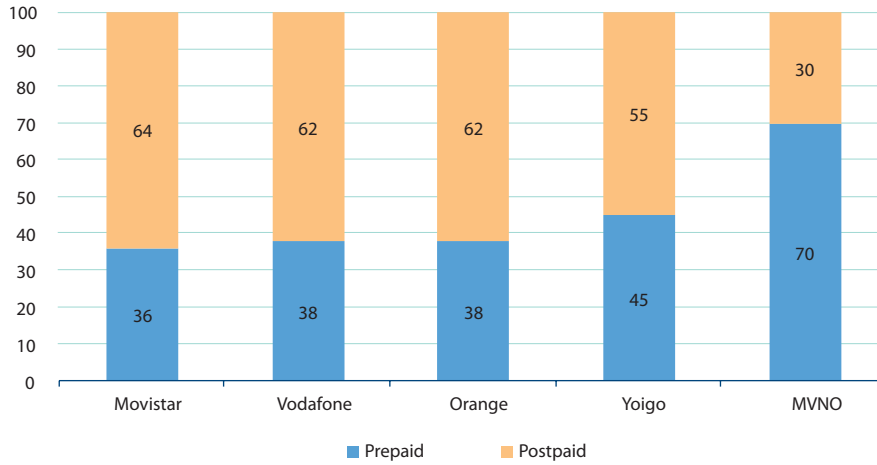
Source: CMT

As indicated by the chart below, the structure of total lines at the various operators is related to their market share. Specifically, operators with the smallest market shares, such as Yoigo and the MVNOs combined,

mostly operate prepaid contracts. On the other hand, operators with the largest markets share, such as Movistar, Vodafone and Orange, had most of their lines in the postpaid segment.

³³ The prepaid figure includes the effect had by *Law 25/2007, of 18 October, regarding retaining data on electronic communications and public communications networks*, the provisions of which required that all prepaid card users that fail to identify themselves by a certain deadline be disconnected.

TOTAL LINES BY CONTRACT TYPE (percentage)



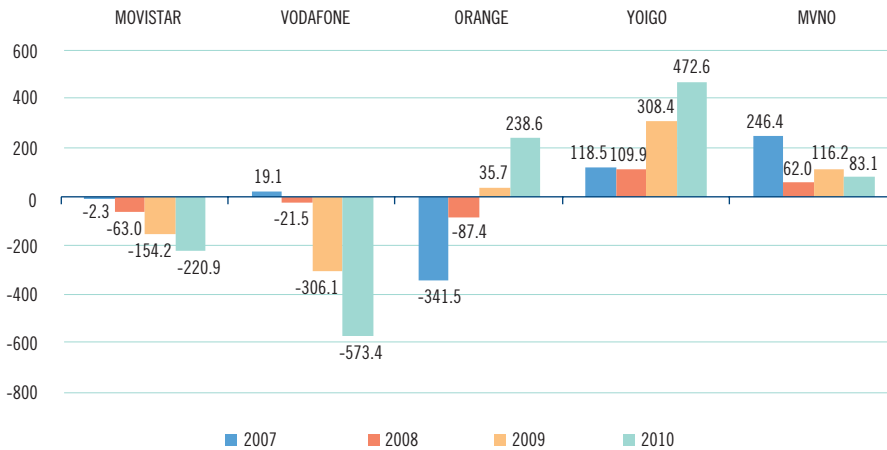
Source: CMT

- Portability

Portability is a mechanism that allows users to change mobile service providers without having to change their previously assigned telephone number. In 2010 a total of 4,827,719 lines were ported, with an increase of 7.2% against 2009. This represented the most ported numbers in one year since portability was introduced in June 2000, with approximately 9.4% of mobile lines changing operator and keeping the same number.

The high portability figures demonstrate that in recent years users have increasingly been motivated to switch mobile service operators. Thus, the two leading operators in the market lost a net total of 794,301 lines in the year. By contrast, Yoigo was the best performing operator, with a net gain of 472,583 lines over the year.

NET PORTABILITY BALANCE BY OPERATOR (thousands of lines)

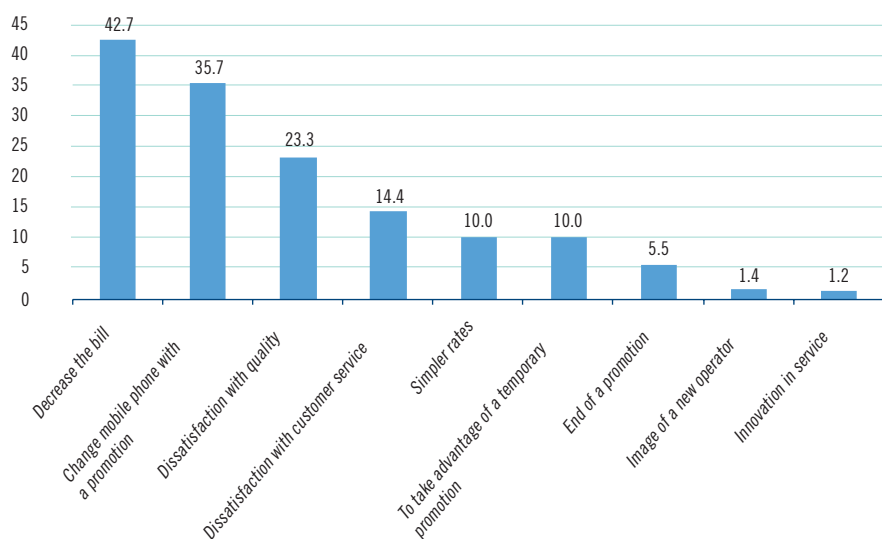


Source: CMT

The following chart, based on data from the CMT-Red.es Household Panel, shows the main reasons given by consumers to change mobile operator. The two reasons most often given by consumers were: 1) to lower their bills and 2) to get a new handset partially or fully subsidised by the new operator. Looking at the

set of reasons given by consumers, two key reasons for switching operators were given: 1) to reduce spending on services, i.e. to lower bills or use simpler fee systems; and 2) to improve service quality (get better subsidised handsets, improve customer service quality, etc.).

MAIN REASONS FOR CONSUMERS TO USE PORTABILITY (percentage)



Note: This chart includes data from multiple choice questionnaires

Source: CMT

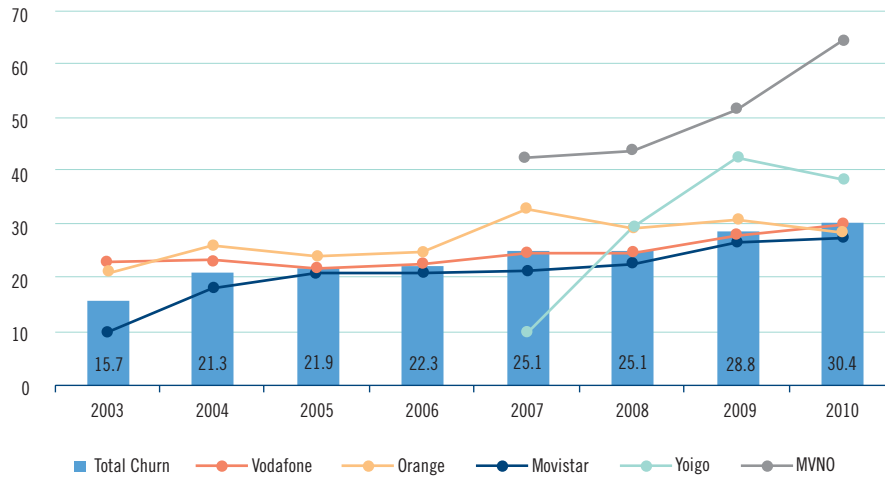
- Churn rate

The customer churn rate, which relates the number of lost lines at an operator with the average total of active lines that said operator has had in the market over the last two years³⁴. This rate is used to estimate the level of customer loyalty at the mobile operator. In 2010 the overall market churn rate grew 5.3% against the previous year. The rate is at its highest ever level, at 30.4%. This churn rate indicates that mobile telephony clients change provider every 3.3 years on average.

However, the churn rates were not uniform at all operators. Specifically, Movistar, Vodafone and the group of MVNOs recorded slight growth in customer churn rates. In contracts, Orange and Yoigo registered falls.

Finally, we should point out the correlation between the market shares of each operator and their churn rates. The three operators with the largest market shares recorded the lowest churn rates. This could in part be due to the strategy followed by these companies of subsidising their customers' handsets in exchange for a minimum 18 month contractual commitment. The remaining market operators (Yoigo and MVNOs) use other types of commercial strategies, such as offering low unitary rates.

CHURN RATE (percentage)



Source: CMT

³⁴ Churn index $_{it} = \frac{\text{No. of cancelled lines}_{it}}{\frac{\text{total lines}_{it} + \text{total lines}_{it-1}}{2}}$, where the sub-index i refers to the operator and t refers to the period (year).

c) Traffic

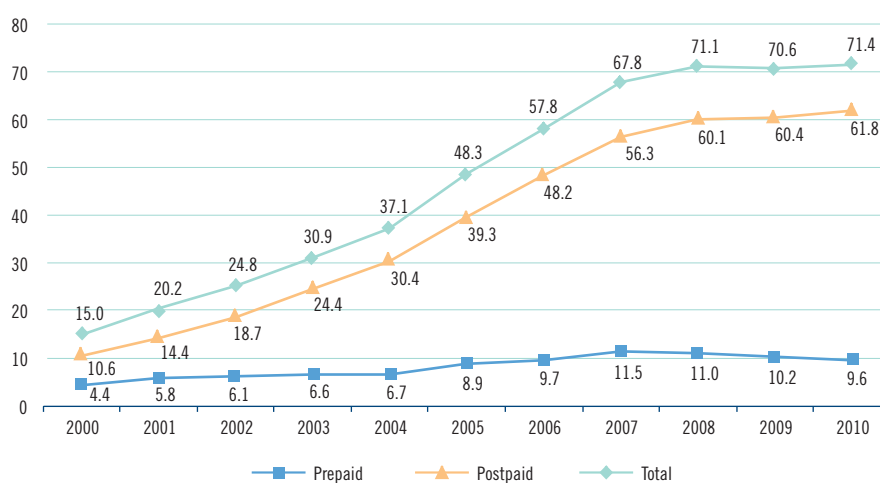
- Voice³⁵

Voice traffic was up 1.2% against 2009. During 2010 a total of 71.4 billion voice minutes were consumed.

However, while the postpaid segment registered a year-on-year increase in voice traffic of 2.4%, the prepaid segment registered a drop of 5.5%. Voice traffic

showed a similar evolution to total mobile lines, with the prepaid total down by 3.5% and the postpaid segment up by 4.2%. The similarity in the evolution of total lines and traffic is due to the fact that mobile voice traffic was practically stable.

EVOLUTION OF MOBILE NETWORK TRAFFIC (billions of minutes)



Source: CMT

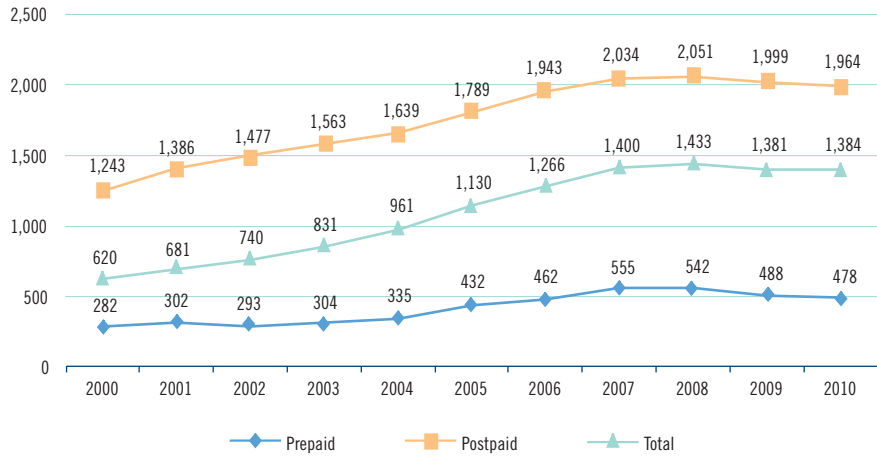
The heaviest falls came in traffic associated with premium rate services, down 6.5% year-on-year. Traffic between mobile networks was largely stable, although the data shows that traffic on the same network (*on-net traffic*) was down 2.7%, while traffic between different mobile networks (*off-net traffic*) was up 8.4%.

Growth in total mobile voice consumption did not mean an increase in mobile voice consumption per line. Looking at traffic consumption per line in the contract segment, the postpaid segment saw a drop of 1.7% while the prepaid segment shrank by 2%.

Furthermore, intensity of use varied greatly based on the market segment: traffic registered on a postpaid line was an average 4.1 times greater than on a prepaid line. The slight increase in total traffic per line seen in 2010 is not explained by increasingly intense use of lines, but instead by an increase in lines in the postpaid segment at the expense of prepaid lines.

³⁵ Voice traffic has been calculated based on actual minutes used (not minutes billed).

MINUTES PER LINE AND YEAR, BASED ON PAYMENT PLAN³⁶ (minutes/line)

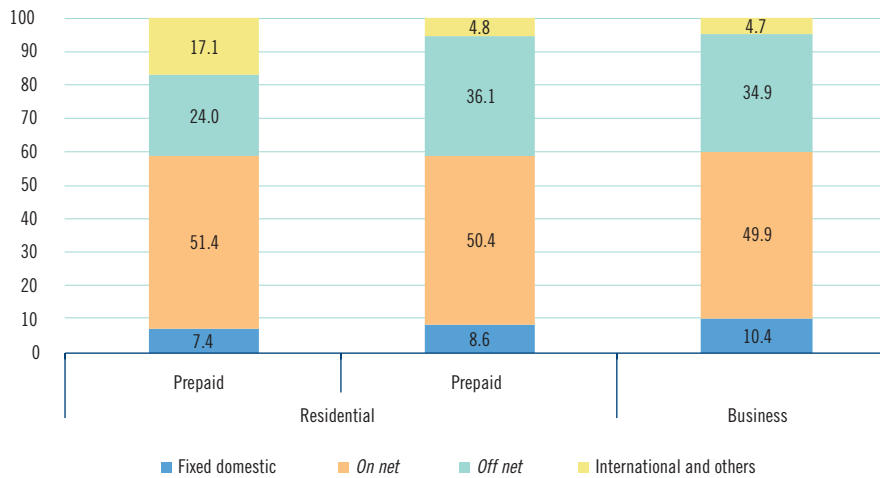


Source: CMT

There were also different consumption trends in the prepaid and contract segments. Customers in the prepaid segment (residential) generated a proportionately larger volume of *on-net* calls than calls to other operators' customers (*off-net calls*). By

contrast, postpaid clients in the residential segment generated a higher percentage of *off-net* calls than the other market segments.

TRAFFIC DISTRIBUTION (percentage)



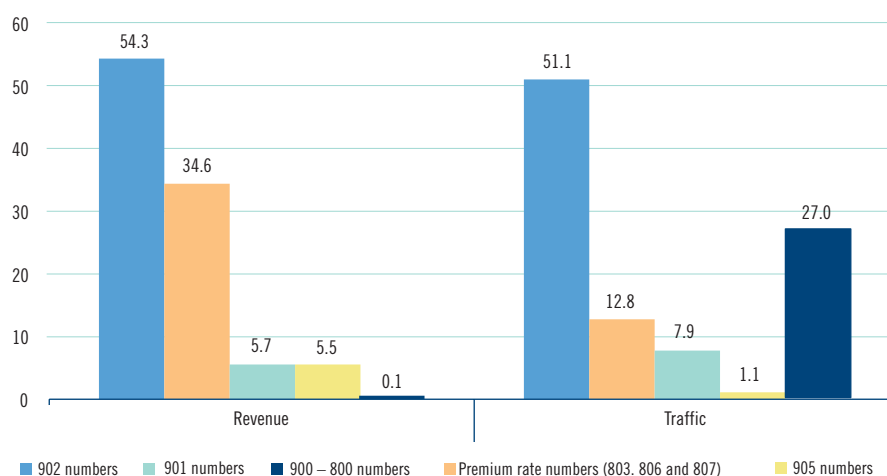
Source: CMT

³⁶ The "Total" item shows average consumption per line and takes into account the different segments of said market (prepaid and postpaid).

Turnover from special rate services (retail market) was up to a total of 339.7 million euros, 10.9% less than in the previous year. These services, which prior to approval of the National Numbering Plan (NNP) in

2004 were called intelligent network services, have been subject to intense regulation in order to increase transparency and quality.

DISTRIBUTION OF SPECIAL RATE SERVICES (percentage)

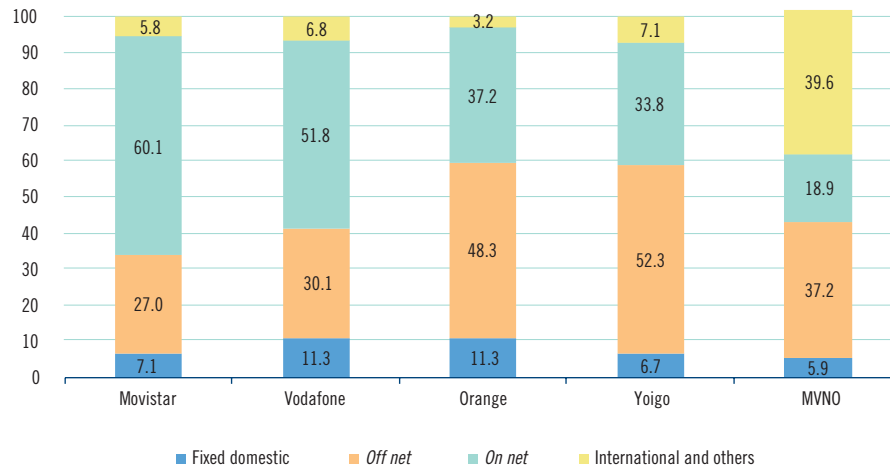


Source: CMT

The service with the greatest volume of revenues and traffic was 902 number services, paid for entirely by the caller. The services with the next highest revenues corresponded to 803, 806 and 807 number services. These numbers make up various services, such as leisure, entertainment and adult-only services. These were followed by 901 number services, in which costs are shared by the caller and recipient, and the 905 service number used to manage bulk calls. It is worth pointing out that the traffic volume and revenues from 905 services depend on the events organised over the year (for example television programmes being broadcast in which the audience votes via SMS messages). As would be expected, in last place come special rate services that are free to end users, which correspond to 900-800 numbers. Although these accounted for almost zero revenues share (0.1%), they represented 27% of total special rate services traffic.

The traffic distribution generated by customers of the various mobile operators showed significant structural differences. Voice traffic generated by the operators with the largest market shares, such as Movistar and Vodafone, mostly terminated on the operator's own network. By contrast, traffic generated by operators with smaller market shares were largely calls made to other networks. This makes sense, as 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 international call traffic at MVNOs is also worth pointing out, largely due to several MVNOs specialising in international communications.

TRAFFIC DISTRIBUTION BY DESTINATION (percentage)



Source: CMT

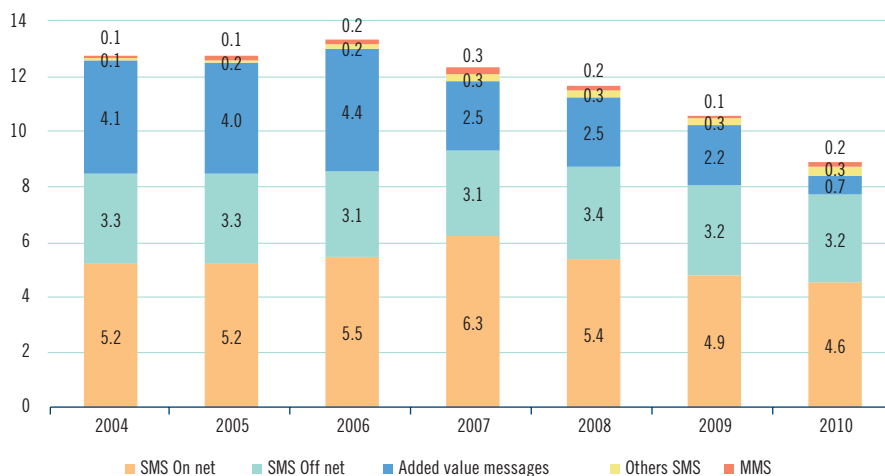
- Messages

Mobile communications based on short messages (SMS and MMS) have seen traffic levels fall in recent years. Specifically, in 2010 SMS traffic between subscribers (excluding added value SMS) fell 4.1%. It was the third 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 6.4% year-on-year.

One explanation for this could be the popularity in recent years of Internet applications that allow instant messaging, mostly created for use on mobile handsets. These applications could substitute traditional SMS/MMS messaging.

The volume of MMS messages stood at 158.9 million messages. This figure is evidence that demand for this service is well below demand for SMS, of which 7,740,900,000 were sent in the same period. According to these figures, one MMS message is sent in the Spanish market for every 49 SMS messages.

EVOLUTION OF MESSAGE TRAFFIC (billions)

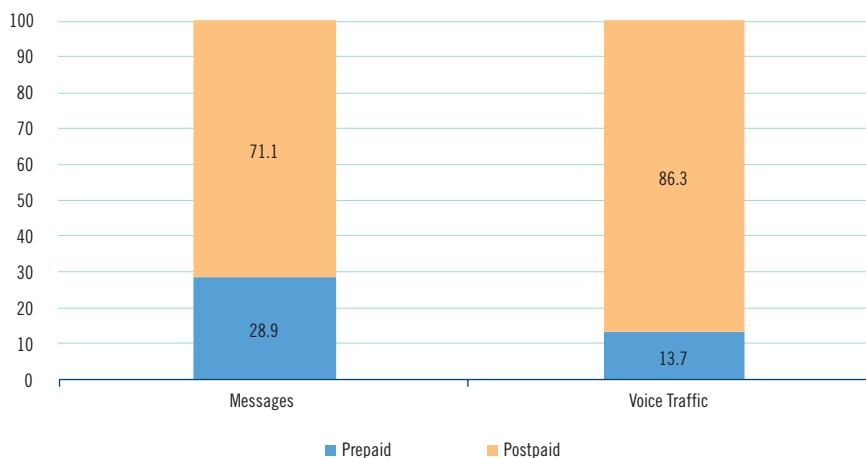


Source: CMT

Having evaluated voice and message traffic over the year, the chart below aims to illustrate the differences between the consumption trends for these services,

based on prepaid and postpaid plans. While prepaid customers accounted for 13.7% of total voice traffic, they also generated 28.5% of total message traffic.

SHORT MESSAGE AND VOICE TRAFFIC BY TYPE OF CONTRACT (percentage)

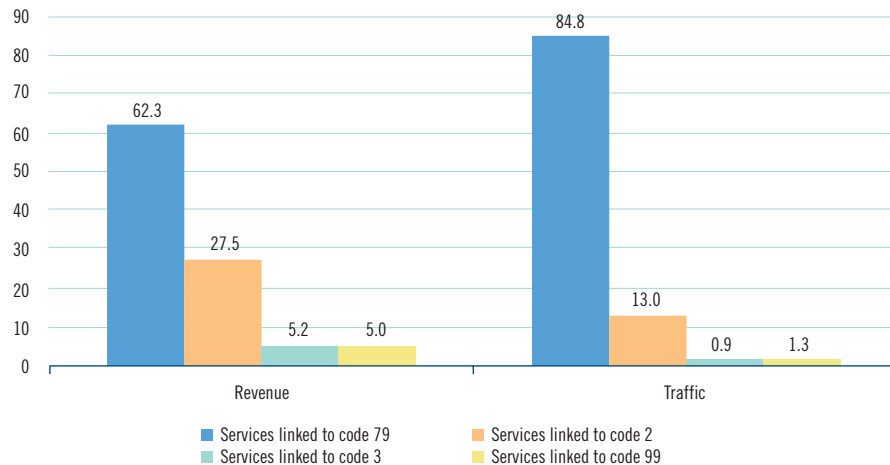


Source: CMT

Turnover from *premium* messaging services in the retail market was up to a total of 262.9 million euros, 46% less than in the previous year. Below are the

weightings in both revenues and traffic of the main *premium* messaging services.

DISTRIBUTION OF MAIN PREMIUM MESSAGING SERVICES (percentage)



Source: CMT

The message service associated with code 79, i.e. the subscription service that bills the customer for each message received, generated the largest volume of revenues and traffic. The *premium* services with the next highest revenue volume were numbers beginning with code 2. These numbers include all services charged at a maximum price of 1.2 Euros to the end user. These were followed by messaging services starting with code 3, which, due to their cost or content, require confirmation by the end user. Messaging services starting with code 99, which are reserved exclusively for adult content services, were in the last position.

The subscription and alert service (code 79) has grown significantly, largely due to more applications being developed that offer subscriptions to such services through the Internet. It is important to note that the *premium* messaging services have been affected by increased regulation³⁷.

- Data

Subscriber growth for wireless Internet access services, either through *datacards* or 3G, wireless terminals, resulted in significant growth of data traffic on wireless networks. Total traffic of 64.3 thousand Terabytes associated with this type of service was recorded, 118% higher than the previous year.

d) Wireless broadband

In 2010, mobile Internet access services recorded sizable growth in line numbers, revenue and traffic. The proliferation of Internet applications designed primarily for use by wireless terminals -social networks via *micro blogging*, such as *Twitter* or *Tuenti*, or the use of instant messaging, such as *WhatsApp* or *BBM*- made this growth possible, and was also driven by the steady increase in UMTS/HS-DPA coverage nationwide³⁸.

³⁷ In July 2009, a Code of Conduct on providing message-based premium rate services was adopted, pursuant to the provisions of Article 10.2 of the Order ITC/308/2008 of 31 January, which aimed to set standards to ensure consumer protection, transparency and fair competition in message-based premium rate services.

³⁸ See section 2.2.h Mobile network infrastructure.

Note that there are several options for connecting to wireless Internet service: 1) connection through *datacards*, USB modems or other devices with a SIM/USIM card exclusively associated with a dedicated data rate, such as *ebooks*, *notebooks*, *tablet PC*, etc; or 2) a connection to a wireless voice terminal. Depending on their intensity of use, users generally opt to purchase a subscription specifically for data that allows access to the Internet from the same wireless terminal.

First the evolution of lines associated only with a dedicated data rate is assessed. Thus, the volume of these types of lines, such as *datacards* or USB modems- kept pace with growth in recent years. In December 2010, the number of these lines had increased to 3,354,756 and was 71.1% higher than the previous year. This volume of *datacards* implied a market penetration of 7.1 dedicated mobile broadband access lines per 100 inhabitants.

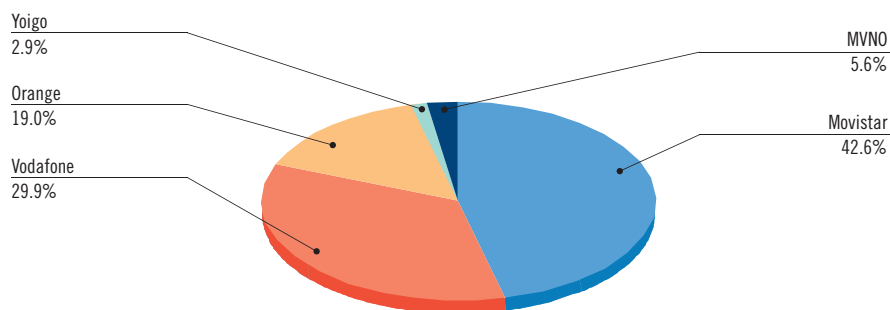
However, looking only at the residential segment, the estimated percentage of individuals with *datacards* in 2010 was 4.7%, according to data from the CMT-Red.es Household Panel survey. In the business segment, a National Institute of Statistics (NIS) survey on the use of ICT and e-commerce for business indicated that the market penetration of mobile broadband service using

datacards was 7.5%, with market penetration of 27.1% for firms with ten or more employees and 6.4% for those with fewer employees.

The following chart shows the market share of dedicated data lines, such as *datacards* or USB modems. Movistar was the operator with the largest market share (42.6%), followed by Vodafone (29.9%).

MVNOs also recorded a significant evolution, with a market share (5.6%) greater than their total wireless handsets market share (4.8%). The increased position of MVNOs in wireless Internet access services is due to some of these operators focusing 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 three times more mobile lines linked to *datacards* than its total number of mobile phone handsets.

MARKET SHARE OF LINES ASSOCIATED WITH *DATACARDS* (percentage)



Source: CMT

However, of the total number of *datacards* -3.3 million- a total of 3,095,041 lines were active³⁹.

Second, we analyse the evolution of mobile terminals, such as *smartphones*, which have been connected actively to the mobile Internet. Specifically, in 2010, a total of 8,765,295 lines accessed the wireless Internet.

This result meant that approximately 17% of mobile terminals were actively connected⁴⁰. The ma

^{39, 40} It is understood that a line accesses mobile Internet actively if 1) it is associated with a recurring fee payment linked to the Internet access service, or 2) without being associated with a recurring fee payment, it has connected to the Internet access service in the last three months and has been billed for this connection.

majority of mobile Internet users -73.9% - were connected via their mobile terminals, with connection by *datacards* occupying second place. However, it should be noted that intensity of use of Internet access by *datacard* is higher than that recorded for mobile voice terminals.

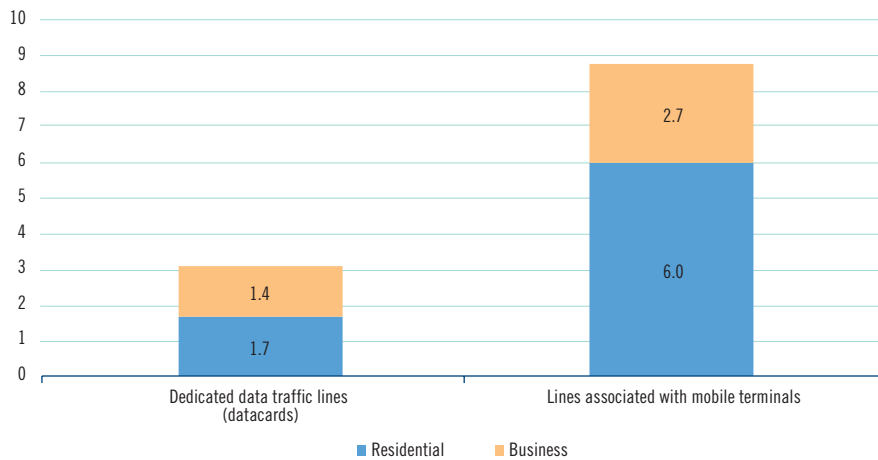
If you add the total number of mobile lines that have been actively connected to mobile internet access services (3.1 million and 8.8 million USB modems for mobile terminals) it follows that, in 2010, a total of 11.9 million users accessed the Internet through mobile networks, which meant a market penetration of 25.2 mobile lines per 100 inhabitants.

Still, according to data from the Household Panel survey CMT-Red.es, which only gathers information on the residential segment, only 6.7% of individuals acknowledged having a mobile broadband service, or using a *datacard* (4.4%), a broadband service on a mobile terminal (2%) or both (0.3%). However, it should be noted that it is likely that most casual users of mobile broadband service on a terminal, especially

those who do not expressly employ a specific rate for this type of service, did not acknowledge having the service.

Also, if the lines are broken down according to the market segment with which they are associated - business or residential - it can be seen that dedicated data traffic lines -*datacards* or USB modems - showed a similar distribution between the two segments. With regard to the lines associated with mobile terminals that were actively connected to the mobile Internet, there was a predominance in the residential segment, which was a change in tendency: while the first charges associated with this type of service were focused on the business segment, most lines connected to the mobile Internet belonged to consumers in the residential segment.

NUMBER OF ACTIVE LINES ASSOCIATED WITH A MOBILE INTERNET ACCESS RATE (millions of lines)



Source: CMT

Despite the increased volume of lines with Internet access via mobile terminals, the data for revenue from flat - or recurring - fees for this type of service suggests that the average revenue per line (ARPU) is significantly higher from data-only lines (*datacards*) than from mobile terminals. An indication of this is that revenue from flat rates recorded in data-only terminals (*datacards*) was 45% higher than the revenue from recurring fees associated with mobile terminals.

Additionally, from the results of a survey (for which field work took place in the fourth quarter) of over 2,200 households, 450 of which acknowledged having a *datacard*, the CMT knows that, according to the statements of these households, individual spending on big-screen mobile broadband connection (*datacard*) was 30.8 Euros/month for prepaid and 34.3 Euros/month for post-paid.

The total lines associated with machines - lines linked to telemetry or remote services, also known as M2M - stood at 2.13 million, representing an increase of 15.2% and a growth rate similar to that recorded in recent years. The main reason for this high growth rate

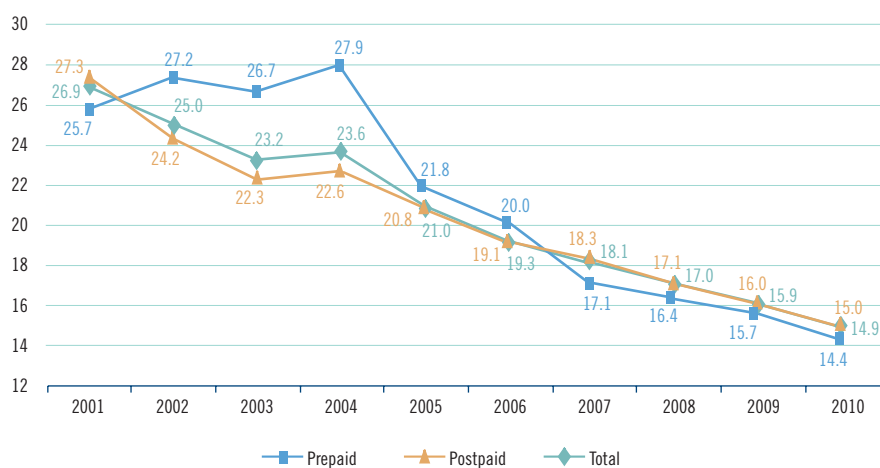
is an increase in economic industries where it is possible to incorporate this technology (which is currently used in industries as diverse as transportation, safety or food distribution).

e) Unit revenue evolution⁴¹ by service

-Average revenue for voice services

The ratio of average revenue per minute for voice is considered to be an approximation for the level of prices offered in the market. This variable summarises the various offerings on the market, with its high variety of rates, bonuses and discounts, into a single indicator. For the seventh consecutive year average market revenue has declined from the previous year, by 6.6%, standing at 14.9 cents per minute. As in 2009, average revenues from prepaid and post-paid segments were almost the same: 14.4 and 15 cents per minute, respectively.

EVOLUTION OF AVERAGE REVENUE PER MINUTE (euro cents/minute)



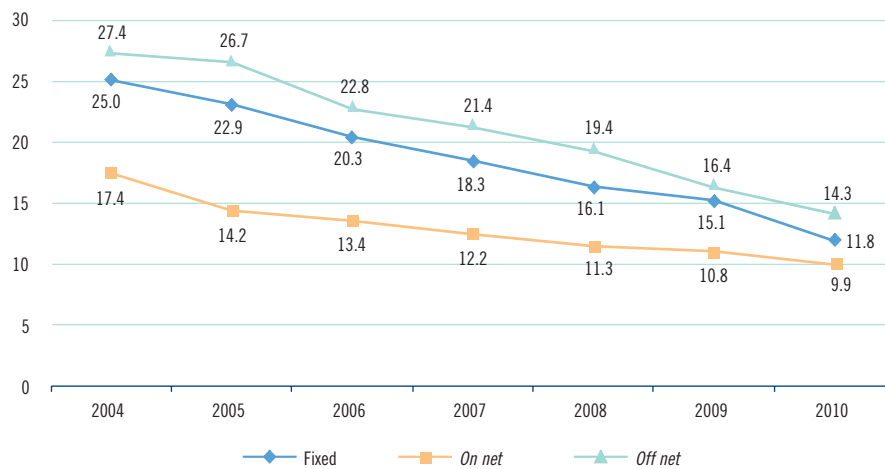
Source: CMT

⁴¹ In this section it has been decided to use the average revenue per minute and average revenue per message - unit revenue - as an approximate measurement of final price levels observed in the market.

The largest fall in average revenue was recorded in the service of calls within the fixed network (21.8%). However, as shown in the chart below, calls within

the national mobile network - *off-net* and *on-net* communications - also suffered a significant decrease in their average revenue per minute.

EVOLUTION OF AVERAGE REVENUE PER MINUTE BY TYPE OF TRAFFIC (euro cents/minute)



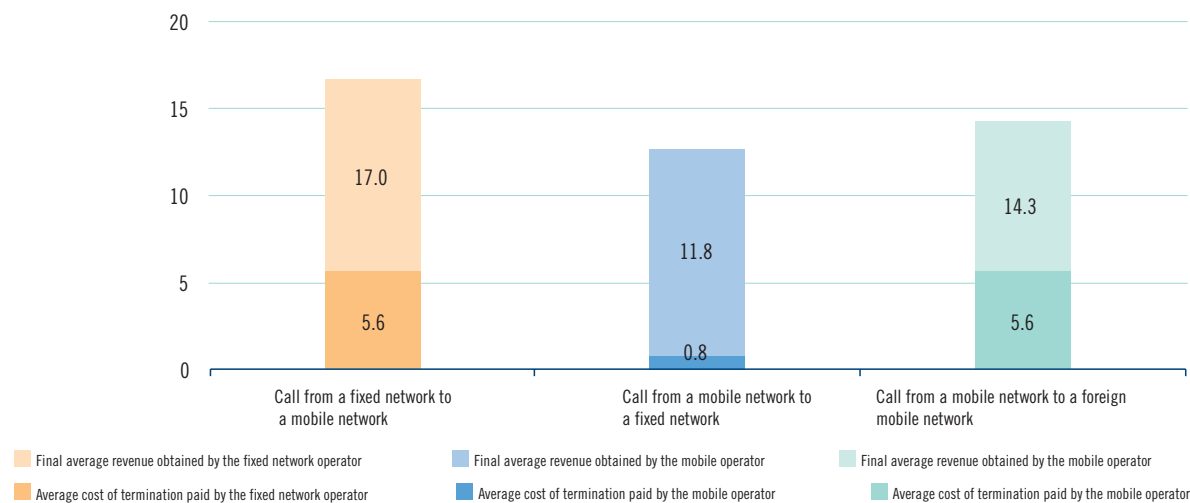
Source: CMT

The average revenue obtained by an operator for a call completed within a fixed network (11.8 Euro cents per minute) was lower than that obtained for a call completed off-net (14.3 Euro cents per minute). However, the net retention⁴² that was obtained by a mobile telephony operator when the customer made a call to a fixed number was higher than that obtained by a minute of service completed in a foreign mobile network.

To obtain the margin of retention, the termination price that the operator must pay the owner-operator of the network where the communication ends must be taken into account. The cost of terminating a call on a mobile network was 5.6 Euro cents per minute, significantly higher than the cost of 0.8 Euro cents per minute for terminating a call on a fixed network.

⁴² 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.

RETENTION MARGIN OF CALLS DEPENDING ON THEIR NETWORK OF ORIGIN AND DESTINATION (euro cents/minute)



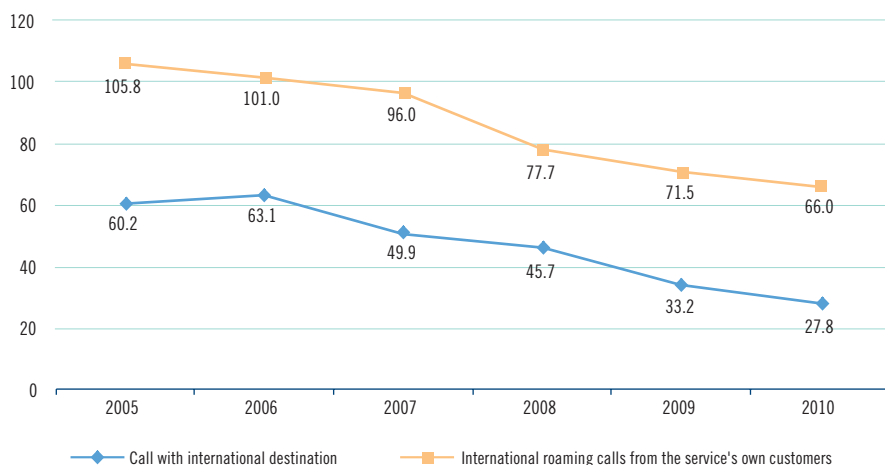
Source: CMT

Average revenues also fell for international communication services, i.e. calls to international destinations and international roaming calls. Specifically, the average revenue from international calls fell by 16.3% and international roaming calls by 7.6%.

in providing international communications services at competitive prices. However, the fall in average revenue from international roaming services has a different origin: 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 downward trend is largely explained by the entry, from 2007, of numerous MVNOs specialising

EVOLUTION OF AVERAGE REVENUE PER MINUTE BY TYPE OF TRAFFIC (euro cents/minute)

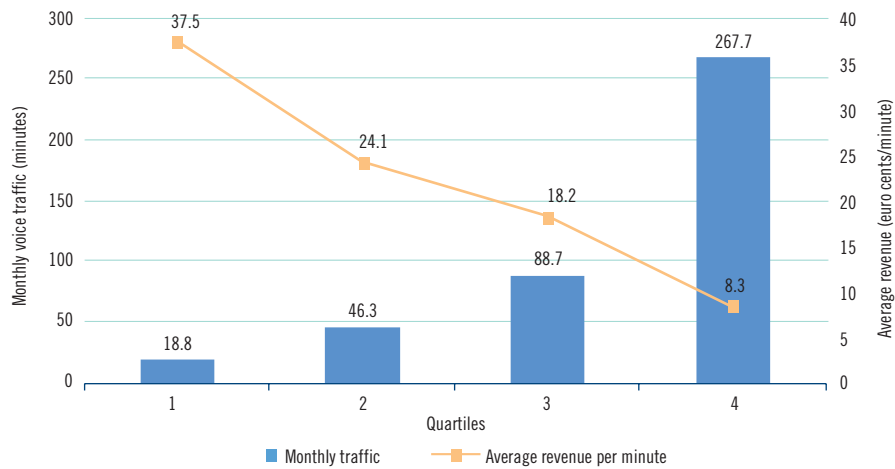


Source: CMT

In the following chart mobile users have been grouped into four quartiles, that is, each of the sections includes 25% of the total users. The criterion used to group them is the volume of monthly traffic consumed by each user. The first group has users who consumed a lower volume of traffic (18.8 minutes on average) while the fourth has users with highest traffic volumes consumed (267.7 minutes on average). The graph allows two conclusions: first, there are significant

differences between different users in traffic consumed; and, secondly, it appears that those who consume most enjoy greater discounts (average revenue per minute obtained by an operator with customers in the lower consumption segment is 4.5 times higher than that obtained from high consumption customers). The graph was prepared using data from the CMT-Red.es Households Panel.

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



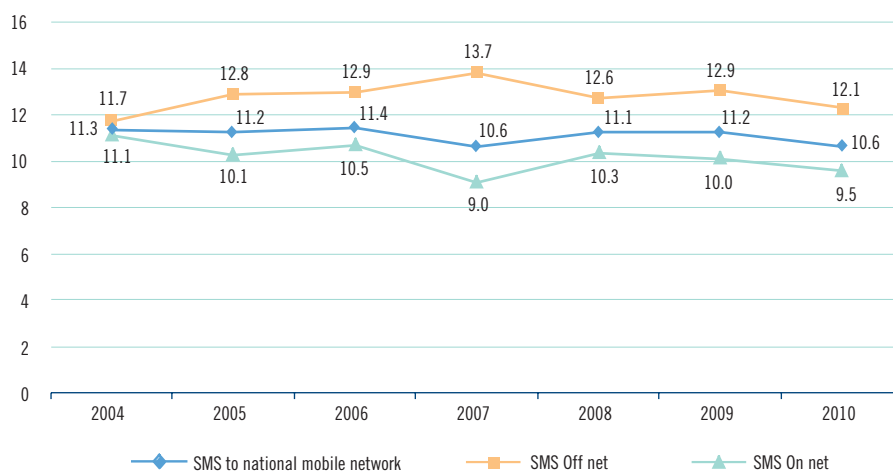
Source: CMT

-Average revenue for message services

Average revenue from SMS messaging to destinations in the national mobile network⁴³ fell by 5.3% to stand at

10.6 euro cents per message. However, the line graph shows a high resistance to a reduction in revenues received per SMS message.

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



Source: CMT

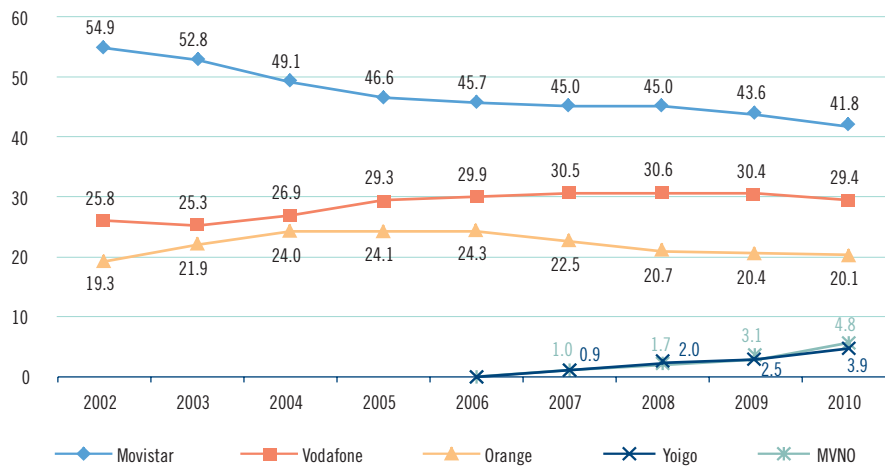
⁴³ The concept of SMS messaging destined for the national mobile network includes the service of messages originated and terminated within the same mobile network -SMS *On net*- and of messages sent to a national network other than the network of origin -SMS *Off net*.

f) Market shares

In 2010, the three incumbent operators' market share of number of lines fell accordingly as other operators (Yoigo and MVNOs) increased their share. These figures confirmed the trend of the last three years, which was triggered by the network operators Telstra

and MVNO starting business in 2006. These recently incorporated operators accumulated a combined market share of 8.7% at the expense of the incumbent operators' share.

EVOLUTION OF MARKET SHARE BY ACTIVE LINES (percentage)

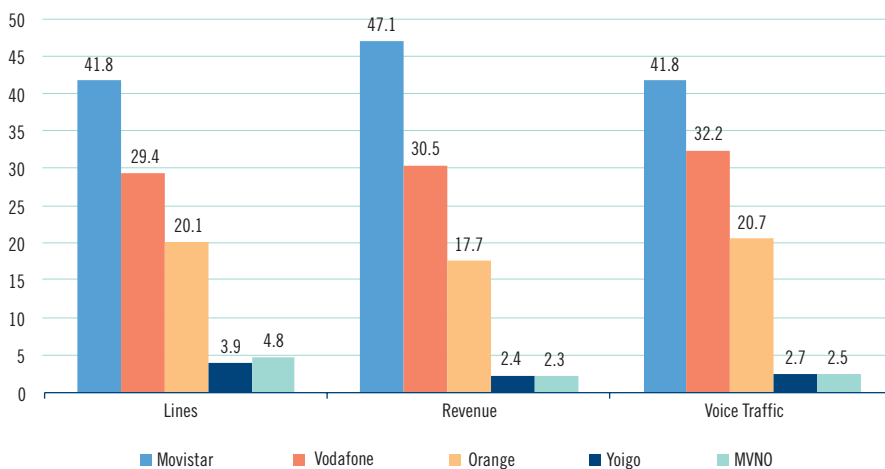


Source: CMT

Market concentration is greater if market share is considered on the basis of revenue and traffic instead of lines. The main cause is the fact that the customers

of the operators with the highest volume of lines, Movistar and Vodafone, used the different mobile telephony services more intensively.

MARKET SHARES IN 2010 (percent)



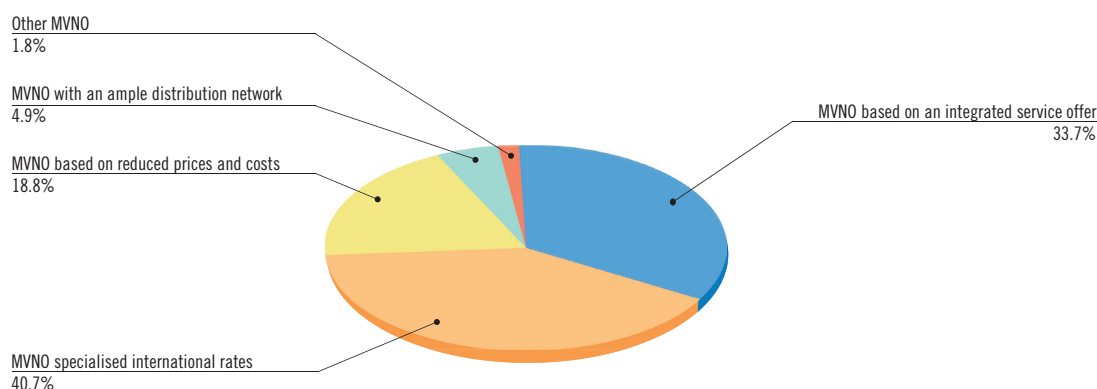
Source: CMT

Annual revenue earned by MVNOs amounted to 323.3 million euros, representing an increase of 48%. This significant increase does not come from a single strategy carried out by these operators, but, on the contrary, MVNO employed very different strategies from the others. These strategies can be grouped into: 1) operators based on a specialised competitive international rate offer, 2) operators based on a mobile 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 all their customers and, finally, 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.

The following chart shows that the operators based on a specialised offer of international tariffs were those who obtained the largest market share in revenue. This result implies a change in the trend since 2009, when operators basing their offer on integrated telecommunications services led the market share.

MARKET SHARE OF MVNOS DEPENDING ON THEIR BUSINESS STRATEGY (percentage)



Source: CMT

3.2.2. Wholesale services

In 2010, wholesale revenues decreased by a significant 12.9%, while the total traffic grew by 12.2%. This increase in traffic is mainly due to increased traffic recorded in the use of mobile network access service by third party operators. The traffic growth associated with this service is due, in large part, to the increased market share experienced by MVNO.

a) Revenues

Total revenue for the wholesale market was 2,658,400,000 Euros, a decline of 12.9% over the previous year. This result represents a drop for the fourth consecutive year in billing volume

in the wholesale market. In absolute terms, taking wholesale revenues obtained in 2006 as a reference, revenue from 2010 showed a decrease of 1,578,400,000 euros.

The wholesale market consists of various services intended to allow access to a mobile network and/or interconnect the network with other telecommunications networks (fixed or mobile networks). The most important interconnection services are: (i). domestic termination, i.e., service allowing termination of mobile communications originating in a network other than the destination network; (ii). 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

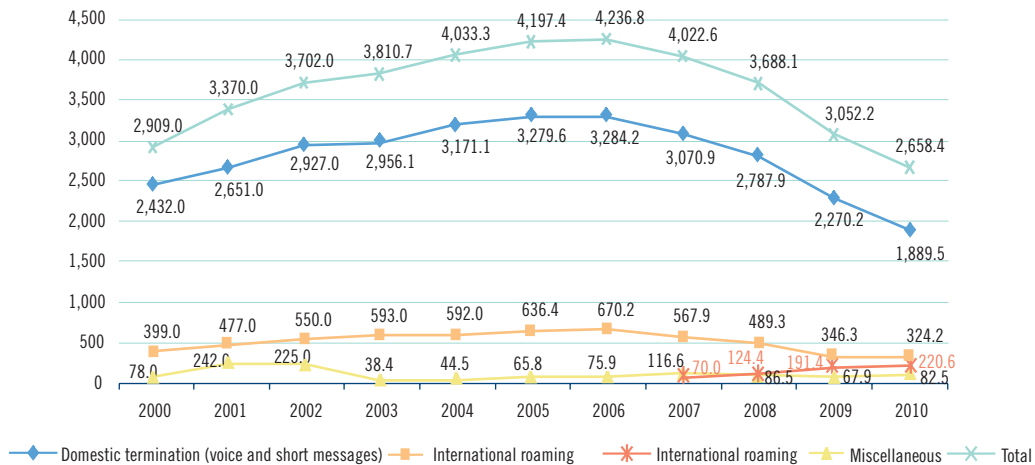
domestic off-net access; (iii). international termination service, allowing termination of calls originating abroad in a domestic mobile network and, finally, (iv). service of access to mobile networks by third party operators without their own infrastructure.

The national mobile termination service - the largest service in the wholesale industry - reported a decline in revenues of 16.8%. The main cause of this decline was regulatory intervention by CMT, and establishing a downward trend in prices -*glidepath*- for biannual periods. Thus, in September 2006 different termination prices were fixed until September 2009, meaning a gradual decline in prices for this service. In February 2009, the CMT published a new resolution setting a new price path, valid from October 2009 to April 2012. International roaming services recorded a total turnover of 324.2 million euros, representing a year-on-year fall in revenue of 6.4%. These results confirm the downward trend that began in 2007, as a result of the EU regulation, effective from June 2007, regulating both retail and wholesale prices for

international roaming services in the European Union. As an example, international *roaming* revenue in 2010 was less than half that obtained in 2006; specifically, it fell by 51.6%.

However, within the wholesale market there are also services which recorded positive turnover growth rates. An example is the mobile network access service for third party operators, mainly MVNOs. In 2010, this service experienced a 15.3% increase in billing, with a turnover of 220.6 million euros.

EVOLUTION OF WHOLESALE MARKET REVENUES (millions euros)

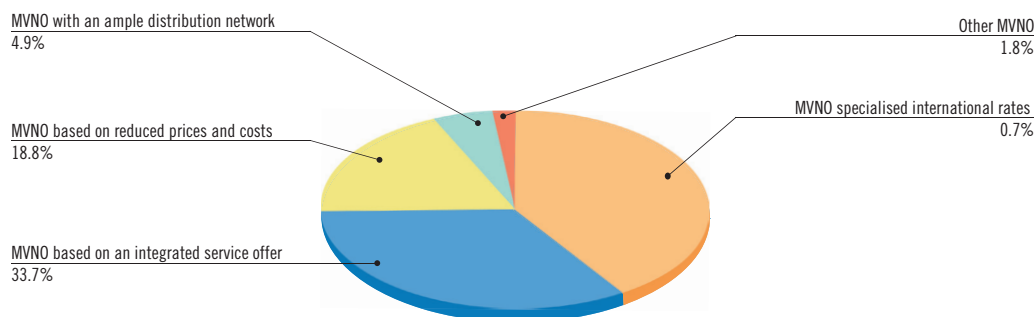


Source: CMT

Despite falls in their revenue, domestic voice termination and international roaming were, for another year, the most significant services among total wholesale market revenue. Specifically, the domestic voice termination service accounted for 63.4% of wholesale market

turnover, while the international roaming service accounted for 12.2%. Third-party operator access was the service with the third largest share of revenue, with 8.3% of the total.

WHOLESALE SERVICES REVENUE (percentage)



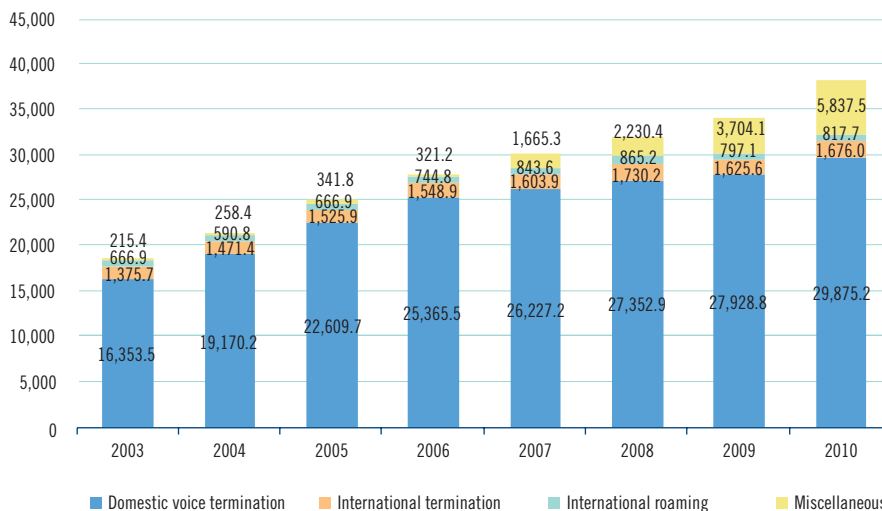
Source: CMT

b) Traffic

The volume of voice traffic, in contrast to what was observed in the revenue section, grew to 38,206,400,000

minutes, representing an increase of 12.2% compared to 2009.

DISTRIBUTION OF WHOLESALE SERVICES TRAFFIC (millions of minutes)

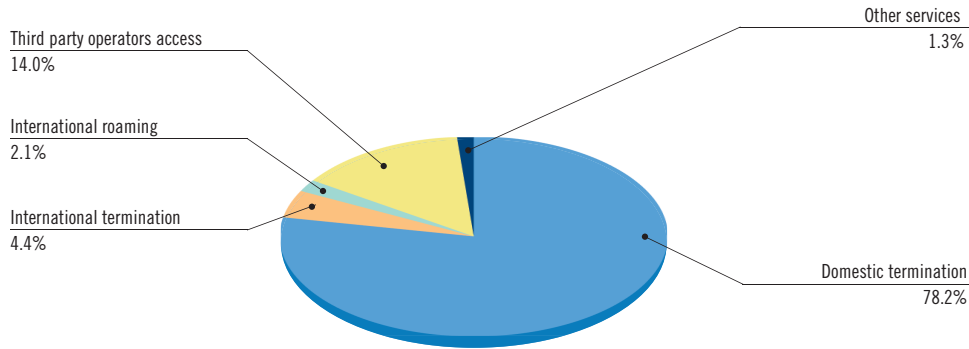


Source: CMT

A break down of total traffic volume by originating wholesale services shows the national voice termination service to have by far the greatest weight, with 78.2% of total traffic. However, the service with the greatest growth in demand was third-party operators' mobile network access, with an increase of 56.7% - making this wholesale service second in terms of traffic. The

international roaming service - i.e. foreign operators' customers enjoying mobile services through access to a national mobile network - registered, in contrast to 2009, a slight increase of 2.6% in traffic.

DISTRIBUTION OF TRAFFIC VOLUME BY WHOLESALE SERVICES (percentage)



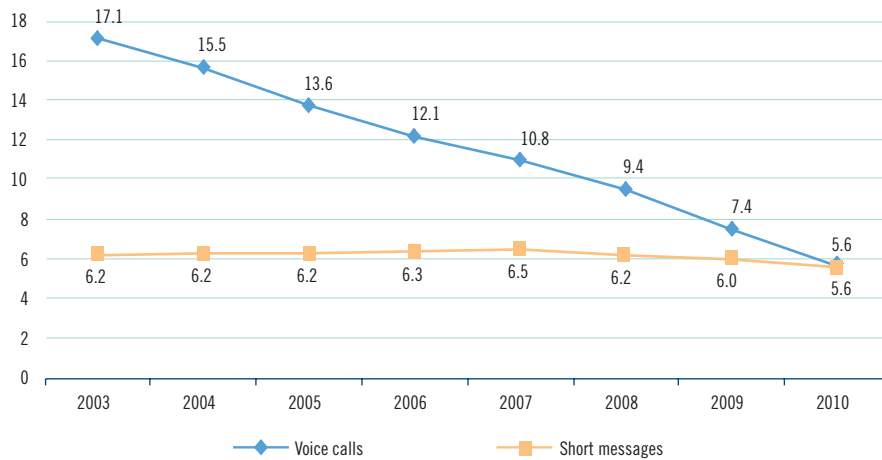
Source: CMT

c) Price trends⁴⁴

The following chart shows how, in recent financial years, the price of the voice termination service has dropped to the levels of the SMS messaging termination service. In 2003, the price for termination of one minute of voice was, on average, 175% higher than the price for termination of an SMS message, while in 2010 this difference was completely eliminated. The decrease in the price of voice termination was due to

the regulation of these prices downwards through the imposition of *glidepaths* in 2006 and 2009. By contrast, the SMS termination price is not regulated and has remained more or less constant since 2003. Thus, while in 2010 the average revenue per minute received by operators for calls terminating on their networks was down 23.6%, the average revenue earned for termination of a message fell by 6%.

AVERAGE REVENUE PER MINUTE OF NATIONAL TERMINATION (euro cents/minute and euro cents/message)



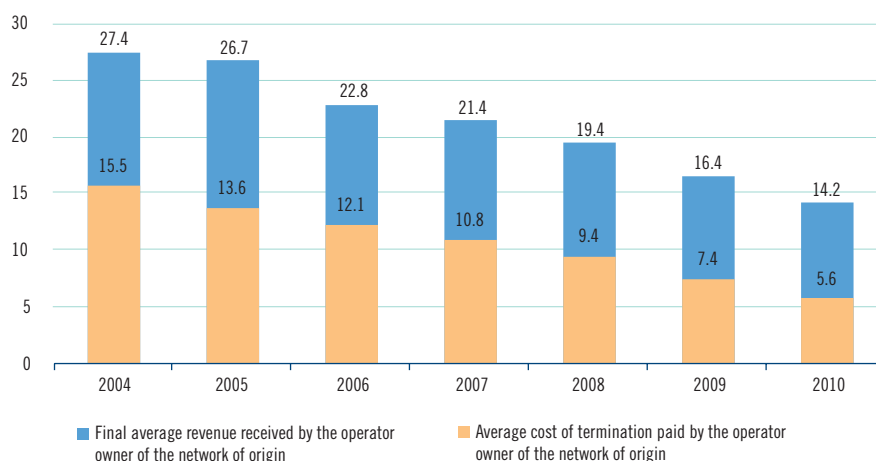
Source: CMT

⁴⁴ In this section, as in the retail market section, average revenue per minute has been used to obtain approximate prices for the various wholesale services analysed.

The average revenue per minute of 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 revenue that an operator receives for an *off-net* call and the cost of termination required to complete the call. Thus, in 2010, the cost of call termination accounted for 39.5% of average

revenue earned from an *off-net* voice call. Moreover, the retention margin has increased significantly in recent years, i.e. the cost to operators for termination of a call off-net has fallen against the final price operators charge 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

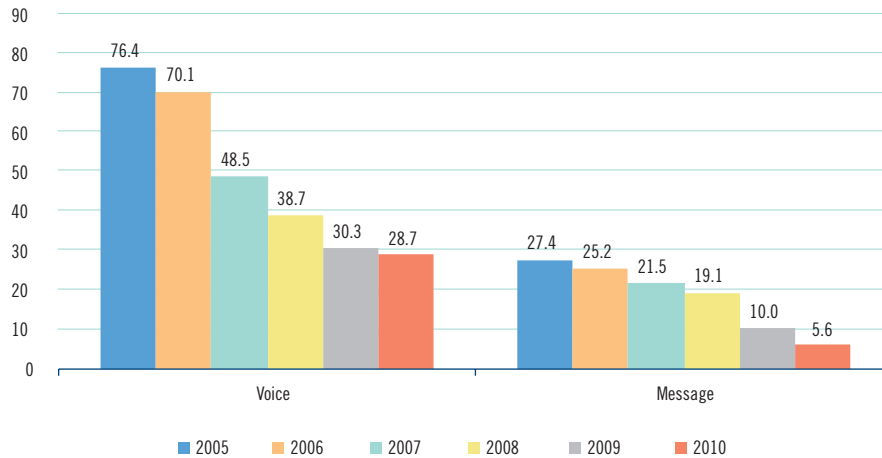
Prices for international roaming services were affected by European Parliament Regulation 544/2009. This regulation mainly affected three services: firstly, it extended price regulation of the wholesale voice service to June 2012; secondly, it extended the price regulation to include short messages (SMS) sent via international roaming, setting a maximum price of 4 euro cents per message; and thirdly, it set the maximum average price permitted for the roaming data traffic service at one euro per megabyte.

Average revenue per minute of call thus fell by 5.3% compared to the previous year. With this fall, the average revenue per minute accounted for 37% of the total recorded in 2005. With regard to the international roaming text messaging service, average revenue

registered a fall of 47.8% to stand at an average of 5.6 euro cents per message. These results show the major impact of the EU regulation on the price of these services.

It should be emphasised that the graph shows the average revenue that Spanish operators obtained from all international operators, both European, with prices subject to EU regulation, and non-European, with prices agreed between operators through private contracts. Consequently, the graph does not show exclusively the effect on prices of EU regulations on *roaming*.

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



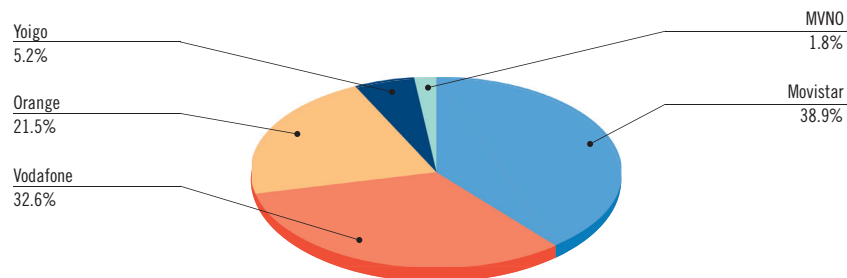
Source: CMT

d) Market shares

The degree of concentration in the wholesale market is traditionally higher than that seen in the retail market. The reason is that not all operators have rights to use the radio spectrum and the same infrastructures and, consequently, operators lacking the necessary resources to offer a full mobile telephony service require partial use of other mobile operators' networks.

Consequently, Movistar (38.9%), Vodafone (32.6%) and Orange (21.5%) accumulated the majority of total market revenues. Despite this, and as a consequence of retail market development, the recently entered operators, Yoigo and the MVNOs, increased their market share in revenue. Thus, Yoigo obtained 5.2% of the total revenue and full MVNOs, which manage traffic termination, obtained 1.8% of the total.

WHOLESALE REVENUE MARKET SHARES (percentage)

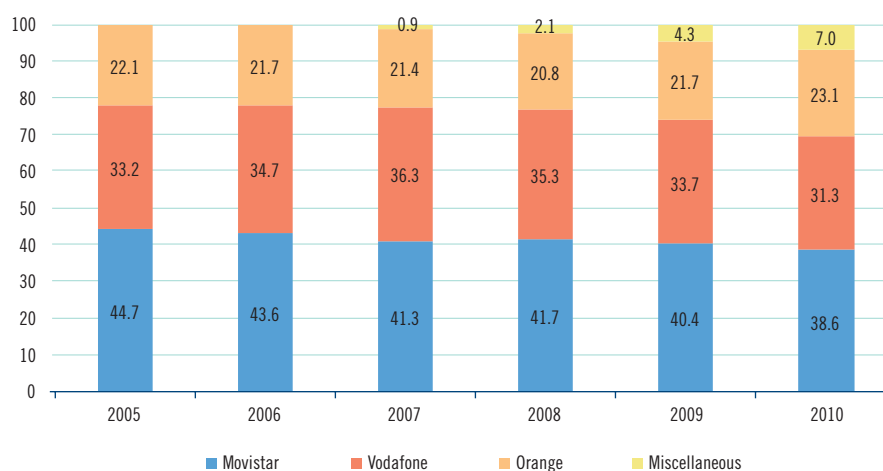


Source: CMT

Market shares of the domestic voice termination service show a high correlation with market shares of mobile lines. The higher the percentage of retail lines owned by an operator in its own network, the greater the likelihood of receiving calls from the other networks established in the market. Thus, Movistar obtained 38.6% of national traffic termination, followed by

Vodafone with 31.3% and Orange with 23.1%. Yoigo and the MVNOs were the operators that achieved the biggest increases in customer portfolios in the retail market and, therefore, saw an increase in their market share of the domestic termination service.

DOMESTIC TRAFFIC TERMINATION MARKET SHARES (percentage)

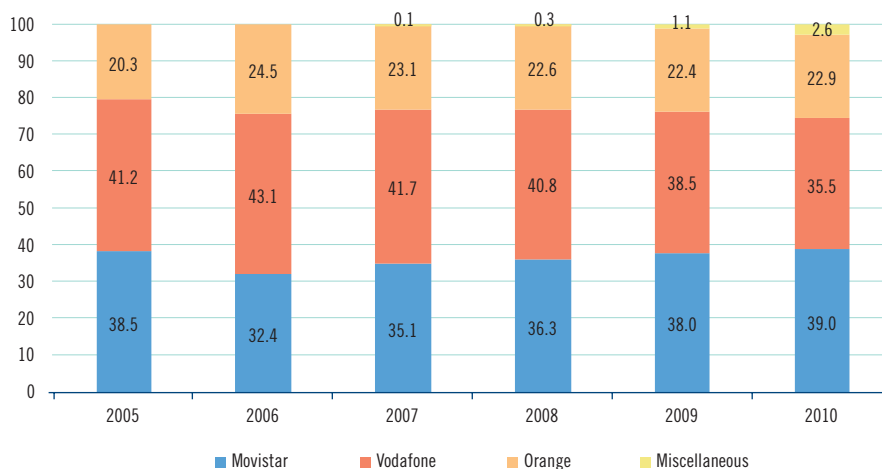


Source: CMT

The concentration is greater in international roaming than in other wholesale services. This is because only operators with their own network can offer these services to foreign operators. Thus, the operator that achieved the highest market share was Movistar (39%), followed closely by Vodafone (35.5%). Orange (22.9%) and Yoigo (2.6%) completed the list of operators who obtained revenue from this service.

Each operator's international roaming traffic is closely linked to the size of the international group to which it belongs and to this group's policy of alliances and interconnection agreements with other groups. National operators with a strong presence in Europe have very large volumes of intra-group *roaming* traffic.

INTERNATIONAL ROAMING TRAFFIC MARKET SHARES (percentage)



Source: CMT

3.2.3. Market regulations and prospects

For the second year running, the mobile telephony market's performance showed the effects of the economic crisis on turnover. However, in this negative context two trends stood out that are worthy of note: firstly, the degree of concentration in the market was reduced; and, secondly, the mobile Internet access service, unlike the rest of mobile telephony services, showed high growth both in turnover and in its penetration rate in the population.

The expansion of Internet access service via mobile networks, along with the proliferation of applications created for use through terminals, may have implications for the evolution of the mobile telephony market and use of its services. Instant messaging applications on mobile Internet are an example. Due to their characteristics, they may become a substitute product for the traditional messaging service via SMS/MMS. Thus, the emergence of new services offered by operators could lead to substitution of the more traditional services, possibly resulting in cannibalisation in the mobile market.

In 2010, prices for final services - measured by the approximate variable of average revenue per minute - fell significantly. Most important among the factors

that, in all probability, led to this development were the growing importance of Yoigo and the MVNOs in the Spanish market - with the consequent reduction in the degree of market concentration - and, secondly, regulatory intervention in some wholesale prices.

The Ministry of Industry's proposal to make new spectrum bands available to the market in order to roll out next generation mobile networks, and the reallocation of uses and some parts of the spectrum already allocated in the 900 MHz and 1800 MHz bands, will have a considerable impact that will be noted in the coming years.

- A significant increase in the market share of recently entered operators (Yoigo and MVNOs)

Throughout 2010, the number of MVNOs increased, albeit at a slower pace than in previous financial years. Specifically, the operators Orbitel, Lycamobile and fonYou started their commercial activity. In contrast, one operator - Zeromóvil - announced suspension of its commercial activity. Thus, the remarkable increase in the number of MVNO mobile lines was due primarily to the capture of important customers by these MVNOs and not to a significant increase in the number of operators.

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

	MOVISTAR	VODAFONE	ORANGE
Full MVNOs			
	ONO	Euskaltel	MÁSmovil
	Digi Mobil	BT	Jazztel
	FonYou	TeleCable	E-Plus (Simyo)
	Lycamobile	R	
MVNO service providers			
		Lebara	Carrefouronline
		Pepephone	Díamóvil
		Hits Mobile	Happy móvil
		RACC Móvil ⁴⁵	Moreminutes
		Eroski Móvil ⁴⁶	You Mobile
		Orbitel ⁴⁷	

Source: CMT

- Application of Regulations on *roaming*

On 29 June 2009, the European Community published its (EC) 544/2009 Regulation, of 18 June, on roaming services within the European Union⁴⁸. This Regulation was designed to update and extend the regulation of these services, begun in July 2007 with Regulation (EC) 717/2007, to beyond 30 June 2010, and its main consequence has been the regulation *from scratch* of SMS and data roaming services.

The following table provides a summary of the maximum prices established in the Regulations, applicable to incoming and outgoing voice calls, and SMSs within the EU, and to be applied in the Eurotariff, or tariff that every operator must make available to users.

⁴⁵ The RACC Móvil operator accesses the Vodafone network by virtue of an agreement signed with the MVNO operator, Euskaltel.

^{46, 47} The Eroski móvil and Orbitel operators access the Vodafone network by virtue of an agreement signed with the MVNO operator, Vizzavi, which belongs to the Vodafone group.

⁴⁸ Amending Regulation (EC) No. 717/2007 regarding roaming in public mobile telephony networks within the European Community and Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services.

THE RETAIL MARKET

		JULY 2009- JULY 2010	JULY 2009- JULY 2011	FROM JULY 2011
Voice call service (euros/minute)	Call made	0.43	0.39	0.35
	Call received	0.19	0.15	0.11
SMS messaging service (euros/message)	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 2009- JULY 2011	FROM JULY 2011
Voice call service originating in the national network (euros/minute)	0.26	0.22	0.18
SMS service originating in the national network (euros/message)	-	0.04	0.04
Data traffic through a national network (euros/Megabyte)	1.00	0.80	0.50

The EU Regulation on roaming for public mobile telephony networks within the European Community (no. 717/2007) made the National Regulation Authorities (NRAs) responsible for controlling and supervising proper application of these regulations and for reporting the results of this control biannually to the European Commission.

In order to standardise the information that the different NRAs request from their national operators, the European Regulators Group (ERG), formed by different European national Regulators together with the European Commission, established the minimum information that such Authorities should gather

from operators offering *roaming* services within their national territory. This information is used to prepare a monitoring report of the international *roaming* service, subsequently sent to the European Commission.

- Regulation of termination in mobile networks

In February 2009, the CMT set a new price path for national termination, which aimed at reaching a final price of 4 cents per minute for calls completed off-net in October 2011. The average annual reduction in the price of termination is 9%.

EUROS/MINUTE	OCT. 09-APR. 10	APR. 10-OCT. 10	OCT. 10-APR. 11	APR. 11-OCT. 11	OCT. 11-APR. 12
Movistar, Vodafone, Orange and complete MVNOs	0.061200	0.055074	0.049505	0.044500	0.040000
Yoigo	0.091182	0.078372	0.067361	0.057898	0.049764

Source: CMT

Given that the decreasing trend in maximum prices regulated by the CMT ends in April 2012, it is foreseeable that during 2011 the CMT will begin the

termination market analysis within the periodic review of the market analyses that it must carry out.

It can be expected that a significant additional reduction in termination prices will mean lower final prices for consumers.

- Voice and data services offers and business strategies

Throughout 2010, operators continued to increase the number of offers combining mobile voice and data services. There was a significant increase in demand for data rates contracted by consumers for use in mobile terminals, in addition to the voice rate already acquired. Many rates also appeared for *smartphones* combining voice and data services in the same commercial offer. Rates vary greatly, especially depending on the download limit the consumer desires. In general, offers include discounts on voice calls and a limit on downloaded data, after which the consumer pays a marginal price per Mb downloaded, or accepts a drastic reduction in connection bitrates.

- Number portability

In Spain, changing operators while retaining the same number is a relatively quick process at no cost to the consumer. Directive 2009/136/EC on Universal Service and Users' Rights, currently being included in Spain's legal framework, introduces an important new requirement for number portability on any type of network. This must be completed within 24 hours, which is significantly shorter than the average five days that the process currently takes. During 2011 the regulatory framework of Spanish telecommunications is expected to be adapted to the new Directives, and one of the changes to be implemented will be the aforementioned reduction in the duration of time for changing operators for users keeping their original number.

While portability is not itself a reason for consumers to change operators, it is useful to users when changing providers. Consequently, the decrease in the period allowed for making portability effective may facilitate the process of changing service providers, in as much as it mitigates potential drawbacks perceived by users. In a broader sense, this means that it reduces transaction costs.

- New capacity and distribution of the radio spectrum

As mentioned earlier, the most important new feature in the mobile communications market with regard to regulations and perspectives for development was the provision in a number of EU countries of a new frequency spectrum, aimed at boosting high speed network development and coverage.

In the last three years in Spain, the takeoff of connections and use of mobile broadband has been very clear. Nearly three of every ten broadband connections were supported by a 3G/UMTS network. This growing demand makes it necessary to improve the capacity of existing networks and to roll out new networks that support much higher traffic growth than that represented simply by the increase in the number of subscribers.

DISTRIBUTION OF CAPACITY IN THE SPECTRUM BY MOBILE OPERATOR (MHZ) AND BY FREQUENCY BAND TO DECEMBER 2010

BAND/OPERATOR	MOVISTAR	VODAFONE	ORANGE	YOIGO
900 MHz	2x 16	2x 12	2x 6	
1800 MHz	2x 24.8	2x 24.8	2x 24.8	
2.1 GHz- TDD	5	5	5	5
2.1 GHz	2x 15	2x 15	2x 15	2x 15

Source: CMT

The transition to Digital Terrestrial Television (DTTV) carried out in most EU countries (27) permitted the deregulation of a significant amount of spectrum, which was previously used by television stations for analogue broadcasting. The 790 - 862 MHz band (or 800 MHz band) thus became available for other uses as the migration to DTTV was completed. In Spain, the Ministry of Industry decided to allocate this spectrum, arising from the digital dividend, to the development of electronic communications networks and brought out a proposal for this band with a total capacity of 60 MHz for public consultation.

The Ministry of Industry's proposal included making the new 2.6 GHz band available to the market, harmonised at the European level in Decision 2008/477/EC. This band is aimed at the roll out of high speed mobile networks such as LTE. The total capacity in this band that will be available to the market is 190 MHz.

Additionally, as a result of the deregulation of spectrum use, the modified GSM Directive and Decision 2009/766/EC at the European level, the principle of neutrality in technology and services was introduced. One of the consequences of applying this principle is the possibility of using previously allocated bands—essentially the 900 MHz and 1800 MHz bands—not only for systems based on GSM technology, but also for other systems and standards that allow higher data transmission speeds, such as LTE and other compatible systems and standards. Once incorporated into Spanish law⁴⁹, this measure should be a driving factor in the roll out of mobile broadband access systems, especially in rural areas. To this end, it will be necessary to modify current operating licences for the use of spectrum in these bands, and to pay particular attention to aspects which may affect competition in mobile markets. As mentioned in the public consultation, the Ministry proposed a reorganisation of the previously allocated spectrum in the 900 MHz and 1800 MHz bands.

FREQUENCY BAND	SPECTRUM TO TENDER	SCOPE	TENDER YEAR	YEAR OF AVAILABILITY
800 MHz	6 of 2 x 5 MHz	Domestic	2011	Before the end of 2014
900 MHz	1 of 2 x 5 MHz	Domestic	2011	2011
	1 of 2 x 5 MHz	Domestic	2011	2015
	1 of 2 x 4.8 MHz	Domestic	2011	2015
1800 MHz	3 of 2 x 5 MHz ⁵⁰	Domestic	2011	2011
2.6 GHz	4 of 2 x 10 MHz	Domestic	2011	2011
	1 of 2 x 10 MHz	Regional	2011	2011
	3 of 2 x 5 MHz	Domestic	2011	2011
	1 of 2 x 5 MHz	Regional	2011	2011
	5 of 10 MHz	Domestic	2011	2011

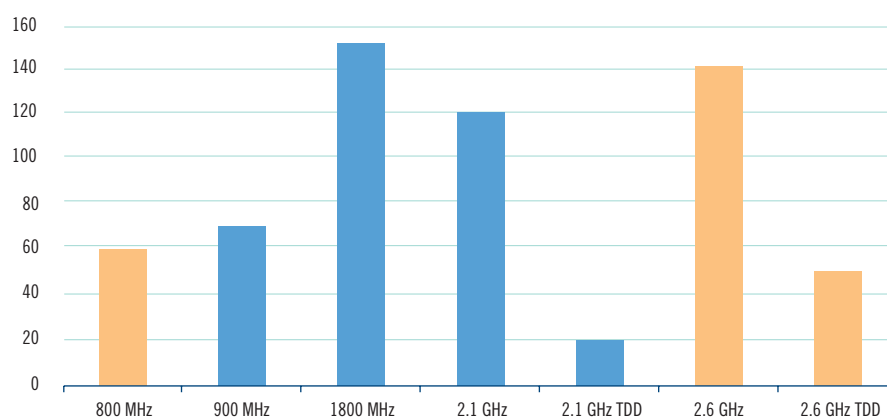
⁴⁹ Order ITC/332/2010 of February 12, which approves the National Table of Frequency Allocations (NTFA).

⁵⁰ The possible tendering of the 1800 MHz frequency bands will be linked to the request from the operators currently managing the spectrum, to be able use these frequency bands for technologies that were not initially assigned (*refarming*).

The government decided, therefore, to allocate the digital dividend (800 MHz bands), a new spectrum in the 2.6 GHz band, and at the same time partially reassign already assigned capacity in the 900 MHz and 1800 MHz bands, for the purpose of significantly enhancing the overall capacity of the frequency spectrum available to market players. In the medium term, the assignment

of these frequency bands should allow operators to have sufficient spectrum to support growing demand for broadband communications and to roll out 4G systems which are now a reality in some EU countries (27). This process is expected to be carried out in 2011 by the tendering of the different frequency bands⁵¹.

ASSIGNED (BLUE) OR PLANNED (ORANGE) CAPACITY IN DIFFERENT FREQUENCY BANDS (MHZ)



Source: CMT

In Europe, the adoption of a new regulatory framework will allow greater flexibility for operators in the use of the spectrum through a progressive implementation of the principles of technological neutrality of services. In the same vein, it also anticipates the approval of the transfer and assignment, between operators, of the right to use frequencies used by mobile systems.

The award, in the coming years, of new frequency bands for mobile telephony services is seen as one of the most important regulatory decisions for the market. The frequency spectrum is very limited public property, granted to a restricted number of operators, and this represents one of the major barriers for the entry of new operators into the mobile communications market. In short, the radio spectrum is considered an essential infrastructure when mobile services are offered and as such, both the granting of frequencies and the guarantee of accessibility for third party operators will be important for preserving the levels of competition recorded in the market.

⁵¹- Order ITC/888/2011 of April 11, which approves the list of administrative clauses and technical specifications for the tender process to award the three concessions for the exclusive use of public domain radio frequencies in the 1800 MHz band, referred to in paragraph 5 of Article 5 of Royal Decree 458/2011 of April 1, on actions related to the radio spectrum for the development of the digital society, convenes the corresponding tender process.

- Order ITC/889/2011 of April 11, which approves the list of administrative clauses and technical specifications for the tender process for awarding one concession for the exclusive use of public domain radio frequencies in the 900 MHz band, referred to in paragraph 7 of Article 4 of Royal Decree 458/2011 of April 1, on actions related to the radio spectrum for the development of the digital society, convenes the corresponding tender process.

- Order ITC/1074/2011 of April 28, which approves the list of administrative clauses and technical specifications for the award by tender process of the concessions for the exclusive use of public domain radio frequencies in the 800 MHz, 900MHz, and 2.6 GHz bands, referred to in paragraph 8 of Article 4 and Articles 6 and 7 of Royal Decree 458/2011 of April 1, on actions related to the radio spectrum for the development of the digital society, convenes the corresponding tender process.

3.3. Broadband services

In 2010, broadband access services had positive growth with regard to revenue and number of lines. Thus, the billing volume of retail services reached 3,989,000,000 Euros, an increase of 0.9% compared to financial year 2009; the decline in revenue in the business segment led to modest overall growth in the segment. On the contrary, the revenues for wholesale broadband services showed a significant growth of more than 30%, with a billing volume of 455 million euros.

In the past year, the upward trend in contracting broadband access in both the residential and business segments was maintained. Thus, broadband access from fixed networks showed an increase of 8.6%; in mobile networks, the increase in *datacards* exceeded 71%.

For another year, alternative xDSL operators were noted for their high levels of recruitment. Thus, they managed to increase their strength in the market in both lines and revenues at the expense of Telefónica, which experienced a significant decline in its market share. Unbundled loop service represented the main method of access of the alternative operators. On the other hand, the upward trend in requests for indirect access, which began in late 2009, strengthened. This resulted from the availability of new methods of access that allowed the contracting of broadband service without the need for the end user to contract phone service with Telefónica.

Regarding the roll out of new generation access networks, the increase in broadband connections based on fibre optics continued. This access can offer end users higher Internet access speeds and other advanced services. At the end of the year, active broadband access points based on fibre optic to the home (FTTH) connections did not surpass 60,000 connections, but installed fibre optic connections amounted to 524,370.

The most notable development in the year regarding new generation access networks was the migration, carried out by the cable operators, in the HFC access technologies based on DOCSIS 1.0 and DOCSIS 2.0 to 3.0, which allows higher connection speeds. Thus

the number of active broadband access points in HFC networks which depend on nodes with DOCSIS 3.0 availability stood at 1,517,469 access points.

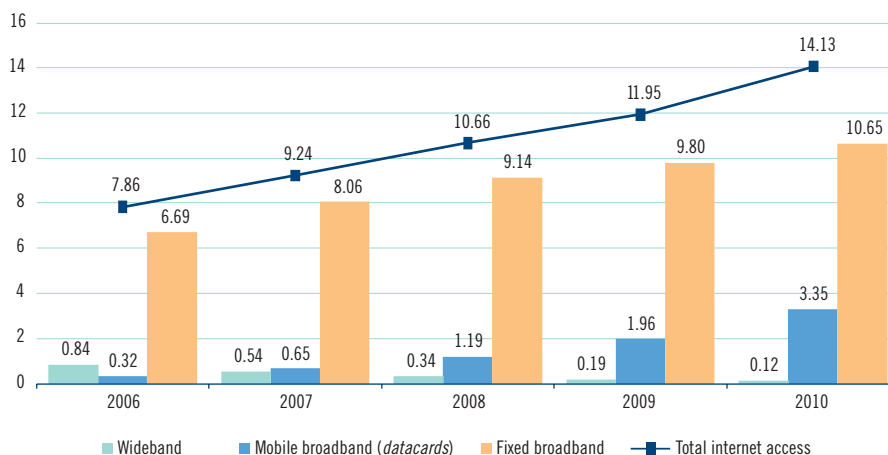
Regarding commercial broadband offers, there was an increase in offers with faster connections with prices lower than previous financial years in some cases. In addition, there was important activity in the launch of discounts in monthly commercial offers through promotions.

3.3.1. Retail services

The broadband connections over mobile and fixed networks continued to record significant increases in number of accesses during the financial year. Thus, the total number of broadband access points for fixed networks increased by 8.6% last year compared with growth of 7.3% in financial year 2009, and totalled 10.6 million access points. On the other hand, broadband access points for mobile networks exceeded 3.35 million *datacards*. Lastly, narrow band Internet access service continued the trend of recent years with falling revenues and access points. The latter did not pass 125,000 by the end of the year, a figure that is 34.1% lower than in 2009.

The following graph shows the evolution of broadband and narrowband connection access points. The rise of mobile broadband access points (*datacards*) stands out, with a year-on-year increase of over 71%. Also, access points through fixed networks (xDSL, cable and fibre networks) continued to have the largest volume. Last year 846,942 new access points were incorporated into the market, more than in 2009.

EVOLUTION OF INTERNET ACCESS LINES (millions)



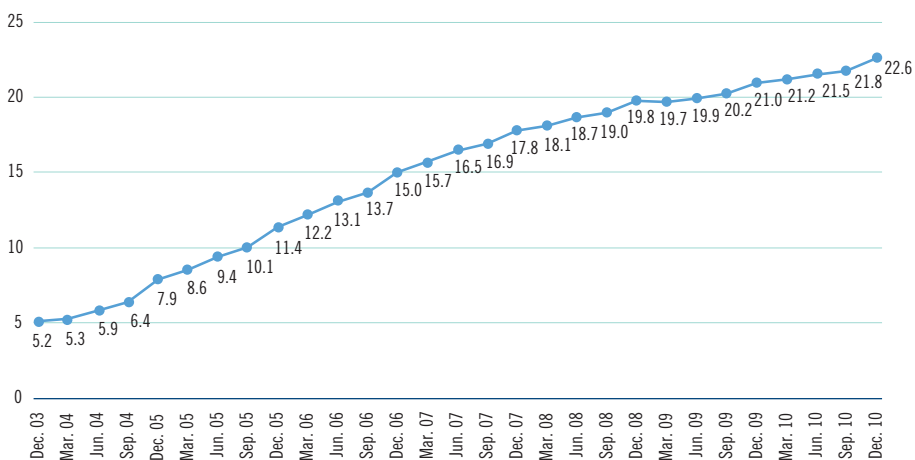
Source: CMT

a) Penetration

The penetration⁵² of broadband access points via fixed networks in Spain stood at 22.6 lines per

100 inhabitants. This figure represents an increase over the last year of 1.6 lines per 100 inhabitants, higher than in 2009.

BROADBAND PENETRATION (lines/100 inhabitants)



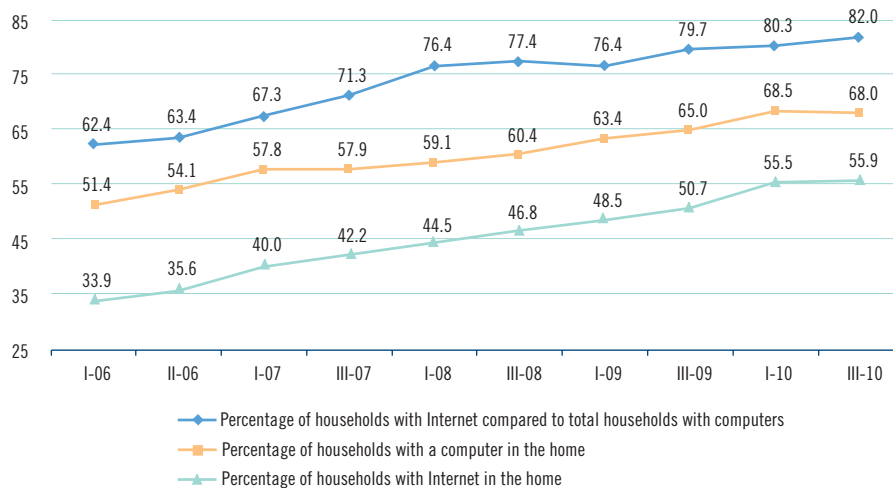
Source: CMT

⁵² Calculated from the total number of broadband lines and population data in 2010: 47,021,031 inhabitants (source INE).

In 2010, according to data from the CMT-Red.es Household Panel, the percentage of households that purchased Internet services in Spain was 55.9%. This data resulted from a survey using a representative sample of 3,000 households. The same source indicates

that 82% of households with computers contracted an Internet service. The following graph shows the change in Internet penetration in households in the last five years according to the CMT-Red.es Household Panel.

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



Source: CMT

The development of communications network infrastructure and, in particular, of broadband networks, exhibited a strong geographic diversity. As will be analysed, the penetration of broadband services, the market share of the different operators in the market, and the final consumer access method exhibited significant differences in the different areas of Spain.

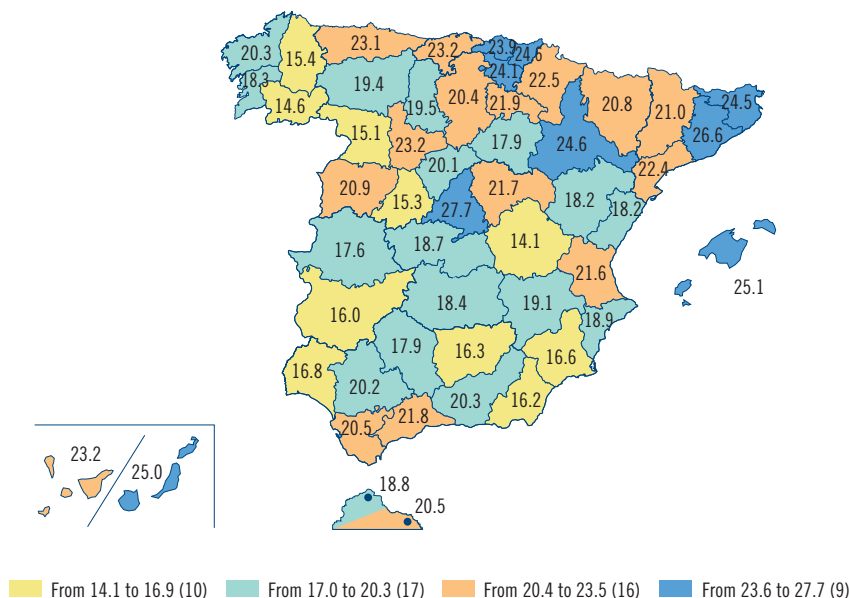
Thus, if the province is taken as a reference unit, it appears that the penetration of broadband connections (xDSL and cable) varies greatly among the various Spanish provinces. A total of 15 provinces ended the financial year with a penetration higher than the national average, which stood at 22.3⁵³ lines per

100 inhabitants. In 2009, the same provinces were above the national average. The provinces of Madrid and Barcelona had the highest penetration figure.

Among the provinces which were above the average penetration, Las Palmas, Balearics and Guipúzcoa were those that showed a major increase in lines per 100 inhabitants in the last year, with a figure equal to or greater than 1.9 lines per 100 inhabitants. Lastly, the provinces of Orense and Cuenca had the lowest levels of penetration. Within these provincial demarcations, penetration was less than 15 broadband lines per 100 inhabitants.

⁵³ Penetration considering xDSL and cable modem lines.

BROADBAND PENETRATION BY PROVINCE⁵⁴ (lines/100 inhabitants)



Source: CMT

Increases in penetration were moderate in most provinces and in some cases, there were declines. In 2010, the increase in broadband lines⁵⁵ at the national level was 1.6 lines per 100 inhabitants.

The following map shows the distribution, by province, of increased penetration in the last year. A total of 33 provinces showed growth at or above the national average. The provinces of Palencia, Melilla, Ciudad Real, Cáceres, Teruel, Segovia and Albacete demonstrated the highest

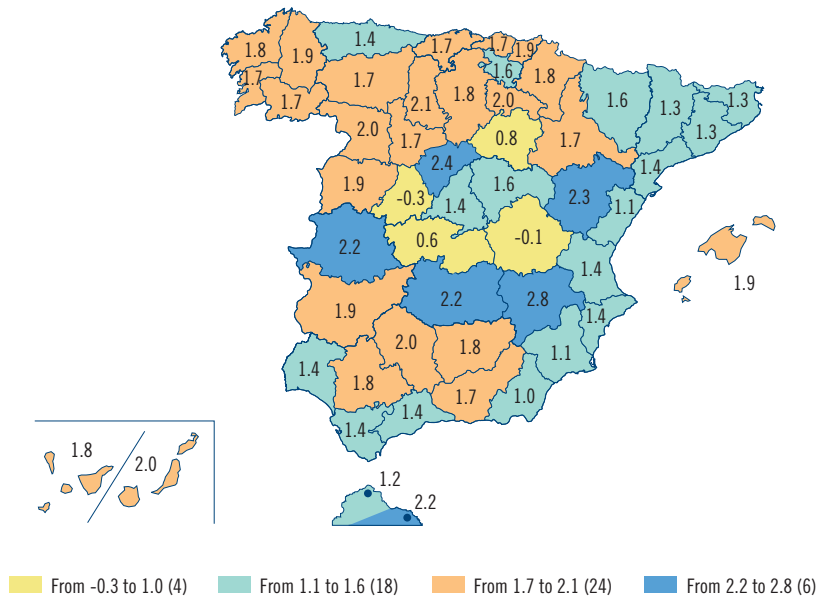
growth in penetration, at more than two broadband lines per 100 inhabitants.

The provinces with the smallest increases in broadband penetration were Soria and Toledo, which increased by less than 0.8 lines per 100 inhabitants. Lastly, in the provinces of Cuenca and Avila there was a decline.

⁵⁴ The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

⁵⁵ xDSL and cable modem broadband lines were taken into account.

INCREASE IN BROADBAND PENETRATION BY PROVINCE⁵⁶ (lines/100 inhabitants)



Source: CMT

Penetration analysis broken down by municipalities, and with data from June 2010, shows a clear decreasing penetration trend as the number of inhabitants of the municipality decreases. Thus, Madrid and Barcelona had the highest penetration rates.

Municipalities with a population greater than 50,000 showed, on average, a penetration equal to or greater than 22.2 lines per 100 inhabitants. This penetration was higher than nationwide penetration in June 2010

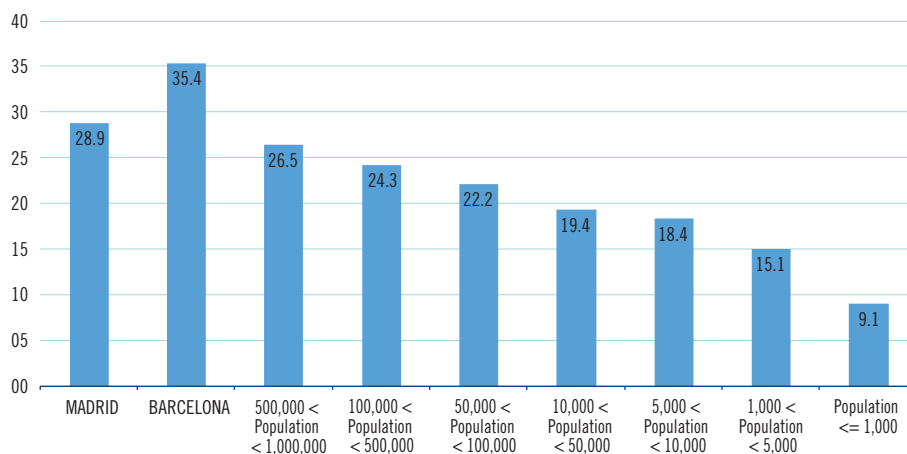
(21.5 lines per 100 inhabitants) and close to or higher than December 2010 (22.3)⁵⁷. On the contrary, municipalities smaller than 50,000 inhabitants did not surpass 18 lines per 100 inhabitants.

The following graph shows penetration by type of access point and size of municipality:

⁵⁶ The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

⁵⁷ Penetration taking into account xDSL and cable modem broadband lines.

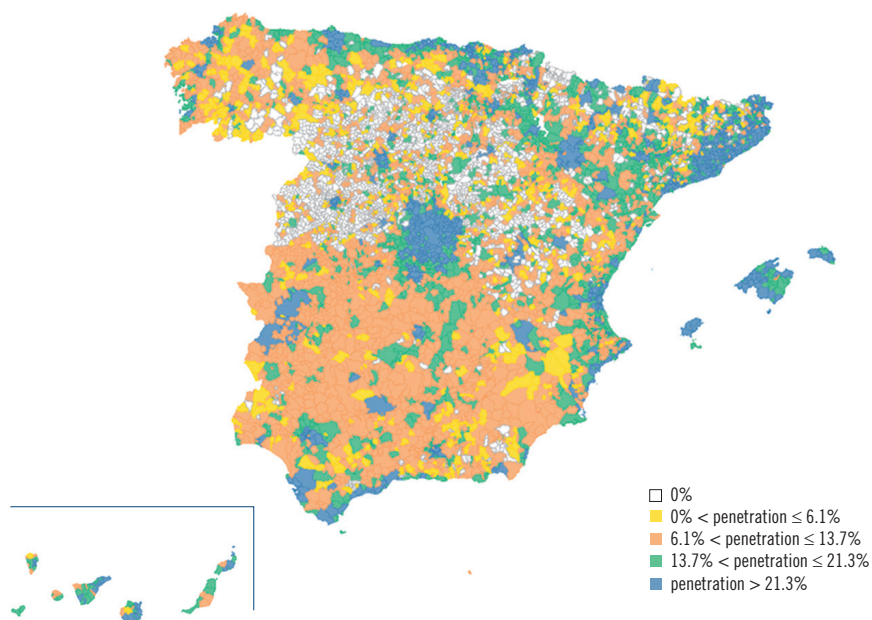
BROADBAND PENETRATION BY TYPE OF MUNICIPALITY, JUNE 2010⁵⁸ (lines/100 inhabitants)



Source: CMT

The following map shows the distribution of the penetration of broadband access points by municipality:

BROADBAND PENETRATION BY MUNICIPALITY⁵⁹ (lines/100 inhabitants)



Source: CMT

⁵⁸ The June 2010 data corresponds to the geographical requirement undertaken by CMT.

⁵⁹ The intervals are set from the average ± standard deviation.

b) Lines and 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.
- Wireless network technologies: LMDS, WiMAX (large distance coverage) and Wi-Fi (limited coverage area). Third generation mobile services (3G) also stand out in this group.
- Networks supported by satellite systems such as VSAT.

In 2010, xDSL and HFC networks continued as the dominant access technologies, and together they accounted for more than 98% of contracted lines. Other technologies had little representation in the overall market, with a total of 173,421 lines.

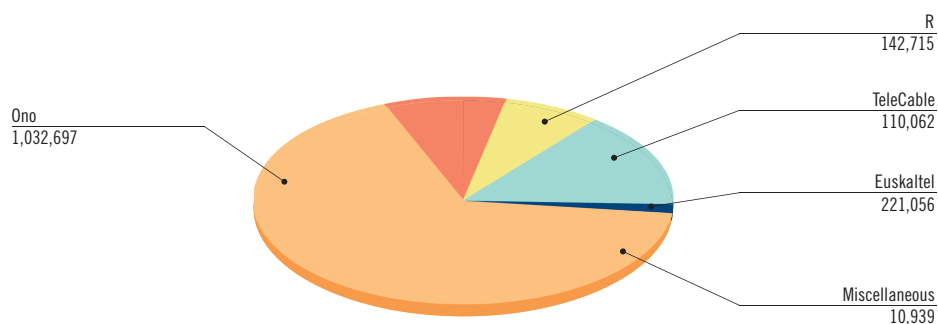
Regarding the roll out of New Generation Access Networks (NGA), the important advances made by cable operators to upgrade to DOCSIS 3.0 HFC

networks should be noted. This migration allows them to offer subscribers broadband access points at higher speeds, for example, above 30 Mbps, thus making more services requiring more bandwidth for optimal functioning and a higher quality of service available to consumers.

At the end of the year, the figure for active broadband access points belonging to a node with DOCSIS 3.0 availability reached 1,517,469 access points. It is noteworthy that the active speeds in these access points depends on the speeds of the offer contracted by the consumers and that most of these access points still have connection bitrates below 30 Mbps.

In the breakdown of these access points by operator, Ono had the highest number of accesses, followed by Euskaltel, R and TeleCable.

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



Source: CMT

Regarding the implementation of fibre optic access networks, it should be emphasised that their penetration in Spain is still low. Fibre optic access networks (generically called FTTx), depending on the scope of the optical fibre, differ in: networks with fibre optic to

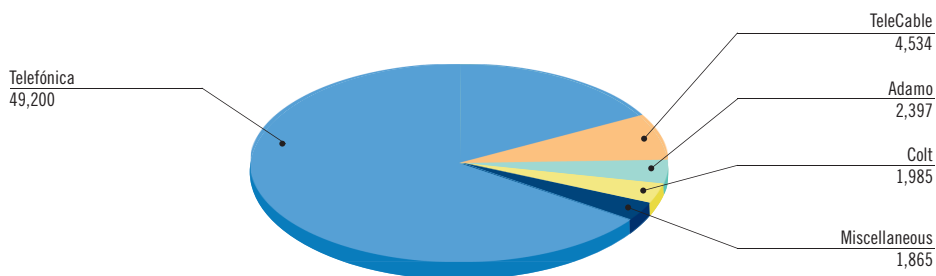
the home (FTTH), networks with fibre to the building (FTTB), networks with fibre to the node (FTTN). Connections through these access technologies, just as HFC networks with DOCSIS 3.0, can offer the user higher bitrates, newer services and higher quality

service than the current access networks based on copper pair.

The number of active broadband accesses via FTTH amounted to 59,981 lines, which represented a gain of 41,312 lines in the past year.

Regarding the breakdown of FTTH access points by operator, Telefónica reached a market share of 82%. The remaining lines are distributed primarily among TeleCable, Adamo and Colt.

DISTRIBUTION OF FTTH BROADBAND LINES BY OPERATOR (lines)

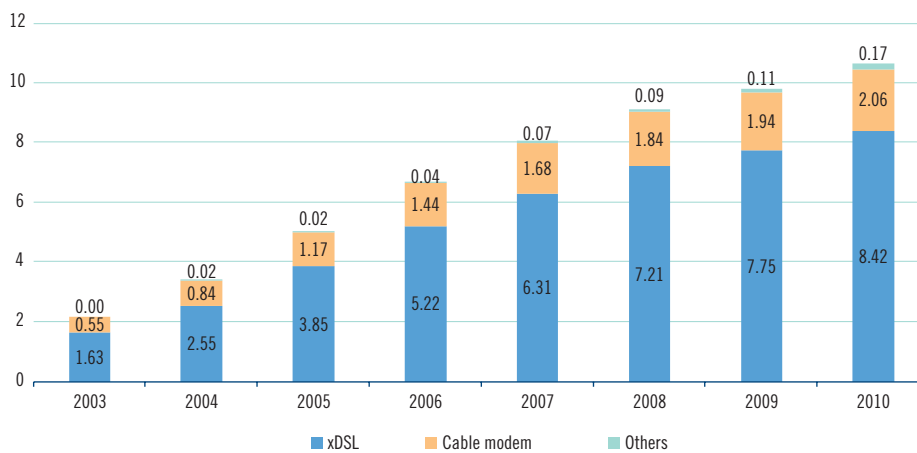


Source: CMT

The 2010 financial year closed with a total of 8,416,581 xDSL lines, which represented an increase of 8.6% with respect to 2009. Meanwhile, there were 2,056,426 ca-

ble based broadband lines at the end of the year, representing an annual growth of 6.1%, which is below the market average.

EVOLUTION OF BROADBAND BY TECHNOLOGY (millions of lines)



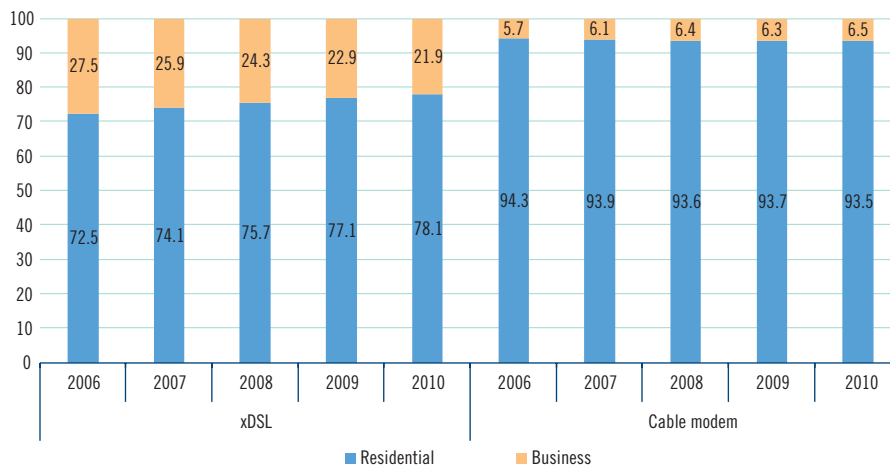
Source: CMT

The distribution of access points by segment (residential and business) did not change significantly in the last year. Thus, the decline of xDSL lines in the business segment continued, although it was less significant than the decline in 2009. As such, xDSL lines in this segment increased by 66,862 connections, compared to the increase of 22,619 lines in the 2009 financial year. As for the residential segment, xDSL lines

rose to a percentage of 78.1%. On the other hand, the distribution of cable access points by segment remained virtually stable.

At the end of the year, the residential segment had a total of 8.6 million lines, while the business segment closed the financial year with two million lines.

EVOLUTION OF BROADBAND LINES BY SEGMENT (percentage)



Source: CMT

The evolution of broadband lines according to the contracted connection speeds showed, as in previous years, an increase in the lines with faster connections. This was aided by improvements in access networks, such as the migration to DOCSIS 3.0 in HFC networks and the approach of fibre to homes through FTTH and FTTN networks, as well as the investment of operators in improving the capacity of their backbone networks that enable them to handle a greater volume of traffic.

The financial year was characterised by a significant increase of lines in the range of 10 Mbps to 20 Mbps and a decline in bitrates of 3 Mbps or less. The momentum of the commercial offers of alternative xDSL operators

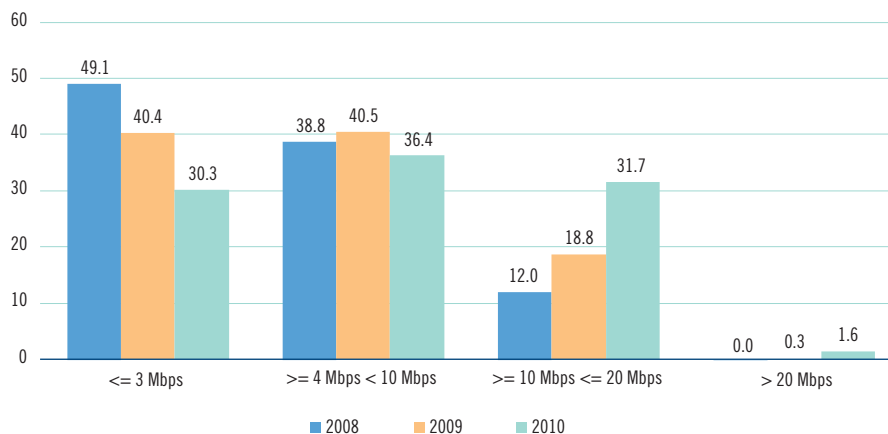
with offers of 20 Mbps should be noted, as well as offers from Telefónica and cable operators at bitrates of 10 Mbps or more.

As shown in the graph below, nearly 70% of contracted broadband lines had connection speeds of 4 Mbps or higher. This figure represents an increase of ten percentage points over 2009. The number of lines with connection speeds of 3 Mbps or less fell by 18.5% in 2010. In contrast, lines in the range of 10 to 20 Mbps exceeded 3.37 million, an increase of 83.5% in the last year.

Lastly, it should be noted that lines with bitrates over 20 Mbps closed the financial year with a total of

171,610 lines, compared to slightly more than 4,300 that existed in 2008.

EVOLUTION OF BROADBAND LINES BY CONTRACTED SPEED (percentage)



Source: CMT

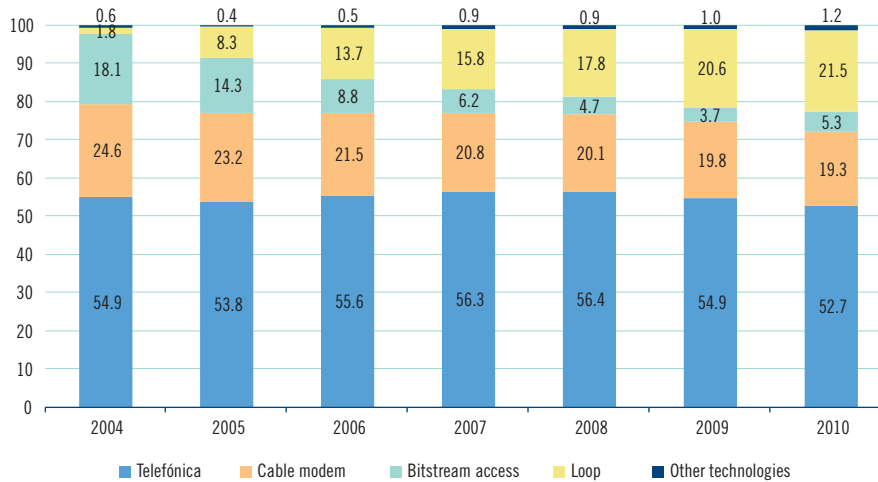
In the last year, alternative xDSL operators advanced in the presence of new Telefónica local exchanges through co-location service, and conducted intensive customer recruitment in local exchanges where they were already present. This resulted in a significant increase in broadband lines through local loop unbundling as a method of end user access, and for the first time since 2005, an there was an increase in the number of indirect access lines, with an increase of 55.8% over 2009. In 2010, this method accounted for 5.3% of all lines. Thus, the appearance of the indirect access method without the necessity of having a telephone service contract with Telefónica allowed operators to market new offerings. Also, the significant reduction in regulated prices approved by the CMT in September 2009, the application of favourable conditions for AMLT in pairs with indirect access connections, and the introduction of the provincial level of the ADSL-IP service, reversed the downward trend in indirect access services.

In relation to unbundled loop broadband access points, a growth rate of 13.4% over the previous year was recorded, and this accounted for 21.5% of the total of broadband lines.

Moreover, 19.3% of the lines in the market the were provided by a cable operator. Despite the 6.1% year-on-year increase in cable lines, at the end of the year these operators had lost half a percentage point in terms of market share.

Telefónica continued the trend of reducing its share of the overall market. While the number of lines grew by 4.4% last year, its share dropped by more than two percentage points to 52.7%.

EVOLUTION OF LINES BY METHOD OF ACCESS (percentage)



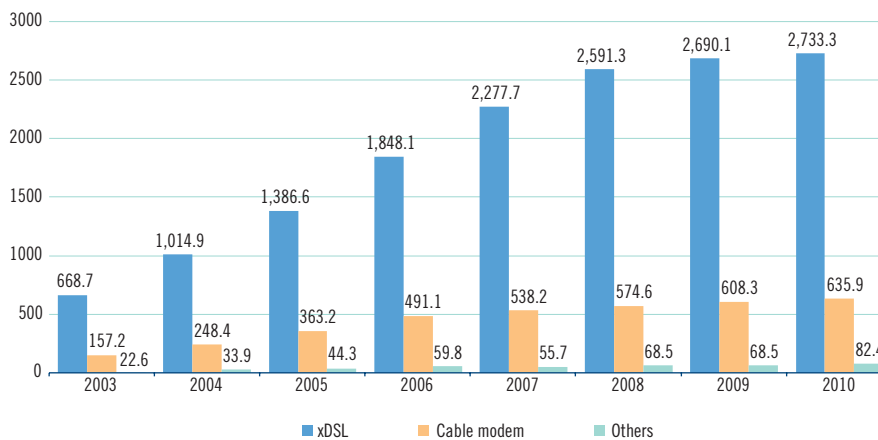
Source: CMT

c) Revenues

The change in the growth trend of broadband lines observed in the last financial year, with a growth rate higher than in 2009, was not reflected in billing. Thus, in 2010, revenue generated by the total of broadband lines rose to 3,451,600,000 Euros, representing an increase of 2.5% in the last year and 1.5 percentage points lower than recorded in 2009.

By technology, revenue from xDSL broadband lines reached 2,733,300,000 Euros, 1.6% higher than the 2009 figure. For cable lines, revenues reached 635.9 million, with an annual growth of 4.5% (less than the 5.9% recorded in 2009).

EVOLUTION OF REVENUES FROM BROADBAND BY TECHNOLOGY (millions euros)

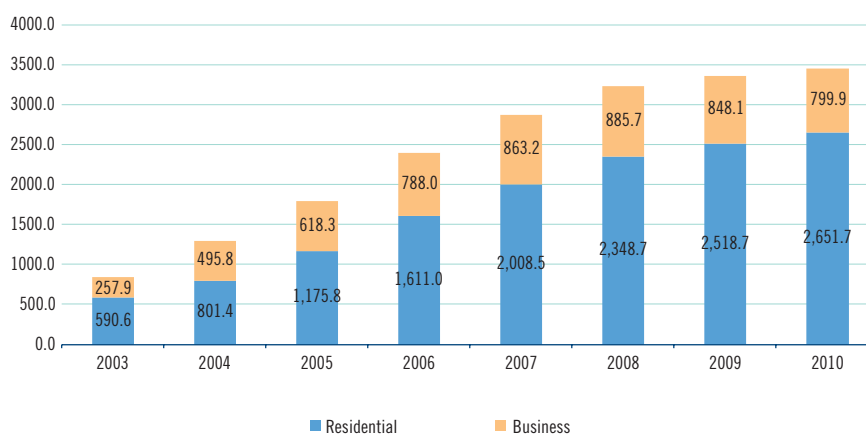


Source: CMT

In the breakdown of revenues by segment, it can be seen that revenues from the business segment continued to decline even though the number of lines increased. Thus, in absolute terms, business segment revenues totalled 799.9 million euros, with a decrease of 5.7%. Revenues in the residential segment totalled 2,651,700,000 Euros, which represents a 5.3% increase in the last year.

In conclusion, the above figures, characterised by a marked decline in revenues from broadband lines in the business segment, show that overall revenue growth of broadband lines was driven, for another financial year, by dynamism in the residential segment.

EVOLUTION OF REVENUES FROM BROADBAND BY SEGMENT (millions euros)



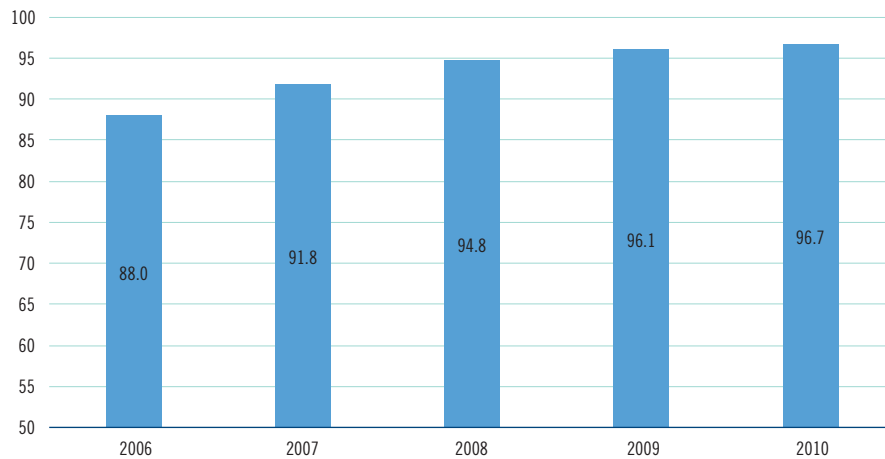
Source: CMT

d) Bundling

At the end of the year, all broadband lines in the residential segment which were contracted along with another service amounted to 8,363,517 lines, representing 96.7% of total lines. In the business segment, the percentage of bundling was 67.7%, with 1.36 million lines.

These figures reflect the trend towards joint contracting of services by consumers, as well as an increase in bundled service offers with which operators are accessing the market. The majority of these offers market broadband service together with fixed telephony service and/or television.

BUNDLED RESIDENTIAL BROADBAND LINES (percentage)

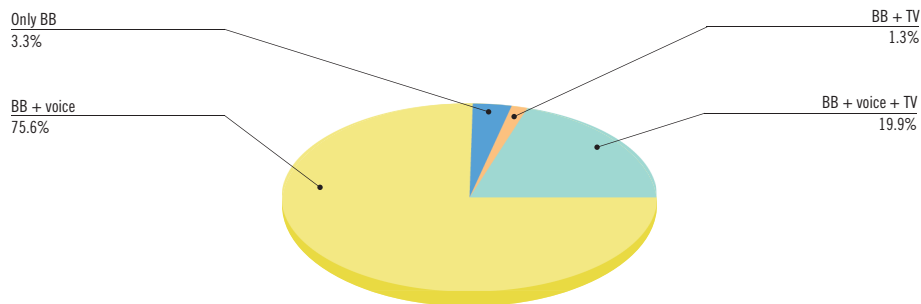


Source: CMT

The breakdown of bundled residential broadband lines by type of bundle shows that broadband service offered in conjunction with the fixed telephony service reached a percentage of 75.6% of the lines up to the end of the year, slightly higher than the previous financial year. Meanwhile, broadband packages with television service

experienced a slight decline. Lastly, the *triple play* bundles, which include broadband, voice and television services, reached 19.9% of the lines, one percentage point higher compared to 2009.

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 cable 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 the cable

operators' bundled contracts.

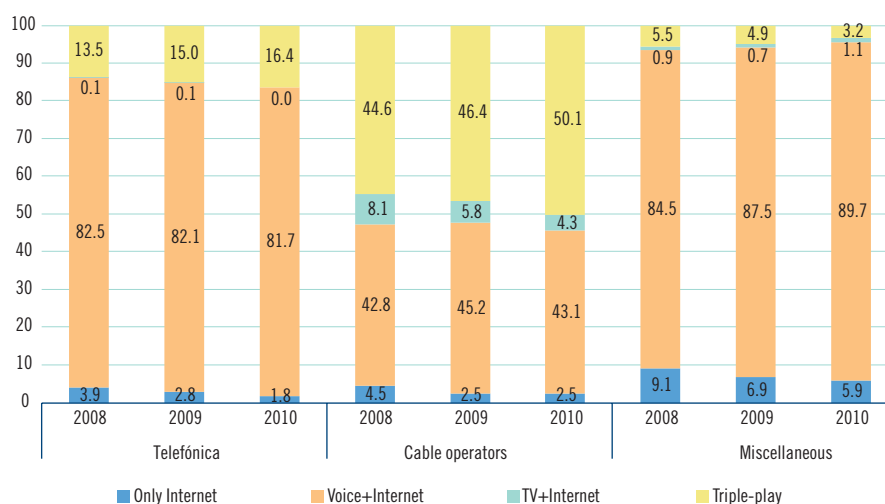
Thus, it is noteworthy that, despite the progress in the convergence of services and the upward trend of contracting bundled services, the percentage of bundles with television service from alternative xDSL operators experienced reduced levels compared to

fixed telephony and broadband bundles. This was due in part to the limited supply of products bundled with television service by these operators, due to the existence of limitations in access networks based on copper pair. Therefore, the gradual migration from the current access network to networks based on fibre optics will presumably lead to a shift in the types of offers and contracting methods of the combined services of these operators, in which audiovisual services will demonstrate greater prominence.

The percentage of double bundles with voice and broadband from Telefónica accounted for 81.7% of total residential lines, lower than the figure from 2009. *Triple play* bundles increased 1.4 percentage points over 2009, reaching 16.4% of lines. In absolute terms, the figure for these bundles was 662,695 lines. Meanwhile, alternative xDSL operators increased the proportion of bundled broadband and voice lines by 2.2 percentage points, and closed the financial year with 2.4 million double bundles.

With regard to cable operators⁶⁰, television service continued as the leader in the bundle offers offered to users. This was also reflected in the levels of bundle offer. Thus, bundles including pay television accounted for 54.4% of total lines contracted and, in absolute terms, the figure rose to more than one million bundles. Lastly, the percentage of broadband and fixed telephony packages decreased by two percentage points to stand at 43.1% of the lines.

RESIDENTIAL BROADBAND LINES BY BUNDLE TYPE AND OPERATOR (percentage)



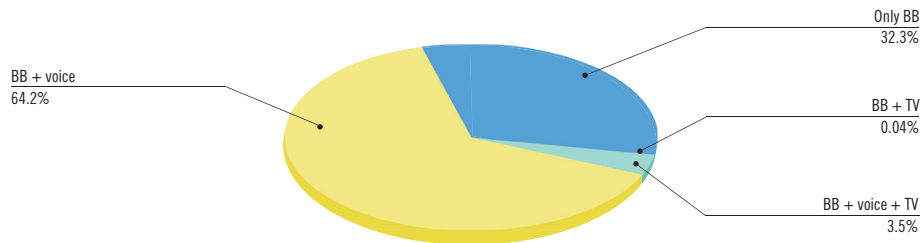
Source: CMT

In the breakdown of broadband lines by bundle type in the business segment, bundles with broadband and fixed telephony prevailed, as in the residential segment; and the strength of unbundled broadband offers stood out, as in previous financial years. These offers made up 32.3% of the total and in absolute terms, exceeded 645,000 lines. In this segment, the percentage of

broadband packages with television service barely exceeded 3.5%.

⁶⁰ The data for triple bundles and only broadband for cable operators has been modified up to 2009.

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



Source: CMT

e) Line speed

In 2010, lines with a 4 Mbps connection speed or higher reached 70%, ten percentage points higher than in financial year 2009. In absolute terms, this percentage represents a total of 7.42 million lines.

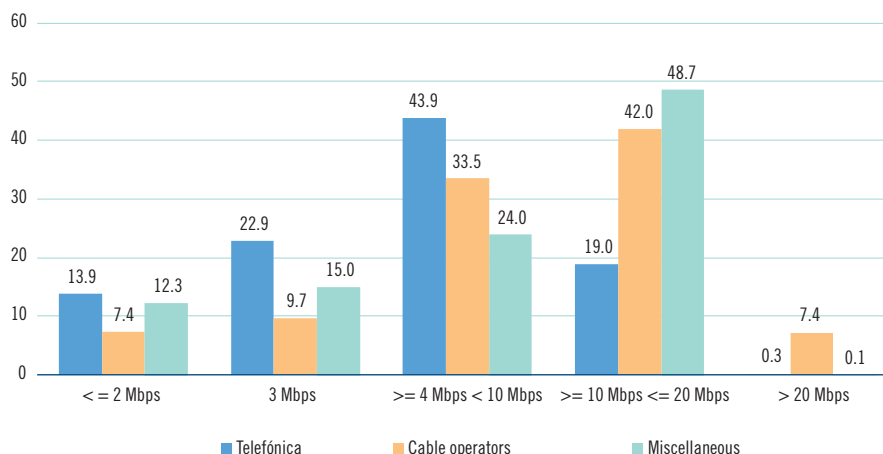
The breakdown of bitrates by type of operator shows that 63% of lines contracted with Telefónica exceeded 4 Mbps. In this case, the strength of 6 Mbps offers after Telefónica's migration in 2008 from a 3 Mbps speed should be noted, as well as the dynamism in broadband contracting with a nominal speed of 10 Mbps which had more than one million active lines at the end of the financial year.

The percentage of cable operator lines with a connection speed of 4 Mbps or higher was 83%. For those operators, the highest percentage of lines was in the 10 Mbps to 20 Mbps range, a range that brought together 42% of its lines compared to 19.6% the

previous financial year. In contrast, lines with bitrates of 3 Mbps and below fell 19 percentage points to 17.1%. Lastly, the increase in broadband lines with bitrates up to 20 Mbps representing 7.4% stood out; Ono provided most of these lines.

For alternative xDSL operators, the upward trend in the percentage of higher speed lines continued. Thus, the contracted lines with a connection speed of 4 Mbps or more reached a percentage of 73% compared to 66% in 2009. Nearly half of these operators' lines are concentrated in the range of 10 Mbps to 20 Mbps in speed; of these, one million corresponded to contracted lines with a speed of 20 Mbps.

BROADBAND LINES BY CONTRACTED SPEED AND TYPE OF OPERATOR (percentage)



Source: CMT

f) Price trends and commercial offers

Prices for broadband service are quite varied and respond to a number of influencing factors. This, together with the high level of bundles in the Spanish market, makes its measurement and comparison over time, or between operators, complex.

In 2010, operators maintained the business strategy of offering more attractive conditions in the price of bundled products in comparison with unit prices for each of the services contracted individually. As seen in previous sections, voice and broadband packages accounted for 75.6% of residential broadband lines. For this reason, the comparisons discussed below focus on this type of bundling. As further explanation, it is noted that the comparative analysis of offers that include television service is highly complex due to the diversity of differentiating factors of the product characteristics, such as number and type of channels, or the amount of *premium* content, for example.

Various measurements of broadband prices in Spain and their recent performance are provided in this section. The last year was characterised by an increase in higher speed broadband offers, a greater intensity of discounts through promotions on the price offered, 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

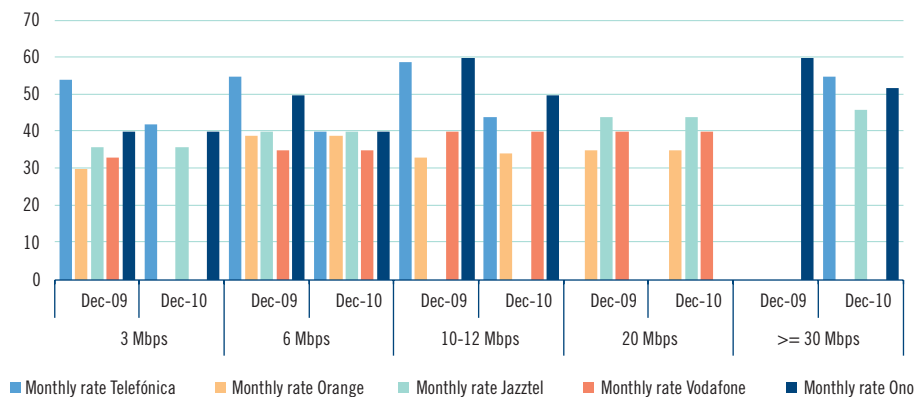
method of access, most of the offers were based on direct access (own network or unbundled loop) and had prices similar to indirect access prices.

The following graph shows the nominal prices in 2009 and 2010 of the least expensive bundle offers⁶¹ of broadband and voice services from the main operators according to the speed contracted. Two distinct trends can be observed: first, the prices offered by alternative xDSL operators were unchanged from the previous year, and second, there was a significant reduction in the prices of offers from Telefónica and Ono.

The movement of Telefónica's price adjustment with the launch of lower-priced offers approaching the prices of alternative operators should be noted. Similarly, Ono's commercial offers with connection speeds equal to or greater than 6 Mbps exhibited price reductions of up to 20%. Lastly, the appearance in the last year of offers with bitrates of 30 Mbps or more stand out, such as those from Telefónica and Jazztel.

⁶¹ The prices included represent a selection of offers from the residential segment reported semi-annually to the CMT by the main operators. The prices include the monthly fee for the line and do not include promotions or VAT. The offers include unlimited Internet usage, and the voice service includes 24 hour domestic calls.

COMPARISON OF THE BEST BROADBAND + VOICE OFFERS BY SPEED FOR EACH OPERATOR, WITHOUT PROMOTIONS (monthly payment in euros)



Source: CMT

The following graph shows a comparison of price differentials between bundled broadband and voice offers, considering nominal and effective prices⁶² for 27 months, that is, what a customer pays monthly for broadband and voice services when they stay with their operator for 27 months, for commercial offers⁶³ with connection speeds of 6 Mbps, 10 Mbps, 20 Mbps, 30 Mbps and 50 Mbps.

It should be noted that the prices shown in the graph correspond to direct access or limited geographical range offers, i.e., those offers that alternative operators (in this case Orange, Vodafone and Jazztel) make to the end user through local loop unbundling, or through their own networks in the case of Telefónica and Ono.

With regard to the lower priced offers of Telefónica, their prices were slightly above both the promotional prices and the nominal prices of alternative operators' offers, and at levels similar to those of the cable operator Ono.

For alternative operators, discounts stood at between 3.2% and 22.2%, in the case of the double bundle offer of 20 Mbps broadband and voice from Vodafone.

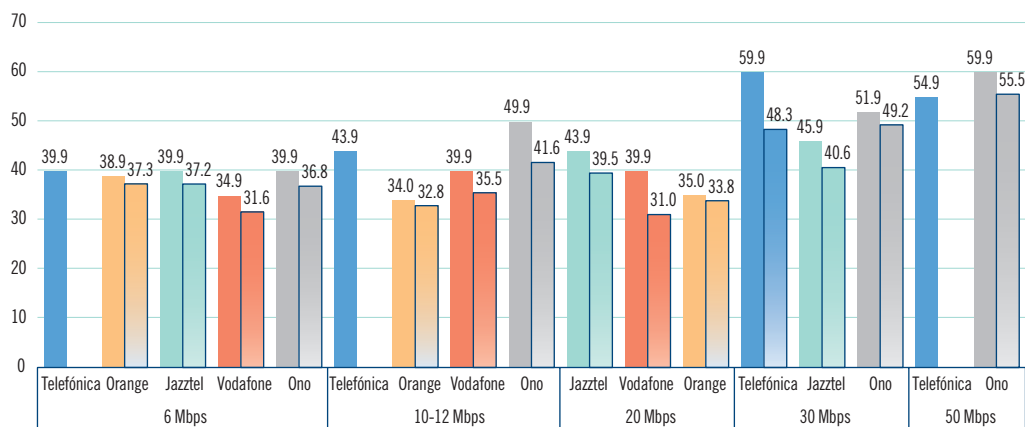
⁶² The following formula was used to calculate the cash discount price (PPD_M):

$PPD_M = (PD \cdot D + PN \cdot (M - D)) / M$. Where PD = price with discount, D = duration of the discount, PN = nominal price (without discount) and M = timeframe. In this case, M = 27 months was used.

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

⁶³ The prices quoted in the offers include the monthly line rental payment, as in the previous graph. The offers included in the comparison represent active offers in December 2010.

COMPARISON OF THE BEST BROADBAND + VOICE OFFERS AND PROMOTIONS BY SPEED FOR EACH OPERATOR (monthly payment in euros)



Source: CMT

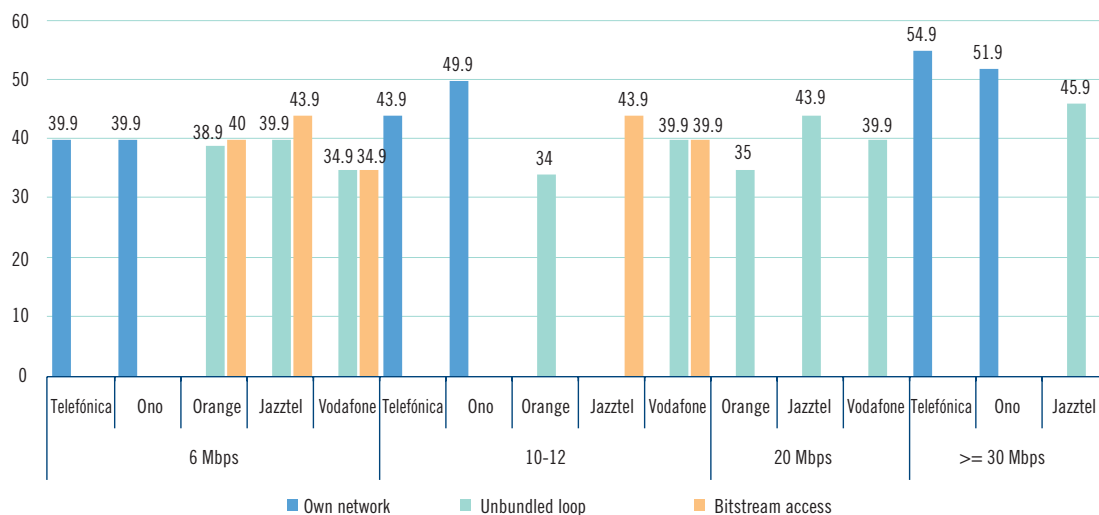
The comparative analysis of nominal prices of bundle offers⁶⁴ of broadband and voice, in function of the type of access, that is, taking into account whether they are based on direct or indirect access, shows that the operators that entered the market through local loop unbundling offered lower prices than those of the incumbent operator. However, this price differential decreased in 2010, and in some cases, the operators' price coincided. For example, the prices of Telefónica, Jazztel and Ono were equal for offers with a speed of 6 Mbps.

On the other hand, prices of offers based on local loop unbundling were at or below the indirect access offer prices; in any case, the price differential decreased with respect to previous financial years, although those offers based on indirect access were limited to connection speeds of up to 10 Mbps.

⁶⁴ Active offers in December 2010. The prices indicated in the offers do not include promotions or discounts. The prices include the monthly payment for line rental.

The offers for bitrates of 10 Mbps and 20 Mbps from Orange (sold by Ya.com) are offered through a shared loop without STB. Orange's 6 Mbps offer with a price of 38.9 Euros is offered through shared unbundled loop, and therefore includes the access payment to Telefónica.

COMPARISON OF DIRECT ACCESS BROADBAND + VOICE VS. INDIRECT ACCESS (monthly payment in euros)



Source: CMT

An alternative source of information on the prices for broadband services in Spain are the expenditures reported on the invoices of the CMT-Red.es Household Panel. The invoices have information about the recurring payment for the bundle contracted by the household and about the discounts associated with it. Furthermore, they provide both information about households that have recently contracted offers and about households that contracted in the past and have been paying the same price for a long time. Data for the fourth quarter of 2010 (1332 households with 3956 invoices) result in an average expenditure estimate for the voice and broadband package of 40.2 euros/month, also considering any payment for access services. For triple bundles, i.e., including television service, the average expenditure per household for the bundle and access reached 55.1 euros/month.

When the same source is used, the expenditures can be identified from the invoices of different operators. The average expenditure⁶⁵ per household in the broadband and voice double bundle contracted with Telefónica was 44.5 euros/month, including the access price. In the case of cable operators, the average expenditure per household for a double bundle and access reached 40.2 euros/month. The average expenditure

of a household with the double service bundle with an alternative operator was 34.8 euros/month for indirect access, 13.97 of which is the access service price charged by Telefónica. Lastly, 31.3 euros/month is the household expenditure when it contracts all services with an alternative direct access operator.

g) Switching operator

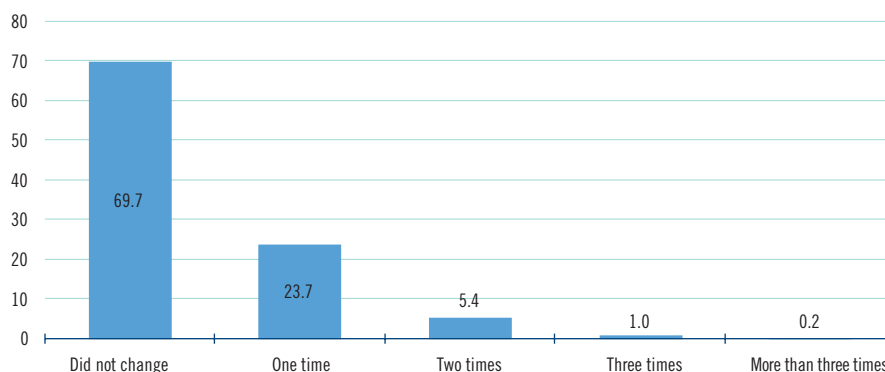
In line with what is presented in the section of the same name in the fixed telephony chapter, the following graph shows information on the number of changes in Internet access operators between 2007 and 2010 of the households from the CMT-Red.es Household Panel that had a connection to this service in early 2010. The sample size is 1,470 households.

⁶⁵ The average expenditure indicated includes the cost of line rental and discounts or promotions on the monthly payment.

For Internet access service, the percentage of households that had ever changed operators was 30.3%, which slightly exceeds the same percentage for fixed telephony services: 27.3%. Additionally, the

percentage of households that changed operators more than once is also slightly higher for Internet access service: 6.5% compared to 4.3% for fixed telephony.

HOUSHOLDS ACCORDING TO THE NUMBER OF CHANGES OF INTERNET ACCESS OPERATORS, and the second line reads BETWEEN 2007 AND 2010 (percentage)

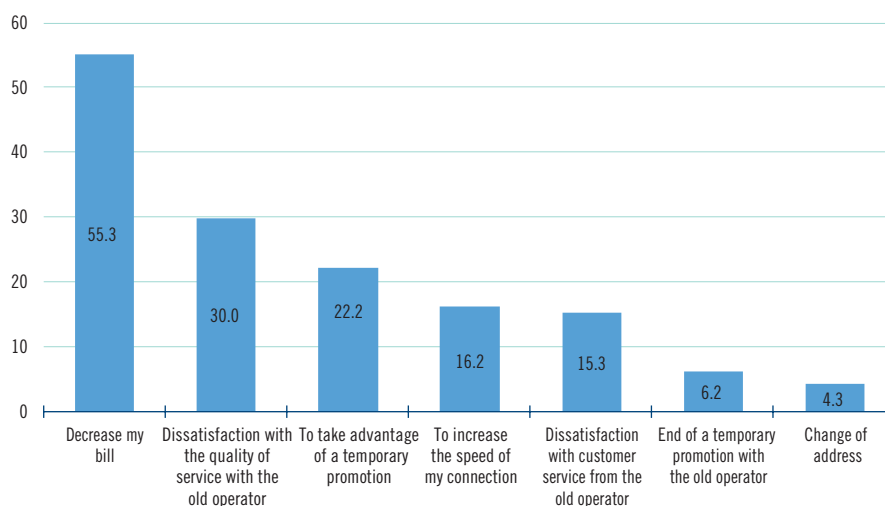


Source: CMT

When asked about why they decided to change operators, respondents stated the first reason as lowering bills, and the second reason as dissatisfaction

with the quality of the operator's service.

REASONS GIVEN BY HOUSEHOLDS FOR CHANGING INTERNET ACCESS OPERATORS (percentage)



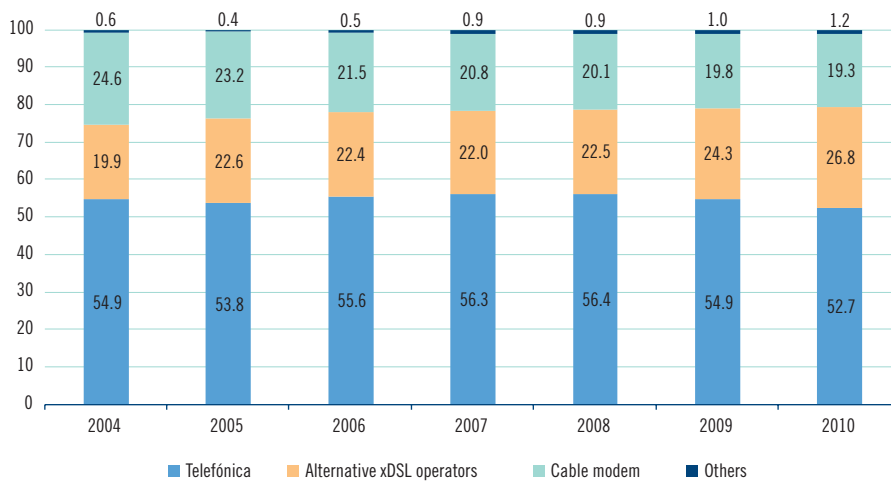
Source: CMT

h) Market shares

In the last year, the incumbent operator and cable operators experienced a decline in their market shares in lines and, consequently, alternative xDSL operators experienced an increase in theirs. Thus, their share stood at 26.8%, which represented a growth of

2.5 percentage points in one year. The incumbent operator's market share fell more than two percentage points and ended the financial year with a share of 52.7%, its lowest record ever. Meanwhile, cable operators, despite increasing their total lines, dropped half a percentage point to 19.3%.

DISTRIBUTION OF BROADBAND LINES BY TYPE OF OPERATOR (percentage)



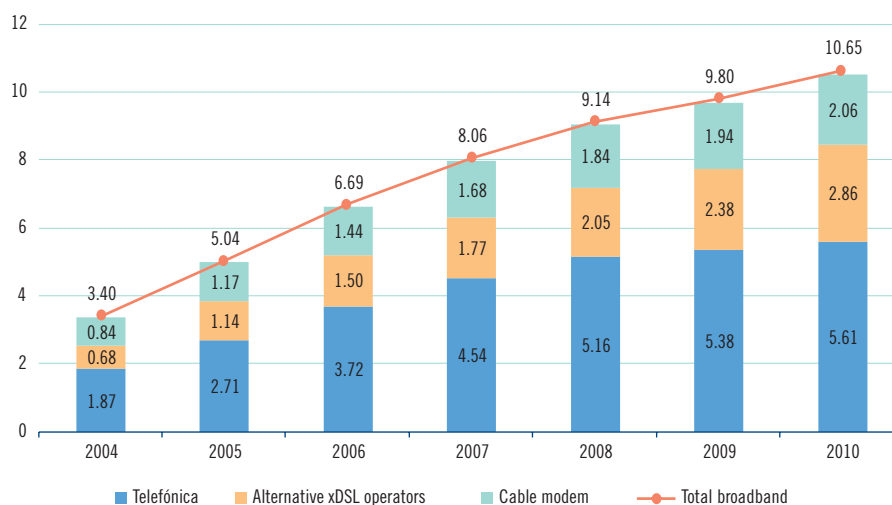
Source: CMT

In financial year 2010, alternative xDSL operators obtained the highest levels of attracting new lines, above Telefónica and the cable operators. Thus, a total of 846,942 new broadband lines⁶⁶ have been incorporated into the market in the past year; of these, xDSL operators accounted for 56%.

In absolute terms, Telefónica increased its total lines by 234,122, slightly above its 2009 increase. Its competitors (cable and alternative xDSL operators) were able to increase their portfolios by 589,871 lines. Lastly, other technologies added 22,949 new lines to their total.

⁶⁶ Includes Wi-Fi, WiMAX and LMDS broadband lines and satellite lines.

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



Source: CMT

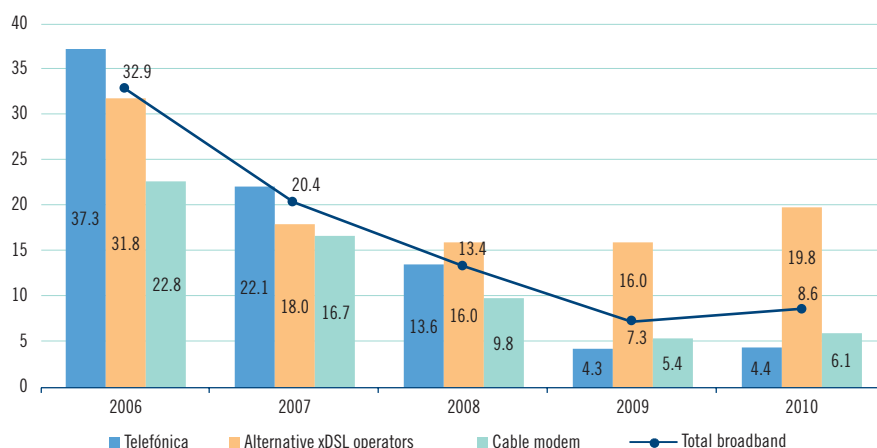
The following graph shows the evolution of the year-on-year change for broadband lines by type of operator in the last five years. In 2010 there was a change in the growth trend of lines in the overall market; and even though the percentage of year-on-year change in access points decreased every year until standing at 7.3% in 2009, the figure rose to 8.6% in the last financial year.

The annual rate of change by type of operator demonstrated a slight increase, both for Telefónica and for cable operators. Thus, the growth of these

operators stood at 4.4% and 6.1%, respectively. In both cases, the rate of change was lower than that of the overall market.

In contrast, alternative xDSL operators stood out for their significant progress in gaining new lines, with a growth of 19.8% in the last year, a figure well above the overall market and other competitors, and that turned out to be even higher than what was reached in the three previous financial years.

YEAR-ON-YEAR CHANGE FOR BROADBAND LINES BY TYPE OF OPERATOR (growth rate)



Source: CMT

The breakdown of the lines and shares by operator indicate that Telefónica's share declined in the last financial year, but even so, it continued to control more than half the market. Ono and Orange⁶⁷, as occurred in 2009, experienced a decline in their market shares

despite the increase in their number of connections. The other operators, however, showed positive developments in their shares, or in some cases, their shares remained at the same level.

MARKET SHARES PER NUMBER OF CONNECTIONS (lines and percentage)

	LINES 2009	SHARE (%)	LINES 2010	SHARE (%)
Telefónica	5,375,059	54.9	5,609,181	52.7
Ono	1,447,296	14.8	1,521,028	14.3
Orange	1,093,588	11.2	1,121,238	10.5
Jazztel	591,995	6.0	855,109	8.0
Vodafone	580,583	5.9	742,173	7.0
Euskaltel	218,233	2.2	229,790	2.2
R	175,679	1.8	187,656	1.8
TeleCable	106,262	1.1	115,745	1.1
Others	210,791	2.2	264,508	2.5
Total	9,799,486	100	10,646,428	100

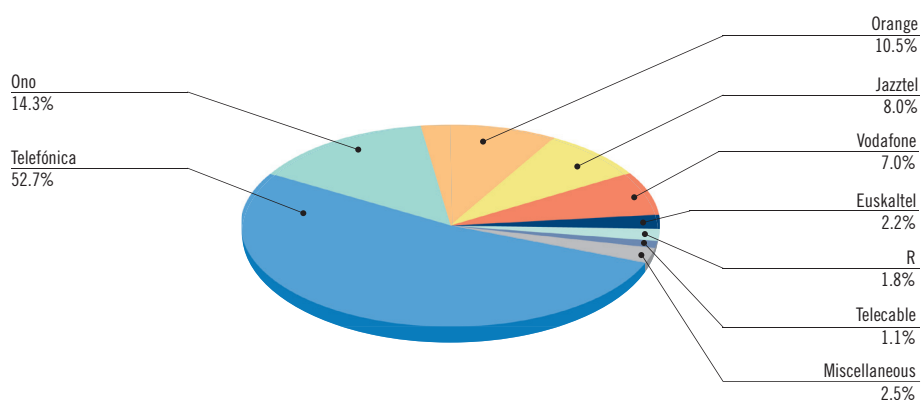
Source: CMT

⁶⁷ The figures for Orange's lines include those of the operator Orange Business Services.

In 2010, the relative position of the operators remained the same as the previous financial year; however, there were declines in shares of the three major operators (Telefónica, Ono and Orange) which accounted for, as a whole, nearly 78% of broadband lines compared to 81% in 2009. Telefónica experienced a decline in its share of over two percentage points. The decline of Ono, the second operator in number of lines and revenue, was moderate and it continues as the main competitor of Telefónica with its own network.

As for alternative xDSL operators, Orange curbed its fall in shares from the previous year. In the last financial year, its share dropped slightly more than half a percentage point and reached a percentage of 10.5%. Jazztel and Vodafone stood out as notable positive developments, just as in financial years 2008 and 2009. In the past year, these two operators obtained the highest growth rates in broadband lines and together made up 50.1% of new connections. Jazztel closed the financial year with a share of 8%, two percentage points higher than in 2009. Vodafone, meanwhile, reached a market share of 7% with an increase of more than one percentage point in the past year.

MARKET SHARES PER NUMBER OF CONNECTIONS (percentage)



Source: CMT

If the market shares of the broadband market are analysed per segment (residential and business), Telefónica maintained its leadership in the business segment with a market share of 78.7%, lower than its figure for 2009, which was 80%. On the other hand, Vodafone's growth in this segment stood out: although it ranked fifth in financial year 2009 for number of lines, it reached a market share of 5.1% in the last year, ranking second place.

The relative positions of the above-mentioned operators remained the same in the residential segment for the combined total of the lines market. It should be noted, however, that Telefónica's share remained below 50%, with a reduction of two percentage points in the last year.

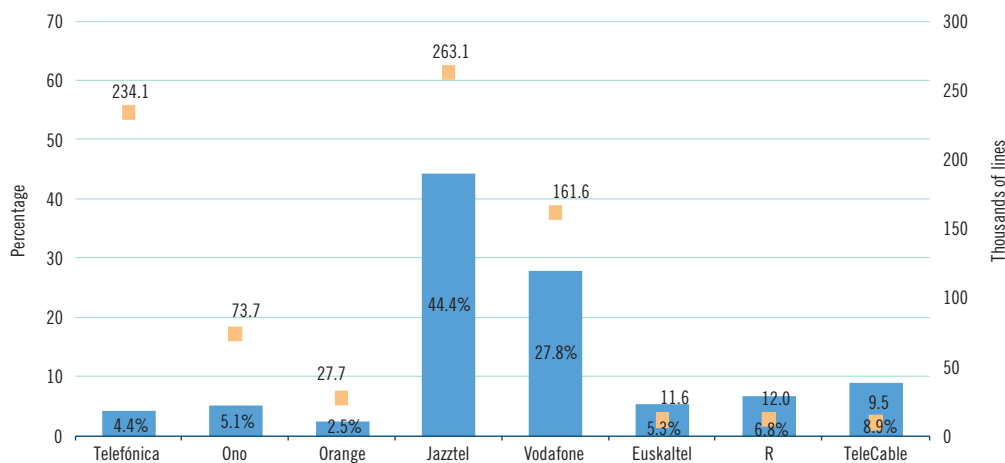
MARKET SHARES PER NUMBER OF BROADBAND LINES AND SEGMENT (lines and percentage)

	RESIDENTIAL LINES	RESIDENTIAL SHARE (%)	BUSINESS LINES	BUSINESS SHARES (%)
Telefónica	4,035,037	46.7	1,574,144	78.7
Ono	1,454,111	16.8	66,917	3.3
Orange	1,040,889	12.0	73,990	3.7
Jazztel	807,167	9.3	47,942	2.4
Vodafone	640,420	7.4	101,753	5.1
Euskaltel	198,581	2.3	31,209	1.6
R	148,713	1.7	38,943	1.9
TeleCable	105,261	1.2	10,484	0.5
Others	215,237	2.5	55,630	2.8
Total	8,645,416	100	2,001,012	100

Source: CMT

The following graph shows the increase in the number of broadband lines in the last year. As in 2009, Jazztel and Vodafone had the highest growth in percentage of broadband lines. Thus, in 2010, these operators increased their total lines by 44.4% and 27.8%, respectively. In absolute terms, these operators

incorporated 263,114 and 161,590 new access points into their portfolios, respectively. The rest of the operators exhibited positive growth between 2.5% and 8.9%.

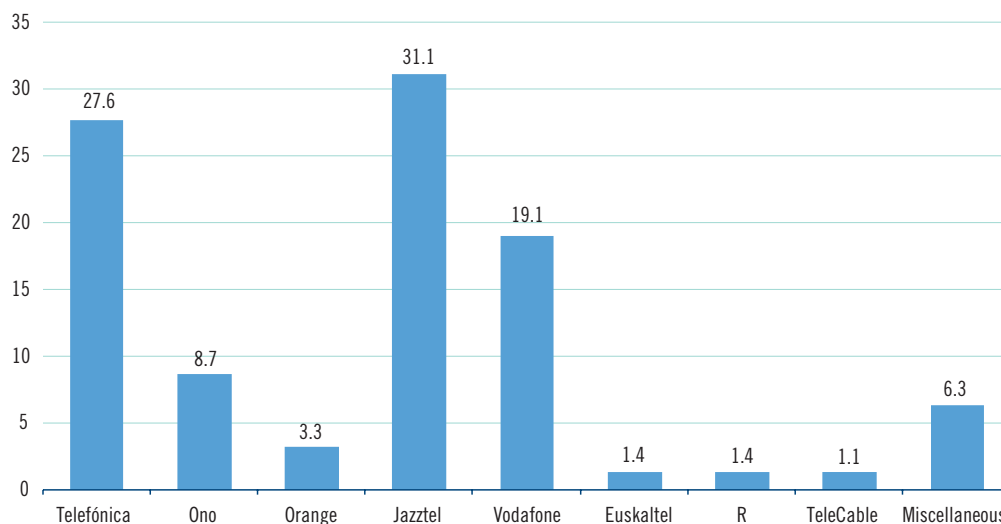
INCREASE IN BROADBAND LINES BY OPERATOR 2009-2010 (percentage and thousands of lines)

Source: CMT

With regard to the net increase in the number of broadband lines, Jazztel, Telefónica and Vodafone had the highest percentages, respectively. Together, these three operators attracted a total of 658,826 lines in the year, a higher figure than in 2009.

It should also be noted that, that during this last financial year, Orange had positive growth figures for its lines, in contrast to its negative figures in 2009.

NET PROFIT SHARES OF BROADBAND LINES (percentage)



Source: CMT

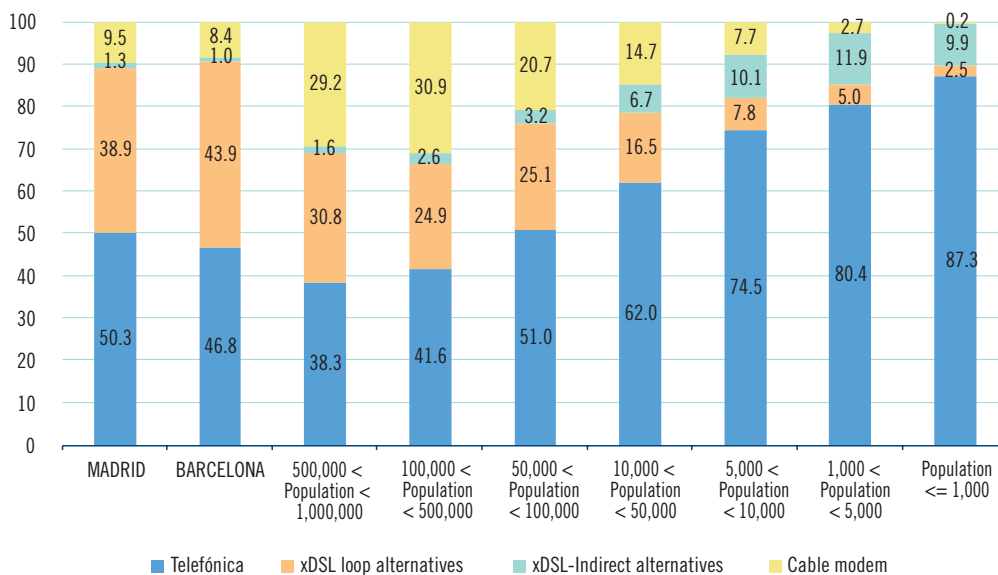
The shares of broadband lines of the different market players showed significant differences from a geographical point of view. According to broadband line data by municipality from June 2010, Telefónica's share increases with the decreasing size of the population of the municipality. For the municipalities of Barcelona and Madrid, its share remained close to 50%.

On the other hand, alternative operators that accessed the market by means of local loop unbundling exhibited high shares in the larger municipalities with over 50,000 inhabitants; in these municipalities, their share was

above 25% and reached nearly 44% in the municipality of Barcelona. In the municipalities with populations of less than 10,000, their weight in the market was limited and consumer access was by means of indirect broadband access. In these areas, Telefónica's share exceeded 74%.

Lastly, cable operators obtained greater penetration in the municipalities with 100,000 to 1,000,000 inhabitants; in these municipalities, their share was about 30%.

MARKET SHARES OF BROADBAND BY TYPE OF MUNICIPALITY, JUNE 2010 (percentage)



Source: CMT

During the last year, as already noted, alternative operators increased the amount of revenue derived from broadband access points, with the exception

of Orange, which, despite increasing its total lines, experienced a decrease of 1% in revenue. Telefónica's turnover fell by 5.9%.

MARKET SHARES BY REVENUE (millions euros and percentage)

	REVENUES 2009	SHARE (%)	REVENUES 2010	SHARE (%)
Telefónica	1,952.43	58.0	1,837.89	53.2
Ono	465.95	13.8	480.96	13.9
Jazztel	226.52	6.7	343.97	10.0
Orange ⁶⁸	303.84	9.0	301.25	8.7
Vodafone	163.31	4.9	202.58	5.9
Euskaltel	69.27	2.1	76.82	2.2
R	44.70	1.3	48.81	1.4
TeleCable	35.26	1.0	38.39	1.1
Others	105.57	3.1	120.90	3.5
Total	3,366.86	100.0	3,451.57	100.0

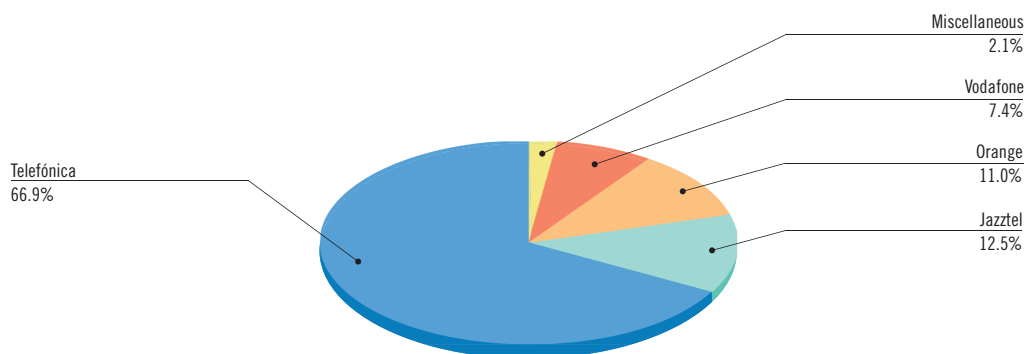
Source: CMT

⁶⁸ The revenue figures for Orange include those of the operator Orange Business Services.

As regards market shares per revenue, Telefónica maintained its lead, but with a reduction of nearly five points with respect to the figure reached in 2009, placing it with a market share of 53.2% at the end of the year. The rest of the operators, with the exception of Orange, increased their revenue and share. Jazztel and Vodafone demonstrated the greatest progress, with revenue increases of 51.9% and 24%, respectively. Thus, Jazztel went from being in the fourth position for broadband revenues in 2009 to third in 2010, after Telefónica and Ono.

The breakdown of revenue shares by technology shows that, in connection with xDSL technology, Telefónica ended the financial year with a share well above its competitors, even though it experienced a decline of over five percentage points with respect to 2009. Jazztel's good results in the last year allowed it to move up in position, to achieve a standing as the second place operator in xDSL revenues with a share of 12.5%, more than four percentage points over its 2009 figure.

MARKET SHARES BY xDSL REVENUE (percentage)

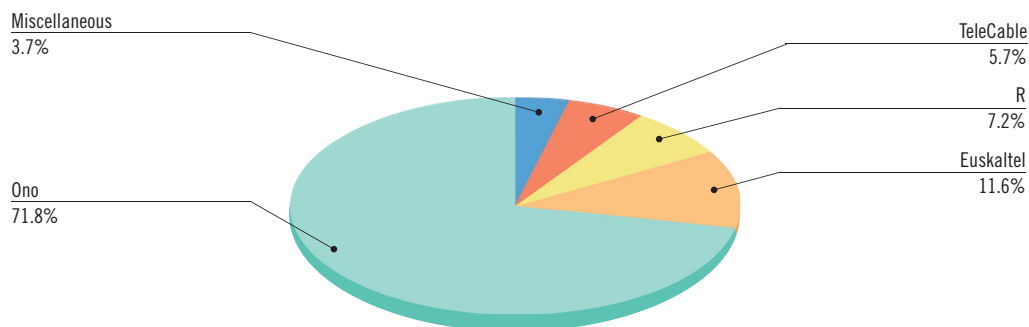


Source: CMT

Regarding cable technology, Ono remained the operator with the largest share from billing and closed the year with 71.8% of revenue in this area, and a decline of 1.7 points from 2009. However, it should be noted that Ono is present in a large percentage of the

country, while the other cable operators only provide services in certain geographic areas. These latter operators slightly increased their billing strength.

MARKET SHARES BY CABLE REVENUE (percentage)



Source: CMT

i) Geographical development of broadband infrastructures

The analysis of broadband services penetration shows significant differences in different regions of the country. As seen above, HFC and xDSL technologies continued as the main means of access to the consumer, although their presence in the country was not homogeneous.

The geographic development of broadband penetration according to HFC or xDSL access technology at the provincial and municipal geographical levels can be seen in the following points.

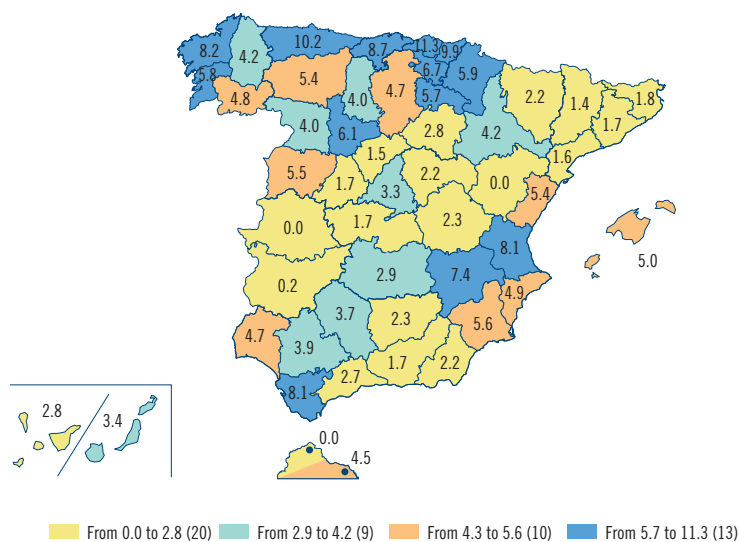
In general terms, access to cable (or HFC) grew by 6.1% in the last year, up from 5.4% in 2009. Penetration reached 4.4 lines per 100 inhabitants.

A total of 23 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 Galicia, the Cantabrian coast and Levant, and in some areas where local cable operators had a presence.

The provinces with the highest penetration were Vizcaya and Asturias, which exceeded ten cable lines per 100 inhabitants. In these cases, the presence of cable operator Euskaltel in the Basque Country and TeleCable in Asturias were the driving forces of an increased cable presence as a method of access to broadband for end users. In Galicia, the presence of the cable operator R increased penetration in the provinces of La Coruña, Pontevedra and Orense to a figure above the national total.

Lastly, in 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.

CABLE-MODEM PENETRATION BY PROVINCE⁶⁹ (lines/100 inhabitants)



Source: CMT

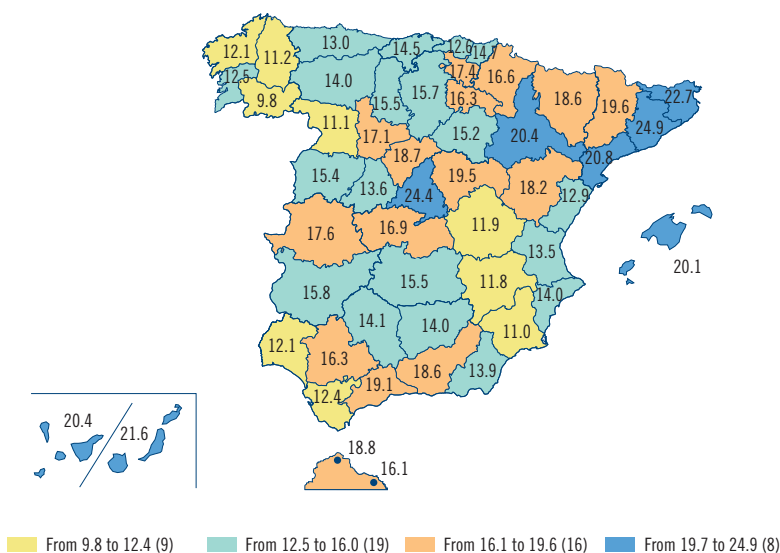
⁶⁹ The intervals are set from the average ±0.5 standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

During 2010, broadband lines through xDSL grew by 8.6%, a higher figure than in 2009, and its average domestic penetration stood at 17.9 lines per 100 inhabitants. A total of 16 provinces had penetration equal to or greater than the national average.

the highest penetration rates, over 21 xDSL lines per 100 inhabitants in all four cases. On the other hand, the provinces of Albacete, Lugo, Zamora, Murcia and Orense did not even reach 12 xDSL lines per 100 inhabitants. These provinces, however, did show high levels of penetration for cable lines.

The following map illustrates the geographic distribution of xDSL lines. The map shows that Barcelona, Madrid, Girona and Las Palmas closed the financial year with

DSL PENETRATION xBY PROVINCE⁷⁰ (lines/100 inhabitants)



Source: CMT

If we analyse the data for broadband line penetration in the municipal area⁷¹ using as a basis a series of typical municipal areas within the national territory depending on the population, we see how the penetration of the cable access was insignificant in the municipal areas of Barcelona, Madrid and those smaller than 50,000 inhabitants. In these municipal areas, cable penetration did not exceed three lines for every 100 inhabitants. On the other hand, the municipal areas between 50,000 and 500,000 inhabitants showed an average cable penetration higher than the national total which, at the end of 2010, was 4.4 lines for every 100 inhabitants.

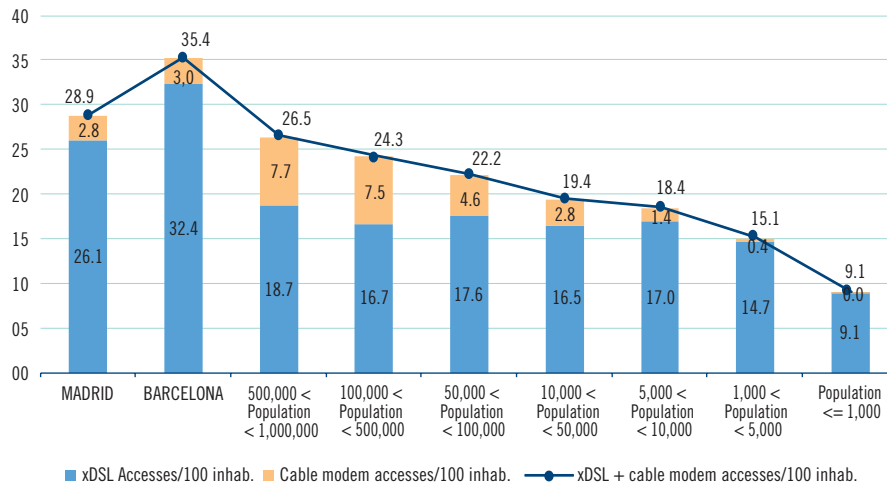
cities with a population between 5,000 and 500,000 inhabitants, which showed average penetration of between 16.5 and 17.6 lines for every 100 inhabitants. Municipalities with a population greater than 500,000 on average exceeded 18 xDSL lines per 100 inhabitants, a figure higher than the national total of 17.9 per 100 inhabitants. The highest rate of penetration was recorded in Barcelona and Madrid and lowest in municipal areas where population was equal to or lower than 1,000 habitants.

Ultimately, xDSL technology was the most representative in all municipal areas. The penetration of xDSL lines did not present any significant differences in towns and

⁷⁰ The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

⁷¹ The data indicated in the municipal analysis correspond to a specific geographical requirement and with data referring to June 2010.

PENETRATION OF XDSL AND CABLE- MODEM BY TYPE OF MUNICIPALITY, JUNE 2010 (lines/100 inhabitants)

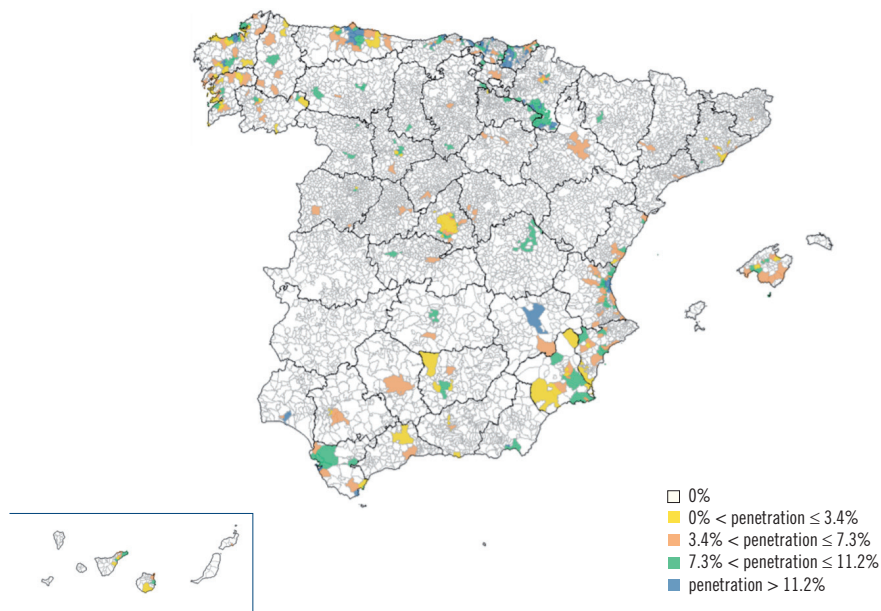


Source: CMT

The following map shows the distribution of the penetration of broadband access points using cable modem in the municipal area. The presence of cable is notable in certain regions and municipal areas, as

well as the absence throughout extensive areas of the national territory where broadband access is largely provided through xDSL technology.

PENETRATION OF CABLE MODEM BY MUNICIPALITY, JUNE 2010⁷² (lines/100 inhabitants)



Source: CMT

⁷² The intervals are set from the average ± standard deviation.

Lastly, the following diagram shows the penetration⁷³ of broadband by Autonomous Community in 2010, as well as the increase seen in the previous year.

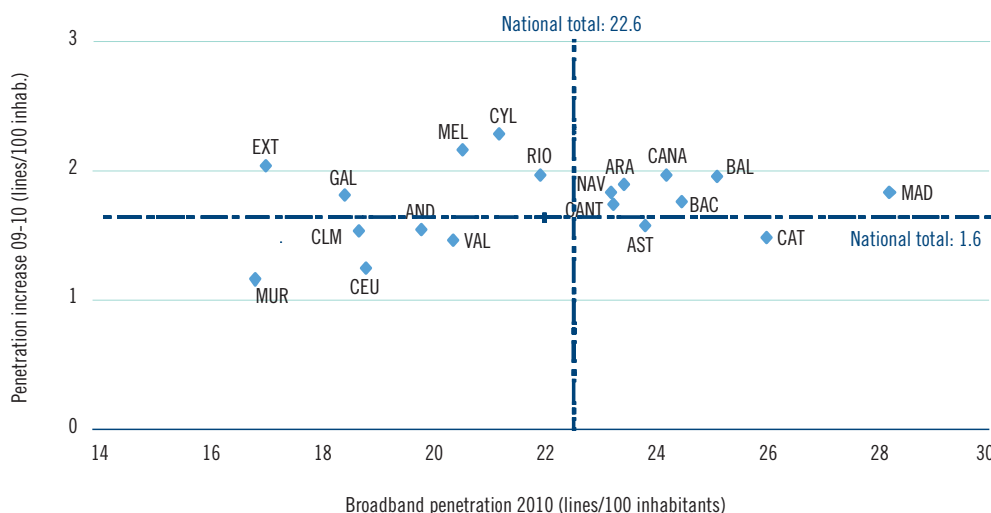
At the close of the year, Madrid and Catalunya were the two autonomous communities with the highest penetration of the broadband service. In addition, the penetrations were set at 28.2 and 26 broadband lines for each 100 inhabitants respectively, figures that represent increases of 1.8 and 1.5 lines for every 100 inhabitants compared against 2009.

Nine Communities registered penetration of higher than the national average of 22.6 lines for every 100 inhabitants. Extremadura and Murcia did not

exceed 17 lines per 100 inhabitants and were the communities which ended the year with a lower penetration of broadband lines. Moreover, Murcia and Ceuta were the Communities which posted the lowest increase in penetration.

The Communities with the highest penetration increases were Castilla y León, Melilla and Extremadura; in the last year, broadband penetration in these Communities increased by more than two lines per 100 inhabitants.

BROADBAND PENETRATION BY AUTONOMOUS COMMUNITY (lines/100 inhabitants)



Source: CMT

⁷³ Penetration calculated based on the total number of broadband lines.

3.3.2. Wholesale services

During 2010 the *ex ante* obligations were valid as established in the wholesale markets in relation to the broadband services, which CMT approved in January 2009. These markets are formed, on the one hand, by the (physical) wholesale access market which is largely network infrastructure (including shared access and completely unbundled access) in a fixed location (market 4) and, on the other hand, the wholesale broadband access market (market 5). As a result, operators which do not have their own network can either access a series of wholesale broadband services, both regulated and unregulated, as is the case of the resale service, in such a way as to offer broadband connection to the end user.

As for the regulated wholesale service for access to the subscriber bundle through unbundling and, in accordance with the obligations imposed on market 4, Telefónica offers the totally unbundled loop modes (using this service, Telefónica grants use of copper pair to the operator across the total range of frequencies of the pair), shared unbundled loop (Telefónica grants the operator use of the high frequencies of the pair, above the bandwidth used by the telephone service, leaving used of the low frequencies to Telefónica to offer either basic POTS service or basic ISDN access) and, lastly, the shared loop mode without TTL; that is, without telephone line subscription with Telefónica. In this unbundled mode, cable architecture in the actual centre of the shared loops is used, for which purpose the entire range of frequencies for offering the services is available, except for the high frequencies (the monthly rental of the pair is the same as that for completely unbundled access). Totally unbundled modes of the loop and the shared loop without TTL, as will be seen below, saw the greatest increases in terms of lines and revenue.

The wholesale broadband access service is defined as the one which operators which are offering services on the retail market will do so via a connection between its network and the network of another operator with access to users. The operator with access to users handles the traffic generated by the latter as far as the so-called indirect access point, where it is brought together by the operator wishing to offer the retail service to those users. In this regard, Telefónica had a regulated offer of wholesale xDSL services, listing

the services and characteristics of the different service modes and specifying the points of indirect access to its network which available for alternative operators.

Thus, the connection with the Telefónica network can be done at the ATM level at 109 points in different geographical locations in Spain or at national IP level at two points: Barcelona and Madrid. As for the IP level, it should be borne in mind that since September 2009, Telefónica must offer in addition to the national service, the service at provincial level accessible at 50 points coinciding with those existing on the GigADSL service and with the same prices as this service. Telefónica offers both types of wholesale service on the market under the commercial names of GigADSL and ADSL-IP, respectively. In addition to the shared loop access mode without TTL, it is possible to contract the indirect access service without needing to hold telephone service contract with Telefónica. As will be seen in subsequent sections, the service for concentrating IP without TTL and, in particular, the regional mode, was the wholesale broadband access service which showed a major surge in the last year.

Besides Telefónica there are some other operators which also offer the service for ATM and IP concentration, although the percentage only represented 1.6% of the total number of lines of these modes.

Over the course of the year, alternative operators continued to gain gradual access to the channels of Telefónica and to other civil works infrastructure based on regulation and the obligations (including regulated prices) which CMT imposed on the traditional operators in the framework of the duct reference offer (MARCO). This fact is enabling alternative operators to carry out deployment in its access networks, with a significant reduction of time and investment, thereby reaching the same level of the initial advantage of the historic operator in the deployment of new access networks.

In relation to the wholesale broadband access services, CMT continued to work with operators on the definition of a new wholesale broadband access service to enable operators to differentiate their services more clearly from Telefónica's retail offers, encouraging, thereby, greater competition to the benefit of the consumer. The new wholesale service, called NEBA (New Ethernet Broadband Service), is based on transparent transport of the Ethernet sections (at level 2) to the points of delivery to the operator (50 points regionally).

The functional specification of this wholesale service, including the deadlines for implementation and start-up, was approved by CMT in November 2010.

The specified service, which will be available from 1 January 2012, meets the requirements of market 5 (new broadband bitstream service) and market 2 (wholesale service to provide IP telephony) and includes both copper line access (in different technologies, ADSL and VDSL) and fibre optic, as well as offering a great variety of connection profiles of up to 30 Mbps. Moreover, three types of service quality (Best effort, Gold and Real Time), with distinctive quality guarantees, which the operators can contract, even on a single access.

a) Revenues

In 2010, the total turnover for various broadband wholesale services witnessed a significant trend change compared to the previous three years. On the one hand, the increase of revenue corresponding to the loop unbundling service, and on the other hand the bitstream IP concentration service recorded considerable growth. As a result, total turnover reached the figure of 454.7 million euros, i.e. a 30.5% increase compared to the previous year.

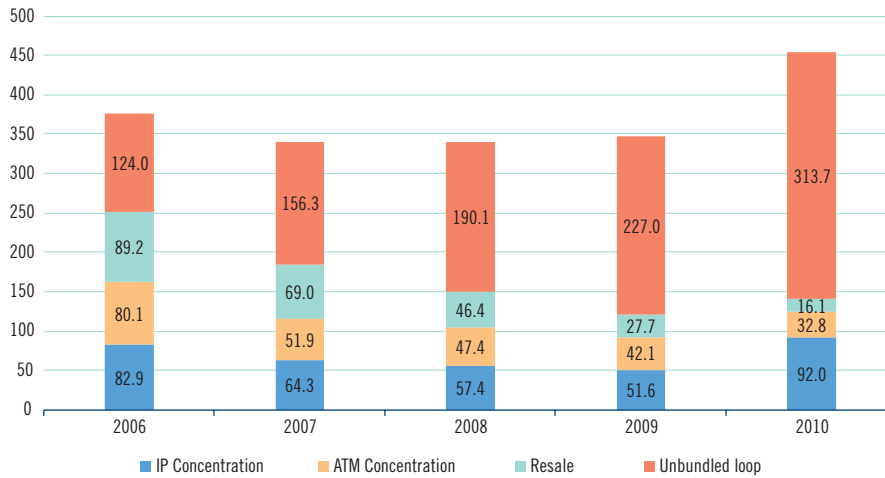
The breakdown of the total wholesale revenue per service type, the revenue from the loop unbundling service reached 313.7 million euros, with an increase of 38.2% against 2009. This significant hike in revenues, as in previous years, is due to the major increase of lines of the completely unbundled loop

modes and those shared without TTL, enabling the alternative operator to offer the broadband and voice service, thus separating the consumer from the traditional operators.

As for the IP concentration service, and in contrast to what happened in earlier years, the revenue increased by 78.3% to 92 million euros. This growth was due to the IP concentration without PSTN model.

On the other hand, the ATM concentration service and the resale service displayed shortfalls in revenue, by 22% and 42% respectively. In this sense, it should be highlighted that the reduction in the revenue from the ATM concentration service was due, not only to the minor increase in the number of lines, but also due to the reduction in the regulated prices imposed in September 2008 by CMT and valid in the previous year.

REVENUE PER ACCESS MODE TO WHOLESALE BROADBAND (millions euros)

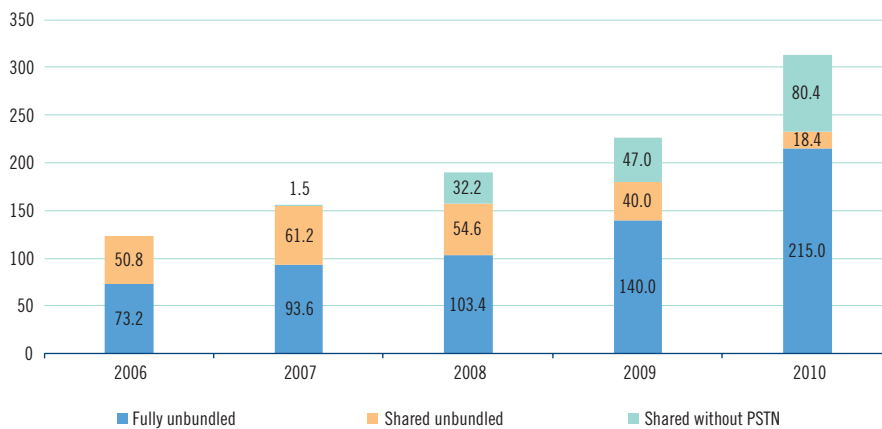


Source: CMT

The following graph shows the evolution of revenue from the wholesale loop unbundling service. In the last year, revenue from total subscriber loop unbundling reached the figure of 215 million euros, i.e. a 53.5% increase compared to the previous year. For its part, the shared loop service without TTL continued its upward trend and its revenue rose to 80.4 million euros, 71% more than in 2009. By contrast, revenue

from the shared loop service tumbled by 54.1%. As will be seen below, the tendency observed in the billing can also be appreciated in relation to the number of lines of the different unbundling modes.

EVOLUTION OF REVENUES FROM UNBUNDLED LOOP SERVICES (millions euros)



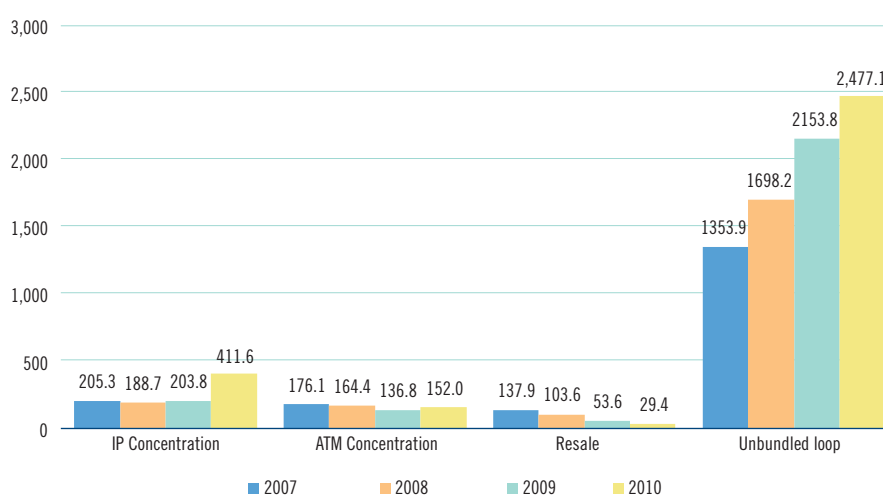
Source: CMT

b) Lines

The development of the number of lines of the different wholesale services followed a trend in tandem with that of the revenue from these services. As observed from the following traffic, the subscriber loop unbundling service and the IP concentration service showed

considerable growth in the last year, with an increase in the number of lines of 15% and 102% respectively. For its part, the ATM concentration service witnessed a slight increase in its line range. Lastly, the resales service fell by 45.2%.

LINES PER ACCESS MODE TO WHOLESALE BROADBAND (thousands of lines)

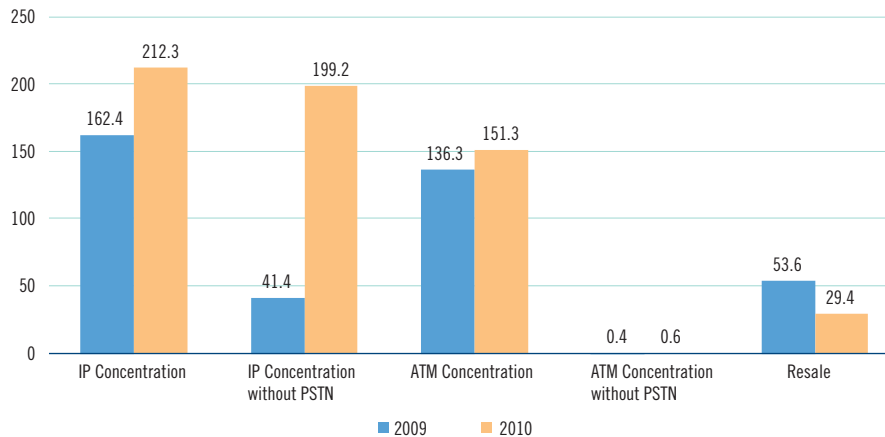


Source: CMT

From the series of indirect broadband access lines, a total of 199,862 lines correspond to indirect access service without TTL. This indirect access mode, which was not present on the market until 2009, is marketed by Telefónica through its regulated wholesale offer of GigADSL and ADSL-IP.

As for the breakdown of the indirect access lines according to the IP and ATM concentration lines, and according to its inclusion or exclusion from the telephone service with Telefónica, the following diagram shows that the IP concentration service without TTL posted the major advance, and, in particular, in the provincial geographical delivery mode.

LINES PER INDIRECT ACCESS MODE (thousands of lines)



Source: CMT

The local loop unbundling service sustained its upward tendency, reflecting the continuity of investment by alternative operators in the collocation of new exchanges and in attracting new customers to those exchanges where they already had a presence. Thus, the financial year ended with a total of 2,477,102 unbundled loops, which accounted for a 15% year-on-year increase representing 323,307 new accesses.

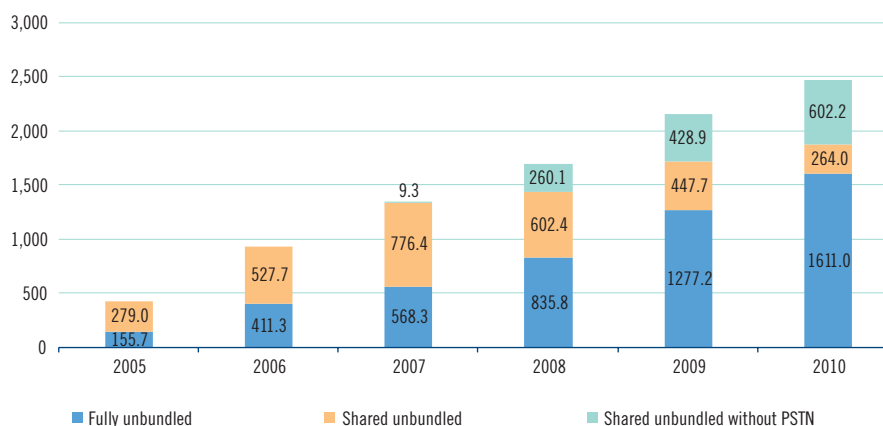
If we look at the breakdown of lines by mode of unbundling, fully unbundled shared access services without basic telephone services (BTS) continued to grow, so that, by the end of the year, they exceeded 2.2 million lines; an increase of 29.7% over the last year. The shared loop service ended the year with 263,962 lines, and a reduction of 41% over the financial year.

As regards model of unbundling shared loops, the fall in the number of lines that had started in 2008 continued in 2010. It should be mentioned that, in that year those operators who offered their broad band service through a shared access service to the loop, with the telephone service provided by Telefónica, gradually started to use shared access without BTS service, and

started to offer their own voice service on broadband data loops (through IP technology) thus uncoupling their customers from their telephone subscription to Telefónica. Thus, the number of wholesale shared loop service lines without TTL rose to 602,155, an increase of 40.4% over the last year. These loops almost all belonged to Orange, which is gradually migrating shared access to the model of shared access without TTL.

One year further on, the considerable increase in procurement of broadband lines by Jazztel and Vodafone seen in the retail market was reflected in the number of fully unbundled lines, as these operators use this loop unbundling model as a means of access to the end user. Thus, over the last year, there were 333,747 new unbundled loops.

CHANGE IN UNBUNDLED LOOPS (thousands of units)



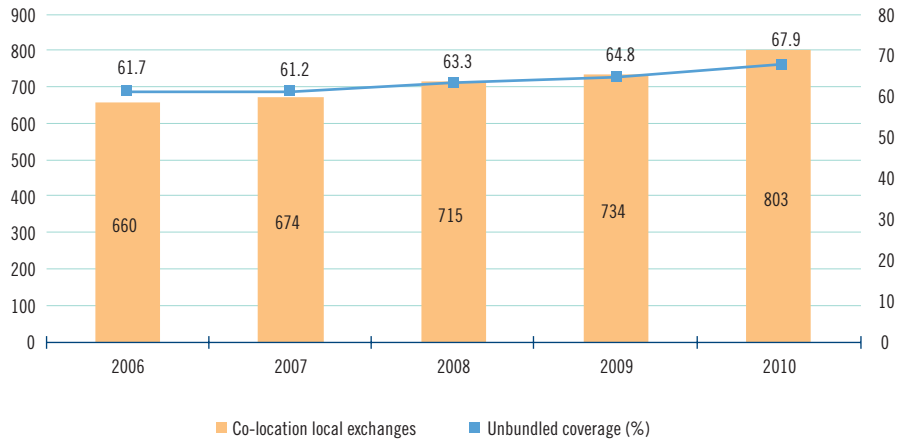
Source: CMT

The changes recorded in terms of lines and revenue by regulated wholesale services shows that the wholesale loop unbundling service continues to be the main model of access to the end user by alternative xDSL operators. Thus, investments continued on the part of alternative operators in the collocation and connection of new exchanges, in other words in extending the number of Telefónica's exchanges where the alternative operator rents a space to locate the equipment required to offer the services through unbundling the subscriber loop. The continued expansion to new exchanges will be supported by the revised tariffs under the revised reference offer for leased lines (ORLA) in December 2010, which has reduced the costs of backhaul services, making more exchanges attractive to alternative operators. Furthermore, in July 2010, costs

to operators for the energy used by their equipment fell, which also helped to improve the economic conditions for unlooped access.

As can be seen in the graph below, in 2010 there were 803 exchanges with a collocated operator, which amounted to 69 new exchanges. The collection of exchanges means that the number of potentially accessible peers has risen to 10,037,558, equalling a coverage of 67.9% of Telefónica's total number of peers.

DEVELOPMENT OF COLLOCATED EXCHANGES WITH UNBUNDLED COVERAGE (units and percentages)



Source: CMT

The map below illustrates the geographical distribution of those exchanges where there is at least one collocated operator. It shows that the greatest density of exchanges with collocated operators occurs in the provinces of Barcelona and Madrid, followed by those of Valencia, Seville, Alicante and Málaga. It

should be noted that previous distribution depended on population distribution, given that the most highly-populated areas have the highest number of exchanges and are, furthermore, more attractive to alternative operators given their higher potential demand.

GEOGRAPHICAL DISTRIBUTION OF COLLOCATED EXCHANGES



Source: CMT

Geographical distribution of unbundled loops

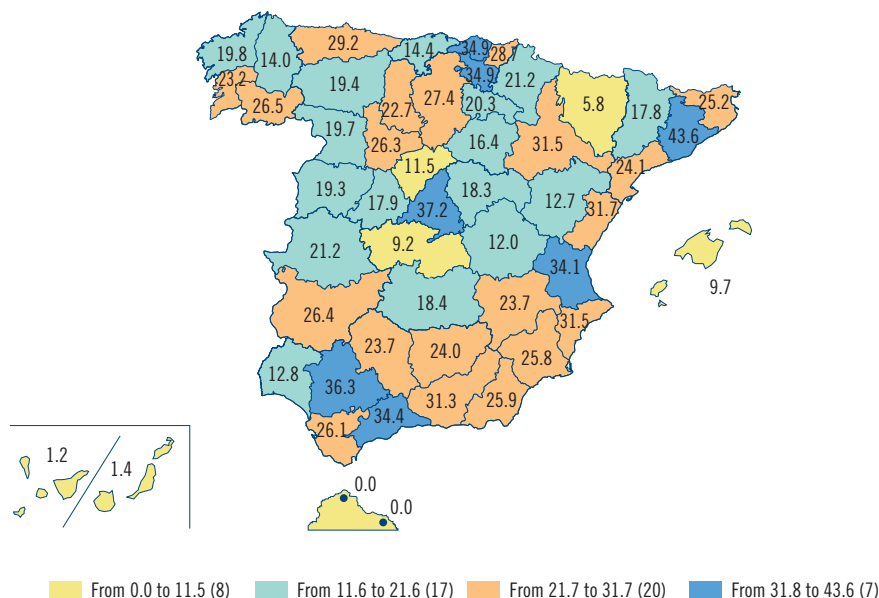
As different sections have shown, the main model of access to the retail broadband market by alternative xDSL operators was through the unbundled loop. One year further on, the presence of operators in new exchanges has increased through collocation and high levels of customer attraction have been observed in the retail industry, which has subsequently led to a substantial increase in the number of unbundled loops in the wholesale market.

In the geographical analysis of retail broadband access, covered in previous sections, significant differences were observed in the penetration of broadband service throughout the country. Similarly, the distribution of unbundled loops is not uniform from one region to another. The map included later illustrates the distribution of unbundled loops in relation to xDSL

broadband lines in the retail market, with Barcelona and Madrid being the provinces with greatest penetration. In 2010, the national total number of unbundled loops per 100 xDSL lines reached 29.4 loops, an increase of 1.6 loops over 2009.

A total of eleven provinces ended the financial year with a percentage higher than the national average, and amongst those with the greatest growth figured Valencia, Almería and Vizcaya, which more than quadrupled the number of unlooped bundles per 100 xDSL lines. The lowest loop presence could be seen in seven provinces which did not reach 10 unbundled loops per 100 xDSL lines, and in Las Palmas, Santa Cruz de Tenerife, Ceuta and Melilla there was little or no presence of unbundled loops as a type of access to the market.

PENETRATION OF UNBUNDLED LOOPS BY PROVINCE⁷⁴ (loops/100 xDSL lines)



Source: CMT

In general, high levels of broadband penetration, especially through xDSL, could be observed in those provinces with high levels of unbundled loops. Nonetheless, in some provinces such as Las Palmas and Santa Cruz de Tenerife, which have high levels of broadband penetration and low levels of unbundled loops and cable, the principal model of access was by

Telefónica's and the alternative operators' xDSL through the regulated bitstream service or through the resales service.

⁷⁴ The intervals are set from the average ± standard deviation. The upper and lower extremes are determined by the maximum and minimum values, respectively.

3.3.3. Market regulations and prospects

In the 2010 tax year those measures were in force that had been adopted in market analyses 4 and 5 of the Recommendation of the European Commission which were published in January 2009.

It should be noted that, amongst the measures adopted in market 4, Telefónica was required to provide fully unbundled wholesale access services shared with subscriber loops and sub-loops at regulated prices and, furthermore, it was obliged to provide access by operators to its civil works infrastructures and to publish a reference offer for wholesale service delivery for access to the afore-mentioned infrastructures, which include items such as wiring, cameras, ducts and poles.

As for this latter measure, it must be said that over the last year alternative operators made progress in deploying fibre optics, gradually gaining access to Telefónica's wiring and to other civil works infrastructure at regulated prices within the framework of the reference offer for ducts (MARCo). This measure is allowing operators to deploy their fibre optic networks more efficiently in terms of time and money. In spite of this, at retail level, this measure did not give rise to a significant increase in active broadband access through fibre to the home (FTTH) by other operators.

As the industry analysis has shown, alternative operators used the regulated wholesale loop unbundling service to access the final market. Thus, at the end of the year, other operators were present in 803 exchanges through collocation and accounted for a total of 2.5 million unbundled loops. As far as models of loop unbundling were concerned, for another financial year, operators gradually migrated their access from the model of shared loop to the model of unbundled or shared loops without BTS offering, in this way, voice service in the data band of the loop (through IP technology), removing these customers from their subscription to Telefónica.

As for progress in the deployment of new generation access networks, it is important to note the generalised migration to DOCSIS 3.0 from DOCSIS 1.0 or 2.0 technology carried out by cable operators to their hybrid fibre-coaxial networks (HFC). Thus, the number of installed accesses depending on DOCSIS 3.0 nodes reached 6.8 million, in other words 72% of all HFC

access. It should be noted that this updating allows these operators to offer a greater number of broadband services with higher connection speeds. Installation of fibre optic FTTH access exceeded half a million.

In the geographical analysis of broadband services in previous sections of this document, the conclusion was drawn that the coverage and reach of services offered by operators who unbundle loops and cable operators was limited to particular areas of the country. In the remaining areas, alternative operators had at their disposal wholesale broadband access services (market 5).

Amongst the measures adopted in market 5, Telefónica was required to provide wholesale broadband services (with a nominal speed of up to 30 Mbp/s) to all operators, and furthermore, to continue to publish a reference offer for bitstream access as well as to provide the CMT with the prices and the conditions applicable to the wholesale broadband services not included in the reference offer.

As regards market 5, changes in the measures adopted by the market analysis along with the fall in the price of GigADSL and ADSL-IP prices approved by the CMT in September 2009, and the obligation on Telefónica to provide an IP concentration service with delivery at the geographical level of the province at the same price as the GigADSL service, led, in 2010, to an increase in the procurement of this wholesale service. Thus the IP concentration service exceeded 411,000 lines, an increase of 102% compared with 2009; of these, almost 168,000 lines related to delivery at the geographical level of the province. It should be noted that the total number of bitstream access lines without BTS, that is, without needing a telephone service from Telefónica, accounted for almost 200,000 lines compared with the 42,000 lines existing in 2009. While the wholesale services for bitstream broadband access provide alternative operators with national coverage and allow them to reach areas which do not have their own network or an unbundling service, they do not however allow for differentiation and innovation amongst the retail services offered by different market players and, specifically, in relation to Telefónica's retail offers.

Over the last year, the CMT continued to work with operators on the definition of a new wholesale broadband access service to enable operators to differentiate their

services more clearly from Telefónica's retail offers, encouraging, thereby, greater competition to the benefit of the consumer. The new wholesale service, known as NEBA (New Ethernet Broadband Service), the functional specifications of which were approved by the CMT in November 2010, aims to replace the current wholesale bitstream access service and to enable operators to offer services of greater added value with guarantees, in addition to providing a telephone service through VoIP. The new service will also allow operators to innovate in their offers and to be independent of Telefónica in terms of quality and price.

Furthermore, the CMT monitored broadband geographically and analysed how competitive conditions were developing in areas identified in market analyses 4 and 5 as well as the deployment of new generation access networks. It will also be necessary to study in what ways the new NEBA service, which will not become available until January 2012, affects competitive conditions in those geographical areas where alternative operators do not have infrastructure and where Telefónica, for the time being, enjoys high market share in terms of broadband access.

The CMT undertook to carry out periodic monitoring of retail broadband provision. As we have already seen in the analysis of industry prices, it was observed that, on the one hand, offers appeared with nominal prices that were lower than in previous financial years, and, on the other, the feverish activity of Telefónica and of the other operators in launching promotions was reflected in reductions in actual prices compared with nominal prices. Also, from the point of view of access to the end user, it could be noted that there were no significant differences in the prices of direct access offers (own network or unbundled loop) compared with bitstream access, due, in part, to the measures adopted by the CMT relating to price reductions in wholesale broadband access services.

- The promotion of broadband by Public Administrations

Calls for proposals to the Autonomous Communities continued in 2010 for the development of the Information Society and convergence with Europe as laid out in the Avanza2 Plan.

Between 2006 and 2010, the Avanza Plan accounted for investment totalling more than 10.6 billion euros

from the Ministry of Industry, Tourism and Commerce, through the State Secretariat of Telecommunications and Information Society, and through partnership with the Autonomous Communities and local bodies.

The Avanza Plan has contributed, amongst its other spheres of action, to the development of broadband throughout the country and, in particular, in rural areas and to increasing broadband service coverage amongst the population. This development can be seen in the figures for broadband coverage which, in 2003 only reached 80% of the population and by the end of 2010 had reached 99.01% of those able to connect to Internet.

In July 2010, the Council of Ministers approved the 2011-2015 Strategy of the Avanza2 Plan. This second phase continues the Avanza Plan, and includes measures currently being implemented and updates its initial objectives in line with the new challenges for the Networked Society.

The new 2011-2015 strategy includes five strategic lines of action: Infrastructure⁷⁵, Trust and Security, Technological Training, Digital Content and Services and Development of the CIT industry. The aim of this plan is to place Spain at the forefront of the development and use of advanced CIT products and services within the European Union.

⁷⁵ The European Commission did not raise objections to the State Aid contained in the "Advance of de New Telecommunications Structures Programme", declaring it in accordance with article 107 of the TFEU.

3.4. Audiovisual services

3.4.1. Television and radio services

Turnover in the audiovisual services industry, excluding subsidies, was 4,422,600,000 Euros, down by 2.1%, due to a reduction in the demand for on-demand and pay-per-view video. The other main components of revenue, such as those from advertising and subscription fees from pay television, increased slightly.

It was the first year of the new model of financing for the Spanish Radio and Television Corporation (CRTVE) which stopped broadcasting advertising and started to be fully financed from the public purse. This led to a re-allocation of advertising revenue, in which private operators managed to capture most of the revenue no longer earned by the Spanish Radio and Television Corporation, against a background where advertising revenue grew by 0.2%⁷⁶.

The emergence of new pay television channels drove growth in the total number of subscribers to this service, which increased to 4.56 million. The service that recorded the highest growth was DTT pay television, a platform introduced to the market in 2009, which doubled its subscriber base. In line with trends which have been observed for some years, telecommunications and cable operators, and those who offer IP-TV, also recorded increases in their combined share of the market. Thus, telecommunications operators supplied pay television services to 53.5% of all subscribers in Spain.

At the end of April, analogue signals were switched off permanently, completing migration to digital terrestrial television (DTTV). This switchover freed up a series of frequencies on the radio spectrum which allowed for the emergence of new DTT channels. In addition, in the near future this additional spectrum will facilitate the deployment of high speed mobile networks, following the decision taken by Government in December 2010.

Another relevant development was the approval in March of the new General Law of Audiovisual Communication which laid down the basic legislative framework for the activities of providers of audiovisual services in the next few years.

a) Revenues

In line with the adverse developments in the economic environment, turnover for the audiovisual services industry in Spain stood at 4,422,600,000 Euros in 2010, down 2.1% on the revenue recorded in 2009.

This figure does not include subsidies⁷⁷ received by public operators, which showed a significant increase in 2010, to 2,288,800,000 Euros, partly accounted for by the new financing model for the Spanish Radio and Television Corporation (CRTVE). Of this total, 275.7 million went to the radio segment and 2,013.1 to television.

If subsidies are included, total revenue for the audiovisual industry would have risen to 6,711,500,000 Euros, an increase of 12.4% over the previous financial year.

- Revenue by segment

If we analyse the figures by different business segments, free-to-air television comes in first place in terms of turnover. Revenues in this segment were very similar to those recorded the previous year and, with a slight drop of 0.9%, stood at 2,335,100,000 Euros.

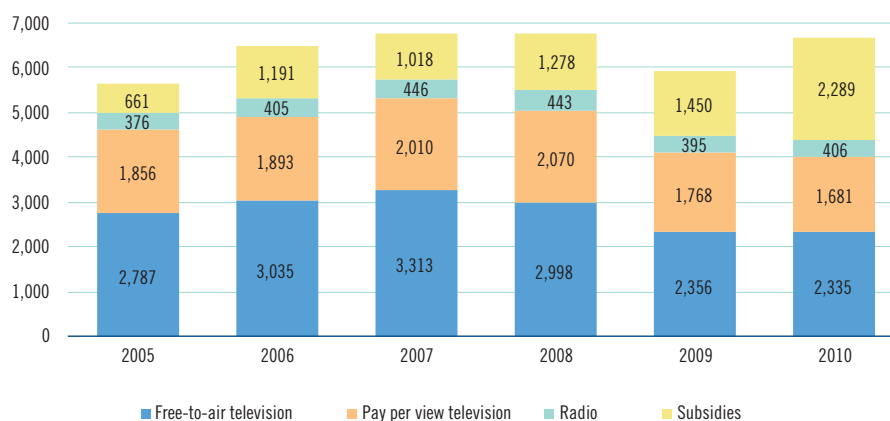
In second place came pay television which was the segment where turnover fell most significantly. Conditional access televisions received net revenue of 1,681,300,000 Euros, a fall of 4.9% over the previous financial year.

Finally, in third and last place, came radio, the only segment to record an increase in revenue, of 2.7%, with a turnover of 406.3 million euros.

⁷⁶ The advertising revenues used to prepare this report refer to net revenues, after deducting discounts and commissions charged by the companies that merchandise the advertising.

⁷⁷ Both funding and other sources of public funding are excluded.

REVENUES OF THE AUDIOVISUAL INDUSTRY, SUBSIDIES INCLUDED (millions euros)



Source: CMT

- Change over time in the main revenue variables

The two main items that account for turnover in the audiovisual services market are advertising and subscriber revenue which, combined, accounted for 92.3% of total market turnover (subsidies not included). Advertising accounts for the final revenue in free-to-air television and radio, while subscriber revenue is the cornerstone of the business for pay and conditional access televisions.

The graph below illustrates the percentage changes in the different components of the revenues received by the industry. In the case of advertising revenue, we can

see that, after falling successively in 2008 and 2009, these revenues appear to have started to recover in 2010.

Subscriber revenue, which has been in decline since the first quarter of 2009, has followed developments very similar to those of advertising revenue, albeit less marked. In 2010, it has shown a slow recovery, although at the end of the year it had not yet managed to post positive growth.

YEAR-ON-YEAR REVENUE GROWTH IN AUDIOVISUAL SERVICES (Year-on-year change)



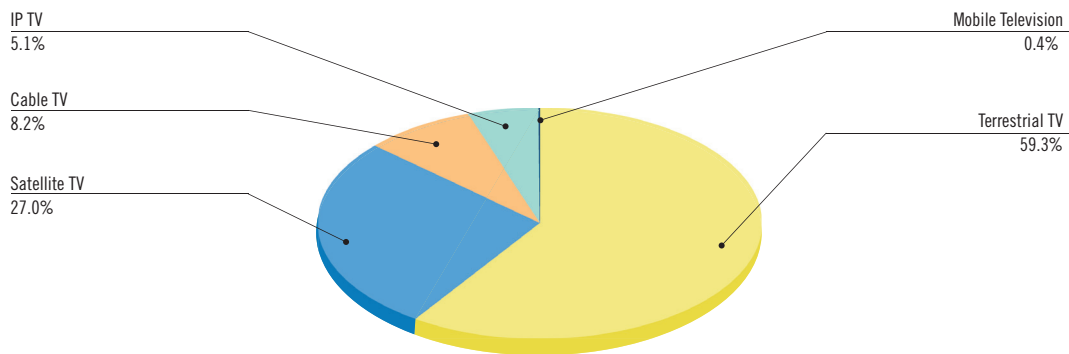
Source: CMT

- Television revenue by type of carrier

On examining the breakdown of revenue of the industry according to means of transmission (excluding subsidies), terrestrial television comes in first place in terms of revenue. It operated over the first three months of the year on two systems: digital and analogue, until, at the beginning of April, the latter was switched off. The services of the free-to-air television operators were offered through this medium at national, regional and

local level, as were the new DDT pay channels, of which there were three by the end of the year: Gol Televisión and AXN, which have come together in a platform managed by Mediapro, and Sogecable's Canal+Dos.

DISTRIBUTION OF TELEVISION REVENUE BY MEANS OF TRANSMISSION (percentage)



Source: CMT

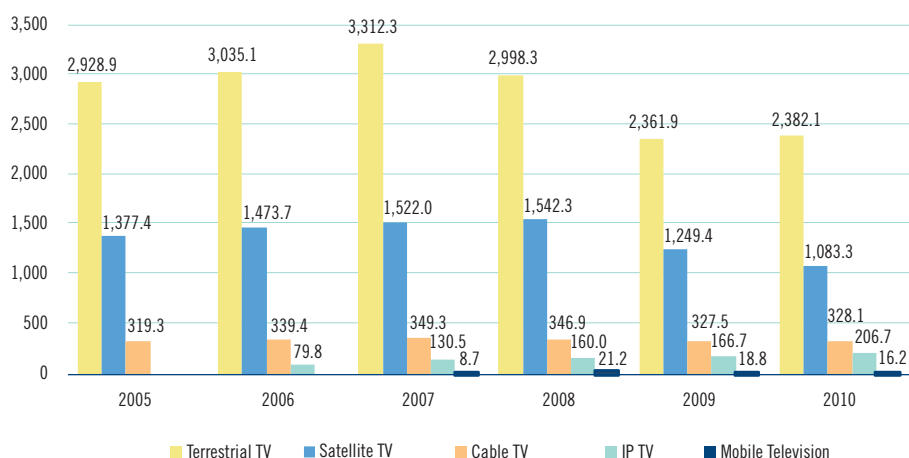
Television revenue on terrestrial waves, after increasing by 0.9% over the previous year, reached 2,382,100,000 Euros, or 59.3% of total revenues for television services.

Satellite television came in second place by amount of revenue, and at the same time was the segment which declined the most. These services, with a turnover of 1,803,300,000 Euros, a fall of 13,3%, saw a drop in their share of overall television revenue to 27%.

In third place came the cable television services, with a turnover of 328.1 million euros, an increase of 0.2% over 2009, and then IP television, which with revenues of 206.78 million euros and an increase of 24%, was the technology that showed the greatest increase in revenues in the audiovisual services market.

Finally, the revenue received by television through portable devices was recorded. Turnover for these services reached 16.2 million euros, compared with 18.8 million for the previous year. These services, offered by mobile telephone operators, are usually associated with contracts for other services, such as fixed data tariffs, and on occasions they are offered free of charge complementary to these services. Consequently, the growth in the number of subscribers to mobile television does not always result in greater revenue for these services.

TELEVISION REVENUE BY MEANS OF TRANSMISSION WITHOUT SUBSIDY (millions euros)



Source: CMT

- Revenue by item

If we analyse the different items that account for revenue, we can see that the two main sources of finance for the industry, advertising and subscriber revenue, remained at levels very similar to those for 2009.

In the first year that Spanish Television operated without advertising, advertising revenue, which includes advertising, sponsorship and telesales, stood

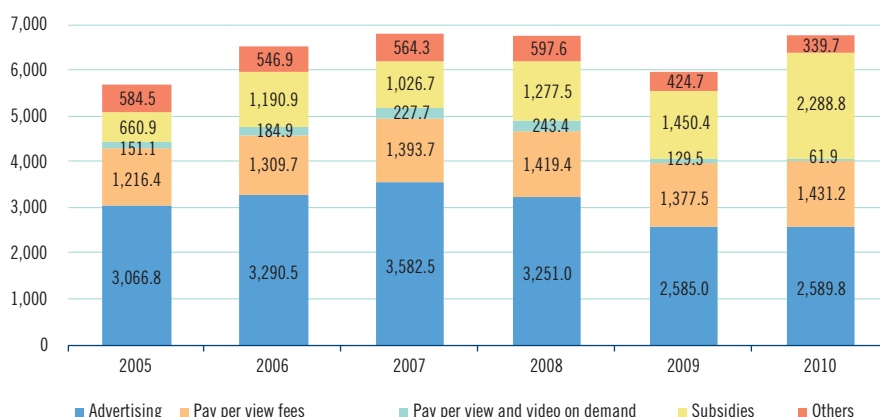
at 2,589,800,000 Euros, an increase of 0.2%. This was not a particularly significant growth in overall terms, but it should be noted that the distribution of revenue between operators was restructured, given that the disappearance of Spanish Television from the advertising market led other commercial operators to record significant growth in their turnover under this heading.

.In terms of revenue per subscriber, pay per view quotas, which include monthly fees and those for registration and equipment rental costs, amounted to a total of 1,431,200,000 Euros, which meant an increase of 3.9%, compared with the previous year.

Under the subscriber heading, we should add revenue from on-demand and pay-per-view video. This revenue has fallen considerably over the last two years, which

can be explained by the change in the model for the exploitation of retransmission rights for the main football matches, which are now exploited through specialised channels (Gol Televisión and Canal+ Liga) instead of by the traditional pay-per-view formula. In 2010 revenue was 67.6 million euros lower than in 2009 under this heading, and with a fall of 52.2% revenue for pay-per-view and on-demand video stood at 61.9 million.

DISTRIBUTION OF REVENUE IN THE AUDIOVISUAL SERVICES INDUSTRY BY HEADING, INCLUDING SUBSIDIES (millions euros)



Source: CMT

In addition, operators extended activities falling into the category of 'miscellaneous'. To revenue received for items such as advertising and online sales of goods through their websites⁷⁸, own productions and the sales of rights to cinematographic co-production, are added returns from renting multiple-access bandwidth to other operators and revenue from wholesales sale of programme channels to other platforms⁷⁹. In spite of including these new items, revenue received for miscellaneous fell by 20.6%, to stand at 339.7 million euros.

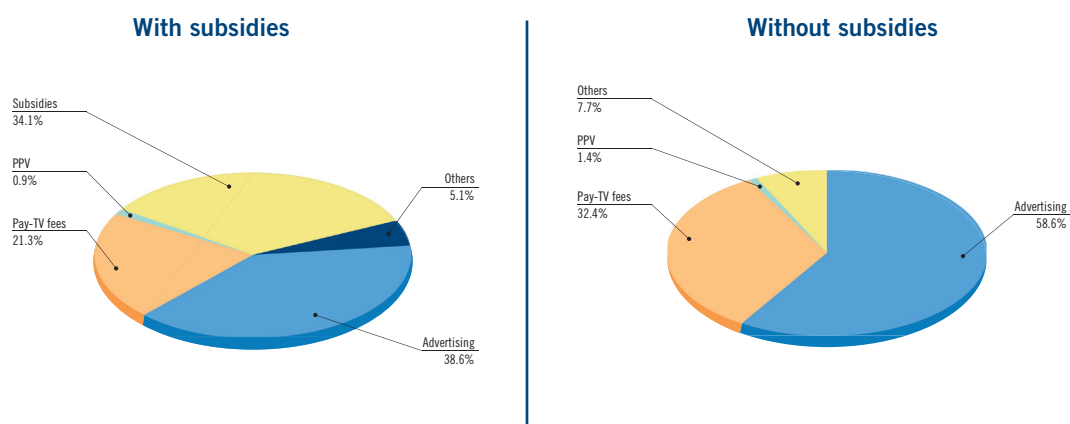
Finally revenue through subsidies should be mentioned, which increased in 2010 by slightly more than 50%. Part of this growth can be attributed to the disappearance of advertising from Spanish Television, which led to an increase in public resources for

financing it. As for the remaining public operators, the change in subsidies was uneven between them and, while some received less in subsidy than they had the previous year, others received an increase.

⁷⁸ Virtually all the television operators have Internet sites where they offer audiovisual content that they broadcast through the traditional television services. These Internet sites bring in revenue for the operators from advertising and the online sales of goods and services.

⁷⁹ Besides making a part of its programming available through mobile television services, in 2010 Sogecable signed agreements with a number of pay, cable and IP platforms (Orange, Ono and Telecable) so they could market Canal+ through their platforms as a premium content channel. The same happened with the Gol Televisión channel, which since 2009 has been available, as well as on DTT, as a premium content channel on cable and IP television operators' platforms.

DISTRIBUTION BY ITEM OF REVENUE IN THE AUDIOVISUAL INDUSTRY (percentage)



Source: CMT

b) Free-to-air television services

In 2010, the free-to-air television industry was still involved in reorganising and restructuring its business model, which started with the process of digitalising the television signal and the technological improvements that it brings.

This change in technology has led to an increase in the number of audiovisual communication service providers and in the number of programme channels that each of them broadcasts and has generated new business opportunities. On the other hand, it has also given rise to greater fragmentation of audiences.

One of the points that has had the greatest effect on the restructuring of the free-to-air television segment was the change in financing model for the Spanish Radio and Television Corporation (CRTVE), which led to the end of advertising broadcast by the public operator and its full funding from the public purse.

Another change was the extension of television choice with new programme channels which from September started to be added to already existing channels. These channels were awarded to operators as a consequence of the final cessation of analogue broadcasts at the beginning of April.⁸⁰

On the other hand, two of the free-to-air television providers, Gestevisión Telecinco and Sogecuatro, merged, but as this merger came to fruition in the final

months of the year, it did not have any impact on the 2010 figures. It should be noted that the group created by this merger hold two complete multiples, amounting to eight programme channels.

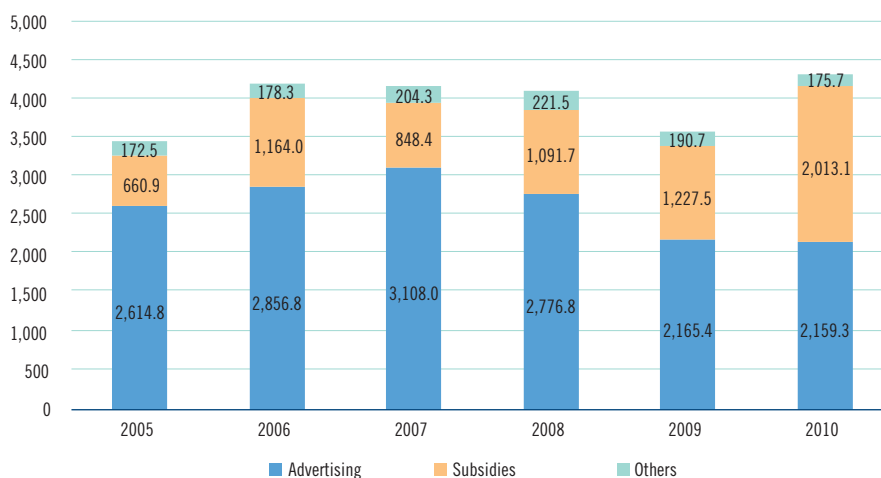
Over the year, a new DTT television pay channel also appeared. Under the new General Law on Audiovisual Communication private operators at national level can devote half of their bandwidth to offering DDT pay services. This could influence in the next few years the free-to-air services market insofar as, of the 32 national programme channels, 12 could be conditional access channels.

- Free-to-air television revenue

Total revenue for free-to-air televisions accounted for 4,348,200,000 Euros, including 2,335,100,000 Euros of commercial billing, 2,013,100,000 Euros from the subsidies received by public television services.

⁸⁰ See further information on the awarding of new channels in the paragraph on regulation and market prospects.

REVENUES FROM FREE-TO-AIR TELEVISION SERVICES, SUBSIDIES INCLUDED (millions euros)



Source: CMT

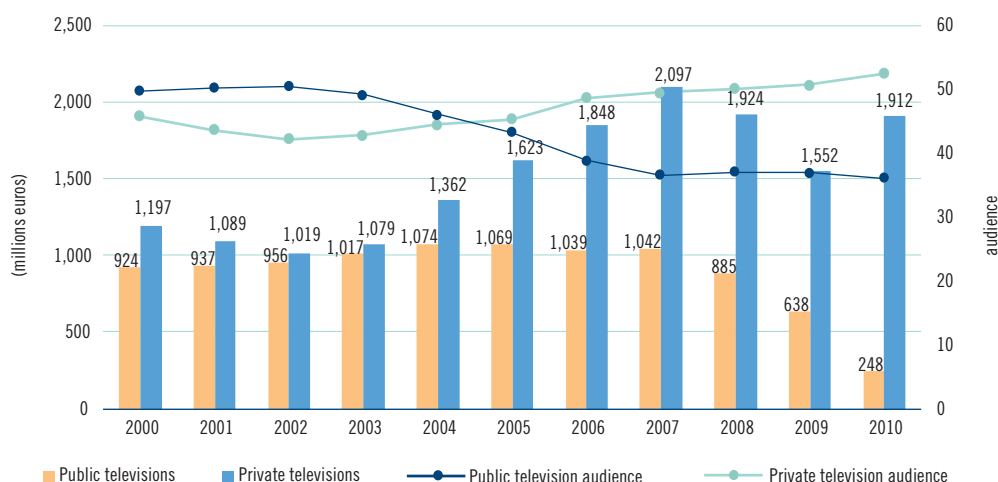
Out of the 2,335,100,000 Euros of commercial billings, 2,159,300,000 Euros were accounted for by revenue from advertising, sponsorship and telesales. The remaining 175.7 million euros, corresponding to other items including revenues from its own productions, sending short messages to mobile phones (SMS), calls to premium numbers, electronic sales, web page advertising, leasing part of multiple channel capacity and, in general, revenues from audiovisual services not proceeding from advertising investment.

- Television revenue by operator group

In 2010, the advertising revenue of private television increased by 23.2% compared to the previous year. Thus, the 1,552,000,000 Euros raised by these operators in 2009, went up to 1,911,800,000 Euros, representing an increase in absolute terms of 360 million euros.

This increase in the advertising revenue of private channels was accompanied by a decrease in advertising revenue for public television, with Televisión Española's revenues falling by 61.2% in its first year without advertising, to stand at 247.6 million euros.

ADVERTISING REVENUE AND AUDIENCE SHARE BY OPERATOR GROUPS⁸¹ (millions euros and percentage)

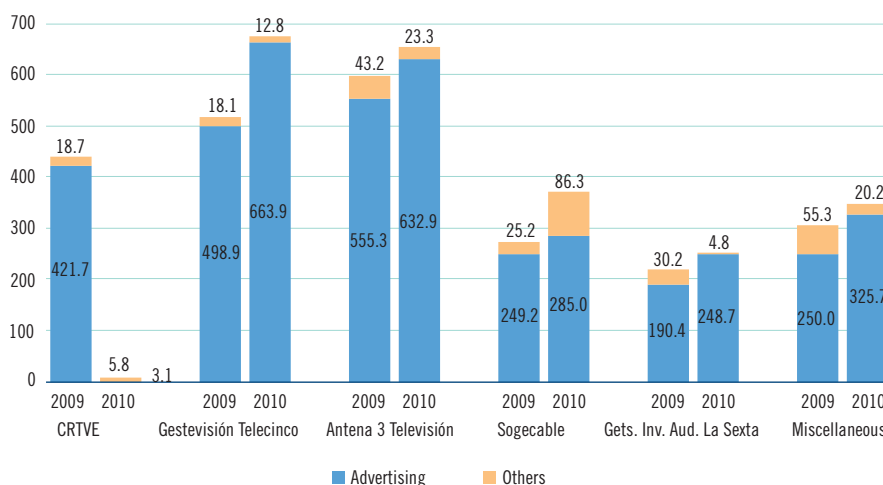


Source: prepared in-house with data from CMT and Kantar Media.

If the concentration of advertising revenue is analysed by operator size, the group formed by the four major free-access television operators that broadcast nationally (Telecinco, Antena 3, Sogecable and La Sexta) summed 1,830,500,000 Euros, representing 84.8% of total advertising revenues recorded by free-access television taken as a whole.

The rest of the providers, including regional television channels and channels operating in the Net TV and Veo TV multiple channel providers, obtained 325.7 million euros from their advertising activity.

FREE-ACCESS TELEVISION REVENUES BY OPERATOR, SUBSIDIES INCLUDED (millions euros)



Source: CMT

⁸¹ In preparing the graph in 2010 the series of audiences has been changed, using the audience obtained by audiovisual groups and including the Vocento and Grupo Editorial channels.

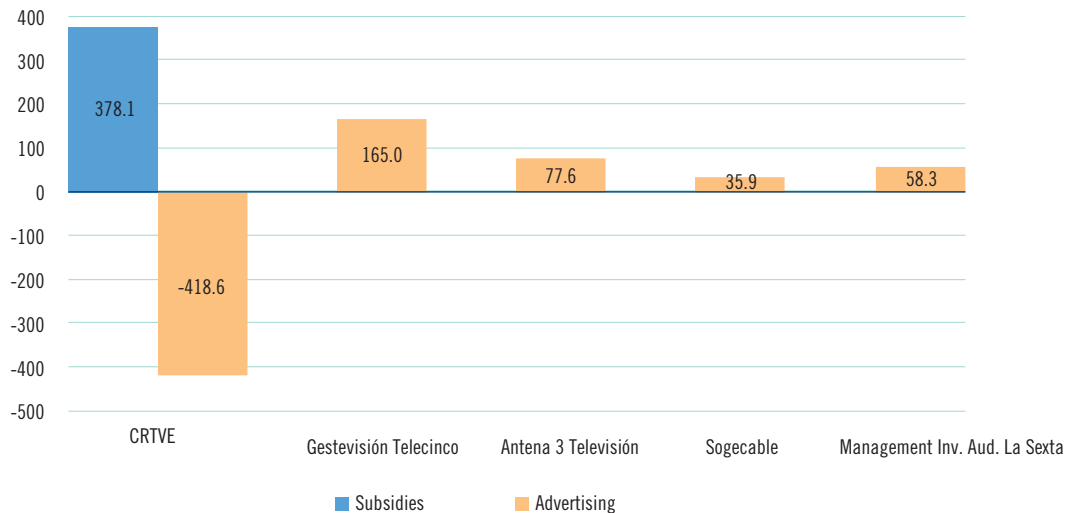
- Advertising revenues by operator

Advertising revenues recorded by free-access television were very similar to 2009, down by just 0.3%. However, the distribution of these revenues among different operators changed very significantly, with the disappearance of advertising in Televisión Española being translated into increased advertising revenues for private television channels.

The following graph illustrates the reallocation of advertising resources among operators following the departure of the public operator from the advertising market, showing, in absolute terms, rises or falls in advertising revenues and subsidies for the major operators between 2009 and 2010.

As can be seen, revenues from subsidies for Televisión Española increased significantly as the amounts received by advertising decreased, although increased public resources did not fully offset the reduction in business revenue. Moreover, major private operators in the market were able to capture, to a greater or lesser extent, more advertising revenues than in 2009, and although this table shows only the most important operators in terms of turnover, the increase in advertising revenue was general among all commercial operators.

2010/2009 DIFFERENCES IN ADVERTISING REVENUES BY OPERATOR, SUBSIDIES INCLUDED (millions euros)



Source: CMT

Telecinco earned the most advertising revenue, with 663.9 million euros, an increase of 33.1% over 2009. Antena 3 was second, with 630.8 million euros, a year-on-year growth of 13.6%. The next two operators were Cuatro, with 285 million euros, an increase of 14.4%, and La Sexta, with 245.5 million euros, 30.6% more than in 2009.

Channels broadcasting through the Veo TV and Net TV multiple channel providers also had notable increases in turnover, 162% in the first case and 126.6% in the second, obtaining revenues of 25 and 49.2 million euros, respectively.

MINUTES OF ADVERTISING SHOWN AND ADVERTISING REVENUE OF THE MAIN OPERATORS OF FREE-ACCESS BROADCASTS⁸² (minutes and thousands of euros)

	2009			2010			2009-10 YEAR-ON-YEAR VARIATION	
	MINUTES AIRED	MINUTES ADVERTISING, SPONSORSHIP AND TELESALES	REVENUES BY ADVERTISING, SPONSORSHIP AND TELESALES	MINUTES AIRED	MINUTES ADVERTISING, SPONSORSHIP AND TELESALES	REVENUES BY ADVERTISING, SPONSORSHIP AND TELESALES	MINUTES ADVERTISING, SPONSORSHIP AND TELESALES	REVENUES BY ADVERTISING, SPONSORSHIP AND TELESALES
Gestevisión Telecinco	339,806	339,806	498,897	353,704	353,704	663,927	4.1%	33.1%
Antena 3 Televisión	256,909	241,881	555,303	259,702	249,569	630,799	3.2%	13.6%
Sogetel (free-access TV)	80,483	78,857	249,162	101,338	97,248	285,032	23.3%	14.4%
Management Inv. Aud. La Sexta	179,940	120,849	187,963	121,296	101,070	245,463	-16.4%	30.6%
Regional Television of Catalonia	83,917	83,917	79,180	118,598	61,263	89,883	-27.0%	13.5%
Television Management Company Net TV	148,231	102,111	21,703	161,882	126,772	49,170	24.2%	126.6%
Regional Television of Andalusia	95,112	73,494	38,741	93,684	74,250	345	1.0%	-99.1%
Regional Television of Madrid	53,995	10,223	24,133	94,683	67,020	30,787	555.6%	27.6%
Veo Televisión	164,454	117,437	9,544	172,505	132,572	25,004	12.9%	162.0%
Regional Television of Valencia	77,883	54,120	20,747	88,568	57,892	21,097	7.0%	1.7%
Regional Television of Galicia	46,185	30,536	13,398	50,855	37,049	16,379	21.3%	22.2%
Regional Television of the Basque Country	87,157	68,242	16,280	85,232	69,723	16,379	2.2%	0.6%
Regional Television of the Canary Islands	82,175	44,819	4,525	148,231	102,111	5,003	127.8%	10.6%
CRTVE	288,766	223,232	421,708	128,498	68,294	3,115	-69.4%	-99.3%
Regional Television of Extremadura	22,449	8,047	4,449	27,647	7,417	1,649	-7.8%	-62.9%

Source: CMT

- Advertising shown and average revenues

Generally, the number of minutes of advertising broadcast by transmitters increased in line with the emergence of new channels and the growth of theme channel audiences.

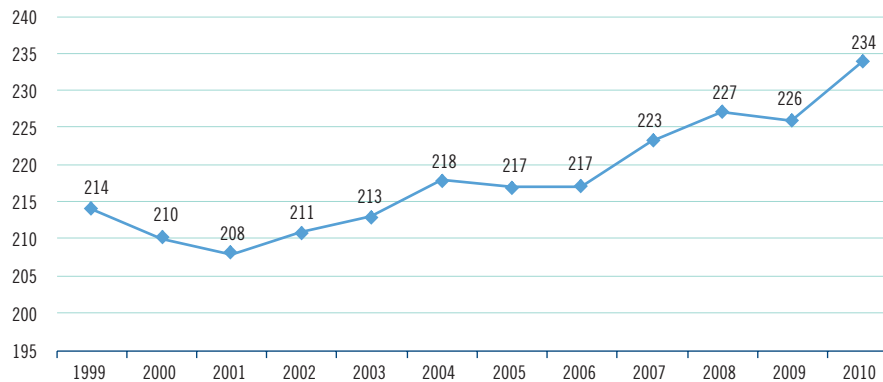
Comparing minutes of advertising broadcast with revenue obtained shows that, in general, national private television companies reported increases in average revenue per minute, in contrast to regional public television, which experienced falls in most cases, with a few exceptions like the public television broadcaster of Catalonia.

- Audiences and consumption of free-access television

As regards time spent by the audience watching television, 2010 was the year of the biggest increase in consumption in the history of Spanish television, with 234 minutes per viewer per day (about four hours a day). This figure means that television viewers dedicated eight more minutes per day to watching television than in the previous year.

⁸² The total air time includes minutes of advertising, telesales, sponsorship and self-advertising. In the cases that there are no self-advertising minutes, the air time corresponds to the total minutes of advertising, sponsorship and telesales. For operators with free-access and pay broadcasts, only their free-access television minutes and revenue are considered.

AVERAGE DAILY CONSUMPTION OF TELEVISION (minutes)



Source: Kantar Media

Additionally, one of the most noticeable effects of moving to the DTTV environment has been the phenomenon of audience fragmentation, due to the emergence of new operators and the increased number of channels each of them broadcasts.

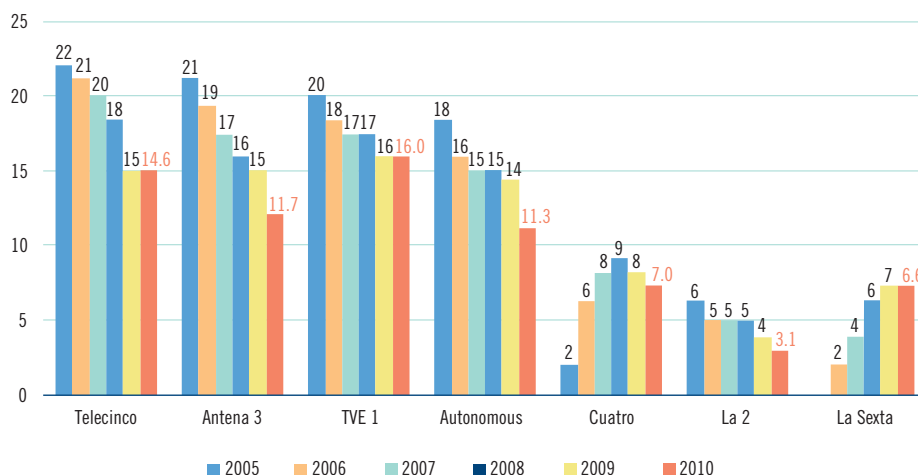
2010 was thus no exception to previous years with the phenomenon of fragmentation of audiences continuing to advance as new channels gained more viewers. This phenomenon can be expected to be further boosted by the appearance of the new channels allocated to broadcasters in July, after the closure of analogue broadcasting, and which will begin to operate from September.

Another factor to take into account was the removal of advertising broadcasts from channels of the Spanish Radio and Television Corporation, meaning that a part of the audiences in the market is not now related to the sale of advertising space.

Figures show that in 2010, in line with the tendency over the last five years, there was a drop in average audiences and a cumulative fall in screen quotas for traditional programming channels, in favour of channels more recently incorporated into the market.

This phenomenon can be seen in the attached graph, which shows the evolution of general channel audiences in the last six years alongside figures recorded for them in 2010.

EVOLUTION OF AUDIENCE INDICES BY CHANNEL SINCE 2005⁸³ (percentage)

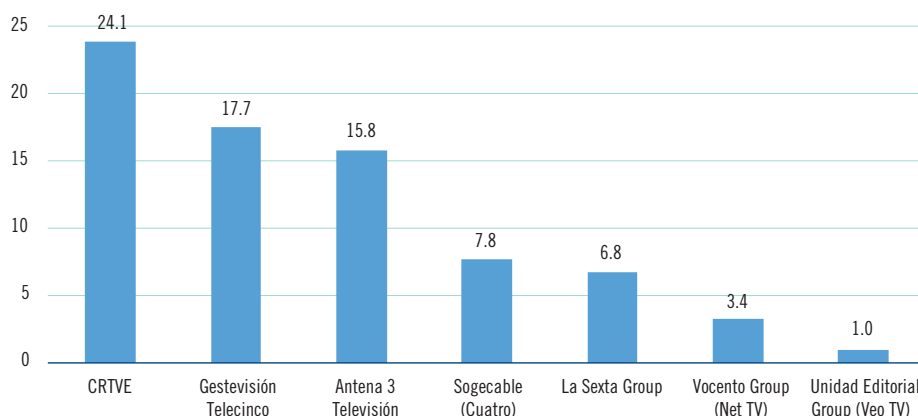


Source: Kantar Media.

In addition to audiences by channel, it is interesting to know about audiences by group, obtained by adding together the audiences of all channels belonging to the same business group. This variable is especially useful in the light of the onset of the common advertising model, a new formula to market advertising by synchronising commercial breaks on all channels of a

group, in order to broadcast the same advertisements across all channels simultaneously. This strategy allows the audiences of all channels to be concentrated into a single audience, while also helping to market a greater number of minutes, with the greater advertising occupancy gained in theme channels.

AUDIENCE INDICES BY GROUP IN 2010⁸⁴ (percentage)



Source: Kantar Media.

^{83, 84} Average annual viewing figures.

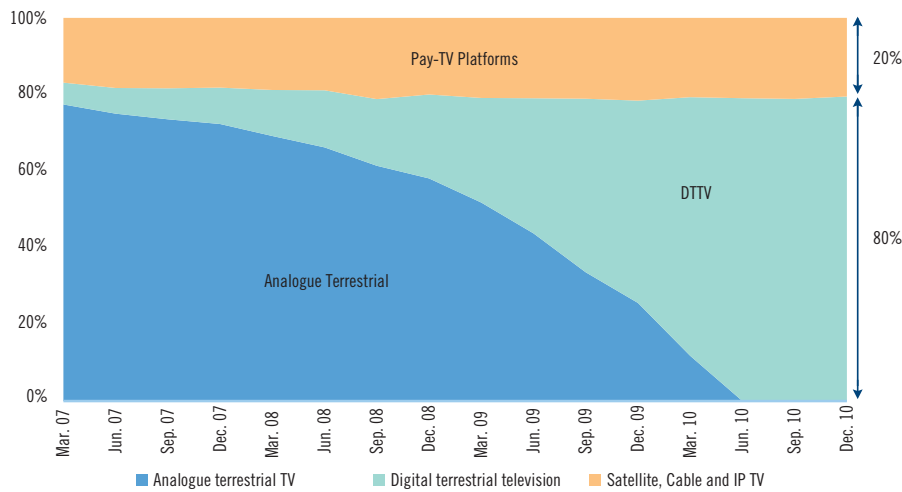
- End of analogue broadcasting and new DTTV scenario

2010 stood out as the year in which analogue broadcasting was fully decommissioned, successfully completing a process begun in 2005. In five years digital coverage has been extended throughout the country, so that in April, at the end of the process, Digital Terrestrial Television's coverage (98.5% of the population) was higher than analogue television's coverage

had been. Additionally, in areas not properly reached by the terrestrial signal, coverage of DTTV channel signals was enabled via satellite.

The following graph of audience evolution by transmission media, shows the pace of this technology migration during the last four years. At the end of 2010, audience distribution was stabilised at about 20% for platforms offering pay-TV and 80% for DTTV.

AUDIENCE EVOLUTION BY TRANSMISSION MEDIA (percentage)



Source: Kantar Media.

The biggest advantage of migration to DTTV, apart from improvements in sound and image quality, is that this technology allows better use of the radio spectrum. This has made it possible to increase the number of television programming channels that can be broadcast, along with the additional services that accompany this programming.

The analogue shutdown meant that radio-electric spectrum frequencies being used to provide *simulcast* broadcasts were released, and national operators, except for the Spanish Radio and Television Corporation, were able to access the additional channels⁸⁵ each of them needed in order to reach the capacity of a whole multiple,

equivalent to four programming channels. This involved an increase in the national television channels available, with nine new programming channels being added to those already broadcasting.

The operators began broadcasting of the new channels in September. Consequently, the configuration of programming available nationally at the end of year was as shown in the following table.

⁸⁵ One for Telecinco, Antena 3 and Sogecable, and two for La Sexta, Net TV and Veo.

DTTV CHANNELS AVAILABLE NATIONALLY (31 December)

Veo Televisión				
Soc. Gest. de Televisión Net Tv				
Gest. Inv. Aud. La Sexta				
Sogecable				
Gestevisión Telecinco				
Antena 3 Televisión				
CRTVE				
CRTVE				

Source: CMT

c) Pay television services

Pay-television and conditional access television services are those offered by operators in exchange for direct payment, either of a service subscription fee - for example a monthly or annual fee -, or a single payment for viewing a specific content at a given time.

In 2010, revenues obtained by pay-television operators stood at 1,681,300,000 Euros, representing a year-on-year fall of 4.9%. Meanwhile, the number subscribers - not taking into account mobile television services - grew by 7.7%. This disparity between revenue and

subscribers reflects the increased importance in this market of simpler, cheaper, pay-television services.

In the present context, there is more competitive pressure on the incumbent operators in this market. As well as being faced by an increased offer from new DTTV pay services, the industry is confronted by the Internet, which is emerging more and more as a competing platform for contents supply. In this context, it is clear that downloading films and series and the recent option of viewing content by *streaming*⁸⁶ have increased competitive pressure on the pay-television platform business.

Moreover, the migration to the DTTV environment, which has allowed a significant increase in the supply of free-access television channels and has enhanced the services offered by this segment, may help access-free television to become a potential rival to pay-television services. In this regard, the greater number of free-access channels may lead the public to consider it unnecessary to subscribe to pay-television services. The following table, the source for which

is the CMT-Red.es Household Panel, indicates that 77.1% of respondents believe that pay television is not necessary given the current availability of television channels.

REASONS HOUSEHOLDS QUOTED FOR NOT HAVING PAY-TELEVISION (households without pay television as a percentage of total households)

We have enough with free television	77.1%
It is expensive	33.3%
We do not need it	30.9%
It does not interest us	22.3%
We do not watch much television	20.8%
The channels and programmes on offer are not interesting	6.1%

Source: CMT

- Operators in the market

A new DTTV pay channel, managed by Sogecable, began to operate in the market at the end of August. This operator launched a conditional access offer via DTTV, consisting of *premium* contents channel, Canal+Dos, marketed at a monthly fee of 15 Euros.

Also in the pay-DTTV field, Gol Televisión launched a new commercial offer under which subscribers to the sports channel have the option, for a small increase in the monthly fee, to subscribe to a second channel, AXN.

For its part, the telecommunications operator Jazztel announced in July the closure of its

pay television service, Jazztelia TV, after reaching a joint agreement with Digital + by which subscribers to the television service became part of a combined offer by both companies with discounts on contracting television from Digital+, and ADSL and fixed telephony from Jazztel.

Finally, it should be noted that the Telecinco Group and Telefónica started to form part of the company capital of Digital+, each acquiring 22% of the shares of the satellite pay television platform⁸⁷.

⁸⁶ The term *streaming* refers to technology that permits music to be listened to and videos to be watched without having to download them previously to the hard disk in the user's computer. The advantage of *streaming* is that the content can be consumed whenever the consumer wishes.

⁸⁷ The transaction was concluded at the end of 2010, once it was authorised by the appropriate regulatory bodies. The acquisition of 22% of the shares of Digital + by the Telecinco Group was carried out as part of the merger, in the free-access television services market, of Gestevisión Telecinco and Sogecuatro (part of the Prisa Group).

- Revenues by technology type

In terms of volume of billed revenue, the leading technology in the pay television market was satellite, the sole operator of which is Digital+, with 1,083,300,000 Euros. This revenue represented a fall of 13.3% compared to 2009, which relates to the 3.9% reduction in the number of subscribers to the platform. As can be seen, although both variables showed a negative development, the reduction in turnover was much greater than the reduction in customers.

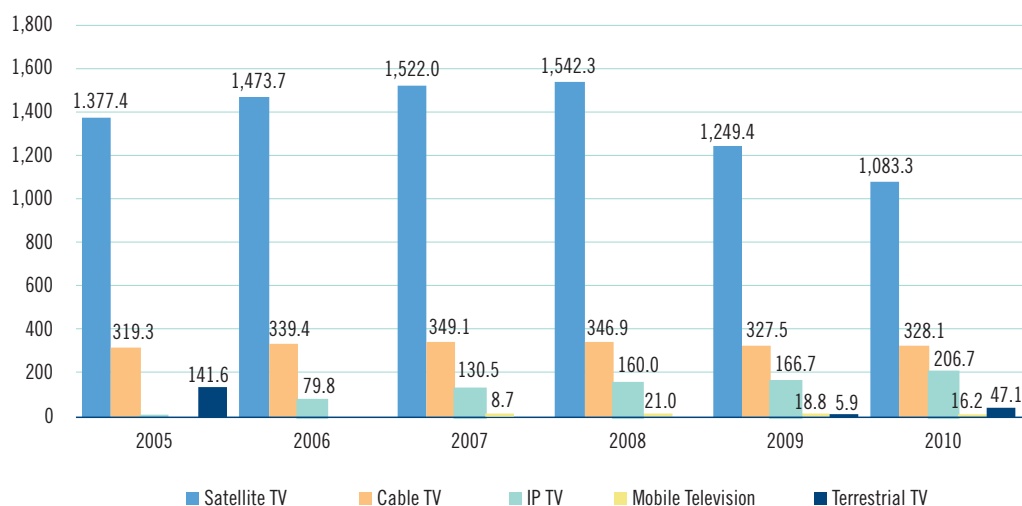
Despite these falls, Digital+ remained the main pay television platform in Spain, with 64.4% of the total turnover of conditional access platforms.

Second place in terms of revenue, although far behind the first, went to cable pay television, with 328.1 million euros, 0.2% more than the figure recorded in 2009. This

fall contrasts with the increase of 10% in the number of subscribers of these operators. As in the case of satellite, comparing the performance of revenues and evolution of subscribers, we can infer that, although there are more subscribers, they pay increasingly less for accessing the contents. This idea will be analysed in greater detail in the market shares section.

After cable, come the IPTV platforms, with turnover of 206.7 million euros. This figure, which reflected a major advance (24%) compared to the turnover achieved in 2009, was accompanied by a 7.3% increase in the number of subscribers.

PAY TELEVISION REVENUE BY TRANSMISSION MEDIA (millions euros)



Source: CMT

The next technology by volume of revenues, was DTTV *Premium* services. During 2010, the main user of this technology was the Gol Televisión sports content channel, which was added to in the last months of the year by the AXN channel. In addition, at the end of the year, Sogecable entered this segment with a new

channel: Canal+ Dos. Revenues earned in 2010 by this set of operators were 47.1 million euros.

Finally, mobile television services closed the list with revenues of 16.2 million euros. These services are often linked to the contracting of other products, such

as flat rates for data over mobile networks, allowing users to enjoy mobile television free for a period of time. Therefore, increases in the number of subscribers

to the mobile television service are not necessarily associated with increased revenues in this area.

EVOLUTION OF REVENUES AND SUBSCRIBER NUMBERS BY TECHNOLOGY (millions euros and subscribers)

	2009		2010		VARIATION	
	SUBSCRIBERS	REVENUES	SUBSCRIBERS	REVENUES	SUBSCRIBERS	REVENUES
By Technology:						
Satellite TV	1,845,805	1,249.4	1,773,366	1,083.3	-3.9%	-13.3%
Cable TV	1,441,696	327.5	1,586,573	328.1	10.0%	-0.2%
IP TV	797,680	166.7	855,584	206.7	7.3%	24.0%
Terrestrial TV	153,151	5.9	347,662	47.1	127.0%	698.3%
Total without Mobile television	4,238,332	1,749.4	4,563,185	1,665.1	7.7%	-4.8%
Mobile Television	346,528	18.8	496,856	16.2	43.4%	-13.8%
Total with Mobile Television	4,584,860	1,768.2	5,060,041	1,681.3	10.4%	-4.9%

Source: CMT

- Pay television revenues by item

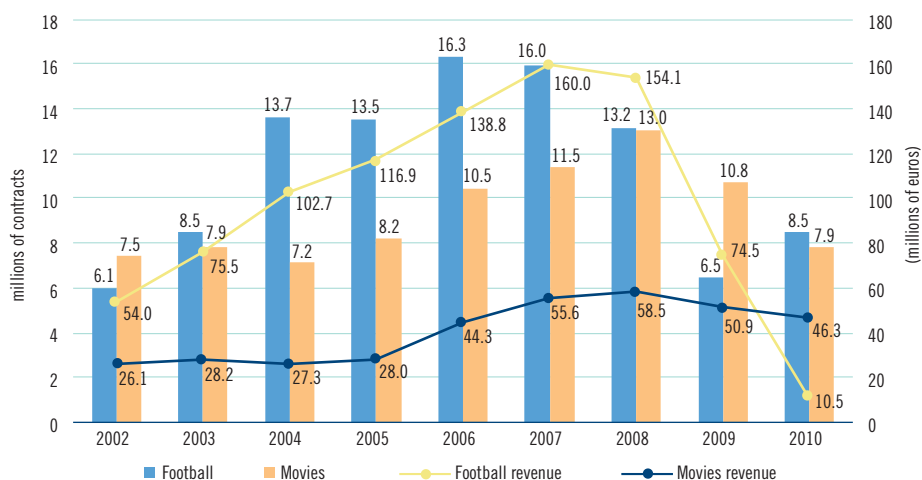
In 2010, billing of pay television operators' monthly fees increased by 5.8% over the previous year, to stand at 1,330,400,000 Euros. However, this is less than the 7.7% increase in the number of subscribers. This suggests either a lowering in the prices of services, or a movement of subscribers who migrate from one service to another with lower rates.

Another important item in 2010, which stood out for experiencing the biggest fall from the previous year in absolute terms, was that of revenues from pay per view and video on demand. With a fall of 52.2%, they stood at 61.9 million euros. This figure is 67.7 million lower than that recorded in 2009, a year in which these revenues had already experienced a considerable decrease.

The sharp decline in revenue from pay per view and video on demand is explained by the change in the payment model for commercial exploitation of football matches. In years prior to 2009, these events had been marketed with the pay per view formula. However, from 2009 they became available through the new specialised sports channels, Gol Televisión and Canal+Liga, for a monthly subscription.

The following graph shows the evolution of revenues from pay per view and video on demand. In 2010, for the first time revenues from broadcasting football events were below revenues earned from films.

NUMBER OF CONTRACTS AND REVENUES DERIVING FROM PAY TELEVISION⁸⁸ (millions of contracts and millions euros)



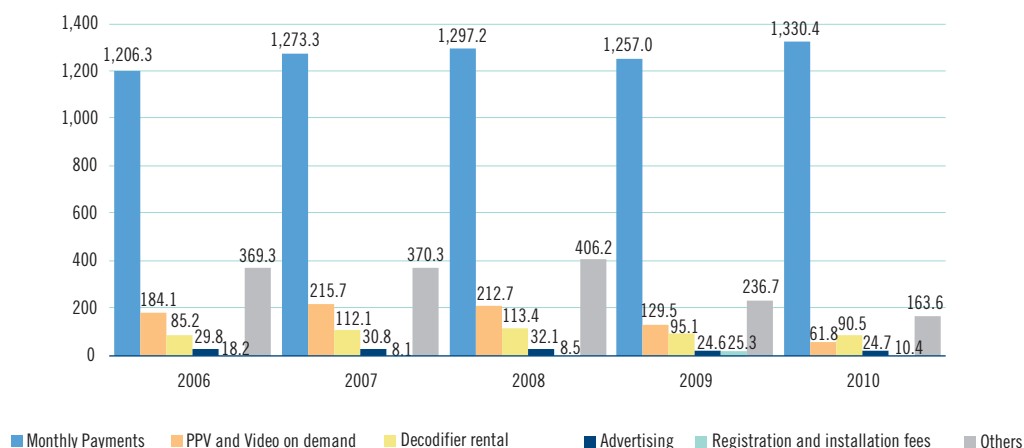
Source: CMT

The other two revenue headings to suffer setbacks compared to last year were decoder rentals and registration and installation fees. The first of these, with a drop of 4.9%, stood at 90.5 million euros, while the second two fell by 59.1% to 10.4 million. Revenue for these headings varies depending on the promotional offers made by operators, it being standard practice to offer new subscribers a period of discount during which both, or one, of the services are free.

Finally, to close the analysis of revenues from pay television, advertising revenue and other non subscriber-related revenues stood at 24.7 and 163.6 million euros, respectively.

⁸⁸ This graph does not reflect revenues and contracts for pay per view and video on demand events that come from other sports, documentaries or other events.

REVENUES FROM PAY TELEVISION BY HEADINGS⁸⁹ (millions euros)



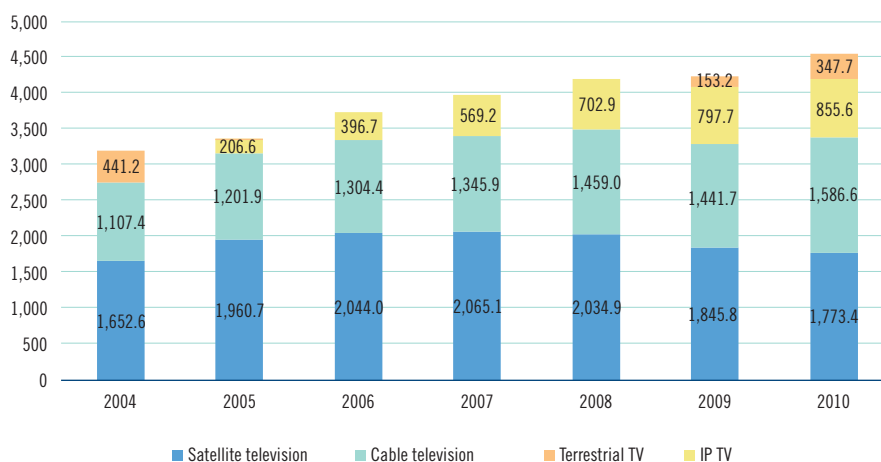
Source: CMT

- Number of subscribers to pay television

As progress has been made in the heading of revenue from pay television by technology, in 2010 there was

a significant increase in the number of subscribers to pay television: 7.7% if mobile television is excluded⁹⁰ and 10.4% if it is included.

EVOLUTION OF THE NUMBER OF PAY TELEVISION SUBSCRIBERS BY TRANSMISSION MEDIA⁹¹ (thousands of subscribers)



Source: CMT

⁸⁹ The "Other" heading includes revenues such as those generated by the sale of magazines with information on channel programming, the sale of audiovisual rights, provision of various services, leasing and transmissions.

⁹⁰ It is useful to distinguish between the number of subscribers to this market obtained by taking account, or not taking account, of mobile television services, because the consumption patterns are very different.

⁹¹ Does not include television by mobile phone.

Overall, the number of subscribers to pay television in the first case was 4,563,185, and 5,060,041 in the second. As already noted, this increase in the number of subscribers is not always accompanied by an equivalent increase in revenues.

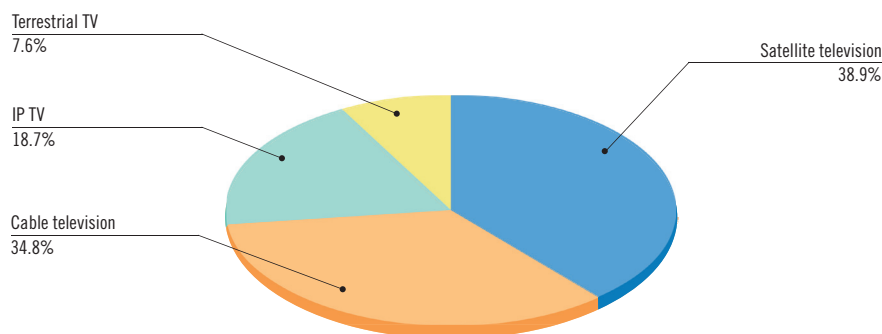
An analysis by platform showed that there was a general increase in the number of customers in all technologies, except for satellite, which fell by 3.9% in subscriptions, closing 2010 with 1,773,366 subscribers.

Cable and IPTV increased their pay television customer base at a rate of 10% and 7.3%, respectively, and

their customer portfolios stood at the end of year at 1,586,573 and 855,584 subscribers, respectively.

As regards terrestrial technology, pay-DTTV, which began offering its services in the last quarter of 2009, doubled its number of subscribers during the year, with 347,662 subscribed customers by year-end.

DISTRIBUTION OF PAY TELEVISION SUBSCRIBERS BY TECHNOLOGY⁹² (percentage)



Source: CMT

Additionally, mobile television, which in 2010 operated through 3G mobile networks, had 496,856 subscribers by year-end, representing a major gain (43.4%) on 2009. However, this gain was not reflected in revenues.

- Number of subscribers by operator

Regarding the evolution of the number of subscribers per operator, the only operators with falls in their customer bases were Sogecable and Orange.

Sogecable, operating pay television by satellite, recorded a fall of 71,489 subscribers to end 2010 with 1,774,316 subscribers. Orange's IPTV service lost 13,605 subscribers, falling to 70,291 customers.

With regard to the other operators, Ono, the second largest in the market in terms of numbers of subscribers, increased its customers by 6.5% to over one million pay television customers, closing the year with a figure of 1,038,347. The next biggest operator, Telefónica, with its Imagenio service, recorded an increase of 11.9% to end the year with 785,293 customers.

⁹² Does not include television by mobile phone.

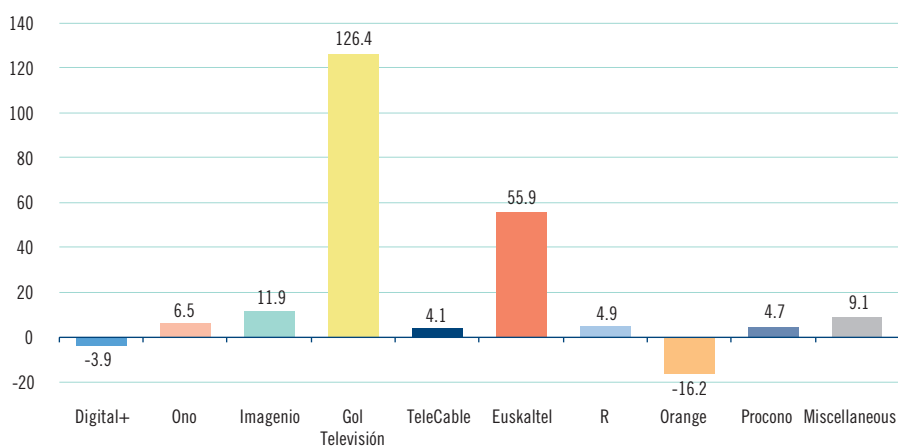
EVOLUTION OF REVENUES AND SUBSCRIBER NUMBERS BY TECHNOLOGY⁹³ (millions euros and subscribers)

	2009		2010		VARIATION	
	SUBSCRIBERS	REVENUES	SUBSCRIBERS	REVENUES	SUBSCRIBERS	REVENUES
By Operator:						
Sogecable (D+ and Canal+ Dos)	1,845,805	1,249.4	1,774,316	1,083.3	-3.9%	-13.3%
Ono	975,005	233.5	1,038,347	224.9	6.5%	-3.7%
Telefónica (Imagenio)	702,027	160.1	785,293	200.0	11.9%	25.0%
Gol Televisión	153,151	5.9	346,712	47.1	126.4%	698.0%
TeleCable	133,665	28.1	139,117	33.6	4.1%	19.7%
Euskaltel	83,230	14.1	129,733	16.2	55.9%	15.5%
R	88,106	19.7	92,402	22.3	4.9%	13.5%
Orange	83,896	4.8	70,291	5.0	-16.2%	4.9%
Procono	28,625	3.7	29,978	3.9	4.7%	2.8%
Others	144,822	49.0	156,996	45.0	8.4%	-8.2%
Total	4,238,332	1,768.2	4,563,185	1,681.3	7.7%	-4.9%

Source: CMT

The operators reporting the biggest increases in subscriber numbers were, first, the national DTTV channel, Gol Televisión, followed by Euskaltel, the regional cable operator operating in the Basque Region, with year-on-year growth in subscribers of 126.4% and 55.9%, respectively. Next came

Telefónica's IPTV service, Imagenio, with an increase in subscriber numbers of 11.9%, and in fourth place, Ono, the national cable operator, with an increase in customers of 6.5% over the previous year.

ANNUAL NET INCREASE IN SUBSCRIBERS BY OPERATOR⁹⁴ (Year-on-year variation - percentage)

Source: CMT

⁹³ Does not include mobile television subscribers and revenues.⁹⁴ Does not include mobile television.

- Market shares⁹⁵

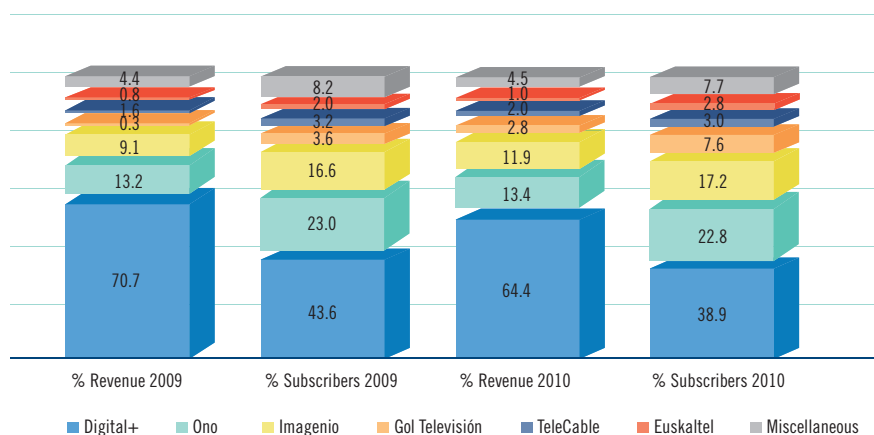
Market share analysis indicates a high concentration of revenues and subscribers in the market's three main operators: Sogecable (with Digital+), Ono and Telefónica (with Imagenio), which accounted for 89.7% of revenues and 78.9% of subscribers (3.6 million).

Individually, the operator with the largest market shares was Sogecable, which accounted for 64.4% of revenues earned by the pay television segment and 38.9% of its subscribers. However, in the last two financial years this operator has registered falls in its specific weight in the market. With respect to 2009, these decreases were 6.3 points in revenues and 4.7 points in subscribers.

The operator with the second largest market share of pay television services was Ono, with 13.4% of revenues and 22.8% of subscribers. However, evolution is uneven in both market shares, and while its share of total revenues increases slightly its share of subscribers shows a slighter fall.

Finally, the third of the major operators in the market, Telefónica, gained market shares of 11.9% of turnover and 17.2% of customers. This operator's evolution 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 IN TERMS OF REVENUE AND SUBSCRIBERS⁹⁶ (percentage)



Source: CMT

- Average revenues

The average revenue per user, or ARPU⁹⁷, allows evaluation of the revenues obtained by operators from each of their subscribers. An analysis of ARPU earned by operators, showed that it was the three major operators in the market, which are the ones with the most comprehensive offers of content, that had the highest revenue per customer.

Sogecable (Digital+) was the operator with the highest ARPU per subscriber, with an average monthly revenue of 42.9 Euros. Next, came Telefónica with 21.2 Euros/month, and Ono with 17.7 Euros/month.

⁹⁵ Calculations of shares have not taken account of mobile television subscribers.

⁹⁶ The total revenues of operators are included, not just revenues from subscribers.

⁹⁷ The Average Revenue Per User Acronym.

In order to explain these indicators, the different characteristics of the services offered by operators have to be taken into account. The price charged to the end user cannot be the same for a pay television platform that offers a large number of programming channels as for a pay service offering one or two channels.

The exclusivity of the content offered by the leading operator in the market, Sogecable, coupled with the high number of channels included in its platform, will have allowed it to obtain higher average revenues.

ARPU PER SUBSCRIBER⁹⁸ (subscribers)

	2009				2010			
	SUBSCRIBERS	REVENUES FOR SUBSCRIBERS (MILLION EUROS)	ARPU 2009 (ANNUAL) (EUROS)	ARPU 2009 (MONTHLY) (EUROS)	SUBSCRIBERS	REVENUES FOR SUBSCRIBERS (MILLION EUROS)	ARPU 2010 (ANNUAL) (EUROS)	ARPU 2010 (MONTHLY) (EUROS)
Digital+	1,845,805	1,002.0	542.9	45.2	1,774,316	913.1	514.6	42.9
Ono	975,005	229.3	235.2	19.6	1,038,347	220.0	211.9	17.7
Imagenio	702,027	160.1	228.0	19.0	785,293	200.0	254.7	21.2
Gol Televisión	153,151	5.3	34.5	2.9	346,712	43.8	126.4	10.5
TeleCable	133,665	28.1	210.3	17.5	139,117	33.6	241.9	20.2
Euskaltel	83,230	14.0	168.6	14.0	129,733	16.2	125.0	10.4
R	88,106	19.7	223.1	18.6	92,402	22.3	241.6	20.1
Orange	83,896	4.8	56.9	4.7	70,291	5.0	71.3	5.9
Procono	28,625	3.4	119.2	9.9	29,978	3.5	118.3	9.9
Others	144,822	-	-	-	156,996	-	-	-
Total	4,238,332	1,509.9	356.3	29.7	4,563,185	1,501.8	329.1	27.4

Source: CMT

In 2010 the monthly ARPU obtained by operators was seen to be 2.3 Euros less than the ARPU in 2009. This meant that operators earned 27.3 Euros less per subscriber per year.

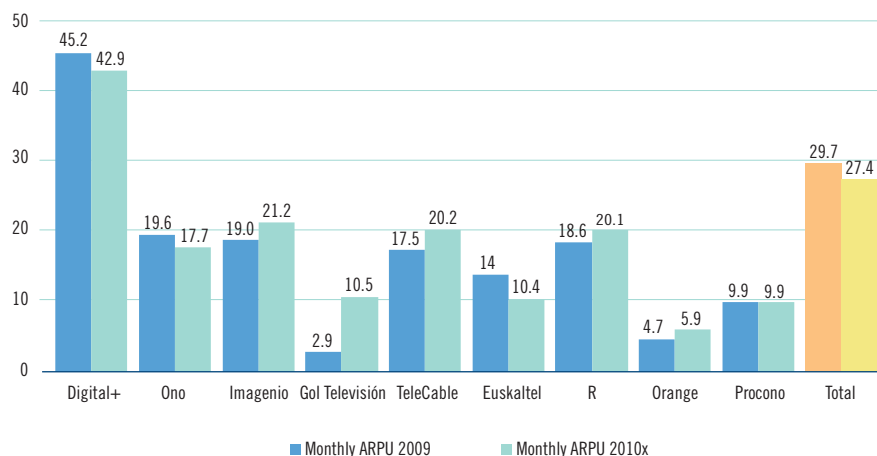
The following graph shows average revenues in 2009 and 2010 for the different operators. Overall, there was no unanimous evolution for average revenue per subscriber, with some increasing their ARPU compared to the previous year, while others saw a decrease.

Nevertheless: (i) the overall fall in average revenues, (ii) the increase in subscribers versus stagnation (even slight decrease) in revenues, (iii) the greater increase in the number of customers for offers of pay television with lower prices, and (iv) the loss of

customers by operators offering more comprehensive and exclusive services at higher prices, suggest that, in 2010, operators have launched promotions and price discounts on services to be more competitive, while the number of subscribers subscribing to lower priced service offers has increased.

⁹⁸ The ARPU calculation only considers revenues from subscribers. The calculations shown in this table do not include mobile television revenues and subscribers.

ARPU PER SUBSCRIBER (euros/month)



Source: CMT

- Penetration of pay television

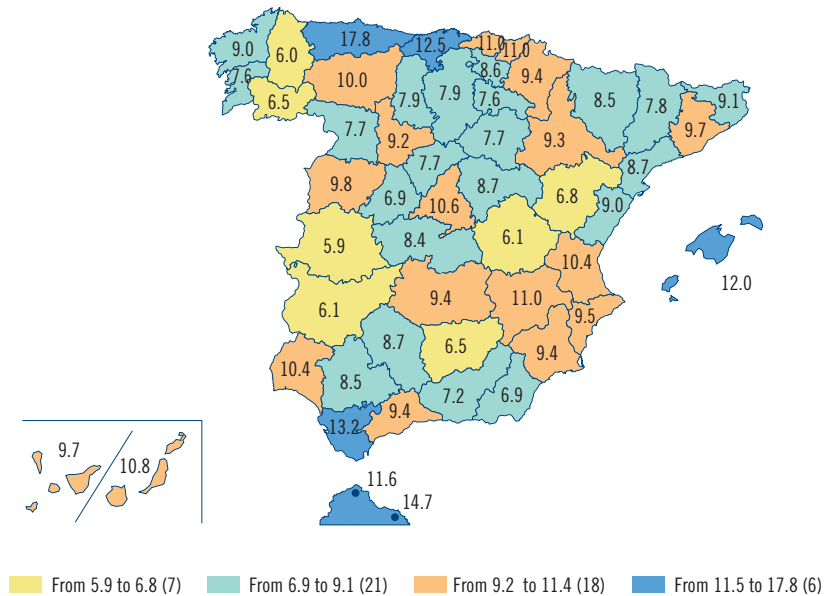
At the end of 2010, the penetration of pay television in Spain stood at 9.7 subscribers per 100 inhabitants. Once again this year, the region that recorded the highest penetration was Asturias, with 17.8 subscribers per 100 inhabitants, followed by Melilla (14.7%), Cadiz (13.2%), Cantabria (12.5%) and the Balearic Islands (12%).

At the other extreme, were Caceres and Lugo with penetrations of pay television services of 5.9% and 6%, followed by Cuenca and Badajoz (6.1%), and Jaén and Orense (6.5%).

By technology, the television with the highest penetration was satellite pay television, which at the end of the year had an average of 3.8 subscribers per 100 inhabitants. The technology medium with the second highest penetration was cable television, with a penetration of 3.4%, followed by IPTV and pay-DTTV, with penetrations of 1.8% and 0.7%, respectively.

It should be noted that while satellite television and pay-DTTV are available in virtually the whole of the country, cable television and IPTV have limited coverage. Because of this, there are areas in Spain where satellite and pay-DTTV are the only two pay television options available.

PENETRATION OF PAY TELEVISION BY PROVINCE⁹⁹ (subscribers/100 inhabitants)



Source: CMT

According to data from the CMT-Red.es Households Panel, 21.9% of Spanish households have a pay television service. This data source also indicates that the two variables impacting most on the availability of the service to households were size of household and socioeconomic class. Thus the proportion of households with pay television was 18.2% for households with less than one member, compared with 25% for households with three or four members, and 28.4% for households with more than four members. By socioeconomic class¹⁰⁰, the highest penetration of the service was in upper class households, with 28.5%, and the lowest in working class households, with 12.1%.

- Commercial offers

An analysis of pay television offers, with the exception of satellite television and the recent *Premium DTTV* mode, draws attention to the high instance of contracting combinations of this type of service in the form of bundle offers, which also include fixed telephony and/or broadband telecommunications services. This type of contract means that the three services are acquired with the same operator, in a

single invoice, and at a lower price than for purchasing the services separately.

In 2010, contracting of pay television services from telecommunications operators continued to be very closely linked to contracting combined *double play* and *triple play* offers, and within these offers there was a tendency to migrate double package customers to three-service offers.

⁹⁹ Does not include mobile television. The population figure corresponds to official figures from the INE municipal register. The total population of Spain in 2010 was 47,021,031 inhabitants. The intervals have been set using the mean ± standard deviation. The lower and upper end is determined by the minimum and maximum values, respectively.

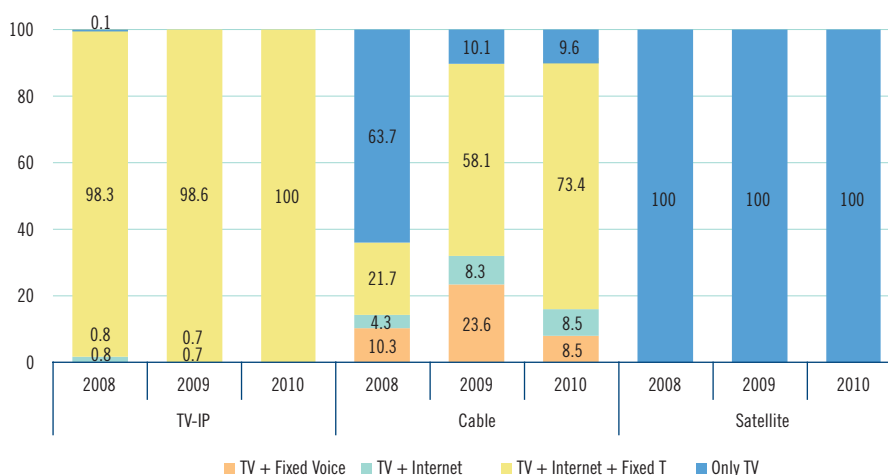
¹⁰⁰ Definitions and classification from the AIMC's General Media Study.

As the attached graph shows, in the case of IPTV, in 2010, double packages with television disappeared and 100% of IP pay television services were contracted in a triple offer, which included Internet and fixed telephony.

In the case of cable pay television, although double package offers did not disappear, there was a considerable increase of combined three-service offers, subscribed to by more than 73% of subscribers at the end of the year.

For satellite and pay-DTTV services, the fact that they cannot offer combined services of pay television and telecommunications (telephony and Internet) could be a disadvantage. Nevertheless, in July, Sogecable launched a combined offer with Jazztel, in which these two operators offered discounts if the satellite operator's pay television services were contracted together with Jazztel's telecommunication services.

PERCENTAGE OF PAY TELEVISION SUBSCRIBERS BY TYPE OF BUNDLING AND MEANS OF TRANSMISSION (percentage)



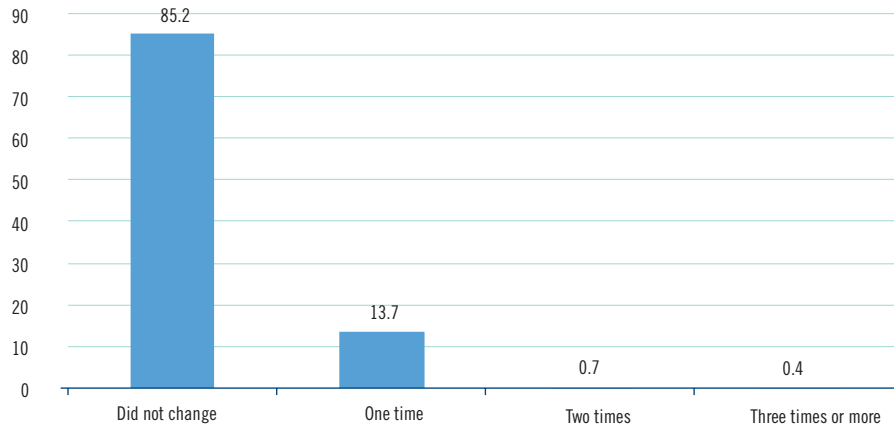
Source: CMT

- Changing operator

The following graph, based on data from the Household Panel CMT-Red.es, gives information about the number of changes of pay television operator between 2007 and 2010 in households that contracted this service at the beginning of 2010. Sample size is 631 households.

In the case of pay television the percentage of households that sometimes changed operator was 14.8%. This figure is much lower than the same indicator obtained for the Internet access service (30.3%), and even for the fixed telephony service (27.3%). These results indicate that the group of users with pay television is the one that is most reluctant to change provider.

HOUSEHOLDS ACCORDING TO NUMBER OF CHANGES OF PAY TELEVISION OPERATOR BETWEEN 2007 AND 2010 (percentage)

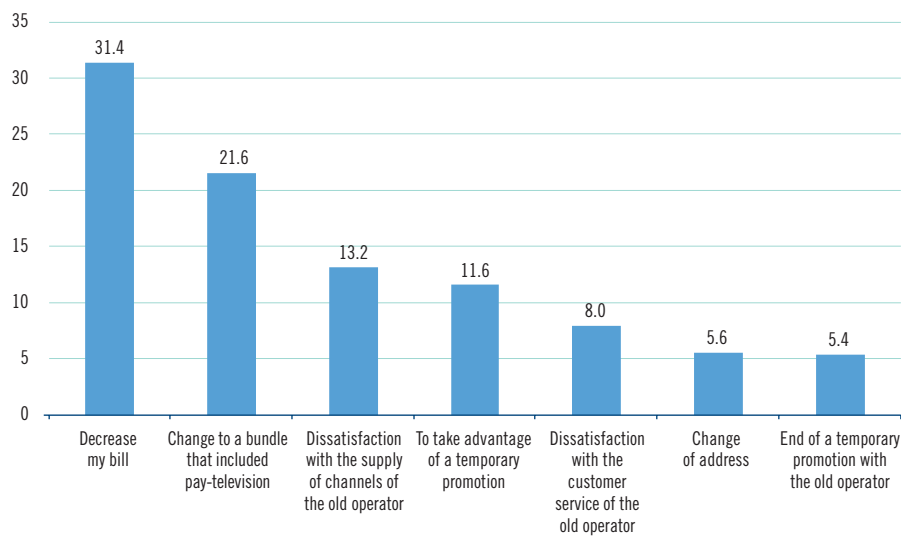


Source: CMT

Among the reasons mentioned for households that did change their pay television operator, the first was cheaper bills, the second was bundled offers, and the

third dissatisfaction with the channels supplied by the previous operator.

REASONS GIVEN BY OPERATORS FOR CHANGING PAY TELEVISION OPERATOR (percentage)



Source: CMT

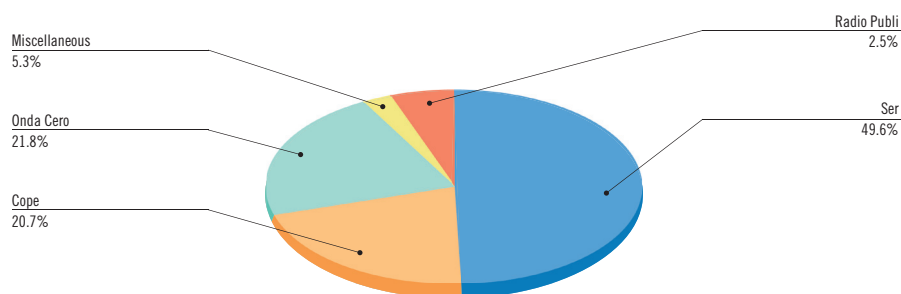
d) Radio services¹⁰¹

In 2010, revenues from the radio broadcasting segment experienced an increase of 2.7% compared to turnover recorded in 2009. Total revenues were 406.3 million Euros, to which are to be added subsidies received from different public administrations, which in 2010 amounted to 275.7 million Euros.

venues remained highly concentrated in the three major national private operators. Thus, the Sociedad Española de Radiodifusión (SER) company of the Prisa Group, Onda Cero of the Uniprex group and Radio COPE Popular, taken together, accounted for 92.2% of business revenue, with a combined turnover of 374.5 million Euros.

The data shows that audiences and advertising re-

REVENUES OF THE MAIN RADIO GROUPS (percentage)



Source: CMT

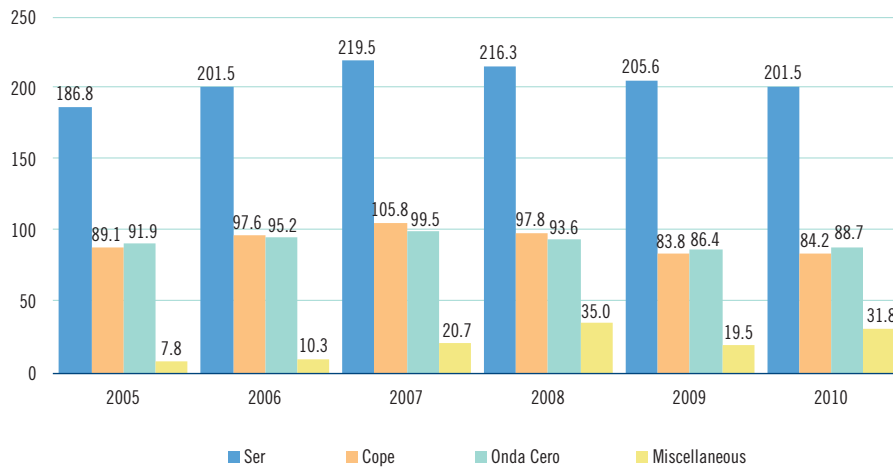
- Revenue by operator

The Prisa Group, owner of Cadena Ser, maintained its position as market leader with a turnover of 201.5 million euros, although it had a 2% fall in year-on-year revenue. Uniprex and Radio Popular switched positions and the owner of Onda Cero was in second place with a 2.7% increase in revenue to 88.7 million euros. Radio Popular was in third position with Cadena Cope, with a turnover of 84.2 million euros, 0.4% more than the previous year.

At some distance from this group, in fourth place, was Radio Publi, included under the "Others" heading in the following graph, with revenue of 10.3 million euros. The rest of this group represented a turnover of 21.6 million Euros.

¹⁰¹ Thus analysis collects data from the four main national broadcasting groups (Prisa Group, Uniprex, Radio Popular and Radio Publi) and the automatic public operator radios.

REVENUE OF THE MAIN RADIO OPERATORS (millions euros)



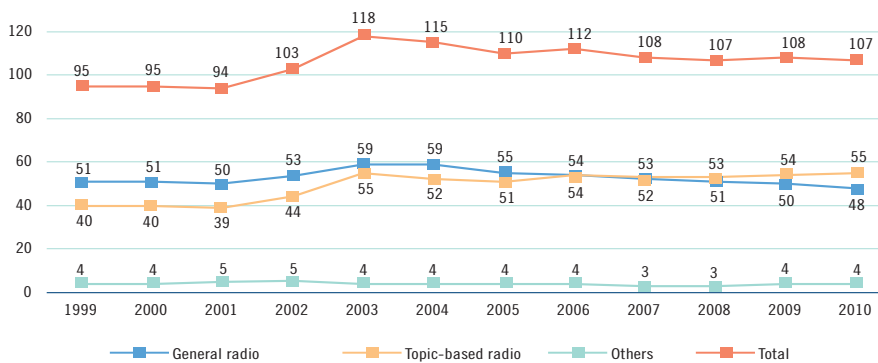
Source: CMT

- Radio consumption and audiences

According to data collected by the General Media Study (EGM - February to November 2010), published by AIMC, the radio increased its number of listeners by 1.6 points, reaching an average penetration of 56.9% of individuals. This good result contrasts with the fall in

radio consumption which diminished to 107 minutes per person per day, a minute less than the previous year. Of the time dedicated to this medium, 48.2 minutes related to general radio, 55.5 to thematic radio and 4 to the "Others" group.

HISTORY OF AVERAGE RADIO CONSUMPTION BY PERSON PER DAY (minutes)



Source: CMT with AIMC data

Thematic radio captured 51.8% of listeners, compared with 45% for general. In the first block, in order of importance, the first was Cadena 40 Principales, followed by Cadena Dial, Cadena 100 and Europa FM. In the general channels group, Cadena SER had the biggest audience, followed, a

long way behind, by the rest, the most important of which were Onda Cero, Cadena Cope and Radio Nacional de España. The last broadcaster does not have adverts and so has not revenue from them.

- Digital Radio

Digitalisation of radio signals involves significant improvement in quality with respect to conventional transmissions, it can increase the number of channels in the same spectrum band and makes it possible to offer value added services. However, and unlike the television segment, digitalisation of sound radio signals is very much in a preliminary phase even though transmissions in *simulcast*¹⁰² have started.

In this context, the new General Law of Audiovisual Communication, approved in March, sets an 18 month deadline, starting from its approval, for designing a technical plan for integrated digitalisation of the terrestrial sound transmission service.

3.4.2. Services of transport and broadcasting of the audiovisual signal

The most important change in 2010 regarding the services of this wholesale market was the analogue shutdown, which took place at the start of April, together with the appearance of new programming channels which were awarded to operators in July and started broadcasting from September.

The cessation of analogue transmissions, which mainly consisted of *simulcast* transmissions of the conventional programming channels, involved a considerable decrease in revenues for distributing the audiovisual signal, which caused a decrease in the total revenues of wholesale activities. The new revenues earned by these operators for transmitting the channels that appeared in the last quarter of the year did not compensate the turnover lost from cessation of the analogue signal.

a) Revenues

The audiovisual signal transport and broadcast market refers to network services via which radio transmitters make their contents reach the final audience. This market includes audio signal transport services, which make the audio visual signal of the producing centres reach the transmission centres, and transmission services, which make it possible to send the signal from the broadcasting and rebroadcasting centres to users' households.

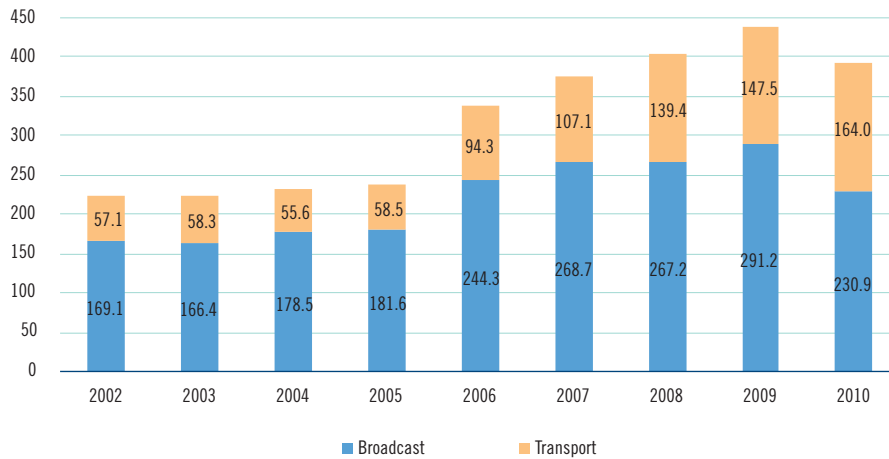
Revenue recorded by operators for audio signal transport and broadcasting reached 395 million euros, representing a fall of 10% from the previous financial year.

Of the signal carrying operators' two main activities, transmission services were the cause of this decrease, falling by 20.7% to 230.9 million euros. This fall is explained by the end of analogue transmission in April. Audiovisual signal transport activities grew by 11.2% with respect to the previous year, with a turnover of 164 million euros.

With regard to the specific weight of the two activities in this market, broadcasting services amounted to 58.5% compared with 41.5% for signal transport services.

¹⁰² Since the concessions were granted in 2000, some broadcasters transmit their programmes with digital technology (RNE, SER, Cope and Onda Cero, among others).

REVENUES FROM AUDIOVISUAL SIGNAL TRANSPORT AND BROADCAST SERVICES (millions euros)



Source: CMT

b) Audiovisual signal transport services

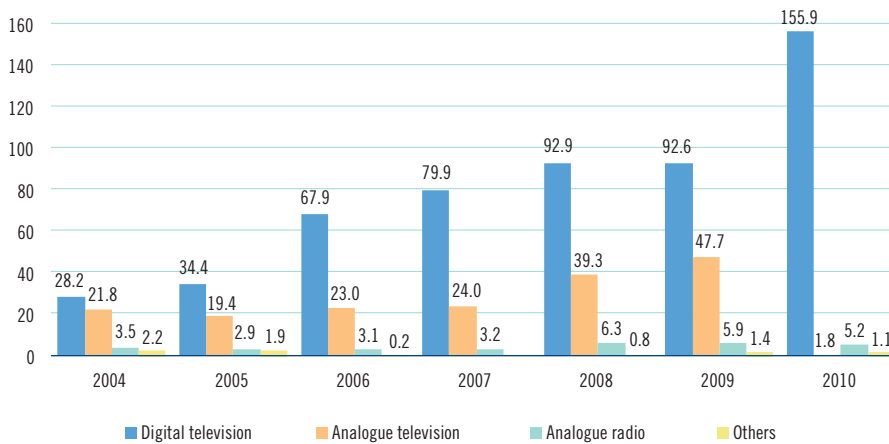
Audio visual signal transport services have shown continual growth since 2006, thanks to the influx of new radio transmitters onto retail markets. Revenue from these services was 164 million euros, an increase of 11.2%.

- Revenue by technology type

According to the type of audiovisual service they support and because of the cessation of analogue transmissions, the bulk of the turnover was concentrated in digital television, which, with 155.9 million euros, represented 95% of the total revenue from transport.

Moreover, revenues from analogue signals fell to 1.8 million euros, with 5.2 million corresponding to radio services.

REVENUES FROM AUDIOVISUAL SIGNAL TRANSPORT SERVICES (millions euros)



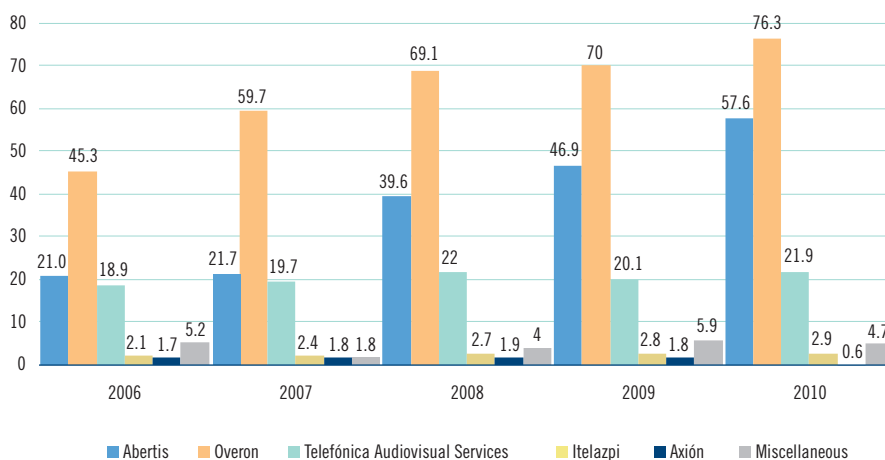
Source: CMT

- Revenue by operator

Consistent with the positive evolution of revenues from the transport service, most operators show an increase in their turnover. The leading operator in this industry was Overon¹⁰³ with revenues of 76.3 million euros, 9% more than in 2009. Then followed Abertis, with

57.6 million euros, being the operator that grew most at a rate of 22.9%. Finally, concluding the group of national operators, Telefónica Servicios Audiovisuales had a turnover of 21.9 million, 8.7% more than in the previous year.

REVENUE FROM AUDIOVISUAL SIGNAL TRANSPORT SERVICES BY GROUPS OF OPERATORS (millions euros)



Source: CMT

¹⁰³ Part of Overon is held by Abertis Telecom, which owns 51% of the shares of the audiovisual signal transport operator.

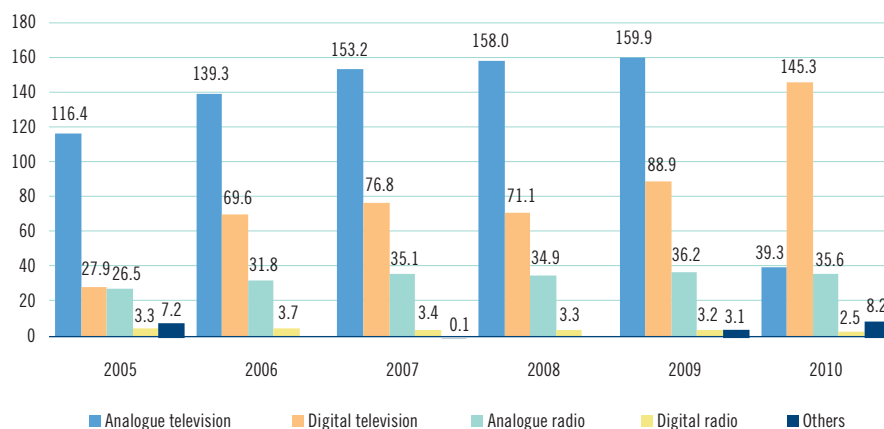
c) Audiovisual signal broadcasting services

Revenues from these services were affected by the cessation of analogue television transmission, which involved a loss of part of the activities carried out by operators in this market. Turnover from audiovisual signal broadcasting services fell by 20.7% to 230.9 million euros in 2010.

- Revenue by technology type

Regarding the type of service, the larger revenue corresponded to digital television services with 145.3 million euros, 17% more than in 2009. Then came revenues from analogue television, which amounted to 39.3 million falling back 75.4%. The rest of the turnover corresponded to radio signal broadcasting, with 38.1 million euros, and to other services, with 8.2 million euros, referring to services provided to *Premium* (pay) DDTV operators.

REVENUES FROM AUDIOVISUAL SIGNAL BROADCASTING SERVICES (millions euros)



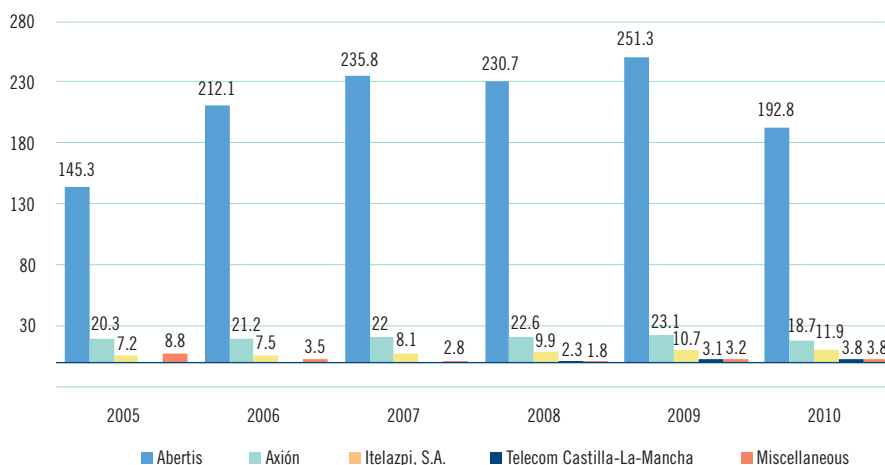
Source: CMT

- Revenue by operator

The Abertis Group, which is the largest operator in this market, obtained revenue of 192.8 million euros, 23.3% less than the previous year. The rest of the operators, operating in different regional settings, were a long way behind the leader.

Important among these were Axion, an operator in the Andalusia Region, which, after suffering a 19.2% fall in turnover, generated revenues of 18.7 million euros, followed by the Basque operator, Itelazpi, with a turnover of 11.9 million euros, 11.3% more than the previous year.

REVENUE FROM AUDIOVISUAL SIGNAL TRANSPORT SERVICES, BY OPERATOR GROUP (millions euros)



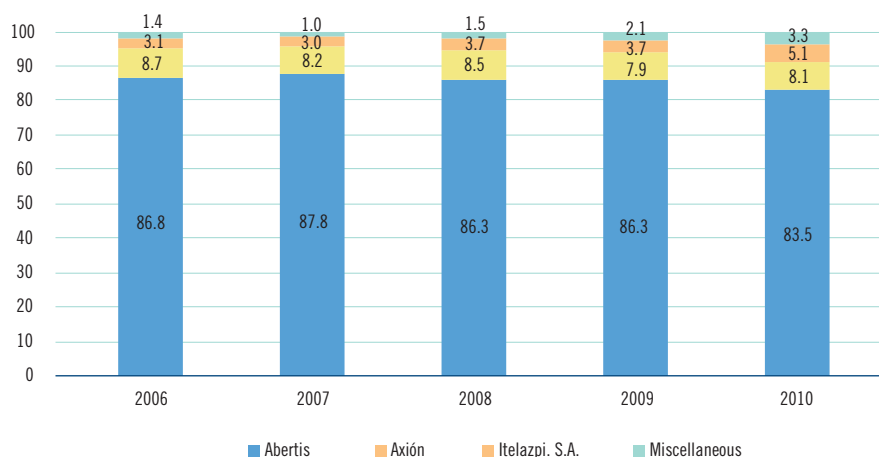
Note: the audiovisual signal operator Globecast disappeared in the middle of 2006, after its integration in Overon.
Source: CMT

- Concentration in the audiovisual signal broadcasting market

The broadcasting market for audiovisual signals is characterised as being a very concentrated market in which a national level operator is participating with a few operators operating regionally. This is reflected in market data, with the turnover of the only operator with national coverage, Abertis, accounting for 83.5% of total revenues.

The remaining 16.5% of the market is divided between eight regional operators. Important among these for their turnover were Axión, operating in the Andalusia Region, with an 8.1% market share, and Itelazpi, located in the Basque Region, with a 5.1% share.

MARKET SHARE OF THE AUDIOVISUAL SIGNAL BROADCAST SERVICE, BY OPERATOR (Revenues as a percentage)



Source: CMT

From the regulatory point of view, the existence of a single operator with national coverage, means that customers in this market (the radio broadcasters) can only use this provider to send their signals to end users, via terrestrial waves, as there is no alternative. On the other hand, the network of transmitters needed to provide coverage in the whole national territory, which belong to Abertis, cannot be replicated in certain cases and for certain areas. Therefore, no alternative operator may employ another network with national coverage to offer the same service.

Because of these high, non-transitory barriers to entry, which prevent the entrance of new suppliers, the carrying service for television broadcasting via terrestrial waves has been regulated by CMT since 2006.

In 2009, the obligations imposed on the operator with significant market power, Abertis, were revised, to open this market to competition and to facilitate the entry of alternative operators. Because of this regulation, Abertis must permit access to its network to other operators under the terms and conditions given in the Reference Offer for Access to Abertis Transmission Centres (ORACs), approved by CMT in 2010.

3.4.3. Regulation and prospects for the market

As indicated in the industry report, in 2010 the audiovisual industry had a series of important successes which have brought changes to the scenario for performing these activities.

Some of the most salient points of the year are given below. These include passing General Law 7/2010, on Audiovisual Communication, which establishes the regulatory framework for this industry and the legislative milestones that have permitted changes in the methods of financing the Spanish Radio and Television Corporation (RTVE), referred to above in this text, resulting, in 2010, in a partial reallocation of RTVE advertising revenues to the other operators.

- General Law of Audiovisual Communication, 7/2010, of 31 March¹⁰⁴

In March 2010 the General Law of Audiovisual Communication 7/2010 was approved, this united radio and television regulation into a single text and included the European Directive of 11 December 2007 on Audiovisual Services into the Spanish legal system¹⁰⁵.

This text sets up the general regulatory framework in which this market's activities should be performed and regulates, among other things, pay-DTTV, concentrations and mergers between operators, conditions and duration of licences, leasing of frequencies, contributions of operators to cinematic production and European series, viewer rights, protection of minors, accessibility of television contents, mobile television, and the maximum time that operators can dedicate to advertising and tele-promotions.

The text provides for creation of a State Council for Audiovisual Media (CEMA) as the regulatory authority for the industry, which will ensure compliance with the new law, having power to impose penalties.

- Development of the financing model for public state television

In 2009, the Financing Law for the Spanish Radio and Television Corporation was approved¹⁰⁶, bringing an end to the broadcasting of advertising messages by the public operator and to revenues earned from advertising.

¹⁰⁴ General Law of Audiovisual Communication, 7/2010, of 31 March (Official State Gazette of 1 April 2010).

¹⁰⁵ Directive 2007/65/EC of the European Parliament and Council, of 11 December 2007, amending Directive 89/552/EEC on the coordination of certain legal, regulatory and administrative provisions of Member States relating to television broadcasting activities.

¹⁰⁶ Law 8/2009 of 28 August, on Financing the Spanish Radio and Television Corporation. (Official State Gazette, 31 August 2009).

In 2010, the new financing model was implemented. This replaces advertising revenues earned by the public operator with an 80% share of the tax collected for use of the radio spectrum¹⁰⁷ and a new tax on private television radio transmitters and telecommunications operators¹⁰⁸. The tax on operators was set at:

- 3% of the gross working revenues of private television operators that operate with free-access throughout the country, or in more than one autonomous region.
- 1.5% of the gross operating revenues of pay television operators.
- 0.9% of the gross operating revenues of telecommunications operators operating throughout the country, or in more than one autonomous region.

In August 2010, Royal Decree 1004/2010¹⁰⁹ was approved in pursuance of the Law of Financing the Spanish Radio and Television Corporation, defining the conditions, procedures, periods and maximum amounts for contributions from operators, and the tax on the radio spectrum and financing of the public corporation.

The Royal Decree establishes the CMT as the designated body for management, settlement and collection of the tax applicable to operators.

- Royal Decree regulating High Definition television broadcasts¹¹⁰

In May 2010, the Royal Decree regulating High Definition television broadcasts was approved. These broadcasts represent a considerable improvement to image quality with respect to standard definition television. Television sets require high definition tuners to receive these broadcasts.

The Royal Decree stipulates the television signal compression techniques which must be used for this type of broadcasts. It also regulates broadcasts of High Definition signals through multiple channels shared by various organisations and stipulates that, where there is no agreement between these organisations, any conflicts that may arise concerning broadcasting of digital channels on terrestrial digital television in high definition will be resolved by the CMT.

Furthermore, in order to protect users, the regulations stipulate that, six months after they have come into

force, all television receivers larger than 21 inches sold on the Spanish market must be able to receive high definition broadcasts.

- Renewal of concessions for providing public service terrestrial television

On 26 March 2010, the Council of Ministers approved renewal of concessions for providing public service terrestrial television, via indirect management, to the companies Antena 3 de Televisión, S.A., Gestevisión Telecinco, S.A. and Sogecable, S.A., from 3 April 2010 for a new 10-year period¹¹¹.

Subsequently, in June 2010, through a new Agreement of the Council of Ministers, the concessions were transformed into licences for providing audiovisual communication service, thus complying with the regulatory framework of the General Law of Audiovisual Communication. Licences will last for 15 years and may be automatically prolonged for the same time, as long as licensees comply with the requirements stipulated in Article 28 of the General Law of Audiovisual Communication.

- Merger of Telecinco and Cuatro and entry of the Telecinco group and Telefónica into the company capital of Digital+

The new regulatory framework approved in March 2010 permits private television networks to have common shareholders or to merge, as long as: a) there are at least three private operators with different editorial management at national level and b) the sum of audiences of the television networks with cross shareholdings, or that are going to merge, is not greater than 27% of the total audience for the twelve consecutive months prior to the acquisition.

¹⁰⁷ With a maximum of 330 million euros annually.

¹⁰⁸ The European Commission decided, on 14 March 2011, to take Spain to the EU Court, on finding that the CRTVE financing system was incompatible with EU standards for telecommunications, in particular, with Article 12 of the Directive on the authorisation of networks and electronic communications services (2002/20/EC).

¹⁰⁹ Royal Decree 1004/2010 of 5 August, which implements Law 8/2009 of 28 August, on financing the Spanish Radio and Television Corporation (Official State Gazette, 6 August 2010).

¹¹⁰ Royal Decree 691/2010 of 20 May, regulating Digital Terrestrial Television in High Definition. (Official State Gazette, 2 June 2010).

¹¹¹ Official State Gazette, 14 April 2010.

In 2010, negotiations took place to merge the two free-access television operators, Gestevisión Telecinco and Sogecuatro¹¹². The negotiations were successful and the merger was approved by the competition authorities in mid-2010.

The resulting group, controlled by the Telecinco Group has two complete multiples, which is the equivalent of eight DTTV programming channels. Telecinco's buy out of Cuatro was completed in December and the transaction will be effective from 2011

Meanwhile, the Telecinco Group and Telefónica began to form part of the company capital of Digital+, each acquiring 22% of the shares of the satellite pay television platform¹¹³.

- Award of an entire multiple to the concession companies

In March, Royal Decree 365/2010 was approved. It regulates the allocation of multiple channels of terrestrial digital television, following cessation of analogue television broadcasts¹¹⁴. This regulation, provides, on a transitory basis, for each holder of a licence for provision of audiovisual communication through DTTV to have access to the equivalent capacity of a multiple national digital channel coverage (equivalent to four programming channels). On a transitory basis, this capacity will be distributed in two multiples, with access to the definitive multiple to be made available before January 2015.

In accordance with the provisions of the Royal Decree, in July after the cessation of analogue broadcasts, the Council of Ministers approved the award of a complete digital multiple channel, with national coverage and capacity for four channels, to each of the six national DTTV licence holders.

Operators, some of which already had two or three programming channels, started to prepare the programming of the new awarded channels, and these began to broadcast in September.

It should be noted that DTTV operators will have to face a new change of frequencies before 2015, when they will have access to their definitive multiple channels. Before this date, all channels will have to vacate the frequencies they currently occupy and transfer to a new band of the radio spectrum. This relocation of

frequencies is a consequence of reserving what is known as the digital dividend for the roll out of new mobile telecommunications networks. The change obeys a decision of the European Union and affects all the member countries.

- Creation of the State Register of Audiovisual Communication Service Providers

In June 2010, in accordance with the General Law on Audiovisual Communication, the CMT created the State Register of Audiovisual Communication Service Providers, to be managed by the CMT until the State Council of Audiovisual Media is constituted.

- Publication of the Reference Offer for the services of transport and broadcasting of the audiovisual signal

With regard to regulation of the terrestrial signal broadcast service, and as part of the incumbent operator's obligation to provide alternative operators with access and interconnection, in 2010 the CMT reviewed and approved the Reference Offer for Access to Abertis Transmission Centres (ORAC).

This Reference Offer, which establishes the prices, conditions and periods for Abertis to provide access to its facilities, either in the form of co-location of interconnection, is available on the CMT website.

¹¹² The merger was announced on 18 December 2009. The Telecinco Group and the Prisa Group announced an agreement for Telecinco to acquire 100% of Cuatro and 22% of Digital+.

¹¹³ The acquisition of 22% of the shares of Digital+ by the Telecinco Group was carried out as part of the merger, in the free-access television services market, of Gestevisión Telecinco and Sogecuatro (part of the Prisa Group).

¹¹⁴ Royal Decree 365/2010 of 26 March, regulating the allocation of multiple Digital Terrestrial Television, after the cessation of terrestrial television broadcasting using analogue technology.

Annual Report 2010

Comisión del Mercado de las Telecomunicaciones



2 ACTIVITY
REPORT

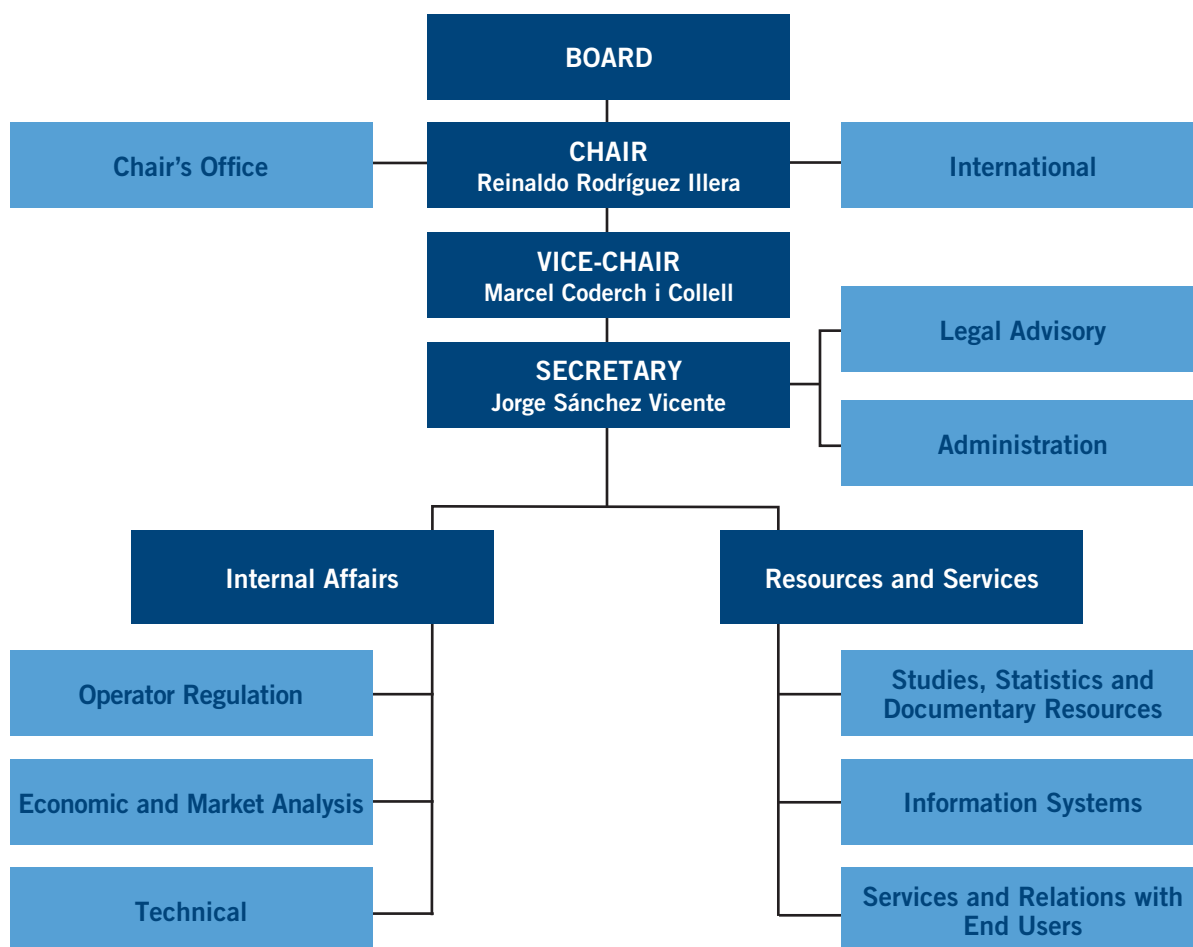
1. ORGANISATION

The Comision del Mercado de las Telecomunicaciones (CMT), the independent Spanish regulatory authority for the telecommunications and audiovisual services market, was created in 1996.

The CMT is a body established under public law, which is part of the Ministry of Industry, Tourism and Commerce, through the State Secretariate of Telecommunications and for the Information Society, which provides coordination between the CMT and the Ministry.

The core function of the CMT is to introduce and oversee the specific obligations to be met by operators in the telecommunications markets and to promote competition in the audiovisual services markets in accordance with the provisions of its regulations; to resolve disputes between operators; and, if applicable, to act as arbiter in any conflicts which may arise between these operators.

The organisational chart of the CMT, on 31 December 2010, is as follows:



1.1. CMT Bodies

The bodies of the CMT are established in the General Law of Telecommunications (LGTel) 32/2003 of 3 November, in the Regulations of the CMT and in its Internal Regulations. Specifically, the latter establishes as bodies of the Commission the following: Board, Chair, Vice-chair, Secretary, Committees and Presentations, Advisory Committee.

Board

As provided for in article 48 of LGTel, the CMT is governed by a Board, responsible for exercising all the functions that this law confers on the regulatory authority in the field of telecommunications. The Board of the CMT, within the provisions of the Sustainable Economy Act, will comprise a chair and six Members.

On 31 December 2010, the Board comprised:

Chair:	Reinaldo Rodríguez Illera
Vice-Chair:	Marcel Coderch i Collell
Members:	Gloria Calvo Díaz
	Antoni Elías Fusté
	Ángel García Castillejo
	José Pascual González Rodríguez
	Inmaculada López Martínez
	Albert Martí Batera
	Crisanto Plaza Bayón
Secretary:	Jorge Sánchez Vicente

The offices of Chair, Vice-chair and Member are renewed every six years; the persons initially appointed to them may be re-elected once only.

Chair:

The CMT Chair chairs the Board and the specialist committees, as required under article 38 of its Rules of Procedure. Its functions are those laid out in article 5 of its Internal Regulations.

Vice-Chair:

The Vice-chair substitutes the Chair in the event of vacancy, absence or sickness, and exercises such powers as area expressly delegated to him or her by the Chair, under article 39 of the Regulations of the CMT. Its functions are those laid out in article 6 of its Internal Regulations.

Secretary:

The Secretary of the CMT is also secretary to the Board and all its other collegiate bodies. Its functions are contained in article 40 of the Regulations of the CMT and article 7 of its Internal Regulations.

1.2. CMT Services

The Internal Regulations set out the technical, legal, administrative and economic services necessary for the proper functioning of the CMT. The Legal Advisory and the Administration Directorates are under the immediate authority of the Secretary.

There are, also, two general directorates, also under the direct authority of the Secretary: the Directorate General of Internal Affairs, which coordinates and steers the action of the Technical Directorate, the Operator Regulation Directorate, the Economic and Market Analysis Directorate; and the Resources and Services Directorate which coordinates the actions of the Directorates of Information Studies, Statistics and Documentary Resources, and of Services and Relations with End Users.

The International Directorate and the Chair's Office are under the immediate authority of the Chair of the CMT.

The functions of each of the directorates are as follows:

Legal Advisory Directorate

It provides legal support to all the CMT's activities, and in particular to the Secretary, and defends the regulatory authority in the courts, issuing internal and external reports, with a view to ensuring that its actions are in line with current legislation.

Administration Directorate

It is responsible for the planning and management of the organisation's human resources, training and social action plans, labour relations and work risk prevention. It is also responsible for the organisation of general and General Registry services.

It is also responsible for economic and financial management through accounting for all economic and financial matters within the CMT and producing accounts and budgetary documentation.

It is also responsible for procuring the goods and services needed for the proper functioning of the body.

Finally, it collects the General Operators Tax and Telecommunications Tax, both of which are a source of finance for the CMT. It is also responsible for collecting the Numbering Charge and the Penalty Charge, both of which are transferred to the Treasury as they are not a source of finance for the CMT. It also collects the contribution paid by telecommunications operators and licensee companies providing television services in order to finance the Spanish Radio and Television Corporation. This contribution does not provide a source of finance for the CMT either.

Economic and Market Analysis Directorate

It is responsible for assessing the competitive conditions of each of the services provided and the behaviour of operators so as to ensure that provision and customer information are transparent. It also carries out economic and financial analyses which allow costs and how they are charged to the telecommunications services to be examined, and it understands the mechanisms underlying service price formation. It also determines the reference markets for electronic communications networks and services, identifies operators with significant power in each of these markets and proposes obligations to be imposed on these operators.

Studies, Statistics and Documentary Resources Directorate

It monitors developments in the Spanish telecommunications and audiovisual services market through drafting an annual report for the Government. It also produces reports and studies on electronic communications; it is also responsible for promoting

the image of the CMT through institutional relations and representing the body in external forums. It also manages the CMT's Documentation Service and Library, as well as the General Register of Records.

International Directorate

It promotes and coordinates the presence of the CMT in international meetings, and also maintains information and collaboration relationships with EU and international institutions, and provides advice to the CMT on comparative law and the analysis of international markets.

Operator Regulation Directorate

It is responsible for ensuring the proper implementation of the existing regulatory framework for the sector; to this end, it brings disciplinary proceedings and imposes conditions and obligations on operators, and also resolves disputes between them. It also provides subscriber data in order to provide information services and maintains the Register of Operators.

Services and Relations with End Users Directorate

It is responsible for providing information to users of the telecommunications industry, as well as for relations between the CMT and organisations and associations representing consumers and users of electronic communications services.

Information Systems Directorate

It works to ensure that the CMT's systems and its communications are fully effective. To this end, it designs applications for monitoring the activity of each of its services and carries out tasks related to the technological operation, administration, maintenance and renewal of the CMT's IT and communications systems.

Technical Directorate

It is responsible for the application of the regulatory framework as far as the technical aspects of networks and electronic communications services are concerned, and it oversees the support technologies for these services; to this end, it plays the role of inspector in matters over which the CMT has the power to impose sanctions, and advises the Government and the Public Administration on the drafting of regulations in this area. It also manages numbering and the Public Numbering Register.

Chair's Office

It is responsible for managing the institutional agenda of the chair, as well as the external relations of the CMT, as much at institutional level as with players in the industry and the media.

2. HUMAN RESOURCES

The CMT's Internal Regulations regulate the nature of the relationship of the staff with their service, as well as the relevant system of remuneration.

Article 12 of this regulation provides that all staff that serve the CMT shall belong to one of the following groups: managers and remaining staff.

Managers are appointed by the Chair, on the Secretary's proposal, after obtaining the opinion of the Board. The

functions of the management staff are those laid out in article 13 of these Regulations.

The regime covering the remaining staff is contained in article 14, where it is stated that those staff who serve the CMT are bound to it by an employment relationship. This article adds that the general system of staff remunerations must be in accordance with the procedures and the constraints that, in the field of public industry staff remunerations, are provided for under existing budgetary regulations.

The recruitment of staff to the CMT, with the exception of the Secretary and the management staff, must take place through public announcement of the post and staff must be appointed in accordance with the principles of equality, qualifications and ability.

2.1. The workforce in 2010

CMT WORKFORCE IN 2010

WORKFORCE ON 31 DECEMBER 2009	NEW STAFF	DEPARTURES	WORKFORCE ON 31 DECEMBER 2010
145	11	11	145

During 2010 eleven workers joined the CMT, of which eight had indefinite contracts and three were recruited on short-term contracts. Also in 2010 there were eleven departures from the workforce, of which one temporary employee and ten workers with indefinite contracts.

Of the workers with indefinite contracts who left, four found alternative employment in another public body, within the framework laid down within the agreement on the conditions of employment for staff of the CMT on the occasion of the transfer of the headquarters of the

organisation, signed on 1 July 2005 between the CMT, its works council and the Ministry of Industry, Tourism and Commerce. This agreement ceased to be in force from 31 December 2009. Consequently, these four departures will be the last to take place as a result of the move of the CMT from Madrid to Barcelona.

On 31 December 2010, the workforce comprised 145 persons, including two workers on temporary contracts, which were distributed in the following categories:

WORKFORCE BY CATEGORY

Managers	17
Technical staff	91
Administrative staff	37
Total	145

By training, the composition of the workforce at CMT is as follows:

TECHNICAL STAFF BY TRAINING	
Graduates in Law	30
Telecommunications Engineers	25
Graduates in Economics	14
Graduates in Journalism	6
Computer Engineers	5
Graduates in Administration and Business Management	4
Miscellaneous	7
Total	91

By gender, the composition of the workforce at CMT is as follows:

WORKFORCE BY GENDER					
MEN	%	WOMEN	%	TOTAL	%
64	44	81	56	145	100

2.2. Public job offers in 2010

Public Job Offers for 2010, approved by Royal Decree 406/2010, of 31 March, did not authorise job offers for the CMT, as the overall rate of staff replacement was limited to 10% under the Austerity Plan.

The selection procedures carried out by the CMT during 2010 came from the Public Job Offers of 2009, approved by Royal Decree 248/2009, of 27 February. These processes were initiated in 2009 and, on the basis of this authorisation, the posts were filled in 2010.

In the first announcement of Public Job Offers for 2009, published in November 2009 and finalised in April 2010, one grade three Technician was appointed.

At the second announcement, published in March 2010 and finalised in June of the same year, there was a public call and the following posts were awarded; one post of grade three Technician, one post of grade two Technician and three posts of grade one Technician.

The selection procedures in both public calls comprised two stages. In the first, the candidates sat a written test

in respect of the knowledge required for the posts for which the call had been announced. This test was eliminatory and, consequently, for each post advertised, only the candidates with the best scores progressed to the next stage. The second stage consisted of two tests: an English examination and an oral examination before a selection board set up for that purpose within the CMT. In the oral test, the candidates were asked a series of questions about the knowledge needed for the different posts.

In the selection process of the first public call in 2010, between the written and the oral tests, there was a competition on the basis of qualifications in which the experience and training of the candidates were taken into account.

The selection boards, after assessing the candidates, made offers of posts to those whom they felt were best suited to fill them.

2.3. Training

CMT staff attended different courses in Spain and in other countries. The content of these countries included different subjects with a high levels of specialisation in technical, legal and administrative aspects of the telecommunications industry.

Also, in 2010 training was organised at the CMT with a focus on skills development, improvement in the use of computer tools and applications with contents of direct relevance to the activities of the CMT.

As in previous years, classes of German, Catalan, French and English were provided to all members of CMT staff interested in these studies.

Furthermore, two CMT members of staff took part in a programme of National Experts in Professional Training run by the European Commission.

94% of staff at the CMT received training in 2010.

3. ECONOMIC AND FINANCIAL DATA

3.1. Balance sheet

The balance sheet provides a faithful reflection of the economic and financial state of the CMT. As it is a public body, the accounting principles of the General

Public Accounting Plan apply, based on the criteria laid down by the General Intervention Board of State Administration (IGAE).

The following table shows the balance sheet of the CMT dated 31 December 2010.

BALANCE SHEET TO 31 DECEMBER (euros)

ASSET	2010	2009
A) FIXED		
II. Intangible Fixed Assets	1,927,993.74	1,670,532.55
2. Industrial property	40,835.97	40,835.97
3. Information applications	3,917,780.78	3,549,676.75
4. Intellectual property	700,109.88	348,000.00
7. Amortisations	-2,730,732.89	-2,267,980.17
III. Tangible Fixed Assets	82,038,812.41	75,218,195.26
1. Land and Buildings	76,895,781.06	72,993,099.36
3. Tools and Real Property	3,447,464.66	1,476,682.14
4. Other Assets	5,315,658.52	3,764,158.85
5. Amortisations	-3,620,091.83	-3,015,745.09
Total A	83,966,806.15	76,888,727.81
B) EXPENSES TO BE DISTRIBUTED OVER SEVERAL FINANCIAL YEARS	0.00	0.00
Total B	0.00	0.00
C) CURRENT ASSETS		
II. Debtors	25,765,578.95	1,091,380.49
1. Various debtors	2,338,649.83	1,574,770.36
2. Debtors by admin, of resources other entities	23,965,881.04	0.00
5. Provisions	-538,951.92	-483,389.87
III. Temporary Financial Investments	87,735,016.97	73,830,714.46
2. Other short term investments and credits	87,734,259.33	73,829,956.82
3. Short Term Deposits and Bonds	757.64	757.64
IV. Treasury	11,809,457.39	21,911,299.77
V. Timing Adjustments	211,762.93	172,020.13
Total C	125,521,816.24	97,005,414.85
Total A + B + C	209,488,622.39	173,894,142.66

Source: CMT

LIABILITIES	2010	2009
A) CAPITAL AND RESERVES		
I. Equity	70,421,968.31	56,284,091.02
1. Own equity	70,421,968.31	56,284,091.02
III. Results from previous financial years	0.00	0.00
IV. Financial year results	-6,660,773.66	13,917,522.96
Total A	63,761,194.65	70,201,613.98
B) PROVISIONS FOR RISKS AND EXPENDITURES	119,384,929.68	92,319,184.10
Total B	119,384,929.68	92,319,184.10
C) LONG TERM CREDITORS		
II. Other long term debts	16,517.66	10,771.09
4. L/T received bonds and deposits	16,517.66	10,771.09
Total C	16,517.66	10,771.09
D) SHORT TERM CREDITORS		
IV. Commercial creditors	26,325,980.40	11,362,573.49
1. Various creditors	1,719,431.71	1,130,674.36
2. Creditors by admin, of resources other entities	23,965,881.04	0.00
2. Public Administrations	453,580.64	491,427.34
4. Other creditors	132,611.31	9,740,471.79
5. S/T received bonds and deposits	54,475.70	0.00
Total D	26,325,980.40	11,362,573.49
Total A + B + C + D	209,488,622.39	173,894,142.66

3.2. Net Worth Statement

The net worth statement for the financial year 2010 gave a negative result of 6,660,773.66 Euros. Profits from regular activities amounted to 20,589,463.99 Euros and the negative extraordinary

result was 27,250,237.65 Euros, relating to the fees which were subject to legal appeal by the operators.

The following table shows the net worth statement of the CMT in 2010.

NET WORTH STATEMENT TO 31 DECEMBER (euros)

DEBIT	2010	2009
A) Expenditure	46,687,329.40	29,359,455.89
3. Services operation and social provisioning expenditures	19,410,039.50	18,392,249.52
a) Staff expenses	10,012,480.69	10,024,878.24
b) Allowance for fixed asset amortisations	1,067,099.46	774,460.26
c) Variation of provisions and losses of uncollectible credits	55,562.05	94,944.55
e) Other costs of the year	8,274,897.30	7,497,966.47
g) Variation in financial provisions	0.00	0.00
4. Transfers and subsidies	0.00	0.00
c) Transfers of capital	0.00	0.00
5. Extraordinary losses and expenditures	27,277,289.90	10,967,206.37
a) Losses from fixed assets	0.00	7,415.61
b) Extraordinary expenditures	27,277,289.90	10,959,790.76
c) Expenditures and losses from other financial years	0.00	0.00
Saving	13,917,522.96	

Source: CMT

Shown below is a detailed breakdown of the different sources of revenues and expenditure for 2010.

a) Revenues

Financial revenues amounted in 2010 to 32,829,039.71 Euros. They relate to income from the

CREDIT	2010	2009
B) Revenues	40,026,555.74	43,276,978.85
3. Ordinary revenue of the year	32,829,039.71	34,182,840.54
a) Tax revenue	32,829,039.71	34,182,840.54
4. Other ordinary revenue of the year	2,170,463.78	4,094,138.31
c) Other revenue of the year	179,046.53	715,746.13
c.1) Acces, revenue and other revenue from current yr,	6,830.00	0.00
c.2) Risk and expenditure provisions excess	172,216.53	715,746.13
f) Other assimilated interest and revenue	1,991,417.25	3,378,392.18
f.1) Other interest	1,991,417.25	3,378,392.18
5. Transfers and subsidies	5,000,000.00	5,000,000.00
e) Capital subsidies	5,000,000.00	5,000,000.00
6. Extraordinary earnings and revenue	27,052.25	0.00
c) Extraordinary revenue	27,052.25	0.00
Dissaving	6,660,773.66	

General Operators Tax, the Commission's main source of revenues.

A detailed breakdown of settled taxes:

REVENUES FROM TAXES (thousands of euros)

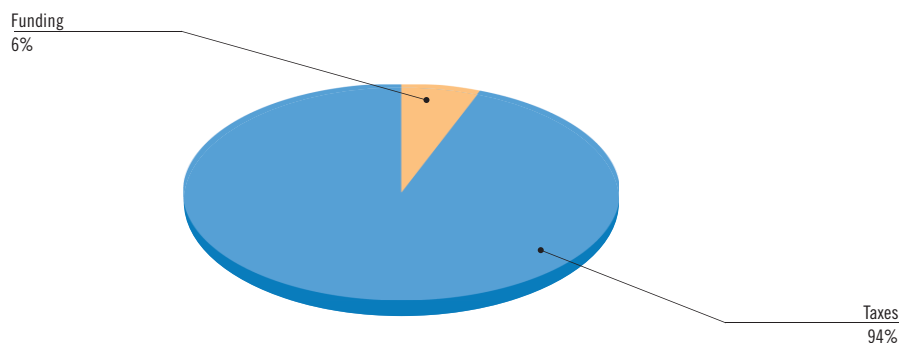
ITEM	AMOUNT	%/TOTAL
T 6 - General Operators Tax	32,606	99.76
Surcharges and accrued interest charges	220	0.23
Other charges	3	0.01
Total	32,829	100.00

Source: CMT

Financial revenues amounted to 1,991,417.25 Euros. These relate to revenues from returns on the CMT's current account and investment of surpluses.

The following graph illustrates the relative weight of fee revenues and financial revenues of the CMT in 2010.

REVENUES



Source: CMT

b) Expenditure

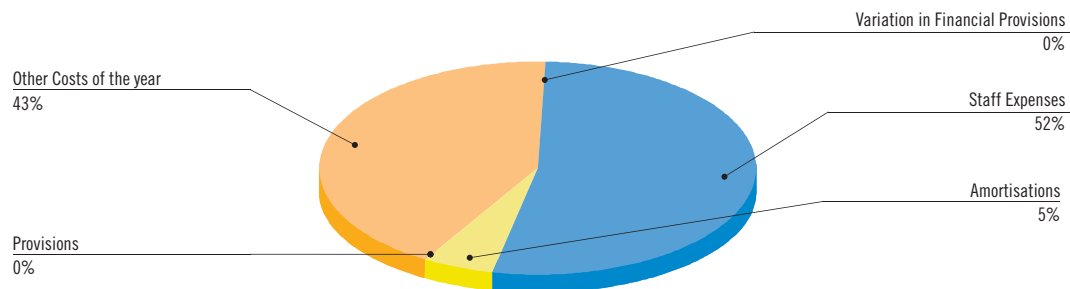
The breakdown of the objects of expenditure is as follows:

RUNNING COSTS (thousands of euros)

ITEM	AMOUNT	%/TOTAL
Staff costs	10,012	51.58
Depreciation	1,067	5.50
Provisions	56	0.29
Other Management Costs	8,275	42.63
Variation in Financial Provisions	0	0.00
Total	19,410	100.00

Source: CMT

OPERATING COSTS OF SERVICES



Source: CMT

The most important costs contained in the above table are broken down below:

PERSONNEL COSTS (thousands of euros)

ITEM	AMOUNT	%/TOTAL
Wages, salaries and compensation	7,916	79.07
Social security contributions	2,096	20.93
Total	10,012	100.00

Source: CMT

OTHER OPERATING COSTS (thousands of euros)

ITEM	AMOUNT	%/TOTAL
Hire and rental charges	1,988	24.02
Repairs and Maintenance	828	10.01
Remuneration of intermediaries and professional fees	180	2.18
Insurance premiums	46	0.56
Publications and Public Relations	402	4.86
Supplies	163	1.97
Taxes	30	0.36
Other Services	4,638	56.05
Total	8,275	100.00

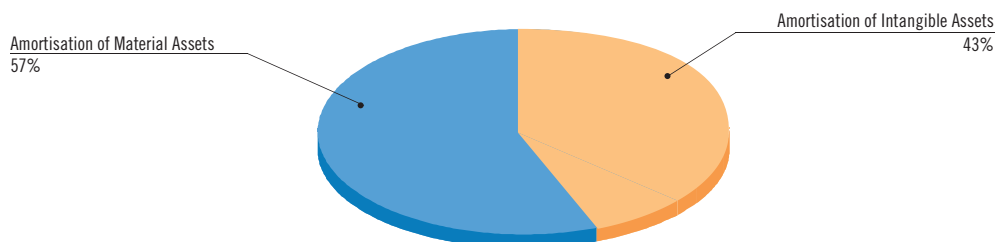
Source: CMT

DEPRECIATION (thousands of euros)

ITEM	AMOUNT	%/TOTAL
Amortisation of Intangible Assets	463	43.89
Amortisation of Material Assets	604	56.61
Total	1,067	100.00

Source: CMT

DEPRECIATION



Source: CMT

3.3. Cash flow statement

The following table shows the origin and use of cash-representative monetary assets and other similar liquid assets, namely, money deposited in the safe, in the overnight bank deposits and in financial instruments which may be converted into cash. It should be borne in mind in relation to this table that the CMT, in accordance with Law 8/2009 of 28 August for financing the Spanish Television and Radio Corporation (RTVE), and

Royal Decree 1004/2010 of 5 August, to develop it, the amount of 191,006,934.50 Euros has been collected in contributions to finance this public entity during the 2010 financial year.

This amount has been transferred to the Public Treasury (Tesoro Público), which was responsible for making the payment to the Spanish Radio and Television Corporation (RTVE).

CASH FLOW STATEMENT (euros)

PAYMENTS		COLLECTIONS	
1. Management operations	23,594,286.44	1. Management operations	44,971,332.42
b) External Services	7,942,739.43	b) Public prices taxes and special contributions	37,670,192.68
c) Taxes	30,227.57	d) Transfers and subsidies	5,000,000.00
d) Staff expenses	10,023,727.96	e) Financial revenue	2,287,114.74
f) Treasury revenue from numbering taxes	5,597,591.48	f) Other revenue of the year	14,025.00
3. Asset acquisitions	17,263,321.87		
b) Intangible	674,989.16		
c) Tangible	16,588,332.71		
d) Financial			
4. Anticipated payment of long term debts	0.00	4. Short term debts	591,621.55
d) Provisions for risks and expenditures	0.00	c) Other concepts	591,621.55
5. Temporary financial investment acquisitions	14,200,000.00	5. Disposal or reint, of temporary financial investments	0.00
d) Other concepts	14,200,000.00	d) Other concepts	0.00
6. Payment of short term debts	567,445.24		
c) Other concepts	567,445.24		
7. Accounts pending determination	39,742.80	7. Accounts pending determination	0.00
TOTAL PAYMENTS	55,664,796.35	TOTAL COLLECTIONS	45,562,953.97
TREASURY SURPLUS		TREASURY DEFICIT	10,101,842.38

Source: CMT

4. ACTIVITIES COMPLETED BY CMT

4.1. New obligations and implementation of the existing obligations

4.1.1. Obligations on retail wholesale

4.1.1.1. Interconnection

Telefónica Reference Interconnection Offer

The CMT resolution on 18 November 2010 approved the change of the Telefónica Reference Interconnection Offer (RIO). Among the main new features, in addition to the change in prices, which were generally reduced for all interconnection services, particularly at the level of transit, the 2010 RIO discontinued regulation of the Telefónica transit service, eliminated the international termination service, while the 902 and public attention services will be billed solely under the access billing method, including a specific non-payment processing procedure.

The RIO is the offer that includes all wholesale interconnection services provided by Telefónica and is a part of the obligations imposed by the CMT on this operator for having been designated as the carrier with significant market power in the corresponding market analyses for call access and termination on fixed networks. The interconnection services covering the essential services so that any other operator can finalise or handle calls and reach the end customer.

The interconnection services regulated by CMT through the RIO largely comprise access and termination services. The access interconnection service enables subscribers connected to the prevailing operator network to access to services offered by other operators, while the termination interconnection service makes it possible for calls originating in the network of another operator to be terminated in the customers of Telefónica.

There are two distinct billing methods for interconnection services: capacity and time. Capacity intercon-

nection bills per link under contract, independently of the volume of minutes used. On the other hand, interconnection by time is billed depending on the traffic sent in minutes. The reduction of interconnection rates approved by CMT in the new 2010 RIO, as part of its obligations in terms of price regulation imposed on Telefónica, refers to both billing methods, with the exception of interconnection by capacity at local level, which rises slightly.

At first, the revision of the RIO came about as a result of the analysis begun by CMT in relation to the problem of interconnection with the operators caused by the migration of the traditional telephone service to the VoIP service carried out by Telefónica, in accordance with its deployment of the new generation access network (NGAN), whereby the current copper par was changed to fibre optic cable. These migrated customers no longer depend on Telefónica local centres. To alleviate the impact on interconnected operators, and given that the number of customers is not yet significant, a compensation was defined for Telefónica billing to operators depending on the percentage of subscribers migrated in each province. CMT adopted this interim solution to prevent the implementation of developments in billing in operators' systems, while taking into account the evolution of the interconnection of traditional voice to an NGN interconnection infrastructure needs to be studied by CMT in collaboration with the operators involved in separate proceedings.

The change to the RIO mainly impacted on the following points:

- Price revision

On foot of the Telefonica cost accounting analysis, as well as the updating of the bottom-up costs model in the Telefónica network used on previous occasions by CMT, this resulted in an overall reduction of interconnection prices, except of the capacity method at the local level. This reduction was particularly significant in relation to transit, for both the capacity and time models, which means a benefit for the majority of operators interconnected with Telefónica.

The new interconnection rates per capacity in euros are as follows:

LEVEL	RIO 2005	RIO 2010	% VARIATION
Local	1,326.11	1,363.46	2.8
Metropolitan	1,869.93	1,820.18	-2.7
Single transit	2,213.00	2,013.63	-9
Double transit	3,186.00	2,372.89	-25.5

Likewise, in the billing by time method, the differentiation by time slots (normal and reduced) was eliminated and unique prices were established independently

of the retail rate structures of Telefónica. The new interconnection rates per minute are shown in the following table:

LEVEL	RIO 2005			RIO 2010	% VARIATION
	NORMAL	REDUCED	AVERAGE PRICE (60-40)		
Local	0.67	0.40	0.56	0.56	-0.4
Metropolitan	0.90	0.54	0.76	0.65	-14.0
Single transit	1.00	0.60	0.84	0.67	-20.2
Double transit	1.39	0.84	1.17	0.95	-18.8

- Changes to transit service of other operators

To redress the imbalance found in the interconnection of small-scale operators, the new 2010 RIO enables operators without a direct connection to Telefónica to receive the termination of calls to its customers initiated by Telefónica customers through a transit operator. Telefónica will not be liable for a payment to the transit operator in excess of the amount owed for a direct termination with the operator.

- Elimination of RIO services

The transit service was eliminated from the group of regulated interconnection services, as the CMT resolution of 16 October 2009 abolished obligations for Telefónica in the wholesale transit market (market 10) in taking the view that this market was not subject to regulation *ex ante*. CMT eliminated the RIO international termination service as it was not included among the regulated services and had resulted in cases of fraud against Telefónica by some operators.

- Elimination of the termination billing model

This billing model was eliminated for the 902 number and the public information services, leaving only

the access model, as this was the most appropriate in terms of direction towards underlying costs for providing interconnection services.

Interconnection agreements

Telefónica, owing to its obligation of non-discrimination imposed by the wholesale markets of fixed telephony origination and termination, must forward documents to CMT which formally recognise General Interconnection Agreements (AGI) with other operators.

Operators for mobile phones and complete mobile virtual network operator are obliged to forward to CMT interconnection agreements with other operators, as a result of the market analysis of call termination on mobile networks.

Altogether, over the course of 2010, nine AGIs were received: five new agreements signed in 2010, two which substituted others already in existence, and two supplements related with agreements signed in previous years. Three adenda also arrived, most of which corresponded with the transit service of other operators.

In addition, while the transit market has been deregulated, and, as a result, Telefónica can offer the transit

service under freely agreed conditions, during 2010 AGIs were received featuring transit conditions as regulated by the 2005 RIO.

In summary, the five AGIs signed in 2010, as well as the two from previous years and the thirteen adenda signed in 2010 can be classified as follows:

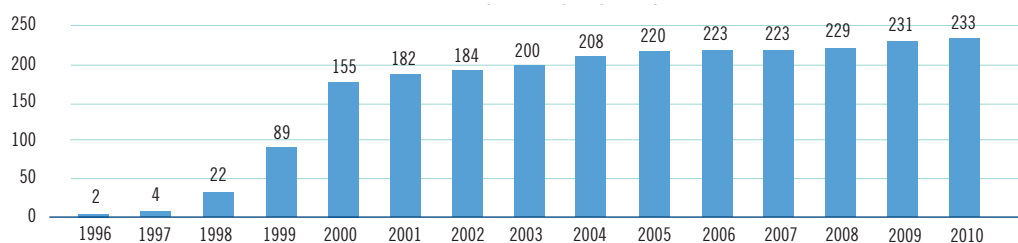
		TOTAL GIA	TOTAL ADENDA
Among fixed operators	With the collaboration of Telefónica de España	2	13
	Without the collaboration of Telefónica de España	0	0
Among fixed and mobile operators	With the collaboration of Telefónica de España	3	0
	Without the collaboration of Telefónica de España	0	0
Among mobile phone operators		2	0
Total		7	13

Source: CMT

Lastly, during 2010 three operators with a signed GIA were cancelled, with the result that the status of active

GIA registered with CMT is as follows:

DEVELOPMENT OF ACTIVE GIA



Source: CMT

Cost accounting

Activity in this area was focused on normal tasks related with the approval of rates of return, useful lives and cost accounting from previous years:

- For Telefónica de España an annual rate of average weighted capital costs (before taxes) of 9.74% was approved for the financial year 2010.

TELEFÓNICA DE ESPAÑA	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital cost rate	12.34	11.72	10.85	10.66	10.00	9.86	10.81	10.94	9.74

Source: CMT

- Cost accounting was approved for the 2008 financial year for Telefónica in Spain, which was urged to implement in its cost accounting system for 2009 all services required in the corresponding resolutions of the CMT related with the adaptation of the cost accounting system in view of the new regulation framework.

- The useful lives proposed by Telefónica in Spain were revised and approved for the calculation and accounting of operating costs in the 2009 financial year under the current cost standard. Telefónica must separate the allocations of assets associated with the fibre-optic networks (FTTH/GPON) from those based on copper xDSL.

The Board of Directors of CMT, by resolution on 22 July 2010, approved the revision of the cost accounting system (CAS) according to the incremental cost standard presented by Telefónica de España in 2006 and 2007. As part of this revision, for each one of the most significant aspects of the CAS, in accordance with the incremental costs standard, a description of the proposal made by Telefónica de España was prepared, as well as an analysis indicating the objections, modifications and improvements required by CMT. Lastly, it was decided to give a deadline for Telefónica de España to present its incremental cost accounting system incorporating the changes approved by CMT.

The incremental cost standard aims to show the costs incurred by an efficient operator in the long term. For this purpose, and using the Telefónica de España network, existing inefficiencies and excess costs on the network will be eliminated in accordance with the techno-financial studies needed to prove the most efficient level of use of each component of the network used for providing the various services. With regard to the long-term outlook of the model, this means that all costs, whether fixed or variable, is likely to vary depending on the different variations caused by the volume of the production of the operator and, as a result, the introduction of new and more efficient technologies.

The 1999 resolution on accounting principles already included plans for the introduction of the incremental cost standard and will make it possible to obtain a cost reference in addition to the one provided by the standards of historic and current costs.

4.1.1.2. Unbundling of the local loop

During the 2010 financial year, the main new features introduced in relation to the Reference Unbundling Offer (RUO), on the one hand, focus on the improvement in the information and service systems of Telefónica, so as to facilitate the interaction of alternative operators; on the other hand, in the revision of the billing methodology for the power supply for teams jointly located in RUO rooms, which in itself meant a reduction in the electricity billing for operators; and lastly, in greater control on the part of CMT in the deployment of remote nodes of Telefónica.

Changes to the Information Systems and Provision of the RUO

At the beginning of 2008, CMT learned that Telefónica was preparing a project for extensive renovation to its information systems, both for wholesalers and retailers.

Faced with this situation, and due to the effects which the renovation mentioned above could have on the RUO support systems, CMT decided to undertake a report with the purpose of establishing the proper framework for its migration to renovated platforms. These would at the same time meet the needs for improvement and the solution of shortages experienced by different resolutions of CMT.

For the purpose of agreeing some shared criteria between Telefónica and the remainder of the operators to complete the renovation of the systems, a discussion process was begun mid-2009. As a result, a stable forum for the discussion was set between CMT, Telefónica and the operators who were most heavily involved in the context of the RUO (BT, Jazztel, Ono, Orange and Vodafone), known as the Systems Forum (Foro de Sistemas), in tandem with another forum dedicated to defining the new bitstream system based on copper and fibre optic line, called the NEBA Forum.

In June 2010, the Systems Forum resulted in the approval of a resolution to establish a general framework and a methodology for the migration of all information and service systems for providing support to the wholesale RUO services - largely, the Operator Management System (OMS) - towards a new management platform for the service, information and incidents based on Internet services (New Environment for National Operators, NEON).

The NEON platform improves the provision of wholesaler services, using a communications channel for this purpose, Internet services, which enable dialogue and interaction between the systems of Telefónica and those of the operators, by reducing human intervention and response times to a minimum.

The resolution identified modules and services subject to the renovation and clear schedules were established for migration with dates for availability in order to ensure compliance with the obligations of Telefónica in regard to alternative operators:

NEON ELEMENT / MODULE	PRODUCTION PILOT	AVAILABILITY	END OF COHABITATION, SWITCH-OFF OF THE OMS
Breakdown management	1 October 2010	1 January 2011	31 December 2011
Information and consultation services		1 October 2010	
Pair prolongation	1 July 2011	1 October 2011	31 January 2012
Co-location, pulling, signal delivery		No priority	

Source: CMT

In July 2010, Telefónica and Orange presented CMT with their options for replacement against the resolution of 3 June 2010 based on the Information Systems and Provision of the Reference Unbundling Offer (RUO).

The appeal of Orange was rejected while the one made by Telefónica was partly admitted. The first aspect which was accepted was the reduction of the period of cohabitation of the module for managing breakdowns, by bringing forward by three months (to 30 September 2011) the date for closing the module in OMS regarding the original (31 December of the same year). This advanced date in switching off the OMS was considered reasonable for reducing the periods of cohabitation between platforms and avoiding the coincidence between the initial phase of NEBA trials in NEON. The second point that was admitted consisted of the postponement until 15 November 2010 of the date of availability for the manual channel for breakdown management, given its secondary nature compared to the primary channel via Internet services.

Authorisation of the introduction of remote nodes in the access network

On 22 January 2009, CMT approved the definition and the analysis of the wholesale physical access market to network infrastructure (including the shared or completely unbundled access) in a set location, and, likewise, the definition and analysis of the market of wholesale broadband access. This resolution imposed on Telefónica the obligation to submit for prior authorisation by CMT any changes made to its access network which would affect the possibility of making use of the loop unbundling service.

This resolution also considered as valid the conditions for general authorisation which were established in

Resolution DT 2008/481 of 18 December 2008, for the case of deploying loop interception nodes, that is, cases which do not require specific authorisation from CMT for deployment of loop shortening nodes. Such nodes are normally installed to improve broadband service on copper par, by locating the equipment (which is normally in a centre) closer to the user, thereby shortening the loop. In the case of installing nodes which are not covered by the above-mentioned general authorisation, which do require explicit case by case authorisation by CMT, Resolution DT 2009/501 of 19 November 2009 contained the framework and conditions which CMT would take into consideration in the analysis of the requests for installation by Telefónica.

In 2010 four resolutions were approved in response to the requests made by Telefónica to install loop shortening nodes which do not meet with the requirements of general authorisation and therefore must be authorised by CMT case by case. All of these were studies in accordance with the contents of the above-mentioned Resolution DT 2009/501 of 19 November 2009. Of the 31 nodes requested, all except three were authorised, on the consideration that those three nodes posed an excessive level of danger to operators using loop unbundling in the centres on which pairs of nodes depended.

Electric supply in RUO rooms

- Billing method

The RUO electrical supply price review report was begun in June 2009 at the request of ASTEL (Association of Operator Companies and Telecommunications Services), following failed attempts at reaching an agreement between Telefónica and the operators, in the context of the RUO Monitoring Unit, in relation to the price of electrical energy of the co-located equipment. ASTEL demanded a review of the billing method for the electrical supply in RUO rooms,

taking the view that it penalised co-located operators by charging them higher costs than those actually incurred by Telefónica.

On 22 July 2010 a series of changes was approved in the existing billing method for continuous current electricity supply. They were as follows:

- Revision of the flat-rate consumption calculation formula used until then (based on the maximum power contracted by the operator). The consumption factor for air conditioning was reduced from 50% to 35%, and the inefficiency factor for AC transformation was reduced from 15% to 10%.

- Incorporation of a new optional method for measuring real consumption by electrical metres.

- Approval of new kilowatt per hour (kWh) electrical rates based the electrical billing of Telefónica centres, in place of the official rates published in the Official State Gazette (BOE), in light of the new circumstances created by the deregulation of the electricity market. As a result, kilowatt per hour prices of 8.422 Euro cents and 9.527 Euro cents were established for the flat-rate and actual consumption methods, respectively (independently of the power contracted by the operator). Telefónica must update the rates every six months and forward data to CMT for approval.

Lastly, CMT obliged Telefónica to rectify the electrical billing and to return to operators from 1 January 2010 certain amounts billed based on the incorrect interpretation, applying under the RUO framework, of provisions published in the Official State Gazette (BOE) in terms of regulated electrical rates.

On 8 September 2010, Telefónica appealed Resolution DT 2009/943 of 22 July 2009 on the RUO electrical energy price review. Telefónica was not in disagreement with the sample taken for the calculation of the kilowatt per hour rates on the consideration that it was not representative of RUO centres overall (numbering more than 700) and requested that all such centres

be used as the basis. Moreover, it appealed the reduction of the factor for losses through inefficiencies in AC conversion (from 15% to 10%).

On 18 November 2010, while CMT rejected both requests made by Telefónica, it did modify the rates based on data provided by the operators on certain centres for the sample specified in the DT 2009/943 report and which the operator was unable to forward during processing. Electrical rates resulting from the appeal were as follows:

Flat-rate mode	8.511 Euro cents
Real consumption mode with metre	9.616 Euro cents

Source: CMT

- Circuit-breaker expansion service

The service for expanding RUO circuit-breakers allows the operator to increase the power declared for its equipment in the co-location space which it already has. The price for this service had not been regulated so far and Telefónica unilaterally applied the initial energy price (1,546.38 Euros) to each and every circuit-breaker expansion requested by the operators.

On 10 December 2009 a decision was reached in the dispute raised by Grupalia in regard to the price applied to circuit-breaker expansions of this operator in 22 centres (DT 2009/1419). The disproportion of the price incurred by Telefónica was noted and, based on principles similar to the ones used in Resolution DT 2008/2113 (on the price of the circuit-breaker redundancy), a circuit-breaker unit price was reached equal to one-eighth of the cost of energy start-up (193.30 Euros), in proportion to the space occupied on the electrical grid according in theory, with an additional payment of 132.81 Euros per service for call-out and labour (this amount was subsequently revised upwards and set at 198.33 Euros in appeal AJ 2010/105).

Resolution DT 2010/318 of 20 May 2010 set certain milestones and limits on the scope of the service for circuit-breaker expansion, which were necessary for

expanding the specific economic conditions of the 22 requests of the Grupalia conflict universally for each request for circuit-breaker expansion generally made. In particular, maximum power was limited to whatever the operator was entitled to on defraying the initial costs of energy start-up, by setting up a series of ranges or power units.

All non-recurrent prices - such as supply start-up, redundancy and expansion of circuit-breakers - associated with electrical energy based on the consumer price index (IPC; last updated in September 2006).

As a result, the economic conditions for the circuit-breaker expansion service was included in the list of RUO prices, retroactively effective from 11 March 2010 (the date of resolution of the appeal against the Grupalia dispute solution), except for the above-mentioned increase in accordance with the CPI. The new current rates following the resolution are reflected in the following table:

Start-up of continuous current supply	1,656.17 Euros
Start-up of alternate current supply	784.11 Euros
Redundancy in circuit-breakers (unit price per circuit-breaker)	137.39 Euros
Expansion of circuit-breakers (unit price per circuit-breaker)	207.02 Euros
Expansion of circuit-breakers (cost per service)	198.33 Euros

Source: CMT

4.1.1.3. Bitstream loop

Bitstream services allow alternative operators to offer the end customer a broadband connection using the traditional network operator. These consist of a series of wholesale services regulated by CMT, forming market 5 under EU recommendation in December 2007. The main actions in 2010 were the introduction of the two new wholesale methods and the definition of the new service *Broadband Ethernet* (NEBA), which is the implementation of the wholesale service imposed on Telefónica in the resolution of the analysis of markets 4 and 5, MTZ 2008/626, of 22 January 2009. This service will act as a substitute for earlier services (GigADSL and ADSL-IP) in areas of coverage.

In March 2010 a resolution was approved to include in the RUO some modifications to the wholesale modes

for indirect loop access, as a result of the information passed to CMT by Telefónica regarding its intention to bring to market new services consisting in the development of existing retail services and the request of the corresponding modification of the RUO wholesale modes.

In particular, two wholesale modes were modified, while both maintained the loop validation criteria - hence, also the coverage - and the price. The changes requested and approved in the wholesale offers consisted of increasing the user to network speed (upload speed) of the wholesale modes E (TOP) on ADSL(2+) and VDSL2, increasing from 10 Mbps-320 Kbps to 10 Mbps-800 Kbps.

New service *Broadband Ethernet* (NEBA)

The analysis of markets 4 and 5 (MTZ 2008/626 of 22 January 2009) decided that it needed to develop a new wholesale bitstream service intended to substitute the existing ones (GigADSL and ADSL-IP) and to provide greater competition in services in areas where the competition still has no access in terms of infrastructure. In the access obligations imposed following this market analysis the characteristics which the new service needed to meet were defined. To meet the obligation imposed, Telefónica forwarded a proposal for developing the ADSL-IP service under the name MIBA, and in April 2009 CMT opened the analysis file (reference DT 2009/497).

CMT gave rise to a discussion forum between Telefónica and the operators heavily involved in the service (Orange, Vodafone, Jazztel, BT, Ono and, subsequently, Colt) intended for developing pre-agreements for the new service, a forum which was created on 4 May 2009. This work was done through joint meetings between the operators which were coordinated by CMT technical services and supplemented by different bilateral contacts.

By consensus in the forum, the IP-based solution proposed by Telefónica was rejected and a regional bitstream service was decided on called *New Broadband Ethernet Service* (NEBA), based on level 2 *Ethernet transport service*. Two work groups were set up to specify both the network architecture and the related procedures and since June 2009 several meetings have taken place in completing this phase. The

result of the work was a working specifics document of the service which Telefónica forwarded to CMT on 27 May 2010. On 11 November 2010, CMT, following the normal administrative path based on the document received, approved the working specifics of the new wholesale service, including the deadlines for implementation and start-up.

The specified service meets the requirements of market 5 (new broadband bitstream service) and market 2 (wholesale service to provide IP telephony) and includes both copper line access (in different technologies, ADSL and VDSL) and fibre optic, as well as offering a great variety of connection profiles of up to 30 Mbps. It is designed to enable alternative operators not to limit themselves to repeating the retail offers of Telefónica, so they can avail of the tools they need to make their commercial services more flexible using their own innovative proposals, thus enabling greater competition for the benefit of the customer. From a technical point of view, the service is characterised by being based on transparent transport of the *Ethernet sections* (at level 2) to the points of delivery to the operator (50 points regionally). Moreover, three types of service quality (Best effort, Gold and Real Time), with distinctive quality guarantees, which the operators can contract, even on a single access.

The most notable features of the new wholesale service are:

- Minimum coverage

The aim with NEBA is improve competition in broadband services for users living in areas where there is as yet no competition in terms of infrastructure on their own network, such as loop unbundling or networks of alternative fibres, in which other operators use bitstream. In these areas, operators find it less profitable to invest in Telefónica centres (unbundling the subscriber loop), as generally speaking there are regions of low population density which cover large territories and only amount to 34% of total lines. In

these areas, Telefónica holds market shares of above 70%.

Given the architecture selected, the service coverage is much lower than 100% of potential users on the copper par networks, and CMT decided it was necessary to ensure minimum coverage of the new service when this comes online, to encourage competition on the part of alternative operators to a sufficient degree of the retail market and this meet the objective which was imposed following the analysis of market 5. In this way, the resolution created an obligation on Telefónica to ensure minimum coverage of 97% of the pairs in RUO areas (centres with a presence of alternative operators) and 50% in non-RUO areas (centres without the presence of alternative operators).

- Qualities of service and user connection profiles

NEBA includes a quality of bitstream service, called Real Time, which will make it possible to offer guarantees with the packet traffic for VoIP, as specified in the obligations which CMT imposed on Telefónica in the analysis of source markets and fixed network access (market 2). The other two traffic qualities, Best-effort (geared towards residential Internet connections) and Gold (geared towards business) already existed on GigADSL and ADSL-IP, although NEBA completed a more exhaustive definition of the relevant parameters.

- New price structure

A new wholesale price structure was based on the idea of access plus capacity, with a fixed quote per connection (independently of the speed of the services) and a quote for aggregate capacity of all individual connections at the delivery point.

In current bitstream services, operators pay Telefónica a wholesale quote for each connection depending on the bandwidth (in megabits per second) contracted by the end user, independently of the traffic used up. In this respect, NEBA will not mean change, as the

wholesale load does not depend on the traffic effectively used up by the user, but rather the bandwidth in megabits per second as contracted by the alternative operators at the wholesale delivery point for each quality of traffic. Each alternative operator will select the end characteristics of its retail services, which will encourage flexibility and independence with regard to other operators.

With this new system, operators will pay Telefónica the part corresponding to network access (depending on ADSL2+, VDSL2 or FTTH/GPON technology) and another part linked with the capacity in megabits per second, in accordance with the needs they expect to meet, depending on the offers they launch on the market and the potential demand of the users.

With regard to the prices corresponding to NEBA, Telefónica must present a reference offer proposal before 1 March 2011, together with the price proposal and proof of cost guidance.

- IP telephony support with current services (market 2)

In the current GigADSL and ADSL-IP services, certain objectives are established in terms of the level of service for packet loss, delay and variation of the delay designed to facilitate IP telephony service while NEBA is unavailable or in areas lacking NEBA coverage.

- Implementation schedule

In terms of deadlines, NEBA must be available in pre-commercial phase by 1 January 2012, and the date of commercial availability will be set for 1 April 2012. Both dates refer to the so-called Stage I, during which migrations to other NEBA are not permitted. Stage II will begin six months later and will offer full freedom of movement in terms of migration to and from other wholesale services. For this reason, until the new service is definitively implemented, Telefónica will continue to be obliged to attend to requests for current wholesale bitstream. Expiry of the GigADSL and ADSL-IP services will be established through the express resolution of CMT.

The implementation schedule for NEBA is presented in the following table:

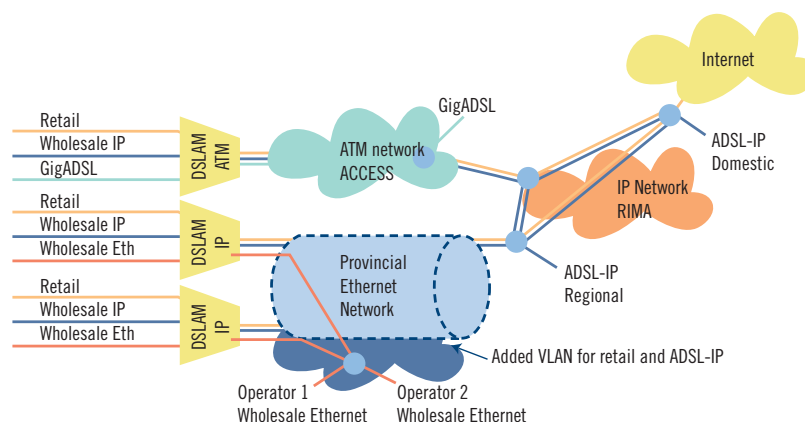
	NEBA STAGE I (NO TRANSFERS FROM ULL, GIGADSL OR ADSL-IP)	NEBA STAGE II (ALL THE FUNCTIONS)	ADSL-IP	WLR (NEW CHANNEL OF COMMUNICATION OF INTERNET SERVICES)	AMLT + INDIRECT
Distribution of user manuals, flow charts, WSDL and XSD schemes, and service level agreements for Internet services	1 October 2011	1 April 2012	1 October 2012	1 October 2012	1 April 2013
Availability of the Internet Services trial environment	1 November 2011	1 May 2012	1 November 2012	1 November 2012	1 May 2013
Pre-commercial availability	1 January 2012	1 July 2012	1 January 2013	1 January 2013	1 July 2013
Commercial availability	1 April 2012	1 October 2012	1 April 2013	1 April 2013	1 October 2013
Switch-off of the OMS (end of the cohabitation)	Not applicable	Not applicable	30 June 2013	30 June 2013	31 December 2013

Source: CMT

- Marketing by third parties of FTTH retail offers from Telefónica

In order to guarantee, within the framework of market 5, the repeatability of Telefónica fibre optic retail offers while NEBA is unavailable obliges Telefónica to facilitate the resale of its FTTH offers.

The following figure shows the general architecture of the NEBA wholesale service, as well as the retail services of Telefónica and current indirect wholesalers (GigADSL and ADSL-IP).



Price revision

In 2010 the prices of the bitstream offer were valid, and which were revised and approved in September 2009. This review of the bitstream offer resulted in significant reductions

in the prices of the various modes of the GigADSL and ADSL-IP services. The current monthly rates in euros are shown in the following table:

PRICES OF REGULATED BITSTREAM (euros/month)

MODE	GIGADSL	ADSL-IP
128 Kbps	8.84	11.91
512 Kbps	9.87	13.29
1 Mbps	11.19	15.05
1 Mbps SCR = 10%	11.49	15.45
2 Mbps	11.81	15.89
3 Mbps	12.13	16.30
4 Mbps	12.30	16.53
7.3 Mbps	13.33	17.90
10 Mbps	14.48	19.44
20 Mbps	18.07	24.23
2 Mbps SCR = 50%	32.98	44.46
4 Mbps SCR = 50%	57.39	77.38
7.3 Mbps SCR = 50%	97.63	131.63
SIM 1 Mbps SCR = 50%	39.07	52.68
SIM 1.5 Mbps SCR = 50%	48.92	65.96
VDSL2 1 Mbps	11.19	16.62
VDSL2 3 Mbps	12.13	17.87
VDSL2 10 Mbps	14.48	20.97
VDSL2 25 Mbps (25/1)	19.88	28.21
VDSL2 25 Mbps (25/3)	21.19	29.96

Source: CMT

4.1.1.4. Offer for Access to Registers and Ducts (MARCo)

As of 19 November 2009, in the framework of the procedure MTZ 2009/1223, CMT issue a resolution on the analysis of the Offer of Access to Ducts and Registers by Telefónica de España.

Various operators brought appeals against this resolution. In a resolution issued by the Board on 8 April 2010, CMT partly approved the appeals issued by Telefónica and Orange, and rejected the rest.

The points of the MARCo offer which were changed, following the declarations made, were as follows:

- Scope of the application of the offer: operators and networks covered

The resolution of 8 April 2010 studied the declarations of the operators in relation to the apparent incorrect uses of the right of access and the possibility of denying access requests on this basis.

Telefónica, based on the analysis of the requests handled so far, complained that operators were using the MARCo service to access other services which should have been excluded from the subject of this offer, such as the transport for RUO signal delivery or the Reference Line Rental Offer, access to base stations and access to business customers. According to Telefónica, such incorrect uses cause saturation of a scarce resource when moreover other regulated alternatives exist for these cases.

In this respect, CMT confirmed the criteria of the resolution under appeal, indicating that it must be included in the scope of the application of the offer in terms of all Telefónica infrastructure located in urban terrain (as understood in the light of the description contained in the resolution under appeal) and any appeal for access intended for the deployment of access networks. For this reason, Telefónica must deal with the requests provided that they concern the deployment of the NGAN. As for the supposed existence of incorrect uses of channels, it is understood that the procedure

to be followed is the case by case analysis through the interposition of the access dispute before CMT, so that the complaint is properly recorded, by inspection if necessary.

Aside from the changes made in the text by the offer, the resolution of the procedure AJ 2009/2131 is highlighted for clarifying the limit of the scope of application of the MARCo offer specifically in terms of the operators and networks covered by same, both in terms of how it refers to the deployment technology as well as the territorial scope of application, as the resolution under appeal restricted the deployment to urban areas. In the latter sense, the resolution has established the criteria for assuming the reasonable nature of requests for access to infrastructure which adjust to the elements defined by the offer, while specifying that Telefónica has an obligation to deal with all requests for access which, despite not being in line with the parameters defined in this offer, it regards as being also reasonable. As a result the MARCo offer is configured as a guarantee of minimum service conditions.

- Access to related resources: on the obligation of Telefónica de España to facilitate co-location in all of its RUO centres

The MARCo offer established that Telefónica must provide operators that request services with access to related resources in all of its RUO centres. The resolution of file AJ 2009/2131 confirms this criteria and, although in the resolution under appeal it was already made clear, then modified the offer. It was stated with greater clarification that the operators which intended to have the related services in RUO centres, which were not an FTTH head-end, should assume the related costs, both in terms of providing the co-location service as well as disassembly of the equipment.

- Procedures prior to occupation: regime established for the provision of an alternative route

In reference to cases where it is necessary to provide a reasonable and viable alternative route, Telefónica claimed that the operators must assume the complete cost of the alternative route, under the cost guidance

principle, and not only a maximum of twice the cost of the initial route. On the other hand, Orange requested that the same amount be billed as for the initial route to create an incentive for Telefónica to offer the most efficient solutions and to implement the obligation to free up space in the channels by removing disused cables.

As for the case of infrastructure expansion, Telefónica claimed that the operators should assume all costs deriving from the project, instead of incorporating them in its annual accounting and subsequently reflecting it in the cost per subduct, for the time which this implicated for recovering the investment made.

In view of the request made by Orange, CMT considered it appropriate to include in the MARCo offer the possibility that an operator affected by the saturation would ask Telefónica to remove dead or unused cables existing in the ducts when the saturation of the requested route was determined by this circumstance.

As for the obligation to provide an alternative route through the expansion of the already existing infrastructure, since the obligation to construct new channels was marked by the absence of an alternative and reasonable route, CMT considered it necessary to lay down some objective criteria to evaluate whether this alternative route existed in each particular case. It also established the rules for action in the event that it became necessary to expand the relevant channel and how to share the cost incurred by the operator and Telefónica.

- Occupation method: on the obligation for flexibility in the occupation method (separation of networks) through the use of flexible textile subchannels

The resolution of 8 April 2010 maintains the model previously contained in the offer of flexibility in the

method of occupation through the use of mechanisms which optimised the occupation of the duct space, while leaving it up to the parties to choose the specific solution to adopt. That is, if the offer under appeal refers to the use of solutions based in non-rigid material, such as the flexible textile subducts, it would open up a range of options to anyone offering greater possibilities for optimising the space and which was agreed among the operators requesting the access and Telefónica. There was also the resource, among others, of solutions based on non-rigid materials, such as the flexible textile subchannels, or indeed the installation of minitubes in channels and subchannels.

- Reserve space: on the quantification of the reserve space necessary for ensuring the expansion of the universal service and common operational reserve (ROC)

Telefónica claimed that, as a general rule, pair cables do not fit in the third of a duct or a subduct. Likewise, it maintains that, unless a reserve is established for universal service, the quality cannot be guaranteed.

CMT considered it necessary to highlight the reserve criteria for cases in which the number of ducts ranged between 3 and 7. For such cases the offer to apply a more flexible system was included, which would take into account the size of the cables and ensure, where required by Telefónica, the possible replacement of pair cables which, being in service, could suffer a breakdown. As a result, the summary of the space reserves was as follows:

NUMBER OF DUCTS PRESENT IN THE CHANNEL SECTION	MODIFIED SPACE RESERVE
Lateral exits	No reserve
2	1 subduct
3-7	1 conduct / 1 subduct
8	1 duct

Source: CMT

Likewise, if the reserves indicated are for maintenance tasks, it may have part of the capacity for widening the universal service if necessary, with due accreditation by Telefónica.

- Deadlines for resolving incidents in the service provision and maintenance phases

Telefónica claimed that there were contradictions with regard to the times for resolving incidents while the rest of the operators claimed it was necessary to stipulate a time for resolving provision and maintenance incidents.

Regarding this point the modification made by the resolution of 8 April 2010 only solved the contradiction in the text of the offer to maintain the Council's initial criterion of not establishing for the moment a time to resolve incidents in the service maintenance phase. This question is left to the free agreement between the parties and a minimum time of thirty working days is set for resolving incidents in the service provision phase.

- Average times for providing the wholesale and self provision service to control that the non discrimination principle has been complied with

Telefónica showed it did not conform with excluding clock stops in the calculation of average provision times, and also with the provision of an alternative route handled in a unified form, quality indicators are handled differently from average provision times.

The CMT thought it was reasonable that providing an alternative route is handled in a unified form along with the initial occupation request, both in the context of service level agreements and in that of average provision times, whereby it is agreed to eliminate the average provision time indicator of the alternative route from the average provision times of the offer.

4.1.1.5. Mobile access and termination

The mobile termination prices which applied during 2010 were those set by the CMT in the *glidepath* which was defined in February 2009.

PRICES (euros/minute)

	10/2009-4/2010	4/2010-10/2010	10/2010-4/2011
Movistar, Vodafone, Orange and full mobile virtual network operators (MVNOs)	0.06127	0.055074	0.049505
Yoigo	0.091182	0.078372	0.067361

Source: CMT

The prices defined in the latter *glidepath* also apply to complete mobile virtual network operators (MVNO) as in accordance with the resolution of the Board of CMT on 18 December 2008 which approved the definition and analysis of the markets for termination of calls in individual mobile networks, it was decided that the complete MVNOs, as with the mobile operators with their own network, had significant market power in the termination of calls and therefore must be regulated in this wholesale service.

Cost accounting

With regard to the obligations in terms of cost accounting, during 2010, the normal tasks were completed in

relation to the approval of rates of return, useful lives and cost accounting from previous years.

The principles, criteria and conditions of the cost accounting system approved by CMT represent the theoretical and methodological framework for the preparation of the cost accounting system and separation of accounts by operators and act as a guide for their subsequent review and approval by this Comisión. The CMT verifies that these have been applied correctly, either directly or through external auditors or consultants, and publishes an annual declaration on the degree of compliance.

The first resolution of accounting principles was approved on 15 July 1999 in the framework of the implementation of the cost accounting system of Telefónica de España. Subsequently, in the resolution of 27 July 2000, CMT approved the principles, criteria and conditions of the cost accounting system must be the same for all operators designated as having significant market power and subject to this obligation, irrespective of the market in which they operate.

In order to revise and update the principles, standards and conditions established in 1999 the CMT approved the Resolution of 10 June 2010. This adapted the accounting principles to a new Spanish and European standard and it was established that the general principles applicable to cost systems must be causality, objectivity, transparency, consistency and not compensation.

Also, on 30 September 2010 the CMT considered using Telefónica so it requested the cancellation of the criterion of non imputation to the communications services of the annual contribution for financing the Spanish Radio and Television Corporation.

The European Commission recommends that when price control and cost accounting obligations are imposed in wholesale voice call termination markets for individual public telephone networks, termination

rates based on the costs contracted by an efficient operator are established. It further recommends that the evaluation of cost efficiency be based on current costs.

One of the fundamental accounting elements in the standard of current costs is the revaluation of assets according to the current value of an equivalent modern good. In this regard, during the first financial years when the cost accounting systems of mobile telephony were presented, because their networks had been recently produced, the CMT had let mobile operators' assets be evaluated at historical costs in their accounts. Considering this the CMT issued a resolution on 4 November 2010 stipulating that mobile operators should reevaluate their assets to the standard of current costs and that revaluation procedures applicable to each group of assets be determined.

The Movistar, Orange and Vodafone 1999 accounts were analysed for the financial year 2008. In the three cases the accounts presented fulfil the principles, criteria and conditions established by the CMT, except that in some aspects they will have to be modified in the 2008 accounts and also be included in the results of the next financial year.

The annual rates of average weighted capital costs (before taxes) for financial year 2010 were approved for the three mobile operators:

MOVISTAR	2003	2004	2005	2006	2007	2008	2009	2010
Capital cost rate	14.18%	13.27%	12.49%	10.57%	10.85%	11.64%	11.78%	11.23%

Source: CMT

ORANGE	2003	2004	2005	2006	2007	2008	2009	2010
Capital cost rate	14.42%	13.01%	12.77%	11.32%	11.06%	11.73%	11.00%	9.98%

Source: CMT

VODAFONE	2003	2004	2005	2006	2006	2007	2008	2009	2010
Period	Apr. 02- Mar. 03	Apr. 03- Mar. 04	Apr. 04- Mar. 06	Apr. 05- Mar. 06	Apr.- Dec.	Jan.- Dec.	Jan.- Dec.	Jan.- Dec.	Apr. 10- Mar. 11
Capital cost rate	18.00%	14.18%	14.00%	13.29%	11.47%	11.22%	11.95%	11.79%	11.21%

Source: CMT

4.1.1.6. Roaming

In 2007 the European Commission had found that the wholesale costs and retail prices offered in international roaming services did not correspond, in accordance with the suppositions applied in a fully competitive market. To answer this situation the Council of the European Union and the European Parliament, in June 2007 approved the Community Regulation 717/2007 regarding international roaming in public mobile telephony networks in the EU.

This regulation basically regulated the international roaming voice service, both originating communications and those received in European territory, and affected the wholesale and retail market.

This regulation ceased being effective on 20 August 2009. Despite this, regulation on international roaming services continued through the preparation of a new community regulation published in June 2009. This new regulation was not limited to prolonging the regulation already started in the previous one, but it broadened the regulatory measures to additional *roaming* services (Text messages and data traffic).

With regard to the retail voice service, and as in the previous regulation, a decreasing price trend was established which set a maximum price. Starting from July 2010 the maximum price of 0.35 Euros a minute for calls originating abroad was set, while for received calls the limit is 0.11 Euros a minute.

Also, the maximum of 11 cents was regulated for sending an SMS message through international roaming inside the EU. The other roaming service affected by the regulation was data traffic. In this case, retail prices are not regulated but the use of this service was limited to a maximum of 50 Euros per period of monthly invoicing. Once this limit has been exceeded the provider had to stop providing the service until the client show their consent to continuing the service. Further, in July 2010 the 50 Euros a month limit was applied to

clients who may not have explicitly chosen a concrete limit in the use of this service.

With regard to the wholesale market, a decreasing price trend for a period of two years was established for the voice traffic service, like in the retail segment. Thus in July 2011 the average annual rate set for by the regulation will be 18 cents a minute.

Broadening the services regulated in the retail market (SMS message services and data traffic) continued in the wholesale market. In this way, the average wholesale rate per SMS message sent may not exceed 4 cents. For the data traffic service the average price applied to the wholesale market was set to reduce progressively to 50 cents per megabyte in July 2011.

The national regulation agencies - the CMT in the case of Spain, are to verify, for each member country, that the community regulation is correctly applied to mobile operators. Further, these authorities must inform the European Commission every six months about the results of said supervision.

4.1.1.7. Audiovisual

Resolution of 21 May 2009 by the CMT regarding the definition and analysis of the wholesale market of the carrier service for the television signal and the designation of an operator with SMP imposed on Abertis Telecom the obligation to publish a reference offer for providing wholesale access service to centres through which it provides the broadcast support service of the television signal. This offer was published and communicated to the CMT in October 2009.

In May 2010, the CMT started the revision procedure of the reference offer presented by Abertis, opening a public consultation procedure in which another four bodies, beside Abertis, presented allegations.

The Reference Offer for access to Abertis Transmission Centres (ORAC) includes the technical, economic and

procedural conditions which should govern the provision of the access service to the Abertis centres, with two procedures, co-location and interconnection, specified in the CMT resolution on the analysis of the old Market 18. This resolution contains information about the description of the service, access conditions and broadcasting centres, reference rates and the list of centres open to co-location and interconnection.

The revision made by the CMT on Abertis' reference offer centred on four main points:

- Procedures for providing services. The CMT brought down the deadlines set for access to the centres by third party operators, better defined the exceptions in the case of mass applications made more flexible the deadlines and standards for archiving applications made by alternative operators.

- The provision prices of the separate components of the service. With reference to recurring prices, the CMT observed that the prices proposed by Abertis were greater than those that would be obtained with calculations made in accordance with Abertis' cost accounts for the financial year 2008. In this sense, the CMT established in its resolution a list of the services and prices applicable to the reference offer. It proposed some access prices based on unit costs derived from the results of the cost accounting system of financial year 2008 in the standard of current costs confirmed by the CMT and applied to them a margin necessary to make a gradual change in prices. With reference to prices that are non recurrent or before installation the CMT analysed the estimates proposed by Abertis for the tasks to be performed, the hours of work to perform the viability studies, displacement costs and accounting of variable costs by outsourcing. After the analysis it obligated Abertis to reduce these so that the prices proposed in the offer had to adjust to the prices that the CMT indicated in the Resolution.

- Access to information on the broadcasting centres. The Market 18 Resolution established what information Abertis had to facilitate to operators wanting access (list of broadcasting centres, map of coverages, maximum power, etc.). These elements which seem to be included in the reference offer presented by Abertis were revised and evaluated by the CMT who established the formats that Abertis will have to use for the information of the technical sheets. Further, Abertis must broaden the in-

formation it offers in reference to the co-location and interconnection sheets of a significant number of centres, better specifying the viability of each one of them.

- Service level agreements and penalties. The CMT stipulated the quantities of the penalties for the non fulfilment times of the service and the deadlines for access to the centres for performing maintenance, and the penalties for non-fulfilment of the Service Level Agreements (SLA), on resolving incidents and service availability. The CMT stipulated that Abertis will have to modify its reference offer introducing a system of penalties for the above mentioned concepts while it regulated how said penalties will be settled.

Through a resolution of the Council of October 2010, the CMT decided to approve the Abertis reference offer and include the modifications described in said resolution in the current offer. The CMT also stipulated that in five working days from publication of the resolution in the Official State Gazette, Abertis should publish the revised reference offer on its web page in conformity with the stipulation of this Commission.

Cost accounting

On 28 December 2009 Abertis' proposal on the annual capital cost rate to be applied in the cost accounting for financial year 2009 was submitted to the CMT records.

CMT services proceeded to verify the reasonability of Abertis' proposal in accordance with the Resolution of 21 December 2006¹ which stipulates the methodology that the body considers to be adequate to estimate the value of the rate of capital cost of the declared SMP operators.

¹ Resolution on the revision of the method of calculating the average weighted capital cost of operators that the CMT declares as dominant (AEM 2006/736).

After revising the values and methods proposed by Abertis according to the estimation methodology described in said resolution, the CMT approved, by resolution of the Council of 18 February, a rate of return of 12.85% over the net assets involved by Abertis in calculating the production costs of the services during financial year 2009.

In line with the preceding resolution on 11 June 2010 Abertis presented its proposed annual capital cost rate

AVERAGE WEIGHTED CAPITAL COST OF ABERTIS	2004	2005	2006	2007	2008	2009
Before tax	14.74	13.81	9.79	13.15	13.48	12.84
After tax	9.58	8.98	6.48	9.08	9.55	8.81

Source: CMT

On 21 May 2009 the Council of the CMT approved the definition and analysis of the wholesale market of the carrier service for the television signal and the designation of an operator with SMP and the imposition of specific obligations. In defining and analysing the market this resolution concluded that said market was not really competitive and identified Abertis as an operator with SMP. Annexe I of said resolution imposed on it the obligation, among others, of offering access services to its national networks at prices based on production costs and to separate its accounts according to access activities.

Abertis therefore had to include the definition of the following services in its SCC:

- Co-location service.
- Interconnection service.
- Non regulated service.
- Services not assignable to the principal activity (NAAP)/ costs not imputable to the standard (CNIE).

In 2010 the CMT proceeded to revise the cost accounting systems corresponding to financial year 2008 presented by Retevisión I (Abertis subsidiary). One of the tasks performed in the context of this revision was to verify that CMT's resolutions regarding the SCC to apply by said operator had been complied with. In such cases the CMT determines the principles and criteria that the operator should follow to calculate the cost accounting

which it had to apply in the cost accounts for financial year 2010. With the Council's resolution of 14 October 2010 the CMT approved a return rate of 12.84% for calculating the production costs of the services during the financial year 2010.

The following table shows the trend of Abertis' capital cost approved by the CMT in previous resolutions, and the valuation of the rate of capital cost for financial years 2009 and 2010.

and the cost accounting system which must apply as well as specifying the format and accounting method to be used.

When verifying the Abertis SCC the CMT paid special attention to the implementation of the modifications that the Commission requires from the operator by means of resolution 23 July 2009².

In its resolution on the revision of the 2008 cost accounting system used by Retevisión, the CMT considered that it was generally in conformity with the principles, criteria and conditions established by this institution in its resolutions, except for a list of 15 points indicated by the Commission and that Abertis must modify, correct or include in its cost accounting system and present with its accounts in the next financial year. In this same resolution the CMT required that Retevisión presented the financial year 2009 results for the models of co-location, analogue and digital interconnection as well as the internal cost accounting manual and the corresponding annexes and technical studies adjusted with the required modifications before 31 July 2010.

² Resolution on the verification of the cost accounting results of Retevisión I, S. A. U. (Abertis Telecom), corresponding to financial year 2007 (AEM 2009/803).

While complying with the obligation to base wholesale prices on costs imposed on Abertis Telecom on 5 May a letter from Abertis was submitted which included a proposal of useful lives to apply in the accounting system for financial year 2009.

When the proposed useful lives were revised it was noticed that the values provided by Abertis Telecom for 2009 were identical to those approved for the previous financial year 2008 and that the CMT had already verified them. Therefore with the resolution of 3 June 2010 the CMT decided to approve the useful lives proposed by Abertis for the calculation and accounting of operating costs in the 2009 financial year under the current cost standard. Annexe I of said resolution includes the list of the useful lives of those assets of Abertis which the Commission has approved.

4.1.1.8. Reference Offer of Lines Leased

In 2009 the CMT analysed the wholesale markets of terminal leased lines (number 6 of the current recommendation for the relevant markets) and leased trunk lines (market 14 of the previous 2003 recommendation).

As a result of this analysis in 2009 the CMT made it necessary to maintain and update the obligations of the SMP operator, Telefónica, in the wholesale market of terminal leased lines. For the trunk line market, the existing obligations on this operator were suppressed, except for the certain underwater trunk routes through which the CMT determined that Telefónica continued to be an SMP operator.

On 7 December 2010 the modification and revision of the provision and price conditions of the Reference Line Rental Offer (LLRO of 2010) for underwater and terminal lines subject to regulation was approved. This update of the LLRO made a downward revision of the prices for underwater and terminal lines which are already regulated and specified for the first time the service provision conditions (including prices) for new underwater routes which until then had not been regulated.

Revision of the terminal leased line service

The new offer revised many aspects of the service definition, technical and procedural. The most relevant novelties of this revision were:

- A new speed was introduced in the offer, the Gigabit *Ethernet*, which at 1,000 Mbps, is the highest of the regulated terminal lines.
- Provincial lines of any distances were permitted for conventional lines and for Gigabit *Ethernet*.
- The causes and procedures regulating the denominated high cost circuits were defined.
- Penalties for delays in solving incidents were reduced to 5% per day of delay.
- The quality values that Telefónica must publish periodically were defined.
- The general conditions for migration to LLRO were clarified.
- Improvements in billing were approved.
- Regulation on stoppages of the clock were broadened.

The following table shows the cost based price reductions of terminal lines with conventional interfaces:

CAPACITY	REDUCTION
2 Mbps and $n \times 64$ Kbps	-15%
34 Mbps ³	-10%
155 Mbps	-40%

Source: CMT

³ The connection fees for 34 Mbps and 155 Mbps circuits have reduced by 40% to ensure that rates are consistent for the different speeds.

The nominal prices after applying the previous reductions are:

TYPE OF CIRCUIT	CONNECTION (EUROS)	MONTHLY RATE (EUROS)					
		0 TO 4 KM STRETCH		4 TO 20 KM STRETCH		OVER 20 KM	
		0 KM	KILOMETRE ADDITIONAL	LIMIT LOWER BAND	KILOMETRE ADDITIONAL	LIMIT LOWER BAND	KILOMETRE ADDITIONAL
64 Kbps	460.70	46.04	4.51	64.08	0.55	72.88	0.55
2 × 64 Kbps	460.70	68.70	5.66	91.34	1.46	114.70	1.20
3 × 64 Kbps	460.70	68.70	6.80	95.90	2.37	133.82	1.84
4 × 64 Kbps	460.70	68.70	7.95	100.50	3.29	153.14	2.49
6 × 64 Kbps	460.70	76.64	9.10	113.04	4.20	180.24	3.13
8 × 64 Kbps	460.70	76.64	10.24	117.60	5.11	199.36	3.77
12 × 64 Kbps	945.20	150.77	11.39	196.33	6.02	292.65	4.42
16 × 64 Kbps	945.20	150.77	12.53	200.89	6.93	311.77	5.07
24 × 64 Kbps	945.20	150.77	13.68	205.49	7.84	330.93	5.71
30 × 64 Kbps	945.20	150.77	14.82	210.05	8.76	350.21	6.35
2 Mbps	945.20	150.77	14.82	210.05	8.76	350.21	6.35
34 Mbps	1,698.60	696.64	29.65	815.24	29.65	1,289.64	29.65
155 Mbps	1,886.40	954.60	52.18	1,163.32	52.18	1,998.20	52.18

Source: CMT

Then new prices of terminal leased lines with conventional interfaces are lower than the European average.

For terminal lines with *Ethernet* interfaces and with a retail minus method calculation, the prices and average reductions approved in the LLRO of 2010 were:

SPEED	AVERAGE PRICE LLRO 2007 EUROS/MONTH	AVERAGE PRICE LLRO 2010 EUROS/MONTH	REDUCTION
<i>Ethernet</i> - 10 Mb	632	478	-24%
Fast <i>Ethernet</i> - 100 Mb	668	559	-16%
Gigabit <i>Ethernet</i> - 1000 Mb	2,569	1,966	-23%
Weighted average	749	580	-23%

Source: CMT

These reductions were possible through the calculation of the effective prices of Telefónica's standard *Ethernet* offer made by the CMT. That is, in operating

retail minus the effect of the discounts that Telefónica applies to its business end clients compared with the nominal prices of its offer were taken into account.

It should be emphasised that Spain is one of the few countries with a regulated wholesale *Ethernet* offer. Further, the prices of the *Ethernet* lines in the LLRO are the some of the lowest in Europe.

Connection service prices

The Telefónica connection service consists of a connection between Telefónica and the operator, usually with large capacity, which can combine various end client circuits into a single delivery point.

The LLRO of 2010 supposed a change in the rate structure of this service: up to then operators paid a single connection charge according to the required ca-

capacity. Since then the cost of optical fibre, ducts and cabinets necessary for providing the service has been taken into account. An annual rate for maintaining this was also introduced.

It is difficult to estimate the impact of the new price scheme proposed by the CMT regarding the prices of the LLRO of 2007. This varies for the different service connection procedures and also depends on the concrete characteristics of each connection point between Telefónica and the operator. In any case the average impact was estimated and the following variations (note that the LLRO of 2007 did not have a maintenance rate) were estimated:

CONNECTION SERVICE	CONNECTION CHARGE VARIATION LLRO OF 2010	ANNUAL MAINTENANCE RATE LLRO OF 2010
Conventional leased lines	-44%	10% connection fee
Ethernet Lines	-28%	5% connection fee
Gigabit Ethernet	-25%	5% connection fee

Source: CMT

Revision trunk leased lines service

This revision of the trunk lines service presents two significant novelties:

- In the Peninsular-Canaries route the first regulated underwater trunk route was introduced with a higher capacity, the STM-16 (2.5 Gbps).
- Introducing new underwater trunk routes in the offer. Capacities of up to 622 Mbps (STM-4) have been regulated in these routes.

- Revision of the Peninsular-Canaries route prices

After the maximum regulated prices of the Peninsular-Canaries routes were modified in 2008, two circumstances affecting how the prices of this route are calculated have arisen: a 23% fall in wholesale prices of ADSL-IP, approved by the CMT in 2009, and the increase in the average capacity of retail broadband connections. Starting from this change, the CMT implemented the calculation model for the prices of this route and the following prices were approved (the reduction with regard to the LLRO of 2007 is also given):

TYPE	CAPACITY (MBIT)	TRANSPORT SERVICE CHARGES		
		LLRO OF 2008	LLRO OF 2010	REDUCTION
E1	2	2,488	1,771	-28.83%
E3	34	17,949	12,774	-28.83%
STM-1	155	40,057	28,507	-28.83%
STM-4	622	75,886	54,006	-28.83%
STM-16	2,500	–	162,018	–

Source: CMT

- New regulation for other underwater routes

The cost of the other nine underwater routes were fixed based on an estimate of the costs of the service on the

basis of real data regarding the investment, capacity and maintenance of underwater cables. The prices approved were as follows:

TRANSPORT SERVICE CHARGES (euros/month)

ROUTE	DISTANCE (KM)	STM-4 (622 MB)	STM-1 (155 MB)	E3 (34 MB)	E1 (2 MB)
Cádiz-Ceuta	45	3,591	1,813	1,064	133
Málaga-Melilla	198	8,650	4,367	2,563	320
Gran Canaria-Fuerteventura	147	7,134	3,602	2,114	264
Gran Canaria-Lanzarote	213	8,153	4,116	2,416	302
Tenerife-La Palma	142	4,619	2,332	1,369	171
Tenerife-Gomera	82	3,667	1,851	1,086	136
Hierro-Gomera	25	6,010	3,035	1,781	223
Mallorca-Menorca	96	7,381	3,727	2,187	273
Ibiza-Formentera	4	2,573	1,299	762	95

Source: CMT

4.1.2. Obligations on retail markets

4.1.2.1. Access

On 15 June 2010, the CMT approved the resolution that set the upper variation limit of Telefónica's subscriber fee for 2011.

The setting of an upper variation limit is one of the price control obligations imposed on Telefónica as an operator with significant market power in the retail market for access to the public telephone network at a fixed location for residential and non-residential customers (market 1 of the European Commissions' recommendation of December 2007). This regulation of Telefónica's access service price is applicable throughout the country, as stated in article 19 of the market regulation and article 17 of the Universal Service Directive.

As a result of the analysis, the CMT resolved that during 2010 Telefónica would not be permitted to increase the monthly rental charge for its access network, the cost of which, in 2009, was 13.97 Euros a month.

The CMT expected that, with this resolution, the differential between the residential rental charge and the European average would reduce.

During 2010, Telefónica met this obligation maintaining the charge for access to its network at 13.97 Euros a month.

4.1.2.2. Pre-selection

On 16 December 2010, the revision to Circular 1/2004 was approved which introduces verbal consent with verification by a third party for processing operator pre-selection, with the aim of keeping pace with the amendments in relation to this processing laid out in Circular 1/2009, of 16 April. In this circular, verbal consent with verification by a third party is introduced when contracting regulated fixed-line wholesale services, and requesting number portability.

Specifically, this circular introduces the following changes:

1) It aims to streamline the formalities needed to initiate the process of pre-selection, with a view to relieving

operators of administrative tasks. Furthermore, the following amendments were adopted:

- Remove the need for ten working days to pass from the time when the operator has provided the subscriber with a confirmation document for the requested process before the pre-selection request can be processed.

- Modify the period of time available to operators (one month) for sending the Commission contracts processed on the basis of third-party verification, extending this period to three months.

2) With a view to reinforcing the rights of users who use this process to enter into contracts, the following amendments have been made:

- Impose on the operators the obligation of informing users of the complaints procedures available to them under current legislation. This information must be included in the documentary confirmation sent to the user after verification.

- Need to re-confirm prior consent by the user for the provision and processing of personal details. In this case, information concerning the provision and processing of personal details must be gathered prior to the exchange of data between operators, and to this end prior consent must be sought during the verification call.

4.2. Disputes

One of the roles attributed to the CMT, under article 48 of the LGTel, is that of resolving disputes between operators in matters of access and interconnection, telephone directories, the financing of the universal service and shared use of infrastructure.

The disputes resolved by the CMT concerning access and interconnection in 2010 are detailed below.

4.2.1. Interconnection disputes

Four of the interconnection disputes resolved in 2010 were finally closed or rejected on the grounds that there

was no reason for them to be continued (one brought by Dialoga, two by Opera and one by Dragonet).

Interconnection dispute brought against Telefónica regarding the exchange of traffic to the Canary and Balearic Islands

Opera brought a dispute against Telefónica de España on the grounds of its refusal to accept the opening up of interconnection to its geographic numbers in the provinces of Baleares, Las Palmas and Santa Cruz de Tenerife. Opera had requested that calls made to these numbers should be carried through this operator's interconnection points (IP) in Madrid. In other words, Opera's request meant that Telefónica should route calls to geographic numbers through IPs not belonging to exchanges in the nodal area of those geographic numbers.

Telefónica rejected Opera's request to route the calls through its Madrid IPs, on the basis of the impact that such a request would have on its network architecture, as much in terms of the analysis of numbering in its exchanges as in terms of the tendency of operators to concentrate interconnection on two points, Madrid and Barcelona, and offered different alternative solutions. All of these involved Opera in assuming the costs of call transmission from the nodal area to which the geographic numbering belongs, following Telefónica's network architecture, to the local exchange of the publicly-available telephone service.

At present, no regulatory provision exists in relation to a minimum deployment of IPs that an operator must put in place in order to provide direct access services. Nonetheless, both Opera and Telefónica are operators with significant power in the call termination market in their respective networks, and they are both under the obligation to meet reasonable requests for access to specific resources of their networks in order to guarantee the interoperability of end-to-end services. Consequently, the CMT studied the reasonableness of either Telefónica or Opera assuming the costs of call transmission to Opera's closest interconnection point.

To this end, two different scenarios were considered, the Balearics and the Canaries, on account of their different characteristics.

- Balearic Islands

The Balearic Islands scenario, on account of its territorial features, was equated with long-distance mainland scenarios, insofar as there is sufficient competition in the wholesale provision of fibre optic infrastructure to guarantee cost-reflective prices.

Telefónica submitted a claim regarding the concentration of interconnection points, as noted in file DT 2008/2092, resolved in 2009, relating to the dispute brought by Grupalia against Telefónica, on the grounds of the refusal by the latter to route the terminating traffic of direct access subscribers located in Orense through the IPs of Grupalia in Madrid. This meant that the difference in interconnection costs at the different levels of interconnection regulated by the RIO are incentive enough in themselves to encourage IP deployment at nodal level by Opera.

In this scenario, the conclusion was drawn that Opera had no reason to have an IP in that nodal area, while Telefónica was obliged only to route calls to Opera's geographic numbers, unless the parties agreed otherwise. This would take place through the IP closest to the province to which the geographic numbers belong in accordance with Telefónica's network structure. This obligation would be conditional on compliance with the principle of bi-directionality of interconnection with Telefónica at the level of the nodal area.

If Opera were to use a transit carrier to terminate calls to subscribers of Telefónica in the Balearic Islands and this carrier did not have their own or shared IPs, thus breaking bi-directionality of interconnect at the level of the nodal area, Telefónica could route the calls to Opera's geographic numbers through IPs located in the nodal area which it uses as a termination IP transit. In this scenario, Opera must communicate the agreements reached at least one month in advance and bear the transit costs between the IP of the third-party carrier and its network.

- Canary Islands

In the provinces of the Canaries there is a lack of competition due to the costs involved in the deployment of the infrastructure required to provide connectivity between the islands and the mainland. This is a scenario in which interconnection costs are not incentive enough in themselves to encourage IP deployment at nodal level, given that the volume of traffic needed to offset the costs of such deployment would be markedly higher than what might be the case on the mainland.

This, along with the fact that there is a regulated reference offer for the provision of wholesale, rented line services, led the CMT to consider that Telefónica's request for Opera to have an IP in the nodal area through which it could route calls to its geographic numbers of Santa Cruz de Tenerife and las Palmas was reasonable.

Thus, it was resolved that Opera, prior to requesting the opening of the geographic numbers which are currently assigned to it in the provinces of Santa Cruz de Tenerife and las Palmas, must have its own or shared IPs in the nodal area, in order for Telefónica to route these calls through these IPs to the aforementioned geographic numbers.

In order to set up the afore-mentioned IPs, and notwithstanding the fact that Opera can opt for a different solution, Telefónica must make it a virtual IP offer in accordance with the prices regulated in the reference offer for leased lines (LLRO-C).

a) Suspension of interconnection

Dispute between Orange and Jam Telecom

Orange complained to the CMT that Jam Telecom 2000, the operator of the subscriber telephone helpline 11832, had used this number improperly to download to it promotional balances from Orange phone cards.

To avoid this type of fraudulent behaviour happening again, Orange requested authorisation to apply a temporary type 118AB general suspension of interconnection procedure to a given number when certain improper actions are detected, so that express authorisation for suspension by the CMT would not be

necessary (on a case-by-case basis). Nevertheless, in accordance with the documentation provided, Orange requested that the suspension of the interconnection between its pre-payment cards and number 11832, assigned to Jam Telecom, be declared applicable.

Jam Telecom claimed that the actions that had occurred were not a result of its own behaviour but were due to problems with a call centre through which it managed calls, and pointed out that it had taken several measures to prevent those behaviours that gave rise to the complaint from happening again. In turn, Jam Telecom requested authorisation to restrict all calls from Orange to its 11832 number, thereby confirming that there was a will on the part of both operators to suspend interconnection with this number.

As indicated in the CMT resolution of 29 April 2010, article 60 of the numbering regulation attributes to the operator in receipt of public funds for numbering the responsibility to communicate and negotiate the relevant aspects of the putting into service of the new allocated resources with all other operators of the publicly-available telephone service. From the point of view of the operator in receipt of these funds, the obligation to open a number is fulfilled if the number is accessible, at least, from another operator's network. Nonetheless, the legislation does not oblige two operators to open their numbers if they do not wish to interconnect or to grant each other access to their services. It would be a totally different matter if one of the two wished the other's network to open to a particular number, and in this event the interoperability principle would force this opening.

On this basis, the Board of the CMT resolved to authorise Orange and Jam Telecom to suspend interconnection between the network of the former and number 11832 of the latter, upon the written declaration of conformity from both parties. Moreover, the CMT resolved to refuse Orange's request to use a generic interconnection suspension procedure to 118AB numbers.

Procedure for interconnection suspension by Orange

In accordance with the resolutions adopted by the CMT for this purpose, there are various procedures

that Orange is authorised to take to suspend interconnection from its mobile network cards to premium numbers (803, 806, 807 and 905) when it detects improper downloads of promotional balances. The activities that give rise to the application of these procedures for all routing suspension basically consist of:

- De-coupling the pre-paid mobile telephony card with a promotional balance from the associated terminal marketed by Orange, in such a way that the sums contained in the pre-paid card are used up making calls to certain premium numbers.
- Making of phone calls with post-paid cards with improper contracts, with the result that the calls are left unpaid.

In accordance with approved procedures, Orange is required to send the CMT, within no more than 24 hours, a specific, detailed report for each number concerned. Furthermore, Orange is under the obligation to inform the operator to which the number is assigned of the application of the afore-mentioned procedure.

Orange claimed before the CMT that the application of a 24-hour deadline was causing it serious harm, as the majority of these irregularities occurred during weekends and public holidays, and could not be reported. For this reason, Orange requested permission from the CMT to notify this body of the suspension of the interconnection of calls from its pre- and post-payment cards to premium numbers within 72 hours of the disconnection. Thus, the authorised procedures would be modified, with the aim of permitting disconnection over weekends and public holidays.

For this reason, Orange requested permission from the CMT to notify this body of the suspension of the interconnection of calls from its pre- and post-payment cards to premium numbers within 72 hours of the disconnection.

b) Defaults

Adoption of precautionary measures

In the resolution of 20 May 2010, the CMT adopted precautionary measures in the interconnection dispute brought by Telefónica against Integración y Recursos Informáticos y Servicios (Integration and Computer Resources and Services - Interec). In this resolution, the CMT adopted a system which guarantees payment to Telefónica for interconnection services, to ensure that the resolution is effective as otherwise it might give rise to further disputes.

As for the presumption of sufficient legal basis, this was considered to be met insofar as there were unpaid amounts for interconnection services, without any justification for default. Similarly, the CMT concluded that it was a matter of some urgency, insofar as this measure allowed any increase in credit risk for Telefónica to be limited. The proportionality of the measure was justified by the need to guarantee the continued provision of interconnection services, reducing insecurity for Telefónica in view of Interec's status as debtor.

This resolution followed the criterion governing other previous resolutions on pre-payment mechanisms (resolutions of 5 June 2003, 21 June 2007 and 17 December 2009). The system of guaranteed payment may be described in the following terms: 1) payment of a first sum calculated on the monthly average for the last three records of consolidation in interconnection signed by both parties; running monthly pre-payments calculated in accordance with the previous section on the basis of the invoices from Telefónica (plus 16% VAT), with the possibility of extending the pre-payment if it becomes apparent that the services provided exceed 50% of the pre-paid services. The resolution also indicates that any discrepancy will be resolved in accordance with provisions in the current General Interconnection Agreement (GIA), and that parties shall agree to regularise payments after the pre-paid month, with the resulting balance being paid to whomsoever has a claim for payment. The terms for lodging the guarantee –configured by the resolution as an alternative to pre-payment– are laid out in the GIA, and they are provided for, in generic form, in the standard contract of the RIO.

Dispute brought by Telefónica de España against Mundio Móvil España

Telefónica requested authorisation from the CMT to disconnect and then terminate the general interconnection agreement (GIA) signed with Mundio, and also requested for the obligation to pay the debt that this operator had contracted as a consequence of defaulting on sums relating to various interconnection and rental services provided by Telefónica to be confirmed.

As set out in the resolution of 22 September 2010, the CMT was satisfied that Mundio had failed to meet its obligation to pay for the services provided by Telefónica under the general heading of interconnection and circuit services, without there being any justification for the failure to meet this obligation. For its part, Telefónica had complied with its contractual obligations, that is, with providing the contracted services and in leaving a month before sending the written requirement requesting payment for the afore-mentioned services.

On this basis, once that it had been ascertained that all the necessary requirements laid out in the GIA for the termination of an agreement had been met, it was confirmed that Telefónica was entitled to terminate the interconnection agreement drawn up between both operators.

To this effect, the Board of the CMT resolved that, if within 15 working days from the notification of the resolution, Mundio had not proceeded to regularise the outstanding payments, Telefónica was entitled to proceed to the disconnection of the networks of both operators. To this end, it should notify the CMT that it was to proceed to thus disconnect, and this disconnection could be effected if it were not demonstrated otherwise by this body after ten working days from notification. To this effect, the Board of the CMT resolved that, if within 15 working days from the notification of the resolution Mundio had not proceeded to regularise the outstanding payments, Telefónica was entitled to proceed to disconnect the networks of both operators.

c) Transit services

Dispute brought by Opera against Telefónica regarding transit services

Opera brought an interconnection dispute against Telefónica regarding transit services to mobile operators, on the grounds of alleged discrimination regarding the conditions it had been offered by an operator holding significant market power compared with those offered to third-party operators. Opera claimed that it had to bear the cost of the transit prices laid out in the RIO, whilst Telefónica was alleged to be applying significantly lower prices to certain economic operators for the same service⁴.

In the proceedings, it was established that Telefónica was applying in its transit services to mobiles lower prices for certain operators than those laid out in the RIO, whilst it was applying to Opera the prices fixed in that reference offer. Nonetheless, the CMT concluded, in its resolution of 16 December 2010, that this price differentiation was due to an objective cause, given the difference in costs of the service provision. Indeed, Telefónica negotiated prices that were lower than the RIO with those operators that so requested and that had a minimum volume of traffic (4.5 million minutes), and it was duly attested that greater volumes lead to efficiencies (reduction in the unit cost of maintaining the network as a greater number of minutes passed through it) which were passed on to the operators in the form of discounts.

Ultimately, the Board of the CMT did not find evidence for the infringement of the obligation not to discriminate imposed on Telefónica by the wholesale regulation of the transit markets.

Dispute brought by *Least Cost Routing* against Telefónica regarding the setting and application of transit service prices in calls of international origin to 902 numbers

In February 2010, *Least Cost Routing* (LCR) brought an interconnection dispute against Telefónica as a result of the creation, by the latter, of a new service called Transit from International to Service 902 of LCR, and of applying retrospectively new interconnection charges for the afore-mentioned transit service to traffic consolidated since 1 July 2009.

Telefónica justified its behaviour by the economic losses caused to it by this type of call from abroad, due to their short duration and the termination charges agreed with foreign operators, which did not correlate with the rate and the access billing model regulated by the RIO and that up to that date it had applied to LCR for the call transit service to its 902 numbers. For its part, Telefónica considered that the model proposed to LCR was reasonable for both parties, as it only received the remuneration for its transit service at national level. Finally, it claimed that there was some irregular traffic which had established itself as national traffic, but which, in its view, was in effect international, and consequently it called for the application of the new charges to this traffic also.

During the proceedings, the service that Telefónica had proposed to include was examined, particularly taking into account its reasonableness and the unilateral and retrospective application of the charge determined for this service. Consideration was given to the fact that the service in dispute was not regulated by the RIO, and that the national transit service market had been deregulated since 15 April 2010.

By the resolution of 7 December 2010, the CMT resolved to consider the inclusion of the service offered by Telefónica in the GIA drawn up between the operators. Furthermore, it considered that the charges proposed by Telefónica for this service were reasonable and that their application by the operator was appropriate. Nonetheless, these prices could only be applicable from 1 February 2010, the date on which the dispute was brought and, consequently, the end of negotiations between both parties.

⁴ The regulatory *ex ante* obligations imposed on Telefónica in the transit market were brought up during the processing of this procedure. The second audit round of the transit market agreed to abolish the obligations applicable to Telefónica in said market once a period of six months have elapsed from the publication of the Resolution in the Official State Bulletin (which took place on 15 October 2009). Therefore, the non-discrimination and transparency obligations remained in force until 15 April 2010.

Moreover, Telefónica was urged to return to LCR the amount that had received a new tariff retrospectively, in respect of traffic from abroad to LCR's 902 number, already consolidated and paid for during the period between July 2009 and 1 February 2010.

Moreover, Telefónica was required to return to LCR the amount that had received a new tariff with new charges, in respect of traffic prior to 1 February 2010, supposed-ly from international traffic and registered as domestic. Nonetheless, Telefónica was permitted to set new tariffs in accordance with the new prices for the irregular traffic from 1 February 2010. This traffic would comprise those calls for which it managed to give absolute proof to LCR that they were not from national numbers, but had been received through a connection with a foreign operator.

d) Interconnection services and conditions

Interconnection disputes brought by Nalan Telecomunicaciones and Sur Making Off against Telefónica, on the grounds of unjustified delay in signing a GIA

During 2010, the CMT resolved disputes regarding interconnection services and disputes brought by Nalan Telecomunicaciones and Sur Making Off against Telefónica.

In both disputes, the complainants requested the intervention of the CMT in the face of the impossibility of reaching a general interconnection agreement with Telefónica. In both cases, the parties had requested to join the RIO, and consequently, in accordance with the regulation, the GIA should have been signed within five days. Nonetheless, more than a year had passed and the signing of the afore-mentioned agreements had failed to materialise.

Telefónica justified the delay in formalising the GIAs on the grounds of the alleged lack of reasonableness of the request by Nalan Telecomunicaciones and Sur Making Off, as, in its view, both operators posed a significant risk of late payment and default, and thus the provision of the interconnection services requested would place it in a

situation of financial risk. Given the foregoing, Telefónica demanded a guarantee to be set up prior to signing the afore-mentioned agreements.

In its resolutions of 29 July 2010 (adoption of precautionary measures regarding the dispute brought by Sur Making Off) and 30 September 2010 (regarding Nalan Telecomunicaciones), the CMT proceeded to examine whether the applicants fell within any of the circumstances in which Telefónica could demand a guarantee to be set up in accordance with provisions in paragraph 11.14 of the consolidated text of the 2005 RIO (resolution of 23 November 2005), in force at that time.

In the cases described, that is, just before the interconnection was given effect, the RIO in force outlined the only circumstances under which the relevant guarantee should be set up:

- That the operator interested in the interconnection were entering bankruptcy, whether declared by the courts, or requested by the debtor.

- That in the trading relations between Telefónica and the interested operator, or the parent companies, reference partners, merged or taken over companies or ones which had expressly assumed the rights and obligations of the previous company in terms of its business of the operator that wishes to interconnect, there had been unjustified defaults in, at least, two invoices issued by Telefónica.

Thus, only in the circumstances indicated in the RIO in force at that time could Telefónica demand a guarantee as a means to assure payment for the interconnection services requested. Having established that neither of the complainants fell into either of these circumstances, the CMT resolved proceedings by urging Telefónica to sign the relevant GIAs within five days, without the possibility of exacting any kind of guarantee.

Dispute brought by OVH Hispano against Telefónica

OVH Hispano (OVH) brought to the CMT an interconnection dispute against Telefónica, given that, eleven months from the time negotiations had started between

both operators to reach an interconnection, a general interconnection agreement (GIA) had not been signed between these bodies.

OVH stated that Telefónica demanded as a prerequisite for the signing of the GIA the establishment of new mechanisms for assuring payment, or, failing that, that the number of mechanisms established by OVH should be increased. Telefónica, on its part, pointed out that independently of the need to agree with OVH to review certain economic payment guarantees, it was not opposed to signing a GIA with that operator and that, simply, there had been a delay in finalising it due to a variety of technical issues that had arisen during negotiations.

The resolution of this dispute, on 22 September 2010, was based on the application of the regulation governing the general principles of interconnection, in which the rights and obligations of operators are laid out regarding applications for interconnection and, specifically, the deadline set by the industry's regulations for the signature of a GIA from the start of negotiations. Given that no evidence had been provided for the reasons why the technical problems had not been resolved by the deadline for the signing of the interconnection agreements, nor that both parties had voluntarily agreed to extend it, the Board of the Commission resolved that Telefónica de España should proceed to sign a GIA with OVH within five days of the resolution being notified, without making this formalisation subject to OVH producing new guarantees or revising the existing ones.

Procedures for managing payments and defaults in premium services

An operator brought an interconnection dispute against Telefónica on the grounds of discrepancies in the invoicing of premium services between both operators, as a result of important differences between the information provided by Telefónica through daily Codifis files and the information provided by Telefónica in its *on-line* application.

In turn, the operator claimed that there was an important difference between these two values (Codifis and *on-line*) and the real information. The result of these differences was that there was less premium time in Telefónica's file than there was in real life, and this meant that Telefónica was paying the applicant operator less premium time than that which was due.

Telefónica, for its part, argued that most of these divergences between the consolidated data of the applicant operator and those recorded by Telefónica were due to two fundamental aspects:

- The lack of implementation by the operator of the transit *network routing numbers* (NRN) to smart network calls until 17 March 2009, which had not allowed the identification of which calls originated in Telefónica and which in transit with another operator.
- The types of call, which were mostly short and were not billed to the customer.

After examining the current regulation regarding:

- The application within the framework of the RIO on migration to the new model of procedures for managing payments and defaults for smart network premium traffic that operators should follow in billing for the premium component, through the information supplied by Telefónica's *on-line* computer application (resolution of 26 February 2004).
- The designation of values to identify transit calls to smart grid numbers in accordance with the provisions of the 2005 RIO (NRN resolution of 13 July 2006).
- The reasonableness of the divergences between the information provided by Telefónica (both in its *on-line* application as in its Codifis files) and the information provided by the applicant operator, from 17 March 2009.

In the resolution of 25 March 2010, the consolidation system agreed by both operators for 2007, relating to calls to premium services of the applicant operator origi-

nating in Telefónica, was declared appropriate for the billing and consolidation of the 2008 period extending to 17 March 2009. This system, as a result of the failure by the applicant operator to implement the transit NRNs, was extrapolating the results for one day to the entire year of 2007, and reconciling the discrepancies between the data collected by Telefónica and by the operator in order to determine the amounts to be billed.

Furthermore, it was agreed that from 17 March 2009, unless otherwise agreed, in order to consolidate the added value component, the operators should use the information collected in the monthly files supplied by Telefónica through its *on-line* management application. Notwithstanding, the same procedure would be followed to consolidate the support component as for the rest of interconnected traffic.

In any event, Telefónica would guarantee the third-party operator that information relating to calls received by its premium numbers which it could see in its monthly *on-line* consultation facility would tally with the data recorded on both operators' Codifis, so that there would be no discrepancy whatsoever, or that any such discrepancy would be minimal, manageable and duly justified.

Complaint by the Asociación de Operadores para la Portabilidad Móvil (Association of Operators for Mobile Portability) against Mundio Móvil España on the grounds of alleged breach of current obligations relating to the portability of mobile numbers

The following dispute began, in June 2010, based on the complaint by Asociación de Operadores para la Portabilidad Móvil (AOPM) against Mundio Móvil and Lycamobile.

This dispute has its origin in the obligations that CMT imposed on all mobile telephone service providers to keep the subscriber number following the change in the number preservation management procedure initiated by Circular 1/2008 and Resolution DT 2009/1045 dated Feb. 11, 2010. These obligations focused on having all operators/service providers establish a partnership with the association managing the centralised mobile portability node (AOPM) through a service agreement whose subject matter is the sharing of

costs incurred in the establishment, proper operation and administrative management of the central mobile portability node.

The failure of Mundio Móvil and Lycamobile to heed the obligation to contribute to the costs of the central node forced the AOPM and the CMT to request that these operators be considered highly exceptional cases so that their access to the central node be denied without causing any harm to clients who would want to exercise their right to keep their subscriber number. It was also requested that appropriate procedures be studied with regard to the failure to comply with industry regulations.

During the implementation of the said proceedings, Lycamobile's situation went back to normal so that in December 2010 CMT decided to authorise the reconsideration of Mundio Móvil as a highly exceptional case and, given that it has been proven irrefutably that Mundio Móvil had ceased operations, the request to initiate a sanctioning procedure against this operator.

Dispute between SCPM and AOPM with respect to the distribution of costs of the mobile portability reference entity

The following dispute affected the Asociación de Operadores para la Portabilidad Móvil (AOPM) and the Sistema Centralizado de Gestión de la Portabilidad Móvil (SCPM).

The AOPM was created in July 2008 by a large number of mobile operators who were operating on this date and who were responsible for processing the majority of portability cases that were transacted. This organisation's goal was to establish, manage and supervise the sole reference entity within the scope of mobile portability described in Circular 1/2008 dated 19 June 2008.

Several operators who were not affiliated with the AOPM notified CMT about the creation of a second association, the SCPM, whose goal was to develop a reference mobile portability entity independent of that managed by the AOPM.

Its plan was to design a node independent of that developed by the AOPM and free to interact with it. In addition, the SCPM also questioned the distribution model for costs approved by the AOPM, indicating that these costs are not based on principles of objectivity, proportionality and transparency as specified in Circular 1/2008. This central node cost distribution model agreed upon in the AOPM included a fixed portion which stipulated that 40% of the total cost of the node be distributed among all operators, regardless of the portabilities processed, and 60% of the cost be divided proportionally based on the level of system usage.

By virtue of the February 2010 resolution, the CMT decided that the creation of independent nodes was impractical since this solution would be very complex and would result in very high overall costs.

With respect to the method of distribution of the central node costs, the CMT noted that the current distribution model was a result of a voluntary agreement between various operators and that the distribution model between the fixed and variable portion would coincide with the distribution model governing the reference entity for the portability of geographic numbers and special rates. Consequently, the CMT thought that, based on available data, the distribution model was proportional, objective and transparent, and that it was not necessary to make any changes.

Dispute brought up by Orange España against BT España Compañía de Servicios Globales de Telecomunicaciones concerning the use of mobile numbers as access numbers to telephone card services

In 2009 Orange noticed the sudden appearance on the market of prepaid card services for international calls using mobile numbers as access numbers. Orange believed this was an incorrect use of numbers by its very nature (numbers for mobile services) and by the fact that mobile network termination prices were being set when in actuality no service is provided and communication with the mobile number is rather only a tool for redirecting the call to an international number.

The companies that provided these services offered them using BT-assigned numbers.

In particular, the service under dispute was the following:

- A user of a fixed-access or mobile operator calls the BT mobile number, paying the access operator the retail rate stipulated for calls to BT mobile numbers.
- This call is sent to the BT network through connections that BT has agreed on with access operators.
- The call is received in the BT network by the platform through which BT offers a practically complete mobile virtual network operator service and which analyses the call and checks the associated routing. This routing involves an automatic transfer to the number previously indicated by the operator providing the international card service and collaborating with BT through the respective agreement.
- The call is routed to the destination number of the preconfigured transfer, either directly through BT's own network if the destination number belongs to BT or through BT's interconnections in case the destination number belongs to a third-party operator.
- The platform of the operator providing the international card service prompts the user for the destination number the user wishes to call. If there is a price that the user has to pay directly to the card services operator, the latter authenticates the user by means of an appropriate identification code.
- The platform of the operator providing the international card service routes the call to the destination through its access operator or through third-party operators with whom it can sign the corresponding transit agreements.

The CMT concluded that the service provided by BT using the mobile numbers under dispute does not correspond to a mobile communications service in the strict sense since it is not provided through mobile network terminations points.

However, the CMT considered it necessary to analyse as well the impact that this type of service has in the field of interconnection and in competition and among consumers since there are other services provided in

the market with mobile numbers without the necessity of mobile network termination points.

From this analysis it was concluded that this type of services were beneficial to the consumer by boosting the level of competition in the niche market of international calls via mobile lines.

When it comes to the impact on the interconnection range, it was indicated that, although the service offered is based on an arbitration that is a product of the different termination prices currently existing, this fact in itself is not a practice that necessarily have to be considered contrary to existing regulations. Against the allegations of Vodafone and Orange, what became evident was the impact this type of service had on current pricing plans based on a fixed rate per call, regardless of the call's duration, since operators have the freedom and the capacity to adjust their retail prices to market reality. In this case, CMT's intervention to safeguard current pricing schemes by prohibiting novel services that could affect them is neither necessary nor pertinent.

Consequently, using mobile numbers as numbers for accessing card services described in this proceeding is considered appropriate.

Dispute brought up by Virtafon concerning the compatibility of the service provided by Fonyou Telecom with the use of mobile numbers

With respect to the previous dispute, Virtafon requested that Fonyou's use of mobile numbers be evaluated if it is compatible with prevailing regulations. Virtafon submitted this request after becoming acquainted with the response to Virtafon's inquiry about the anticipated use of mobile numbers for the start of its operations (RO 2009/1174) and the hearing report on file DT 2009/675 about the dispute between Orange and BT concerning the use of mobile numbers for cards with an international destination.

Virtafon interpreted this as indicating that the statements in both files could be applied equally to Fonyou since they are about similar services and, consequently, requested that Fonyou's use of mobile numbers be analysed as to whether it is against regulations.

The CMT confirmed that, while it is certain that a mobile service could not be viewed in the traditional sense (the numbers assigned to Fonyou are not distributed initially to its customers through SIM cards), there were innovative elements in it that involved a clear benefit to the user (a unique number that allows one to link different telephone numbers, personal voicemail, call and message box, transfer management, etc.).

With respect to the use of mobile numbers, each number was found associated with a specific user who had been set up on line after being identified. Thanks to this set-up, while the call was being connected this mobile number was transferred to a number specified by the user in the user's personal page (with the feature that this number could be fixed or mobile).

The analysis of the service showed that the use of numbers by Fonyou was compliant with the specified purpose by identifying to users publicly available mobile telephone service, and it was also shown Fonyou complied with the requirements associated with the assignment of mobile numbers. In particular, it had an agreement on wholesale access to the mobile network of a host operator (in this case, Movistar) and it had to comply with the obligations related to mobile portability and the financing of the central node.

Consequently, it was concluded that the use of mobile numbers by Fonyou was appropriate.

4.2.2. Access disputes

4.2.2.1. Unbundling of the local loop and bitstream access

Unbundling of the local loop dispute between Grupalia Internet and Telefónica de España

In September 2009, Grupalia brought up two subscriber loop access disputes against Telefónica regarding the costs that it wished to ascribe to Telefónica for the recovery of co-location space (three non-compartmentalised units or NCU), on the one hand, and signal delivery infrastructures via multi-operator transfer chambers, on the other. Both resources had previously been owned by Grupalia and, consequently,

Grupalia at the time had been paying the corresponding licensing fees.

Grupalia wanted to recover the previously assigned resources in order to minimise roll-out costs since it wanted to reuse the internal cable lines. Grupalia therefore indicated that it was not interested in NCUs different from those previously assigned since the fusion of four fibres which are already rolled out and operational and for which it had already paid would allow it to relaunch the service between the SdO2 room and the multi-operator transfer chamber.

In April 2010, the CMT approved the resolution on the access dispute brought up by Grupalia, turning down its request for the recovery of space and EdS infrastructure based on the following arguments:

- The service is currently not being contemplated in the OBA and there could be discriminatory circumstances with respect to other operators who would have opted for more conservative rollouts.

- The service was cancelled voluntarily by Grupalia and Telefónica had to guarantee the quality of its services.

In addition, with respect to the recovery of co-location space:

- The recovery service was contemplated only for those requests initiated by Telefónica as a consequence of the lack of vacant space and where Telefónica recovers unused space effectively.

- There is no right of reimbursement for the NCUs as Grupalia wants it. It is the decision of each operator to continue keeping the service active, whether it is being used or not, by paying monthly fees. If the NCUs are not utilised and if there is no vacant space, Telefónica will be able to recover said space and thus avoid resource stockpiling to which Grupalia was alluding.

- Likewise, during the downturn period, Telefónica has to defray all the room maintenance costs.

Finally, in its allegations Grupalia showed a certain mistrust of repayments made by Telefónica to the multi-operator transfer chamber which allowed new operators to come in.

Based on information from the chamber (channels, type of chamber and number of operators), the costs and repayments that Telefónica should have made was evaluated and Telefónica was urged to return to Grupalia the difference between the total costs paid by Grupalia and the estimated costs, subtracting the repayments already made, according to the provisions of the OBA.

4.2.2.2. Other disputes

Complaint brought up by ONO against Telefónica regarding the tender convened by the Agencia Informática de la Comunidad de Madrid

In the summer of 2010, the Agencia Informática de la Comunidad de Madrid (ICM) convened a public tender for the coverage of its communication requirements, integrating into one proposal all the services that up to that point had been provided by different operators. The tender was divided into three independent batches that corresponded to different services to be provided. In particular, Batch II involved medium-capacity connections and integrated into one single contract the services that up to that point had been provided by ONO and Telefónica.

ICM awarded the contract of this batch to Telefónica based on the fact that Telefónica offered the best technologies in its proposal and based on the fixed economic conditions for all the connections. ONO reported to the CMT that Telefónica's proposal violated the wholesale obligations imposed on market 5 (wholesale broadband access) and 6 (leasing terminal lines) by having made an offer to the ICM that is irreproducible based on current wholesale conditions.

The CMT made the proposal presented by Telefónica as a requirement in the framework of this tender and a point of reference when analysing its reproducibility based on current wholesale conditions. To the extent that this proposal was valued by the ICM, and this was one of the reasons the contract was awarded, the analysis had to incorporate Telefónica's best proposals and not only the technical capacities described in the proposal.

Based on this proposal, the CMT analysed the reproducibility of Telefónica's proposal based on current wholesale proposals. The CMT has solid experience in the residential industry where an *ex ante* analytical method has been implemented from Telefónica's wholesale proposals. However, regulatory activity has been much less in the commercial industry so the resolution of this dispute involves a precedent for the forms of analysis of the proposals directed to this type of customer.

In this sense, it was important to determine the efficiency level required from alternative operators, especially in relation to wholesale services that had to be used. The CMT believed that it was not economically viable for alternative operators to have their own networks reach all locations where they had to offer services to the ICM. Neither is the loop disaggregation a viable wholesale solution since the facilities were in such dispersed locations that the alternative operator was obligated to be share premises in smaller-sized offices with an insufficient scale that would have allowed it to make optimum use of the fixed costs that the sharing of premises entails.

For the reasons indicated above, the CMT believed that the reproducibility of the broadband services requested by the ICM should be carried out from a *mix* of wholesale services that would include subscriber loop access where it is economically viable like bitstream or circuit leasing services. With respect to the network costs needed to complete the retail service based on prior wholesale services, the average costs of an efficient operator were taken into consideration whereas, with respect to the retail costs themselves, the costs incurred by Telefónica were considered.

Using these elements as basis, the CMT calculated the costs to be incurred by a theoretical operator who would have accessed the market with the *mix* of wholesale services considered and who would have an efficient cost structure for network and retail operations. Using these cost calculations, it was determined whether said operator would have been able to obtain positive profitability if it had offered the prices that Telefónica set in its proposal to the ICM.

The replicability analysis showed that the Telefónica

proposal was not replicable because it forced this operator to stop providing the services under the said conditions and to notify the CMT about any changes to them.

a) Premium SMS

Dispute between Alterna and Telefónica, Orange, Vodafone, Euskaltel and Xfera

Alterna Project Marketing (Alterna), a *Premium* SMS service provider, brought up a dispute with Telefónica, Orange, Vodafone, Euskaltel y Xfera with respect to the impossibility of coming to an agreement on access to the networks of these mobile operators for the provision of *Premium* SMS service. The origin of the dispute was the difficulty of amending contractual terms that were governing Alterna's relationships with mobile operators until the approval of Order ITC/308/2008 which gave instructions on the use of public resources for numbering for short message and multimedia message services. This order involved the appearance of a new regulatory framework for these services.

Alterna wanted the operators it was in conflict with to be forced to draw up agreements that would have allowed the interoperability of *Premium* SMS/MMS services as well as the establishment of a set of technical and economic conditions.

In particular, in reference to the economic conditions, Alterna wanted the system for percentage-based system for setting prices to be paid (*revenue sharing*) be replaced by a unit-price system. Under *revenue sharing* access operators receive as compensation for their SMS service a percentage of the final price that the user pays, unlike the unit price where the access operator receives a fixed quantity for each message, irrespective of the final price of the message. Under the conditions current to date, the higher the final per-message price to be paid by a final user, the greater the amount to be received by the mobile operator. In both cases, as described by Alterna, the activities to be implemented are similar.

In analysing the situation thus described, the CMT paid attention to the fact that this was about a conflict between parties and not about market regulation or the establishment of a generally applicable criteri-

on. Therefore, in its resolution of 22 July 2010, the CMT did not prejudge the price structure voluntarily agreed upon by operators, including revenue sharing, but only took into consideration the concrete situation of Alterna and the different extremes of the above conflict. This fact did not exclude the possibility that different situations and different business models would have involved the application of other solutions.

In accordance with the description of the retail service and the technical conditions, access operators provide the support service needed for the provision of *Premium* SMS service. This service is similar to the SMS service among subscribers although invoicing, collections and bankruptcy management services need to be taken into consideration as well and the impact of the inversions that the access operator has to undertake in order to heed the specificities of *Premium* SMS services and to follow Order ITC/308/2008.

The wholesale price fixed by all access operators were very much higher than the current prices of an SMS in the retail market and these difference did not seem proportional in terms of cost. The CMT believed that the limitations that were imposed on access operators as a result of the wholesale price structure, in turn, affected consumers of *Premium* SMS services. In effect, the possibilities to diversify the retail offer as well as to carry out actions at this level were considered limited because of the wholesale situation which ultimately harmed the final users.

The CMT therefore concluded that it was necessary to demarcate the prices to be set by mobile access operators under the premise that these prove to be transparent and proportional to the services consumed, in line with what happens with the additional pricing numbers of Plan Nacional de Numeración Telefónica, and with a typology of services similar to the service under dispute.

Consequently, the CMT Council resolved to urge Telefónica, Orange, Vodafone, Euskaltel and Xfera to

negotiate with Alterna and sign the appropriate access agreements within two months starting from the date of notice of the resolution. The Council also urged the five to offer Alterna their wholesale services of connection to the respective mobile networks in accordance with a price structure based on a single unit price per service and whose price level per sent message incorporated the following parameters:

- It must not be higher than the retail price of a conventional SMS among subscribers.
- An additional margin to cover invoicing costs and access operator-supported differential fees for a conventional SMS.
- An extra cost for bankruptcies reflecting the higher default risk that this type of client could entail.
- Other specific provisions of *Premium* SMS.

b) Mobile portability

Dispute brought up by an operator before Movistar in relation to the possible non-compliance with portability requirements for special-rate numbers

The original issue was about the impossibility of guaranteeing Movistar users access to additional-fee portal numbers of the complaining operator. In effect, when a Movistar user called the complaining operator through an additional-cost ported telephone number, the call was not established. It was confirmed that Movistar did not download the number database of the complaining operator into its IT systems.

On the other hand, in analysing the incidents brought forward, it was observed, among other things, that these incidents were resolved within a short period (two days). When existing regulations on the matter too were analysed, it was observed that the 2007 technical specifications for fixed portability which applied to this case did not regulate situations not involving call origination because of technical incidents, that is, because of problems with the call or with some element in the network.

Only upon approval of the 29 July 2009 technical specifications have the rules started to apply to incidents that can arise in a portability procedure with the establishment of an incident classification system and an incident resolution period.

In view of these facts, the CMT Council agreed, by means of the 11 February 2010 resolution, to archive the dossier given the lack of clear-cut regulation when the proceeding was initiated and since, considering the circumstances, Movistar resolved the incidents at a reasonable time.

c) Mobile access and numbers

Dispute between Virtafon and Vodafone

The dispute sheds light on the possibilities that Virtafon has in its capacity as a mobile virtual network operator (MVNO) to make use of the facilities of third-party operators when providing mobile telephony services. Vodafone had expressed its complete opposition to the use of mobile numbers in the provision of services that did not involve an intrinsic mobility as the case relating to the service proposed by Virtafon could have been. In particular, the activity that Virtafon wanted to implement involved offering a complementary service to users of a mobile operator, with the option of making and receiving calls in the same terminal through a second mobile number managed by Virtafon.

In accordance with the regulatory principles in EU directive, national industry legislation and previous regulations of the CMT pertaining to the use of numbers in view of the inquiries and disputes that have been brought up until this moment, the CMT believed that it was necessary to formulate an interpretation of number planning that was adapted to the dynamic nature of the industry and of the new services arising. The CMT had previously authorised the use of mobile numbers in similar Virtafon-proposed services which did not involve implicit mobility but used mobile numbers, as is the case with the Oficina Vodafone service, the provision of traffic re-routing services or the provision of machine-to-machine services.

In the December 22, 2010 resolution the CMT also referred to the importance of ensuring the development of new services, the fostering of innovation

and the opening of new facilities for end users. The resolution continues on this subject by referring to the intrinsic benefits that the provision of service as proposed by Virtafon has on market development, and stating that it is impossible to infer the negative effects that the development of this business model would have on third-party agents such as MVNOs (in the traditional sense) who have place their bets on an economic model that is a step up in the ladder towards inversion. In the retail field the Virtafon solution is to the advantage of end users as it permits them to choose at any time the mobile telephony operator (access operator or Virtafon) who would administer the call, thus obtaining maximum return from the prices offered by their contracted operators.

In short, the CMT Council concludes that Virtafon can implement the proposed commercial operation at all times and when access agreements are signed for this purpose with other operators pursuant to the market 15 (access market and mobile origination) regulation. Once the access agreement is reached, Virtafon could request the necessary mobile numbers by making use of the network elements required to route all calls made/received by its customers and ensuring control of the numbers assigned to it.

d) Access to ducts offered by Telefónica

Dispute brought up by Telefónica against the Salou town council

Telefónica brought up an access dispute against the Salou town council as part of the framework of wholesale offering of access to ducts and records. The background of the dispute was the MARCo offering access request made by the Salou town council from Telefónica, involving the creation of a municipal communications network.

Telefónica states that the town council's intention would be to build its own fibre-optic network in order to link its municipal dependencies, with the final objective of providing services itself.

In its December 7, 2010 resolution the CMT concludes, based on elements available to it, that the access request made by the Salou town council implies that its sole objective was to connect its municipal offices in order to exploit the network as a self-supplier. In this re-

gard, the ultimate goal of the obligation to access the civil engineering infrastructures imposed on Telefónica through the MARCo offering is to ensure the development of an effective competitive environment in the broadband markets subject to regulation and, in order to reach this goal, the resolution of markets 4 and 5 establishes certain general criteria with respect to the range of application of this offering, as they were previously described in the resolutions of 19 November 2009 and 8 April 2010.

It is clear from all of the above that what is being sought ultimately is assurance that the deployment of infrastructures through access to the passive infrastructure of Telefónica will have an impact on broadband retail services (fixed or mobile) on the road to better competition. This would not happen in the given case since the network of the Salou town council would be operated in self-supply mode and it is impossible to conclude that this network would not provide any service available to third parties.

Against this backdrop, the CMT decided that the MARCo offering access request made by the Salou town council did not conform to usage established for access to this offer.

4.2.3. Other disputes

a) Disputes concerning wholesale carrier service involving the broadcasting of television signals and satellite distribution transport

Dispute between Astra and Abertis

Astra brought up a dispute against Abertis with regard to the provision of satellite distribution transport services in the offices of Abertis. Astra wanted Abertis to provide the means so that Astra can install the necessary equipment (parabolic antenna and digital receiver) in its locations and thereby provide transport services as a complementary service to the broadcasting services provided by Abertis (co-location service).

On the other hand, Astra wanted Abertis to offer a new method of service which involves Astra making a digital receiver (final elements in the transport net-

work) available to Astra, the very same digital receiver it has installed in its offices (interconnection service). In contrast to the previous co-location method, Astra would not be obligated in this method to install its own digital receivers in Abertis offices but would install the parabolic antenna and therefore would share this element with the operator with significant market power in the sense of the market 18 resolution on television signal broadcasting.

In its resolution of 13 May 2010 the CMT believes that, with respect to the Astra request for access to Abertis offices under co-location conditions, Abertis has the duty to provide the said service in view of the 21 May 2010 resolution which approves the definition and analysis of the wholesale market of television signal broadcasting carriers, the designation of operators with significant market power and the imposition of specific obligations. The prices applied to the provision of this service will be those indicated in the Abertis reference offer.

With regard to the Astra request for interconnecting its transport network to the digital receiver of Abertis, the CMT has decided that this request is inadmissible given the existence of other alternative regulations, without prejudice to the fact that this method could be agreed upon voluntarily by the parties if both parties have an interest in it.

Dispute between Ingest and Axión

Infraestructuras y Gestión 2002 (Ingest) brought up a dispute against Red de Banda Ancha de Andalucía (Axión) with respect to the provision of wholesale interconnection services to Ingest from the Axión facility in Valencina de la Concepción (Seville).

Ingest provided the television signal broadcasting carrier service to the local television operator Trade Bump (Trade) which broadcasted its programmes in Seville in a similar way. The service was provided to Trade via subscription based on an access agreement between Ingest and Axión, whereby the latter provided Ingest with interconnection service to its broadcasting system from the Axión facility in Valencina de la Concepción. The dispute's root cause was Axión's unilateral termination

of the said contractual relationship.

In its resolution of the file concerning the reasonability of the request for continuance in the provisions of access services by Axi3n, the CMT takes account of the fact that concrete administrative intervention was carried out but the Junta de Andaluc3a against Trade and, indirectly, against Ingest as an entity on which Trade relies for the provision of television services. In view of this fact, Axi3n had to terminate the contractual relationship that it had with Ingest. The action of the Junta de Andaluc3a had resulted in the initiation of a sanctioning procedure against Trade whose consequence was that in May 2010 this agent was declared culpable of an infraction involving the emission of local television signals through terrestrial waves without complying with the mandatory operating permit.

In this context, the CMT concluded in its 7 September 2010 resolution that Ingest has no unconditional right to have access to the Axi3n site in Valencina de la Concepci3n. In effect, there is a concrete resolution adopted by the Junta de Andaluc3a whereby the local television company Trade has been declared culpable of an illicit administrative act involving the provision of television signals without complying with the appropriate operating permit. Under this framework, forcing Axi3n to continue providing access service to Ingest (an operator on which the local television company Trade, in turn, relied for the provision of local analogues television services) would be disproportionate.

The CMT Council therefore has decided to dismiss Ingest's intervention request concerning the continuation of service provision by Axi3n from its facility in Valencina de la Concepci3n (Seville).

4.3. Price check and commercial offers

4.3.1. *Ex ante* methodology for the analysis of commercial offers

In July 2007, the Council approved the *ex ante* analytical method for those retail offerings of Telef3nica de Espa3a that would include services belonging to the access, telephone traffic and broadband market⁵. The method, which summarised part of the specific obligations imposed on the operator in the first round of analysis of these markets, has the goal of prevent-

ing the practice of narrowing of margins and abusive packaging. Given the dynamic nature of these markets, the method specified a periodic quarterly revision which in 2010 materialised in the resolutions of 22 April and 30 September. These revisions updated the most relevant parameters used in the analysis of commercial offers and evaluated its effective application and solidity.

In addition, the 30 September 2010 resolution established several minimum thresholds for promotional quotas in order to prevent the marketing of promotional campaigns compatible with the method from creating barriers to the entry of alternative operators who purchase wholesale services from Telef3nica. These thresholds guarantee that the monthly quota to which the customer subscribes is proportional, as a minimum requirement, similar to the average wholesale price set for each modality in accordance with the *mix* of wholesale services usage.

4.3.2. Analysis of Telef3nica's commercial offers

The actions undertaken by CMT to control new products and promotions of Telef3nica in the retail market have a double aspect:

- An automatic action derived from the existing obligations imposed on the analysis of markets, consisting in the *ex ante* analysis of offers of an historic operator based on the obligation to give notice about them in advance of its commercial launch. The chief part of the CMT action relating to the commercial offers of Telef3nica focused on this type of analysis.

⁵ The obligations imposed on Telef3nica in relation to the retail voice traffic services were brought up as a result of the second round of analysis of the markets. Consequently, as of 2009, the CMT no longer analyses commercial offers in these services except when they are marketed in bundled form with fixed or broadband telephone access services.

- An *ex post* intervention which controls the alleged non-compliance with the obligations imposed on Telefónica in the market analysis resolutions. This intervention by the CMT generally stems from a third-party dispute which usually involves a competitor. However, the existence of clear *ex ante* rules regarding the method of analysing situations involving margin narrowing minimises this type of intervention. In fact, in 2010 only one dispute of this type was resolved. This will be described later on.

There was a marked rise in 2010 in the number of new products marketed by Telefónica and the promotional campaigns for them. The CMT analysed the replicability of a total of 1,992 new products and 6,309 promotional campaigns (compared to the 143 products and 2,644 promotional campaigns analysed in the prior year).

According to the method provisions, if non-compliance with the obligations imposed on Telefónica is observed during the analysis, the CMT will temporarily stop the marketing campaign. However, given that the analytical criteria followed by the CMT are clear and stable, there was no need to stop any commercial offer in 2010.

Analysis of new broadband products

The most relevant fact in Telefónica's commercial activity in the broadband retail market was the reduction of monthly quotas of all 10 Mbps broadband products, which was implemented in two phases and which ultimately resulted in the equalisation of the nominal prices of the 3 Mbps, 6 Mbps and 10 Mbps products. The monthly quota of the 30 Mbps broadband products marketed by the operator was also reduced.

Apart from that, there was also a significant increase in the number of packages marketed by Telefónica, which were the result of the inclusion of new functionalities in already existing products and in many cases without this addition translating to an increase in the monthly quota. In addition, this operator changed its pay-per-view television offer.

Incorporation of fixed-mobile call prices in the broadband packages of Telefónica

In 2010 Telefónica opted to offer free mobile phone calls to its customers of broadband packaged services without increasing the monthly quota. Under the framework of this strategy, Telefónica announced in May the marketing of a set of broadband service packages that replaced the customary national voice tariff plan with another which also incorporates the free fixed-mobile calls that the customer enjoys at the end of the week.

At the end of the year the operator decided to include in its new broadband service packages a bonus of 50 minutes of fixed-mobile calls following the national fixed-mobile tariff plan at the end of the week.

The CMT analysed the incidence of introduction of these provisions in the replicability of broadband packages and determined the corresponding promotional limits based on the method.

Fixed broadband services packaged with mobile broadband services

In May Telefónica presented a set of packages that would add specific mobile broadband tariff plans to the broadband service packages provided through fixed networks. The analysis made by CMT was implemented in accordance with the estimates of this type of packages contained in the method update of 1 October 2009.

Marketing of television service by Imagenio

In 2010 Telefónica redefined the method of marketing its pay-per-view television service which forms part of a large number of broadband packages through the adoption of two measures. Firstly, on 1 January the price of all packages which relies on the Imagenio Familiar method increased by 2.4 euro. Gol Televisión was previously added to the channels offered by Imagenio.

In February Telefónica announced the demise of the Imagenio Básico modality and the migration of all its

customers to another called Imagenio Flexible, which allows the acquisition of channels groups according to theme.

Analysis of new RTB retail access packages and voice traffic services

The 1 October 2009 resolution dealt with the treatment of those products that package telephone access with voice traffic services, clarifying the analytical criteria in the framework of the method.

Over the course of the year Telefónica presented new products of this type such as the Línea Tarifa Plana Hogar and the Plan Profesional 100. These products were combined with those announced in 2009 but their effective marketing began in 2010 (such is the case for Línea a Tres and Línea Nacional). In May Telefónica made a substantial change to the economic conditions of services marketed thus far under the name of Línea Libre and called it Contrato Cero.

4.3.3. Actions of CMT with regard to compliance with obligations

In the summer of 2010 Orange brought up a dispute before the CMT and requested that CMT declare the new broadband packages that include the customary mobile calls at the end of the week and other with mobile broadband services as a breach of competition regulations. The dispute also referred to specific promotional campaigns that were launched in the market by Telefónica in the summer of 2010 and to the method of marketing the ADSL Económico modality. The resolution of 4 November, firstly, agreed to the complaint file submitted by Orange and, secondly, declared the incompatibility of the ADSL Economy modes with the previous contract for broadband modes of greater or lesser speed.

At the same time, by resolution on 15 July two penalties were imposed on Telefónica, for the amounts of 55,000 Euros and 275,000 Euros respectively, for non-compliance with the previous communication deadlines which imposed methodology and as narrower margins had been noted with the commercial

marketing of a group of promotions restricted to the scope of the autonomous community of Galicia.

4.4. Universal Service

With regard to the universal service deficit, the finance received by the obliged operator from other operators arises from a decision by this Comisión that the costs which TESAU incurs as the operator obliged to provide the universal service are an unjustified load.

The general framework in which the final services are provided in the European Union is based on open markets and competition. However, it is also understood that, since the start of the deregulation process of electronic communication markets, there are specific sets of minimum services, especially in some segments of the population and in certain geographic areas, which should be guaranteed for all citizens, regardless of their personal or geographic circumstances. It is for this reason that it has been possible since 1997 in distinct packets of directives to define a series of public service obligations that are encompassed by the concept of universal service.

Universal service (US) involves the provision of a minimum set of services to all users at a specific quality, independently of the user's location, and at an accessible price.

The services currently included in US are:

- Connection to the public telephone network from a fixed location and access to telephone service available to the public.
- Access to general subscriber number directory as well as a telephone-based information number.
- Access to an adequate quantity of public payphones in the territory, with attention paid to the necessary adjustments made for users with disabilities.
- The possibility for users with disabilities to use the telephony from a fixed location under comparable conditions offered to other users.

- Access to special commercial bundles and conditions so that persons with special social needs can use the telephony.

Just as it is depicted in article 20 of the LGTel, it is the government that is responsible for deciding which services and the level of quality of these services have to be included in US, as well as for selecting the operator or operators in charge of providing this set of services. According to article 24 of said law, it is for the CMT, first of all, to determine if this set of obligations can result in an unjustified burden to the operators required to provide service and, if this is the case, to calculate the net cost of the provision of the US. Secondly, it is for the CMT to determine how this net cost is to be financed based on the contributions of all operators, or specific categories of operators, through the Fondo Nacional de Servicio Universal (FNSU).

In 2010 the CMT, on the one hand, proceeded to determine the operators required to finance the FNSU in 2007 and, on the other hand, to quantify the net cost of provision for 2008. In both cases, Telefónica was the operator placed in charge of providing the US and therefore activity focused on the analysis for the costs incurred in the provision of the set of services included.

On the other hand, the European Commission published the European Digital Agenda which established a series of ambitious objectives of coverage and availability of high-speed Internet access for 2013 and 2020, at the same time initiating a public inquiry about the future of US. In Spain the Sustainable Economy Act (Ley de Economía Sostenible) introduces broadband access with a minimum speed of 1 Mbps as an integral service of US.

4.4.1. Operators required to fund the THEIR in 2007

In December 2009, la CMT approved the resolution on the net cost of universal service (AEM 2009/763). This resolution establishes the resulting amount of the net cost incurred in 2007, which rose to 71.09 million euro, and it was determined that there was an unjust burden on Telefónica de España, the sole provider of said services.

During the first months of 2010 it was determined which operators had to contribute to the FNSU according to article 47 of the Universal Service Regulation (RD 424/2005), which defines the jurisdiction of the CMT to determine the contributions that corresponds to every single operator who is duty-bound to contribute to the financing of US, which operators were exonerated from this duty.

Similar to what was resolved for financial years 2003 to 2006, the CMT believed that only those operators whose revenue volume is higher than that of the rest should contribute, until such time as other operators are obligated in future years to contribute to universal service.

The contribution of every operator was calculated in proportion to the quantity resulting from the subtraction of gross operating revenue obtained from the payment of interconnection fees.

The selection of operators as well as the criteria followed to set up the selection process was communicated to the operators affected and, after a period of statements, the CMT published on 8 July 2010 the definitive list and the amounts that needed to be paid to FNSU for financial year 2007.

LIST OF OPERATORS REQUIRED TO FINANCE THE UNIVERSAL SERVICES AND AMOUNTS TO BE CONTRIBUTED IN 2007 (millions euros)

OPERATOR	DISTRIBUTION BASE	DISTRIBUTION FEE	CONTRIBUTION
Telefónica de España	9,881.4	38.20%	27.1
Movistar	7,859.1	30.38%	21.6
Vodafone	5,413.3	20.93%	14.9
Orange	2,715.7	10.50%	7.5

Source: CMT

Article 49.3 of the Universal Service Regulation expressly states that the contribution that any operator must make to the FNSU will be reduced by the net cost of the satisfaction of the universal service obligations imposed.

In this case, given the amount of the contribution that Telefónica de España has to make (27.1 million euro), which is less than the net cost of the US for financial year 2007, this operator ended up being a recipient of the subsidy from the contributions made by other obligated operators. In conclusion, only Vodafone, Movistar and Orange had to make the contributions.

4.4.2. Net cost calculated for 2008

In February 2010 the CMT started the audit of the net cost of US provision for financial year 2008.

The method of calculating the net cost is based on the application of article 44.1 of the Universal Service Regulation which specifies what needs to be based on objective, transparent, non-discriminatory and proportional procedures. Article 43 of the regulation above states:

The net universal service provision cost will be obtained by taking the difference between the long-term savings that an efficient operator would obtain if this operator did not provide the service, and the direct and indirect revenues that this provider gets from the provision, with these revenues supplemented by the non-monetary benefits earned from intangible benefits obtained by the operator for this purpose.

In May 2010 the CMT started the external audit proceedings of the annual declaration of the net cost of US carried out by Telefónica de España in relation to financial year 2008. The results of this audit show, as the main effect, the non-inclusion of additional facilities related to access to the component in unprofitable areas. Telefónica claimed that the additional facilities form part of the access market but are not included in the universal service. However, in 2007 Telefónica had already proceeded with the opening of the additional facility service in its cost accounting and included it in the net cost all the same.

The CMT believed that this service that Telefónica began to cover from 2008 should be included and entered in the net cost component in unprofitable regions since according to article 19 of the Universal Service Regulation one of the conditions imposed on operators who use public telephone networks, among others, is “c) to provide facilities for tone dialling and caller ID when it is technical doable and economically viable.

On 10 August 2010 Telefónica issued a new statement on the net cost of universal service with the required adjustments which include a reduction of said cost of 1.94 million euro.

To quantify the net cost of the US we start with the calculation of the cost of provision of this set of services in unprofitable areas. To do this, we calculated the inherent costs, distributed by zone, of the creation and use of the local network that services each area: access, exchange, transmission and transport network, special means of access and subscriber management. Using the difference between revenues and costs of each area, we calculate the benefit or loss from the provision of the universal service which Telefónica de España currently obtains for being the designated operator providing the US (and which a substitute operator, in turn, would obtain when providing the service).

In many cases Telefónica de España supplied the services included in this set of obligations with analogue technology that goes through rural cellular telephony access points, a technology that had to be abandoned in favour of other engineering solutions that would allow functional access to the Internet in accordance with current Spanish and EU legislation without any additional cost to the affected subscriber. To implement this migration, the operator came with public assistance from the Feder regional (objective 1) programme, approved by the European Commission in February 2004. The cost of the subsidy received, 9.67 million euro, has to be deducted from the total net cost of the universal service provision in unprofitable areas.

The pseudo-costs of international traffic termination were also adjusted: local-nodal transport was eliminated given that the national transit cost already covers the case of the most hierarchically distant possible exchanges, and the calculation method used by

Telefónica, based on a national average price, was changed to a price per area.

The calculation of the net cost of the US also includes the cost of the offering of these services to disabled users or users with special social needs. The operator in charge of supplying the US issues invoices in Braille and also incurs an additional cost for two types of bonuses offered to users with special social needs: one from the 95% above the subscription fee, and the other from the 70% in connection and installation fees for the group of users included in this category.

Access to a subscriber telephone directory as well as the 11818 information service (obligations also included in the set of US) did not entail a positive net cost in financial year 2008.

Lastly, to calculate the net cost we need to subtract from the costs incurred the non-monetary benefits obtained by the designated operator thanks to brand recognition, ubiquity and positive valuation that users could have obtained from the provision of this limited set of services.

In conclusion, the result of financial year 2008 was a net cost for universal service provision of 74.85 million euro.

FIGURES IN MILLIONS EUROS	YEAR 2008
Net cost in unprofitable regions	48.71
Net cost for services to handicapped users	0.02
Net cost from users with special rates	35.58
NET TOTAL COST RECORDED IN THE YEAR	84.30
Minus: NON-MONETARY BENEFITS	9.45
NET COST OF UNIVERSAL SERVICE	74.85

Source: CMT

Once the net cost yields a positive balance, the CMT needs to decide if this involves an unjustified burden on the operator provider of the service included and, if this is the case, the CMT needs to establish the compensation to be paid by each one of the operators required to finance the US. The CMT thinks that it is not just to have Telefónica de España by itself cover the costs it incurs in providing the US, and thereby thinks that the calculated net cost entails an unjustified burden for this operator.

4.4.3. Public initiatives relating to ITS: the European digital agenda and the Sustainable Economy Act

The Citizens Rights and Universal Service Directive (2009/136/EC), approved in November 2009, reinforced the provisions for users with accessibility problems and reinforced the role of regulators in order to guarantee the transparency of contracts, quicker

number portability as well as the possibility of imposing minimum quality standards in connections to avoid the degradation of the service.

This directive states that connections from a fixed location need to allow the transmission of voice, fax and data at an adequate speed for functional Internet access although the specified minimum speed to be guaranteed needs to be defined by each member state. If this imposition in any way involves an unjustified burden for the operators under obligation, then one could expect that it will be well financed by a specific universal service fund or by public funds, whether EU or national, all the time complying with current legislation that applies to public assistance.

The transparency for the consumer enjoys special attention in the universal service directive. On the one hand, it is stated that, given the variety of existing services and providers, users need to have clear and

updated information about the offerings of operators so that they can make easy comparisons. In cases where it is necessary, regulators could make pricing guides available to people and imposed transparency obligations in the publication of prices, rates and terms of service provision to operators.

The transparency is especially relevant when it comes to the quality of services offered. Data transmission through any network, for example, involves cases where it might be necessary to impose minimum quality standards on operators to control service degradation. Nonetheless, trust was placed on the competitive environment in order to reach quality levels that could be enjoyed by people.

At a time when some countries have already decided to have a neutral network, the universal service directive mentions the importance of operator transparency for users when it comes to traffic management procedures that can be used. This directive emphasises the publication or communication to users of the possible consequences of specific traffic management as well as on the necessity for regulators to monitor these practices, especially to prevent them from becoming discriminatory actions that can impede existing competition.

The directive also mentions accessibility to end services by person with some type of disability. National regulators will be able to establish requirements for public electronic communication network operators so that disabled users can:

- have access to end services in the same way the other users enjoy them;
- benefit from the variety of providers and existing end services in the market.

In conclusion, national regulators need to be keep an eye on the evolution of prices of services included in the US and the provisions and effective levels of quality.

In September 2010 the European Commission published the European Digital Agenda, one of the initiatives adopted in the context of the Europa 2020

strategy, which underlines the relevance of the roll-out of broadband in order to foster social inclusion and competitiveness in the EU. The Digital Agenda sets objectives that have to be pursued in the twenty-seven countries of the EU. It does not restrict the set of services that need to be included in the US nor the mechanisms that need to be used to achieve the big objectives.

One of the lines of action identified in this agenda in order to reap economic and social benefits from the sole digital market is to guarantee rapid Internet access for all. In fact, there are two general objectives to be pursued:

- For 2013, basic broadband must be available to the entire population.
- For 2020, all citizens must have Internet access with a download speed around 30 Mbps and at least 50% of homes must have Internet access with a speed greater than 100 Mbps.

The European Commission will shortly publish a communique defining the common framework within which national policies need to be designed in order to reach those objectives. The mechanisms used to reach the objectives will focus on giving incentives to market agents for the rollout of new-generation networks. The European Commission will also seek to reduce the costs - especially administrative costs - of rollout, and support public and private initiatives and public intervention so that the rollout of these networks is carried out for the public industry in populated and geographic areas where there is no *a priori* commercial interest. An important course of action also focuses on the coordination and harmonisation of radio-frequency spectrum management policies where it is relevant as it is very possible that high-speed broadband coverage in remote and poorly populated areas can be obtained using mobile networks.

A useful mechanism for achieving these ambitious objectives of the digital agenda is universal service although it is not the only one as the marked objectives can be reached by other means such as direct financing by governments, combined public-private

initiatives and other means. The European Commission launched a public inquiry in 2010 involving a document about the future of US and results of this inquiry are expected to be published shortly.

When it comes to Spanish legislation, the Congress was close to approving the Sustainable Economy Act at the end of 2010. Article 52 of this law introduced broadband connection with a download speed of 1 Mbps using any technology as an integral part of universal service. The government, in turn, committed to publishing before the end of 2011 the conditions of provision of this public network access service.

4.5. Disciplinary proceedings

Four disciplinary proceedings were resolved in 2010. Two of them against entities not registered with the Operator Registry for not having made prior notification at the start of activity, one for noncompliance under the framework of broadband markets and, lastly, the other for noncompliance with obligations imposed on operators with respect to the supply of information required by the CMT.

4.5.1. Broadband markets and methodology for the analysis of the commercial offers of Telefónica

Orange forwarded a report to the CMT where it reported some potentially antitrust practices in which Telefónica would become liable as a result of its promotional policies in broadband services. In concrete terms, Orange proved that it had knowledge of a promotion where Telefónica was making offers to customers of other operators through its marketing companies. Orange thinks that this promotion could not be in the database which contains the promotions announced by Telefónica and which the CMT published on its website so that Orange thought that Telefónica had breached the preventive communication procedure that defines the broadband regulation of broadband markets.

In addition, the CMT had official knowledge of specific promotions carried out by Telefónica in the Autonomous Community of Galicia concerning service bundles that included broadband Internet access, and these were also not registered in the promotions database of the CMT.

In the instruction for the corresponding disciplinary proceeding initiated by the CMT, it was a proven fact that:

- Telefónica did not previously communicate (*ex ante*) the promotions being analysed, therefore contravening its regulatory obligations.

- With respect to the promotions officially investigated by the CMT, Telefónica surpassed the margin allowed for them in the actual net value concept, thereby resulting in a narrowing of margins.

Based on these considerations, the CMT penalised Telefónica on 15 July 2010 for an amount of 55,000 euro for neglecting the duty to communicate beforehand its commercial offers, and an amount of 275,000 euro for having carried out the practice of margin narrowing in the promotions under analysis. These promotions harmed the criteria defined for temporary promotions in the resolution regarding the method of analysis of commercial offers of Telefónica.

4.5.2. Information requirements by CMT

Through the resolution of 30 September 2010 the CMT penalised Ente Público de Radiotelevisión de las Islas Baleares (EPRTVIB) for repeated noncompliance in the response to the data requirements of the CMT. The requirements were sent for the clarification of the trimestral and annual reports in the electronic communications and audiovisual service industry.

It was established in the resolution that the entity mentioned above failed to comply within the granted period with its obligation to give a response to the information requirements or to repeated requests for such

information on a total of five occasions. And what is more, in most of the responses sent by the public entity, the data was incorrect. It was therefore concluded that this entity failed to comply correctly with the information requirements, thus breaching its regulatory obligations as stipulated in the electronic communications industry standard.

A relevant aspect in this resolution was to determine if the entity required to give a response to the CMT requirements was the public entity (and therefore the offender) who is the concession holder or, on the contrary, this responsibility fell on the television concession management companies created by this very entity. It claimed that it had no obligation to comply with the requirements but that this requirement fell on the channel management company created by the very entity and having a different legal personality.

Once the question was analysed, it was resolved that the entity under obligation was the very entity, the concession holder, irrespective of whether the concession were exploited by this entity's dependent company. The sanction imposed reached 100,000 euro.

4.5.3. Exploitation of networks and provision of services without complying with legal requirements

In accordance with the CMT, the exercise of disciplinary powers when it comes to a very serious infraction as described in article 53, paragraph t, of the LGTel consisting in the "exploitation of networks or the provision of electronic communications services without complying with the requirements for carrying out those activities described in this law.

In 2010 the CMT Council declared the commission responsible for committing a very serious administrative infraction for the noncompliance of the above-mentioned precept by two entities.

In the first place, on 18 February 2010 the CMT Council declared the Málaga town council responsible for committing a very serious infraction for having initiated the exploitation of a public electronic communications network and the provision of electronic communications service of an Internet access provider. The

exploitation also included limited access to municipal web pages and those of other public administrations without having made prior notification as irrefutably stipulated in article 6.2 of the LGTel. The sanction imposed for this infraction reached 300,000 euro⁶.

Secondly, in January 2009 the CMT Council agreed to initiate a disciplinary proceeding against La Quinta Administración and El Herrojo Club as suspects responsible for an administrative infraction involving the provision of electronic communications services without complying with the requirements set in the LGTel.

Through its resolution of 21 January 2010, the CMT imposed a sanction of 1,000 euro on La Quinta, deeming it culpable in committing a very serious infraction by having initiated an action without first giving irrefutable notification to what is referred to in article 6.2 of the LGTel⁷. With respect to El Herrojo, it was not established that it was providing Internet access service given that La Quinta was only given the associated and necessary means so that it was the one that provided the Internet access service to its subscribers.

4.6. Relationships with Public Administrations

Over the course of 2010 the CMT implemented various actions in relation to activities of Public Administrations in the field of electronic communications. It is important to highlight the approval of Circular 1/2010 which regulates the conditions for the use of networks and the provision of electronic communications services by Public Administrations.

⁶ Notably, in its resolution of 13 May 2010, the CMT Committee also agreed to automatically include Malaga City Council in the registry of electronic communications network and service operators, allowing it to provide the above activities.

⁷ On 8 July 2009, following analysis of documentation provided, La Quinta was included in the Registry of Operators of electronic communications networks and services, as an entity authorised to resell fixed telephony services available to the public, Internet access and to operate an electronic communications network.

The circular was preceded by an intense inquiry process whereby the CMT adopted a resolution which approved the conclusions of the inquiry on the regulatory proposals on the use of public wireless networks based on the use of radio-electric public domain through common-use bands, and the provision of electronic communications services through them by Public Administrations.

4.6.1. Circular 1/2010 of the CMT whereby the conditions of use of networks and the provision of electronic communications services by Public Administrations are regulated

Public inquiry and conclusions

The increase in the number Public Administrations intervening in the telecommunications market has revealed the need for adopting several regulatory measures on the part of the CMT. For this reason, it was decided to launch a public inquiry on 25 June 2009 on the possibilities of regulating the use of wifi networks and the provision of electronic communications services through these networks by Public Administrations. The conclusions made from this public inquiry were published on 25 March 2010.

Public Administrations and operators and other members of society sent answers to the public inquiry. In their answers the operators showed that, in general, the telecommunications activities carried out by Public Administrations affect their networks and services. More specifically, the majority agreed in indicating that the provision of general Internet access services, in principle, has an impact on competition. However, when this access is linked to the Public Administration's own activity, as in the case of access to its own web pages, the operators did not disagree with the provision and even admitted that they were free of charge. With respect to the deployment of public funds, the operators thought that the use of said funds in areas where there are no operators and as incentive to demand is generally valid, but with the services offered under commercial terms at all times.

In its part, the Public Administrations justified their intervention with the satisfaction of a general interest that occasionally coincided with universal service.

The conclusions gathered up the principles to which Public Administrations are specifically subject when they act in compliance with the principle of private investor (separation of accounts, neutrality, transparency, etc.) and when they do not act on the basis of this principle (communication to CMT so that the latter, in turn, imposes the conditions that ensure the correct development of competition in markets).

With respect to the treatment of public service obligations and provisions included in the universal service, the CMT rejected the possibility that local entities report, as a public service, specific telecommunications services since the State has reserved the authority in this matter. Therefore neither the municipal areas nor the autonomous communities can define public-service obligation different from those mentioned in the General Telecommunications Act.

The conclusions also recalled the role played by the European Commission in controlling state assistance. Within the doctrine established by the European Commission and by EC law, the contribution of public funds will not constitute State assistance and therefore its use will be allowed when said assistance is used to finance a service of general economic interest as stipulated in article 106 of the Treaty of the Functioning of the European Union or when the exemptions provided in EU standards are applied. In particular, this is about the exemptions in sections 2 and 3 of article 107 of the TFEU, the exemptions per categories related to some assistance destined for specific industries⁸ and the exemptions based on the amount of the assistance (in particular, the *minimis* regulation figuring in general terms in the news, related to assistance that does not exceed a maximum limit of 200,000 euro conceded for a period of three years). nevertheless, the fact that an activity carried out by a Public Administration is exempt from existing regulation in matters of state assistance because it is considered an economic service of general interest or because of sections 2 and 3 of article 107 of the FTEU and its regulation of development would not exempt it from being subject to the General Telecommunications Act, in general, and to article 8.4 in particular.

⁸ Established in EC Regulation 800/2008 of the European Commission, which declares specific types of aid that are compatible with the common market.

Lastly, the conclusions include two different modes of telecommunications activities which Public Administrations implement based on how they view the principle of private investor, and which determine the application of the provisions of articles 8.4 of the General Telecommunications Act and 4.1 of the Provision of Services Regulation. The following two cases are distinguished:

- Case when an electronic communications service is not made available to the public, that is, auto-supply.
- Case when electronic communications services available to the public do not affect the market. In particular:
 - Libraries and educational institutions.
 - Limited Internet access to the webpages of Public Administrations
- Other cases that are subject to substitution analysis because they can affect free competition.

Based on the answers received and the analysis made, it was proposed to draw up a circular which summarised the conditions in which Public Administrations could exploit networks and provide electronic communications services in different scenarios as well as the substitution analysis that justifies the means used.

Circular 1/2010

Circular 1/2010 seeks to clarify the scope of activity of Public Administrations. With this objective in mind, the circular:

- Summarised the principles that Public Administrations need to follow when operating in the electronic communications industry.
- Establishes what type of activities in electronic communications, not affecting free competition, can be provided by Public Administrations without being subject to the principle of private investor in a market economy (PIPEM) if and when they are authorised by the European Commission.

omy (PIPEM) if and when they are authorised by the European Commission.

- Establishes the procedure to be followed when seeking to provide services that can affect free competition without being subject to the principle of private investor in a market economy (PIPEM).

Circular 1/2010 has its base in a set of basic principle that support the activity of Public Administrations in the field of telecommunications. The point of departure of the entire regulation is determined by the consideration of electronic communications as a restructured activity that is provided under conditions of free competition, different from public-service activities that public entities can attribute. Therefore, Public Administrations can act as operators but in accordance with market rules, that is, following the principle of private investor in a market economy (PIPEM). To ensure that these rules of play are respected, article 8.4 of the General Telecommunications Act attributes to the CMT the role of ensuring that the participation of Public Administrations does not have a negative effect on competition. On the other hand, if the intervention of a Public Administration in the field of telecommunications implies, directly or indirectly, the use of public funds which represent State assistance, this activity must always be authorised by the European Commission.

As far as the reference to obligations of public entities, the circular notes again the obligation of setting oneself up as operators when using networks or providing electronic communications services available to the public so that they will have to give notice about their activity and register with the Operators Registry whose management is attributed to the CMT. Once the operator condition is admitted, Public Administrations will have to adapt their intervention to the principles of neutrality, transparency and non-discrimination, with separate accounts corresponding to their telecommunications activities. All of this, without prejudice to it being subject to the rest of the obligations to which private operators are subject.

Circular 1/2010 also summarises two cases in which Public Administrations are exempt from the obligation to give notice about telecommunications services they are developing. First of all, what the General Telecommunications Act calls “auto-supply”, is a term used to refer to those services or networks dedicated to the satisfaction of the Administration’s own needs. Among these services we find those which include resources used in educational and training centres: schools, institutes, colleges and universities as well as campus areas for the development of their own educational activities. Secondly, registering Internet access in libraries, which could be provided free of charge, is also unnecessary.

When it is a public entity carrying out the electronic communications activity, Circular 1/2010 contemplates two different cases related to the use of public funds that can constitute State assistance, distinguishing between activity compliance with PIPEM and activity that is not adapted to this principle. In the second case, the entity will have to notify the CMT about its project about the fact whether conditions need to be imposed. Among the pieces of information that needs to accompany the communication, the following aspects are included:

- The technical conditions of the network or service.
- The range of coverage.
- The estimated revenues and the sources of financing.
- An activity report that analyses the impact on competition.
- The results of a public inquiry (directed to operators who are present and have investment plans in the territory).

The CMT will conduct service substitutability analysis on the services offered by private operators, reaching a resolution within three months and establishing the conditions under which service must be provided. If the measure constitutes state aid, the European

Commission must also be notified as competent authority in this matter.

Circular 1/2010 also regulates the process that must be followed if an administration provides state aid to private operators for telecommunications activities. In this case, the body granting the aid must request a compulsory report from the CMT, which will assess within two months how such aid might affect competition and what conditions it believes should be imposed on the aid recipient to avoid distorting the market. The documentation stipulated in the additional first additional provision of the Circular must be submitted, and is similar to that required in the above case.

In other matters, the annexe of Circular 1/2010 includes a series of cases in which, in the CMT’s opinion, actions taken of state bodies not subject to PIPEM do not affect competition. Specifically, these refer to access services limited to public administration websites (in the territories where these administrations have jurisdiction) and operating and providing services on wireless networks using common bandwidth (wifi), provided that the network coverage excludes residential or mixed use buildings or groups of buildings and user network speeds are limited to 256 Kbps. Finally, the circular includes cases of Internet access at educational-cultural centres, other than self-provided access, and in libraries when there is evidence of a link between users and the service.

In these cases registration remains compulsory, except at libraries. If state aid not exempt from notification is granted, the European Commission must also be notified. If notification is not compulsory or permission is granted, the CMT will not impose conditions, allowing the service to be provided without being subject to the PIPEM, even freely.

Finally, Circular 1/2010 contains a transition programme for all activities prior to the circular coming into effect (10 August 2010), under which Administrations send a business plan and, when the service is not subject to the PIPEM, a competition report.

4.6.2. Implementation of the circular 1/2010: roll out of next generation networks in the region of Galicia

In May 2010, the Galicia regional government requested that the CMT issue a report on its plan to provide aid to the roll out of next generation access networks (NGA) in certain areas of Galicia. The project included a maximum subsidy of 28 million euros to a private operator (selected in a competitive process) to build the network, with this subsidy representing a gross maximum of 40% of the subsidisable project cost.

The subsidy for extending NGA networks was announced on 3 June 2010, prior to the Circular 1/2010 coming into effect on 10 August 2010. However, the assessment carried out by the CMT used the same criteria as the first additional provision of Circular 1/2010 as guidance.

The programme announced by the Galician government covered 329 locations in the province with more than 500 inhabitants, which already had basic broadband services but no NGA services (known in the EU as NGA white areas). The Galicia regional government said the reason for the aid was a deficit of very high-speed broadband access in certain areas of the province, a deficit that has been evidenced by studies and consultations carried out by telecommunications market operators.

The winning operator must offer active and passive wholesale access services for ten years and downstream wholesale broadband services of 100 Mbps with rates in line with the market for at least 86 of these population hubs.

The CMT published a resolution on 18 November 2010 regarding the retail services included in the project, stating that the aim of the measure could only be to subsidise the extension of NGA. The CMT ruled that any condition unrelated to the wholesale services that

would be provided on the subsidised networks must be eliminated, leaving such conditions to natural competition in service provision.

As for the type of wholesale services that the Galicia regional government proposes, the CMT concluded that these services were appropriate for the stated purposes of allowing retail services to be provided by third operators under equivalent conditions, with various network access levels. This would allow them to opt for different business models. However, instead of requiring that the prices of these services be orientated at cost, as stipulated in the subsidy announcement, the CMT deemed that consistency was required between the wholesale service prices that would be established and Telefónica's existing reference offer, in order to limit distorting effects on the broadband market.

Subject to these considerations, the CMT therefore concluded that the subsidy complied with the requirements of the first additional provision of Circular 1/2010, also taking into account EU guidelines on state subsidies and the rapid roll out of broadband networks.

4.7. Numbers

4.7.1. Number allocation

According to article 48.3b of LGTel, the CMT must "allocate numbering to operators, adopting the relevant resolutions, under objective, transparent and non-discriminatory conditions, in accordance with regulations". Furthermore, management and control of national number planning (NNP) and signalling point codes are also the responsibility of the CMT.

In December 2004 Royal Decree 2296/2004 on the electronic communications markets, network access and numbering was approved. This regulation includes a new process of allocation for public numbering resources by the CMT and a new National Numbering Plan (NNP).

In June 2005, the Secretary of State for Telecommunications and the Information Society (SETSI) amended the aforementioned NNP, defining nomadic voice services (NVS) and the requirements for providing these services, and assigning public numbering resources for the same, both belonging to geographical numbering and the NX = 51 range. The first numbering assignments for nomadic voice services came in 2006.

In November 2006, SETSI again amended the NNP, assigning the NX = 50 range to private virtual network services. Thus, operators of publicly available telephone services will be able to provide voice communications to closed groups whose members are connected to different networks.

Furthermore, the ITC/3991/2006 of December 2006 amended the NNP, cancelling the planned migration of paging services to the range assigned to mobile communications, and keeping this service to the 940 number until it was freed up on 30 June 2008.

In January 2007, the numbering assigned to fixed line services available to the public were amended by SETSI. Specifically, 8563 numbers (corresponding to digits NXYA of the national number) were made available to the province of Cadiz. Furthermore, the resolution also stated that the number blocks corresponding to 956 numbers (NXY in the national number) would be made available to the province of Cadiz.

In early 2008 SETSI approved Order ITC/308/2008 of 31 January, which gave instructions on the use of public resources for short message and multimedia message services, amended in the same year by Order ITC/3237/2008 of 11 November. Order ITC 308/2008 allocated public numbering resources for short and multimedia messaging services. This order established that the CMT would be responsible for managing and assigning resources to the various operators with the rights to use them.

In 2008 SETSI passed two resolutions that again amended the NNP. The first was the resolution of

9 May, which attributed public numbering resources to the 065 telephone assistance service for dependent persons. The second came on 4 December, which allocated the 905 code to premium rate services.

The NNP was again amended following a resolution announced on 29 May 2009 by SETSI, which attributed public numbering resources to internal services for each public telephone network and freed up certain three-digit short numbers.

Another resolution of 29 May, by which public resources were provided for non-premium rate short text message and multimedia message services, allocated public numbering resources for these services.

Finally, the most important change approved recently by SETSI in terms of numbering was without doubt the resolution of 12 March 2010, by which public numbering resources were allocated for mobile communications services (opening of the 7 range) and for machine to machine communications services. The former came in anticipation of exhaustion of the range that had been allocated to personal mobile numbers, while the latter allocated a large numbering range (13 digit numbers) to the growing demand from devices with communications needs. More details are provided on this important new development below.

The CMT adopted a total of 389 resolutions on numbering during 2010. Of these, 275 dealt with resource allocation and break down by type of numbering as follows:

TELEPHONE NUMBERING	Geographical numbers	43
	Geographical NVS numbers	1
	Non-geographical NVS numbers (51)	6
	Special tariff service numbers	35
	Short numbers	7
	Carrier selection codes	13
	Premium <i>SMS</i>	123
	Virtual private network codes	0
	Mobile service numbers	20
	Internet access numbers	0
	Personal numbering	0
OTHER COMBINATIONS	National signalling point codes	9
	International signalling point codes	3
	Portability routing prefixes	14
	TETRA mobile network indicator	0
	Data network identifier codes	0
	Mobile network indicators	1

Source: CMT

Furthermore, during 2010 the CMT passed 72 resolutions to cancel the assignments of various numbering types. There were a further 45 resolutions on numbering resource transmission and 21 resolutions on the sub-assigning of numbering resources, largely mobile numbering.

Telephone numbering

Public telephone numbering is regulated by the NNP, while the CMT's oversight of these resources is governed by the public numbering resource program, both included in market regulation.

Telephone numbering includes the assignation of geographical numbering for publically available telephone services, numbering for premium rate services, short numbers, carrier selection codes, numbering for mobile communications, numbering for Internet access services and personal numbering. Numbering was also assigned for nomadic voice services (both geographic and non geographical numbering), numbering for virtual private network services, numbering for

short and multimedia messaging, numbering for non-premium rate short and multimedia messaging.

- Geographical numbering for fixed publically available telephone services

The allocations are carried out in blocks of 10,000 numbers within the range assigned to each telephone province. 195 numbering blocks were assigned in 2010, compared to 140 in the previous year.

Of the 195 blocks assigned in 2010, Telefónica was assigned three blocks, while the operators Informática el Corte Inglés, Jazztel, Vodafone and Verizon Spain were allocated 50, 35, 26 and 21 blocks respectively.

- Numbering for special rate services

The NNP of 2004 saw intelligent network services re-named special rate services. The allocations within this range were made in blocks of 1,000 numbers, bearing in mind demand for use as well as the different tariffs planned. This prevented exhaustion of numbering for these services.

In 2010 a total of 73 blocks of 1,000 numbers were assigned, a figure well below that of the previous year, when 185 blocks were assigned. The blocks assigned in 2010 were distributed as follows:

- 800/900. Freephone: 9 blocks.
- 901. Shared cost: 4 blocks.
- 902. Caller pays with no cost to the call recipient: 16 blocks.
- 905. Bulk calls: 11 blocks.
- 803. Premium rate (voice): 14 blocks.
- 806. Premium rate (voice): 12 blocks.
- 807. Premium rate (voice): 7 blocks.
- 907. Premium rate (data): no blocks.

- Personal numbering

The NNP allocated the NX = 70 range to personal numbering services. In 2004 the NNP established that the blocks assigned would have a capacity of 1,000 numbers. Under the old legislation, the block size for personal numbering was 10,000 numbers.

Just as in 2009 and 2008, no personal numbering blocks were assigned in 2010.

NUMBER FORMAT	DIGIT VALUES	NUMBER LENGTH	EQUIVALENT PUBLIC SPACE NUMBERING	SERVICES PROVIDED
12(Y)(A)	Y = 0 and 1 A = 0 and 9	3 or more digits	20 numbers of 4 digits	Internal
22(Y)(A)	Y = 0 and 9 A = 0 and 9	2 or more digits	100 numbers of 4 digits	

Source: CMT

Order CTE/711/2002, of 26 March, allocated the 118XY range to telephone information services on subscriber numbers and established conditions for providing this service to allow full competition between providers.

During 2007 two SETSI resolutions were passed, modifying the National Numbering Plan. The first, of June, allocated the 016 number to an informational and legal counselling line for women victims of domestic violence,

- Short numbers

The NNP defines short numbers as numbers with less than nine figures. The NNP initially allocated most significant digit of national numbering N = 0 and N = 1 to short numbering.

The numbering allocation criteria were established in various CMT resolutions, opening the ranges identified by the digits 14XY, 15XY, 16XY, 17XY, 18XY and 19XY. In particular, in June 2005, la CMT made allocation criteria for this kind of numbering more flexible and allowed the allocation of more than five numbers to each operator, based on their needs.

Also, in the 12XY range certain short numbers have been allocated for internal use at each operator (from 1200 to 1219), in accordance with point 10.4d of the NNP. The CMT assigned these for discretionary use by all operators within their respective networks, with the prohibition of these being delivered to other networks. However, the situation has changed since the publication of the SETSI's resolution of 29 May. This detailed the work carried out by the CMT and allocated the ranges given in the following table for internal service provision within the networks of each operator.

provided by the Ministry of Employment and Social Issues, via the Government's Special Delegation against Violence Against Women. The second, of October, reserved the 116 range (NXY digits of the national number) for accessing European harmonised services of social value. Furthermore, a prerequisite was established for any a number being assigned to the 116 range, requiring that said number be included in a European Commission ruling. Specifically, the last list of numbers published corresponds to the October 2007 decision,

which included the 116000 number (missing children line), 116123 (emotional support line) and 116111 (children helpline). In particular, the 116000 number has been allocated by SETSI for calls relating to cases of missing children.

As stated in the introduction, in 2008 the NNP section dedicated to short numbers was amended when the SETSI resolution of 9 May 2008 was passed, which allocated public numbering resources to the 065 information line for dependent persons.

Finally, on 8 April 2010, the CMT Committee approved a SETSI resolution on the allocation of the 011 number to a road traffic and assistance information service.

As for the allocation of short numbering, in 2010 the CMT assigned seven short numbers. This figure means a drop against 2009. The seven short numbers assigned in 2010 were distributed, according to service areas, as follows:

- Card services, no number.
- Customer information and care, 1 number.
- Technical assistance, no number.
- Subscriber number telephone information (118AB), 4 numbers.
- Dataphone, 2 numbers.

Also in 2010 the CMT cancelled the allocation of 17 short numbers, including cancellations made automatically by the CMT due to the possible exhaustion of the 118 range attributed to the subscriber number information services. These cases saw the cancellation of numbers that were not in use by operators.

- Carrier selection codes

Carrier selection codes (CSC) available for allocation to operators begin with 103, 104, 105 and 107, and give codes of four, five or six digits based on the network development commitments assumed by the operators.

With the General Communications Law 32/2003 coming into effect, code allocation criteria had to be reviewed to comply with the new licensing system. The criteria used are in line with the principles of the previous regulatory framework.

In January 2006, the CMT established criteria for allocating additional carrier selection codes to operators authorised to provide telephone services to the public, for their subsequent allocation to operators authorised to resell this telephone service. According to these criteria, in November 2006 the CMT approved the first sub-allocation of carrier selection codes.

In 2010 13 carrier selection codes were assigned, a similar level to that of 2009 (12 codes) and 2008 (14 codes). The codes assigned in 2010 were distributed based on the number of digits as follows:

- 4 digit CSC, 1 number.
- 5 digit CSC, no number.
- 6 digit CSC, 12 numbers.

No carrier selection codes were cancelled in 2010. However, in late December of 2010, a process began to cancel numbering for this resource as a result of licence holders to provide fixed line telephony, and therefore eligible to be assigned numbering, ceasing to operator.

- Numbering for mobile communications services

For a further year, the numbering for mobile services (range N = 6) recorded the highest levels of use. Thus on 31 December 2010, 81.1% of the 100 million numbers available were assigned to the N = 6 range.

In late 2010 Spain had a total of 56.5 million mobile lines (including lines associated with machine to machine services), which meant penetration

of over 120%⁹. Even though the theoretic saturation point of 100% has been exceeded, there are a series of factors that indicate that the rate of growth will not only remain constant, but will in fact probably grow exponentially over the next few years:

- The growth of mobile broadband (*datacards*).
- The more extensive use of equipment controlled remotely via a mobile line (machine to machine communications, or M2M).
- The good results recorded by mobile virtual network operators (MVNO).

There are two different types of operators in this market, in terms of how they use assigned numbers and numbers of customers. On the one hand are the traditional mobile operators that have been on the market the longest, which have more efficient use of numbering. Specifically, Movistar shows 84.5% efficiency, Vodafone 73.9%, and Orange 64%¹⁰. For Xfera, the efficiency is somewhat lower (54,1%), although it recorded significant growth against the previous year (in 2009 efficiency was of 39%).

The numbering not used to identify end clients is known as operating margin, and provides a reliable picture of the additional numbers required by an operator to those assigned to end customers, in order to ensure proper service provision.

The following are included in the various uses associated with this additional numbering: numbering required to supply the retail distribution network, numbering for internal use (voicemail, routing, etc.) and numbering for other uses (numbering in deregistration procedures, numbering unused for over three months, etc.).

In 2010 there was a significant drop in this operating margin at some operators: Movistar saw its total fall from 5,376,060 to 4,711,217 mobile numbers; and Yoigo, from 1,228,491 to 917,322. Others saw their margins increase or hold flat: Vodafone saw an increase of 5,139,734 to 5,920,065, mainly due to the allocation of a million mobile numbers at the end of 2010, while Orange's level remained largely unchanged, shifting from 6,745,059 to 6,870,245.

These traditional operators must, in turn, compete with the 28 mobile virtual network operators (MVNO)

currently registered¹¹. These MVNOs show lower efficiency of use, largely due to much of their numbering being used in the distribution channel, in order to satisfy the considerable initial demand that they have to cover. This year has been particularly favourable for this type of operator, especially those aimed at covering the needs of specific market segments that are insufficiently served by conventional operators, such as the immigrant population. In terms of active lines, the following operators stood out: E Plus, Euskaltel and Digi Spain, as well as complete MVNOs; and Lebara, Llamaya and Happy Móvil as MVNO service providers.

Finally, as a result of growing demand, MVNOs are the operators demanding the greatest quantity of numbering. In 2010 3,900,000 numbers were assigned, shared among traditional operators and several complete MVNOs, and 1,040,000 numbers were sub-assigned among MVNO service providers.

Based on the volume of numbering still being assigned, and once the 80% risk limit of N = 6 numbers having been allocated is passed, continuation of current consumption growth would likely exhaust this number range over the coming years. The CMT identified the risk of exhausting the N = 6 range some time ago, and on several occasions notified the Secretary of State for Telecommunications and the Information Society (SETSI), from the Ministry of Industry, that a further range should be opened for additional mobile services.

⁹ At the start of 2010, it was estimated that the census population of Spain numbered 47,021,031 inhabitants. Population data from the National Statistics Institute (www.ine.es).

¹⁰ All post-paid contract lines as well as prepaid lines which had made or received at least one billable communication in the last three years were considered as active lines.

¹¹ Without counting Xfera as a complete MVNO for 2G with the host Movistar.

In response, the SETSI passed a resolution on 12 March 2010, allocating public numbering resources to mobile communications services and machine to

machine services. It opted to open the N = 7 range of the National Numbering Plan for interpersonal mobile services (including broadband services).

FORMAT OF THE NUMBERS NXY AB MCDU	DIGIT VALUES	NUMBER LENGTH/RENDERING	SERVICES
70 YAB MCDU		Personal numbering	
7X YAB MCDU	X = 1, 2, 3, 4	9 digits	Mobile communications
	(Other digits = from 0 to 9)		
7X YAB MCDU	X = 5, 6, 7, 8, 9	Reserved for personal mobile communications	

Source: CMT

With this new allocation, 40 million additional numbers are made available for interpersonal mobile communications (ranges NX = 71, 72, 73 and 74) with the possibility of increasing this amount to 50 million in the event that it is required in the future (ranges NX = 75, 76, 77, 78 and 79).

The conditions for providing the mobile communications services are in all aspects similar to the current ones for the range N = 6. The new range for the mobile communications services must be accessible from all telephone networks from 1 October 2011.

In 2010, CMT completed the first allocation of 200,000 numbers in the range 7 to the operator Orange, so that it could carry out the relevant trials to ensure full

accessibility of the new range prior to the planned date, and also launch a pilot trial for its employees.

In addition, in the SETSI resolution, an independent range was chosen for machine to machine (M2M) communications. Since by their nature, M2M services are less sensitive to the quantity of digits to dial, it was decided to allocate numbering longer than nine digits, so that it could accommodate the significant increase in the demand for these services seen in recent years. In particular, the format of the numbers assigned to the M2M services was a 13 digit alphanumeric sequence 59YABMCDU Z1 Z2 Z3 Z4, beginning with the first sub range 590, as indicated in the following table:

FORMAT OF THE NUMBERS NXY AB MCDU (*)	DIGIT VALUES	NUMBER LENGTH	SERVICES TO BE RENDERED
59 0ABM CDU Z1 Z2 Z3 Z4	Y = 0 (Other digits = from 0 to 9)	13 digits	Machine to machine communications
59 YABM CDU Z1 Z2 Z3 Z4	Y = from 1 to 9	Reserved for machine to machine communications	

Source: CMT

(*) The digits 0ABM identify the operator.

This numbering space has a capacity for 10 billion M2M numbers, which was considered sufficient in the medium and long term, with granularity of 10 million numbers per operator.

As for the telephony numbering base, it is considered that the liquidation of the same for M2M services should be carried out considering the first nine digits of the assigned 590ABMCDU block, so that the minimum assignable block (590ABM digits) has a thousand numbers for these purposes.

The deadlines for opening the M2M numbering is planned for 31 March 2012, although this will not prevent operators from making use of it already for internal services which do not require interoperability between networks.

- Numbering for the Internet access service

The specific numbering allocations for accessing the Internet are done in blocks of 1,000 numbers. These blocks are identified by the ABM figures of the domestic number, within the ranges NXY = 908 and NXY = 909, for the interconnection modes for termination (the access operators bills) and access (the access operator does not bill).

In 2010 three numbering blocks were assigned for the Internet access service. The levels of efficiency of these numbering resources are generally low (around 1%), because the numbering used identifies service providers (ISP) rather than subscribers.

- Numbering for nomadic voice services

In June 2005, SETSI assigned public numbering resources for providing nomadic voice services (NVS). These services were defined as:

digital communications services available to the public which offer bidirectional voice communications in real time those which users can remotely connect, enabling both call connection and reception, and also allowing for the inclusion of another type of capacity such as multimedia communication.

For this reason, nomadic voice services have the consideration of digital communications services and, as a result, operators offering these services must ensure interoperability between these services.

The numbering allocated by SETSI for providing these services is distributed in two numbering segments, depending on the nomadic capacity in terms of the access points:

- Segment 8XY. Geographical numbering attributed by NVS service. The conditions for providing these services with this numbering also stipulate that the service

access points are associated with the telephone area corresponding to the numbering used.

- Segment 51. Non-geographical model attributed for SVN when the access points are located within the national territory without further limitations.

In 2010, 50 blocks of 1,000 numbers were assigned for providing this nomadic voice service restricted to the district, and 102 numbering blocks for providing the nomadic voice service without being restricted to the district.

CMT has made statements on various occasions about the NVS regulation, in particular, in its resolutions of 21 December 2005, 5 October 2006, 8 March 2007 and 13 November 2008.

Other numbering space managed by CMT

- Network indicators for the mobile network (MNI)

The management of identification numbers of the terminals or terrestrial mobile stations (IMSI) is carried out in accordance with Recommendation E.212 of the International Communication Union (ICU). CMT assigns MNIs to enabled service providers so they can have IMSI codes for terminals or mobile stations on the market.

Due to the appearance of the complete mobile virtual network operators, the MNI allocation was encouraged to identify its networks. Only one MNI was allocated in 2010.

- Mobile network indicator (MNI) for TETRA

The provision of terrestrial mobile radio communications services in a closed group of users with TETRA digital technology (Trans European Trunked Radio), specified by the European Institute of Telecommunications Standards (EITS), requires the allocation of a TETRA MNI code. The composition of the TETRA terminal identity is described under the EITS standards ETS 300 392-1 and ETR 300-5.

CMT assigns MNI indicators for these technologies to the entities which used TETRA networks. In 2010 no MNI were assigned for TETRA.

- International signalling point codes (ISPC)

The ISPC, used in signalling for identifying centres and other network elements in the international context, are recognised by the Recommendation Q.708 of the ITU, which also manages them according to the same recommendation.

These 14-bit codes are assigned by CMT. When less than ten of those ISPC codes which the ITU has granted a country, authorities in that country can request new codes from the ITU.

In 2010, CMT allocated six ISPC to different operators. Currently, 90.62% of available ISPC (128) are assigned.

- National network signalling point codes (NNSPC)

The NNSPC, used in signalling for the identification of network nodes at national interconnection level, are 14 bit codes recognised in Recommendation Q.700, based on Signalling System no. 7. CMT assigns NNSPC blocks to operators, each one containing eight codes.

In 2010, CMT assigned nine blocks of eight NNSPC, each one to a different operators.

- Data network identifier codes (CIRD)

The numbering relating to public data networks is standardised in Recommendation X.121 of the ITU, where it defines the structure and characteristics of the International Numbering Plan (INP) for the purpose of facilitating the operation of public data networks and enabling them to function on a global scale. These codes are used on networks based on X.25 or Frame Relay.

In 2010 no request for allocation of this type of resource was received.

- Portability routing prefixes or network routing number (NRN)

Both in the technical specifications applying to the conservation of numbers in public mobile phone networks, as well as that applying to the conservation of the numbering in fixed telephone public networks,

both approved by CMT, there are plans to include a network routing number (NRN). This is a prefix associated with a number that will serve domain networks with the portability to route correctly the numbers made to that number. The NRN has a structure of six digits (ABCDEF). Each operator with a right to import mobile numbers, geographical or network intelligence services under the conservation of numbers in public mobile or fixed telephone networks must be identified by a portability operator code. This code assigned by CMT is made up of the digits AB[C] of the NRN (AB of 00 to 79 or ABC of 800 to 999).

In 2010, 14 portability operator codes were assigned, a decrease on the 2009 figure of 24.

- Numbering for premium rate messaging services (STA messages)

As part of this section, a note should also be made of the publication of the Order ITC/308/2008 of 31 January, which gave instructions on the use of public resources for numbering for short message and multimedia message services, which would concern the following:

- Own messaging services between end users.
- Messaging services for services with allocated numbering (short numbers, subscriber information services, etc.).
- Internal used services (code 22).
- Premium rate services based on SMS (STA message services) as part of the series and modes of services presented in the following table:

FORMAT	VALUES	NUMBER LENGTH	SERVICE MODES
25YAB	Y, A, B = from 0 to 9	5 digits	a) Price ≤ 1.2 Euros [The sub range 280AB will be used for charity or solidarity campaigns]
27YAB			
280AB			
29YABM	Reserved for the expansion to 6 digits		
35YAB	Y, A, B = from 0 to 9	5 digits	b) Price ≥ 1.2 Euros , but ≤ 6 Euros
37YAB			
39YABM			
795ABM	A, B, M = from 0 to 9	6 digits	
797ABM			
799ABMC			Reserved for the expansion to 7 digits
995ABM	A, B, M = from 0 to 9	6 digits	d) Exclusive services for adults price ≤ 6 Euros
997ABM			
999ABMC			

Source: CMT

Under file DT 2008/176 of 31 July, 1206 codes were assigned for STA messaging services from the different ranges defined for them and for a total of 50 operators. The goal of this file was to substitute the old unregulated numbers used for these services with others.

In view of the fact that the conduct code regulating these services was not published, Order ITC/308/2008 was modified, thereby amplifying the initial deadlines to desist from using the old numbering (14 November 2008) until four months had passed since the conduct code had been published.

The conducted code was approved on 29 June 2009 by the Commission for Monitoring Premium Rate Services, and was then declared standard by resolution on 8 July by SETSI and published in Official State

Gazette (BOE) on 27 July. For this reason, compliance with the obligations imposed by this code would not have been compulsory for the operators until 27 November.

In 2010 399 codes were assigned to various operators, 134 from the range 25-27-280; 77 from the range 35-37; 95 from the range 795-797, and 93 from the range 995-997.

- Numbering for non-premium rate messaging services

In its resolution of 29 May 2009, SETSI enabled a numbering space to provide for non-premium rate short text message and multimedia message services (non-STA messages). In particular, this resolution attributes the following numbering resources for providing the service:

FORMAT	VALUES	NUMBER LENGTH	SERVICE MODES
20 5ABM	A, B, M = from 0 to 9	6 digits	Free
20 7ABM			
20 YABM (Y ≠ 5 and 7)			
21 5ABM	A, B, M = from 0 to 9	6 digits	Ordinary text message
21 7ABM			
21 YABM (Y ≠ 5 and 7)			

Source: CMT

The resolution of 29 May established that the enabled resources would be managed by CMT. By virtue of this power, the Commission proceeded to open an initial process of allocation of resources on 10 July 2009. In particular, the process was defined in file DT 2009/1101, which assigned a total of 444 numbers (108 belonging to the range 20, and 336 to range 21). In 2010 a total of 670 numbers were assigned (124 from range 20, and 546 from range 21).

4.7.2. Control of the use of numbering

The numbering constitutes a limited resource as a means of identification for the users and it is a necessary instrument for providing telecommunications services. Its availability is determined by technical factors, such as the processing capacity of the networks, the dimensions of the numbering plan and the maximum number of usable digits recommended by the International Telecommunication Union.

At the start of 2011, CMT started to carry out an internal study of efficiency in the used of numbering for telecommunication services in 2010. This report came about with the double objective of analysing efficiency in the use of numbering assigned by CMT to the operators until 31 December 2010 and to detect irregular situations in the used of numbering.

The study was completed using annual data which the operators are obliged to forward to CMT. The numbering subject to this study included the geographical, nomadic voice service, premium rate numbering, and that of mobiles and short numbers, as well as the numbering of the operator selection code, Internet access and non-telephone (NNSPC, ISPC, NRN and numbering for multimedia and text messages).

It should be remembered that article 62 of the market regulations conferred on CMT, by reasoned resolution, the capacity to modify or cancel allocations when there exists a patently inefficient use of allocated resources.

In general lines, following the analysis such as the percentage of numbering allocated to Telefónica, it was

reduced in favour of the percentage corresponding the remaining operators. In going into further detail, the most notable conclusions of the study were as follows:

- Geographical numbering. The results indicate that 72.85% of the numbering assigned has been allocated, with 67.91% being allocated to Telefónica and 32.09% to other operators. In general, efficient use is following the tendency of recent years and is growing in relation to those previous. Nevertheless, it has been detected that some operators make inefficient use of this type of numbering, and few operators achieve more than 50% efficiency.

- Numbering allocated to nomadic voice services. 13.29% of the numbering linked with the service restricted to the district has been allocated (57.67% to Telefónica and 42.33% to the remainder), and 11.55% of the numbering not restricted to the district (48.08% to Telefónica and 51.92% to other operators). Efficient use is very low, almost nil for many operators providing information on the completion of numbering trials. Certain regulation changes must be introduced for the purpose of encouraging the use of this numbering. For example, we may refer to the possibility of introducing portability between the nomadic voice services and the fixed telephone service.

- Premium rate numbering. 28.12% of the numbering assigned has been allocated (46.97% to Telefónica and 53.03% to other operators). Efficiency in the use of this type of numbering is low, as the customers consist of businesses and service providers, rather than end users. Nevertheless, in recent years, a slight increase in the efficiency of the majority of operators has been noted.

- Internet access service. Only 2.75% of the numbering remains allocated. As with the case of the network intelligence service numbers, the efficient use of this numbering is very low.

- Numbering for mobile services. 81.1% of numbering in the range 6XY has been allocated. In this case, efficient use is higher than the remainder of commented ranges, with different operators exceeding 50%

use. In 2010 we should note different numbering allocations completed, whether with Vodafone, shown in the high efficiency of use posted, as with Orange, for later sub-allocation to different mobile virtual network operators. In late 2010 the first numeration blocks were assigned in the 7XY range, the opening of which should resolve the risk of mobile number depletion.

- Operator selected short numbers and codes. The same criteria for analysing efficiency of use were not used in this case, since the assignment is done individually and there are very restrictive conditions for operators. 34% of the short numbers for telephony support services (14XY-19XY) are assigned. In addition, 81.2% of the 118AB type numbers are already assigned, and 50.51% of the available operator selected codes. It should be noted that the decrease over the last year in the percentage of numbers assigned within the 118AB range is due to various measures taken by the CMT to prevent the depletion of the range.

Essentially, a thorough control of the 118 range was conducted in order to determine the adequacy of the numbers assigned to services rendered, given the considerable proliferation of subscriber consultation service providers. In addition to the usual checking the assigned numbering status, the effective use annual data (as received by the CMT each January according to market regulations) was analysed. Based on this analysis, it was felt necessary to take two additional measures:

- Firstly, during April 2010 an inspection was carried out to check that each number was in use and to verify that the service was actually rendered, since the information provided by the operator to the annual number control includes only call volume.
- Secondly, those fixed line and mobile operators that had a greater share of direct subscriber use were required to verify the number of calls originating on their networks destined for 118AB range numbers and with a duration of longer than 15 seconds. The number of calls is good indicator of effective use of the 118 number in question.

The results of the inspection allowed the initiation of a series procedures for the cancellation of incorrectly

used 118 numbers, which helped to relieve some of the pressure on this range of numbers.

4.8. Advising

One of the functions of the CMT is to advise the Government and other agencies when required to do so or officially appointed, as established by Article 48.3h of the General Telecommunications Law 32/2003 of 3 November.

In 2010 the CMT published several reports: three for the National Competition Commission, eleven for the Ministry of Industry, two for the Government and two for the autonomous communities of Galicia and La Rioja.

The report to the Ministry of Industry, Tourism and Trade concerning the SETSI draft resolution resulted in public numbering resources being allocated to interpersonal mobile communication services and to Machine-to-Machine communication services

Although the level of penetration of mobile services in Spain continues to increase, the rise of broadband connections to mobile networks, such as by means of *datacards*, for example, as well as the increase in Machine-to-Machine (M2M) communication services, means that the operator demand for mobile numbering continues to grow.

The numbers assigned within the National Numbering Plan (RD 2296/2004) for mobile services has historically been in the 6 range, followed by eight digits. Given the boom in mobile services, the CMT noted that, if recent growth is maintained, this numbering range could be insufficient in coming years unless appropriate measures are taken. These considerations were reported to the Secretary of State of Telecommunications and the Information Society (SETSI) of the Ministry of Industry.

In response to these approaches, SETSI initiated a public consultation with the proposal of opening a new numbering range, segment 7, for use with interpersonal mobile communications and mobile broadband services. Additionally, the use of this range for M2M services was suggested. The SETSI proposal focused, therefore, on providing new public numbering

resources to meet current and future demand from interpersonal mobile communications (including mobile broadband) and M2M communications.

Once the public consultation phase was concluded, the responses and comments received by the telecommunications industry players and users were used, in general, in the preparation of a proposal to develop the National Numbering Plan.

The proposal was to initially allocate a range of 40 million nine digit numbers in segment 7 for interpersonal communications (digits NX = 71, 72, 73 and 74 of the NXYABMCDU national number sequence), and another eight million numbers (also nine digit) for M2M (79Y digits, with Y from 0 to 7). The remaining available numbering in the 7 range were proposed as a reserve for future expansion: an additional 40 million for interpersonal communications (digits 75, 76, 77 and 78), and the remainder for M2M (79Y digits, with Y from 8 to 9).

The CMT report to the SETSI resolution proposal suggested that the proposal to have two different services (interpersonal mobile communications including mobile broadband, on the one hand, and M2M communications, on the other) with similar numerical characteristics (the same number range for the first digit, length of numbering, etc.) could lead to inefficient allocation of numbering resources. This, together with the lack of existing numbers for M2M services, made it advisable to opt for an alternative solution.

Specifically, the CMT proposed two possible options. One option would be to open a 13 digit numbering sub-range for M2M services, thus making it no longer necessary to differentiate numerical ranges using different characteristics. The other option was to designate the entire 7X range to mobile communications (except 70, which is currently assigned to personal communications), in a similar manner to the current designation of the 6 range. In this way, it would not be necessary to distinguish between interpersonal and M2M services. In response to the proposal of the CMT, the SETSI finally, through the resolution of 12 March 2010, opted for the opening of an independent range for M2M, of

greater length, which would accommodate the significant increase in the demand for these services in recent years.

Specifically, the format of the numbers assigned to the M2M services was a 13 digit alphanumeric sequence 590ABMCDU Z1 Z2 Z3 Z4. This numbering space has a capacity for 10,000 million M2M numbers, considered sufficient in the medium and long term.

The numbers designated for mobile services (including broadband) remained the same as in the initial proposal (40 million, digits 71, 72, 73 and 74) but with more numbers reserved for future expansion because of the shift of M2M services to another range (the reserve for future expansion of interpersonal mobile services increased to 50 million, including the 79 range as well as the originally planned 75, 76, 77 and 78 ranges).

The CMT report also addressed other relevant issues, such as the elimination in the final text of references to minimum assignable blocks and to deadlines for opening numbers on other networks, so that it would be the CMT—in virtue of the capacity entrusted to it for numbering management—that would determine it in function of the needs of the market. In the end, these recommendations were adopted by the SETSI.

Report to the MITyC (Ministry of Industry, Tourism and Business) regarding the public consultation on the actions regarding the radioelectric spectrum in the 900 MHz, 1,800 MHz and 2.6 GHz bands and the digital dividend

Probably some of the most important decisions that must be taken concerning electronic communication regulations relate to the use and management of frequency spectrums, due to the impact on existing players, and with reference to the encouragement of competition and the expansion of broadband access to the entire population.

Two recent processes should be taken into account that have demonstrated the importance of this issue, both in the European Union (27 members) and in Spain:

- The transition to digital terrestrial television (DTTV). In the 27 European Union countries the analogue switch-off, i.e. the implementation of digital technology for broadcasting of television, has been scheduled. In Spain, this process was completed in March 2010. The greater digital technology efficiency has permitted the improvement of the television offer and the recovery of part of the spectrum, which could be designated for other applications, particularly mobile broadband. DTTV has allowed the liberation of spectrum, known as the digital dividend, when applied to telecommunications. In Europe, the digital dividend is in the 800 MHz band, where a total of 60 MHz will be made available to industry players.

- Users' increased demand for mobile broadband. In the last three years the increased roll out of connections and the use of mobile broadband has been notable. In Spain, nearly three out of every ten broadband connections are supported by a 3G/UMTS network. This growing demand means that it is necessary to enhance the existing network capacity and roll out other new networks in order to support a growth in traffic that is much greater than the growth in subscriber numbers.

Furthermore, it is necessary to address the designation of the 2.6 GHz band, which has been harmonised at the European level by Decision 2008/477/EC, which means the provision of an additional 190 MHz to industry players. The latter are suitable for mobile broadband applications and for the tendering of the spectrum in the 900 MHz band that is currently granted to the operator Movistar, which expires in 2015.

These actions are carried out in a context of increased flexibility in the conditions of spectrum use, driven by European institutions, and which aims to encourage improved efficiency. Thus, there is a transition from a spectrum management model based on control by the regulator—a model that determined both the services provided and the use of predetermined technologies and standards—to one which offers greater liberty for the industry players to employ technologies and provide services that are considered more efficient. This second model also introduces the principle of technological

and service neutrality in order to maximise the economic return of the spectrum. One consequence of this policy is found in Directive 2009/114/EC and in Decision 2009/766/EC, which require Member States to designate and make the 900 MHz and 1,800 MHz bands (currently reserved in Spain for the GSM system) available to the UMTS system, as well as to other systems which will not cause harmful interference in the future. This change is known as “liberalisation of spectrum use” or “implementation of technological neutrality.”

Another important tool for achieving better efficiency is the introduction of secondary trading, i.e. the free exchange of spectrum between operators, thereby providing incentives for efficient use of this resource.

The problem that arises with spectrum liberalisation is that not all frequency bands have identical characteristics, and this starting point can lead to significant distortions in competition. The lower frequency bands (800 and 900 MHz) can achieve larger coverage areas for mobile stations and better indoor coverage. For this reason, their use reduces the cost of the roll out in rural areas and improves coverage and also available velocities for broadband applications in urban areas. In addition, operators that currently have rights to use the 900 MHz band already have most of the necessary infrastructure for a rapid roll out of 3G technology, as they already use the 2G network sites.

Therefore, the change in technical and economic conditions resulting from the implementation of technological neutrality in the 900 MHz band, without adopting further measures, could be beneficial for some of the existing network operators that wish to provide mobile broadband services. While the four current operators with their own licences already have equivalent spectrum allocations to provide 3G services in the 2.1 GHz band, this is not the case in the 900 MHz and 1,800 MHz bands, as only three operators have been allocated spectrum in these bands (and in the 900 MHz band the allocation varies significantly between operators).

Directive 2009/114/EC itself considers the possibility that the initial distribution of 900 MHz band

frequencies to operators could lead to competition distortions, and requires Member States to address these distortions in accordance with the provisions of the Authorisation Directive. This may involve modification of the right to spectrum use, as stated in the following directive:

The liberalisation of the use of the 900 MHz band could possibly result in competition distortions. In particular, where certain mobile operators have not been assigned spectrum in the 900 MHz band, they could be put at a disadvantage in terms of cost and efficiency in comparison with operators that will be able to provide 3G services in that band. [...] Member States can amend and/or review rights of use of spectrum and thus have the tools to deal, where required, with such possible distortions.

The procedure for revision and modification of the rights and conditions of use regarding a frequency band, as mentioned above for the 900 MHz and 1,800 MHz bands, is known as *refarming*.

It was in this context that the Ministry of Industry, in June 2010, submitted a proposal for public consultation that addressed both a review of current operator spectrum allocation and the tender of the available spectrum in the 800 MHz (the digital dividend), 900 MHz, 1,800 MHz and 2.6 GHz bands. The CMT participated in the consultation, submitting a timely report to the Ministry of Industry (MTZ 2010/1163).

For the reasons given above, the Ministry of Industry, in its document, started from the viewpoint that introducing technological neutrality in the 900 MHz band without any other action would mean creating a competition distortion, given that one operator (Yoigo) did not have frequencies in this band for the roll out of a UMTS network, and that another operator (Orange) did not have sufficient frequencies to roll out a UMTS network and maintain GSM services on such band. These two operators, therefore, could not benefit from the proposal.

To solve this problem the Ministry proposed a solution for the 900 MHz band, the main elements of which were:

- Allow the roll out of UMTS technologies.
- Partially reallocate the spectrum and recover a block of 2 x 5 MHz for tendering to a different operator, i.e. not Vodafone or Movistar.
- Require Movistar and Vodafone to provide wholesale access services to operators that have their own access networks that lack sufficient frequency in the 900 MHz band, and that would allow other operators to offer the same services as the operators benefiting from *refarming*.
- Require operators that will benefit from *refarming* to make certain commitments regarding investment in rural areas.
- Subsequently tender two additional 2 x 5 MHz blocks that would be available from 2015.

In contrast, technological neutrality would be implemented in the 1,800 MHz band only if requested by the operators that currently hold licences for the frequency, in exchange for the reversion to the State of a 2 x 5 MHz block for further tendering.

According to the document submitted for public consultation, the 800 MHz band will be tendered in 2011 and would be available no later than 2015. The 2.6 GHz band would be made available for the first time to the market, and the greatest proposed change is based on the proposal to offer concessions at less than the national level. Lastly, measures were also included to prevent spectrum stockpiling by one operator, establishing a limit of 2 x 20 MHz per operator in the 800 and 900 MHz bands, and of 2 x 55 MHz in the 1,800 MHz, 2.1 GHz and 2.6 GHz bands.

The CMT stated in its response to the public consultation that the primary objective of the spectrum reallocation process should be the promotion and maintenance of a situation that would allow competition in convergent infrastructures, and thus requested a detailed analysis of the competitive situation that would result from the different options. In particular, the CMT considered that the tenders should be neutral

in relation to whether or not the tenders already have a presence in the market, thus allowing access to new players who currently do not have frequencies.

In the same vein, and although the tendering may enable the entry of new players, the existence is likely of other players that would not be able to access the resource. The CMT is of the opinion that open access to networks should be guaranteed to prevent resource limitation from causing a halt to service competition. The general obligation on all licensed operators to grant access to their networks under reasonable conditions to other electronic communication operators should be upheld—an obligation that should be introduced for new operating licences or when concessions are modified as a result of *refarming*. This would further the obligations imposed by the CMT in 2006 in market 15 (access and origination in mobile networks) concerning operators with their own networks, through which Mobile Virtual Network Operators (MVNOs) have been able to develop in Spain.

The CMT highlighted the importance of setting limits on the number of frequencies held by one operator, even opting for a stricter limit than the one proposed by the Ministry for frequencies to GHz (115 MHz between the FDD and TDD spectrums).

Regarding the secondary market, the CMT was in favour of its introduction for all bands dedicated to electronic communication services, in order to reduce the barrier to providing mobile services posed by the spectrum and, finally, to achieve its more efficient use. It was therefore considered essential to facilitate these exchanges by eliminating administrative control prior to such transfers or assignments, as long as minimum enforceable and established *ex ante* criteria were met, without prejudice to subsequent verification by the Administration.

In addition to the above, and in order to ensure effective and efficient use of the spectrum, the CMT recommended in its report to the Ministry of Industry, the introduction of concessionary obligations and regulatory procedures. Such procedures and obligations should be transparent, objective and proportionate in

order to ensure the voluntary or mandatory transfer or assignment of frequencies to third parties interested in using the spectrum, in cases where there is allocated spectrum but it is not used efficiently.

Lastly, the CMT opted for a mixed tender-auction system for the spectrum allocation, considering it to be the most appropriate procedure in terms of non-discrimination and transparency. In this system, the operators have to pass an initial training phase to verify that they meet a set of common minimum requirements and obligations, before subsequently entering the auction phase in which bids are the sole determinant of the allocation.

Report to the Second Vice Presidency of the Government and Ministry of the Treasury on the draft bill of the Sustainable Economy Law

In January 2010, the CMT received the draft bill of the Sustainable Economy Law. The comments of the CMT on this draft bill are limited to those aspects that directly affect the operation of the CMT as a regulatory body and of the telecommunications market in general.

Thus, the Sustainable Economy Law (LES) focuses on improving the quality of regulation, changing the composition and functioning of regulatory bodies and improving coordination between them. It also modifies the scope of universal service to include connectivity at a speed of 1 Mbps for functional Internet access, and introduces technology neutrality in the use of the frequency bands allocated to electronic communications operators to be able to roll out networks and standards to facilitate access to mobile high speed internet. Lastly, it designates the 800 MHz band, which was used by free-to-air television operators, to the provision of advanced electronic communications services. This assumes an improvement in the quality and speed of mobile network connections available to the public.

Improvement the quality of regulation

The draft bill establishes the overall objectives of the bodies responsible for regulation, either specific to a industry, or in the general area of the Spanish economy. Article 10 details the following:

The main object of the actions of the regulatory bodies is to watch for the proper operation of the regulated economic industry in order to ensure the effective availability and provision of competitive and high quality services for the benefit of the market as a whole and of consumers and users. To this end, the regulating bodies shall preserve and promote the highest degree of effective competition and transparency in the operation of the regulated economic industries [...].

The stated objectives are consistent with those established in the various directives of the electronic communications industry and also highlights the provision of competitive service and quality, which are monitored by the regulatory bodies. In the electronic communications industry in particular, and given recent developments, the CMT considers it appropriate to establish these objectives for the final consumer in relation to the quality and transparency of the market.

The principles that should guide the actions of the regulatory bodies are detailed in the draft bill and are as follows: necessity, proportionality, legal certainty, transparency, accessibility, simplicity and efficiency.

The draft bill reinforces the independence of the regulatory bodies, both with respect to industry players and to the Government itself. Thus, it dictates that no Executive member may attend meetings of the Board of the regulatory body, and no member of this body may receive orders either from industry players or from the Government itself.

While the legal representation of the body corresponds to its Chairperson, all regulatory functions correspond to the Board. In its report, the CMT suggested the broadening of the non-delegable functions of the Board, and including arbitration or issuing general instructions to industry players as non-delegable functions.

A reduction in the number of Board members from each regulatory body is proposed, leaving four directors and the Chairperson of the body, who will be also part of the Board. In its report, the CMT defends

a wider composition of the Board, made up of six members plus the Chairperson, in order to integrate advice from experts of different disciplines into the Board.

The increased transparency introduced by the draft bill of the Sustainable Economy Law deserves special attention. It is established that the Board of the body must publish the dispositions, agreements and reports that it issues. Attention is also given to the annual report, which must be submitted to the Government and made public, detailing the activities, objectives and achieved results of the body. A industry report should also be delivered, analysing the competitive situation in the telecommunications industry, the evolution of public players and the prospects of the industry.

The draft bill establishes a common framework for cooperation between different regulatory bodies. Attention is especially focused on the relationship between the industry body, such as the CMT in the telecommunications industry, with the cross-industry body, such as the National Competition Commission. A coordination mechanism is proposed based on annual meetings and the transmission of information and cases according to the powers of each one. In its report, the CMT proposes that this cooperation be respectful of the legally attributed powers to each institution.

Lastly, the draft bill proposes the reduction of the overall rate for operators, which finances the CMT, to one per thousand of gross operating revenues of the operators.

Changes in the management and allocation of the radioelectric spectrum

Chapter IV of the draft bill focuses on measures for the progress of telecommunications and of the information society. Most of this chapter is a transposition into national law of Directive 2009/114/EC and European Parliament Decision EC/676/2002, which allow the use of UMTS standards in the frequency bands initially allocated exclusively to the standard GSM. This liberalisation of spectrum use, in terms of

the technologies that can be rolled out, has come to be called technological neutrality. The aim is to allow liberty for market players to introduce technologies other than GSM, with the ultimate objective of promoting the extension of mobile broadband connection options. This not only allows, starting now, the roll out of the UMTS standard, but of any other, such as LTE (fourth-generation mobile), provided they can coexist with the standard GSM.

In its report, the CMT notes that, given the growth seen in the demand for connectivity devices for mobile networks, especially those that allow the use of mobile broadband, and especially taking into account the growing demand expected in the coming years, the Government's decision to make more spectrum available to market players to be used in the roll out of new mobile networks is very timely.

In addition to the above, another new feature is that the bands on which transfers of licences or assignment of rights for use of the public radioelectric domain (secondary business) were broadened, and now 900 MHz, 1,800 MHz, 2.1 GHz, 2.6 GHz and 3.5 GHz bands are included in this chapter.

The 800 MHz band, also known as the digital dividend, deserves special mention. This frequency band was used by free-to-air televisions until the migration to digital terrestrial television (DTTV), which meant the liberation of that portion of the spectrum for other uses. The Government decided, like the other 26 Member States of the European Union, to designate this spectrum frequency to the provision of advanced electronic communications services. This band is expected to be free by January 2015.

Broadband as a service included in the universal service

Another concept that modifies the LES is universal service, which, until now, included functional Internet connection among its components. The following is established in the draft bill (Art. 61):

Connection to the public communications network capable of functional Internet access, guaranteed by the universal telecommunications service, must allow broadband data communications at downstream speeds equal to or greater than 1 Mbps before 1 January 2011. This connection may be provided through any technology: wired or wireless, fixed or mobile.

The minimum download speed of broadband connectivity is broadened, therefore, with respect to what existed before, and technological neutrality is introduced in the provision of this service, which can be provided with either fixed or mobile technologies. The Government also undertakes to ensure that the minimum connection will be affordable and reserves the power to establish maximum prices for such purpose.

The CMT noted in its comments, first, the positive side of this measure in that it ensures, wherever the citizen may reside, access to services that are not yet available in a significant minority of locations in Spain. The CMT highlights the distinction between the provision of broadband service and the availability of access that enables a connection with a download speed of 1 Mbps, since the latter that is the subject of regulation in this regulating instrument.

The CMT also highlighted the potential funding mechanisms for this broadening of universal service. It suggests the possibility of funding through public funds directly destined for final consumers in the form of direct subsidies to individuals or households identified as eligible for this service.

In an analysis of the Spanish situation, the CMT argued that there is a varied number of broadband connection offers at speeds of 1 Mbps, some of them bundled together with domestic voice service. The danger that the imposition of a maximum price could have on a service in which there is some competition was also argued.

The Sustainable Economy Law was finally approved in Congress on 4 March 2011.

4.9. Enquiries and other measures

In the area of audiovisual communication services, the CMT adopted a series of resolutions during 2010, the most noteworthy of which are outlined below. The resolutions relate to the funding of the Spanish Radio and Television Corporation, as well as the creation and start-up the State Registry for Audiovisual Communication Service Providers.

On the other hand, in 2010 the CMT clarified the criteria required for registration in the Register of Operators of those electronic communications activities undertaken by commercial establishments, and detailed its position regarding the application of current sector regulations by means of the resolution of enquiries raised by electronic communications operators during this period.

4.9.1. Audiovisual communication services

Resolution setting the criteria for determining the geographic range of activities of electronic communications operators for the purposes of the provisions of Article 4 of Royal Decree 1004/2010 of 5 August, which develops the Spanish Radio and Television Corporation Funding Law 8/2009 of 28 August

Law 8/2009 on the Spanish Radio and Television Corporation Funding was approved on 28 August 2009. This standard establishes a funding system for the cited corporation based on a public revenues mechanism arising from the State Budget, supplemented with a financial contribution paid by the electronic communications operators (0.9%) and providers of audiovisual communication services (1.5% or 3%). It also allocates a percentage of the rate from the radioelectric spectrum for this purpose.

The law provides that an electronic communications operator must make the cited contribution when it is registered in the Register of Operators of the CMT for

the provision of any of the following services: fixed telephone service, mobile phone service or Internet access service provider, provided it has a geographic scope of action at the state level, or higher than the autonomous community level and, in turn, provides a service that is audiovisual or that includes some form of advertising.

The regulations developed by this law were approved by Royal Decree 1004/2010 of 5 August (hereinafter CRTVE Funding Regulations). It provides, among other things, a presumption of statehood or super autonomy in providing electronic communications services, unless the CMT, at the request of the interested parties, issues a resolution stating otherwise.

In anticipation of the above and to ensure the legal security of the operators, the CMT approved the resolution of 14 October 2010, which sets the criteria for determining the geographical scope of action for electronic communications operators for the purposes of the provisions of Article 4 of the CRTVE Funding Regulations.

The resolution determines that electronic communications operators whose gross operating revenues come from at least 75% of clients domiciled in a single autonomous community will be considered, solely for the purposes of the provisions in the CRTVE Funding Regulations, as operators with a geographically limited scope of action.

In that resolution, the CMT also provides some guidelines that allow operators to use the most convenient means of proof in order to prove the above-mentioned percentage, without prejudice to be able to use other means of legally valid evidence. To do this, and considering the proportionality and reasonableness of the measure, two evidentiary mechanisms are defined that vary in function of the gross operating revenues reported by operators in relation to the overall rate of operators. On the one hand, those operators whose reported revenue is less than five million euros may simply submit a sworn declaration as to the source of their revenue to establish their geographical scope of action.

On the other hand, if revenues are above that amount, operators must submit an audit report performed by a recognised entity registered in the Official Registry of Auditors of the Institute for Accounting and Auditing that certifies this circumstance.

Resolution creating the State Registry for Audiovisual Communication Service Providers

Through the resolution of 10 June 2010, the creation of the State Registry for Audiovisual Communication Service Providers (State Audiovisual Registry) was approved. This registry is created on a transitional basis until the effective constitution of the State Audiovisual Media Council. The resolution determines the minimum content that prior communications must have under Law 7/2010 of 31 March, the General Law on Audiovisual Communication, and that entities wishing to provide audiovisual communications services without use of the radioelectric spectrum must undertake in order to be registered in that registry.

In connection with the creation of the State Audiovisual Registry, the CMT also performed, through the resolution dated 21 October 2010, the official registration in it of the holders of expired licences for the provision of audiovisual satellite television communication services and licences for the provision of audiovisual communication services by cable, in accordance with the provisions of Law 7/2010. Also, on the same date, the CMT issued the resolution which brought about the cancellation of the registration in the Register of Operators of networks and electronic communications services, of those services that, after the entry into force of Law 7/2010, are considered as a television audiovisual communication service, despite their subsequent official registration in the State Audiovisual Registry.

4.9.2. Criteria for the consideration as registrable in the registry of operators of electronic communications activities carried out by business establishments

In order to unify the criteria that determine the nature and handling of electronic communications activities conducted by business establishments, the resolution

of 7 September 2010 analyses the desirability that such activities be reported to the CMT for the purpose of their registration in the Register of Operators. In particular, the wireless networks installed in the interior of these establishments and the Internet access service provided to their customers inside the premises are analysed. To do so, there are two possible scenarios:

- The Internet service provider (ISP) provides services directly inside hotels, cafes, etc., to the customers of such establishments.

In this case, it is understood that there is a direct contractual relationship between the customers or guests and the ISP, which is responsible for transporting the signal and for laying down the conditions of the provision of the electronic communications service. In these cases, the owner of the hotel, cafe or restaurant is not involved in the contractual relationship and, if involved, does not hide that the electronic communications service provider is another entity (the ISP). Therefore, in this case, only the ISP would be an electronic communications operator.

- Case in which there is no direct relationship between the ISP and the consumers of these establishments, but the business establishment provides the Internet access service to its customers.

The hotel or establishment installs the equipment required for a wireless connection to allow its customers to use and enjoy Internet access service—a service previously contracted with an ISP. Typically, the service consists of leaving Internet access open and charging a small fee for the service that is billed to customers along with the other services rendered by the establishment. In these cases, the business establishment will not be considered an electronic communications service provider or reseller, provided it meets the following conditions:

- The owner of the establishment is not liable to end users for the transmission signal that is the service. In general, the end users are aware that the actual service provider is an electronic communications services operator and not the owner of the establishment, who also does not sign a contract to provide services to users.

- The telecommunications activity is auxiliary to the main activity that the establishment provides to its customers, even when it receives a payment for such service.
- The recipients of the service are only the people who have the status of customers of the establishments, which make up a very small group of end users. The scope of service coverage is restricted to inside the premises where these establishments operate, thus the service is not available to the general public.

4.9.3. Answering enquiries made by operators

Resolution which answers the question raised by Orange and Vodafone on certain aspects of the rate for use or special use of the local public domain that the mobile operators pay

Mobile telephony operators have filed separate appeals against local authorities before the judicial review courtrooms of the Spanish courts. Disputes have arisen about the payment of the fee for the private use or special use of local public domain performed by these operators to provide their mobile electronic communications services, under one of the two ordinance models set by the Spanish Federation of Municipalities and Provinces (FEMP). Orange and Vodafone requested that the CMT rule on a number of issues regarding the levying of such tax.

In its resolution of 7 September 2010, the CMT analyses the methodologies for calculating the rate established in each of the two ordinance models of the FEMP and evaluates the possible use of local public domain undertaken by mobile network operators in each section of the network (access or backbone, depending on the type of roll out used and the services rendered).

In that resolution, regarding the various points raised by Orange and Vodafone, it concluded that:

- While the use of local public domain by mobile operators depends on several variables, such use is less intensive and extensive than that of fixed operators. This is mainly due to the use of wireless technology for connecting most of the elements that make up part of its access network, as well as less use of their networks in traffic for fixed-to-mobile or mobile-to-fixed calls. For this type of call, the networks of the interconnected origin/destination fixed operator participate in this traffic.

It may also be the case that in a large number of municipal areas, mobile operators, on account of the deployment plan, lack a network component, whether their own or that of a third party, for occupying the local public domain. In these cases, the mobile operator, on not complete the taxable fact subject to the rate for use or taking advantage of the local public domain, would not be considered a passive subject of the above-mentioned rate, and for this reason it could not be levied.

- The use of data on a national scale, such as the extracts from the annual reports published by CMT, could inevitably involve variations in the exact or estimated calculation of the market value of the utility derived from the use of the local public domain, obtained by the mobile operators in each particular municipal area.

Nevertheless, some recognition is given for the difficulty entailed by providing a level of geographical unbundling of the corresponding revenue categories for each operator, which must be considered for the correct levying of the rate by the municipal areas.

- The methodology used by the ordinance models feature errors in determining the parameters to be taken into consideration in calculating the taxable based on the market value of the utility. This is exemplified by the double accounting of the revenue from calls from mobiles to fixed (ordinance model type 1) or the subjection of revenue not directly taxable to the pro-

vision of mobile telephony services (ordinance model type 2), which makes revision necessary.

- As a result of the double taxation which could be produced as a result of the methodology used by the ordinance models, it is considered that there is some justification for the request made by the mobile operators concerning the possible deduction of the taxed revenue and the costs for access and interconnection incurred by the operators for providing mobile communications services.

- based on the analysis carried out on the methodologies used by both ordinance models proposed by the FEMP for determining the taxable based of the local rate, it is possible to conclude that, using these models, they are taxing a part of the gross operating revenue subject to the general rate for operators regulated by the General Law of Telecommunications.

Resolution made in response to the consultation proposed by the Velevi entity in relation to determined aspects in relation to occupying infrastructure for the deployment of fibre optic cable

In a resolution on 22 July 2010, CMT responded to various questions raised by the Velevi company. For the purpose of reaching a development located in Parque del Este in Vélez-Málaga (Málaga), Velevi ran its own fibre optic cable through an empty channel measuring about 300 metres. Velevi indicated that the Town Council of Vélez-Málaga had demanded the removal of the section of fibre optic cable installed, this being a prerequisite for the town council to receive approval from Telefónica (as the consultant firm involved in the construction) for the telecom channels in place as part of this development.

The resolution analysed, on the one hand, the legal compliance of the action of the town council of Vélez-Málaga, on the basis of which the removal of the fibre optic installed by Velevi had been demanded; and, on the other hand, the possibility of applying the conditions imposed by CMT in the resolution of markets 4 and 5 to the particular case, in terms of access to the passive infrastructure of Telefónica.

In terms of the first question, it was concluded that the negative response from Telefónica to certify or give ap-

proval to the infrastructure is not a result of private or discriminatory, although its negative response is based on the fact that the Velevi company occupied the channels in a unilateral fashion and without requesting the proper authorisation. It was not possible to determine the need for certification on the part of Telefónica as demanded by the consortium which, *a priori*, resulted in unfair treatment in the access conditions among operators, particularly given that this certificate was required of all operators planning to use the channels.

In terms of the second question, in response to the consultation, it was considered adequately proven that the town council of Vélez-Málaga, as the owner of the public domain, and under its powers in terms of urban development (in accordance with articles 28 and 29 of the General Law of Telecommunications), it had considered it convenient that the execution of the development project would provide for the sufficient capacity so digital communications operators would receive their own municipal authority to occupy the public domain, and both Telefónica and Velevi could deploy their own respective networks. For this reason, the right to use the channels of the Vélez-Málaga does not exclusively belong to Telefónica, but each operator could use this right to the infrastructures which the urban development project had envisaged for each one.

In relation to the economic conditions which Telefónica could demand, the resolution considered it proven that Telefónica only provided consultation in the interest of installing the passive infrastructure, from which it is inferred that it incurred no cost for the installation. For this reason, if the prices established as part of the MARCo offer for the access to the Telefónica passive infrastructure, the operator would obtain economic benefits which it was not entitled to, since it incurred no cost whatsoever. In conclusion, CMT decided that the Velevi company had no need to resort to occupation procedure established in the resolution of markets 4 and 5, since it was only the local administration which, within the scope of its powers, created the obligation of sharing its infrastructure.

Resolution in response to the consultation formulated in response to the consultation formulated by a community of owners on providing the Internet access service as part of same

A group of owners put it to CMT whether the fact of deploying a wireless network (using Wi-Fi technology) in the shared areas to provide Internet access services, to be paid for by the group fees, should be considered a digital communications activity and, for this reason, could be notified to the Register of Digital Communications Services and Networks Operators.

In the resolution of 7 September 2010, the CMT Board of Directors concluded that the owners community need not inform about its activity, given that Internet access was not available to the general public, the number of users was not huge, owners met the costs of the activity without profit and the group assumed no responsibility for providing the service nor offered a customer care service.

In any event, the resolution also specifies that the existence of other scenarios which could feature some of the characteristics previously mentioned, or even in the case where these conditions were extended to a greater scope of users or applied on a broad scale, should be analysed while taking into consideration each particular case.

Throughout 2010, CMT also resolved that following queries:

- Resolution of 11 March 2010, in response to the consultation formulated by the town council of Villanueva de Tapia on the implementation of digital terrestrial television (DTTV) in its municipal area.
- Resolution of 29 April 2010, in response to the consultation formulated by the Orange company on supposed irregularities in the public request for tenders arranged by the local authorities for providing digital communications services.
- Resolution of 1 July 2010, in response to the query submitted by Teledonosti on specific aspects related with the management activity digital multiples.
- Resolution of 28 October 2010, in response to the query submitted by the Formigal Development Collaborator company based on the need to inform of the provision of a private Wi-Fi network.

4.10. Relations with users and agents in the industry

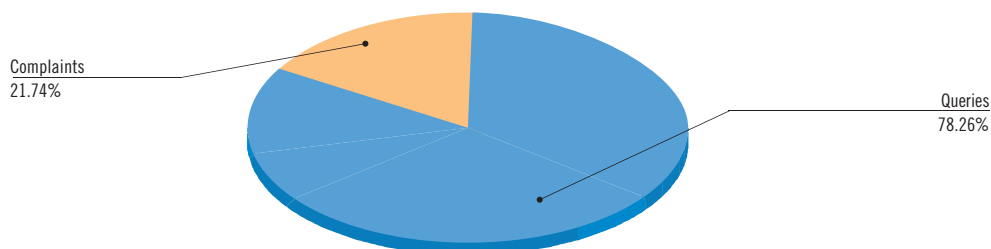
The policy of protecting consumer and user rights has developed in a positive way from the first regulatory framework, the Law on Telecommunications Management, to the current Telecommunications Act. This law stipulates that among its goals, in relation to providing telecommunications services, defending user interests and safeguarding constitutional rights.

This special protection for the user of digital communications services must be supplemented by the protection provided to all users under the general legal rights of consumers, whether under the General Law for Consumer and User Protection or through the legislation created by autonomous communities in this regard.

In terms of users, EU Parliament and Council Directive 2009/136/CE of 25 November 2009, considers that end users must have the capacity to decide the content which they wish to send and receive, as well as opting for services, applications, and any hardware and software support which they care to use for this purpose, without prejudice to the need for maintaining the integrity and security of the networks and services. Moreover, faced with the growing importance of digital communications for consumers and companies, it must provide users with complete information on any limitation which the service or network provider imposes on the use of the digital communications services.

To advise the public and inform them about their rights under current legislation, and in order to have specific knowledge of the benefits which carrying out their activity may involve, within the scope of their powers, CMT also has a department for relations with users and industry agents, which was begun in 2006.

TYPES OF COMMUNICATIONS



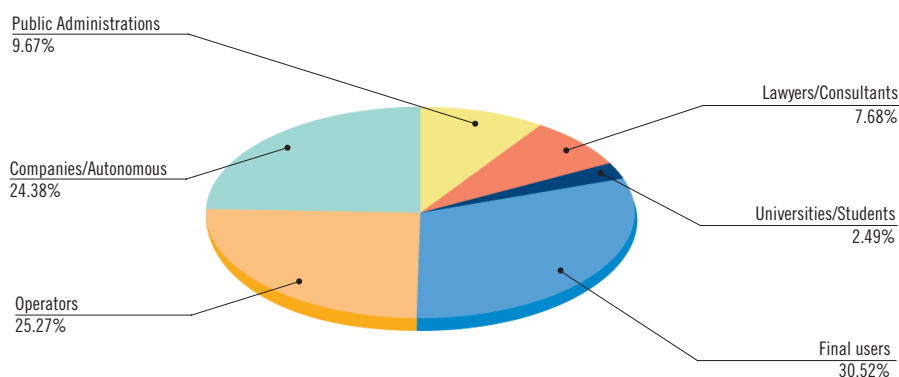
Source: CMT

Of all communications received in 2010, 21.74% were complaints based on faults in the digital communications services. The remainder 78.26% consisted of queries of varying nature.

Under the provisions of current regulations on consumer and user rights protection, CMT is not the competent body to intervene in any questions which

may arise between users and operators. For this reason, when a complaint or claim is received, the user is informed of his or her rights and on how to proceed, first of all, with the operator and, subsequently, if he or she does not agree with the response or has not received any type of solution to his problem from the competent bodies, depending on the type of complaint formulated.

TYPES OF USERS

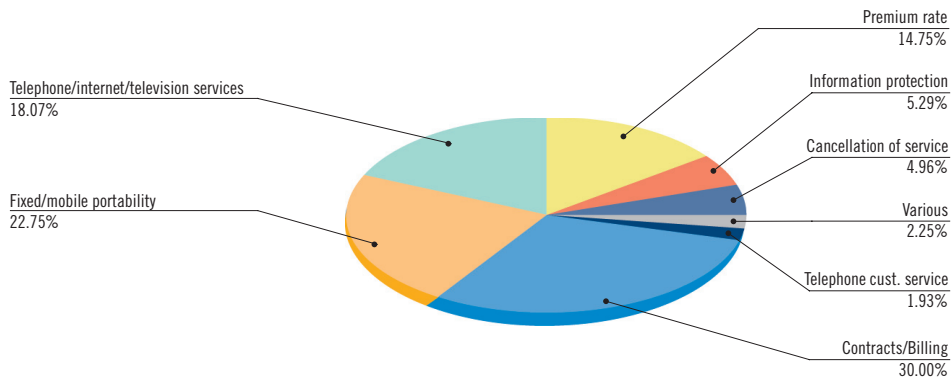


Source: CMT

This special department not only deals with end users, but also operators, companies, freelancers, lawyers,

consultants, universities, students and various public administrations.

COMPLAINTS



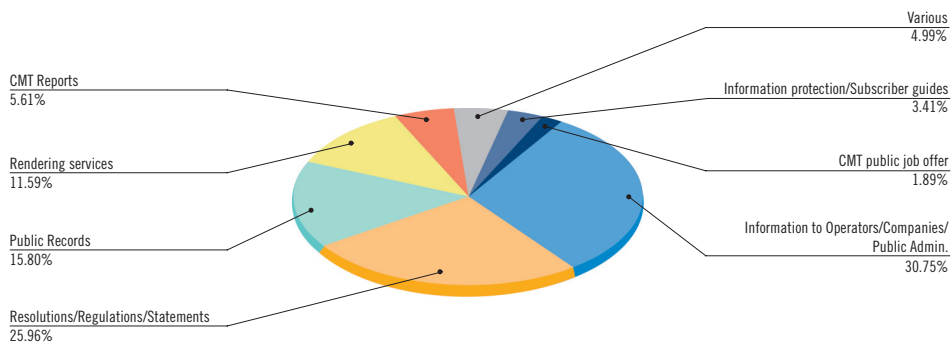
Source: CMT

Although the complaints submitted by the end users concern very diverse matters, the diagram below groups them by category, depending on how they concern relations between operators and customers: billing, contracts, and disconnection request for the digital communications services. Complaints related with digital communications services are also handled: irregularities in portability, telephone service and Internet, etc.

Complaints related with irregularities in the billing and contractual non-compliance were greater, followed by

portability irregularities, particularly with mobile telephony. In an excessively high percentage compared with previous years, complaints were also received with the provision of additionally priced services (Premium messages), largely for subscription services not specifically requested by the users, which implies a high cost for the person receiving. Under the “various” header, complaints which do not bear a specific relation with digital communications services are grouped, such as those submitted due to the lack of guarantee in the telephone services, and the refusal of operators to free up a mobile handset, etc.

QUERIES



Source: CMT

The complaints submitted by users dealt with very diverse matters; for this reason, they have also been

grouped into categories, depending on the type of information requested.

The most relevant queries feature those submitted by operators, companies and public authorities, based on aspects such as the notification of commencement of activity, payment of taxes for services provided, public calls for tender, etc. Regulation-related queries are included in the sections of resolutions and file processing. Queries related with public records are also featured, the management of which CMT is responsible for; those related with digital numbering, operators and parameters of DTTV; those related with providing digital communications services, such as offers and rates for services, contracts, billing and portability.

4.11. Information Systems

During 2010, the CMT Information Systems Management department focused its activities on two main areas: for one, on improving digital administration processes, and, also, on providing and constructing the necessary systems infrastructure to enable the transfer of CMT to the new headquarters.

Within the sphere of digital administration, completed tasks focused on the deployment of internal improvements in the processes, together with joint work on broadcasting and promoting to encourage the use of digital registers, while placing a special emphasis on subscribing to the digital notification system, for all communications on the resolutions of CMT, on the part of the operators.

It is important also to highlight the fact that during 2010 certain new consultation functions were incorporated into the official website.

Aside from this major activity, a whole series of relevant interventions in relation to the improvement and construction of systems, including the changeover of email platforms.

For the construction of the new offices in Barcelona and for the purpose of providing CMT with the necessary infrastructure, the Systems department had to undertake the following projects: cabling, network electronics, data processing centre, audiovisual, video conferencing and transfer.

Improvement in the Digital Administrations processes

In 2010 the internal digital signature system was updated, including an important modification in the applications, for the purpose of digitally incorporating all delegated CMT procedures into the Board of Directors procedures. With this expansion, all procedure associated with CMT instruction tasks could be digitally processed in their entirety, which has meant a reduction in processing times.

These changes have also made for a significant advantage for operators subscribing to the digital notifications system, by enabling to receive immediately the resolutions of CMT, thereby eliminating the delays caused by sending documents by normal post.

The following series shows the growth in the incoming and outgoing register of CMT in the last three years:

INCOMING AND OUTGOING FOR THE CMT REGISTER

IN/OUT REGISTER	2010	2009	2008
Total incoming	11,359	10,918	10,896
Present	9,683	10,237	10,863
Digital	1,676	681	33
Total outgoing (notifications)	7,156	6,329	6,615
Present	6,773	6,322	6,615
Digital	383	7	0

Source: CMT

Internet page

As with each year, various new sections have been added and continuous changes have been made to existing sections; nevertheless, the most relevant aspect of 2010 has been the introduction of the portable query by mobile. This new service from CMT, which allows each visitor to find out which operator a number belongs to in real time has generated great interest and an high number of queries.

Changeover of email platforms

In 2010 the entire email platform was migrated to Microsoft architecture. In this way, the service continues to well integrated both for email users (Outlook) and user with mobility.

At the same time, and within the framework of this project, a new virtualisation platform was implemented for more flexible management of systems resources, enabling a far more agile response to needs arising day by day.

Wiring

In relation to the construction of the new offices, a cabling project was completed in the new building, for the purpose of equipping it with two new independent cabling systems. This has provided only two cabling structures: one for electrical wiring, and the other for data wiring. As a result, in the first case, the low tension installation was established first to provide an electrical service to the organisation, and, secondly, a structure cabling system was implemented for the purpose of integrating all data signals (voice, data, video and signalling). This cabling system is unique for the entire organisation and gives structured support to the connection of all elements with data signals, which may include phones, computer equipment, security equipment, input lathes, access controls, security cameras and communications intercoms.

Network electronics

Network equipment implemented has been designed to offer the maximum service in terms of availability, performance and security, for which reason access equipment available on each floor have been introduced and are connected via redundant 10G routers. The main services provided include: separation of traffic by VLAN, dynamic provision of IP, IP telephony, business wireless network and ToIP.

Data processing centre

The new offices has been equipped with a data processing centre (DPC) based on the characteristics described under the Telecommunications Infrastructure Standard for Data Centres (TIA-942), with a TIER 2 classification.

Audiovisual

The audiovisual project has provided CMT with all the audiovisual equipment necessary both for auditorium – with a maximum capacity of 330 people – as well as the Can Tiana room – with capacity for 120 people – and multiple meeting rooms available.

Video conferencing

The new offices have been equipped with video conferencing, selected to cover the needs of all rooms, enabling IP and RDSI video conferencing.

The system is made of fixed equipment for the auditorium and the Can Tiana room, two mobile devices which can be connected to any network point and the necessary electronics for interconnection.

Transfer

Transfer tasks were undertaken with the intention of guaranteeing continuous functioning of the services, for which reason the following stages were carried out:

- Configuration of the technical cabling infrastructure, CPD, LAN and Wi-Fi networks, telephony, video conferencing and audiovisual, etc.
- Preparation of work equipment for the transfer.
- Installation and labelling in the new offices.
- Adaptation of the infrastructure while cohabiting between both offices:
 - Double communications link between Torre Mapfre and the new offices.
 - This link made it possible to maintain the digital numbering of incoming calls to the branch exchange, which were then rerouted to Torre Mapfre or the new offices depending on the destination.
- Training.
- Transfer and contingency both of the server and telephony numbering.

5. EXTERNAL RELATIONS

5.1. External projection

This year, CMT maintained its commitment to encouraging the debate on the telecommunications industry and to publicising its regulatory activity through numerous external projection actions. In this respect, among other activities, the 3rd Internal Telecommunications Meeting was organised. This time it focused on telecoms networks for a new digital age and continued with a communications strategy fully integrated with social networking or Internet 2.0.

On 28 and 29 June, CMT organised the 5th Encounter on Telecommunications and Local Government in Barcelona, in conjunction with Localret. On this occasion, the debate focused on the newsletter approved by CMT setting the conditions which the local authorities had to meet in order to provide services and operate digital communications networks.

On 5 July the Annual Report was presented before the Senate. The Chair and CEO of CMT went through the main figures recorded in the industry in 2009.

On 22 October, two weeks after inaugurating the new CMT offices in Barcelona, the official blog (<http://blogcmt.com>) celebrated two years of serving as a reference point for the media. It has achieved a publication rhythm of almost one article per day for each working day, while each article generates an average of more than eight reader and user comments, which are handled and responded to personally.

New features on BlogCMT.com, monitoring of current affairs in the industry and the concerns of users are also channelled through Business Twitter (<http://twitter.com/cmtblog>), which has more than 3,000 followers.

Wikitel, the specialised information tool sponsored by CMT, totalled more than 400,000 single visitors over the year. This figure included more than three quar-

ters from Spanish-speaking countries.

Before finishing the year, on 22 and 23 November, CMT celebrated its 3rd International Meeting at its new offices, which is a testament to the new international forum for debate between the industry and regulators. The vice-president of the European Commission and the European Commissioner Competition, Joaquín Almunia, inaugurated the event, which also hosted councillors and directors from regulatory bodies and the most representative European operators. The single digital market, the new generation networks and the neutrality of the network formed the focus of discussion at this year's event.

CMT also carried out specialised training activities. This was the case of the seminars on the implications of the telecom packet, which took place on 28 April in collaboration with the Supreme Court of Spain and the Association of the Administrative Supreme Courts and European Union Councils of State.

5.2. National relations

Associations representing people with disabilities

In 2002, CMT signed up to a collaboration agreement with the Spanish Committee of Representatives of People with Disabilities (CERMI) for the purpose of promoting initiatives that facilitate access to digital communications services on behalf of persons with some form of disability.

In the framework of this collaboration agreement, CMT took part in the 2010 14th Biennial Conference of the International Society for Enhanced and Alternative Communication (ISAAC), which took place in Barcelona in July 2010. This conference dealt with how to improve communication for people with special communications needs, and the latest advances and developments in the field of enhanced alternative communication (EAC).

At this event, and based on the agreement with CERMI as mentioned above, CMT agreed to participate in the V Jornadas Amadis 2010, which took place on 18 and

19 November at the campus of Universidad Carlos III in Madrid, and was organised by the Spanish Centre for Subtitling and Audiodescription (CESyA) and the Royal Disability Trust. These seminars focused on digital terrestrial television (DTTV) and the future of subtitling and audiodescription techniques in this medium, while the current trends in research, development and innovation in all aspects related with accessibility for people with some form of sensory disability were also presented.

As to the information collect by CMT as part of the 2010 Annual Report in relation to the universal service, at the end of the year, there were 1,886 public telephones adapted for disabled persons and 29,677 telephones of reduced height adapted for persons using wheelchairs. In addition, the universal service supplier issued a total of 2,893 bills in Braille.

In relation to the date on the accessible hours broadcast on television, it should be noted that in 2010

continued to implement the obligations in terms of accessibility contained in article 8 and in the fifth transitional provision of General Law 7/2010 on Audiovisual Communication. In accordance with the information collected by CMT in preparing its 2010 Annual Report, operators acting in the national territory and the autonomous communities, broadcast a total of 93,698.1 subtitled hours over the course of the year, including 10,731.4 corresponded to live subtitled content. In turn, this group of operators broadcast 1,650.4 hours of signed content and 881.2 hours of audio description content for persons with sight disability. On this last point, it is noted that the offer of audiodescription contact was expanded in 2010 and there were five operators that were offering audiodescription hours, compared against two in 2009.

The following table contains information corresponding to the accessible television programming broadcast in 2010 by the operators in national sphere and the autonomous community public television stations:

OPERATOR*	2009			2010		
	SUBTITLED	SIGN LANGUAGE	AUDIODESCRIPTION	SUBTITLED	SIGN LANGUAGE	AUDIODESCRIPTION
CORPORACIÓN RTVE	16,196.4	35.4	78	20,822	54.3	66
GESTEVISIÓN TELECINCO	8,819			11,498	32	
ANTENA 3 TELEVISIÓN	8,209.6			7,729.8	2	2
SOCIEDAD GESTORA DE TELEVISIÓN NET TV				6,086	1	11
GESTORA DE INV. AUD. LA SEXTA	3,566			5,194		
SOGEABLE	2,860			4,236		
VEO TELEVISIÓN	1			1		
TELEVISIÓN PÚBLICA ANDALUCÍA	4,620.7	257.3		6,785.5	552.1	17.2
TELEVISIÓN PÚBLICA ARAGÓN	638.2	7.5		857.5		
TELEVISIÓN PÚBLICA ISLAS BALEARES		40			25	
TELEVISIÓN PÚBLICA CANARIAS	1,872.5	1.5		1,699.5	372.8	
TELEVISIÓN PÚBLICA CASTILLA LA MANCHA	3,512.8			3,816		
TELEVISIÓN PÚBLICA DE CATALUÑA	14,189	128	451	15,732	166	785
TELEVISIÓN PÚBLICA CA. VASCA	973			1,420		
TELEVISIÓN PÚBLICA EXTREMADURA	123.6	99.1		1,180	103.8	
TELEVISIÓN PÚBLICA GALICIA	129	111		909	247	
TELEVISIÓN PÚBLICA VALENCIA	2,470.7	48.4		3,602.2	50.4	
TELEVISIÓN PÚBLICA MADRID	3,101			2,130		
TELEVISIÓN PÚBLICA MURCIA		34.5			44	
TOTAL	71,282.0	762.7	529	93,698.1	1,650.4	881.2

* The information in the table refers to all the channels of each operator

Agreements for operating the data sources and carrying out studies

A joint operation agreement was signed in 2008 between CMT and Red.es in relation to the Information Technologies and Communication in Spanish Households database. This is a database that collects the actual behaviour of households and individuals in relation to contracting and consumption of end services, and also gathers socio-economic information and details about households for improved measurement of penetration, consumption and determining factors most relevant to demand, as well as how to detect unfulfilled claims.

Over the course of 2010 this database has been used for different reports carried out and as proof in decision-making. Moreover, a follow-up meeting took place between institutions which signed the collaboration agreement, during which an agreement was reached on the introduction of improvements and updates to the survey.

In 2001, CMT signed a collaboration agreement with the main payment system entities operating in Spain – Servired, Sistema 4B, Sistema Euro 6000 – whereby these companies would provide data on e-commerce transactions. CMT prepares a quarterly report, which is then published, based on the volume of invoices and transactions completed, with a breakdown of the growth in e-commerce by business code and the place of origin and destination of the transaction. Over the course of 2010, the classification of businesses used was updated, based on the National Accounting business classification prepared by the INE in gathering new transactions with greater precision, which has grown in importance over the years.

Agreements with Universities

Under the collaboration agreement between the Barcelona Graduate School of Economics, the Universidad Pompeu Fabra and the CMT, another year of development took place focusing on the seminar, jointly organised by the three institutions, entitled Competition and Regulation. The following sessions took place over the course of 2010:

- Net Neutrality. Pietro Crocconi (OFCOM and Warwick University).

- Upstream vs. Downstream CO2 Trading in Electricity Markets: What is the Cheapest Way to Sustainability? Prof. Benjamin F. Hobbs (Johns Hopkins University).

- The effects of lower mobile termination rates on retail price and demand. J. Scott Marcus (WIK, Berlin).

- Aftermarket power and basic market competition. Prof Luis Cabral (IESE Business School).

The Universidad de Barcelona, as part of the collaboration which has been taking place since 2001 based around the Masters in Public Service Regulation, organised a series of sessions with CMT focusing on regulation and competition in the digital communications industry. The Masters audience was largely made up of regulation agency professionals from Latin America and Europe. Moreover, CMT also hosts two Masters students as interns for two months, while they are working for a short spell in one of the CMT departments.

CMT has collaboration agreements with various institutions to offer recent graduates or university students internships in one of the organisation's departments. In this regard, the relationship was strengthened with the Universidad Pompeu Fabra in Barcelona with the signing of a specific collaboration agreement in the area of the Masters in Public Law.

In 2010 CMT took on board a total of 16 interns, 12 of which took part in the Citius programme of the Fundación Universidad-Empresa. Thanks to this programme, university graduates attending a postgraduate course can also do a 12-month internship in the organisation. Also, out of the total interns incorporated in 2010, seven completed internships in Studies department, four in International, one in Systems, one in Communication, one in Legal, one in User Relations and Services, and one in Operations Regulation.

In January 2011, a collaboration agreement was signed between the School of Telecommunications Engineers of the Universidad Politécnica de Cataluña (UPC) and CMT to create a CMT-UPC chair in Innovation and Prospecting in the Market of Digital Communications, for the purpose of promoting regulation in the university sphere and to promote activities in training, research,

transfer of results and scientific disclosure relating to these markets and their development.

The activities planned for 2011 are based on training actions, both at the UPC, and given by CMT professionals for the purpose of publicising the regulation of these markets, as within CMT itself, with training given by UPC teachers to employees of the Commission to update knowledge in the technical area of information technologies. There are also plans to create a prize for research work carried out at UPC, under shared control by a CMT professional. The agreement also opens up the possibility of awarding end-of-degree grants to students who taking their final year of studies at the School of Telecommunications at the UPC.

5.3. International relations

Body of European Regulators for Electronic Communications (BEREC)

- The creation of BEREC

BEREC - or ORECE, as it is known in Spain - replaces the Group of European Regulators (GER) as the platform for national regulation authorities (NRA) to ensure the consistent application of the Community regulatory framework. As for the functions of the Group, it should be noted for its consultancy services for the European Parliament, Commission and Council in matters related with digital communications, as well as its power to issue opinions on the measures proposed by the European Commission, which do not have a binding character, although they must be taken into account insofar as possible. BEREC was created on 28 January 2010 with the celebration of the inaugural plenary meeting of the Board of Regulators and the Bureau Management Committee in Brussels.

John Doherty, chair of the Irish regulators (COMREG) was elected president of the Board of Regulators for 2010. Two vice-chairs were also appointed to the Board: Mattias Kurth, outgoing chair of ERG, controlled

by the German regulator (BNetzA), and Chris Fontajin of Holland, chair of OPTA, who, moreover, will chair the Board of Regulators in 2011. The chair of CMT, Reinaldo Rodríguez, was elected vice-chair of BEREC.

- Structure of BEREC

The regulations of the organisation create a double structure for the community entity, composed of the following bodies:

- BEREC, an independent body, without legal character, which is given the responsibilities established under the regulations. It is made up of a Board of Regulators, formed by the chairs of the ANR, in which the European Commission takes part as an observer. The chairs of the 27 EU regulators participate in BEREC, and their activity will be organised in working groups formed by national regulatory experts.

- The Bureau, an organ built into the community framework and endowed with a legal character, which carries out functions of administrative and personal support for BEREC.

The year 2010 saw the inauguration of the BEREC office in Riga (Letonia), as well as the first personnel contracts. The first step was the election of the director, the person responsible for managing the Bureau. Moreover, the Bureau will be formed by community personnel, acting as temporary and contractual agents, which will gradually join through public selection processes, and by proven experts from national regulators.

Activities of the IRG/BEREC in 2010

The BEREC working programme for 2010 is based on the IRG/GER working programme, previously developed under the need for this transfer. As the main objectives, the programme focuses, on the one hand, on ensuring the continuity of the work developed by the IRG/GER in 2009. On the other, it is also centred on preparation work with a view to the arrival of the new regulatory framework for digital communications.

In this programme, BEREC established a series of priority working areas:

- Revision of the regulatory framework.
- Regulation of *international roaming*.
- NGN/NGA development.
- Universal Service
- Control and monitoring of common positions.
- Work lines of IRG/ERG

The ERG's operating structure is organised through Expert Working Groups which meet periodically to work on the activities defined in the annual work plan. The outcome of these discussions is normally given in documents agreed by the Project Team and are published on the ERG web page (www.erg.eu.int). Further, the managers of the International areas meet every quarter to evaluate the progress of the working groups in the denominated contact networks and to prepare the documents for the plenary meetings in which the presidents of each NRA approve the final texts.

- Work groups of IRG/BEREC in 2010

- Benchmarking EWG

The CMT chairs the Benchmarking EWG, a working group dedicated to preparing studies and comparisons on the development of electronic communication markets in the EU.

In 2010 the Benchmarking EWG continued its collaboration with the Organisation for Economic Cooperation and Development (OECD) and the Electronic Communications Committee (CoCom) to develop a joint methodology for measuring the penetration of mobile broadband in the European Union. This initiative, which starts from the CMT has a significant scope after the announcement that this indicator will be used by the European Commission and CoCom for handling the statistics of implementation reports and on the development of broadband in Europe.

The Benchmarking EWG has also initiated a study on measuring mobile broadband prices. The objective is

to establish the criteria for developing a methodology on the movement of these prices in the EU. On the other hand, the Benchmarking EWG has continued to prepare and publish its six monthly reports on the development of fixed and mobile termination rates which have become a reference in the industry. As the institute chairing the group, the CMT has lead the processing, evaluation, development and other tasks related to these reference studies.

- Convergence and Economic Analysis EWG

Together with the French regulator (ARCEP) CMT co chairs this BEREC working group. The Convergence and Economic Analysis EWG specialises in analysing different aspects of the electronic communications market from the economic point of view as well as the regulatory implications of the convergence of networks and services. The studies and reports prepared in this working group are a key tool for analysing markets in the national regulation authorities making up BEREC.

Throughout 2010 the working group tackled various current themes with very relevant implications in the development of the markets for electronic communications and competition between operators. The CMT led the regulatory working areas that focused on the implications of the analysis of self provision markets of wholesale services, bundling practices, the specific characteristics of the analysis of markets for business services, the regulatory implications of the new convergent services based on IP and the combined use of distinct communications networks.

The 2011 working plan includes the analysis of the effects of competition on operators' investment in next generation access networks, the impact of the fixed mobile substitution in market analysis, the analysis of wholesale origination services for added value retail services and various aspects of commercialising broadband services. The working group will also tackle the implications of competition regarding network neutrality in collaboration with the BEREC group centred in this area.

- Framework Implementation EWG

In 2010 the new BEREC concentrated much of its efforts in ensuring the success of the application process of the new regulatory framework for electronic communications in the European Union, giving support and guidance to the NRAs in interpreting the new directives and coordinating with the European Commission to guarantee that the BEREC Office is launched promptly.

In this sense the work of the Framework Implementation EWG in preparing the general guidelines for the NRAs to interpret the obligation of functional separation should be underlined, as well as the framework provisions on access for European citizens to numbers and services included in the universal service in the EU.

On the other hand it is necessary to indicate the creation of a specific BEREC working subgroup, the Implementation Team, which was commissioned with taking forward the process of establishing the new body in close coordination with the European Commission. In particular it was recommended to set up the support office. Four high level experts from four European countries were selected to form this team, including one from the CMT.

This working group undertook to prepare the internal BEREC rules of procedure as well as those applicable to public consultation and the standards regarding Office staff, economic management and budgets.

- Group of experts in article 7

The revision of the European regulatory framework made in 2009 expressly introduces the possibility that BEREC issues an opinion, should the European Commission have serious doubts about the compatibility of the measure with community law, or considers that it may create a barrier in the internal market and therefore open a Phase II to the notification of the market made by an NRA. This may cause a veto against the proposal. In these cases the European Commission will have to take into account BEREC's opinion as far as possible before adopting a final decision, as stipulated in Article 7 of the Framework Directive (2009).

The CMT led the group of experts commissioned with editing the additions to be made to the articles of the BEREC rules of procedure for issuing these opinions.

- Remedies EWG: coordination of the common positions of the ERG and supervising that the decisions of the NRAs conform with the common positions

One of the objectives of the 2002 regulatory framework involved the need to achieve greater harmonisation of the regulatory policies within the Member States to promote the creation of an internal market of electronic communications services. The regulatory framework that was revised in 2009 increases the regulatory harmonisation targets in the EU. In response to this necessity BEREC took in a group of experts, Remedies EWG, to identify those areas where greater harmonisation would be necessary. With this objective, Remedies EWG:

- Identifies the need to prepare common positions (CPs).
- Evaluates how the decisions of the NRA match the CPs (*monitoring*).
- Identifies the need to promote better practices.

In 2010 Remedies EWG prepared an action or analysis plan on the plans of the NRAs to reach conformity with the Common Position on Symmetry in Termination Prices. This common position goes back to 2007, when the ERG (former BEREC) agreed that it should reach general symmetry of termination rates in fixed and mobile networks within a reasonable time.

- Next generation networks (NGN EWG)

The NGN-EGW continued the activity which started in 2009 centred on the analysis of the questions associated with deploying new generation networks, for the trunk network (NGN) and the access network (NGA). Also, it has undertaken to prepare BEREC's opinion with regard to the NGA recommendation.

In 2010 the European Commission started to redraft the NGA recommendation, the document which defines a harmonised focus in the EU for regulated

access to the NGA. The European Commission presented a draft of the recommendation to BEREC in April 2010. As a consequence NGN-EWG prepared a reply with the opinion of the BEREC experts on this draft, which was approved and published in May 2010. The European Commission took into consideration a part of the BEREC proposals, for example, permitting greater flexibility in deciding solutions to adapt them better to the various national circumstances. The final document of the NGA recommendation was published in September 2010.

The NGN-EWG also prepared the report on NGA wholesale products in 2010. The mentioned document analyses the implementation of the various wholesale access products to NGA in accordance with the investment scale scheme, and also confronts related aspects, such as migration. The report describes the different wholesale products, presents the December 2009 situation and in some cases infers best practices from the experiences of the different countries.

In 2010 BEREC presented for public consultation the draft of the common position on the future mechanisms in the termination market. The report was prepared in 2009 and evaluated the bill and keep (BaK) regime as an alternative to the calling party network pays (CPNP) model currently in force in Europe. In June 2010 the summary of the results from the public consultation was published.

- *Roaming* international (*Roaming* EWG)

Through 2010 the *Roaming* EWG centred its work in preparing a report analysing the need to extend the regulation of European roaming services from 2012. The document studies the competition issues in the wholesale and retail roaming services (voice, text messages and data) and evaluates the different structural and direct price regulation options. It also includes an estimate of the costs of the different roaming services. BEREC approved the *Roaming* EWG report in December 2010.

The CMT is a member of the nucleus of this group of experts and is responsible for preparing the documents together with another four European countries. In article 11 the current *roaming regulation* envisages that the European Commission takes BEREC's report into account in the revision of said regulation. The European Commission has also launched a public consultation on roaming, which ends in February 2011. Taking into account the contributions received, the European Commission will prepare a proposal for revising the regulation of *roaming*, which it will communicate to the Council and the European Parliament in summer 2011. Discussion in Parliament will start from September 2011.

In 2010 BEREC published the fifth and sixth evaluation report of compliance with the *roaming* regulation in the Member States which will show the development of the rates of these services from when the community regulations come into force.

- Net Neutrality EWG

Throughout 2010 network neutrality was a regulatory issue in the front line of debate on the world level in general and more specifically on a European scale. At the beginning of the year, BEREC started a working group centred on this theme.

In 2010 an internal BEREC report analysed all the aspects implied in regulating network neutrality: Application of the new regulatory framework to specific aspects of neutrality, traffic management practices, transparency, potential anticompetitive practices, etc. Further, the EWG drafted BEREC's reply to the public consultation started by the European Commission in 2010 on network neutrality.

For 2011 this group will go deeper into different aspects of regulation and implementation of neutrality policies, such as transparency or service quality, as well as collaboration with other working groups in specific aspects related to network neutrality.

- TR EGW: monitoring FTR-MTR recommendation

In May 2009 the European Commission approved the recommendation on the regulatory handling of fixed

and mobile telephony termination rates. The purposes of this was the convergence of termination rates in Europe. With a view to facilitating the implementation of the recommendation, the ERG decided to set up a technical debate forum between the NRAs to establish standards or best practices for developing costs models covered by the recommendation.

- End-Users (EU-EWG)

The EU-EWG's objective is to analyse different aspects of electronic communications which may affect user protection. In 2010 the work centred around two areas:

- Universal service. The EU-EWG published a report on the future of the universal service based on responses to a questionnaire sent to the NRAs. The document asks/consults if it is necessary to revise the concept and attainment of the universal service, in particular the inclusion of broadband. It also investigates the suitability of the universal service as a development tool of broadband compared with alternatives such as structural funds, open access regional networks, public-private associations, etc. The report does not conclude with a common opinion on these issues, since decisions on the universal services must stay in the hands of each Member State and its national circumstances. On the other hand this working group was commissioned to prepare BEREC's reply to the public consultation on the universal service started by the European Commission in 2010.

- Portability or change of operator by the end user. The EU-EWG published a report analysing the obstacles against changing operator in the different EU countries, as well as the best practices to facilitate this change. Portability is a big stimulus to competition in the electronic communication markets. Among other things the report recommends practices for minimising slamming, portability of bundles, guarantees of appropriate and user accessible information, and non discrimination between the different providers. Spain stands out in the study with its verification processes for third parties, regulated through the CMT's circulars.

- Regulatory Accounting EWG

The ERG publishes annually a report on regulatory accounting to evaluate the level of harmonisation between countries in implementing said accountability systems. The 2010 report focuses on the four key wholesale markets: unbundled access, bitstream access, access to the telephone line and termination segments of leased lines. The level of harmonisation between the regulatory accounting methodologies and the bases of costs is relatively high.

- ERG/RSPG

As part of the ERG contribution to promoting the single internal market the ERG 2008 working plan proposed including the study of regulating the market of the radio spectrum. This analysis will be undertaken jointly with the Radio Spectrum Policy Group (RSPG).

In 2010 the joint BEREC/RSPG working group prepared a report to study the fixed/mobile substitution, and the impact of the fixed wireless access in the context of defining broadband markets.

Initiatives approved by the European Commission in 2010

- European Digital Agenda

The European Digital Agenda (EDA) is the first of the seven large initiatives proposed by the European Commission in its Europe 2020 strategy, the successor to the Lisbon Strategy.

ADE's priority lines of action are: creation of a single digital market, improve interoperability, increase Internet security, increase Internet access in high speed and ultra high speed, stimulate investigation and innovation in Information Technology (IT) and provide citizens with digital education and accessible on line public services. The EDA establishes a series of key practical actions for each one of them.

The following objectives stand out with regard to broadband:

- In 2013, all European citizens should have access to basic broadband.

- In 2020, 50% of European households must subscribe to offers faster than 100 Mbps.

- Plans for universal broadband and Next Generation Access networks (NGA)

In September 2010 the European Commission launched three complementary measures to promote the extension of broadband to all EU citizens and the deployment of NGAs. The bundle is integrated by the NGA recommendation, communication over broadband and the proposal for a multi year policy programme.

- Electronic Communications Committee (CoCom)

The Electronic Communications Committee (CoCom) set up on 2002 is to assist the European Commission in exercising its executive powers regarding the regulatory framework of electronic communications, and also implement the .eu domain. The CoCom is made up of the representatives of the regulatory authorities of the Member States who are responsible for electronic communications. The CMT regularly attends the periodically organised meetings integrated with the Spanish delegation.

The CMT also actively participates in the Working Group of the Telecommunications Data Market (DATA) which has the objective of improving the evaluation indicators of electronic communications markets.

- CMT activities related to Latin America

Latin America is historically one of the CMT's priority international cooperation areas. The objective is to promote the coordination of efforts between the CMT and the Latin American regulatory bodies grouped in Regulatel (group of Latin American regulators) and promote the development of the electronic communication industry.

The CMT participates as an observer member of Regulatel and acts as a bridge between the Latin American regulators and BEREC. The high level meetings held annually between experts from both sides of the Atlantic are the fruit of this mediating work.

- CMT-Regulatel capacitation programme

In 2008 the CMT and Regulatel signed a memorandum of understanding to implement training courses and for CMT staff to teach technical training sessions.

The purpose of the training programme is to promote interchange of professional experiences between those working in the Latin America regulatory bodies and the CMT in order to contribute to an improvement in the regulation of the telecommunications industry in the countries represented by Regulatel and Spain.

In 2010 the second series of the training programme between Regulatel and the CMT took place between January and July. Thanks to this initiative four professionals from four Latin American bodies worked with the CMT for a period of six months. The technicians came from Peru, the Dominican Republic, Ecuador and Brazil. Combining the first two series, the Training Programme made it possible for a total of 13 Latin American experts to spend time in the CMT.

- High level ORECE-CMT-Regulatel summit meetings and seminars

The CMT actively participated in the preparatory and coordination works of IX Cumbre BEREC-Regulatel, where the presidents of the Latin American and European regulators in both organisations met in Punta Cana (Dominican Republic). The central theme of the debates was regulation in the Internet era, more precisely with regard to prices, access and transport. The president of the CMT, Reinaldo Rodríguez Illera and adviser Gloria Calvo each gave presentations in this annual high level summit meeting.

One more year on, the CMT organised, together with the Spanish agency for cooperation and development (AECID) and Regulatel, the VII High level BEREC-Regulatel Seminar, held in Antigua (Guatemala) where European and Latin American regulators discussed the role of regulator and future challenges from the conflicts in the electronic communications industry.

- Indicator workshop

The CMT participates actively in the Regulatel work groups. In August 2010 the CMT organised the V

methodology workshop of the system of regional telecommunications indicators (SIRTEL), held in Antigua (Guatemala). This working group is to harmonise the telecommunications indicators in Latin America which permits preparation of comparative statistics to evaluate the development of the IT industry in the countries in the area.

- Organisation for Economic Co-operation and Development (OECD)

The CMT participates with the Ministry of Industry, Tourism and Commerce in the regulatory policy work group on communications services and infrastructures (Working Party on Communication Infrastructures and Services Policy –CISP–). The CMT's contribution is articulated by participating in work group meetings, preparing commentaries on documents and the involvement in virtual work groups such as that of experts in international roaming.

- European Mediterranean Regulators Group (EMERG)

EMERG is an informal cooperation forum combining regulators from the States of the Middle East and North Africa (MENA) and the European States on the Mediterranean shore. It was constituted in 2008 as a forum for debate between the regulatory authorities of the industry, a working plan was set up to establish greater harmonisation between the regulatory policies of both sides of the Mediterranean.

In the context of this Mediterranean forum the CMT organised the seminar "The use of SMP analysis as a basis for regulatory intervention" in July in which the representatives of 16 national regulation authorities and independent experts met for three days in Barcelona to discuss the challenges which the regulators must confront when they intervene in the market.

A further four seminars were held in 2010 to discuss themes such as the deployment of next generation networks, the future of fixed networks, the independence of regulators and the universal service.

- International Telecommunication Union (ITU)

The ITU is the most important organisation in the United Nations with regard to communication and in-

formation technologies. The ITU covers three industries: Radio communication (ITU-R), standardisation of telecommunications (UIT-T) and development (UIT-D). Both governments and the private industry participate in this body.

The CMT is the main source of information referring to telecommunications statistics and information and communication technologies in Spain, it replies annually to the statistical questionnaires that the ITU sends on these issues. Further, the CMT answers the questionnaires on Spanish regulation which the regulatory environment and market unit of the UIT-D sends.

In 2010 the CMT participated as a panellist in the World Summit on the Information Society (WSIS) in a debate on the collaboration of the different players in promoting broadband. The WSIS is the United Nations forum which discusses the Millennium objectives on telecommunications and the information society.

The CMT also took a significant part in the Group of Experts of Telecommunications Indicators/ITC of the ITU in March 2010 and in the meeting on the world telecommunications/TIC indicators held in November 2010.

- European Platform of Regulatory Authorities (EPRA)

The European Platform of Regulatory Authorities (EPRA) is an international body that combines 52 European regulators in the audiovisual industry. It was created in 1995 as a forum for debate and exchange between the regulatory audiovisual authorities. The European Commission and the Council of Europe are observing members in this platform.

The EPRA usually convenes twice a year and the CMT was part of the Spanish representation in both meetings. It has been a member of the platform since 2000. The first was in Barcelona and centred the debates on the implementation of the Directive of Audiovisual Media Services as well as the advertising forms of product placement. The second plenary meeting was held in Belgrade in October, the central themes were the different regulatory models and licences for DTTV, the regulation of advertising and the impact of *connected* TV in the regulation of audiovisual.

- Bilateral cooperation

- Cooperation projects Twinning Light CRC-CMT

Twinning Light is an international cooperation project, under the protection of the European programme PHARE and Transition Facility. Its objective is to facilitate the application of the community heritage in the new Member States and in the EU candidate states. Each *twinning* project is designed to promote the application of a given community law. They last for six months and are entirely financed by the EU, except for the co-financing part which the beneficiary State contributes.

The Twinning Light led by the CMT in Bulgaria concluded in March 2010, with the Communications Regulation Commission (CRC) as the beneficiary body. Under the title "Further effective development of the Electronic Communications markets (follow-up)", about 20 CMT experts participated in the transmission of technical knowledge for the analysis and imposition of obligations in the regulation of telecommunications markets. It should be pointed out that some activities also relied on the participation of technicians from the Regulatory bodies of Malta (MCA), Belgium (BIPT) and Hungary (NHH), under the coordination of the CMT.

Also in 2010 there was a large activity in preparation of future twinings, in which CMT will participate as a junior partner together with other European countries. Israel and Jordan will be the beneficiaries of the mentioned twinning projects which will start during 2011.

- High level bilateral meeting with the Federal Communications Commission (FCC), BM, BID and large US operators

Over two days a CMT delegation carried out a high level visit in Washington with an agenda that contemplated meetings with the large operators and equipment suppliers -Comcast, Cisco and Verizon- and with the Federal Communications Commission (FCC). These meetings discussed financing issues for the develop-

ment of telecommunications in Latin America with the World Bank (WB) and the Inter-American Development Bank (IDB).

The high level meeting of the CMT with the North American FCC, where advisors and managers from both bodies could exchange impressions on highly current regulation issues, such as NGNs, network neutrality and policies for the radio spectrum. The visit gave the CMT first hand knowledge of the regulatory policies that the current United States Administration applies in the electronic communications industry and it was also possible to explain the Spanish regulation model to the FCC directors.

- Bilateral relation between China Academy of Telecommunication Research (CATR) and the CMT

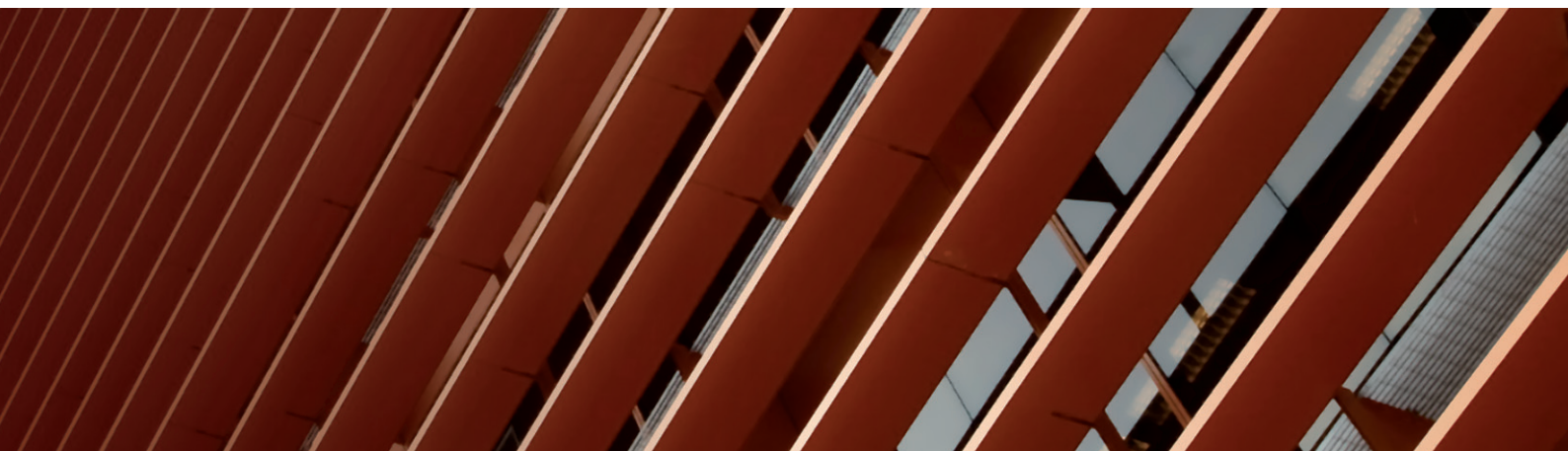
One of the CMT's objectives in the international sphere is to reinforce cooperation with non EU countries, especially in the Asia region. For this reason a Memorandum of Understanding was signed at the end of 2009 between the China Academy of Telecommunication Research (CATR) and the CMT. As a result both authorities have tightened their bilateral relations and have promoted debate on regulation policies. In 2010 the CATR made two visits to the CMT to exchange experiences on issues of interest for both of them.

The first visit was in April and debate in the working sessions focused on the convergence and regulatory challenges this new scenario involves. Later, in November, the CMT received another delegation from the CATR to implement a technical seminar on implementing the identification processes for prepaid SIM cards.

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DATA CONSIDERATIONS

Data has been modified owing to updates made by the operators themselves, meaning that various series differ from what was published previously. Wherever a change occurs, it is noted at the foot of the table.

Orange includes Orange Business Services.

The advertising revenues used to prepare this report refer to net revenues, after deducting discounts and commissions charged by the companies that merchandise the advertising.

The Abertis Group – which includes Abertis Telecom, Tradia and Retevisión I – and Overon are presented separately in different markets even though they belong to the same corporation.

1. GENERAL INDUSTRY INFORMATION

a) Revenues

1. TOTAL REVENUES OF THE INDUSTRY AND YEAR-ON-YEAR VARIATION RATE¹

(millions euros and percentage)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Retail services	25,901.86	27,803.58	29,970.66	33,166.87	34,726.99	36,490.32	36,929.92	34,587.06	33,396.26
		7.3%	7.8%	10.7%	4.7%	5.1%	1.2%	-6.3%	-3.4%
Wholesale services	6,202.73	6,650.11	7,074.62	7,547.46	7,380.00	7,373.40	7,200.32	6,636.08	6,391.01
		7.2%	6.4%	6.7%	-2.2%	-0.1%	-2.3%	-7.8%	-3.7%
Total	32,104.59	34,453.70	37,045.28	40,714.34	42,106.99	43,863.72	44,130.25	41,223.14	39,787.27
		7.3%	7.5%	9.9%	3.4%	4.2%	0.6%	-6.6%	-3.5%

2. REVENUES FROM RETAIL SERVICES AND YEAR-ON-YEAR VARIATION RATE²

(millions euros and percentage)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fixed telephony	8,489.02	8,236.62	8,296.32	8,289.38	7,528.25	7,207.54	7,050.82	6,456.28	5,877.17
		-3.0%	0.7%	-0.1%	-9.2%	-4.3%	-2.2%	-8.4%	-9.0%
Mobile telephony	7,474.21	8,865.18	10,394.73	12,099.90	13,344.31	14,886.81	15,067.67	14,457.13	14,023.94
		18.6%	17.3%	16.4%	10.3%	11.6%	1.2%	-4.1%	-3.0%
Internet	911.76	1,295.68	1,766.25	2,265.42	2,784.48	3,506.86	3,888.09	3,953.89	3,989.25
		42.1%	36.3%	28.3%	22.9%	25.9%	10.9%	1.7%	0.9%
Audiovisual services	5,809.38	4,683.52	4,532.39	5,028.31	5,332.52	5,768.38	5,511.10	4,519.66	4,422.62
		-19.4%	-3.2%	10.9%	6.1%	8.2%	-4.5%	-18.0%	-2.1%
Business communications	1,212.49	1,225.81	1,229.13	1,307.06	1,281.21	1,335.87	1,476.11	1,518.00	1,544.97
		1.1%	0.3%	6.3%	-2.0%	4.3%	10.5%	2.8%	1.8%
Information Services Telefónica	-	34.98	92.85	100.58	115.04	117.74	104.14	84.19	74.57
			165.4%	8.3%	14.4%	2.4%	-11.6%	-19.2%	-11.4%
Sales and rental of terminals	-	-	2,188.29	2,233.52	2,396.71	1,862.85	1,687.71	1,693.40	1,776.47
				2.1%	7.3%	-22.3%	-9.4%	0.3%	4.9%
Others	2,005.00	3,461.79	1,470.69	1,842.69	1,944.46	1,804.25	2,144.28	1,904.51	1,687.28
		72.7%	-57.5%	25.3%	5.5%	-7.2%	18.8%	-11.2%	-11.4%
Total	25,901.86	27,803.58	29,970.66	33,166.87	34,726.99	36,490.32	36,929.92	34,587.06	33,396.26
		7.3%	7.8%	10.7%	4.7%	5.1%	1.2%	-6.3%	-3.4%

¹ In *retail Services* data consolidations have occurred in the series for *Fixed Telephony*, *Internet*, *Audiovisual Services* and *Others*.

² *Others* include revenues from other retail services (broken down in section 7. *Other Services* of these statistics) and *Other operating* revenues. Revenues from *Others* in 2008, 2009 and 2010 include the contribution of the National Universal Service Fund to Telefónica de España, accounted for on a cash basis.

3. REVENUES FROM WHOLESALE SERVICES AND YEAR-ON-YEAR VARIATION RATE³

(millions euros and percentage)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Interconnection	5,036.46	5,000.28	5,221.63	5,697.38	5,765.59	5,630.27	5,430.42	4,746.13	4,319.04
		-0.7%	4.4%	9.1%	1.2%	-2.3%	-3.5%	-12.6%	-9.0%
Circuit rental	632.17	580.46	552.87	587.78	619.77	681.47	646.83	682.12	727.68
		-8.2%	-4.8%	6.3%	5.4%	10.0%	-5.1%	5.5%	6.7%
Data Transmission	154.65	253.22	254.29	184.38	70.45	73.47	62.09	54.65	37.23
		63.7%	0.4%	-27.5%	-61.8%	4.3%	-15.5%	-12.0%	-31.9%
ADSL services	127.57	271.41	425.49	631.48	252.21	341.49	341.39	348.49	454.68
		112.8%	56.8%	48.4%	-60.1%	35.4%	0.0%	2.1%	30.5%
Transport and broadcasting of the audiovisual signal	251.88	224.73	234.17	240.17	338.64	375.83	406.64	438.76	394.99
		-10.8%	4.2%	2.6%	41.0%	11.0%	8.2%	7.9%	-10.0%
Others		320.01	386.16	206.26	333.35	270.87	312.95	365.94	457.40
			20.7%	-46.6%	61.6%	-18.7%	15.5%	16.9%	25.0%
Total	6,202.73	6,650.11	7,074.62	7,547.46	7,380.00	7,373.40	7,200.32	6,636.08	6,391.01
		7.2%	6.4%	6.7%	-2.2%	-0.1%	-2.3%	-7.8%	-3.7%

4. TOTAL REVENUES OF THE INDUSTRY BY OPERATOR (millions euros)

	WHOLESALE SERVICES			RETAIL SERVICES			TOTAL		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Telefónica de España	1,974.49	1,957.56	2,022.22	10,103.54	9,528.65	8,749.32	12,078.03	11,486.21	10,771.54
Movistar	1,472.76	1,234.27	1,033.76	8,239.56	7,744.35	7,518.49	9,712.32	8,978.63	8,552.25
Vodafone	1,434.61	1,166.03	980.51	5,596.92	5,429.30	5,100.93	7,031.53	6,595.33	6,081.44
Orange	933.55	753.58	735.70	3,010.66	3,117.51	3,075.58	3,944.20	3,871.08	3,811.29
Ono	148.08	135.43	129.02	1,461.00	1,376.70	1,339.66	1,609.08	1,512.14	1,468.68
Sogetcable	-	-	-	1,869.02	1,523.71	1,454.65	1,869.02	1,523.71	1,454.65
Telecinco	-	-	-	822.26	535.64	679.30	822.26	535.64	679.30
Antena 3 Televisión	-	-	-	722.31	604.35	657.28	722.31	604.35	657.28
Yoigo	64.91	100.37	138.18	209.83	324.47	513.00	274.74	424.85	651.19
Jazztel	97.03	112.99	135.87	252.59	335.26	479.88	349.61	448.24	615.76
Abertis Group	346.90	382.74	340.90	39.08	135.08	167.75	385.98	517.82	508.64
BT	83.45	89.12	86.71	372.29	341.76	342.70	455.73	430.88	429.41
Euskaltel	29.84	27.03	24.51	311.05	312.46	320.14	340.89	339.49	344.65
La Sexta	-	-	-	159.79	226.42	297.55	159.79	226.42	297.55
Others	614.71	676.96	763.62	3,760.04	3,051.40	2,700.02	4,374.75	3,728.36	3,463.63
Total	7,200.32	6,636.08	6,391.01	36,929.92	34,587.06	33,396.26	44,130.25	41,223.14	39,787.27

³ Wholesale ADSL Services include rental revenues from the local loop.

5. RETAIL SERVICE REVENUES BY OPERATOR (millions euros)

	FIXED TELEPHONY	MOBILE TELEPHONY	INTERNET	AUDIOVISUALS SERVICES	BUSINESS COMMUNICATIONS	TELEFÓNICA INFORMATION SERVICES	SALES AND RENTAL OF TERMINALS	OTHERS	TOTAL
Telefónica de España	4,400.00	-	2,213.85	200.03	949.24	19.99	374.73	591.48	8,749.32
Movistar	0.20	6,593.67	-	7.59	-	-	903.94	13.10	7,518.49
Vodafone	244.70	4,270.26	205.80	4.60	9.95	0.40	212.80	152.43	5,100.93
Orange	142.10	2,475.17	323.03	9.02	48.49	-	77.39	0.38	3,075.58
Sogecable	-	-	-	1,454.65	-	-	-	-	1,454.65
Ono	511.47	11.98	480.96	224.91	105.07	0.26	0.90	4.11	1,339.66
Telecinco	-	-	-	676.71	-	-	-	2.59	679.30
Antena 3 Televisión	-	-	-	656.17	-	0.13	-	0.97	657.28
Others	578.70	672.86	765.60	1,188.95	432.22	53.80	206.71	922.21	4,821.04
Total	5,877.17	14,023.94	3,989.25	4,422.62	1,544.97	74.57	1,776.47	1,687.28	33,396.26

6. WHOLESALE SERVICE REVENUES BY OPERATOR (millions euros)

	INTERCONNECTION	RENTAL OF CIRCUITS	TRANSMISSION OF DATA	ADSL SERVICES	TRANSPORT AND BROADCAST OF THE AUDIOVISUAL SIGNAL	OTHERS	TOTAL
Telefónica de España	939.16	600.45	-	441.44	-	41.16	2,022.22
Movistar	1,033.76	-	-	-	-	-	1,033.76
Vodafone	921.65	2.33	-	0.02	-	56.51	980.51
Orange	709.55	22.50	-	3.65	-	-	735.70
Abertis Group	-	17.50	-	-	250.41	72.98	340.90
Yoigo	138.18	-	-	-	-	-	138.18
Jazztel	124.66	3.61	-	3.90	-	3.70	135.87
Ono	95.94	29.42	3.10	0.56	-	-	129.02
Others	356.12	51.86	34.13	5.11	144.58	283.04	874.84
Total	4,319.04	727.68	37.23	454.68	394.99	457.40	6,391.01

b) Investment

7. INVESTMENT IN THE INDUSTRY AND YEAR-ON-YEAR VARIATION RATE (millions euros and percentage)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	6,178.41	10,186.81	8,190.52	5,556.25	4,547.61	4,714.85	5,514.82	5,685.58	5,788.02	5,171.71	4,284.54	4,479.99
	34.8%	64.9%	-19.6%	-32.2%	-18.2%	3.7%	17.0%	3.1%	1.8%	-10.6%	-17.2%	4.6%

8. INVESTMENT BY OPERATOR AND YEAR-ON-YEAR VARIATION RATE (millions euros and percentage)

	2005	2006	2007	2008	2009	2010
Telefónica de España	1,388.47	1,496.64 7.8%	1,578.17 5.4%	1,461.37 -7.4%	1,270.68 -13.0%	1,404.67 10.5%
Vodafone	715.81	845.86 18.2%	957.97 13.3%	724.10 -24.4%	633.46 -12.5%	674.72 6.5%
Movistar	729.99	739.32 1.3%	745.28 0.8%	712.89 -4.3%	558.72 -21.6%	589.66 5.5%
Orange	753.51	663.26 -12.0%	628.97 -5.2%	561.24 -10.8%	442.55 -21.1%	402.06 -9.1%
Ono	760.35	592.57 -22.1%	529.66 -10.6%	350.83 -33.8%	219.29 -37.5%	244.36 11.4%
Telecinco	125.66	136.58 8.7%	160.17 17.3%	152.24 -4.9%	163.59 7.5%	128.39 -21.5%
Sogecable	138.96	122.52 -11.8%	99.10 -19.1%	79.29 -20.0%	39.95 -49.6%	109.51 174.1%
RTVE	69.81	60.89 -12.8%	57.18 -6.1%	66.52 16.3%	88.98 33.8%	97.98 10.1%
Jazztel	135.08	136.22 0.8%	19.83 -85.4%	51.74 160.9%	68.67 32.7%	93.11 35.6%
Abertis Group	41.36	65.95 59.5%	68.89 4.5%	108.88 58.1%	106.30 -2.4%	90.91 -14.5%
Televisió de Catalunya	100.49	91.14 -9.3%	100.76 10.6%	98.97 -1.8%	4.54 -95.4%	81.44 1695.6%
Hispasat	1.19	1.50 26.2%	1.54 2.3%	31.44 1944.1%	129.94 313.3%	80.83 -37.8%
R	59.01	72.37 22.6%	102.01 41.0%	80.17 -21.4%	56.26 -29.8%	76.44 35.9%
Yoigo	41.98	78.14 86.1%	77.29 -1.1%	85.05 10.0%	53.48 -37.1%	51.17 -4.3%
Euskaltel	117.26	138.81 18.4%	90.82 -34.6%	66.44 -26.8%	46.60 -29.9%	45.43 -2.5%
Iberbanda	19.04	29.02 52.4%	33.74 16.3%	23.70 -29.8%	19.87 -16.2%	18.34 -7.7%
Colt	14.61	19.67 34.6%	19.84 0.9%	27.38 38.0%	16.63 -39.3%	17.85 7.3%
Others	302.24	393.73 30.3%	516.79 31.3%	489.45 -5.3%	365.03 -25.4%	273.12 -25.2%
Total	5,514.82	5,684.20 3.1%	5,788.02 1.8%	5,171.71 -10.6%	4,284.54 -17.2%	4,479.99 4.6%

c) Employment

9. EMPLOYMENT IN THE INDUSTRY (number of employees)

	2004	2005	2006	2007	2008	2009	2010
Telefónica de España	34,347	32,501	31,062	28,496	28,320	28,208	28,083
RTVE	9,317	9,292	9,256	5,830	6,402	6,397	6,410
Vodafone	4,464	4,504	4,471	4,299	4,333	4,330	4,413
Movistar	4,454	4,560	4,583	4,503	4,323	4,185	4,134
Ono	4,216	4,643	4,689	4,500	4,209	3,344	3,082
Orange	3,261	3,285	3,800	3,715	3,307	3,133	3,071
Radiotelevisió Valenciana	1,380	1,430	1,400	1,838	1,830	1,830	1,797
Others	26,566	28,304	29,505	31,824	29,006	28,670	26,849
Total	88,005	88,519	88,766	85,005	81,730	80,097	77,839

d) Advertising expenditure

10. ADVERTISING AND PROMOTIONAL EXPENDITURE BY OPERATOR (millions euros)

	2005	2006	2007	2008	2009	2010
Movistar	209.59	460.18	515.15	413.02	302.02	192.39
Vodafone	197.67	188.39	214.56	212.29	186.26	180.16
Telefónica de España	141.60	144.77	139.35	144.15	135.74	130.25
Orange	142.42	180.79	172.09	141.86	133.18	95.07
Ono	33.66	52.59	54.32	47.33	42.16	42.95
Others	147.90	157.93	184.99	219.35	188.74	213.27
Total	872.85	1,184.66	1,280.46	1,178.00	988.11	854.10

e) Operating results

11. OPERATING RESULTS IN THE INDUSTRY (millions euros)						
	2005	2006	2007	2008	2009	2010
Telefónica de España	3,097.56	3,622.90	4,016.37	4,366.57	4,257.99	3,621.39
Movistar	3,462.99	3,460.76	3,684.42	3,558.02	2,978.54	2,551.05
Vodafone	1,432.47	1,813.51	1,754.20	1,646.03	1,407.09	1,072.09
Ono	-196.58	153.46	286.91	279.86	328.78	336.57
Sogecable	0.09	7.12	176.15	187.31	167.02	174.06
Telecinco	319.01	348.46	397.24	298.22	70.51	146.35
Abertis Group	19.59	68.39	79.60	63.08	136.94	125.42
Antena 3 Televisión	308.70	310.56	297.53	136.41	56.86	123.06
Radio Televisió de les Illes Balears	-	-	-	-46.82	62.02	81.98
Hispasat	26.89	31.44	33.73	43.26	46.44	49.22
Others	-307.60	-752.56	-1,097.59	-585.14	-342.43	-424.84
Total	8,163.12	9,064.05	9,628.56	9,946.79	9,169.75	7,856.35

f) The industry in the domestic economy

12. SELECTED MACROECONOMIC PARAMETERS⁴

	2004	2005	2006	2007	2008	2009	2010
Revenues and Profits							
Industry revenue (millions euros)	37,045.28	40,714.34	42,106.99	43,863.72	44,130.25	41,223.14	39,787.27
Revenue per capita (euros)	857.58	923.05	941.8	970.42	956.07	881.86	846.16
Revenue per household (euros)	2,514.67	2,620.83	2,884.12	2,985.49	2,926.43	2,691.66	2,599.94
Revenue per employee (euros)	420,945.13	459,950.26	474,359.46	516,013.39	539,951.62	514,665.26	511,148.26
Revenues from retail services compared to GDP (%)	3.6	3.7	3.5	3.5	3.4	3.3	3.1
Operating result (millions euros)	8,066.86	8,163.12	9,064.05	9,628.56	9,946.79	9,169.75	7,856.35
Operating results per employee (euros)	91,663.68	92,218.90	102,111.69	113,270.52	121,703.10	114,483.11	100,930.82
Employment							
Employees in telecommunications	88,005	88,519	88,766	85,005	81,730	80,097	77,839
Employees in telecommunications compared to total employment (%)	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Employees in telecommunications compared to employment in the services industry (%)	0.8	0.7	0.7	0.6	0.6	0.6	0.6
Investment							
Total investment in the industry (millions euros)	4,714.85	5,514.82	5,685.58	5,788.02	5,171.71	4,291.33	4,479.99
Investment per inhabitant (euros)	109.15	125.03	127.17	128.05	112.04	91.80	95.28
Total investment in Gross Fixed Capital Formation (%)	2.0	2.1	1.9	1.8	1.7	1.7	1.9
Advertising							
Advertising expenditure (millions euros)	719.77	872.85	1,184.66	1,280.46	1,178.00	988.11	854.19
Economic indicators (Source: INE)							
Population in thousands	43,197.68	44,108.53	44,708.96	45,200.74	46,157.82	46,745.81	47,021.03
Total employment (thousands)	18,288.10	19,314.30	20,001.80	20,476.90	19,856.80	18,645.90	18,408.20
Employment in services sector (%/total)	64.1	65.2	65.7	66.4	69.7	71.8	72.8
GDP at current prices (millions euros)	841,042	908,792	984,284	1,053,537	1,088,124	1,053,914	1,062,591
Gross Fixed Capital Formation (millions euros)	235,805	267,042	301,169	323,243	311,830	252,961	238,667
Households (thousands)	14,731.65	15,534.91	14,599.60	14,692.32	15,079.87	15,315.16	15,303.14
CPI (2006 = 100)	93.5	96.6	100	102.8	107	106.7	108.6
HICP, Spain (2005 = 100)	96.7	100	103.6	106.5	110.9	110.6	112.9

⁴ Number of households: data extracted from the INE's "Survey of Equipment and Use of Information Technologies and Communication in Households".

g) Economic-financial ratios

13. ECONOMIC-FINANCIAL RATIOS (millions euros and percentage)

		REVENUES BY TRANSACTIONS	EBITDA	CAPEX	DEBT	FREE CASH FLOW	EBITDA / REVENUES (%)	CAPEX / REVENUES (%)	DEBT / EBITDA (%)	FREE CASH FLOW / DEBT (%)
Telefónica de España	2009	11,463.84	5,655.45	1,270.68	8,836.22	5,655.45	49.3%	11.1%	156.2%	64.0%
	2010	10,735.16	5,012.57	1,404.67	7,870.96	5,012.57	46.7%	13.1%	157.0%	63.7%
Movistar	2009	8,964.58	3,672.65	558.72	2,936.51	3,672.65	41.0%	6.2%	80.0%	125.1%
	2010	8,539.15	3,122.16	589.66	2,772.44	3,122.16	36.6%	6.9%	88.8%	112.6%
Vodafone	2009	6,413.52	2,093.03	633.46	2,452.69	2,093.03	32.6%	9.9%	117.2%	85.3%
	2010	5,929.01	1,766.66	674.72	2,783.68	1,766.66	29.8%	11.4%	157.6%	63.5%
Ono	2009	1,493.83	718.89	219.29	4,843.46	718.89	48.1%	14.7%	673.7%	14.8%
	2010	1,464.57	721.58	244.36	4,231.84	721.58	49.3%	16.7%	586.5%	17.1%
Sogecable	2009	1,523.71	274.77	39.95	2,069.37	274.77	18.0%	2.6%	753.1%	13.3%
	2010	1,454.65	262.00	109.51	945.47	262.00	18.0%	7.5%	360.9%	27.7%
Jazztel	2009	444.54	96.26	68.67	1,154.50	96.26	21.7%	15.4%	1,199.4%	8.3%
	2010	612.77	98.48	93.11	635.79	98.48	16.1%	15.2%	645.6%	15.5%
Orange	2009	3,871.08	740.26	442.55	6,586.43	740.26	19.1%	11.4%	889.7%	11.2%
	2010	3,811.29	774.78	402.06	6,390.12	774.78	20.3%	10.5%	824.8%	12.1%
Abertis Group	2009	395.16	219.86	106.30	1,620.59	219.86	55.6%	26.9%	737.1%	13.6%
	2010	357.93	200.89	90.91	1,583.10	200.89	56.1%	25.4%	788.0%	12.7%
Telecinco	2009	517.03	204.54	163.59	428.43	204.54	39.6%	31.6%	209.5%	47.7%
	2010	676.71	284.18	128.39	412.46	284.18	42.0%	19.0%	145.1%	68.9%
Antena 3 Televisión	2009	601.40	68.94	7.84	594.09	68.94	11.5%	1.3%	861.8%	11.6%
	2010	656.30	134.19	12.63	539.29	134.19	20.4%	1.9%	401.9%	24.9%
Yoigo	2009	393.29	-77.22	53.48	859.45	-77.22	-19.6%	13.6%	-1,112.9%	-9.0%
	2010	640.74	-44.45	51.17	983.14	-44.45	-6.9%	8.0%	-2,211.7%	-4.5%
Euskaltel	2009	338.89	109.76	46.60	424.59	109.76	32.4%	13.8%	386.8%	25.8%
	2010	344.05	119.67	45.43	363.18	119.67	34.8%	13.2%	303.5%	33.0%
TeleCable	2009	106.46	38.80	18.32	134.47	38.80	36.4%	17.2%	346.6%	28.9%
	2010	119.14	47.91	23.77	126.34	47.91	40.2%	20.0%	263.7%	37.9%
Others	2009	3,963.84	761.26	1,747.81	7,775.96	761.26	19.2%	44.1%	1,021.5%	9.8%
	2010	3,726.83	466.38	1,818.30	9,953.93	466.38	12.5%	48.8%	2,134.3%	4.7%

h) Final service bundles

14. FINAL SERVICES BUNDLES⁵				
	2007	2008	2009	2010
Only fixed telephony accesses	13,107,200	12,257,435	11,117,264	10,291,386
Only pay television accesses	2,267,899	2,216,857	2,154,520	2,351,848
Only broadband accesses	1,248,526	1,039,120	909,566	927,510
Accesses bundled with fixed telephony and broadband	5,490,121	6,500,831	7,162,877	7,817,143
Accesses bundled with broadband and pay television	117,141	163,005	128,542	114,360
Accesses bundled with fixed telephony and pay television	395,192	384,801	356,769	309,562
Accesses bundled with fixed telephony, broadband and pay television	1,199,992	1,433,003	1,598,501	1,787,415

⁵ For broadband and telephony services, active lines in the final market are included. For pay television, the number of subscribers is included.

2. INFRASTRUCTURES

a) Access to fixed communication services

15. ACCESSES INSTALLED BY TYPE OF CARRIER AND OPERATOR GROUPS^{6, 7, 8}

	TELEFÓNICA DE ESPAÑA	CABLE OPERATORS	OTHERS	TOTAL
Wiring	17,008,517	9,353,765	314,168	26,676,450
FTTx	1,134,527	8,265	50,302	1,193,094
Single copper pair	15,873,990	122,413	-	15,996,403
Single HFC	-	1,352,241	251,444	1,603,685
HFC and Copper Pair	-	7,870,846	11,072	7,881,918
Electric Network (PLC)	-	-	1,350	1,350
Via radio	647,285	5,582	86,811	739,678
Radio	636,174	5,582	86,668	728,424
Satellite	11,111	-	143	11,254
Others	-	-	7,387	7,387
Total	17,655,802	9,359,347	408,366	27,423,515

16. ACCESSES IN SERVICE BY TYPE OF CARRIER AND OPERATOR GROUPS⁹

	TELEFÓNICA DE ESPAÑA	CABLE OPERATORS	OTHERS	TOTAL
Wiring	13,524,689	2,668,579	184,062	16,377,330
FTTx	506,464	2,627	48,582	557,673
Single copper pair	13,018,225	30,942	-	13,049,167
Single HFC	-	450,308	125,491	575,799
HFC and Copper Pair	-	2,184,702	8,893	2,193,595
Electric Network (PLC)	-	-	1,096	1,096
Via radio	151,256	5,582	80,485	237,323
Radio	140,145	5,582	80,342	226,069
Satellite	11,111	-	143	11,254
Others	-	-	4,246	4,246
Total	13,675,945	2,674,161	268,793	16,616,899

⁶ Cable operators include the main cable operators: Ono, Euskaltel, R, TeleCable and Procono. Local cable operators are not included. They are found in *Others*.

⁷ Accounting criteria for accesses have been changed to take account only of each operator's own infrastructures. The *HFC* and copper pair category includes accesses based on hybrid fiber and coaxial cable solutions, with a copper pair installed in parallel.

⁸ An installed access is equivalent to a marketable access that can be activated in a reasonably short time (48 hours), not including vacant pairs.

⁹ See notes 6 and 7.

17. WI-FI ACCESS POINTS

	2007	2008	2009	2010
Number of Wi-Fi hotspots	3,576	5,130	4,144	4,154

18. PUBLIC USE TELEPHONES

	2004	2005	2006	2007	2008	2009	2010
Public domain	56,597	56,304	52,551	49,993	48,881	44,463	41,347
Private domain	28,636	25,986	23,697	19,689	17,054	15,186	12,950
Total	85,233	82,290	76,248	69,682	65,935	59,649	54,297

19. BOOTHS PREPARED FOR THE DISABLED¹⁰

	2007	2008	2009	2010
Booths accessible to wheelchairs	31,533	31,289	26,674	29,761
Low-height phone booths	2,178	1,977	1,992	1,886

b) Access to mobile communication services

20. BASE STATIONS BY TYPE OF SERVICE AND TECHNOLOGY

	2003	2004	2005	2006	2007	2008	2009	2010
Mobile telephony	32,232	39,826	48,898	62,097	71,014	78,031	82,844	87,545
GSM900	16,526	17,675	19,537	24,998	26,850	27,869	28,255	31,582
DSC1800	13,588	15,783	17,844	20,178	21,290	22,780	23,285	21,639
UMTS	2,118	6,368	11,517	16,921	22,874	27,382	31,304	34,324
Trunking systems	364	184	218	202	189	157	257	316
MPT1327	239	59	75	59	60	28	24	24
TETRA	125	125	143	143	129	129	233	292
Radio messaging	20	20	20	20	-	-	7	7
POCSAG	20	20	20	20	-	-	7	7
Total	32,616	40,030	49,136	62,319	71,203	78,188	83,108	87,868

c) Audiovisual signal broadcasting

21. STATIONS FOR TERRESTRIAL BROADCAST OF AUDIOVISUAL SIGNALS (number of elements)

	ANALOGUE RADIO	DIGITAL RADIO	ANALOGUE TELEVISION	DIGITAL TELEVISION
Transmitters	754	50	8	3,731
Repeaters	152	1	4	2,573

¹⁰ Data provided by Telefónica de España.

d) Satellite

22. CONTRACTED CAPACITY BY SATELLITE AND TYPE OF SERVICE¹¹ (MHz and number of transponders/satellite)

	CAPACITY OF BROADCASTING (MHZ)	NUMBER OF TRANSPONDERS OF BROADCASTING	CAPACITY OF FIXED COMMUNICATIONS (MHZ)	NUMBER OF TRANSPONDERS OF FIXED COMMUNICATIONS	CAPACITY OF TRANSPORT (MHZ)	NUMBER OF TRANSPONDERS OF TRANSPORT
Astra	297	11	-	-	-	2
Eutelsat	330	10	-	-	238	12
Hispasat	6	1	131	16	516	20
PanAmSat	-	-	-	-	-	3
Intelsat	-	-	20	1	5	1
Total	633	22	151	17	759	38

e) Transport

23. KILOMETRES OF TRANSPORT NETWORK BY TRANSMISSION TYPE

	2003	2004	2005	2006	2007	2008	2009	2010
Optical cable	908,401	1,155,868	1,375,518	1,527,757	1,759,791	2,341,893	2,522,484	2,772,371
Radio Link	124,351	151,149	155,152	199,743	229,737	293,052	308,182	330,289
Coaxial cable	24,880	36,270	62,594	80,662	97,632	100,565	101,073	101,427
Others	124,848	90,710	87,482	80,206	79,162	76,442	78,286	78,907
Total	1,182,480	1,433,997	1,680,746	1,888,368	2,166,322	2,811,952	3,010,025	3,282,994

24. KILOMETRES OF OWN TRANSPORT NETWORK BY CAPACITY¹²

	2003	2004	2005	2006	2007	2008	2009	2010
Low digital capacity	9,921,537	9,369,751	9,856,582	9,933,625	11,078,838	7,377,041	7,597,850	12,302,497
Medium digital capacity	50,888,182	65,351,346	78,736,073	91,075,660	107,924,442	178,220,983	182,546,711	154,424,237
High digital capacity	427,823,750	546,985,000	758,596,250	1,074,458,750	1,314,048,750	2,165,731,250	2,657,115,000	2,588,493,200
Total	488,633,469	621,706,097	847,188,905	1,175,468,035	1,433,052,030	2,351,329,274	2,847,259,561	2,755,219,934

¹¹ Data provided by operators contracting the service.

¹² The data was obtained by normalising previously the total capacity of transmission media used to a capacity of 2 Mbps (E1 kilometres), assuming that for the analogue network 1 MHz corresponds to 1 Mbps. To calculate the kilometres of transport network by capacity, three categories have been considered: a transport network of low capacity (one with a transmission bitrate of less than 155 Mbps), medium capacity (bitrate of between 155 and 622 Mbps) and high capacity (more than 622 Mbps).

25. DARK FIBER CAPACITY BY OPERATOR (kilometres)

	LAI D	FIBER PAIRS
Ono	22,501	94,125
Iberdrola	16,474	361,500
Orange	14,409	56,238
Vodafone	13,161	24,348
International Electric Network	13,445	214,085
ADIF	13,689	445,116
Others	34,281	397,457
Total	127,959	1,592,869

26. CAPACITY OF SUBMARINE CABLES THAT TIE UP IN SPAIN BY COUNTRY OF ORIGIN¹³

(voice channels)

	TOTAL CAPACITY
Spain	3,992,640
Morocco	13,608
United States of America	2,736
Italy	3,125
Algeria	1,260
Argentina	199
Japan	20
United Kingdom	16
South Africa	424
Mexico	4
Others	243
Total	4,014,275

¹³ Islalink has updated its series of submarine cables.

f) Switching, routing and service platforms

27. ELEMENTS OF FIXED AND MOBILE NETWORK SWITCHING AND ROUTING (number of elements)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fixed network	14,217	15,902	15,096	15,154	15,720	16,635	17,648	18,279	18,809
Transit exchanges	294	232	206	215	215	215	229	222	200
International exchanges	19	18	21	20	17	19	18	19	21
Local and tandem exchanges	1,184	1,325	962	969	829	817	808	787	816
Concentrators	12,720	14,327	13,907	13,950	14,659	15,584	16,593	17,251	17,772
Mobile network	1,379	1,411	1,139	1,525	1,402	1,540	1,415	1,414	1,460
Switch exchanges and records of roaming subscribers (MSC/VLR)	460	446	379	435	331	353	407	263	258
General records of subscribers and authentication centres (HLR/AUC)	100	103	137	159	136	79	81	84	83
Signalling transfer points	28	32	27	31	36	40	47	53	57
Short message centres	25	23	19	20	20	14	13	15	21
GSM and UMTS base station controllers	766	807	577	880	879	1,054	867	999	1,041
Others	116	94	85	100	127	170	214	257	169
TOTAL	15,712	17,407	16,320	16,779	17,249	18,345	19,277	19,950	20,438

28. ELEMENTS OF DATA TRANSMISSION (number of elements)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Internet Servers (ISPs) connected	1,541	1,515	1,136	967	968	735	528	1,260	1,120	623
Routers	3,158	3,692	4,318	4,688	6,310	6,099	6,593	6,575	8,246	10,070
Gateways	191	196	296	348	315	448	333	467	522	660
Reflector equipment (Multipoint Control Unit)	10	17	24	17	23	18	29	328	366	320
Gatekeepers	13	12	12	23	55	75	94	116	113	136

29. DATA PORTS BY TECHNOLOGY (number of ports)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Link layer	56,993	57,877	72,105	81,791	93,375	104,775	107,862	101,427	100,647
Frame Relay	27,491	28,842	32,547	31,425	33,795	33,640	33,396	29,464	28,238
ATM	29,502	29,035	39,558	50,366	59,580	71,135	74,466	71,963	72,409
Network level	262,555	223,207	227,186	200,386	246,935	548,992	669,544	733,784	805,860
X-25	48,114	38,764	33,707	27,534	25,448	18,802	12,033	11,024	10,322
IP	214,441	184,443	193,479	172,852	221,487	386,893	461,771	505,518	451,044
Ethernet	-	-	-	-	-	74,140	96,191	108,287	136,466
Fast Ethernet	-	-	-	-	-	60,249	88,163	98,111	160,516
Gigabit Ethernet	-	-	-	-	-	8,908	11,386	10,844	47,512
Other data networks	14,933	15,175	8,669	15,796	16,754	25,155	27,166	20,035	16,041
TOTAL	334,481	296,259	307,960	297,973	357,064	678,922	804,572	855,246	922,548

30. ELEMENTS OF SERVICE DEVELOPMENT PLATFORMS AND NETWORK INTELLIGENCE

(number of elements)

	2003	2004	2005	2006	2007	2008	2009	2010
Cable head-ends	296	321	225	301	390	423	608	628
Elements of network intelligence	158	99	112	107	139	125	96	161
Elements of other platforms	98	60	95	83	98	105	108	146
TOTAL	552	480	432	491	627	653	812	935

g) Interconnection equipment

31. INTERCONNECTION POINTS (number of points)

	LOCAL LEVEL	TRANSIT	WITH MOBILES	METROPOLITAN	TOTAL
Electric	51	655	260	6	972
By time	12	601	260	4	877
By capacity	39	54	-	2	95
Optical	1,263	1,225	185	79	2,752
By time	520	864	185	35	1,604
By capacity	743	361	-	44	1,148
TOTAL	1,314	1,880	445	85	3,724

32. INTERCONNECTION LINKS (number of links)

	LOCAL LEVEL	TRANSIT	WITH MOBILES	METROPOLITAN	TOTAL
Signalling	-	-	-	-	1,209
Traffic	6,918	30,642	13,708	3,753	55,021
By time	5,152	27,403	13,708	2,522	48,785
By capacity	1,766	3,239	-	1,231	6,236
TOTAL	6,918	30,642	13,708	3,753	55,021

h) Co-location local exchanges

33. EXCHANGES WITH CO-LOCATION AND UNBUNDLING COVERAGE¹⁴

(number of exchanges and percentage)

	2007	2008	2009	2010
Co-location local exchanges	674	715	734	803
%Unbundled coverage	61.2	63.3	64.8	67.8

¹⁴ To calculate the percentage, the pairs are considered that are accessible to alternative operators, relative to Telefónica's total copper plant, without considering vacant pairs.

3. FIXED COMMUNICATIONS

3.1. Retail services

3.1.1. Fixed telephony

a) Revenues

34. TOTAL REVENUES AND DISTRIBUTION OF RETAIL FIXED TELEPHONY SERVICES¹⁵

(millions euros and percentage)

	2003	2004	2005	2006	2007	2008	2009	2010
Non-traffic subtotal	3,004.54 36.6%	3,144.50 37.9%	3,267.10 39.4%	3,183.43 42.3%	3,321.78 46.1%	3,370.63 47.8%	3,205.52 49.6%	2,915.11 49.6%
Registrations	102.81 1.3%	71.11 0.9%	87.50 1.1%	77.71 1.0%	81.21 1.1%	101.07 1.4%	91.67 1.4%	66.08 1.1%
Monthly payment	2,780.38 33.9%	2,954.12 35.6%	3,067.09 37.0%	3,001.45 39.9%	3,142.56 43.6%	3,161.23 44.8%	2,997.65 46.4%	2,753.43 46.8%
Other supplementary facilities	94.40 1.2%	92.18 1.1%	87.00 1.0%	78.76 1.0%	72.52 1.0%	82.71 1.2%	94.68 1.5%	79.71 1.4%
Network intelligence services	26.95 0.3%	27.09 0.3%	25.51 0.3%	25.50 0.3%	25.50 0.4%	25.62 0.4%	21.52 0.3%	15.88 0.3%
Traffic	5,084.59 62.0%	5,031.34 60.6%	4,896.91 59.1%	4,253.81 56.5%	3,804.22 52.8%	3,613.93 51.3%	3,203.58 49.6%	2,926.74 49.8%
Others	117.84 1.4%	120.48 1.5%	125.37 1.5%	91.01 1.2%	81.55 1.1%	66.27 0.9%	47.19 0.7%	35.32 0.6%
TOTAL	8,206.97 100.0%	8,296.32 100.0%	8,289.38 100.0%	7,528.25 100.0%	7,207.54 100.0%	7,050.82 100.0%	6,456.28 100.0%	5,877.17 100.0%

35. TOTAL REVENUES FROM FIXED TELEPHONY RETAIL SERVICES BY SEGMENT

(millions euros and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Non-traffic subtotal	1,874.49	57.3	1,040.62	40.0	2,915.11	49.6
Registrations	34.51	1.1	31.58	1.2	66.08	1.1
Monthly payment	1,779.37	54.3	974.05	37.4	2,753.43	46.8
Other supplementary facilities	60.61	1.9	19.10	0.7	79.71	1.4
Network intelligence services	-	-	15.88	0.6	15.88	0.3
Traffic	1,382.70	42.2	1,544.04	59.3	2,926.74	49.8
Others	16.94	0.5	18.38	0.7	35.32	0.6
TOTAL	3,274.13	100.0	2,603.04	100.0	5,877.17	100.0

¹⁵ There have been data consolidations for all years.

36. REVENUES AND DISTRIBUTION BY TYPE OF TRAFFIC¹⁶ (millions euros and percentage)

	2003	2004	2005	2006	2007	2008	2009	2010
Fixed domestic	1,987.63 39.1%	1,970.11 39.2%	1,735.04 35.4%	1,500.15 35.3%	1,302.05 34.2%	1,263.69 35.0%	1,233.85 38.5%	1,209.13 41.3%
Internet access	317.65 6.2%	270.24 5.4%	195.34 4.0%	147.79 3.5%	90.88 2.4%	50.33 1.4%	26.43 0.8%	12.65 0.4%
International	539.78 10.6%	581.37 11.6%	722.87 14.8%	614.37 14.4%	528.27 13.9%	542.64 15.0%	462.24 14.4%	401.32 13.7%
To mobiles	1,748.90 34.4%	1,761.37 35.0%	1,716.28 35.0%	1,564.62 36.8%	1,428.48 37.5%	1,285.85 35.6%	1,076.31 33.6%	941.14 32.2%
Network intelligence	391.58 7.7%	312.08 6.2%	332.81 6.8%	363.26 8.5%	378.37 9.9%	398.41 11.0%	364.06 11.4%	323.31 11.0%
Other traffic	99.05 1.9%	136.18 2.7%	194.56 4.0%	63.62 1.5%	76.18 2.0%	73.00 2.0%	40.69 1.3%	39.19 1.3%
Total	5,084.59 100.0%	5,031.34 100.0%	4,896.91 100.0%	4,253.81 100.0%	3,804.22 100.0%	3,613.93 100.0%	3,203.58 100.0%	2,926.74 100.0%

37. REVENUES BY TYPE OF TRAFFIC AND SEGMENT (millions euros and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Fixed domestic	683.15	49.4	525.98	34.1	1,209.13	41.3
Internet access	7.94	0.6	4.70	0.3	12.65	0.4
International	108.28	7.8	293.04	19.0	401.32	13.7
To mobiles	410.48	29.7	530.66	34.4	941.14	32.2
Network intelligence	152.26	11.0	171.05	11.1	323.31	11.0
Other traffic	20.58	1.5	18.62	1.2	39.19	1.3
TOTAL	1,382.70	100.0	1,544.04	100.0	2,926.74	100.0

¹⁶ Fixed national includes metropolitan, provincial and inter-provincial calls. There have been data consolidations for all years.

38. REVENUES FROM SERVICES MEASURED BY TIME, BY TRAFFIC TYPE AND SEGMENT

(millions euros and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Metropolitan total	94.96	12.2	137.96	10.8	232.92	11.4
Voice	91.12	11.7	135.12	10.6	226.23	11.0
Internet access	3.84	0.5	2.84	0.2	6.68	0.3
Provincial	15.42	2.0	46.31	3.6	61.72	3.0
Inter-provincial	47.45	6.1	119.99	9.4	167.44	8.2
International	96.28	12.4	290.36	22.8	386.63	18.8
To mobiles	348.64	45.0	491.61	38.5	840.26	41.0
Network intelligence	152.26	19.6	171.05	13.4	323.31	15.8
Other traffic	20.58	2.7	18.62	1.5	39.19	1.9
TOTAL	775.58	100.0	1,275.90	100.0	2,051.48	100.0

39. FLAT RATE REVENUES BY TRAFFIC TYPE AND SEGMENT

(millions euros and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Fixed domestic	529.17	87.2	224.56	83.7	753.73	86.1
Internet access	4.10	0.7	1.86	0.7	5.96	0.7
International	12.01	2.0	2.68	1.0	14.69	1.7
To mobiles	61.84	10.2	39.04	14.6	100.88	11.5
TOTAL	607.12	100.0	268.14	100.0	875.26	100.0

b) Lines and customers

40. NUMBER OF LINES IN SERVICE PER SEGMENT AND PENETRATION RATE IN THE POPULATION¹⁷

	RESIDENTIAL	BUSINESS	TOTAL	TOTAL LINES/100 INHABITANTS
2003	12,471,990	5,287,174	17,759,164	41.6
2004	12,555,720	5,378,757	17,934,477	41.5
2005	12,527,532	6,933,300	19,460,832	44.1
2006	12,758,927	7,106,110	19,865,037	44.4
2007	12,891,005	7,301,500	20,192,505	44.7
2008	13,132,823	7,443,247	20,576,070	44.6
2009	13,156,964	7,078,447	20,235,411	43.3
2010	13,343,521	6,861,985	20,205,506	43.0

41. NUMBER OF CUSTOMERS BY ACCESS TYPE

	DIRECT ACCESS CUSTOMERS	INDIRECT ACCESS CUSTOMERS	TOTAL CUSTOMERS
2001	13,853,387	5,563,647	19,417,034
2002	13,842,710	5,476,930	19,319,640
2003	13,866,390	3,341,804	17,208,194
2004	14,051,824	3,105,581	17,157,405
2005	14,014,735	2,745,624	16,760,359
2006	14,325,108	2,297,195	16,622,303
2007	14,539,759	2,107,980	16,647,739
2008	14,834,607	1,413,656	16,248,263
2009	14,893,981	1,117,549	16,011,530
2010	15,200,326	944,926	16,145,252

42. NUMBER OF PRE-SELECTED LINES

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-selected lines	1,511,379	1,883,435	2,385,890	2,295,128	1,934,027	1,822,476	1,548,762	1,212,848	896,389

¹⁷ The accounting criteria for lines changed in 2005, the PSTN being counted as 1 line, the basic ISDN as 2 lines and the primary ISDN as 30 lines. The series was updated in 2008 with the addition of product lines that combine fixed and mobile telephony in one commercial offer. The updated population data used corresponds to the 2001 census by the National Statistics Institute (INE), which in 2010 stood at 47,021,031 inhabitants.

c) Traffic

43. MINUTES PROCESSED AND TYPE OF TRAFFIC DISTRIBUTION¹⁸ (millions of minutes and percentage)

	2003	2004	2005	2006	2007	2008	2009	2010
Fixed domestic	58,223.11 <i>51.5%</i>	53,786.84 <i>53.1%</i>	51,299.88 <i>56.0%</i>	50,090.79 <i>61.3%</i>	51,275.66 <i>65.3%</i>	51,899.28 <i>70.5%</i>	52,430.32 <i>75.4%</i>	52,699.41 <i>78.8%</i>
Internet access	39,426.53 <i>34.9%</i>	31,181.65 <i>30.8%</i>	21,008.00 <i>22.9%</i>	13,505.24 <i>16.5%</i>	9,560.39 <i>12.2%</i>	5,255.40 <i>7.1%</i>	2,636.98 <i>3.8%</i>	1,159.20 <i>1.7%</i>
International	3,256.27 <i>2.9%</i>	3,688.52 <i>3.6%</i>	4,705.37 <i>5.1%</i>	5,296.41 <i>6.5%</i>	5,477.22 <i>7.0%</i>	4,718.97 <i>6.4%</i>	4,023.39 <i>5.8%</i>	3,453.54 <i>5.2%</i>
To mobiles	8,453.88 <i>7.5%</i>	8,291.20 <i>8.2%</i>	8,197.88 <i>9.0%</i>	7,697.66 <i>9.4%</i>	7,366.64 <i>9.4%</i>	6,682.51 <i>9.1%</i>	5,986.57 <i>8.6%</i>	5,537.42 <i>8.3%</i>
Network intelligence	3,080.69 <i>2.7%</i>	3,893.04 <i>3.8%</i>	4,710.80 <i>5.1%</i>	4,377.76 <i>5.4%</i>	4,037.35 <i>5.1%</i>	4,234.30 <i>5.8%</i>	3,861.53 <i>5.6%</i>	3,415.94 <i>5.1%</i>
Other traffic	666.26 <i>0.6%</i>	503.67 <i>0.5%</i>	1,641.45 <i>1.8%</i>	725.74 <i>0.9%</i>	842.37 <i>1.1%</i>	800.69 <i>1.1%</i>	589.02 <i>0.8%</i>	613.74 <i>0.9%</i>
Total	113,106.74 <i>100.0%</i>	101,344.93 <i>100.0%</i>	91,563.38 <i>100.0%</i>	81,693.59 <i>100.0%</i>	78,559.63 <i>100.0%</i>	73,591.14 <i>100.0%</i>	69,527.81 <i>100.0%</i>	66,879.24 <i>100.0%</i>

44. MINUTES BY TYPE OF TRAFFIC AND SEGMENT (millions of minutes and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Fixed domestic	37,642.91	87.4	15,056.50	63.2	52,699.41	78.8
Internet access	849.64	2.0	309.56	1.3	1,159.20	1.7
International	644.63	1.5	2,808.91	11.8	3,453.54	5.2
To mobiles	2,167.88	5.0	3,369.54	14.1	5,537.42	8.3
Network intelligence	1,602.08	3.7	1,813.85	7.6	3,415.94	5.1
Other traffic	148.88	0.3	464.86	2.0	613.74	0.9
TOTAL	43,056.01	100.0	23,823.23	100.0	66,879.24	100.0

¹⁸ There has been a consolidation of data for 2009.

45. MINUTES OF SERVICES MEASURED BY TIME, BY TRAFFIC TYPE AND SEGMENT

(millions of minutes and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Metropolitan total	2,311.32	31.9	4,184.71	27.5	6,496.03	28.9
Voice	2,092.00	28.9	4,014.49	26.4	6,106.49	27.2
Internet access	219.33	3.0	170.22	1.1	389.54	1.7
Provincial	396.59	5.5	940.00	6.2	1,336.59	6.0
Inter-provincial	627.80	8.7	1,903.05	12.5	2,530.85	11.3
International	553.73	7.6	2,783.96	18.3	3,337.69	14.9
To mobiles	1,598.43	22.1	3,116.08	20.5	4,714.51	21.0
Network intelligence	1,602.08	22.1	1,813.85	11.9	3,415.94	15.2
Other traffic	148.88	2.1	464.86	3.1	613.74	2.7
TOTAL	7,238.84	100.0	15,206.51	100.0	22,445.34	100.0

46. FLAT RATE MINUTES BY TYPE OF TRAFFIC AND SEGMENT

(millions of minutes and percentage)

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Fixed domestic	34,526.53	96.4	8,198.96	95.2	42,725.49	96.2
Internet access	630.31	1.8	139.34	1.6	769.66	1.7
International	90.90	0.3	24.96	0.3	115.85	0.3
To mobiles	569.44	1.6	253.46	2.9	822.90	1.9
TOTAL	35,817.18	100.0	8,616.72	100.0	44,433.90	100.0

d) Prices and other significant ratios

47. RATIO OF LINES IN SERVICE PER CUSTOMER

	RESIDENTIAL	BUSINESS	TOTAL
2010	1.06	2.58	1.33

48. REVENUES PER CUSTOMER AND SEGMENT (euros/customer/year)

	2004	2005	2006	2007	2008	2009	2010
Residential	286.59	287.59	263.71	261.39	268.17	266.30	246.04
Business	1,642.78	1,732.14	1,596.67	1,474.98	1,375.88	1,062.53	917.27
Total	483.54	494.58	452.90	432.94	433.94	403.23	364.02

49. AVERAGE REVENUE PER LINE IN SERVICE (euros/line/year)

	2004	2005	2006	2007	2008	2009	2010
Total	462.59	425.95	378.97	356.94	342.67	319.06	290.87
Traffic	280.54	251.63	214.14	188.40	175.64	158.32	144.85

50. TRAFFIC PER LINE IN SERVICE (minutes/line/year)

	2004	2005	2006	2007	2008	2009	2010
Residential	4,141.78	3,737.05	3,450.14	3,445.15	3,293.01	3,266.12	3,226.74
Business	9,173.47	6,453.98	5,301.56	4,676.88	4,076.80	3,751.61	3,471.77
Total	5,650.84	4,705.01	4,112.43	3,890.53	3,576.54	3,435.95	3,309.95

51. AVERAGE REVENUE BY TYPE OF TRAFFIC (euro cents/minute)

	2003	2004	2005	2006	2007	2008	2009	2010
Fixed domestic	3.41	3.66	3.38	2.99	2.54	2.43	2.35	2.29
Internet access	0.81	0.87	0.93	1.09	0.95	0.96	1.00	1.09
International	16.58	15.76	15.36	11.60	9.64	11.50	11.49	11.62
To mobiles	20.69	21.24	20.94	20.33	19.39	19.24	17.98	17.00
Network intelligence	12.71	8.02	7.06	8.30	9.37	9.41	9.43	9.46
Other traffic	14.87	27.04	11.85	8.77	9.04	9.12	6.91	6.39
Total	4.50	4.96	5.35	5.21	4.84	4.91	4.61	4.38

e) Individual parameters and market shares

52. REVENUES AND MARKET SHARE OF FIXED TELEPHONY (millions euros and percentage)		
	REVENUES	% / TOTAL
Telefónica de España	4,400.00	74.9
Ono	511.47	8.7
Vodafone	244.70	4.2
Orange	142.10	2.4
Jazztel	107.66	1.8
Euskaltel	104.29	1.8
R	96.59	1.6
BT	73.75	1.3
TeleCable	27.42	0.5
Others	169.20	2.9
Total	5,877.17	100.0

53. MARKET SHARES OF TELEFÓNICA DE ESPAÑA BY REVENUES (percentage)								
	2003	2004	2005	2006	2007	2008	2009	2010
Total	81.7	79.2	78.1	79.0	79.1	79.2	76.9	74.9
Traffic	74.9	72.4	71.9	72.0	74.3	74.6	70.7	68.4
Fixed domestic	76.5	73.2	75.8	79.1	84.7	83.4	76.7	73.7
Internet access	90.4	90.3	87.6	89.4	93.4	93.6	93.3	94.4
International	64.9	68.3	63.9	56.4	55.9	61.9	60.0	58.0
To mobiles	70.2	66.6	65.6	68.9	69.9	70.1	69.4	68.6
Network intelligence	83.4	81.7	76.9	72.2	74.3	74.2	65.2	59.2
Other traffic	97.8	97.5	97.4	91.2	84.6	86.8	81.4	69.7

54. REVENUES FROM TRAFFIC AND MARKET SHARE¹⁹ (millions euros and percentage)

	2004	2005	2006	2007	2008	2009	2010
Telefónica de España	3,645.03 72.4%	3,518.89 71.9%	3,062.73 72.0%	2,826.30 74.3%	2,697.29 74.6%	2,265.50 70.7%	2,000.87 68.4%
Vodafone	14.78 0.3%	22.11 0.5%	27.06 0.6%	25.41 0.7%	141.14 3.9%	198.31 6.2%	231.95 7.9%
Ono	540.37 10.7%	484.49 9.9%	374.33 8.8%	269.46 7.1%	226.14 6.3%	185.32 5.8%	152.73 5.2%
Orange	244.50 4.9%	280.86 5.7%	225.60 5.3%	158.69 4.2%	159.37 4.4%	159.37 5.0%	137.72 4.7%
Jazztel	88.05 1.8%	80.03 1.6%	75.71 1.8%	78.72 2.1%	73.46 2.0%	77.58 2.4%	93.09 3.2%
BT	83.08 1.7%	91.69 1.9%	116.22 2.7%	108.84 2.9%	95.46 2.6%	70.97 2.2%	70.44 2.4%
R	31.85 0.6%	39.32 0.8%	36.63 0.9%	36.44 1.0%	37.54 1.0%	41.72 1.3%	43.90 1.5%
Euskaltel	69.51 1.4%	69.11 1.4%	65.27 1.5%	61.78 1.6%	55.23 1.5%	47.23 1.5%	40.75 1.4%
Others	314.17 6.2%	310.41 6.3%	270.26 6.4%	238.58 6.3%	128.30 3.6%	157.58 4.9%	155.29 5.3%
Total	5,031.34 100.0%	4,896.91 100.0%	4,253.81 100.0%	3,804.22 100.0%	3,613.93 100.0%	3,203.58 100.0%	2,926.74 100.0%

55. CUSTOMERS AND MARKET SHARES BY SEGMENT

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Telefónica de España	7,790,112	58.5	2,032,823	71.6	9,822,935	60.8
Ono	1,795,781	13.5	84,960	3.0	1,880,741	11.6
Orange	1,075,370	8.1	141,721	5.0	1,217,091	7.5
Jazztel	935,071	7.0	109,131	3.8	1,044,202	6.5
Vodafone	889,618	6.7	247,479	8.7	1,137,097	7.0
Euskaltel	294,921	2.2	40,126	1.4	335,047	2.1
R	192,572	1.4	58,141	2.0	250,713	1.6
TeleCable	104,349	0.8	13,030	0.5	117,379	0.7
Others	229,663	1.7	110,384	3.9	340,047	2.1
Total	13,307,457	100.0	2,837,795	21.3	16,145,252	100.0

¹⁹ Revenues from *Traffic* do not include revenues of the *Non-traffic subtotal* (*Registrations, Monthly payment, Other supplementary facilities and Network intelligence service*) and *Others*. There have been data consolidations in all years.

56. DIRECT ACCESS CUSTOMERS AND MARKET SHARES

	DIRECT ACCESS CUSTOMERS	% / TOTAL
Telefónica de España	9,822,935	64.6
Ono	1,856,175	12.2
Vodafone	1,078,694	7.1
Jazztel	920,946	6.1
Orange	663,169	4.4
Euskaltel	325,503	2.1
R	238,521	1.6
TeleCable	117,367	0.8
Others	177,016	1.2
Total	15,200,326	100.0

57. LINES IN SERVICE AND MARKET SHARES BY SEGMENT

	RESIDENTIAL	% / RESIDENTIAL	BUSINESS	% / BUSINESS	TOTAL	% / TOTAL
Telefónica de España	8,359,233	62.6	5,405,408	78.8	13,764,641	68.1
Ono	1,845,227	13.8	275,712	4.0	2,120,939	10.5
Vodafone	849,385	6.4	508,882	7.4	1,358,267	6.7
Jazztel	838,814	6.3	82,154	1.2	920,968	4.6
Orange	733,241	5.5	128,397	1.9	861,638	4.3
Euskaltel	289,752	2.2	84,211	1.2	373,963	1.9
R	192,572	1.4	83,998	1.2	276,570	1.4
Others	235,297	1.8	293,223	4.3	528,520	2.6
Total	13,343,521	100.0	6,861,985	100.0	20,205,506	100.0

58. TRAFFIC AND MARKET SHARE OF FIXED TELEPHONY SERVICE (millions of minutes and percentage)

	TRAFFIC	% / TOTAL
Telefónica de España	39,153.05	58.5
Ono	9,679.01	14.5
Jazztel	4,805.63	7.2
Orange	4,362.98	6.5
Vodafone	3,768.73	5.6
Euskaltel	1,161.56	1.7
R	972.17	1.5
Others	2,976.11	4.4
Total	66,879.24	100.0

59. MARKET SHARES OF TELEFÓNICA DE ESPAÑA BY TRAFFIC (percentage)

	2003	2004	2005	2006	2007	2008	2009	2010
Traffic Total	73.1	70.0	68.1	67.1	66.4	65.7	61.7	58.5
Fixed domestic	77.1	72.9	68.4	66.1	63.7	64.3	61.4	58.7
Internet access	70.3	68.8	73.7	81.9	92.0	93.0	90.2	93.1
International	51.4	47.2	42.0	39.7	43.1	50.4	45.0	40.9
To mobiles	69.3	69.7	69.3	70.6	69.8	68.5	65.4	64.1
Network intelligence	77.3	58.4	53.2	55.7	58.8	56.1	52.6	49.6

60. TRAFFIC AND MARKET SHARE OF TRAFFIC TO FIXED DOMESTIC (millions of minutes and percentage)

	TRAFFIC	% / TOTAL
Telefónica de España	30,939.19	58.7
Ono	8,649.65	16.4
Orange	3,857.30	7.3
Jazztel	3,240.12	6.1
Vodafone	2,824.55	5.4
Euskaltel	947.41	1.8
R	729.24	1.4
Others	1,511.95	2.9
Total	52,699.41	100.0

61. TRAFFIC AND MARKET SHARE OF INTERANTIONAL TRAFFIC (millions of minutes and percentage)

	TRAFFIC	% / TOTAL
Telefónica de España	1,413.77	40.9
Jazztel	876.35	25.4
BT	234.89	6.8
Orange	222.04	6.4
Others	706.50	20.5
Total	3,453.54	100.0

62. TRAFFIC AND MARKET SHARE OF TRAFFIC TO MOBILE (millions of minutes and percentage)

	TRAFFIC	% / TOTAL
Telefónica de España	3,549.60	64.1
Vodafone	704.67	12.7
Ono	341.20	6.2
Orange	226.23	4.1
Jazztel	170.33	3.1
R	156.58	2.8
Euskaltel	110.86	2.0
Others	277.95	5.0
Total	5,537.42	100.0

63. TRAFFIC AND MARKET SHARES OF INTELLIGENT NETWORK TRAFFIC

(millions of minutes and percentage)

	TRAFFIC	% / TOTAL
Telefónica de España	1,695.26	49.6
Ono	584.10	17.1
Jazztel	496.10	14.5
Vodafone	150.40	4.4
Euskaltel	78.85	2.3
Orange	44.34	1.3
Others	366.89	10.7
Total	3,415.94	100.0

3.1.2. Retail business communications

a) Revenues

64. REVENUE FROM BUSINESS COMMUNICATION SERVICES (millions euros)							
	2004	2005	2006	2007	2008	2009	2010
Data transmission to end customers	777.26	812.69	886.17	878.62	921.67	934.35	924.63
Circuit rental to end customers	331.10	398.87	300.51	357.39	411.56	456.84	486.64
Corporate communications	120.76	95.50	94.52	99.87	142.88	126.81	133.76
Total	1,229.13	1,307.06	1,281.21	1,335.87	1,476.11	1,518.00	1,545.04

b) Circuit rental

65. REVENUE FROM CIRCUITS LEASED BY TECHNOLOGY TYPE²⁰ (millions euros)								
	2003	2004	2005	2006	2007	2008	2009	2010
Analogue	14.47	17.23	15.04	14.75	14.01	12.20	10.00	8.40
Digital	283.08	266.49	289.84	170.99	323.43	385.62	378.83	413.68
Low capacity	59.99	55.01	38.68	15.73	16.43	13.25	10.18	9.80
Medium capacity	169.77	166.29	185.35	102.55	107.52	116.02	94.57	81.32
High capacity	53.31	45.19	65.81	52.71	199.48	256.35	274.08	322.56
Radio	0.93	0.85	0.82	1.94	1.88	-	1.30	1.17
Telex/Telegraph	0.63	0.44	0.31	0.24	0.19	-	0.12	0.10
Other circuits	5.12	19.52	51.75	107.54	8.97	10.38	60.98	62.35
Other revenues	19.80	26.57	41.11	5.05	8.92	3.34	5.61	0.93
Total	324.02	331.10	398.87	300.51	357.39	411.56	456.84	486.64

66. NUMBER OF LEASED CIRCUITS BY TECHNOLOGY²¹								
	2003	2004	2005	2006	2007	2008	2009	2010
Analogue	6,625	6,393	6,287	5,492	5,107	4,665	4,669	3,941
Digital	58,819	52,175	53,774	34,352	42,766	56,059	57,980	50,650
Low capacity	24,264	21,611	17,580	7,097	5,526	4,762	4,203	2,752
Medium capacity	32,119	28,321	33,267	23,209	20,548	24,294	22,075	9,346
High capacity	2,436	2,243	2,927	4,046	16,692	27,003	31,701	38,552
Other circuits	74	826	3,403	10,078	2,124	432	11,679	14,127
Total	65,518	59,394	63,464	49,921	49,997	61,156	74,327	68,718

²⁰ From 2007 on, the *High Capacity Digital Circuits* included the circuits *Ethernet*, *Fast Ethernet* and *Gigabit Ethernet*, which were previously included in the section *Other circuits*.

²¹ See note 20.

67. REVENUE AND MARKET SHARES OF CIRCUIT RENTAL SERVICES (millions euros and percentage)

	REVENUES	% / TOTAL
Telefónica de España	363.87	74.8
Euskaltel	26.92	5.5
Ono	24.02	4.9
Orange	22.83	4.7
Xtra	9.28	1.9
BT	6.88	1.4
R	5.69	1.2
Colt	5.37	1.1
Others	21.78	4.5
Total	486.64	100.0

c) Data Transmission

68. REVENUE FROM DEDICATED DATA LINES (millions euros)

	2006	2007	2008	2009	2010
Dedicated data lines	828.03	823.55	863.30	894.59	884.61
Frame Relay	422.99	367.28	326.56	309.42	271.12
IP	222.38	266.28	334.55	378.84	405.20
ATM	88.36	96.37	76.05	58.18	53.78
X.25	44.35	28.56	16.26	17.32	17.00
VSAT networks	2.79	2.31	3.55	4.04	3.94
RDSI	0.06	0.04	0.05	0.66	0.90
Others	47.10	62.70	106.27	126.13	132.66
Information Services	58.14	55.07	58.37	39.76	40.02
Total	886.17	878.62	921.67	934.35	924.63

69. REVENUE AND MARKET SHARES OF DATA TRANSMISSION SERVICES (millions euros and percentage)

	REVENUES	% / TOTAL
Telefónica de España	525.25	56.8
BT	184.92	20.0
Colt	39.13	4.2
AT&T	31.34	3.4
Orange	23.01	2.5
Ono	19.29	2.1
T-systems	18.59	2.0
Verizon	14.36	1.6
Cable development	10.28	1.1
Vodafone	9.79	1.1
Jazztel	9.78	1.1
Others	38.90	4.2
Total	924.63	100.0

3.1.3. Telephone information services

70. REVENUES AND MARKET SHARES OF THE TELEPHONE INFORMATION SERVICES

(millions euros and percentage)

	2009	2010	% / TOTAL
11888 Telephone Consultation Service	40.49	37.05	49.7
Telefónica de España	23.38	19.99	26.8
11811 New Telephone Information	10.48	9.87	13.2
Others	9.84	7.66	10.3
Total	84.19	74.57	100.0

71. TRAFFIC AND MARKET SHARES OF THE TELEPHONE INFORMATION SERVICES

(millions of minutes and percentage)

	2009	2010	% / TOTAL
11888 Telephone Consultation Service	36.96	32.20	43.6
Telefónica de España	26.35	23.10	31.3
11811 New Telephone Information	10.69	8.81	11.9
Others	12.87	9.79	13.2
Total	86.88	73.89	100.0

72. NUMBER OF CALLS AND MARKET SHARES OF THE TELEPHONE INFORMATION SERVICES

(millions of minutes and percentage)

	2009	2010	% / TOTAL
11888 Telephone Consultation Service	22.52	17.92	44.7
Telefónica de España	17.79	15.26	38.1
11811 New Telephone Information	5.36	4.18	10.4
Others	3.99	2.69	6.7
Total	49.66	40.05	100.0

3.2. Wholesale services

3.2.1. Interconnection services

a) Revenues

73. REVENUE FROM INTERCONNECTION SERVICES²² (millions euros)						
	2005	2006	2007	2008	2009	2010
Termination services	404.18	373.37	350.07	349.51	330.10	299.85
International	257.43	232.50	228.92	223.30	208.81	164.01
Domestic	146.75	140.87	121.15	126.21	121.28	135.84
Access services	41.15	18.39	16.44	5.42	3.36	3.98
Transit services	741.39	809.99	850.68	993.58	1,025.07	1,029.39
International	378.67	485.89	522.69	614.12	678.06	737.94
Domestic	362.72	324.10	328.00	379.46	347.01	291.45
Capacity interconnection services	115.62	100.58	88.64	95.77	103.39	94.73
Access	87.25	59.04	39.52	39.62	32.62	28.56
Termination	28.37	41.54	49.12	56.16	70.77	66.17
Intelligent network services	147.92	182.17	260.72	260.03	213.03	219.48
Other fixed network interconnection services	53.84	45.78	41.16	38.01	18.94	13.24
Total	1,504.10	1,530.28	1,607.72	1,742.33	1,693.88	1,660.67

²² *International termination services* correspond to revenue from termination of calls originating from abroad to Spanish numbers. Telefónica de España had updated the 2008 and 2009 series in *Other fixed interconnection services* and in *Termination Capacity Interconnection Services*.

b) Traffic

74. TRAFFIC FROM INTERCONNECTION SERVICES²³ (millions of minutes)

	2005	2006	2007	2008	2009	2010
Termination services	22,064.18	20,567.32	19,330.66	19,734.24	20,379.10	21,844.51
International	3,325.86	3,393.02	3,537.56	3,777.88	3,960.51	4,076.22
Domestic	18,738.31	17,174.30	15,793.10	15,956.36	16,418.59	17,768.29
Access services	6,002.07	2,218.87	1,573.80	569.90	482.51	617.22
Transit services	10,375.40	12,205.17	14,531.90	17,547.12	18,178.31	18,869.55
International	4,246.89	5,744.46	7,178.81	8,267.40	8,819.36	9,659.88
Domestic	6,128.51	6,460.71	7,353.08	9,279.72	9,358.95	9,209.66
Capacity interconnection services	30,284.39	24,300.58	22,502.72	22,876.29	21,811.98	20,626.54
Access	23,142.88	15,628.14	9,699.75	9,492.86	7,325.08	5,679.19
Termination	7,141.52	8,672.44	12,802.97	13,383.43	14,486.90	14,947.35
Intelligent network services	3,466.05	3,524.73	2,935.54	3,355.25	2,726.21	2,349.41
Other fixed network interconnection services	398.75	465.05	389.13	280.64	180.79	246.96
Total	72,590.84	63,281.73	61,263.75	64,363.44	63,758.90	64,554.19

c) Prices

75. AVERAGE REVENUE FROM INTERCONNECTION SERVICES²⁴ (cents euro/minute)

	2005	2006	2007	2008	2009	2010
Termination services	1.83	1.82	1.81	1.77	1.62	1.37
International	7.74	6.85	6.47	5.91	5.27	4.02
Domestic	0.78	0.82	0.77	0.79	0.74	0.76
Access services	0.69	0.83	1.04	0.95	0.70	0.65
Transit services	7.15	6.64	5.85	5.66	5.64	5.46
International	8.92	8.46	7.28	7.43	7.69	7.64
Domestic	5.92	5.02	4.46	4.09	3.71	3.16
Capacity interconnection services	0.38	0.41	0.39	0.42	0.47	0.46
Access	0.38	0.38	0.41	0.42	0.45	0.50
Termination	0.40	0.48	0.38	0.42	0.49	0.44
Intelligent network services	4.27	5.17	8.88	7.75	7.81	9.34
Other fixed interconnection services	13.50	9.84	10.58	13.54	10.48	5.36
Total	2.07	2.42	2.62	2.71	2.66	2.57

²³ See note 22.²⁴ See note 22.

d) Individual parameters and market shares

76. TRAFFIC, REVENUE AND MARKET SHARES OF FIXED-LINE INTERCONNECTION SERVICE BY OPERATOR (millions of minutes, millions euros and percentage)

	TRAFFIC	REVENUES	% / TOTAL REVENUE
Telefónica de España	40,000.53	939.16	56.6
Orange	3,378.46	137.43	8.3
Jazztel	5,350.60	116.10	7.0
Ono	5,844.84	93.89	5.7
BT	1,250.86	73.51	4.4
Vodafone	3,099.49	54.03	3.3
Colt	827.96	40.12	2.4
Others	4,801.47	206.42	12.4
Total	64,554.19	1,660.67	100.0

3.2.2. Circuit rental to operators

a) Revenues

77. REVENUE BY TYPE OF TECHNOLOGY²⁵ (millions euros)

	2004	2005	2006	2007	2008	2009	2010
Digital	211.30	196.70	179.50	209.76	154.86	125.90	114.99
Low capacity	44.64	29.41	6.99	4.16	3.49	2.16	1.86
Medium capacity	125.86	134.61	139.00	145.19	106.43	84.68	75.02
High capacity	40.80	32.68	33.51	60.41	44.94	39.06	38.11
Other circuits	23.44	29.83	33.24	7.69	23.68	21.60	22.62
Carrying capacity	298.10	351.28	388.63	423.61	445.50	519.39	577.46
Other revenues	20.04	9.98	18.40	40.41	22.79	15.22	12.61
Total	552.87	587.78	619.77	681.47	646.83	682.12	727.68

²⁵ From 2007 on, the *High Capacity Digital Circuits* included the circuits *Ethernet*, *Fast Ethernet* and *Gigabit Ethernet*, which were previously included in the section *Other circuits*.

b) Circuits

78. NUMBER OF LEASED CIRCUITS BY TECHNOLOGY²⁶

	2006	2007	2008	2009	2010
Digital	30,961	32,192	31,275	29,525	28,332
Low capacity	2,893	2,197	1,354	1,013	894
Medium capacity	26,404	27,967	28,214	26,548	25,355
High capacity	1,664	2,029	1,707	1,964	2,083
Other circuits	776	686	673	865	876
Carrying capacity	67,325	80,406	98,678	113,519	119,282
Total	99,062	113,284	130,626	143,909	148,490

c) Individual parameters and market shares

79. REVENUES AND MARKET SHARES OF SERVICES OF CIRCUIT RENTAL TO OPERATORS

(millions euros and percentage)

	REVENUES	% / TOTAL
Telefónica de España	600.45	82.5
Ono	29.42	4.0
Orange	22.50	3.1
Abertis Group	17.50	2.4
Islalink	7.20	1.0
BT	5.96	0.8
Others	44.64	6.1
Total	727.68	100.0

²⁶ See note 25.

3.2.3. Data transmission to operators

a) Revenues

80. REVENUE FROM DATA TRANSMISSION SERVICES TO CARRIERS²⁷ (millions euros)							
	2004	2005	2006	2007	2008	2009	2010
Dedicated data lines	129.15	89.36	5.54	8.15	6.59	8.32	5.55
ATM	0.81	1.01	1.03	1.41	1.43	2.37	1.66
Frame Relay	1.04	0.25	0.53	0.76	0.70	0.32	0.36
IP	102.48	86.92	1.13	0.69	0.77	0.75	0.26
RDSI	0.30	0.38	0.41	0.39	0.40	0.39	0.31
VSAT networks	0.11	0.44	0.95	1.50	0.93	1.14	1.42
Others	24.41	0.36	1.48	3.39	2.37	3.35	1.54
Internet access services and others data services	71.20	47.40	18.62	16.26	19.57	19.33	18.03
Information services	53.95	47.62	46.28	49.06	35.93	27.00	13.65
Total	254.29	184.38	70.45	73.47	62.09	54.65	37.23

b) Individual parameters

81. REVENUE FROM DATA TRANSMISSION SERVICES BY OPERATOR (millions euros)							
	2004	2005	2006	2007	2008	2009	2010
Telefónica International Wholesale	49.51	42.62	44.76	45.71	35.93	27.00	13.65
Cogent	1.86	3.55	6.39	8.14	7.75	6.89	7.26
Ono	36.63	19.68	9.67	5.71	3.42	3.31	3.10
Telia International Carrier	-	-	-	0.51	1.35	2.03	1.58
Others	166.29	118.52	9.63	13.39	13.63	15.42	11.64
Total	254.29	184.38	70.45	73.47	62.09	54.65	37.23

²⁷ In 2009 Telefónica International Wholesale updated its series of *Other information services*.

4. MOBILE COMMUNICATIONS

4.1. Retail services

a) Revenues

82. TOTAL REVENUES AND YEAR-ON-YEAR VARIATION IN MOBILE TELEPHONY²⁸

(millions euros and percentage)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Mobile telephony	6,298.28	7,446.61	8,811.47	10,296.70	11,981.89	13,251.49	14,769.94	14,918.39	14,323.34	13,855.53
		18.2%	18.3%	16.9%	16.4%	10.6%	11.5%	1.0%	-4.0%	-3.3%
Shares of start-up and subscription	451.91	309.55	190.00	197.81	295.90	319.62	551.51	799.89	983.88	1,362.58
		-31.5%	-38.6%	4.1%	49.6%	8.0%	72.6%	45.0%	23.0%	38.5%
Traffic	5,188.42	6,184.83	7,363.53	8,560.00	9,829.73	10,821.27	11,692.47	11,280.18	10,270.95	9,273.01
		19.2%	19.1%	16.2%	14.8%	10.1%	8.1%	-3.5%	-8.9%	-9.7%
Messages short	657.95	952.24	1,208.14	1,382.27	1,553.15	1,647.71	1,743.02	1,729.58	1,572.19	1,260.41
		44.7%	26.9%	14.4%	12.4%	6.1%	5.8%	-0.8%	-9.1%	-19.8%
Data	-	-	49.80	156.61	303.11	462.89	782.94	1,108.75	1,496.31	1,959.53
				214.4%	93.5%	52.7%	69.1%	41.6%	35.0%	31.0%
Other Services	17.49	21.29	80.01	98.03	118.01	92.82	116.87	149.27	133.80	168.41
		21.7%	275.7%	22.5%	20.4%	-21.3%	25.9%	27.7%	-10.4%	25.9%
Total	6,315.77	7,467.90	8,891.48	10,394.73	12,099.90	13,344.31	14,886.81	15,067.67	14,457.13	14,023.94
		18.2%	19.1%	16.9%	16.4%	10.3%	11.6%	1.2%	-4.1%	-3.0%

²⁸ Other services includes revenues from telemetry and remote control, radio-paging, trunking and others.

83. REVENUE FROM MOBILE TELEPHONY BY CONTRACT TYPE²⁹ (millions euros)

	PREPAID			POSTPAID			TOTAL		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Start-up and subscription fees	1.56	0.31	0.00	798.32	983.57	1,362.58	799.88	983.88	1,362.58
Traffic	1,802.34	1,598.56	1,383.12	9,477.84	8,672.39	7,889.89	11,280.18	10,270.95	9,273.01
Fixed domestic	201.58	136.58	117.73	995.34	878.49	657.54	1,196.92	1,015.07	775.27
National mobile	1,302.77	1,154.26	974.36	7,027.04	6,514.22	6,074.68	8,329.81	7,668.48	7,049.04
On net	756.53	635.70	462.47	3,754.02	3,356.84	3,103.03	4,510.55	3,992.54	3,565.50
Off net	546.24	518.57	511.88	3,273.02	3,157.39	2,971.65	3,819.26	3,675.96	3,483.53
International	205.80	188.50	198.01	494.52	434.32	366.05	700.32	622.82	564.06
Network intelligence	48.18	77.23	59.70	316.35	304.22	279.96	364.53	381.45	339.66
International roaming	37.01	32.40	27.77	585.44	488.22	466.94	622.45	520.62	494.71
Other traffic	6.98	9.59	5.56	59.15	52.91	44.72	66.13	62.50	50.28
Short messages	472.67	393.28	300.31	1,256.91	1,178.92	960.11	1,729.58	1,572.20	1,260.41
National mobile	262.48	217.51	184.81	809.76	764.55	708.15	1,072.24	982.06	892.96
International mobile	39.04	29.77	27.33	47.93	46.41	47.96	86.97	76.18	75.29
Added value services	161.01	139.81	83.19	356.92	335.44	173.66	517.93	475.25	256.85
International roaming	10.15	6.19	4.98	42.30	32.52	30.33	52.45	38.71	35.32
Data traffic	271.67	322.06	390.29	837.08	1,174.25	1,569.23	1,108.75	1,496.31	1,959.52
Domestic	269.36	321.33	389.96	743.76	1,051.57	1,427.00	1,013.12	1,372.90	1,816.96
International roaming	2.31	0.72	0.33	93.32	122.68	142.23	95.63	123.40	142.56
Total	2,548.24	2,314.20	2,073.72	12,370.15	12,009.13	11,781.81	14,918.39	14,323.33	13,855.53

²⁹ Revenues from *Other services* are not included.

84. SHORT MESSAGE REVENUE³⁰ (millions euros)

	2006	2007	2008	2009	2010
SMS messages between subscribers	1,057.14	1,075.91	1,062.37	976.11	890.81
Domestic	981.13	993.80	977.78	902.50	818.33
On net	580.27	565.09	553.16	488.33	432.54
Off net	400.86	428.71	424.61	414.17	385.79
International	76.01	82.12	84.60	73.61	72.48
MMS messages between subscribers	70.99	88.69	96.83	82.13	77.44
Domestic	69.75	87.13	94.46	79.56	74.63
On net	47.93	57.21	71.80	46.47	42.60
Off net	21.82	29.92	22.66	33.09	32.03
International	1.24	1.56	2.37	2.57	2.81
Additional cost services on SMS and MMS	477.41	525.58	517.93	475.25	256.85
International roaming	42.18	52.83	52.44	38.71	35.32
Total	1,647.71	1,743.02	1,729.58	1,572.19	1,260.41

b) Lines

85. NUMBER OF MOBILE COMMUNICATIONS SERVICE LINES BY SEGMENT AND *DATA*CARDS

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Mobile telephony	29,655,729	33,530,997	37,219,839	38,622,582	42,693,832	45,675,655	48,422,470	49,623,339	51,083,880	51,601,028
Postpaid	10,384,261	12,657,346	15,592,659	18,555,948	21,980,367	24,794,696	27,657,855	29,310,320	30,203,953	31,460,607
Prepaid	19,271,468	20,873,651	21,627,180	20,066,634	20,713,465	20,880,959	20,764,615	20,313,019	20,879,927	20,140,421
Datacards	-	-	-	-	-	324,653	653,130	1,188,226	1,960,780	3,354,756
UMTS	-	-	-	-	-	276,450	99,300	80,805	97,332	216,800
HSDPA	-	-	-	-	-	48,203	553,830	1,107,421	1,863,448	3,137,956
Total	29,655,729	33,530,997	37,219,839	38,622,582	42,693,832	46,000,308	49,075,600	50,811,565	53,044,660	54,955,784

³⁰ In 2010 the accounting criteria for revenue from messages lines with premium rate services for the purpose of applying the provisions published in Order ITC/308/2008 of 31 January.

86. LINES ASSOCIATED WITH RADIO-PAGING AND TRUNKING MACHINES AND CUSTOMERS

	2007	2008	2009	2010
Lines associated with machines	1,111,136	1,470,234	1,847,561	2,129,275
Radio-paging customers	14,112	10,543	9,279	6,518
Trunking customers	697	461	424	325

87. PENETRATION RATE OF MOBILE TELEPHONY IN THE POPULATION³¹ (lines/100 inhabitants)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Penetration	16.2	37.3	59.9	72.1	80.1	87.1	89.4	96.8	102.2	107.1	107.5	109.3	109.7

c) Traffic

88. MINUTES PER TRAFFIC TYPE³² (millions of minutes)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fixed domestic	4,454.14	5,129.19	5,453.28	5,743.60	6,444.50	6,811.08	7,412.08	7,417.36	6,708.75	6,558.13
National mobile	12,921.06	17,101.61	23,004.13	28,724.89	38,838.63	47,613.28	56,136.25	59,477.68	59,369.95	60,259.00
On net	-	-	-	18,996.80	26,533.37	32,523.64	38,861.83	39,825.20	36,958.91	35,968.92
Off net	-	-	-	9,728.10	12,305.26	15,089.64	17,274.43	19,652.47	22,411.05	24,290.08
International	441.61	481.61	517.52	667.17	795.01	1,007.25	1,463.59	1,533.81	1,874.19	2,027.00
Network intelligence	651.45	735.86	379.18	457.39	594.04	714.68	712.74	720.49	790.04	738.82
Roaming international	-	-	432.21	488.90	531.58	642.43	778.64	801.43	728.24	749.29
Other traffic	1,741.99	1,367.94	1,156.09	1,038.09	1,048.31	1,031.44	1,276.13	1,160.17	1,085.46	1,088.45
Total	20,498.48	25,155.20	30,942.40	37,120.05	48,252.06	57,820.15	67,779.43	71,110.95	70,556.63	71,420.69

³¹ The updated population data used corresponds to the 2001 census by the National Statistics Institute (INE), which in 2010 stood at 47,021,031 inhabitants.

³² Since 2005 voice traffic has been registered based on the minutes actually consumed (rather than billed minutes).

89. SHORT MESSAGES³³ (millions of messages)

	2006	2007	2008	2009	2010
SMS messages between subscribers	8,760.68	9,539.44	8,940.65	8,242.52	7,914.44
Domestic	8,620.58	9,379.30	8,770.88	8,075.26	7,740.91
On net	5,501.99	6,258.74	5,393.61	4,874.29	4,564.29
Off net	3,118.59	3,120.57	3,377.27	3,200.97	3,176.62
International	140.10	160.14	169.77	167.26	173.53
MMS messages between subscribers	216.24	276.34	159.14	129.00	158.91
Domestic	215.03	275.18	157.71	127.30	157.22
On net	151.19	216.60	104.13	89.12	117.31
Off net	63.84	58.57	53.58	38.18	39.91
International	1.21	1.16	1.42	1.69	1.69
Additional cost services on SMS and MMS	4,404.31	2,483.47	2,516.66	2,184.30	735.66
International roaming	44.54	96.70	114.87	103.40	111.75
Total	13,425.77	12,395.96	11,731.32	10,659.22	8,920.77

d) Prices and other significant ratios

90. TOTAL REVENUE PER LINE (euros/line/year)

	PREPAID	POSTPAID	TOTAL
Voice services	68.67	294.10	206.11
Shares	-	43.31	26.41
Traffic	68.67	250.79	179.71
Short messages	14.91	30.52	24.43
Data	19.38	49.88	37.97

91. REVENUE FROM TRAFFIC BY LINE³⁴ (euros/line/year)

	2006	2007	2008	2009	2010
Postpaid	371.34	371.41	350.60	319.69	294.10
Prepaid	92.60	94.95	88.81	76.57	68.67
Total	243.91	252.86	243.44	220.32	206.11

³³ In 2010 the accounting criteria for revenue from messages lines with additional cost services for the purpose of applying the provisions published in Order ITC/308/2008 of 31 January.

³⁴ Only revenues from *Traffic* and *Start-up and subscription fees* are included.

92. AVERAGE REVENUE BY AIR MINUTE (euro cents/minute)

	2003	2004	2005	2006	2007	2008	2009	2010
Revenue per air minute	23.21	23.59	20.98	19.27	18.06	16.99	15.95	14.89
Postpaid	22.27	22.64	20.80	19.12	18.26	17.10	16.00	14.97
Prepaid	26.70	27.89	21.81	20.03	17.11	16.39	15.69	14.36

93. REVENUE PER AIR MINUTE BY TYPE OF TRAFFIC³⁵ (cents euro/minute)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fixed domestic	29.34	26.16	25.74	24.99	22.89	20.29	18.29	16.14	15.13	11.82
National mobile	22.53	22.21	21.34	20.76	18.13	16.36	15.00	14.00	12.92	11.70
On net	-	-	-	17.37	14.15	13.38	12.18	11.33	10.80	9.91
Off net	-	-	-	27.38	26.71	22.78	21.36	19.43	16.40	14.34
International	63.44	64.98	73.79	67.23	60.22	63.11	49.90	45.66	33.23	27.83
Network intelligence	26.74	29.29	43.51	40.51	38.58	41.02	50.83	50.59	48.28	45.97
International roaming	-	-	-	86.58	105.82	101.01	95.97	77.67	71.49	66.02

94. REVENUE PER SHORT MESSAGE (cents euro/message)

	2006	2007	2008	2009	2010
SMS messages between subscribers	12.07	11.28	11.88	11.84	11.26
Domestic	11.38	10.60	11.15	11.18	10.57
On net	10.55	9.03	10.26	10.02	9.48
Off net	12.85	13.74	12.57	12.94	12.14
International	54.25	51.28	49.83	44.01	41.76
MMS messages between subscribers	32.83	32.09	60.85	63.67	48.73
Domestic	32.44	31.66	59.89	62.49	47.47
On net	31.70	26.41	68.95	52.14	36.31
Off net	34.17	51.08	42.30	86.66	80.25
International	101.84	134.93	166.41	151.86	166.92
Additional cost services on SMS and MMS	10.84	21.16	20.58	21.76	34.91
International roaming	94.70	54.63	45.66	37.44	31.60
Total	12.27	14.06	14.74	14.75	14.13

³⁵ See note 32.

95. TRAFFIC PER LINE (minutes/line/year)

	2003	2004	2005	2006	2007	2008	2009	2010
Postpaid	1,563.46	1,638.70	1,788.54	1,942.53	2,034.03	2,050.58	1,998.62	1,963.91
Prepaid	303.50	334.51	431.57	462.41	554.91	541.91	488.05	478.38
Total	831.34	961.10	1,130.19	1,265.89	1,399.75	1,433.01	1,381.19	1,384.09

e) Individual parameters and market shares

96. TOTAL REVENUES BY OPERATOR (millions euros)

	2005	2006	2007	2008	2009	2010
Movistar	6,293.31	6,675.60	7,304.85	7,364.12	6,936.67	6,593.67
Vodafone	3,594.33	4,357.41	4,989.54	4,988.21	4,612.09	4,270.26
Orange	2,198.85	2,298.89	2,483.00	2,498.66	2,474.75	2,475.17
Yoigo	-	0.19	35.25	107.24	200.70	337.29
Others	13.42	12.21	74.17	109.43	232.91	347.56
Total	12,099.90	13,344.31	14,886.81	15,067.67	14,457.13	14,023.94

97. REVENUES BY TYPE OF CONTRACT AND SEGMENT³⁶ (millions euros and percentage)

	2009				2010			
	PREPAID		POSTPAID		PREPAID		POSTPAID	
	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS
Movistar	1,104.14	-	3,058.34	2,667.06	914.51	-	2,907.99	2,643.73
Vodafone	714.36	-	2,425.61	1,468.39	575.23	-	2,319.52	1,364.85
Orange	308.73	-	1,409.35	751.33	296.61	-	1,458.56	714.31
Yoigo	76.62	-	124.09	-	107.07	-	230.22	-
Others	110.30	0.06	74.20	30.76	180.26	0.04	112.68	29.95
Total	2,314.15	0.06	7,091.59	4,917.54	2,073.67	0.04	7,028.97	4,752.84

98. LINES AND MARKET SHARES PER NUMBER OF CONNECTIONS³⁷ (number of lines and percentage)

	2008			2009			2010		
	PREPAID	POSTPAID	TOTAL	PREPAID	POSTPAID	TOTAL	PREPAID	POSTPAID	TOTAL
Movistar	9,023,147	13,298,625	22,321,772	8,805,527	13,473,185	22,278,712	7,827,661	13,723,681	21,551,342
	44.4%	45.4%	45.0%	42.2%	44.6%	43.6%	38.9%	43.6%	41.8%
Vodafone	5,929,371	9,279,857	15,209,228	6,075,679	9,440,141	15,515,820	5,738,006	9,418,402	15,156,408
	29.2%	31.7%	30.6%	29.1%	31.3%	30.4%	28.5%	29.9%	29.4%
Orange	4,218,404	6,067,591	10,285,995	4,310,917	6,118,008	10,428,925	3,937,424	6,454,558	10,391,982
	20.8%	20.7%	20.7%	20.6%	20.3%	20.4%	19.5%	20.5%	20.1%
Yoigo	600,316	370,414	970,730	614,170	661,088	1,275,258	917,751	1,119,354	2,037,105
	3.0%	1.3%	2.0%	2.9%	2.2%	2.5%	4.6%	3.6%	3.9%
Others	541,781	293,833	835,614	1,073,634	511,531	1,585,165	1,719,579	744,612	2,464,191
	2.7%	1.0%	1.7%	5.1%	1.7%	3.1%	8.5%	2.4%	4.8%
Total	20,313,019	29,310,320	49,623,339	20,879,927	30,203,953	51,083,880	20,140,421	31,460,607	51,601,028
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

99. LINES PER TYPE OF SEGMENT³⁸ (number of lines)

	2009				2010			
	PREPAID		POSTPAID		PREPAID		POSTPAID	
	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS	RESIDENTIAL	BUSINESS
Movistar	8,805,527	-	8,133,530	5,339,655	7,827,661	-	8,212,372	5,511,309
Vodafone	6,075,679	-	6,261,864	3,178,277	5,738,006	-	6,139,076	3,279,326
Orange	4,310,917	-	4,201,300	1,916,708	3,937,424	-	4,518,697	1,935,861
Yoigo	614,170	-	661,088	-	917,751	-	1,119,354	-
Others	1,073,210	424	437,846	73,685	1,718,844	735	667,322	77,290
Total	20,879,503	424	19,695,628	10,508,325	20,139,686	735	20,656,821	10,803,786

³⁶ Revenues from *Other services* are not included.³⁷ *Datacards* are excluded.³⁸ *Datacards* are excluded.

103. SHORT MESSAGES (millions of messages and percentage)

	2008			2009			2010		
	PREPAID	POSTPAID	TOTAL	PREPAID	POSTPAID	TOTAL	PREPAID	POSTPAID	TOTAL
Movistar	1,644.29 <i>45.0%</i>	3,416.93 <i>42.3%</i>	5,061.22 <i>43.1%</i>	1,427.98 <i>45.8%</i>	3,188.83 <i>42.3%</i>	4,616.81 <i>43.3%</i>	968.62 <i>37.9%</i>	2,773.76 <i>43.6%</i>	3,742.38 <i>42.0%</i>
Vodafone	1,037.87 <i>28.4%</i>	2,491.07 <i>30.8%</i>	3,528.95 <i>30.1%</i>	999.47 <i>32.1%</i>	2,464.16 <i>32.7%</i>	3,463.63 <i>32.5%</i>	1,094.93 <i>42.9%</i>	2,326.70 <i>36.5%</i>	3,421.63 <i>38.4%</i>
Orange	890.87 <i>24.4%</i>	2,088.30 <i>25.8%</i>	2,979.17 <i>25.4%</i>	560.12 <i>18.0%</i>	1,744.41 <i>23.1%</i>	2,304.54 <i>21.6%</i>	296.33 <i>11.6%</i>	1,023.41 <i>16.1%</i>	1,319.74 <i>14.8%</i>
Yoigo	52.60 <i>1.4%</i>	52.76 <i>0.7%</i>	105.36 <i>0.9%</i>	79.12 <i>2.5%</i>	96.50 <i>1.3%</i>	175.62 <i>1.6%</i>	109.71 <i>4.3%</i>	170.67 <i>2.7%</i>	280.38 <i>3.1%</i>
Others	26.97 <i>0.7%</i>	29.65 <i>0.4%</i>	56.62 <i>0.5%</i>	51.51 <i>1.7%</i>	47.12 <i>0.6%</i>	98.63 <i>0.9%</i>	84.17 <i>3.3%</i>	72.46 <i>1.1%</i>	156.63 <i>1.8%</i>
Total	3,652.61 <i>100.0%</i>	8,078.71 <i>100.0%</i>	11,731.32 <i>100.0%</i>	3,118.20 <i>100.0%</i>	7,541.02 <i>100.0%</i>	10,659.22 <i>100.0%</i>	2,553.76 <i>100.0%</i>	6,367.00 <i>100.0%</i>	8,920.77 <i>100.0%</i>

4.2. Wholesale services

a) Revenues

104. REVENUE FROM INTERCONNECTION SERVICES³⁹ (millions euros)							
	2004	2005	2006	2007	2008	2009	2010
Mobile termination	3,396.82	3,495.29	3,490.60	3,267.99	2,987.80	2,446.67	2,031.04
Domestic termination	3,171.12	3,279.58	3,284.16	3,070.86	2,787.94	2,270.20	1,889.48
Traffic	2,980.65	3,079.06	3,074.34	2,845.37	2,569.16	2,063.75	1,686.37
Short messages	190.47	200.52	209.82	225.48	218.78	206.45	203.11
International termination	225.70	215.70	206.44	197.13	199.86	176.46	141.56
Traffic	217.90	199.79	178.57	164.04	153.11	118.26	97.73
Short messages	7.81	15.91	27.87	33.09	46.75	58.21	43.83
Mobile access	43.06	59.31	55.93	110.37	177.47	241.22	276.18
900 numbers	43.06	59.31	55.93	40.33	53.05	49.79	55.55
Other operators	-	-	-	70.05	124.42	191.43	220.63
Voice	-	-	-	64.44	113.21	175.75	194.35
Short messages	-	-	-	5.60	11.20	15.69	26.28
Mobile network transit	-	-	-	66.31	2.70	2.19	8.98
Foreign operator customer roaming	591.98	636.36	670.24	567.91	489.28	346.27	324.23
Voice	506.55	509.31	521.96	409.11	334.70	241.75	234.55
Data	11.54	24.67	36.77	39.41	42.73	33.60	51.67
Short messages	73.89	102.38	111.51	119.39	111.85	70.92	38.01
Other interconnection services	1.47	6.45	20.01	9.98	30.83	15.89	17.94
Total	4,033.34	4,197.41	4,236.78	4,022.55	3,688.09	3,052.24	2,658.37

³⁹ Domestic termination and International termination also includes services provided to MVNO resellers. The Mobile access to Other operators is generated by the provision of MVNO and Yoigo access services.

b) Traffic

105. TRAFFIC FROM INTERCONNECTION SERVICES⁴⁰ (millions of minutes)

	2004	2005	2006	2007	2008	2009	2010
Mobile termination	20,641.62	24,135.60	26,914.31	27,831.09	29,083.16	29,554.41	31,551.21
Domestic termination	19,170.21	22,609.70	25,365.45	26,227.19	27,352.94	27,928.79	29,875.18
International termination	1,471.41	1,525.90	1,548.86	1,603.90	1,730.22	1,625.61	1,676.03
Mobile access	258.37	341.76	321.18	990.82	2,200.02	3,671.69	5,631.95
900 numbers	258.37	341.76	318.94	240.03	294.72	274.19	306.82
Other operators	-	-	2.23	750.79	1,905.30	3,397.50	5,325.13
Mobile network transit	-	-	-	616.13	29.17	32.39	170.05
Foreign operator customer roaming	590.82	666.87	744.77	843.58	865.2	797.08	817.7
Other interconnection services	-	-	-	58.36	1.18	-	35.47
Total	21,490.81	25,144.22	27,980.25	30,339.97	32,178.73	34,055.57	38,206.38

106. AVERAGE REVENUE FROM INTERCONNECTION SERVICE SHORT MESSAGES⁴¹ (millions of messages)

	2004	2005	2006	2007	2008	2009	2010
Domestic termination	3,068.12	3,214.72	3,304.79	3,473.83	3,556.00	3,466.06	3,629.16
International termination	128.73	264.86	447.31	544.21	761.30	991.37	707.66
Mobile access	-	-	-	173.69	375.14	596.82	885.37
Foreign operator customer roaming	-	373.15	442.45	554.28	586.61	712.55	681.64
Total	3,196.85	3,852.73	4,194.54	4,746.01	5,279.04	5,766.80	5,903.82

c) Prices and ratios

107. AVERAGE REVENUE BY TRAFFIC FROM INTERCONNECTION SERVICES (cents euro/minute)

	2004	2005	2006	2007	2008	2009	2010
Domestic termination	15.55	13.62	12.12	10.85	9.39	7.39	5.64
International termination	15.34	14.14	13.33	12.29	11.55	10.86	8.45
Mobile access	16.67	17.36	17.41	11.14	8.07	6.57	4.90
900 numbers	16.67	17.36	17.53	16.80	18.00	18.16	18.10
Other operators	-	-	-	9.33	6.53	5.63	4.14
Mobile network transit	-	-	-	10.76	9.26	6.77	5.28
Foreign operator customer roaming	85.74	76.37	70.08	48.50	38.68	30.33	28.68

^{40, 41} See note 39.

108. AVERAGE REVENUE FROM INTERCONNECTION SERVICE SHORT MESSAGES (euro cents/message)

	2004	2005	2006	2007	2008	2009	2010
Domestic termination	6.21	6.24	6.35	6.49	6.15	5.96	5.60
International termination	6.07	6.01	6.23	6.08	6.14	5.87	6.19
Mobile access	-	-	-	3.22	2.99	2.63	2.97
Foreign operator customer roaming	-	27.44	25.20	21.54	19.07	9.95	5.58

d) Individual parameters and market shares

109. REVENUES AND MARKET SHARES OF INTERCONNECTION SERVICES BY OPERATOR

(millions euros and percentage)

	2010	% / TOTAL
Movistar	1,033.76	38.9
Vodafone	867.62	32.6
Orange	572.11	21.5
Yoigo	138.18	5.2
Others	46.69	1.8
Total	2,658.37	100.0

110. TRAFFIC AND MARKET SHARES OF INTERCONNECTION SERVICES BY OPERATOR

(millions of minutes and percentage)

	2010	% / TOTAL
Movistar	15,397.43	40.3
Vodafone	11,976.69	31.3
Orange	8,592.13	22.5
Yoigo	1,493.64	3.9
Others	746.48	2.0
Total	38,206.38	100.0

111. INTERCONNECTION SERVICE SHORT MESSAGES AND MARKET SHARES BY OPERATOR

(millions of messages and percentage)

	2010	% / TOTAL
Movistar	2,299.88	39.0
Vodafone	1,800.94	30.5
Orange	1,364.59	23.1
Yoigo	224.81	3.8
Others	213.59	3.6
Total	5,903.82	100.0

5. BROADBAND SERVICES

5.1. Retail services

a) Revenues

112. REVENUES FROM RETAIL BROADBAND SERVICES⁴² (millions euros)						
	2005	2006	2007	2008	2009	2010
Internet access	1,892.52	2,445.57	2,892.39	3,248.93	3,374.73	3,457.23
Dial-up Internet access	98.44	46.56	20.71	14.57	7.87	5.67
Residential	87.14	36.52	16.69	10.85	6.35	4.25
Business	11.30	10.04	4.02	3.72	1.52	1.42
Dedicated Internet access	1,794.08	2,399.01	2,871.68	3,234.36	3,366.86	3,451.57
Residential	1,175.80	1,610.97	2,008.45	2,348.69	2,518.74	2,651.71
xDSL	849.08	1,170.33	1,507.79	1,783.35	1,927.65	2,025.16
Cable modem	315.94	430.17	480.75	534.60	557.52	579.10
LMDS	3.02	6.13	10.43	1.14	0.80	0.52
WIFI-WIMAX	0.14	3.23	8.94	29.12	30.28	36.51
FTTx	-	-	-	-	2.49	10.11
Others	7.62	1.12	0.54	0.48	-	0.31
Business	618.27	788.04	863.23	885.67	848.12	799.85
xDSL	537.48	677.81	769.90	807.94	762.47	708.15
Cable modem	47.27	60.93	57.49	39.99	50.74	56.79
LMDS	12.44	15.03	13.77	12.39	14.64	13.36
WIFI-WIMAX	3.42	0.95	1.67	4.19	4.94	4.56
FTTx	-	-	0.05	9.17	12.58	14.43
Others	17.66	33.33	20.35	12.00	2.75	2.57
Information Services	300.76	262.16	556.15	582.12	534.47	485.02
Others	72.14	76.75	58.32	57.04	44.69	47.00
Total	2,265.42	2,784.48	3,506.86	3,888.09	3,953.89	3,989.25

⁴² In 2008 and 2009 the series was updated due to a change in the Orange imputation criteria.

b) Lines

113. NUMBER OF RETAIL BROADBAND SERVICE LINES

	2005	2006	2007	2008	2009	2010
Dial-up Internet access	1,199,118	840,661	535,855	340,263	189,223	124,724
Residential	1,006,905	662,550	399,668	220,938	104,401	52,638
Business	192,213	178,111	136,187	119,325	84,822	72,086
Dedicated Internet access	5,035,203	6,690,032	8,055,780	9,135,959	9,799,486	10,646,428
Residential	3,743,674	5,165,176	6,314,673	7,258,584	7,890,544	8,645,416
xDSL	2,676,783	3,781,821	4,677,726	5,454,735	5,972,200	6,574,110
Cable modem	1,053,509	1,354,175	1,573,922	1,722,752	1,817,631	1,922,898
LMDS	9,893	20,469	32,112	1,176	569	441
WIFI-WIMAX	452	5,654	29,174	75,984	84,206	94,568
FTTx	-	-	-	2,255	15,229	52,326
Others	3,037	3,057	1,739	1,682	709	1,073
Business	1,291,529	1,524,856	1,741,107	1,877,375	1,908,942	2,001,012
xDSL	1,170,768	1,436,991	1,632,647	1,752,990	1,775,609	1,842,471
Cable modem	116,157	81,680	101,478	117,176	121,468	133,528
LMDS	3,507	2,566	2,770	1,763	1,890	1,619
WIFI-WIMAX	78	836	1,275	2,832	6,133	15,308
FTTx	-	-	-	1,630	3,440	7,655
Others	1,019	2,783	2,937	984	402	431
Total	6,234,321	7,530,693	8,591,635	9,476,222	9,988,709	10,771,152

114. PENETRATION RATE OF DEDICATED ACCESS SERVICES IN THE POPULATION⁴³ (lines/100 inhabitants)

	2005	2006	2007	2008	2009	2010
Penetration	11.4	15.0	17.8	19.8	21.0	22.6

115. NUMBER OF DEDICATED ACCESS SERVICE LINES BY BITRATE

	2005	2006	2007	2008	2009	2010
<= 3 Mbps	4,314,346	4,963,042	5,829,460	4,489,387	3,959,280	3,225,356
>= 4 Mbps <= 10 Mbps	700,559	1,469,391	1,756,332	3,873,136	4,629,891	5,367,838
> 10 Mbps <= 20 Mbps	20,188	243,362	469,988	769,099	1,179,173	1,881,624
> 20 Mbps	-	-	-	4,337	31,142	171,610
Others	110	14,237	-	-	-	-
Total	5,035,203	6,690,032	8,055,780	9,135,959	9,799,486	10,646,428

⁴³ The updated population data used corresponds to the 2001 census by the National Statistics Institute (INE), which in 2010 stood at 47,021,031 inhabitants.

116. NUMBER OF DEDICATED ACCESS SERVICE LINES BY BITRATE AND SEGMENT

	RESIDENTIAL	BUSINESS	TOTAL
<= 3 Mbps	2,439,792	785,564	3,225,356
>= 4 Mbps < 10 Mbps	3,007,223	864,567	3,871,790
=> 10 Mbps <= 20 Mbps	3,045,977	331,695	3,377,672
> 20 Mbps <= 50 Mbps	44,098	16,885	60,983
>= 50 Mbps	108,326	2,301	110,627
Total	8,645,416	2,001,012	10,646,428

c) Individual parameters and market shares

117. REVENUES FROM RETAIL BROADBAND SERVICE SUPPLIERS⁴⁴ (millions euros)

	2006	2007	2008	2009	2010
Telefónica de España	1,574.23	2,187.68	2,415.16	2,379.33	2,213.85
Ono	424.54	434.19	447.18	465.95	480.96
Jazztel	92.25	118.86	150.94	228.17	345.07
Orange	341.01	350.25	373.75	329.30	323.03
Vodafone	59.34	106.46	120.23	167.19	205.80
Euskaltel	43.92	56.14	65.25	73.05	80.98
R	31.67	41.85	47.74	47.96	52.07
Colt	24.23	25.53	36.44	39.59	39.70
TeleCable	23.66	28.33	32.79	35.29	38.43
Arsys	27.09	30.96	36.05	35.47	37.45
Iberbanda	11.77	11.84	21.84	24.92	26.98
Others	130.78	114.77	140.71	127.66	144.93
Total	2,784.48	3,506.86	3,888.09	3,953.89	3,989.25

⁴⁴ See note 42.

118. REVENUE FROM DEDICATED ACCESS SERVICES⁴⁵ (millions euros)

	xDSL	CABLE MODEM	LMDS	WIFI-WIMAX	FTTx	OTHERS	TOTAL	% / TOTAL
Telefónica de España	1,829.62	-	-	-	8.27	-	1,837.89	53.2
Ono	24.41	456.55	-	-	-	-	480.96	13.9
Jazztel	341.11	-	-	-	2.86	-	343.97	10.0
Orange	301.25	-	-	-	-	-	301.25	8.7
Vodafone	202.58	-	-	-	-	-	202.58	5.9
Euskaltel	1.20	73.79	-	1.83	-	-	76.82	2.2
R	3.04	45.77	-	-	-	-	48.81	1.4
TeleCable	-	36.54	-	-	1.45	0.40	38.39	1.1
Iberbanda	-	-	-	26.98	-	-	26.98	0.8
Neo-sky	1.49	-	10.41	-	-	2.42	14.32	0.4
Colt	3.52	-	-	-	9.84	-	13.36	0.4
Others	25.09	23.24	3.46	12.27	2.10	0.07	66.23	1.9
Total	2,733.31	635.89	13.88	41.07	24.53	2.89	3,451.57	100.0

119. NUMBER OF DEDICATED ACCESS SERVICE LINES

	2006	2007	2008	2009	2010
Telefónica de España	3,717,667	4,538,644	5,155,255	5,375,059	5,609,181
Ono	1,144,724	1,312,106	1,393,494	1,447,296	1,521,028
Orange	998,954	1,130,025	1,172,013	1,093,588	1,121,238
Jazztel	253,143	259,936	380,791	591,995	855,109
Vodafone	172,824	276,927	393,818	580,583	742,173
Euskaltel	147,484	174,064	202,730	218,233	229,790
R	92,731	125,012	150,639	175,679	187,656
TeleCable	72,612	83,794	96,653	106,262	115,745
Iberbanda	21,025	31,552	46,053	57,913	60,923
Procono	6,537	9,200	15,417	20,949	25,910
Others	62,331	114,520	129,096	131,929	177,675
Total	6,690,032	8,055,780	9,135,959	9,799,486	10,646,428

⁴⁵ See note 42.

120. DEDICATED ACCESS SERVICE LINES (number of lines and percentage)

	xDSL	CABLE MODEM	LMDS	WIFI-WIMAX	FTTx	OTHERS	TOTAL	% / TOTAL
Telefónica de España	5,559,981	-	-	-	49,200	-	5,609,181	52.7
Ono	78,913	1,442,115	-	-	-	-	1,521,028	14.3
Orange	1,121,238	-	-	-	-	-	1,121,238	10.5
Jazztel	854,854	-	-	-	255	-	855,109	8.0
Vodafone	742,173	-	-	-	-	-	742,173	7.0
Euskaltel	3,545	221,056	-	5,189	-	-	229,790	2.2
R	6,891	180,765	-	-	-	-	187,656	1.8
TeleCable	-	110,062	-	-	4,534	1,149	115,745	1.1
Iberbanda	4,801	-	-	55,979	-	143	60,923	0.6
Procono	-	25,910	-	-	-	-	25,910	0.2
Others	44,185	76,518	2,060	48,708	5,992	212	177,675	1.7
Total	8,416,581	2,056,426	2,060	109,876	59,981	1,504	10,646,428	100.0

121. LINES BY SPEED OF THE DEDICATED ACCESS SERVICES⁴⁶

	TELEFÓNICA DE ESPAÑA	CABLE OPERATORS	OTHERS	TOTAL
<= 3 Mbps	2,063,952	356,194	805,210	3,225,356
>= 4 Mbps < 10 Mbps	2,465,087	697,807	708,896	3,871,790
=> 10 Mbps <= 20 Mbps	1,064,057	873,238	1,440,377	3,377,672
> 20 Mbps < 50 Mbps	2,934	57,891	158	60,983
>= 50 Mbps	13,151	94,999	2,477	110,627
Total	5,609,181	2,080,129	2,957,118	10,646,428

122. HFC LINES THAT DEPEND ON A NODE WITH DOCSIS 3.0 AND FTTH LINES BY OPERATOR

	FTTH	HFC	TOTAL
Ono	-	1,032,697	1,032,697
Euskaltel	-	221,056	221,056
R	-	142,715	142,715
TeleCable	4,534	110,062	114,596
Telefónica de España	49,200	-	49,200
Others	6,247	10,939	17,186
Total	59,981	1,517,469	1,577,450

⁴⁶ Cable operators include the main cable operators: Ono, Euskaltel, R, TeleCable and Procono. Local cable operators are not included. They are found in *Others*.

123. ANNUAL NET PROFIT OF DEDICATED ACCESS SERVICE LINES (number of lines)

	LINES
Telefónica de España	234,122
Ono	73,732
Orange	27,650
Jazztel	263,114
Vodafone	161,590
Euskaltel	11,557
R	11,977
TeleCable	9,483
Iberbanda	3,010
Procono	4,961
Others	45,746
Total	846,942

124. DEDICATED ACCESS SERVICE LINES BY SEGMENT

	RESIDENTIAL	BUSINESS	TOTAL
Telefónica de España	4,035,037	1,574,144	5,609,181
Ono	1,454,111	66,917	1,521,028
Orange	1,040,889	80,349	1,121,238
Jazztel	807,167	47,942	855,109
Vodafone	640,420	101,753	742,173
Euskaltel	198,581	31,209	229,790
R	148,713	38,943	187,656
TeleCable	105,261	10,484	115,745
Iberbanda	43,254	17,669	60,923
Procono	24,921	989	25,910
Others	147,062	30,613	177,675
Total	8,645,416	2,001,012	10,646,428

5.2. Wholesale services

a) Revenues

125. REVENUE FROM ACCESS SERVICES TO WHOLESALE BROADBAND (millions euros)					
	2006	2007	2008	2009	2010
ATM Concentration	80.11	51.87	47.44	42.11	32.69
ATM Concentration without PSTN	-	-	-	0.01	0.15
IP Concentration	82.95	64.31	57.37	50.47	42.78
IP Concentration without PSTN	-	-	-	1.13	49.24
Resale	89.15	68.99	46.44	27.71	16.10
Loop	124.02	156.32	190.14	227.05	313.72
Shared	50.81	61.23	54.57	40.00	18.35
Shared without PSTN	-	1.53	32.17	47.02	80.36
Fully unbundled	73.20	93.56	103.40	140.03	215.01
Total	376.23	341.49	341.39	348.49	454.68

b) Lines

	2009		2010	
	TELEFÓNICA DE ESPAÑA	OTHERS	TELEFÓNICA DE ESPAÑA	OTHERS
ATM Concentration	130,035	6,299	146,450	4,885
ATM Concentration without PSTN	417	-	639	-
IP Concentration	161,258	1,159	207,946	4,395
IP Concentration without PSTN	41,402	-	199,223	-
Resale	30,289	23,356	11,838	17,541
Loop	2,153,795	-	2,477,102	-
Shared	447,668	-	263,962	-
Shared without PSTN	428,889	-	602,155	-
Fully unbundled	1,277,238	-	1,610,985	-
Total	2,517,196	30,814	3,043,198	26,821

6. AUDIOVISUAL SERVICES

6.1. Television and radio services

a) Revenues

127. REVENUE FROM AUDIOVISUAL SERVICES⁴⁷ (millions euros)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Audiovisual market without subsidies	3,958.46	4,415.61	4,523.62	5,018.85	5,332.52	5,768.38	5,511.09	4,519.66	4,422.62
Audiovisual market with subsidies	4,589.03	5,096.78	5,284.92	5,679.75	6,523.44	6,795.08	6,788.60	5,970.02	6,711.47

128. REVENUE FROM AUDIOVISUAL SERVICES BY ITEM⁴⁸ (millions euros and percentage)

	2005	2006	2007	2008	2009	2010
Advertising	3,066.82 <i>54.0%</i>	3,290.47 <i>50.4%</i>	3,582.48 <i>52.7%</i>	3,250.99 <i>47.9%</i>	2,585.00 <i>43.3%</i>	2,589.82 <i>38.6%</i>
Pay per view fees	1,216.41 <i>21.4%</i>	1,309.66 <i>20.1%</i>	1,393.69 <i>20.5%</i>	1,419.12 <i>20.9%</i>	1,377.46 <i>23.1%</i>	1,431.20 <i>21.3%</i>
Pay per view and video on demand	151.07 <i>2.7%</i>	184.91 <i>2.8%</i>	227.70 <i>3.4%</i>	243.42 <i>3.6%</i>	129.51 <i>2.2%</i>	61.89 <i>0.9%</i>
Subsidies	660.90 <i>11.6%</i>	1,190.92 <i>18.3%</i>	1,026.70 <i>15.1%</i>	1,277.51 <i>18.8%</i>	1,450.36 <i>24.3%</i>	2,288.85 <i>34.1%</i>
Others	584.55 <i>10.3%</i>	547.48 <i>8.4%</i>	564.51 <i>8.3%</i>	597.56 <i>8.8%</i>	427.69 <i>7.2%</i>	339.71 <i>5.1%</i>
Total	5,679.75 <i>100.0%</i>	6,523.44 <i>100.0%</i>	6,795.08 <i>100.0%</i>	6,788.60 <i>100.0%</i>	5,970.02 <i>100.0%</i>	6,711.47 <i>100.0%</i>

129. REVENUES FROM OPEN BROADCAST AND PAID TELEVISION (millions euros and percentage)

	2005	2006	2007	2008	2009	2010
Free-to-air television (without subsidies)	2,787.30 <i>60.0%</i>	3,035.09 <i>61.6%</i>	3,312.54 <i>62.2%</i>	2,998.30 <i>59.2%</i>	2,356.06 <i>57.1%</i>	2,335.05 <i>58.1%</i>
Pay per view television	1,855.87 <i>40.0%</i>	1,892.83 <i>38.4%</i>	2,010.31 <i>37.8%</i>	2,070.31 <i>40.8%</i>	1,768.20 <i>42.9%</i>	1,681.31 <i>41.9%</i>
Total	4,643.17 <i>100.0%</i>	4,927.92 <i>100.0%</i>	5,322.85 <i>100.0%</i>	5,068.61 <i>100.0%</i>	4,124.26 <i>100.0%</i>	4,016.36 <i>100.0%</i>

⁴⁷ Funding includes regular revenue from public funding granted by the various public authorities and funding linked with programme-contract.

⁴⁸ Others includes revenue from own productions, sending of SMS, premium rate calls, etc.

130. REVENUES FROM TELEVISION BY TRANSMISSION MEDIUM WITHOUT SUBSIDIES

(millions euros and percentage)

	2005	2006	2007	2008	2009	2010
Satellite television	1,377.35 <i>29.7%</i>	1,473.66 <i>29.9%</i>	1,522.03 <i>28.6%</i>	1,542.27 <i>30.4%</i>	1,249.36 <i>30.3%</i>	1,083.26 <i>27.0%</i>
Cable television	319.35 <i>6.9%</i>	339.41 <i>6.9%</i>	349.29 <i>6.6%</i>	346.89 <i>6.8%</i>	327.47 <i>7.9%</i>	328.10 <i>8.2%</i>
IP television	17.58 <i>0.4%</i>	79.77 <i>1.6%</i>	130.51 <i>2.5%</i>	159.96 <i>3.2%</i>	166.69 <i>4.0%</i>	206.67 <i>5.1%</i>
Terrestrial television	2,928.90 <i>63.1%</i>	3,035.08 <i>61.6%</i>	3,312.34 <i>62.2%</i>	2,998.30 <i>59.2%</i>	2,361.95 <i>57.3%</i>	2,382.15 <i>59.3%</i>
Mobile television	- <i>-</i>	- <i>-</i>	8.69 <i>0.2%</i>	21.20 <i>0.4%</i>	18.79 <i>0.5%</i>	16.20 <i>0.4%</i>
Total	4,643.17 <i>100.0%</i>	4,927.92 <i>100.0%</i>	5,322.85 <i>100.0%</i>	5,068.61 <i>100.0%</i>	4,124.26 <i>100.0%</i>	4,016.36 <i>100.0%</i>

131. REVENUE FROM PAY TELEVISION BY BROADCAST (millions euros and percentage)

	2005	2006	2007	2008	2009	2010
Satellite television	1,377.35 <i>74.2%</i>	1,473.66 <i>77.9%</i>	1,522.03 <i>75.7%</i>	1,542.27 <i>74.5%</i>	1,249.36 <i>70.7%</i>	1,083.26 <i>64.4%</i>
Cable television	319.34 <i>17.2%</i>	339.40 <i>17.9%</i>	349.08 <i>17.4%</i>	346.89 <i>16.8%</i>	327.46 <i>18.5%</i>	328.10 <i>19.5%</i>
IP television	17.58 <i>0.9%</i>	79.77 <i>4.2%</i>	130.51 <i>6.5%</i>	159.96 <i>7.7%</i>	166.69 <i>9.4%</i>	206.67 <i>12.3%</i>
Terrestrial television	141.61 <i>7.6%</i>	- <i>-</i>	- <i>-</i>	- <i>-</i>	5.90 <i>0.3%</i>	47.09 <i>2.8%</i>
Mobile television	- <i>-</i>	- <i>-</i>	8.69 <i>0.4%</i>	20.96 <i>1.0%</i>	18.79 <i>1.1%</i>	16.20 <i>1.0%</i>
Total	1,855.87 <i>100.0%</i>	1,892.83 <i>100.0%</i>	2,010.31 <i>100.0%</i>	2,070.08 <i>100.0%</i>	1,768.20 <i>100.0%</i>	1,681.31 <i>100.0%</i>

132. ADVERTISING REVENUE FROM TELEVISION AND RADIO (millions euros)

	2005	2006	2007	2008	2009	2010
Television	2,691.43	2,886.53	3,138.81	2,808.91	2,189.94	2,183.98
Advertising	2,382.79	2,525.74	2,731.01	2,431.68	1,868.51	1,968.86
Sponsorship	305.58	357.27	401.69	370.28	310.63	201.42
Telesales	3.06	3.14	3.46	5.63	6.00	5.22
Others	-	0.38	2.65	1.33	4.80	8.47
Radio	375.39	403.94	443.67	442.08	395.06	405.84
Advertising	375.39	398.72	437.20	441.45	394.11	401.32
Sponsorship	-	0.05	0.76	0.60	0.93	4.50
Telesales	-	-	-	0.02	0.02	0.02
Others	-	5.18	5.70	-	-	-
Total	3,066.82	3,290.47	3,582.48	3,250.99	2,585.00	2,589.82

133. ADVERTISING REVENUE (millions euros)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Public television	936.55	955.80	1,016.92	1,073.99	1,068.87	1,038.87	1,041.60	884.60	637.65	247.58
Private television	1,089.36	1,018.55	1,078.53	1,361.67	1,622.56	1,847.66	2,097.22	1,924.32	1,552.29	1,936.40
Radio	300.45	302.20	318.21	336.45	375.39	403.94	443.67	442.08	395.06	405.84
Total	2,326.36	2,276.55	2,413.66	2,772.11	3,066.82	3,290.47	3,582.48	3,250.99	2,585.00	2,589.82

b) Subscribers

134. NUMBER OF SUBSCRIBERS TO PAY TELEVISION AND MOBILE TELEVISION BY TRANSMISSION MEDIUM

	2003	2004	2005	2006	2007	2008	2009	2010
Pay per view television	3,497,422	3,201,237	3,369,169	3,745,057	3,980,224	4,197,666	4,238,332	4,563,185
Satellite television	1,795,686	1,652,573	1,960,673	2,044,000	2,065,093	2,034,865	1,845,805	1,773,366
Terrestrial television	705,050	441,244	-	-	-	-	153,151	347,662
Cable television	996,686	1,107,420	1,201,924	1,304,405	1,345,936	1,459,915	1,441,696	1,586,573
IP television	-	-	206,572	396,652	569,195	702,886	797,680	855,584
Mobile television	-	-	-	-	295,246	269,919	346,528	496,856
Total	3,497,422	3,201,237	3,369,169	3,745,057	4,275,470	4,467,585	4,584,860	5,060,041

c) Consumption and contracts

135. BROADCASTING CONSUMPTION BY TYPE OF RADIO⁴⁹ (minutes/person/day)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
General radio	51	50	53	59	59	55	54	52	51	50	48
Topic-based radio	40	39	44	55	52	51	54	53	53	54	55
Others	4	5	5	4	4	4	4	3	3	4	4
Total	95	94	103	118	115	110	112	108	107	108	107

136. TELEVISION CONSUMPTION⁵⁰ (minutes/person/day)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	210	208	211	213	218	217	217	223	227	226	234

137. TELEVISION CONTRACTS WITH PAY-PER-VIEW BY CONTENT TYPE⁵¹ (units)

	2003	2004	2005	2006	2007	2008	2009	2010
Football	8,525,133	13,665,786	13,535,470	16,323,422	15,963,044	13,177,346	6,510,182	1,519,465
Films	7,879,884	7,222,500	8,235,565	10,474,581	11,464,605	13,048,933	10,797,326	8,152,168
Others	91,758	141,382	26,690	809,070	2,273,946	2,154,441	1,871,625	797,877
Total	16,496,775	21,029,668	21,797,725	27,607,073	29,701,595	28,380,720	19,179,133	10,469,510

d) Individual parameters and market shares

138. REVENUES AND MARKET SHARE OF AUDIOVISUAL SERVICES WITHOUT SUBSIDIES

(millions euros and percentage)

	REVENUES	% / TOTAL
Sogecable	1,454.65	32.9
Telecinco	676.71	15.3
Antena 3 Televisión	656.17	14.8
La Sexta	297.55	6.7
Ono	224.91	5.1
SER	201.51	4.6
Telefónica de España	200.03	4.5
Televisió de Catalunya	102.11	2.3
Others	608.98	13.8
Total	4,422.62	100.0

⁴⁹ Source: AIMC.⁵⁰ Source: TNS AM.⁵¹ Until 2005 the category *Football* included all other sports. After this date, it was included in *Others*.

139. REVENUES AND MARKET SHARE OF ADVERTISING ON TELEVISION (millions euros and percentage)

	REVENUES	% / TOTAL
Telecinco	663.93	30.4
Antena 3 Televisión	632.88	29.0
Sogecable	302.21	13.8
La Sexta	250.15	11.5
Televisió de Catalunya	89.88	4.1
Net TV	49.17	2.3
Canal Sur Televisión	43.63	2.0
Televisión Autónoma de Madrid	30.79	1.4
Veo Televisión	25.00	1.1
Radiotelevisió Valenciana	21.13	1.0
Televisión de Galicia	16.38	0.7
ETB	16.38	0.7
Radiotelevisió de les Illes Balears	6.54	0.3
Others	35.91	1.6
Total	2,183.98	100.0

140. REVENUES AND MARKET SHARE OF PAY TELEVISION (millions euros and percentage)

	REVENUES	% / TOTAL
Sogecable	1,083.28	64.4
Ono	224.91	13.4
Telefónica de España	200.03	11.9
Go!TV	47.07	2.8
TeleCable	33.65	2.0
R	22.32	1.3
Euskaltel	16.24	1.0
Others	53.82	3.2
Total	1,681.31	100.0

141. NUMBER OF SUBSCRIBERS AND MARKET SHARES OF PAY TELEVISION

(number of subscribers and percentage)

	SUBSCRIBERS	% / TOTAL
Sogecable	1,774,316	38.9
Ono	1,038,347	22.8
Telefónica de España	785,293	17.2
GolTV	346,712	7.6
TeleCable	139,117	3.0
Euskaltel	129,733	2.8
R	92,402	2.0
Orange	70,291	1.5
Others	186,974	4.1
Total	4,563,185	100.0

142. NUMBER OF SUBSCRIBERS AND MARKET SHARES OF MOBILE TELEVISION

(number of subscribers and percentage)

	SUBSCRIBERS	% / TOTAL
Movistar	421,539	84.8
Vodafone	62,810	12.6
Orange	12,507	2.5
Total	496,856	100.0

6.2. Audiovisual signal transport and broadcasting services

a) Revenues

143. REVENUES FROM AUDIOVISUAL SIGNAL TRANSPORT AND BROADCASTING SERVICES

(millions euros)

	2006	2007	2008	2009	2010
Transport	94.31	107.12	139.40	147.52	164.05
Analogue TV	23.01	23.96	39.35	47.68	1.83
Digital TV	67.95	79.95	92.90	92.55	155.91
Radio	3.34	3.22	6.32	5.91	5.16
Others	0.01	-	0.84	1.38	1.14
Transmission	244.32	268.70	267.24	291.23	230.95
Digital TV	69.55	76.82	71.07	88.88	145.30
Analogue TV	139.27	153.21	157.98	159.87	39.32
Analogue radio	31.77	35.10	34.87	36.15	35.60
Digital radio	3.73	3.45	3.33	3.24	2.51
Others	-	0.13	-	3.09	8.21
Total	338.64	375.83	406.64	438.76	394.99

b) Customers

144. NUMBER OF CUSTOMERS OF SIGNAL TRANSPORT AND BROADCASTING SERVICES AUDIOVISUAL

	2006	2007	2008	2009	2010
Transport	712	520	582	576	622
Analogue television	113	102	127	134	4
Digital television	514	377	389	376	567
Radio	49	41	55	54	40
Others	36	-	11	12	11
Transmission	645	791	770	854	644
Analogue television	394	431	385	374	96
Digital television	41	80	143	220	294
Analogue radio	194	262	228	244	167
Digital radio	16	17	14	15	85
Others	-	1	-	1	2
Total	1,357	1,311	1,352	1,430	1,266

c) Individual parameters

145. REVENUES FROM AUDIOVISUAL SIGNAL TRANSPORT AND BROADCASTING SERVICES BY OPERATOR
(millions euros)

	TRANSPORT	TRANSMISSION	TOTAL
Abertis Group	57.61	192.80	250.41
Overon	76.34	-	76.34
Telefónica Servicios Audiovisuales	21.86	-	21.86
Red de Banda Ancha de Andalucía	0.60	18.67	19.27
Itelazpi	2.92	11.86	14.78
Telecom Castilla-la Mancha	-	3.81	3.81
Others	4.72	3.81	8.53
Total	164.05	230.95	394.99

146. CUSTOMERS OF AUDIOVISUAL SIGNAL TRANSPORT AND BROADCASTING SERVICES, BY OPERATOR

	TRANSPORT	TRANSMISSION	TOTAL
Abertis Group	193	452	645
Overon	313	-	313
Red de Banda Ancha de Andalucía	6	87	93
Telefónica Servicios Audiovisuales	63	-	63
Itelazpi	9	20	29
Teledifusión Madrid	10	10	20
Consortio de Telecomunicaciones Avanzadas	9	9	18
Others	19	66	85
Total	622	644	1,266

7. OTHER SERVICES

147. OTHER RETAIL SERVICE REVENUES (millions euros)

	2010
Resale of fixed telephone service	120.08
Resale of mobile telephone service	2.17
Dataphone	48.16
Maritime services	2.72
Premium rate services based on sending SMS and MMS	5.91
Others	789.80
Total	968.84

148. OTHER WHOLESALE SERVICE REVENUES (millions euros)

	2010
Portability	8.91
Preselection	2.20
Dark fiber rental	178.89
Sale of infrastructure	108.29
Satellite services	5.83
Channelling rental	3.59
Wholesale Line Rental (WLR)	27.00
Other wholesale services	122.55
Total	457.26

8. TERMINAL SALES AND RENTALS

149. REVENUES AND MARKET SHARES OF TERMINAL SALES AND RENTALS

(millions euros and percentage)

	REVENUES	% / TOTAL
Movistar	903.94	50.9
Telefónica de España	374.73	21.1
Vodafone	212.80	12.0
Yoigo	165.27	9.3
Orange	77.39	4.4
Others	42.33	2.4
Total	1,776.47	100.0

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