

007

State of Communications

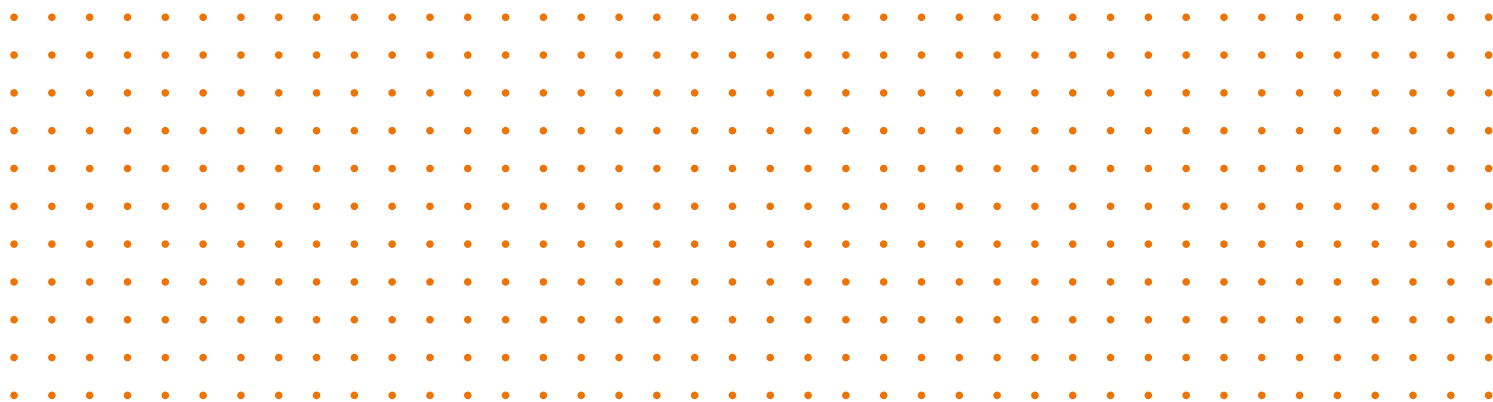


FREE FLOWING COMMUNICATIONS

007

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00.

Introduction



■ Introduction

ICP-ANACOM's statutes, approved by Decree-Law no. 309/2001 of 7 December, establish that it is up to ICP - Autoridade Nacional de Comunicações (ICP-ANACOM), since January 2002, to put together an annual report on its regulation activities, and to produce a report on the state of communications and its regulation and supervision activity.

In 2008 the mentioned documents continued to be released. They were grouped, up to the 2006 edition, in three distinctive blocs: regulation, state of communications and ICP-ANACOM's activities. This document is the report on the state of communications for 2007.

This document, of a descriptive nature, aims to characterize the state of communications and its evolution during the year under analysis. It also mentions relevant facts that occurred outside (before or after) 2007, in order to achieve a complete framework of the presented facts, the trends identified or the innovations occurred, aiming to establish a logical and sequential connection with past occurrences, and launching the bridge towards future facts and developments.

This document is structured into two different main areas: Electronic Communications and Postal Services. As in the previous edition, this report also includes a Statistical Annex containing a relevant set of historical statistical data on the sector regarding 2007 and the 4 previous years. Until 2005 this data was included in the Statistical Yearbook, which was reformulated in the meanwhile. This was made in order to enable an easier consultation of the document's supporting data.

Recognizing the importance for this report's information and its annex to be released to the industry and the general public as soon as possible, after the end of the period it refers to - December 31, each year - ICP-ANACOM aims to release this document's future editions during each year's second quarter.



01.

Electronic communications



■ Framework: Electronic Communications in the European Union (EU)

This chapter contains the evolution of the electronic communications sector in the EU. It identifies the main aspects of its recent evolution and the factors explaining it, according to the European Commission¹.

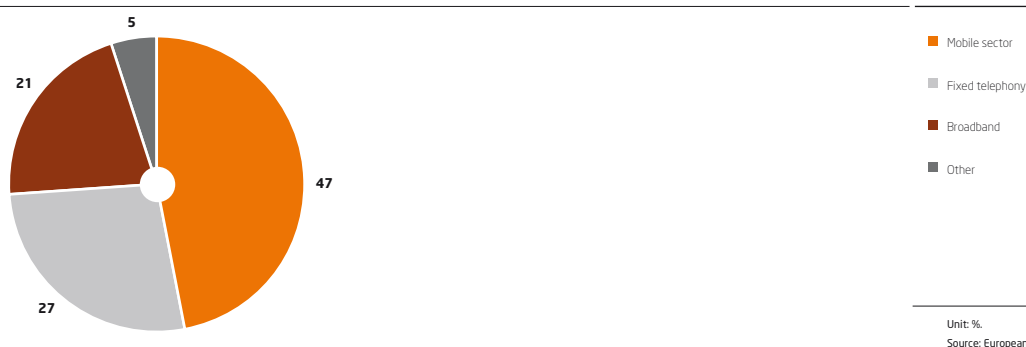
According to the European Commission, electronic communications services are the main segment of the Communications and Information Technology (ICT) sector, standing for 44 per cent of its overall revenues.

growth is below that of the previous year (in 2005, the sector's revenues had increased between 3.8 per cent and 4.7 per cent, while in 2006 they grew 2.3 per cent).

Mobile services are responsible for about 47 per cent of total revenues, followed by fixed telephony (27 per cent), broadband (21 per cent), and other revenues (including TV distribution).

Distribution of electronic communications revenues in the EU - 2007

Graph 1.



Fixed voice telephony

Fixed voice telephony continues to fall in terms of revenues. It decreased about 5 per cent, a figure that is similar to the previous year. Commission estimates indicate that these services reached around 79 billion Euros in the EU in 2007. Fixed voice telephony now stands for 27 per cent of all electronic communications, 3 per cent less than a year before.

The Commission also mentions that traffic is dropping. Factors explaining this evolution could relate to the growing use of VoIP, with a rising popularity in some countries, and the development of mobile telephony.

In 2007, the electronic communications sector generated a 293 billion Euros profit and grew some 1.9 per cent. This

Regarding the offer's structure, incumbent operator's shares stabilized (87 per cent on average, in terms of accesses). International traffic is the exception, with incumbent operators registering a decreasing trend. However, the Commission reckons an increasing amount of direct accesses from alternative operators, and an increase in the amount of ported numbers. Around 12 million consumers switched operator in 2007.

Given this segment's decreasing revenues, operators launched multiple play offerings, in some cases promoting migration to broadband and speeding up convergence between services. About 29 per cent of European households already use package offers.

¹ European Commission, Progress report on the European electronic communications single market in 2007 (13th report).

Mobile services

MTS penetration in the EU reached 111.8 per 100 inhabitants, 8.6 per cent more than a year before.

Revenues of the mobile sector – 137 billion Euros in 2007 – are the main share of electronic communications revenues in the EU, standing for 47 per cent of the overall figure.

Revenues generated by mobile services in the EU increased about 3.8 per cent, a figure below that of the previous years.

According to the European Commission, the mobile sector's slowing revenues reflect the increase in competition (even if the main operators' shares haven't had major changes, and only 8.3 per cent of mobile customers have ported numbers); the reduction in retail prices (retail prices decreased 14 per cent on average, due to regulatory interventions regarding call terminations); the service's current life cycle stage; and the reduction of call termination prices.

In this stage of the traditional mobile services' life cycle, operators have been promoting data services, namely those based on 3rd generation (3G) mobile technologies. 3G penetration is now 20 per cent, 11 per cent more than in 2006. Data services now stand for 7 per cent of revenues, half the figure identified for SMS.

Lastly, it should be mentioned that the roaming Regulation entered into force on June 30th 2007, fostering 60 per cent savings on this type of call.

Broadband

Broadband revenues increased around 6 per cent in 2007, reaching 62 billion Euros – about 21 per cent of the overall electronic communications.

In terms of accesses, broadband increased around 24 per cent, 14 per cent less than a year before. The Commission now reckons 99 million fixed broadband accesses, which corresponds to an average penetration of 20 accesses per 100 inhabitants, 4 per cent more than in 2006. This average, however, hides important disparities between urban and rural areas.

The growth in DSL lines in the EU (+22.4 per cent) was similar to the growth in cable modem accesses (+21.7 per cent). The Commission mentions that optical fibre and wireless access start to show a potential to compete with DSL and cable platforms.

In the EU, the share of incumbent operators decreased 2.5 per cent in 2007, reaching 46.8 per cent. However, offerings from the competition are still largely based on resale (11.6 million lines). In spite of that, unbundled loops have been achieving a greater importance, already standing for 12.8 per cent of the public switched telephone network lines (23.5 million lines), as well as bitstream access (6 million lines). The regulated offers should be the main responsible for this evolution, while at the same time making it possible for operators to reach higher levels in the so-called '*investment ladder*'.



■ Fixed Telephone Service (FTS)

This chapter shows the state of the FTS at the end of 2007, namely describing this service's offer, its usage and consumer profile, and the evolution occurred during that year.

Following is a summary of the main items of the service's evolution during 2007

Main items of the evolution in 2007

In 2007, there was a decrease in FTS's penetration rate, which reached 39.5 per 100 inhabitants. This decrease could be connected to the phenomenon of fixed-to-mobile replacement and to tariff-related barriers. However, this decrease stood below the EU average mainly due to new FTS offers, namely offers based on GSM;

Nomadic VoIP service customers showed a considerably high growth, reaching 76.3 thousand customers by the end of the year. It should be stressed, however, that this service's weight in terms of customers and traffic is still quite low;

The number of operators in the market suffered two opposite effects: on one hand, there were several acquisition movements, namely lead by Sonaecom, which acquired Tele2 and Onitelecom's residential business; on the other hand, several operators, namely cable TV network operators, launched offers using VoIP;

There was also a decrease in the service's usage: traffic with origin in the fixed network decreased 7 per cent in 2007, mainly influenced by the migration of dial-up Internet access traffic to broadband; voice traffic dropped 1.5 per cent, in line with the latest years. This decrease trend in voice traffic is mainly connected to the phenomenon called fixed-mobile replacement; service revenues decreased about 14 per cent; Also in 2007, prices practiced in Portugal regarding the low, medium and high consumption baskets stood below the European average, since the price increases registered in the other considered countries was above the price increase recorded in Portugal, and also because the new more attractive tariff plans launched by the Portuguese incumbent operator were taken into account.

Mention should also be made to the FTS's overall high satisfaction levels. According to ICP-ANACOM's most recent electronic communications consumer survey, 89 per cent of users were satisfied with the overall quality of the service. As for consumer satisfaction regarding the prices charged in the FTS, the appraisal is less positive, with 52 per cent of those questioned stating that they are dissatisfied with prices.

Regarding the development of competition, the stake of alternative operators on offers with no monthly fee (namely, based on GSM, cable television distribution networks, or *multiple play*) resulted in a 6 per cent drop of Portugal Telecom Group's (PT) access share versus 2006, which reached 72 per cent in 2007. It should be mentioned that, according to the European Commission, the direct access customer share of alternative providers in Portugal is the second highest one among the considered countries.

Regarding voice traffic and the rate of customers that use alternative providers to make calls, Portugal ranks 4th and 5th in the ranking, for national and international calls, respectively.

FTS offer

FTS is the offer to the general public of voice routing, in real time, between fixed locations, giving any user with a device that is connected to a terminal point of a network the chance to communicate with another terminal point.

The service is provided by entities with a general authorization for the provision of the service, and by the universal service provider.

Below is a more detailed description of the services and the entities providing these services in Portugal.

Changes occurred in the provision of the FTS

Traditionally, telephone services were offered together (bundled) with the access to the public telephone network at a fixed location. The service was provided over the

fixed telephone network and the local access network was made up of copper wire pairs. The digits that made up the telephone number given to each subscriber line made it possible for the service user to associate that line to a given geographical area and a given service provider.

From the tariff viewpoint, two-part tariffs were normally charged, with a clear separation of the access item (installation and subscription) from the usage item (price of calls). Regarding call prices, there was the *peak-load pricing* and call prices were proportionate to their distance.

This situation was modified due to changes occurred during the latest years, of a regulatory, technological and commercial nature.

Indirect access

With the implementation of the so-called "indirect access", the offer of access to the public telephone network at a fixed location was split from the telephone services provided to the general public at a fixed location.

As from 1 January 2000, the users of publicly available telephone services at a fixed location began being served by the indirect access service in the call-by-call selection mode. This function allows FTS users to make telephone calls using the services of other FTS providers besides their access provider, further to dialling the 10xy code of each operator. Initially, only long-distance and international calls were eligible for the provision of this indirect access service.

As from 1 July 2000, a new indirect access mode was launched: provider pre-selection. This function makes it possible for the calls made by any user to be routed to the provider that they prefer with no need for dialling the selection codes. Initially, pre-selection was implemented through the installation of an auto-dialler device at the customer's phone. On 1 October 2000, pre-selection ended its interim stage on the networks of Porto and Lisbon, the installation of an auto-dialler no longer being needed; pre-selection started being programmed at the operators' exchanges. At that same date, calls with origin in the fixed networks and destined to a mobile network (fixed-to-mobile

calls) became eligible for indirect access, both in the call-by-call selection mode and in the pre-selection mode. On 15 November 2000, pre-selection became available for customers of the remaining areas of the country in its final format (without the installation of auto-diallers).

After 1 January 2001, local and long-distance connections also became eligible for use via indirect access.

Indirect access was the way that most alternative operators initially favoured to enter the market of telephone services provided at a fixed location, giving them the chance to reach considerably important shares in terms of national and international traffic.

Portability

The possibility to keep the telephone number after changing operator, in a framework of competition, is another modification to the traditional way of providing the service that was imposed by sectoral regulation.

Portability, the function giving subscribers of publicly available telephone services requesting it the possibility to keep their number or numbers, within the scope of the same service, regardless of the company offering it, at a given location in the case with geographic numbers, and all over the country with the remaining numbers, was introduced on fixed networks on 30 June 2001, and on mobile networks on 1 January 2002.

Law no. 5/2004 of 10 February – Electronic Communications Law (no. 5 of article 54 and no.1 of article 125) – empowers ICP-ANACOM to set the rules regarding the implementation of portability, which should take the form of a regulation.

In this context, ICP-ANACOM prepared Regulation no. 58/2005, published on 18 August, establishing the principles and rules applying to portability in the public telephone networks, which is mandatory for all companies with portability obligations.



Change is only possible within the same service, i.e., it is possible to change the provider of the telephone service at a fixed location and keep the same number, it is possible to change the provider of the mobile telephone service and keep the same number and, also, it is possible to change the provider of a given non-geographic service (e.g. 800) and keep the same number. But it is not possible, for example, to carry a number from a provider of the telephone service at a fixed location to a mobile telephone service provider, or vice-versa.

Alternative physical means of access

Another change in the provision of the FTS was the emergence of alternative infrastructure to access the service. The highlight goes to the cable television distribution networks which, during the first years of the service's liberalization, made it possible for some operators to get a considerable share of accesses to the public telephone network at a fixed location, and the radio means. The latter include the Fixed Wireless Access (FWA) and, later on, a solution supported on the frequencies associated to the provision of the Mobile Telephone Service.

The latter is a telephone service provided at a fixed location, based on GSM technology and its network, General Packet Radio Service (GPRS) and Universal Mobile Telecommunications System (UMTS), to access the final customer, and with access via mobile terminals. Mobile terminals make and receive calls within a given geographic area, corresponding to the customer address.

Through a determination of ICP-ANACOM of 14/09/2006, access to the service must be ensured via a terminal connected to a sole pre-determined Base Transceiver Station (BTS) whenever it makes, receives or maintains calls. In exceptional cases, technically justified and recognized by ICP-ANACOM, it is possible to associate the terminal to two - three, at the most - pre-determined BTSs. The provider should also inform end users of the service's features, namely by clarifying that access to the service is exclusively assured at the address stated by the end user, and that there are restrictions to caller location in calls made to the European emergency number (112).

These solutions have fostered the market of access to the public telephone network at a fixed location since the end of 2004, and with full development in 2005 and 2006.

Tariff changes and changes to the marketing of the service

Regarding tariffs, there are constant innovations revolutionizing traditional tariff models. On one hand, there is a trend to create tariff packages with merged access and usage items, by elimination of the access item, with usage prices subsidising the access, or by creating access prices that are convertible into calls or with an associated calling credit.

Multiple-play package offers merging voice services, Internet access, television (TV) distribution and contents are sometimes associated to these tariff changes. These offers are provided over cable TV distribution networks or over the LLU -regulated offer.

In cases where usage prices still exist, there is a phenomenon called 'postalization', which is the elimination of the proportionality between the price and the distance, and to a lesser extent, the elimination of the peak-load pricing. At the same time, optional tariffs and promotional offers have multiplied.

Apparently, these changes are contrary to the tariff principles proposed by economic theory, which would guarantee greater productive efficiency. However, the changes correspond to users' needs, namely the simplification of tariff structures, the existence of a single invoice, cost control and the elimination of fixed components, items that are also relevant in tariff theory. On the other hand, in a context of a greater competition and decreasing usage of the service, and in an industry characterized by a high level of fixed costs and of operational leverage, this type of tariff offers will assure the most proper level of revenues.

Single invoice

With the introduction of indirect access, users began

receiving two telephone invoices: one on access and sent by the incumbent operator, another regarding communications and charged by the alternative providers.

As per determination of 14 December 2004, the alternative providers were given the possibility to present the end customer with one sole invoice and one joint offer of access service and telephone services. This possibility comes from the regulatory obligation of the SLRO – Subscriber line resale offer.

SLRO is available to companies that, duly licensed by ICP-ANACOM, provide the following services over a given PTC's subscriber line:

- I) Telephone service at a fixed location under a pre-selection regime, regardless of the type of pre-selected traffic; and/or
- II) Broadband Internet access services, including services based on unbundled lines in the Shared Access mode.

Voice over Internet Protocol Services (VoIP)

Lastly, mention should be made to the introduction of voice services based on broadband Internet access offers, in the scope of the already mentioned multiple-play offers. These offers based on the Internet Protocol (VoIP) mainly have very low price levels.

VoIP technology enables users to establish telephone calls through a data network such as the Internet, converting an analogue voice signal into a set of digital signals, under the form of IP address packages, which can be sent, namely, through an Internet connection (preferably broadband).

The increase of broadband accesses for Internet use, together with the emergence of ever more stable protocols at the standardization level, enable the current development of applications supporting video and voice interactive services, such as VoIP, assuring a voice quality perceived by the user

as close to that of the traditional telephone service. Thus, the VoIP service is increasingly demanded by end users.

There are currently several types of terminals [personal computers - PC, IP telephone, Personal Digital Assistants - PDA, etc...] enabled to make VoIP calls, while the physical access should preferably be broadband, since currently it is not yet viable to guarantee an adequate bandwidth for the operation of VoIP over a narrow band connection to the public Internet. Broadband access may be based on wire-line technology suites, such as Asymmetric Digital Subscriber Line (ADSL), cable, optical fibre, and power line, or on wireless technologies, such as 3G, satellite, Fixed Wireless Access (FWA), Wi-Fi (Wireless fidelity) or WiMax (Worldwide interoperability for microwave access).

In the scope of FTS, these publicly available VoIP services, regulated by Law no. 5/2004, may be offered by an access provider, namely broadband:

- I) At a sole fixed location and under conditions perceived by the user as being equivalent to those of the traditional fixed telephone service.

In matters of numbering and portability, ICP-ANACOM believes that VoIP offers provided at a fixed location could be granted geographic numbering, being the VoIP provider's responsibility to ensure the fulfilment of this requirement (use at one single location);

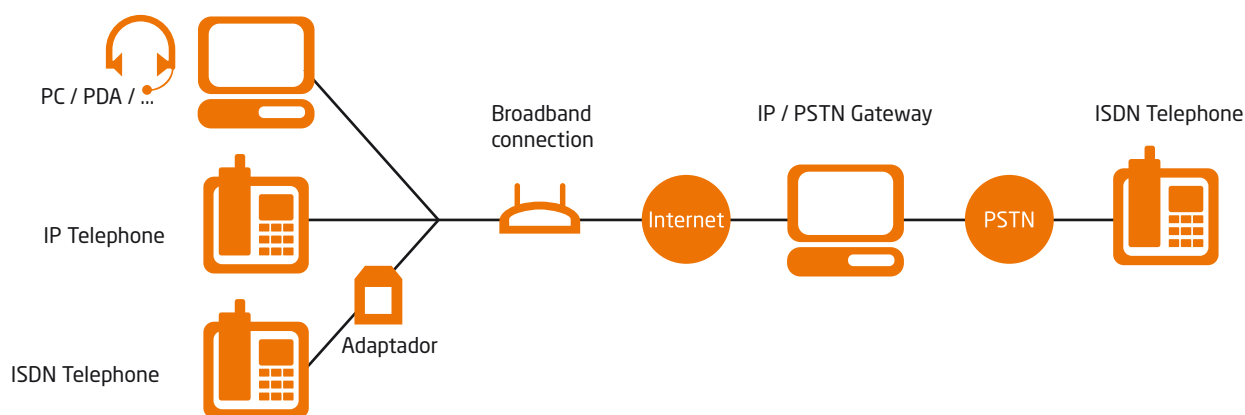
- II) Through nomadic use offers, able to be used on several locations, supported on third party accesses, i.e., without control of the access network (Skype-OUT/IN is an example of this kind of service), and being able to make and receive calls.

- III) It was considered adequate to grant this nomadic VoIP mode a new range of non-geographic numbering² - "30" - distinguishing it from the telephone service provided at a fixed location.

² It was decided, under article 17 no. 2, paragraph b) of the Electronic Communications Law (Law no. 5/2004 of 10 February), to open range "30" to host VoIP nomadic use services by ranges of 10,000 numbers to the providers entitled to provide nomadic VoIP services, under the terms defined by ICP-ANACOM. Taking into account paragraph g) of no. 1 of article 3 of the Portability Regulation, range "30" was included in the scope of portability.



Configuration of a typical network using VoIP as the publicly available electronic communications service Graph 2.



Accesses to the public telephone network at afixed location

- Copper wire pairs - this medium is mostly used by PTC, the incumbent operator, and is the one currently ensuring a greater geographical and population coverage. With the implementation of the RUO, alternative operators started to provide access to the public telephone network at a fixed location using the incumbent operator's unbundled local loops;
- Coaxial cable - cable made up of a central copper wire, enclosed by a belt of intertwined copper wires, and separated by an insulating material. This type of cable is used for carrying electrical signals at higher frequencies than those carried by a simple pair of metallic wires. It is one of the main elements of hybrid cable television (CATV) distribution networks;
- Fixed Wireless Access (FWA) - Access technology enabling operators to provide to their customers a direct connection to their telecommunications network, using a fixed radio link between the customers' premises and the operator's local switchboard. There are five active operators [AR Telecom, Novis, Vodafone, Onitelecom and PTC] with fixed wireless access licences³. Radio connections are used as a complement to their non-radio access networks, usually for non-residential customers;
- Power Line Communications (PLC) - Access technology using energy cables for broadband voice and data routing. This technology enables the use of a local household voice and data network, from any electrical socket, to provide high speed Internet access, telephone and fax services. Onitelecom was the only fixed telephone service provider to offer fixed access using PLC. However, it suspended the offer in October 2006;
- Fibre optics - physical transmission means (usually a cable with several pairs of fibreglass) in which data is routed as light impulses. It is a broadband medium that can provide the capacity to carry large amounts of data at long distance and with small distortion, if connected to the proper device. Both the new operators (Onitelecom, Novis, Coltél, AR Telecom, Refer telecom, Cabovisão), and PTC have installed fibre optics in their access networks, particularly to be used by the non-residential market;
- Radio-relay - transmission system that disseminates radio waves in the atmosphere using dish antennas. The use of radio-relay connections is negligible, considering the large investment needed to maintain them.

³ The rights of use were reconfigured by ICP-ANACOM in 2006. The reconfiguration of the system was achieved by transforming a national coverage system into a system made up of several geographic areas.

- Access using the frequencies granted for the provision of MTS. ICP-ANACOM authorized the use of frequencies granted to GSM and UMTS networks for the provision of FTS, imposing limitations to the mobility of the devices used to provide this service, as mentioned previously;

It should be mentioned that, possibly, all the main means of access to the public telephone network at a fixed location are present in Portugal, with the exception of PWC, which offer was terminated.

The following types of access are provided over these physical media:

- Analogue accesses - corresponding to accesses using a single 64kbit/s channel, in principle to carry voice and data up to 56 Kbit/s;
- Basic rate digital accesses [basic ISDN (Integrated Services Digital Network) accesses] - corresponding to accesses using two 64kbit/s channels, carrying voice and data, and a 16 Kbit/s signalling channel;

- Primary rate digital accesses (primary ISDN accesses) - corresponding to accesses using 30 64kbit/s channels for carrying voice or data, one 64kbit/s signalling channel and one synchronism channel, with a global bit rate of 2 Mbit/s;

Telephone services provided to the general public at a fixed location

The FTS enables the user to make and receive national and international voice calls, and is usually provided together with several applications, characteristics and optional services.

The following table summarizes the main services (traditional voice services, characteristics, associated services, etc.) that FTS providers can offer.

Due to the increased network convergence, integrated solutions offered by providers may include other types of service, namely the provision of voice, data and video in one single fixed access, with the proper equipment. These solutions are usually fitted to the segments they target (residential, self-employed professionals, companies, etc.).

Products and services provided by FTS providers

Table 1.

Products/services	Brief description
Analogue telephone line (only for direct access ⁴)	Corresponds to the traditional telephone service, for making and receiving voice calls at fixed locations. With the use of a modem it gives access to further services, namely data transmission and fax.
Service features (only for direct access)	Features that modify or increase the basic features and characteristics of the basic telephone services (e.g.: call waiting, call re-routing, SMS - short message service - and MMS - multimedia messaging service, etc.)
Tariff services	Detailed invoicing
Digital telephone line - ISDN (Integrated Services Digital Network) services (only for direct access)	Service also provided using a public telephone network enabling the integration of voice and data services into one single access. Currently available ISDN connections are as follows: - basic ISDN access: access to the ISDN with two 64kbps voice and/or data channels and one 16kbps signalling channel, which can be used for packaged-mode data; - primary ISDN access: access to the ISDN with 30 64kbps voice and/or data channels and one 64kbps signalling channel, and one 64kbps synchronism channel, with a total throughput of 2Mbps. Other supplementary services can be provided over ISDN lines, such as caller ID or its suppression, call re-routing, etc.
Operator services	Information and telephone directory services, operator assisted communications services, collect call services, SMS and MMS, etc.
Access to public services	Access to emergency services and other services.
Call-by-call selection and pre-selection	Feature making it possible to select an FTS provider other than the one owning the local loop. This choice is made by dialling a short code (the provider's 10xy prefix) when making the call - call-by-call selection - or further to a pre-selection contract.
Operator portability (only for direct access)	Feature enabling a subscriber of a given service to choose to keep their telephone number when changing to another operator of the same service.
Public payphones for access to the fixed telephone service	Terminal equipment for access to the FTS (telephone booths), installed at public locations, including the conditioned access ones, available to the general public as a paid service.

Source: ICP-ANACOM.

4 Depending on whether the local access is held by the FTS provider or not, it can be direct access FTS, or indirect access FTS.



The FTS providers

Below is a list of the FTS providers. Nomadic VoIP and public payphone providers are also listed.

FTS providers

At the end of 2007 there were 24 entities authorised to provide FTS.

The following table contains the list of entities that were legally authorized to provide FTS in 2007. This table includes data on the state of each operator at the beginning and end of the year, as well as information on the market entries and exits during this period.

At the end of 2007 there were 17 active providers in the FTS markets, 4 more than in the previous year.

FTS providers in 2007

Table 2.

Name	Beginning	Entries	Exits	End
ADIANIS - Telecomunicações & Multimedia, S.A.	NA			NA
AR Telecom - Acessos e Redes de Telecomunicações, S.A.	A			A
Broadnet Portugal, S.A.	NA			NA
BT Portugal - Telecomunicações, Unipessoal, Lda.	NA			NA
CABO TV Açoreana, S.A.	-	X		A
CABO TV Madeirense, S.A.	NA			A
Cabovisão - Televisão por Cabo, S.A.	A			A
CATVP - TV Cabo Portugal, S.A.	NA			A
COLT Telecom - Serviços de Telecomunicações, Unipessoal, Lda.	A			A
Equant Portugal, S.A. (ORANGE) ⁵	A			A
G9 SA - Telecomunicações, S.A.	A			A
Media Capital - Telecomunicações, S.A.	NA			NA
NEUVEX - Telecomunicações, Marketing e Informática, Lda. (RedvoTelecom)	NA			NA
OniTelecom - Infocomunicações, S.A. ⁶	A			A
Optimus Telecomunicações, S.A. ⁷	NA		X	-
PT Comunicações, S.A.	A			A
PT Prime - Soluções Empresariais Telecomunicações e Sistemas, S.A.	A			A
Radiomóvel - Telecomunicações, S.A.	A			A
Refer Telecom - Serviços de Telecomunicações, S.A.	A			A
Sonaecom - Serviços de Comunicações, S.A. ⁷	A			A
T - SYSTEM ITC IBERIA, S.A. (Sociedade Unipessoal) - (Sucursal em Portugal)	-	X		NA
Telemilénio - Telecomunicações, Sociedade Unipessoal, Lda (Tele2) ⁸	A			A
TELSOCOMM - Telecomunicações, Marketing e Informática, Lda.	NA			NA
TMN - Telecomunicações Móveis Nacionais, S.A.	A			A
Vodafone Portugal - Comunicações Pessoais, S.A.	A			A
TOTAL ACTIVE	14	1	-	17
TOTAL NON-ACTIVE	9	1	1	7
TOTAL	23	2	1	24

Source: ICP-ANACOM.

Legend: A - Active; NA - Not Active

⁵ In Portugal, the provision of EQUANT's (ORANGE) fixed telephone service is made by Novis.

⁶ It should be mentioned that ONI's residential business was bought by Sonaecom.

⁷ Further to the Novis/Optimus merging process, Novis Telecom, S.A. Change its name to Sonaecom - Serviços de Comunicações, S.A.

⁸ Tele2 was bought by Soanecom.

Of the seventeen entities operating by the end of 2007, five provided the service exclusively by direct access, and the remaining ones provided the service using both access types (Table 3).

FTS providers

Table 3.

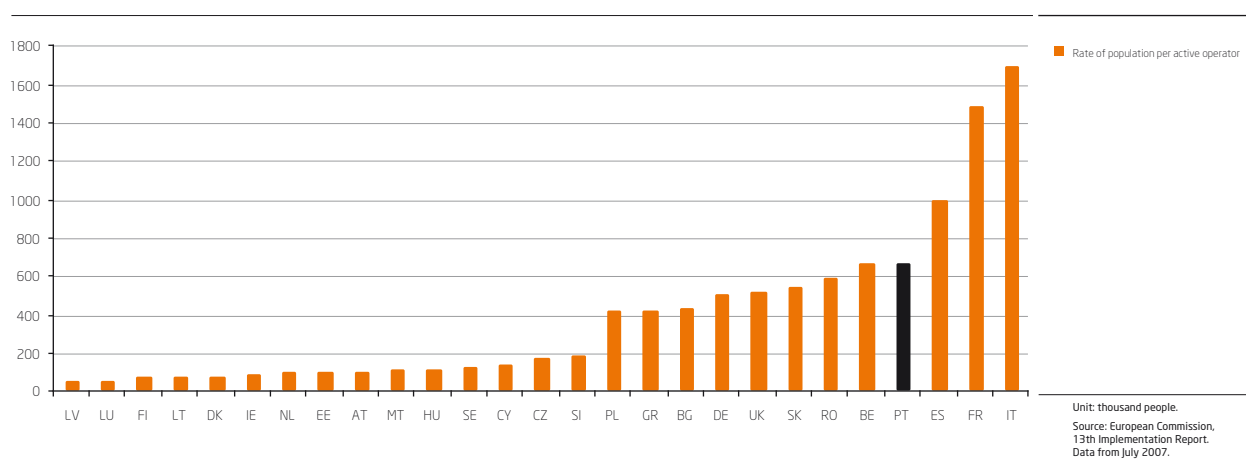
	2003	2004	2005	2006	2007
Authorised providers	26	21	22	23	24
Active providers	13	13	14	13	17
Providers with direct access and indirect access traffic	8	8	10	9	11
Providers with direct access traffic only	2	2	1	2	5
Providers with indirect access traffic only	3	3	3	2	1

Source: ICP-ANACOM.

Regarding the ratio of population per number of active FTS providers, Portugal had one of the EU's highest ratios, only behind Italy, France and Spain. Latvia, Luxembourg, Finland and Lithuania are among the countries with better performances regarding this ratio.

International comparison of the amount of active FTS providers

Graph 3.





Nomadic VoIP providers

Regarding VoIP, there were 19 providers authorized to provide VoIP services in 2007. 14 of these providers were entitled to provide nomadic VoIP services.

Only 6 of the 14 authorised providers were active. Most of the remaining operators expect to start their commercial operations during 2008.

Nomadic VoIP providers⁹

Table 4.

Name	Beginning	Entries	Exits	End
AR Telecom – Acessos e Redes de Telecomunicações, S.A.	-	X		NA
CABO TV Açoreana, S.A.	-	X		NA
CABO TV Madeirense, S.A.	NA			NA
CATVP – TV Cabo Portugal, S.A.	NA			A
EPOTEL – Prestação de Serviços em Telecomunicações, Lda	-	X		NA
G9 SA – Telecomunicações, S.A.	A			A
NETCALL – Telecomunicações e Tecnologias de Informação, S.A.	A			A
NEUVEX – Telecomunicações, Marketing e Informática, Lda.	NA			NA
PT PRIME – Soluções Empresariais de Telecomunicações e Sistemas, S.A.	-	X		A
PT.Com – Comunicações Interactivas, S.A.	-	X		A
RADIOMÓVEL – Telecomunicações, S.A.	NA			NA
SIPTELNET – Soluções Digitais, Unipessoal, Lda. ¹⁰	NA			NA
VOXBONE, S.A.	-	X		NA
WEBMEETING – Internet e Consultoria Informática, Lda. (TNTVOIP)	A			A
TOTAL ACTIVE	3	2	-	6
TOTAL NON-ACTIVE	5	4	-	8
TOTAL	8	6	-	14

Source: ICP-ANACOM.

Legend: A - Active; NA - Not Active

⁹ Companies allocated with range "30".

¹⁰ The company did not start its commercial offer. It only has a VoIP service pilot-project

Public payphone providers

Below is the list of public payphone service providers.

Public payphone service providers in 200

Table 5.

Name	Beginning	Entries	Exits	End
ADIANIS - Telecomunicações & Multimedia, S.A. (*)	NA			NA
BLUE CARD - Serviços de Telecomunicações e Informática, Lda.	A			A
CHOUDHARY - Comércio de Equipamentos de Telecomunicações, Lda.	A		X	-
EPORTEL - Prestação de Serviços em Telecomunicações, Lda.	NA			NA
FLASHAD - Electrónica e Comunicações, Unipessoal, Lda.	A			A
FREQUÊNCIA ÚNICA - Comunicações, Lda.	-	X		NA
G9 SA - Telecomunicações, S.A.	A			A
GLOBEVOX - Serviços de Telecomunicações, Lda. (*)	A			NA
MONEYCALL - Serviços de Telecomunicações, Lda.	A			A
Mundial - Agência de Câmbios, Lda.	-	X		A
NETCALL - Telecomunicações e Tecnologias de Informação, S.A.	A			A
OPTION 1 - Serviços de Telecomunicações, Lda.	A			A
PHONE ONE - Serviços de Telecomunicações, Lda.	A			A
PT Comunicações, S.A.	A			A
Seye & Bari, Lda.	NA		X	-
UNO CALL NOW - Comunicações e Serviços, Lda.	NA		X	-
WORLD FUN TELECOM - Redes de Telefonia, S.A.	A			A
XALAT - Electronic communications , Unipessoal, Lda. (*)	NA			NA
TOTAL ACTIVE	11	1	1	10
TOTAL NON-ACTIVE	5	1	2	5
TOTAL	16	2	3	15

Source: ICP-ANACOM.

Legend: A - Active; NA - Not Active

* Companies with post return to sender.

At the end of 2007 there were 15 public payphone providers in operation, with the entry of 2 new operators, 1 of which was active, and the exit of 4 operators, 1 of which was active.



Offer's structure and operator switching

In 2007, the share of accesses installed at the request of PT Group customers decreased 6 per cent. (It should be mentioned that the accesses benefiting from the SLRO were counted as alternative provider direct accesses).

Since the end of 2003, PT Group lost 22.2 per cent of the overall access share.

PT Group access shares

Table 6.

	2003	2004	2005	2006	2007
Total main accesses	94,4	93,3	89,3	78,6	72,2
Accesses installed at customer request	94,3	93,2	89,0	78,1	71,6
Analogue accesses	94,6	93,9	91,3	81,5	76,8
Equivalent digital accesses	93,2	90,5	81,1	68,1	59,1

Unit: %.
Source: ICP-ANACOM.

The evolution of the direct access customer share had a similar behaviour as the access share. (It also assumed that customers with active SLRO were alternative operators' direct customers). It should be stressed out that, in practical terms, indirect access is only provided by alternative operators.

PT Group customer shares

Table 7.

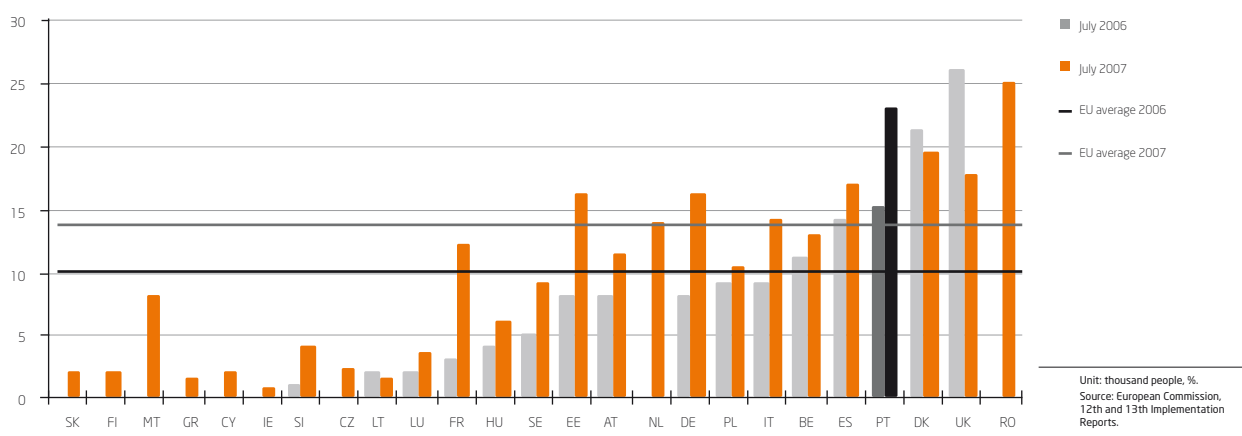
	2003	2004	2005	2006	2007
Direct access customers	94,6	93,8	88,9	76,5	68,9
Indirect access customers					
Pre-selection	0,7	0,7	0,9	1,3	2,2
Call-by-call selection	0,4	0,3	0,4	0,6	1,1

Unit: %.
Source: ICP-ANACOM.

It should be mentioned that, according to the European Commission, the direct access customer share of alternative providers in Portugal is the second highest one among the considered countries.

Alternative providers' direct access customer share in the EU

Graph 4.



Together with the evolution of access and customer shares, number portability has also been fostered. During 2007, ported geographic numbers maintained the growth trend,

with a 49 per cent growth. In absolute terms, the volume of ported number reached 665 thousand numbers, a figure that is equivalent to 16 per cent of all accesses.

Ported numbers

Table 8.

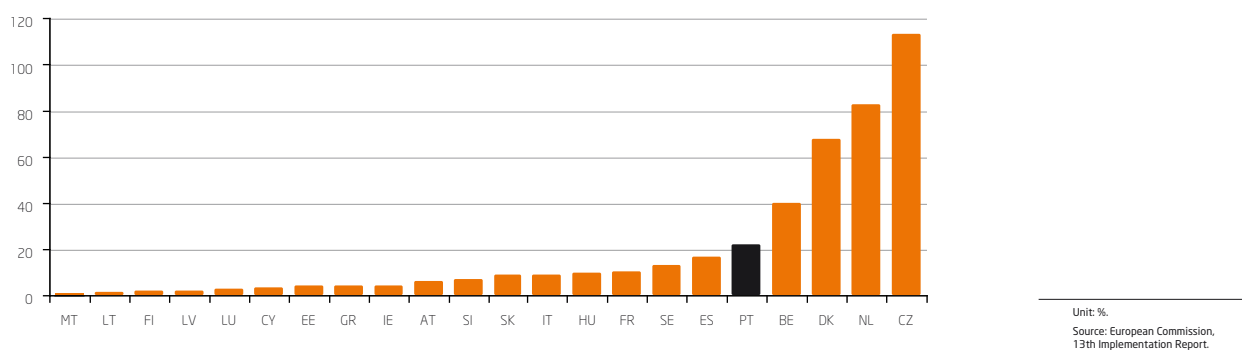
	2003	2004	2005	2006	2007
Geographic numbers	118.017	158.623	265.077	446.371	664.684
Non-geographic numbers	214	277	351	571	739

Unit: 1 number.
Source: ICP-ANACOM.

At the EU level, Portugal ranks fifth regarding ported numbers.

Percentage of ported fixed numbers (October 2007)

Graph 5.





Regarding traffic shares, there has been, since the beginning of liberalization, a constant decrease in the share of voice traffic routed by the incumbent operator. In line with this,

2007 recorded a 2.2 per cent decrease in the share of voice traffic routed by the incumbent operator in terms of minutes, and a 2.5 per cent one in terms of calls.

PT Group's traffic shares (minutes)

Table 9.

	2003	2004	2005	2006	2007
Total traffic (voice + Internet)	88,5	83,7	78,2	73,4	69,9
Voice traffic	82,4	78,1	74,1	71,0	68,8
National traffic (voice)	82,4	78,1	74,2	70,6	68,4
National fixed-to-fixed traffic	82,6	78,3	74,4	71,0	69,1
National fixed-to-mobile traffic	81,4	76,8	72,9	68,3	64,7
Outgoing international traffic	82,1	77,4	73,0	76,4	74,2
Internet access traffic	99,5	99,4	96,3	92,9	91,5

Unit: %

Source: ICP-ANACOM.

PT Group's traffic shares (calls)

Table 10.

	2003	2004	2005	2006	2007
Total traffic (voice + Internet)	83,0	78,2	74,8	71,2	68,5
Voice traffic	81,7	77,3	74,2	70,9	68,4
National traffic (voice)	81,7	77,3	74,3	70,8	68,3
National fixed-to-fixed traffic	81,5	77,2	74,3	71,3	69,1
National fixed-to-mobile traffic	82,7	78,0	74,3	69,2	65,7
Outgoing international traffic	80,1	75,4	72,1	72,5	70,3
Internet access traffic	99,0	97,7	93,8	84,0	69,0

Unit: %

Source: ICP-ANACOM.

Regarding national voice traffic destinations (mobile and fixed geographic), alternative providers were responsible in 2007 for about 32 per cent of traffic, both in terms of minutes and of calls.

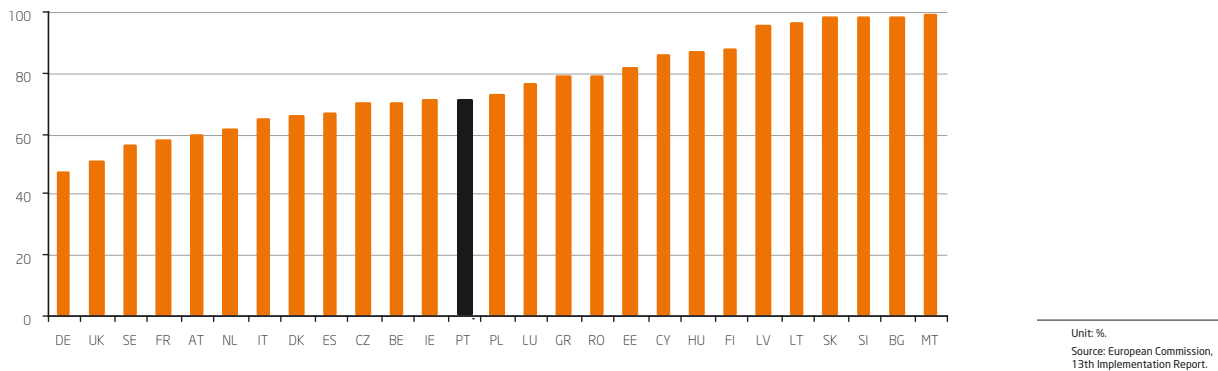
Regarding outgoing international traffic, in 2007 the alternative providers' share was about 25.8 per cent of the routed minutes, and 29.7 per cent of the originated calls.

Concerning Internet access traffic, in 2007 the alternative providers' share was about 8.5 per cent of the routed minutes and 31 per cent of the originated calls. It should be highlighted that the alternative providers increased their Internet access traffic share by about 15 per cent, in terms of calls.

Within the EU, Portugal stands in a median position regarding the incumbent operator's traffic share

Traffic share of the incumbent operator in December 2006 (minutes)

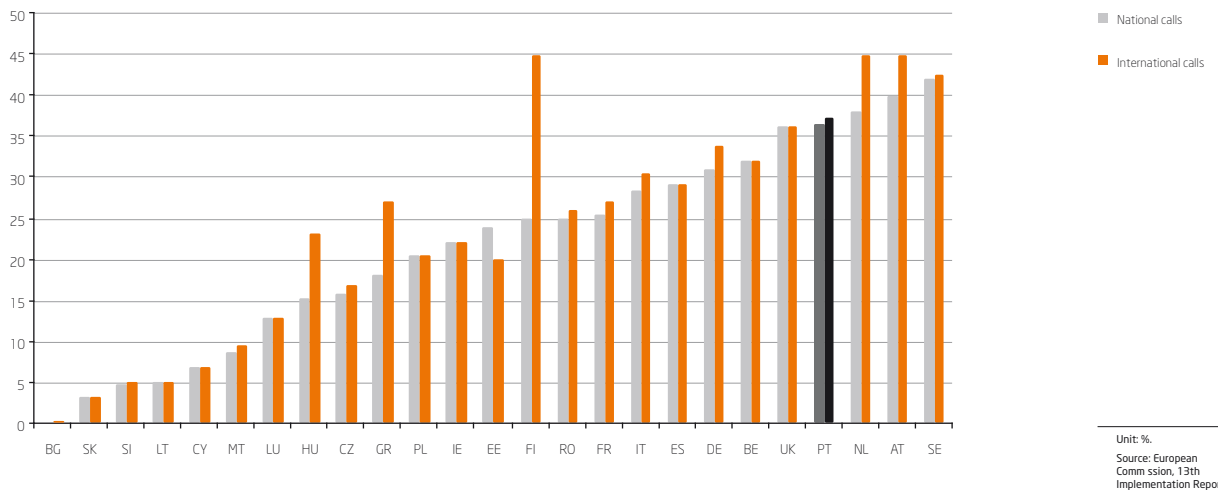
Graph 6.



Regarding the proportion of customers using alternative providers to make calls, and in comparison with the remaining EU countries, Portugal stands in the 4th and 5th positions, in terms of national and international calls, respectively.

Percentage of subscribers using alternative providers to make fixed voice calls (July 2007)

Graph 7.





Regarding revenues, PT Group's share reached 77.2 per cent in 2007, 2 per cent below the figure that was recorded the year before. This reduction results namely from the constant increase of the subscription and installation shares

of alternative providers, which stood in 2007 at 15 per cent, versus only 0.3 per cent in 2004.

Revenue shares of PT Group's FTS

Table 11.

	2003	2004	2005	2006	2007
Total revenues	89,5	87,7	86,4	79,3	77,2
Revenues from subscription and installation fees	99,7	98,3	96,7	85,9	85,0
Revenues from calls and SMS originated in the fixed network	82,3	79,6	77,4	72,3	68,8

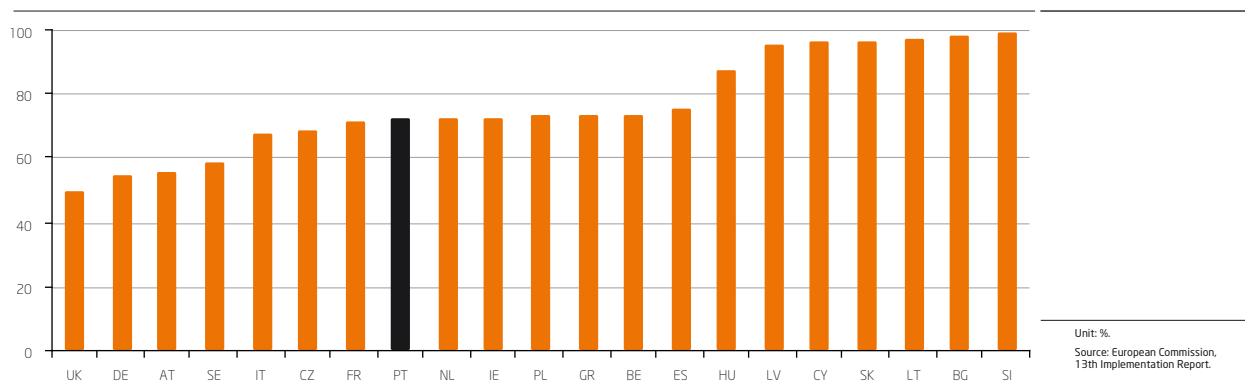
Unit: %.
Source: ICP-ANACOM.

In international terms, in December 2006, the revenue share of the incumbent operator in Portugal was close to the average of the incumbent operator of the EU countries taken into account, which stood at 75.8 per cent.

The evolution of the shares that are shown above results from the previously mentioned factors explaining the subjacent variables. However, it is important to stress consumer motivation concerning operator switching.

Revenue share of the incumbent operator in December 2006 (revenues)

Graph 8.



In this context, it should be noted that the main reasons, pointed out both in 2006 and in 2007, for switching operator are related to the service's price level or to tariff issues (no monthly fee).

Reasons for switching fixed operator

Table 12.

	Dec-06	Dec-07
Dissatisfaction with prices	48,9	51,7
New operator charges no monthly fee	19,0	18,3
Interest in trying new products/services	9,9	6,1
The previous operator did not offer a package with Internet and TV access	5,7	5,3
Dissatisfaction with the quality of the service	5,6	7,2
The previous operator did not offer a package with Internet access	2,9	2,6
Most people with whom they contact are customers of this new operator	2,4	1,3
Other replies	3,3	5,2
N.A.	2,2	2,3
Total	100	100

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey – 2006 and 2007.

And, in fact, operators that launched offers with no monthly subscription (namely based on GSM, cable TV distribution networks, or *multiple play*), and the providers, namely of indirect access, that claim that their offers are cheaper than the incumbent operator's, are the main responsible parties for the decrease in the incumbent operator's access and traffic shares (another relevant factor in this scope is the decrease in the use of the service in its traditional form).

On the other hand, these consumer motivations and the offers launched by alternative operators to satisfy the needs resulting thereof also justify PT Group's relative share regarding revenues. percentuais.

FTS usage profile

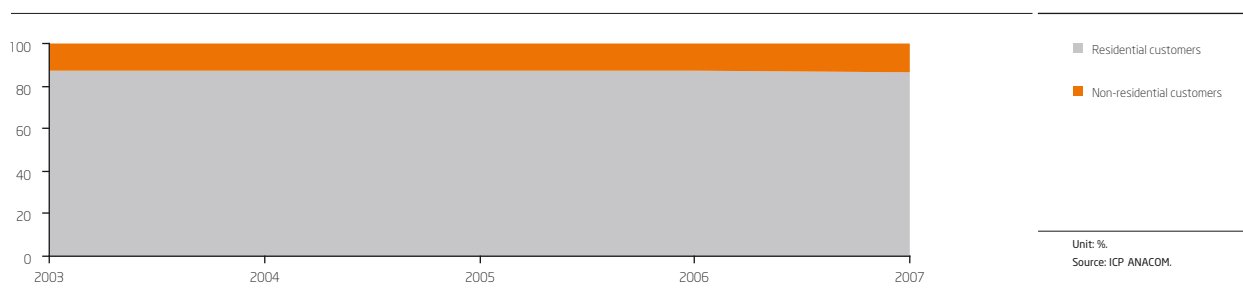
Below are the main characteristics of FTS users, the characteristics of the service's accesses and traffic, and the main barriers invoked by users for not subscribing to the service.

FTS user's profile

FTS users are mostly residential. Only about 13 per cent of FTS customers are non-residential. As the following graph shows, these proportions have not varied greatly throughout the period under review.

Residential and non-residential customers

Graph 9.





Among residential customers, service penetration is quite above the average for those above 55 years old and in the case with higher educated.

FTS penetration per age group

Table 13.

Age group	Dec. 2007
15-24	42,2
25-34	37,0
35-44	47,1
45-54	59,7
55-64	66,0
65-over	82,8

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey - 2007.

The residents of the Autonomous Regions subscribe to the FTS more intensely than those in the remaining regions of the country.

Penetração do STF por NUTII

Table 14.

Region	Dec. 2006	Dec. 2007
North	56,7	47,1
Centre	61,1	65,1
Lisbon and Tagus Valley	58,9	48,8
Alentejo	60,1	45,5
Algarve	52,3	51,5
Madeira	71,6	48,9
Azores	81,9	77,2

Unit: %.

Source: ICP-ANACOM, Inquérito ao consumo das Electronic communications - 2007.

FTS usage characteristics

Below is a characterization of the use of FTS accesses and calls

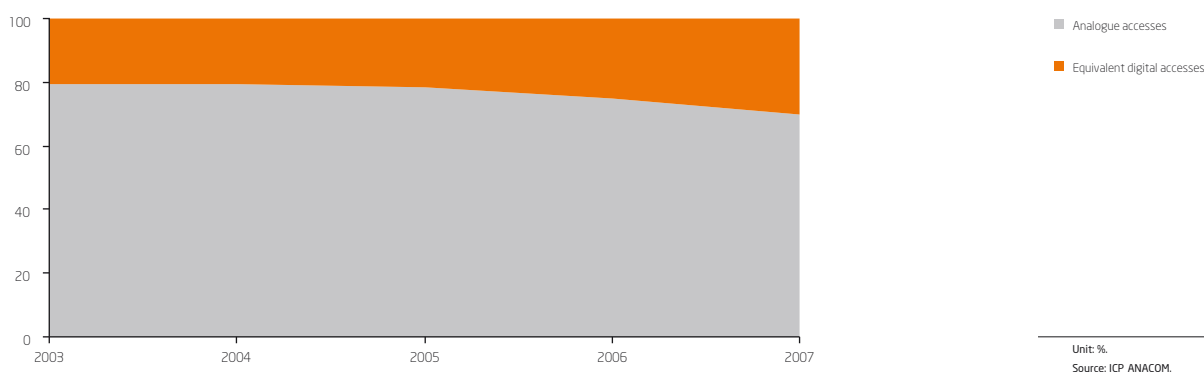
Accesses

The vast majority of direct accesses to the FTS are made up of analogue accesses. However, since the beginning of the liberalization process, the share of equivalent digital accesses grew considerably. This evolution is mainly due to the commercial strategies of the alternative operators who invested in this type of offer.

The above-described trend grew stronger in 2005-2006 as a result of the increase of accesses using GSM networks. By the end of 2007, the rate of equivalent digital accesses was about 30 per cent.

Distribution of accesses per type of access¹¹

Graph 10.



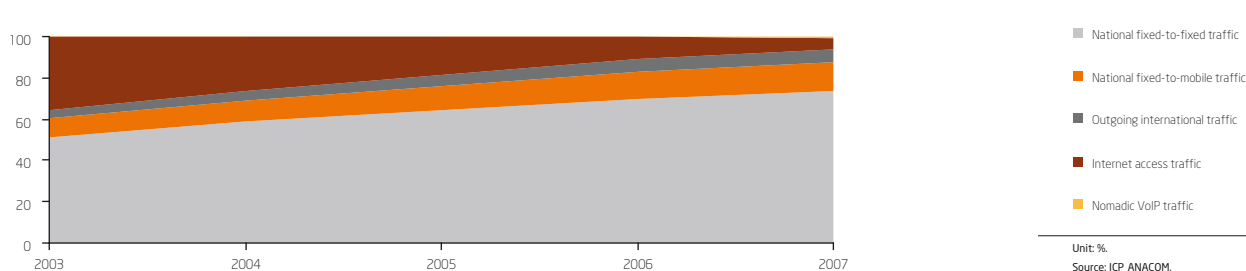
Traffic

Switched traffic routed by the fixed network, considering the amount of minutes, is mainly made up of fixed-to-fixed calls (73.6 per cent). It is followed by fixed-to-mobile traffic (13.7 per cent), outgoing international traffic (6.7 per cent), Internet access traffic, and lastly, nomadic VoIP service's traffic (1.1 per cent).

The importance of the switched Internet access (dial-up) traffic, which at an early stage gained a considerable weight regarding total traffic due to the spread of Internet and the introduction of free Internet offers by alternative operators, has suffered an accelerated drop due to the migration to broadband. This fact has contributed to the increase in the weight of the remaining traffic destinations. VoIP traffic gained some importance during 2007.

Distribution of traffic per destination (Minutes)

Graph 11.



The above-described distribution is considerably changed when the amount of calls is considered. This is explained by the fact that the amount of minutes of Internet access calls is much higher than the amount of calls (i.e. Internet access calls have a longer length than the remaining ones). Regarding the number of calls, fixed-to-fixed traffic stands for about 72 per cent of the overall traffic, while fixed-to-mobile traffic and

international calls stand for about one fifth and 4.6 per cent, respectively. Internet access calls only stand for 1.1 per cent of all calls, and nomadic VoIP service calls make up about 0.7 per cent of the overall amount of calls.

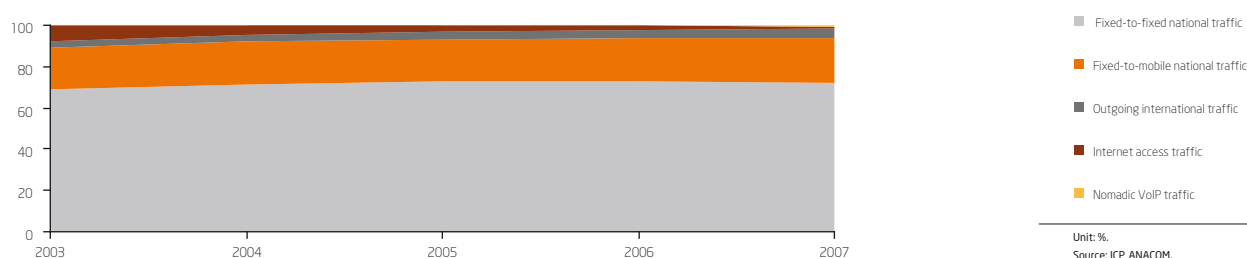
Also in this case the migration to broadband Internet access had an impact on traffic distribution along this period in time.

¹¹ Includes accesses installed at customer request and public payphones. Does not include own stock.



Distribution of traffic by destination (calls)

Graph 12.



Traffic: Average call length

Voice calls originated and ended in the fixed network have a length of about 3 minutes and 15 seconds longer than fixed-to-mobile calls. These differences are probably explained by the differences between the price levels of these calls.

On the other hand, international calls reached a length of 4 minutes and 22 seconds in 2007. The increasing length of international calls may be also explained by tariffs. In fact,

in the latest years, there has been a reduction in the prices of these calls and the launch of optional and promotional offers specifically targeted, e.g., at immigrant communities.

The average length of Internet access calls reached about 13 minutes and 40 seconds in 2007, a figure below that of 2005 and 2006. It would be expected that, as these service's intensive users migrate to broadband solutions, the average call length would decrease.

Average call length

Table 15.

	2003	2004	2005	2006	2007
Total traffic (voice + Internet + nomadic VoIP)	3,79	3,46	3,18	3,04	2,98
Voice traffic	2,64	2,66	2,68	2,76	2,85
National traffic (voice)	2,59	2,60	2,60	2,68	2,77
National fixed-to-fixed traffic	2,81	2,83	2,81	2,91	3,03
National fixed-to-mobile traffic	1,80	1,79	1,85	1,88	1,90
Outgoing international traffic	4,01	4,21	4,42	4,43	4,37
Internet access traffic	17,31	20,44	20,08	17,14	13,65
Nomadic VoIP traffic	--	-	-	n.d.	4,72

Unit: minutos.
Source: ICP-ANACOM.

Barriers to service subscription

According to the data collected for the electronic communications consumer survey - 2007¹², and as the following table shows, the main reason for not subscribing to the FTS is the use of mobile phone.

The reasons: "doesn't need, doesn't need to communicate" is stated in 2007 by 20 per cent of those questioned. The existence of a monthly fee as part of the invoice was also considered an important factor for not using the fixed telephone.

12 The Universe defined for this survey was made up of users 15 years old or older, living in Mainland Portugal and in the Autonomous Regions of Madeira and the Azores. The sample was made up of 3504 interviews, with a semi-proportional distribution by NUT II region. Households were selected randomly from a stratified matrix including the Region (7 NUT II regions) and the Habitat/Size of the population aggregates (5 groups). Crossing these variables ensured a proportional distribution of the sample by region regarding the Portuguese population in general. Results were later weighted in order to grant each region its real weight within the Portuguese population. Quotas were defined with base on the General Population Census (2001) by Instituto Nacional de Estatística (I.N.E.). Interviewees at each household were selected using the quota method, based on the crossing of variables Sex, Age (3 groups), Education (3 groups: primary education or less, more than primary education and less than higher education, and more than higher education - according to the categorization requested by ICP-ANACOM), and Occupation. Data was collected by telephone interviews, made to fixed network numbers and mobile phone numbers, using the CATI (Computer Assisted Telephone Interview) system. The fieldwork was conducted between 1 November 2007 and 17 December 2007. The results obtained for each of the four services considered (fixed telephone service, mobile telephone service, Internet access service, and paid TV service) have a maximum error of 4 per cent (for a confidence level of 95 per cent). The fieldwork and handling of data was carried out by company GfK Metris.

The fact that the service was considered too expensive reached 10% in 2007.

Reasons for not having fixed network telephone

Table 16.

	Dec. 2007
Uses mobile phone	43,6
Prefers not to pay monthly fee	19,7
It is cheaper to make calls using other means	--
Doesn't need	21,4
Other replies	1,0
Recent / rented home	3,1
Uses computer	0,4
Too expensive	9,9
N.a.	0,8
Total	100

Unit: %.

Source: Electronic communications consumer survey – December 2007.

Base: People questioned without fixed network

The motivations put forward by Portuguese consumers for not subscribing to the FTS are very similar to those stated by their European counterparts.

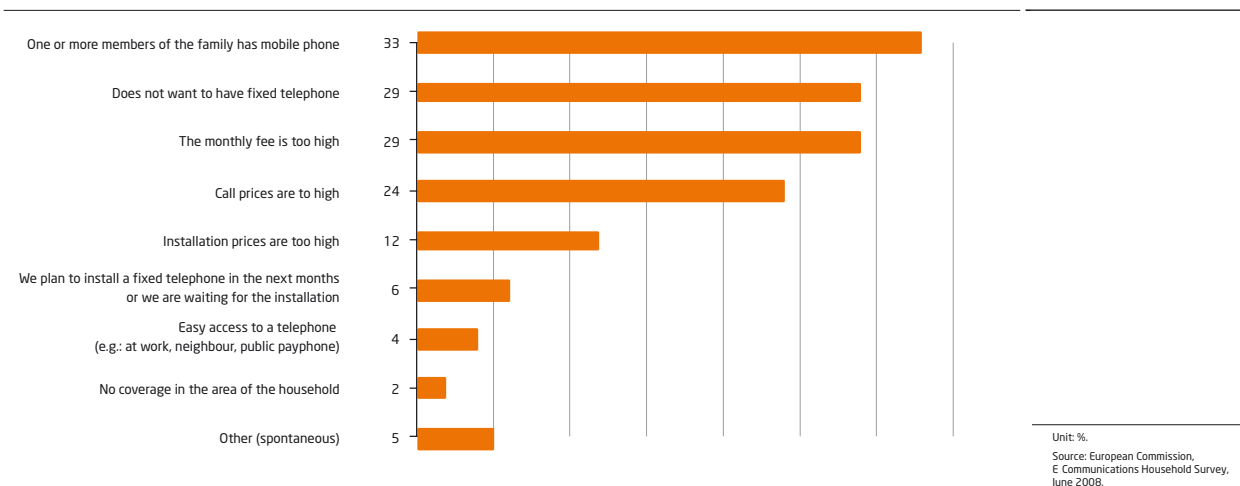
According to the European Commission¹³, the fact that one member of the family has a mobile phone is the most stated reason for not having fixed network. The costs associated to a fixed telephone line are also mentioned as a reason for not having a fixed telephone. One out of three households

without fixed telephone claims that the monthly fee is too high. One out of four considers that call prices are high and 12 per cent of those surveyed mention that they could not support the installation cost.

Apparently, service subscription barriers of an economic nature are lower in Portugal than in the EU, where they are majority. On the other hand, the influence of MTS is much greater in Portugal.

Reasons for not having a fixed telephone in the EU

Graph 13.



¹³ European Commission, E-Communications Household Survey, Special Eurobarometer June 2008.



FTS evolution in 2007

Below is a set of items on the evolution of the FTS in 2007: service availability, penetration, service's usage intensity, evolution of access, traffic and revenue shares, and price evolution and quality perception

Service availability and penetration

As shown on the graph below, the fixed telephone network operated by the incumbent operator is available in the entire continental territory. In the autonomous regions there is also a strong presence of the fixed network, with exchanges and telephone concentrators in all the islands of the territory.

The graph also shows the distribution of MDF (Main Distribution Frames) with unbundled local loops, which are concentrated in the main urban centres of Mainland Portugal. Local loop unbundling led to the emergence of package offerings from the alternative providers.

It is also possible to access the service using the mobile networks and the networks of cable TV distribution operators providing FTS over those networks.

Regarding publicly available telephone services at a fixed location, it is possible to use the services of alternative operators in all of the national territory using indirect access and, after 2006, VoIP offerings (in the case with users with broadband Internet access).

Distribution of PT's exchanges and PT's exchanges with unbundled local loops (Mainland Portugal)
Graph 14.





Distribution of PT's exchanges and PT's exchanges with unbundled local

(Autonomous Regions of Madeira and the Azores)

Graph 15.

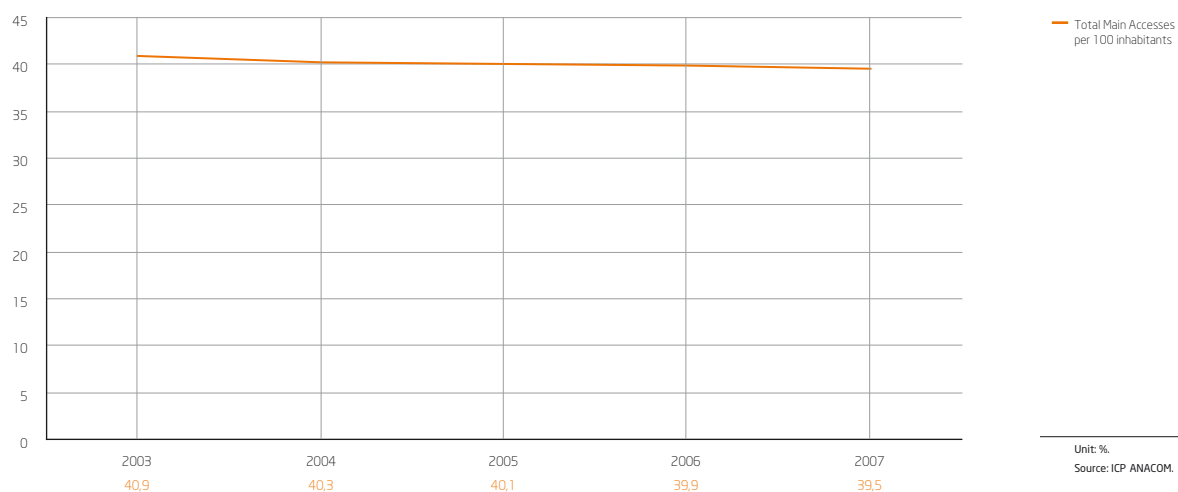


Although the service is generally available in the entire country, between 2003 and 2007 there was a drop in the

penetration rate, which could be linked to some of the factors mentioned in page 26.

Evolution of telephone penetration

Graph 16.

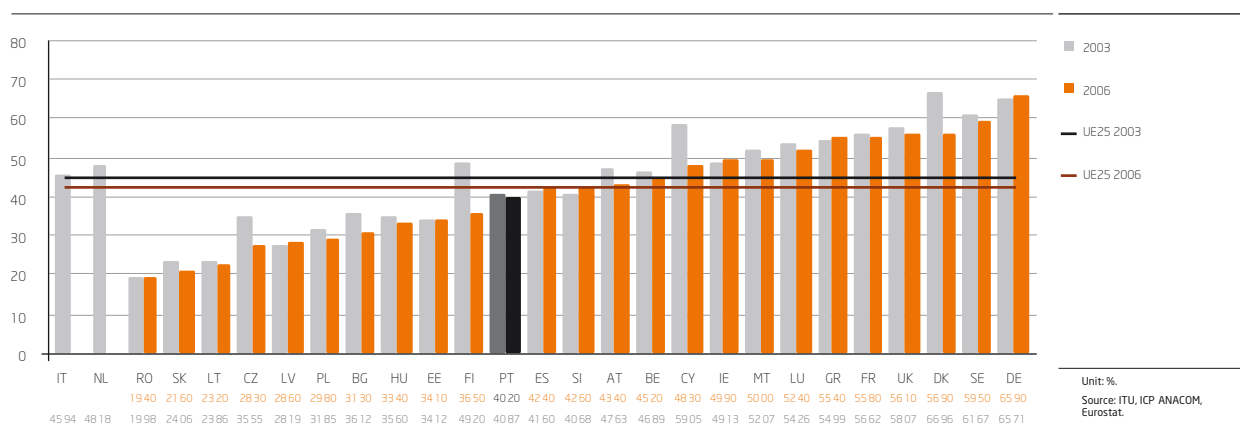


Telephone penetration in Portugal (40 accesses per 100 inhabitants) was, in 2006, below the European average (42, in 2006). It should be noted that there was also a decrease

in this service's penetration in the EU: -2.6 per cent between 2003 and 2006, a decrease above the one recorded in Portugal during that period (0.7 per cent).

International comparison of access penetration rates (no. of accesses per 100 inhabitants)

Graph 17.



Amount of service users

In 2007 there was a 0.9 decrease in direct access customers, from 2006. Indirect access customers decreased 31.9 per cent, in the case with pre-selection, and 39.68 per cent in the case with call-by-call selection.

Nomadic VoIP service customers had a considerable increase. However this FTS mode still represents a very small number of customers.

Amount of FTS customers

Table 17.

	2006	2007	2006/2007 Var. (%)	Average yearly Var. (%)	2003/2007 Var. (%)
Direct access customers	3.245.313	3.214.771	-0,9%	0,6%	2,3%
Pre-selection	429.935	292.780	-31,9%	-4,7%	-17,6%
Call-by-call selection	68.657	41.469	-39,6%	-5,3%	-19,5%
Nomadic VoIP	3.426	76.290	2.126,8%		

Unit: 1 cliente, %.
Source: ICP-ANACOM.

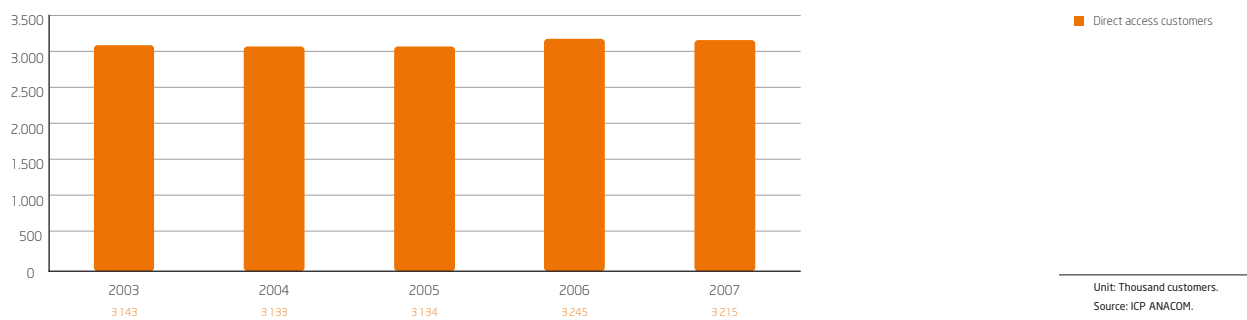
* Includes Direct Access customers with active SLRO.

In 2007 there was a reduction in the amount of direct access customers, from 2006. However, the figure recorded in 2007 is still above the 2003 figure. During the period under review, direct access customers remained over the 3.2 million mark.



Evolution of direct access customers

Graph 18.



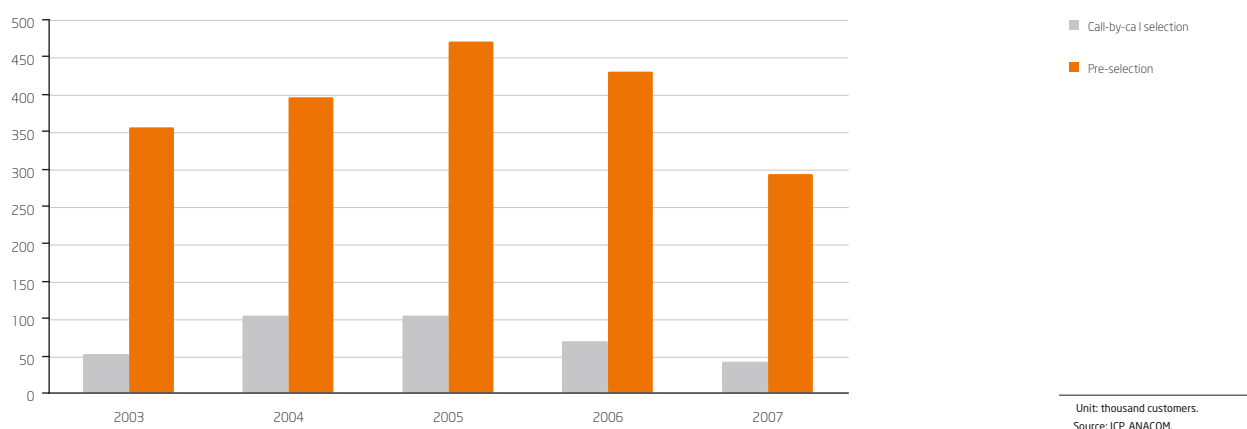
On the other hand, the amount of indirect access customers, after a considerable increase during the first two years after liberalization - when it was the main means of access used by the alternative providers to enter these markets - had an important decrease between 2001 and 2003. This evolution was explained by the new operators' investment on new business models with better profit expectations (e.g. the package offerings based on direct access, namely those based on the RU0).

2006 registered a reversion of the previously described trend and in 2007 the decrease trend in the amount of indirect access customers became stronger. These variations are justified by the increase in the offers of alternative operators in the direct access mode. The development of the SLRO (in the case of call-by-call pre-selection), and the new optional price plans launched by the incumbent operator may have affected this evolution.

A new provider entered these markets by the end of 2003, fostering the indirect access offer. The amount of customers rose considerably since then.

Evolution in the amount of indirect access customers

Graph 19.



In this context, it should be mentioned that at the end of 4Q07, more than 140 thousand customers used the SLRO. One single alternative operator is responsible for more than 89 per cent of customers with an active SLRO.

Service usage level

Below is the evolution of the service usage level concerning accesses, traffic and revenues.

Accesses

By the end of 2007, there were about 4.2 million main accesses installed, 1 per cent less than at the end of the previous year. The increase of about 16.2 per cent in the amount of digital accesses stands out. This increase in the amount of digital accesses mainly resulted from the installation, during 2007, of 154 thousand new accesses using GSM technology. This increase reduced the drop registered in the analogue accesses (-6.8 per cent) and in the amount of installed public payphones (-4 per cent).

Amount of installed equivalent accesses

Table 18.

	2006	2007	Var. (%) 2006/2007	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Total main accesses*	4.233.954	4.190.997	-1,0	-0,5	-2,1
Accesses installed at customer request	4.128.011	4.085.881	-1,0	-0,7	-2,7
Analogue accesses	3.089.974	2.879.923	-6,8	-3,6	-13,6
Equivalent digital accesses	1.038.037	1.205.958	16,2	8,7	39,8
Public payphones	43.233	41.498	-4,0	0,0	-0,1

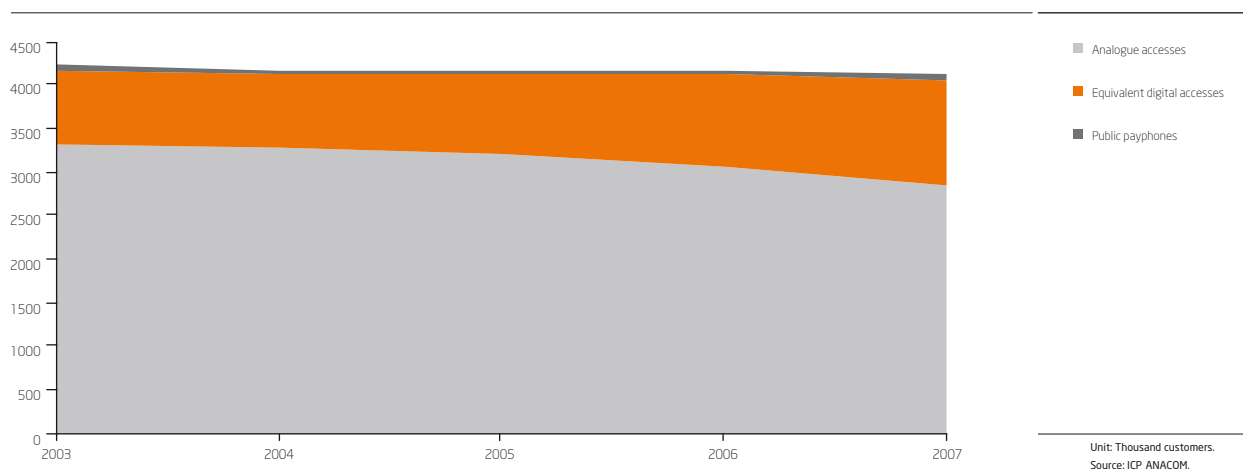
Unit: 1 access, %.
Source: ICP-ANACOM.

*Includes accesses installed at customer request, own stock and public payphones.

Since 2001 there is a reduction trend in the amount of analogue accesses installed at customer request (-2.7 per cent between the end of 2003 and 2007), which may be linked to some of the factors mentioned in page 26.

Evolution in the amount of accesses

Graph 20.





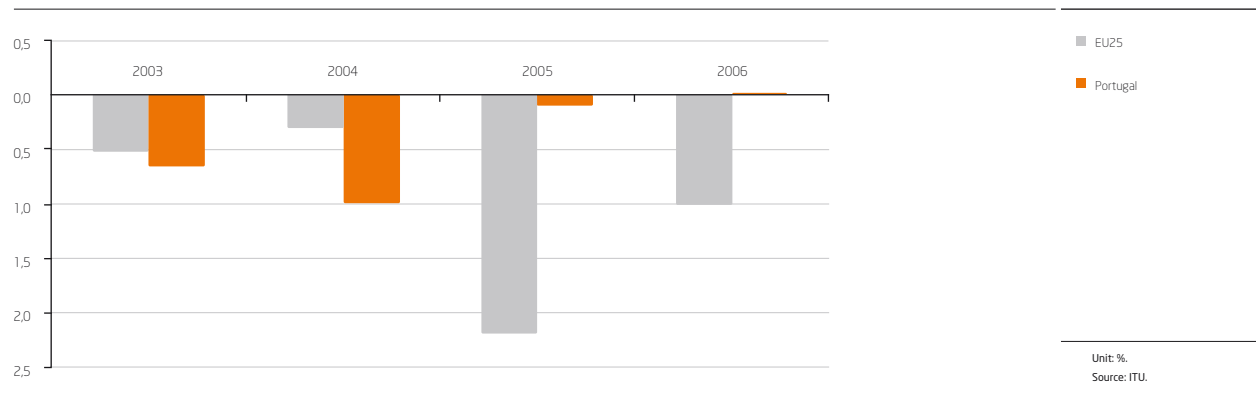
The investment made by alternative operators on the local network was not enough to reverse the described trend. New operators mostly decided to enter the market using indirect access or local loop unbundling regulated offers. Cabovisão was the exception. It invested quite early on a multiple play strategy supported on its cable TV distribution network, and became until recently the second biggest provider of the fixed telephone network access service.

The successive increase of digital accesses is firstly explained by the launch of traditional digital access offers, mainly targeted at business segments, and currently by the above-mentioned offers based on GSM.

The decrease in the amount of accesses in Portugal was stronger than in the remaining EU countries until 2004. However, in 2005, because of the GSM-based offers, the decrease in the amount of accesses in Portugal was quite below that of Europe. Also because of that, 2006 registered a slight increase of 0.01 per cent in the amount of main accesses in Portugal.

Evolution of the amount of accesses in the EU and in Portugal

Graph 21.



Traffic

2007 was characterized by a generalised drop in traffic with origin in the fixed network, with the exception of the outgoing international traffic and the traffic VoIP service traffic. The strongest decrease was recorded in the Internet access traffic (-58 per cent in minutes and -48 per cent

in calls), and was induced by the expansion of broadband Internet access. Voice traffic decreased around 5 per cent in 2007, in calls, in line with the average of the latest years.

Traffic originated in the fixed network (minutes)

Table 19.

	2006	2007	Var. (%) 2006/2007	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Total traffic (voice + Internet + VoIP)	9.050	8.434	-6,8	-12,0	-40,0
Voice traffic	8.050	7.926	-1,5	-3,1	-11,9
National traffic (voice)	7.500	7.360	-1,9	-3,6	-13,5
National fixed-to-fixed traffic	6.345	6.207	-2,2	-3,7	-13,9
National fixed-to-mobile traffic	1.155	1.153	-0,2	-3,0	-11,4
Outgoing international traffic	550	566	2,9	3,9	16,7
Internet access traffic	997	415	-58,4	-46,5	-91,8
Nomadic VoIP traffic	3	93	2.635,3		

Unit: million minutes, %.
Source: ICP-ANACOM.

Traffic originated in the fixed network (calls)

Table 20.

	2006	2007	Var. (%) 2006/2007	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Total traffic (voice + Internet + VoIP)	2.980	2.834	-4,9	-6,5	-23,5
Voice traffic	2.920	2.784	-4,7	-5,0	-18,4
National traffic (voice)	2.796	2.655	-5,0	-5,2	-19,3
National fixed-to-fixed traffic	2.181	2.047	-6,1	-5,5	-20,2
National fixed-to-mobile traffic	615	608	-1,1	-4,3	-16,1
Outgoing international traffic	124	129	4,0	1,6	6,6
Internet access traffic	58	30	-48,3	-43,4	-89,7
Nomadic VoIP traffic	1	20	1.328,6		

Unit: million calls, %.
Source: ICP-ANACOM.

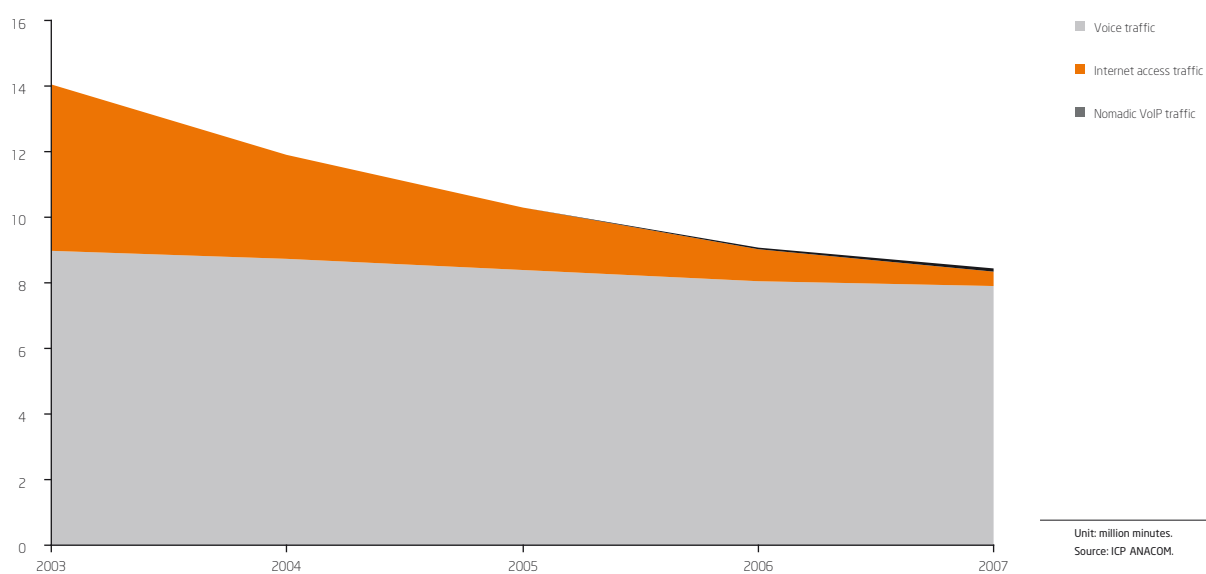
Voice traffic has been decreasing since 2000. In cumulated terms, the amount of minutes decreased 12 per cent and the volume of calls decreased about 18 per cent, between 2003 and 2007. It should be mentioned that the traffic decrease is higher than the decrease recorded in accesses and direct customers.

Traffic connected to the nomadic VoIP service has shown very high increases since it is at an early stage of its life cycle.



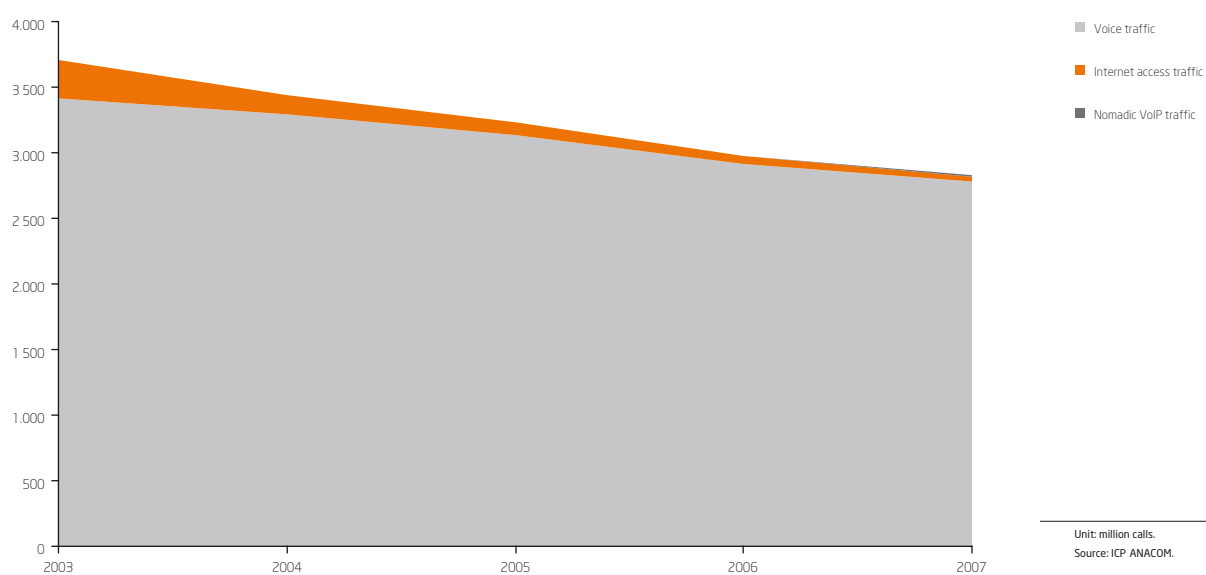
Traffic originated in the fixed network (minutes)

Graph 22.



Traffic originated in the fixed network (calls)

Graph 23.

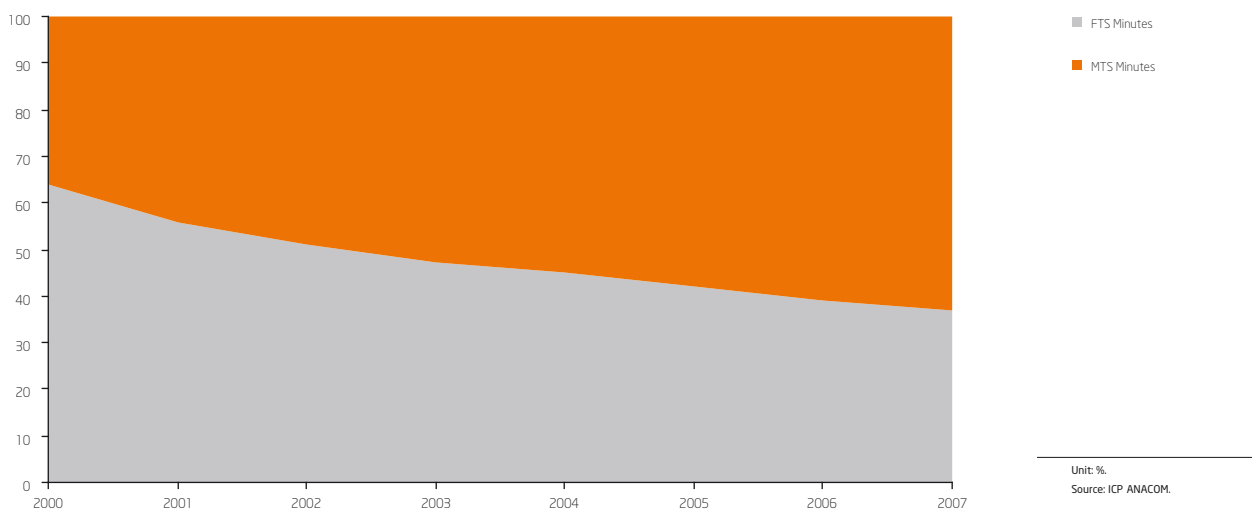


This trend of decreasing traffic is linked to the previously mentioned phenomenon named fixed-by-mobile replacement. This factor caused the intensification of voice traffic in mobile networks, to the detriment of the fixed network. Mobile traffic already stands for 63 per cent of the overall voice traffic, 27 per cent more than in 2000.

Concerning the amount of international calls originated in the fixed network, it recorded a 4 per cent increase in 2007, thus reflecting the importance of the fixed network for consumers when making this type of calls.

Distribution of the voice traffic originated on the fixed and mobile networks

Graph 24.



Indirect access traffic

2007 registered a decrease in indirect access traffic (-15.8 per cent of calls and -20.6 per cent of minutes).

The generalized drop in indirect access traffic goes together with the decrease in the amount of customers of these offers, the demand for new business models, and the strategic

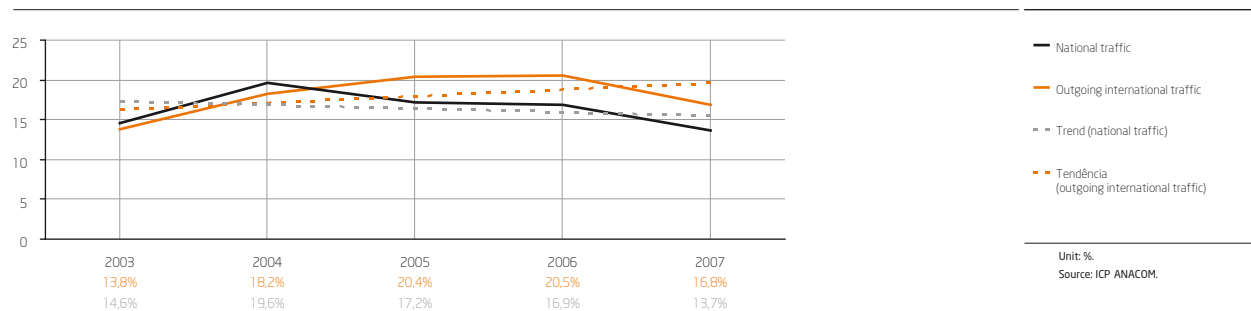
focus of some of the main alternative operators, and the incumbent operator's investment on optional tariff schemes.

Indirect access traffic stands for about 16 per cent of the overall traffic.



Evolution of the rate of traffic routed using indirect access modes (minutes)

Graph 25.



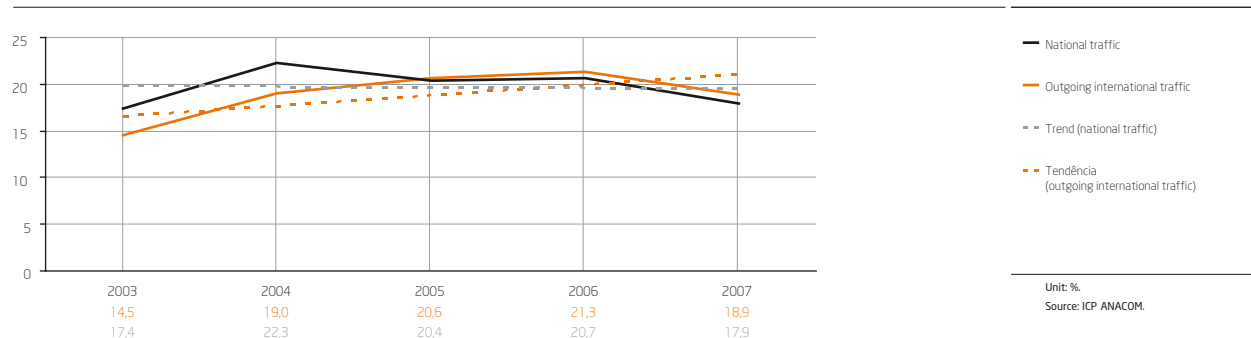
Regarding outgoing indirect access international traffic, in 2007 this kind of traffic stood for about 13.7 per cent of total conversation minutes and 17.9 per cent of the overall amount of calls. Indirect access became an important alternative to direct access right after this service's

liberalization. However, between 2002 and 2003, indirect access international traffic decreased due to the lack of alternative operators' investment on this segment.

In 2004, with the emergence of a new provider with considerably aggressive offers, there was again an increase in the use of this means of access. However, since 2005 until now, this type of traffic shows a decreasing trend.

Evolution of the rate of traffic routed using indirect access modes (calls)

Graph 26.



Average traffic per customer

Average traffic per direct access customer decreased considerably since the first years of sector's liberalization. This process is mostly driven by the decrease of dial-up traffic and by the decrease of voice traffic to fixed numbers.

Monthly traffic per indirect access customer (minutes)

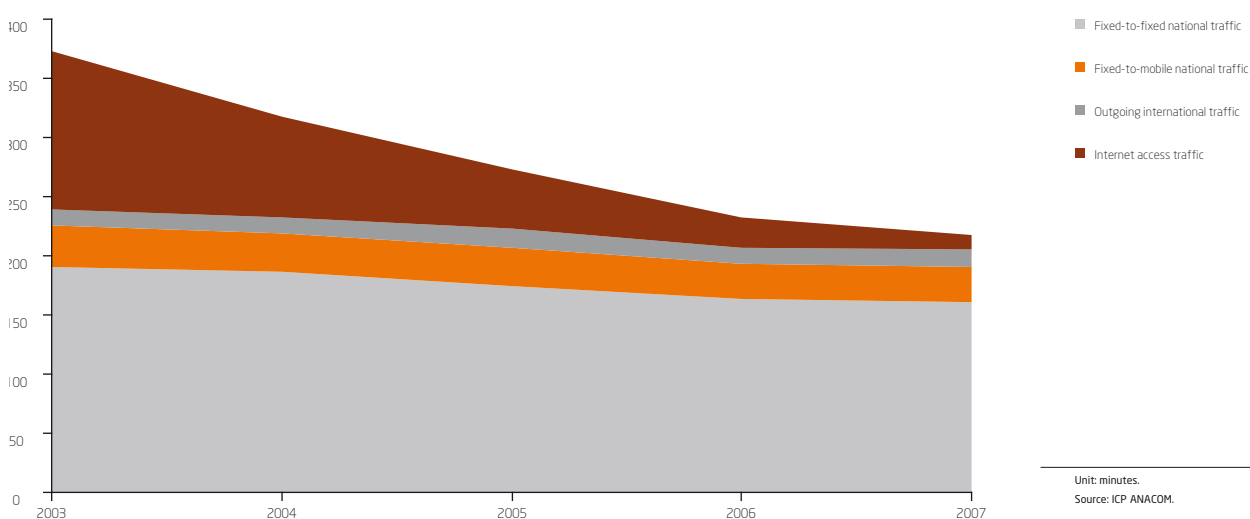
Table 21.

	2006	2007	2006/2007 var. (%)	2003/2007 average yearly var. (%)	2001/2006 var. (%)
Total traffic (voice + Internet + VoIP)	232	216	-6,9	-12, 7	-41, 9
Voice traffic	207	205	-1,0	-3,7	-13, 9
National traffic (voice)	193	191	-1,0	-4, 1	-15, 5
National fixed-to-fixed traffic	163	161	-1,2	-4,2	-15,7
National fixed-to-mobile traffic	30	30	0,0	-3,8	-14,3
Outgoing international traffic	14	15	7,1	3,6	15,4
Internet access traffic	26	11	-57,7	-46,5	-91,8

Unit: minutes, %.
Source: ICP-ANACOM.

Evolution of monthly traffic per customer (minutes)

Graph 27.





Revenues

The strong decrease in traffic, decreasing prices and the decrease in the amount of customers are the factors behind the downward trend in FTS's revenues.

In 2007, total revenues decreased about 14 per cent, while traffic revenues decreased 15 per cent and the installation and monthly fee revenues decreased 13.5 per cent.

FTS revenues

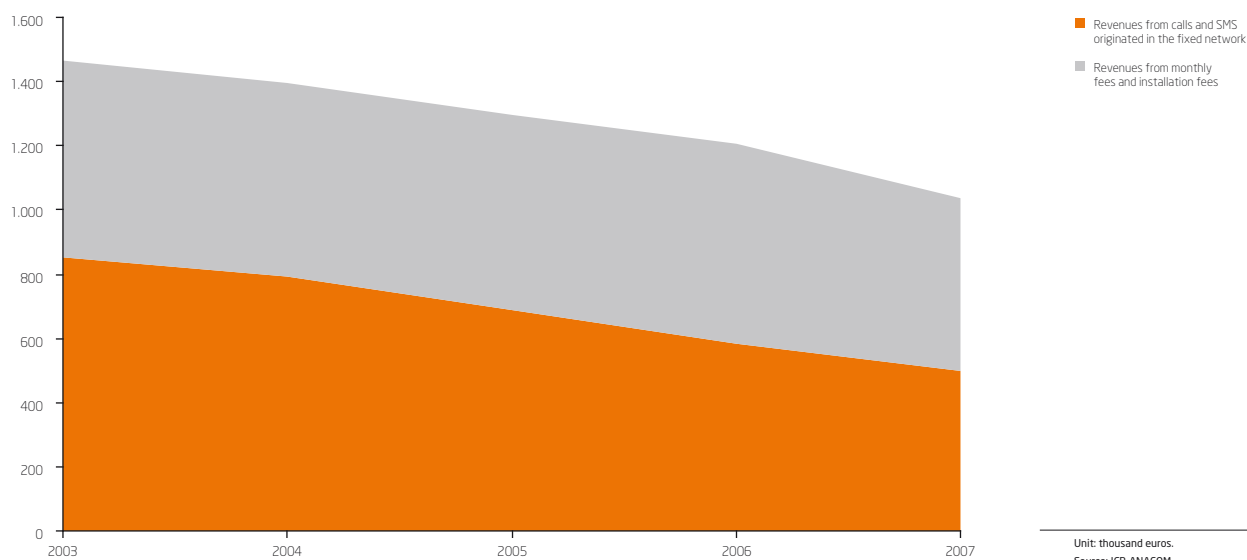
Table 22.

	2006	2007	2006/2007 var. (%)	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Total revenues ¹⁴	1.208.261	1.036.429	-14,2	-8,3	-29,2
Revenues from monthly fees and installation fees	623.585	539.667	-13,5	-3,1	-11,8
Revenues from calls and SMS with origin in the fixed network ¹⁵	584.676	497.762	-15,0	-12,6	-41,8

Unit: thousand Euros, %
Source: ICP-ANACOM.

Evolution of FTS revenues

Graph 28.



¹⁴ Não inclui receitas associadas a cartões virtuais de chamadas.

¹⁵ Inclui receitas provenientes de tráfego de comunicações locais, regionais e nacionais, chamadas fixo-móvel (originadas na rede fixa), tráfego internacional de saída originado na rede fixa, postos públicos e SMS originados na rede fixa.

During the period under review, fixed telephone service's overall revenues showed a decreasing trend, corresponding to a 14.2 per cent reduction regarding 2006, and -29.2 per cent regarding 2003 – total variation.

A constant decrease had been registered in revenues from monthly fees and installation fees, with the exception of 2006. In 2007 there was a 13.5 per cent reduction in this type of revenue.

Revenues regarding calls and SMS originated in the fixed network also showed a decreasing trend. They dropped 15 per cent in 2007, from 2006.

Service price level

Below is the evolution of the incumbent operator's prices and an international comparison of FTS prices in 2007.

Evolution of the incumbent operator's price index

In 2007, and in average yearly terms, local call prices decreased 8.6 per cent, regional call prices also decreased 8.6 per cent, and national call prices decreased 8.3 per cent. Monthly fee and installation prices stabilized.

Compared to 2003, the incumbent operator's price basket decreased around 6 per cent in nominal terms. It should also be stressed out that a regional or national call's cost in 2007, in nominal terms, was almost half of a similar call in 2003.

Incumbent operator's nominal price index

Table 23.

	2006	2007	2006/2007 var. (%)	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Installation	100,0	100,0	0,0	0,0	0,0
Monthly fee	126,3	126,3	0,0	0,8	3,4
Local	146,9	134,3	-8,6	-2,6	-10,1
Regional	46,0	42,0	-8,6	-14,3	-46,0
National	20,3	18,6	-8,3	-15,7	-49,6
Basket	100,1	98,0	-2,2	-1,5	-5,9

Unit: %

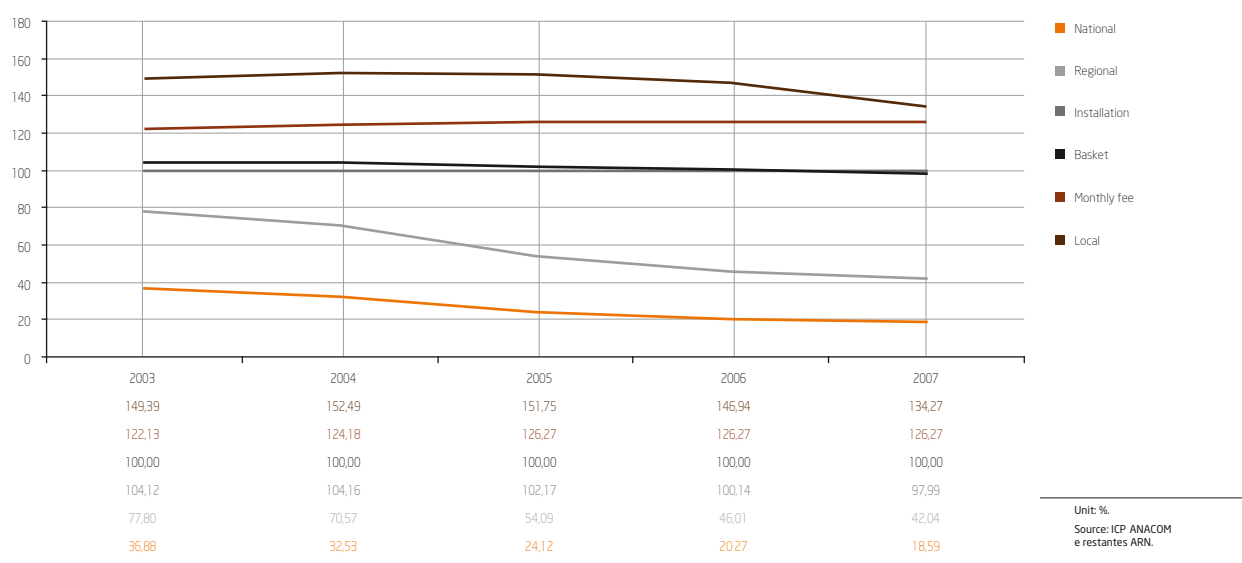
Source: ICP-ANACOM.

Note: 1998=100.



Evolution of FTS prices - nominal prices

Graph 29.



Since 2003 there was a generalized decrease in the real price of calls to the several traffic destinations. In fact, the incumbent operator's price basket registered a 15 per cent decrease in real terms between 2003 and 2007. Regarding

the monthly fee and service installation, during that period, there was a 9.7 and a 6.6 per cent decrease, respectively.

Incumbent operator's real price index

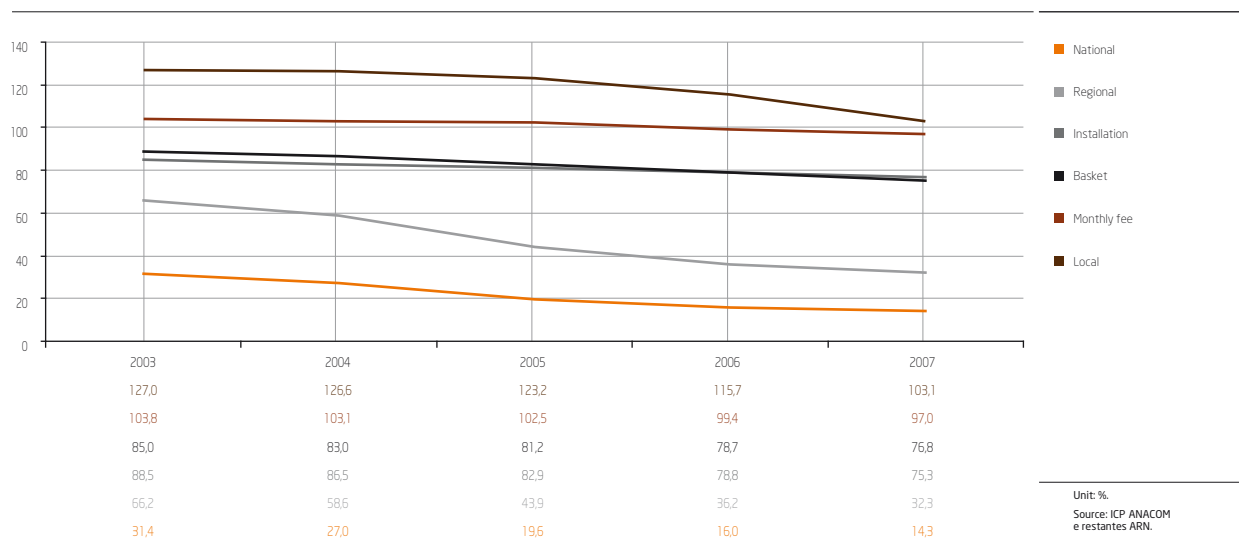
Table 24.

	2006	2007	2006/2007 var. (%)	2003/2007 average yearly var. (%)	2003/2007 var. (%)
Installation	78,7	76,8	-2,4	-2,5	-9,7
Monthly fee	99,4	97,0	-2,4	-1,7	-6,6
Local	115,7	103,1	-10,8	-5,1	-18,8
Regional	36,2	32,3	-10,8	-16,4	-51,2
National	16,0	14,3	-10,5	-17,9	-54,5
Basket	78,8	75,3	-4,5	-4,0	-15,0

Unit: %.
Source: ICP-ANACOM.
Note: 1998 = 100.

Evolution of FTS prices - real prices

Graph 30.



International comparisons of FTS prices

Below are international comparisons of FTS prices¹⁶.

Regarding the annual average invoice (basket), prices paid by FTS residential customers in Portugal are below the average price charged in the countries under analysis, for all consumption profiles considered, in opposition to what occurred until recently.

This change in Portugal's position on these ranking results from the fact that new tariff schemes launched by the Portuguese incumbent operator were taken into account, and because prices raised in other countries.

International comparisons of FTS prices - Residential Segment

Table 25.

	May 2007	Nov. 2007
Low Consumption		
Deviation from the average	2,3%	-1,7%
Ranking	13	9
Average Consumption		
Deviation from the average	3,0%	-8,0%
Ranking	13	4
High Consumption		
Deviation from the average	9,3%	-7,1%
Ranking	15	6

Unit: %
Source: Teligen, OCDE, ICP-ANACOM.

¹⁶ OECD's usage profiles/baskets were taken into account. Values are in Euros and correspond to annual invoices, without VAT, and market currency rates were used to convert prices into Euros (i.e., purchasing power parity was not used). The currency rates are collected by the OECD. The figures for the residential segment do not include discounts and promotions, while these were included in the business segment. The average is reckoned with the results of the 19 EU countries taken into account by the OECD.



In spite of the fact that, globally, the residential consumer's average yearly invoice in Portugal is below the average of the considered countries, there are several components of the basket where it stands above the average. It's the case with the fixed-to-mobile and international calls. In the case with the low consumption basket, the effect of the more expensive calls is quite balanced by the considerably lower installation/monthly fee and national call figures.

It should be mentioned that, for the average and high consumption segments, Teligen selected a tariff option with free monthly fee and free calls. Thus, installation and monthly fee are relatively more expensive than the average. However, free national calls more than make up for this effect, and also the effect of slightly more expensive fixed-to-mobile and international calls..

International comparison of FTS prices (II)

Table 26.

	Low Consumption	Average Consumption	High Consumption
Installation and monthly fee			
Annual expenses with installation and monthly fee	166,3 €	240,7 €	240,7 €
Deviation from the average	-3,0%	24,3%	8,5%
UE19 Ranking	7	16	14
National calls			
Annual expenses with national calls	48,5 €	0 €	0 €
Deviation from the average	-18,9%		
UE19 Ranking	4		
Fixed-to-mobile calls			
Annual expenses with fixed-to-mobile calls	37,6 €	90,8 €	244,3 €
Deviation from the average	7,5%	8,8%	8,9%
UE19 Ranking	13	13	13
International calls			
Annual expenses with international calls	37,6 €	30,1 €	120,2 €
Deviation from the average	31,5%	36,0%	38,0%
UE19 Ranking	16	16	16

Unit: euros, %.

Source: Teligen, OCDE, ICP-ANACOM.

Concerning the business segment, in the SOHO (Small Office, Home Office) segment the prices charged in Portugal are in line with EU's average.

In the case with the SME (Small and Medium Enterprise) segment, results are less favourable. In this case, prices practiced in Portugal rank 15th, and these customers' average invoice is 13.5 per cent above the average of the remaining countries under analysis.

International comparisons of FTS prices - Business Segment

Table 27.

	May 2007	Nov. 2007
SOHO		
Deviation from the average	-0,6%	2%
Ranking	11	12
PME		
Deviation from the average	12,8%	13,5%
Ranking	15	15

Unit: %.

Source: Teligen, OCDE, ICP-ANACOM.

In the business segment, prices charged in Portugal continue to be below the European average for the items installation, monthly fee and calls to mobile numbers, and above the average for the items: calls to fixed numbers and calls to international numbers.

In calls to mobile networks, Portuguese tariff schemes are the most competitive ones.

International comparisons of FTS prices - Business Segment (II)

Table 28.

	SOHO	PME
Installation and monthly fee		
Annual expenses with installation and monthly fee	187,2 €	5 615,0€
Deviation from the average	-17,9%	-29,9%
UE19 Ranking	7	3
National calls		
Annual expenses with national calls	133,3 €	6 598,0€
Deviation from the average	19,1%	39,6%
UE19 Ranking	13	15
Fixed-to-mobile calls		
Annual expenses with fixed-to-mobile calls	117,28 €	3 751,2 €
Deviation from the average	-22,0%	-21,3%
UE19 Ranking	1	1
International calls		
Annual expenses with international calls	56,3 €	5 255,5 €
Deviation from the average	48,3%	48,7%
Ranking UE19	18	18

Unit: euros, %.

Source: Teligén, OCDE, ICP-ANACOM.

Evaluation by consumers

In general, FTS has high satisfaction levels. According to the most recent electronic communications consumer survey, 89 per cent of users were satisfied with the service's overall

quality. The rate of consumers rating the quality of service as 'good' or 'very good' has remained above 90 per cent, at least since 2005.

Evaluation of the FTS's overall quality

Table 29.

	2005	2006	2007
Very good	12,9	5,2	8,2
Good	81,1	89,7	82,7
Bad	5,5	4,6	6,7
Very bad	0,5	0,5	2,5

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey.



Another consumer satisfaction indicator is the number of complaints.

ICP-ANACOM's Mission Unit for the Handling of Market Requests (UM-TSM) received about 6,105 complaints regarding the FTS service and its operators during 2007. It also received 200 information requests.

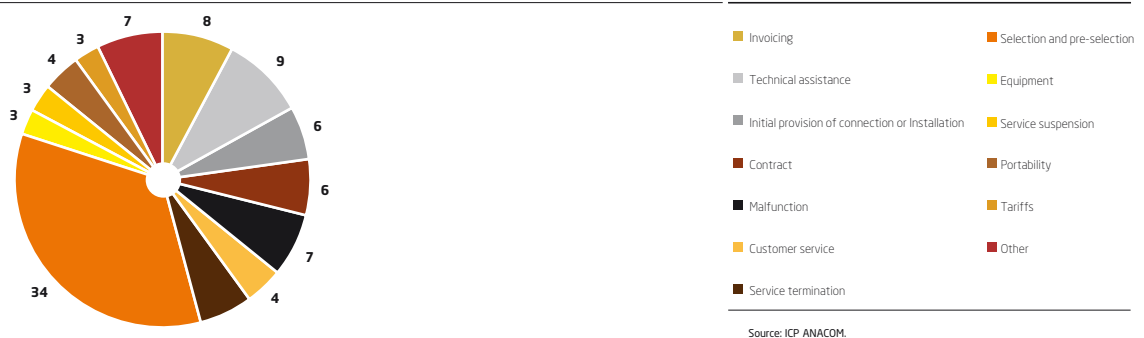
According to the following graph, it is possible to see that most of those complaints are linked to selection and

pre-selection (34 per cent). Issues related to technical assistance (9 per cent), invoicing (8 per cent) and malfunctions (7 per cent) come in second.

The item "Other" includes complaints on local loop unbundling, geographic portability, service out, telephone directories and information services, infrastructure, numbering, privacy and personal data protection, interferences, complaints book, and municipal taxes for passage rights.

Distribution of requests by area

Graph 31.



■ Mobile Telephone Service (MTS)

This chapter contains the MTS's state at the end of 2007 and describes namely this service's offers, its usage and user's profiles and its evolution during that year.

Below is a summary of the main items of this service's evolution during that year.

Main items of the evolution in 2007

At the end of 2007, MTS's penetration reached 126.7 per 100 inhabitants, one of the highest among the EU countries. MTS's penetration in 2007 is still above the EU average, ranking 7th among the 27 EU countries. However, service penetration growth was below the EU average.

According to the Electronic Communications Consumer Survey of December 2007, about 89.8 per cent of those residing in Portugal were MTS's customers.

In 2007 there was a considerable increase of UMTS users. At the end of the year these users already stood for 23 per cent of the service's overall amount of subscribers, Portugal ranking 2nd in the EU15 countries in UMTS penetration.

The first alternative service provider based on the network of a mobile operator came about in Portugal during the year under review, and the launch of a tender for granting another service provider licence and to grant licenses to mobile trunking service operators, should they request it, were studied. In the meanwhile, this tender was launched in 2008. It may thus be possible to reduce concentration in these markets, which is above the European average, according to the available information.

The voice services' usage level also recorded a larger growth versus the previous year (5.8 per cent in terms of calls and 9.6 per cent in terms of minutes). This is a higher growth than the recorded averages of the latest years, although below that of other EU countries and below the increase recorded in the amount of subscribers in Portugal.

2007 recorded once more a significant increase in the amount of sent text messages. It grew 48.1 per cent since the previous year. This increasing SMS trend, which began in mid-2005, was fostered by the mobile operators' promotional campaigns. It should be mentioned that, according to the available data, Portugal registered one of the highest SMS traffic growth levels.

Operators have launched new services and facilities based on UMTS and on HSPA. MMS and video-telephony had a residual development. Mobile TV, which increased the amount of available channels and the diversity of offerings, and mainly broadband Internet access, which took benefit from the launch of new offerings and of the Government's initiative within the scope of Information Society development - New Opportunities - showed considerable growths. The penetration of broadband Internet access reached 6.2 actual users per 100 inhabitants at the end of 2007.

Customer service's revenues reached 2.4 billion Euros, a figure that is slightly above that of the previous year. The registered growth occurred mainly in data services, particularly Internet and mobile portal access, and on SMS. The service's revenues may have been affected by the drop in international roaming prices, further to the entry into force of the Community Regulation on this matter.

MTS offer

MTS is a public electronic communications switched service that enables signal transmission using terrestrial electronic communications networks. The access network is made up of radio means and the terminal equipment is mobile.

The service is provided by the entities with the corresponding licences, since frequency use depends on the granting of individual rights of use¹⁷.

Below is a detailed description of the services provided and of the entities offering these services in Portugal.

¹⁷ Cf. no. 3 of article 19 of Law no. 5/2004 of 10 February.



MTS

The first generation (1G) of the mobile service was exclusively designed for voice communications. It used analogue signals and a transmission technique based on Frequency Division Multiple Access (FDMA)¹⁸. This transmission technique allocates a frequency band to each channel. 1G can thus be identified with the analogue systems; voice was the single service it provided. In Portugal, this service was provided by TMN since 1989 and terminated on 30 October 1999.

The second generation (2G) uses the European Telecommunications Standards Institute's (ETSI) Global System for Mobile Communications / Digital Communications System (GSM/DCS) standards. It operates in the 900 MHz (GSM) and 1800 MHz (DCS) bands, using digital technology and providing access to low rate data services (e.g. fax and e-mail), besides voice. 2G enables the development of data transmission services and uses a more effective technique regarding spectrum use, based on Time Division Multiple Access (TDMA)¹⁹.

GSM, which also made international roaming possible, has had a huge success as a wireless technology and a previously unseen history of international acceptance. GSM networks had a very fast and broad geographical roll-out and are currently in around 218 countries and territories. Currently, GSM technology is used by 1/4 of the world population and stands for about 80 per cent of mobile communications technologies worldwide²⁰.

Besides voice services, it should be particularly mentioned that GSM made it possible to develop the SMS²¹ text messages service, a feature making it possible to send and receive small text messages, with alphanumeric characters, among mobile phones.

The technical specificities of this platform (narrow band) and the limitations of terminals (small screen, keyboard, autonomy, and limited memory and data processing), although they made large scale mobility possible, did not

give mobile Internet access the same speed as that of a PC connected to a fixed telephone network. The GSM platform was however perfected and developed to encompass a progressively broader offer of voice and data services.

Within this framework, several manufacturers united their efforts in order to define a protocol that could be used by all mobile communications systems. This protocol, named Wireless Application Protocol (WAP)²², made a standardised communication between a mobile terminal and a server at the mobile operator network possible. However, this protocol, even if it brought about some improvements to mobile Internet access, did not have a broad market acceptance, per se. Among its main limitations are the slow access to the required information and the need for a very specific and non-diversified content offering.

The limitations of the above-mentioned standards led to the development of the mobile networks' 2+ generation. Thus the introduction and development of GSM-based technologies aimed at supporting data services, such as GPRS²³ and Enhanced Data for GSM Environment (EDGE)²⁴, which make it possible to provide higher quality mobile data services, both in terms of processing capacity and speeds (from the 9.6 kbps transmission rates, available on GSM networks, to rates as high as 115 kbps, with error protection and 384 kbps), and some multimedia service

Since 2001 and 2002, respectively, within the scope of the service features, mobile operators have offered EMS (Enhanced Messaging Service) and MMS (Multimedia Messaging Service). EMS is an enhancement of SMS, very similar to it regarding use, includes sending and receiving graphic elements/logos or sounds, combines melodies, images, sounds, animations, altered text and regular text in an integrated fashion. MMS, such as the name indicates, is a feature for sending and receiving messages that include text, sounds, image and videos. This is how it became possible to send moving messages and videos.

¹⁸ Interference-free access system that grants different frequencies to each user for access.

¹⁹ Interference-free access system in which several users simultaneously access a single radio frequency by parting it into channels (time slots). Unlike FDMA, this system multiplies the frequency's capacity by dividing its use in time.

²⁰ According to GSM Association/Wireless Intelligence, there were 2392.76 million connections to GSM networks in the first quarter of 2007 (<http://www.gsmworld.com/news/statistics/index.shtml>).

²¹ This service was created during GSM standard's Phase 1.

²² It is a wireless application protocol that uses a specific language and technology, giving mobile telephone users and those of other wireless digital devices the possibility to access Internet contents, exchange e-mail or perform other data transmission operations. It is particularly used in mobile communications networks. Thus, with a micro-browser, it is possible to view pages on the mobile telephone screen that are written in a special language, named WML (Wireless Mark-up Language), more adequate than HTML (Hypertext Mark-up Language, the most common-place computer language on the Internet) to send data to wireless devices.

²³ Evolution of the GSM system, based on packet-switching, which makes it possible to reach transfer speeds of up to 115 kbps.

²⁴ Evolution of the GSM system that makes it possible to reach transfer speeds of up to 384 kbps.

GPRS networks also make it possible, in an “always on” mode, to send and receive data at much higher rates than those of the traditional GSM, giving access to the Internet and to search facilities in coloured-screen terminals, with mobile e-mail, visual communications, multimedia messages and location-based services.

Also the fact that data communications is possible with no need for a voice channel makes it possible to set up tariff schemes based on amount of data and no longer on the length of communications.

It should also be mentioned that some important features were also introduced in the MTS, by regulatory means – indirect access (available since 31 March 2000); and operator portability (on 1 January 2002).

The third generation (3G), also digital, was designed for the convergence of fixed and mobile communications, and multimedia, by making mobile networks closer to fixed ones regarding capacity, and giving mobile users access to multimedia services at 384Kbps rates and above, for voice and data services.

Among the third generation mobile telecommunications systems, UMTS (Universal Mobile Telecommunications System) stands out, in the 2GHz band, and is identified as the European standard within the global family of mobile international telecommunications systems standards (IMT2000/UMTS).

The UMTS technology uses the Wideband Code Division Multiple²⁵ (WCDMA) transmission mode, which is based on a multiple access by code division. Although it is different from those of the GSM/GPRS networks, this technology – which requires the development of complex networks and systems – was designed to be fully GSM compliant. The number of WCDMA subscribers all over the world was supposed to be close to 179 million by the end of 2007, standing for an 82 per cent annual growth²⁶.

UMTS makes the offer of advanced mobile multimedia services possible, regardless of the user's location, making way for the development of new services and applications: Internet-based services, e-commerce, location-based services, sending photos directly from cameras (using the Bluetooth protocol), live video feeds, remote monitoring of people and vehicles and download of games and music.

Current mobile phones have countless functions: beyond phone calls, they give access to a variety of services that increase the flexibility of mobile communications – call-on-hold, call holding, call re-routing, caller ID and data services standing out. The microelectronics on which the software for these applications is based also makes it possible to include in the mobile phone a digital camera, an FM receiver, and an MP3 music player, amongst others.

During 2004, and further to the delays in connection with the difficulty in stabilising the technology, a set of new 3G mobile services based on IMT2000/UMTS (WCDMA) were introduced.

3G-based commercial services – namely broadband Internet access, video call, multimedia services, etc... – were introduced in January 2004, on an experimental basis, and were commercially launched by TMN, Vodafone and Optimus, respectively, on 21 April 2004, 4 May 2004 and 4 June 2004.

Services based on the HSPA (High Speed Packet Access) standard, often referred to as 3.5 G, started to be introduced after 2006. This is an extension of WCDMA enabling considerably higher speeds. It includes improved modulation schemes enabling a better use of UMTS's bandwidth.

Regarding downlink – HSDPA – services using this standard may theoretically reach maximum rates 14.4 Mbits/s. However, the currently installed systems and terminals can only hold rates up to 1.8 Mbits/s, 3.6 Mbits/s or even 7.2 Mbits/s, while typical rates are in the 0.5 to 1.5 Mbits/s range. For operational reasons, some providers introduce a lower limit that the maximum one that terminals can transfer. Currently, over 70 networks worldwide support HSDPA.

²⁵ Broadband Access system which access discipline to the various users shares the same frequency band through different codes assigned to each one of them.

²⁶ <http://www.gsacom.com/news/statistics.php4>.

²⁷ Short range radio technology in the 2.4 GHz frequency band, used to ensure connectivity among devices at the user's facilities, within approximately 10 metres, with a maximum throughput of 1 Mbps. It may evolve, in the future, to 6 to 11 Mbps maximum throughput and a 100-metre range.



On the uplink, HSUPA can hold up to 5.76 Mbits/s and the first commercial networks emerged in 2007. The Finish operator Elisa released HSUPA at 1.4 Mbits/s on major cities and plans to broaden the service to its entire 3G network within a few months. The first development can hold up to 1.5 Mbits/s. The investment needed to develop HSPA networks is mainly made up of low cost software upgrades that can lead to a decrease in the average cost per transferred bit on mobile networks.

In Portugal, offers based on HSDPA were introduced in March 2006 with a 1.8Mbps rate. In September, rates evolved to 3.6Mbps using, besides PCMCIA cards, USB connection modems. In November 2006 there was an evolution towards 7.2Mbps rates. HSUPA-based services were implemented in September 2007, with the offer of cards enabling upload rates up to 1.4Mbps.

MTS providers

The MTS was first marketed in Portugal in 1989 by a consortium made up of CTT - Correios de Portugal S. A. and Telefones de Lisboa e Porto (TLP). Only later, on 22 March 1991, was TMN - Telecomunicações Móveis Nacionais, S.A. set up. The provided services used the analogue C-450 technology.

In March 1991 a public tender to grant an MTS license using GSM technology took place. That license was awarded to Telecel - Comunicações Pessoais, S.A. on 18 October 1991. The service's commercial offer began on 18 October 1992.

On 20 July 2006²⁸, ICP-ANACOM's Board of Directors decided to issue the renewal of the right of frequency use to Vodafone Portugal, following the corresponding request, in compliance with article 36 of Law no. 5/2004 of 10 February. This title was renewed for 15 years, ending on 19 October 2021.

TMN's operation license was issued on 16 March 1992, with excuse from public tender, in accordance with the exceptional rule of article 19 of Decree-Law no. 346/90 of 3 November, as changed by Decree-Law no. 147/91 of 12 April. TMN began offering its service in October 1992. 15 years after, TMN requested, within the legal deadline,

the renewal of the right of frequency use granted for the provision of the Mobile Telephone Service (MTS) according to the GSM 900-1800 technology system. After analyzing TMN's request, ICP-ANACOM's Board of Directors decided on 28 February 2007²⁹ to renew the right of frequency use granted to TMN for the provision of the MTS according to the GSM 900-1800 system, for 15 years, setting its end on 16 March 2022. General conditions in connection with the service's offer and conditions in connection with the right of frequency use were also established.

On 15 July 1997, Notice No. 3542-A/97 (II Series) was published, for the opening of a new tender to grant a license for the provision of the land mobile service in accordance with the GSM and DCS standards and using the 900 MHz and 1800 MHz frequencies, respectively. Further to that tender, a license was granted to Optimus - Telecomunicações, S.A.. Optimus began its commercial offering in August 1998. It should be mentioned that a determination of 24 October 2007 approved the final decision concerning the authorization request for transmitting the rights of frequency and numbering use granted to OPTIMUS to the ownership of NOVIS³⁰.

In August 2000, a tender was opened for the granting of four national licenses for the International Mobile Telecommunications Systems (IMT2000/UMTS). In December the results were announced. The four licenses at stake were thus granted to Telecel - Comunicações Pessoais, SA (currently Vodafone), to TMN - Telecomunicações Móveis Nacionais, SA, to OniWay - Infocomunicações, SA and to Optimus - Telecomunicações, SA.

3G commercial offerings were launched in Portugal on 21 April 2004, 4 May 2004 and 4 June 2004, respectively by TMN, Vodafone and Optimus.

The fourth operator that was licensed for this system, OniWay, did not begin its mobile telecommunications activity and its license was formally revoked in January 2003 by Order of the Minister of Economy (Order No. 1758/2003 of 29 January). On 4 October 2007, a tender was opened concerning the

²⁸ http://www.anacom.pt/streaming/licenca_vodafone_01_2006.pdf?contentId=384041&field=ATTACHED_FILE.

²⁹ http://www.anacom.pt/streaming/tmn_01_2007.pdf?categoryId=236363&contentId=462322&field=ATTACHED_FILE.

³⁰ http://www.anacom.pt/streaming/decisaofinal24102007.pdf?categoryId=256662&contentId=531021&field=ATTACHED_FILE.

rights of frequency use in the 450-470MHz band, for the provision of publicly available mobile telephone service (MTS). Broadly, the document proposed to grant this right of use to a single entity, to establish a public tender as the procedure for granting this right of frequency use, and to grant individual rights of frequency use in the 450-470MHz band for the provision of publicly available MTS upon request of the mobile trunking service providers, at the end of the mentioned contest. This decision resulted from spectrum availability and aimed at promoting competition.

Mobile Virtual Network Operators (MVNO)

On 9 February 2007, ICP-ANACOM established the MVNO's regulatory framework.

The mobile virtual network operator (MVNO³¹) activity can be framed within the offer of electronic communications networks and services and is subject to the general authorisation regime, and to the terms of the granting of rights of use of numbers. MVNOs do not use rights of use of frequencies and, thus, are not based on their own radio access network infrastructure. They are based on the radio means supplied by network operator(s) which possess their own rights of use. MVNOs have a direct contractual relationship with the end customer, in connection with the provision of the service, and, therefore, are not mere distributors of the

service, in which the contractual relationship is kept between the end client and the mobile network operator.

MVNOs thus have direct customers, i.e., they are the exclusive responsible parties for the relationship with the end customers and design and market their own retail offer, which they are free to detach from that of the operator on which they are based, by defining their own marketing strategy.

It should be mentioned that on 20 November 2007, CTT - Correios de Portugal, S.A., began its commercial activity as the first mobile telephone service operator based on the network of a third operator.

Besides CTT, authorization statements were also issued for Companhia Portuguesa de Hipermercados, SA (Auchan) and ACP - Comunicações Electrónicas, Unipessoal, Lda. These entities did not begin their operations during 2007.

Current state

In 2007, besides the three entities that were legally entitled to provide mobile telephone service in Portugal - TMN, Vodafone and Optimus - there was a new entrant in these markets, service operator CTT, as previously mentioned.

MTS providers

Table 30.

		Numbering ranges
Optimus Telecomunicações, S.A.	Network operator	93
TMN - Telecomunicações Móveis Nacionais, S.A.	Network operator	96, 926
Vodafone Portugal - Comunicações Pessoais, S.A.	Network operator	91
CTT - Correios de Portugal, S.A.	Service provider based on TMN's network	922

Source: ICP-ANACOM.

New offerings in which the distribution of the service is made by a third party, different from the operator, were introduced in 2006, namely:

- Talk Talk Mobile marketed by The Phone House with preferential tariffs for numbers within its brand;

- Rede Bónus marketed by Worten Mobile, also with preferential tariffs among customers of this network.

All new offerings are based on Optimus' network.

31 Mobile Virtual Network Operator.



Other offerings with the same characteristics were introduced in 2007, connected to sports clubs and associations, namely:

- Benfica Telecom. This traffic scheme was created for Benfica member's using mobiles; it has a single national tariff, equal for all networks, at any hour of the day and at any day of the week, with no mandatory pre-payments.
- Dragão Mobile, aimed at members and sympathizers of FCP. DRAGÃO Mobile provides the essential services for mobile phone, at a single tariff, with no mandatory pre-payments. It also makes it possible to earn 5% of the value of each pre-payment in FC Porto's membership fees.
- Federação Portuguesa de Airsoft / Clube Airsoft da Maia. The 50Call tariff contains a card that makes automatic monthly pre-payments with 50 free minutes to be spent with other 50Call cards.

These offerings are based on TMN's network.

These activities are not MVNO's activities and, therefore, their providers are not MTS providers.

Offer structure

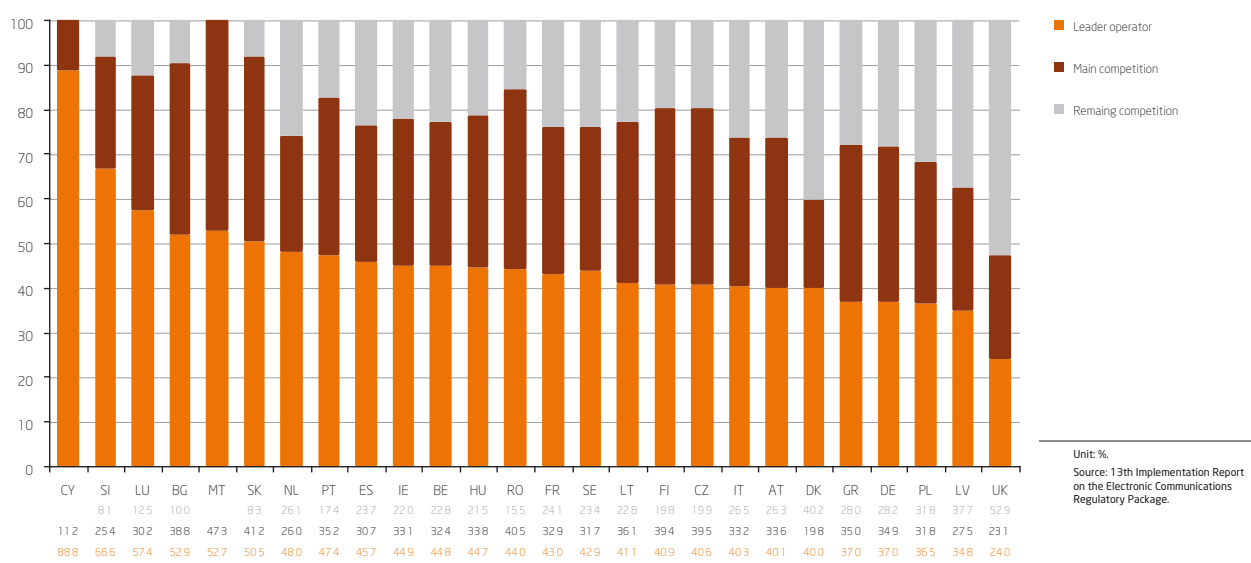
According to data from the 13th Report on the implementation of the electronic communications regulatory package, by the European Commission, most countries have more than three mobile telephone service operators, except Cyprus and Malta, which only have two operators.

There are three network operators in Portugal and, as mentioned, a new service provider emerged in 2007. As previously mentioned, the launch of a public tender to grant licences to mobile trunking operators was considered, should they request it. This took place during 2008.

Concentration in Portugal is relatively high. Even if the market leader holds the 8th lowest market share in the EU, the overall share of the two main operators is the 8th highest one. Only the countries that have recently joined the E.U. and Luxembourg have higher figures.

Structure of the mobile services market in the EU

Graph 32.



The concentration level in Portugal may be connected to possible barriers to operator switching. Only 20 per cent of users have switched operators in Portugal.

Operator switching in the mobile network

Table 31.

	Dec. 2006	Dec. 2007
Yes	19,9	18,2
No	79,9	81,6

Unit: %.

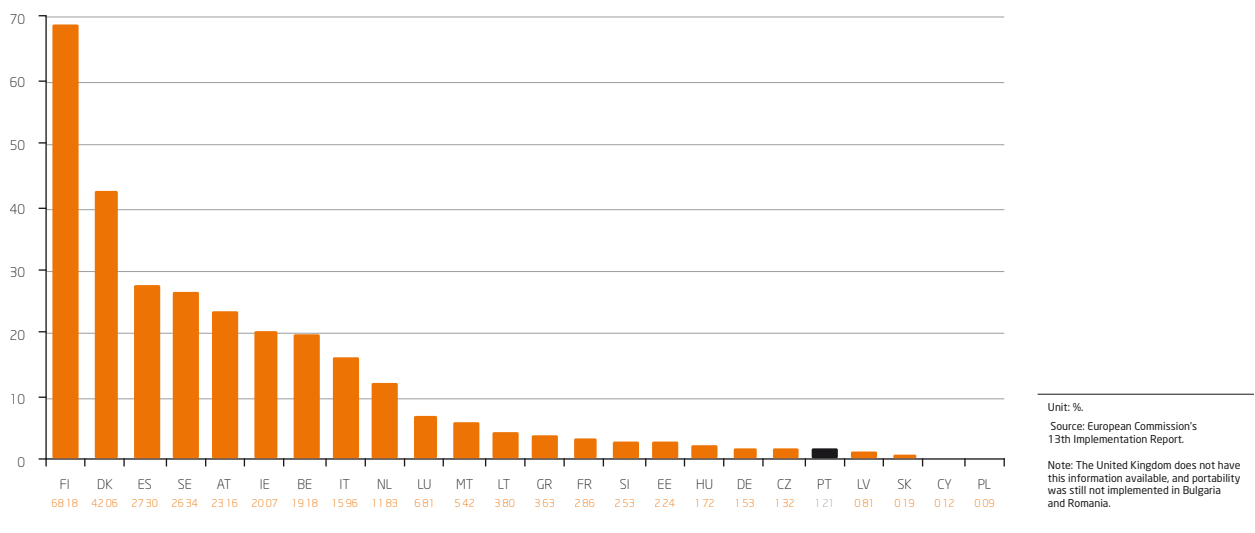
Source: ICP-ANACOM, Electronic Communications Consumer Survey.

One of the regulatory mechanisms introduced to minimize barriers to operator switching is number portability. Portability allows consumers to switch operator without

changing their contact number. However, this feature has not been much used in Portugal.

Ratio of ported number versus total

Graph 33.



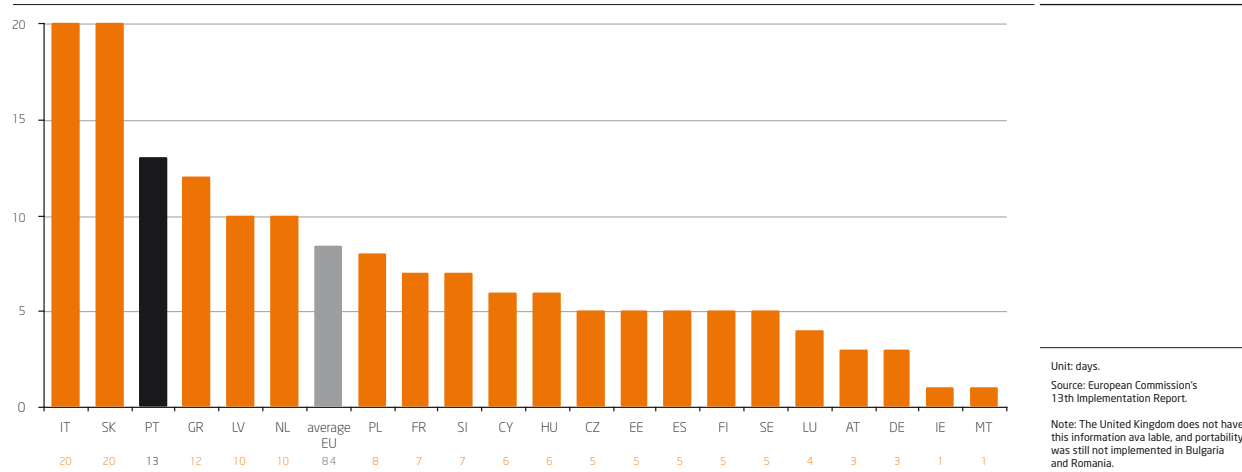
The amount of mobile portations at the end of 2007 was 837,637, which stands for a little over than 1 per cent of all service subscribers.

The time to actual number portation varies between 1 day, in Malta, and 20 days, in Italy and Slovakia. In Portugal, the average is 13 days, the third highest deadline among the considered countries.



Days to provide portability

Graph 34.



MTS user and usage profile

The following sections characterize the MTS user and this service's usage.

Benefits of having a mobile phone

Table 32.

	Portugal	UE25
Reliability when making a call from anywhere, if something goes wrong!	15	37
Possibility of being reachable at any place and at any time	55	33
Freedom to make calls when away	20	18

Unit: %.

Source: Eurobarometer 66.3 (E-Communications Household Survey), European Commission 2008.

Characteristics of the MTS user

The main reason for subscribing to MTS in Portugal is to be reachable all the time.

According to the data received from the 2004-2007^{32,33,34,35,36}

Electronic Communications Consumer Surveys, variables age

and education level are the ones that mostly separate MTS users from its non-users.

32 Electronic communications consumer survey 2004. The universe defined for this survey was individuals of both genders, aged 15 or over, residing in Mainland Portugal and the Autonomous regions of Madeira and the Azores. The size of the sample was determined for a maximum error of 3 per cent for the main results (assuming a significance degree of 95 per cent). The sample was stratified by region (NUTS II), habitat/size of households (5 groups), gender, age (3 groups), education (3 groups) and occupation (2 groups), based on the last General Population Census: Census 2001. 1051 interviews were made. Data collection was made with personal and direct interviews. The field work took place between January and February 2004, by Intercampus.

33 Electronic communications consumer survey 2005. The universe defined for this survey was individuals of both genders, aged 15 or over, residing in Mainland Portugal and the Autonomous regions of Madeira and the Azores. The size of the sample was determined for a maximum error of 2.5 per cent for the main results (assuming a significance degree of 95 per cent). The sample was stratified by gender, age and region, in accordance with the last General Population Census: Census 2001. 2184 interviews were made. Data collection was made with personal and direct interviews. The field work took place between 9 June and 12 June 2005, by Metris GfK.

34 Electronic communications consumer survey Feb. 2006. The universe defined for this survey was individuals of both genders, aged 15 or over, residing in Mainland Portugal and the Autonomous regions of Madeira and the Azores. The size of the sample was determined for a maximum error of 2.5 per cent for the main results (assuming a significance degree of 95 per cent). The sample was stratified by gender, age and region, in accordance with the last General Population Census: Census 2001. 2,020 interviews were made. Data collection was made with personal and direct interviews. The field work took place between 17 January and 22 February 2006, by Marktest.

35 Electronic communications consumer survey Dec. 2006. The universe defined for this survey was individuals of both genders, aged 15 or over, residing in Mainland Portugal and the Autonomous regions of Madeira and the Azores. The sample was selected by quota of sex, age and education and occupation, structured by region and residence. In total 2,519 interviews were carried out. Of these 2,519 interviews, 997 were made by mobile phone and 1,522 by fixed-line. In the cases with Table 1, point 2 and Table 3, a 3.1% margin of error is ensured. In Table 7 a 2.5% margin of error is ensured. In the remaining tables the margin of error is approximately 1.95%. The results were adjusted for the total target population and households according to the weighting calculations of MARKTEST and based on the 2001 Census of INE. For mobile services a weighting was applied to be representative of the Portuguese population of over 15 years of age and residing in Portugal, based on the social-demographic characteristics of the survey. The fieldwork and processing of the information was performed by MARKTEST between 9 November and 29 December 2006.

36 Electronic communications consumer survey 2007. The Universe defined for this survey was made up of users 15 years old or older, living in Mainland Portugal and in the Autonomous Regions of Madeira and the Azores. The sample was made up of 3504 interviews, with a semi-proportional distribution by NUT II region. Households were selected randomly from a stratified matrix including the Region (7 NUT II regions) and the Habitat/Size of the population aggregates (5 groups). Crossing these variables ensured a proportional distribution of the sample by region regarding the Portuguese population in general. Results were later weighted in order to grant each region its real weight within the Portuguese population. Quotas were defined with base on the General Population Census (2001) by Instituto Nacional de Estatística (INE). Interviewees at each household were selected using the quota method, based on the crossing of variables Sex, Age (3 groups), Education (3 groups: primary education or less, more than primary education and less than higher education, and more than higher education – according to the categorization requested by ICP-ANACOM), and Occupation. Data was collected by telephone interviews, made to fixed network numbers and mobile phone numbers, using the CATI (Computer Assisted Telephone Interview) system. The fieldwork was conducted between 1 November 2007 and 17 December 2007. The fieldwork and handling of data was carried out by company GfK Metris. The results obtained for each of the four services considered (fixed telephone service, mobile telephone service, Internet access service, and paid TV service) have a maximum error of 4 per cent (for a confidence level of 95 per cent).

In fact, there is a negative relationship between age and MTS penetration. The fact that only 61 per cent of the people over 65 years old had a mobile phone by the end of 2007

stands out. In spite of that, this result shows a penetration increase in this group from 2006.

MTS penetration by age group

Table 33.

Age group	Feb. 2004	Jun. 2005	Feb. 2006	Dec. 2006	Dec. 2007
15-24	90,1	96,2	98,4	99,1	99,1
25-34	91,8	92,4	97,1	98,5	98,6
35-44	79,6	86,1	92,9	97,1	95,4
45-54	69,6	75,0	91,3	90,9	92,7
55-64	42,3	69,6	79,8	83,0	85,5
65 and over	19,0	29,0	51,0	58,5	61,0
Total	66,0	74,1	84,5	87,7	89,8

Unit: %.

Source: ICP-ANACOM, Electronic Communications Consumer Survey.

On the other hand, those in the lower social status levels are the ones among which the MTS penetration is the lowest.

MTS penetration by social status level

Table 34.

Social status	Dec. 2007
High (A)	100,0
Medium high (B)	98,9
Medium (C)	95,8
Medium low (D)	84,4
Low (E)	88,6

Unit: %.

Source: ICP-ANACOM, Electronic Communications Consumer Survey.

All regions, except Madeira, reinforced their service's penetration in 2007. People residing in the Azores and inland are those with less mobile phones.

MTS penetration by NUT II

Table 35.

Region	Feb. 2006	Dec. 2006	Dec. 2007
North	83,0	86,5	91,4
Centr	84,5	84,3	87,8
Lisbon and Tagus Valley	88,8	93,0	95,3
Alentejo	78,3	85,5	91,0
Algarve	84,9	89,3	90,5
Azores	78,9	82,6	82,7
Madeira	85,4	89,9	86,4
Total	84,2	87,7	89,8

Unit: %.

Source: ICP-ANACOM, Electronic Communications Consumer Survey.



Characteristics of the MTS usage

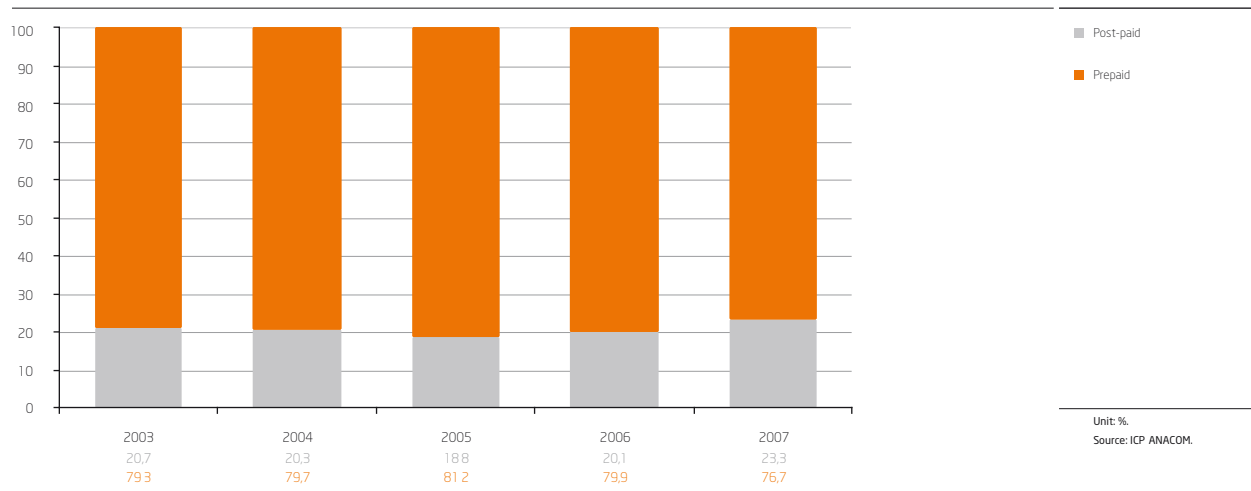
Below are some items on the use of the MTS, namely used tariff schemes and type of features of the calls made.

Tariff schemes

Regarding tariff schemes used by the MTS subscribers, about 76.7 per cent of all subscribers use prepaid plans.

Distribution of subscribers by type of tariff plan

Graph 35.

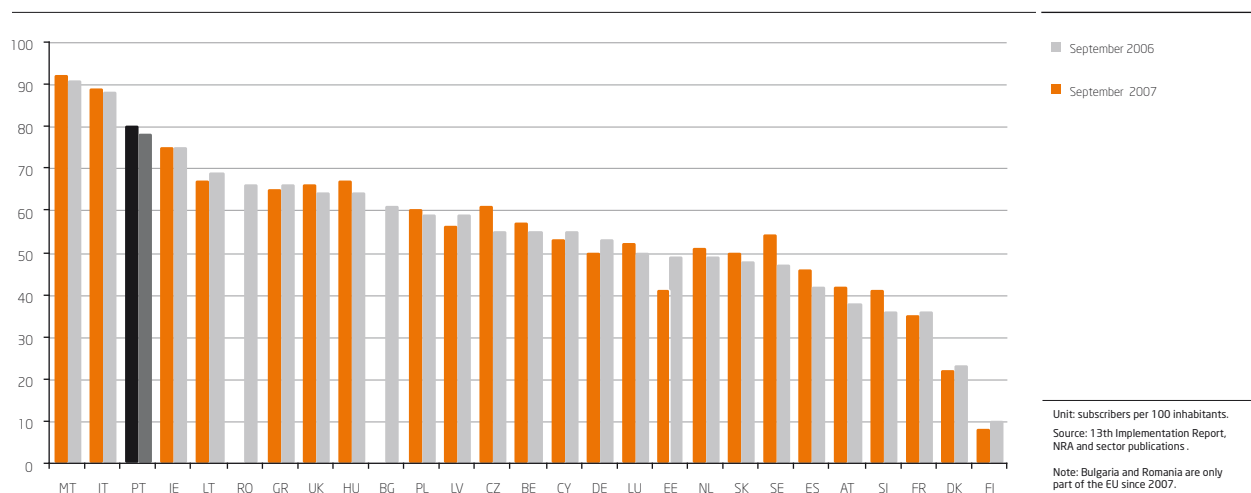


It should be reminded that Portugal was a pioneer in introducing the prepaid system in the mobile telephone service. TMN launched in 1995 the MIMO product. These products give customers greater control over the service bill and do not require the payment of monthly fees.

The graphic below shows that Portugal is among the countries with the highest shares of prepaid schemes, right after Malta and Italy. Finland and Denmark are the countries with the lowest ratios. In 2007, the average rate of prepaid cards in the EU was at 60.9 per cent.

Weight of prepaid cards in the overall amount of subscribers - Portugal vs. EU

Graph 36.

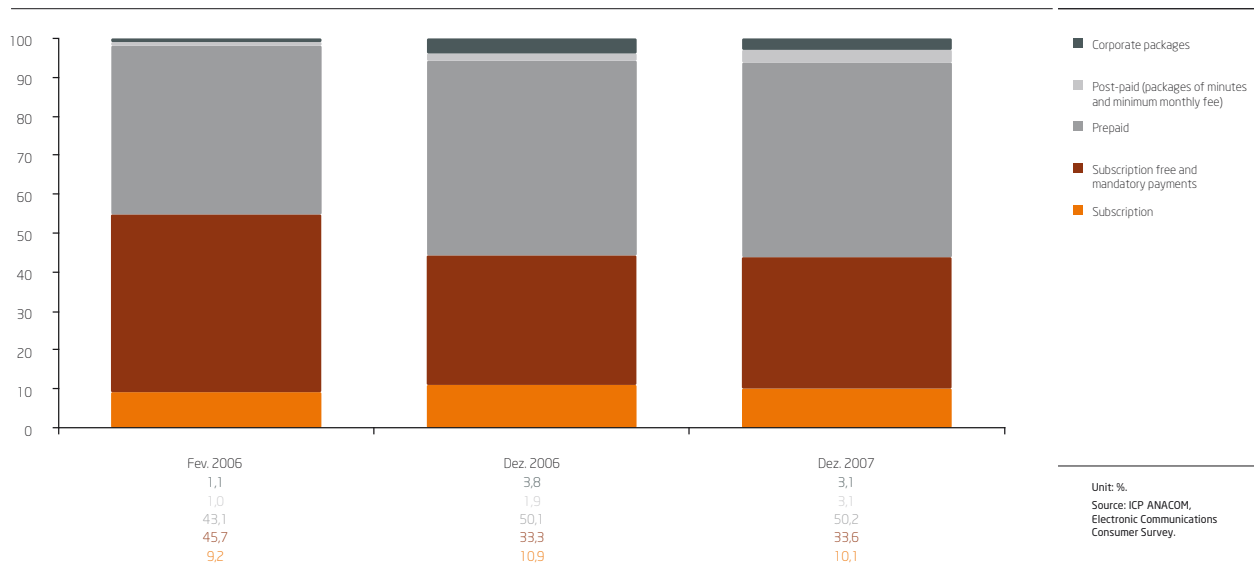


As service penetration increases, operators are obliged to capture customers from population segments with lower income levels and below the average age. This type of product is particularly targeted at the needs of these population segments. The importance that tariff schemes with no mandatory payments have reached in the latter years should be highlighted.

Since 2005, however, the rate of prepaid tariff schemes has been decreasing, in some countries, namely in those with higher prepaid rates. This evolution is justified by the operators' commercial policies and by the implementation of new post-paid offers (i.e. minute packs or with traffic included in the monthly fee), and by the development of the 3rd generations services, which are post-paid offerings in many cases.

Type of contract with the mobile operator

Graph 37.



Voice traffic: usage level

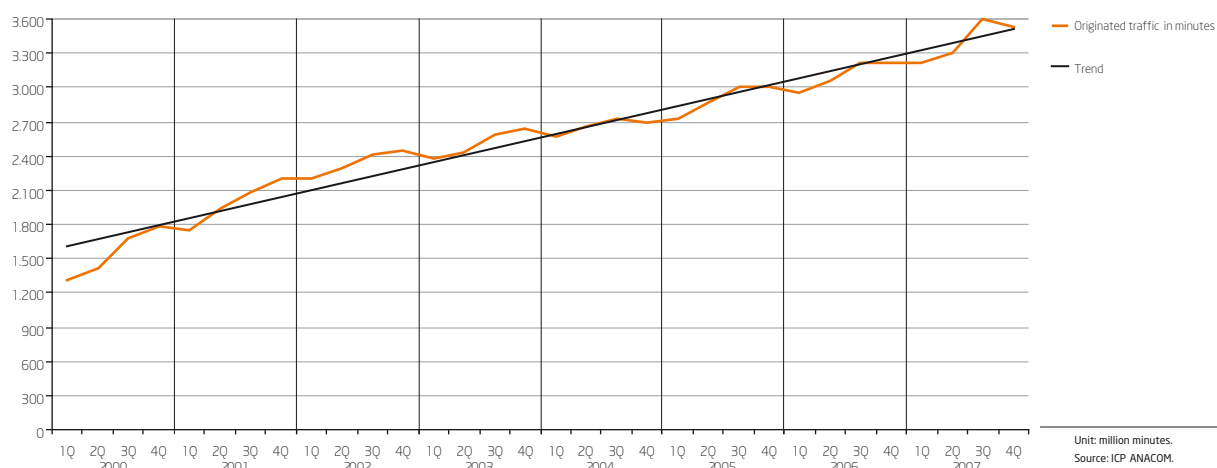
As can be seen on the following graphs, MTS traffic tends to grow. The growing traffic trend should be related with the increasing amount of subscribers, the service's massive use and also the decline in the use of the FTS.

On the other hand, seasonal nature increases occurred in each year's 3rd and 4th quarters, in connection with the summer and Christmas holidays.



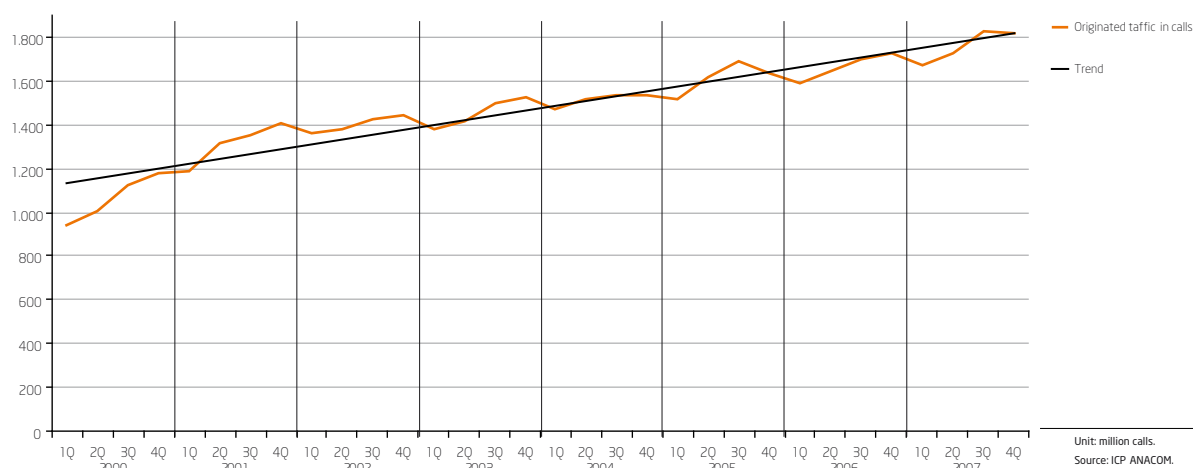
Evolution of the MTS outgoing traffic, trend and seasonal cycles (minutes)

Graph 38.



Evolution of the MTS outgoing traffic, trend and seasonal cycles (calls)

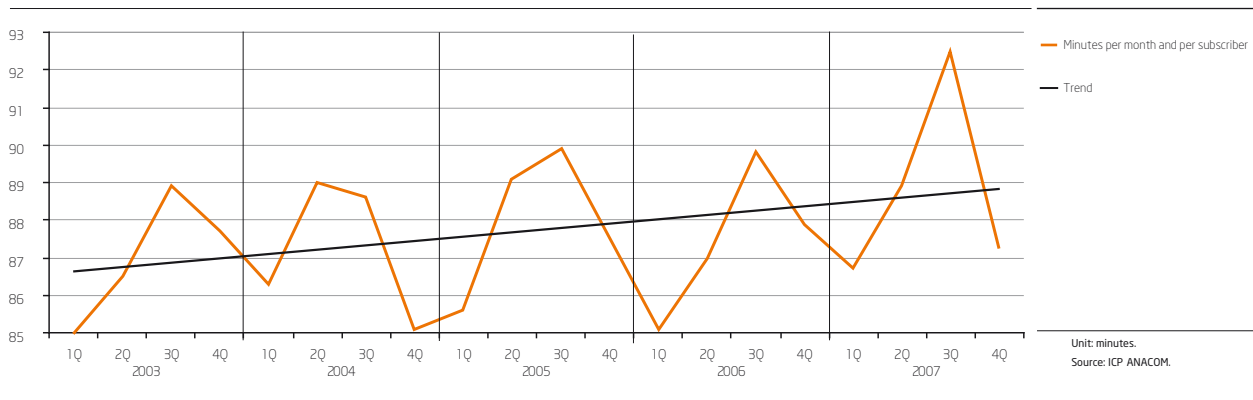
Graph 39.



The average monthly traffic per subscriber is close to 89 minutes and 46 calls. The amount of minutes reaches peaks during the 3rd quarter, for the above-mentioned reasons.

Traffic evolution per subscriber, in minutes

Graph 40.

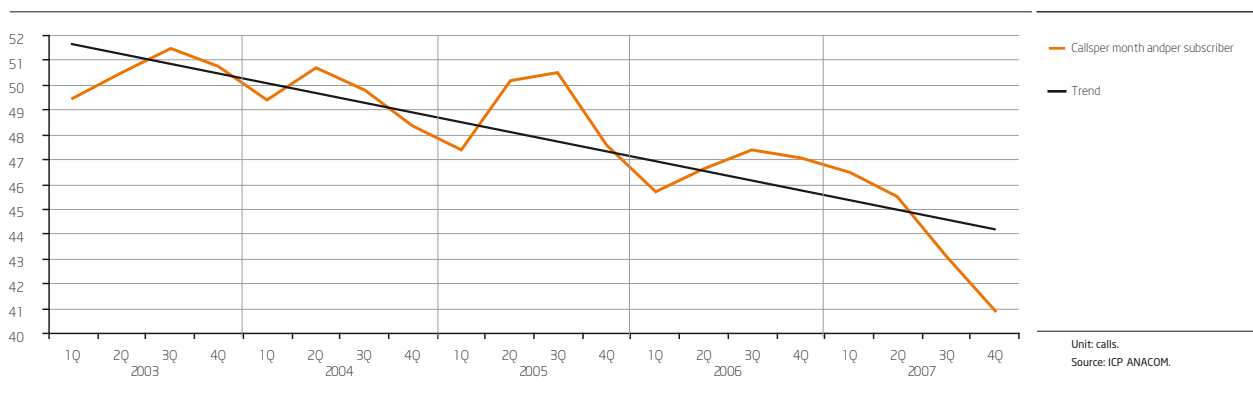


A slight decreasing trend in the amount of calls per subscriber can however be perceived. The average amount of calls per

subscriber was close to 44 in the 4th quarter of 2007, less than in that same quarter the previous year.

Traffic evolution per subscriber, in calls

Graph 41.



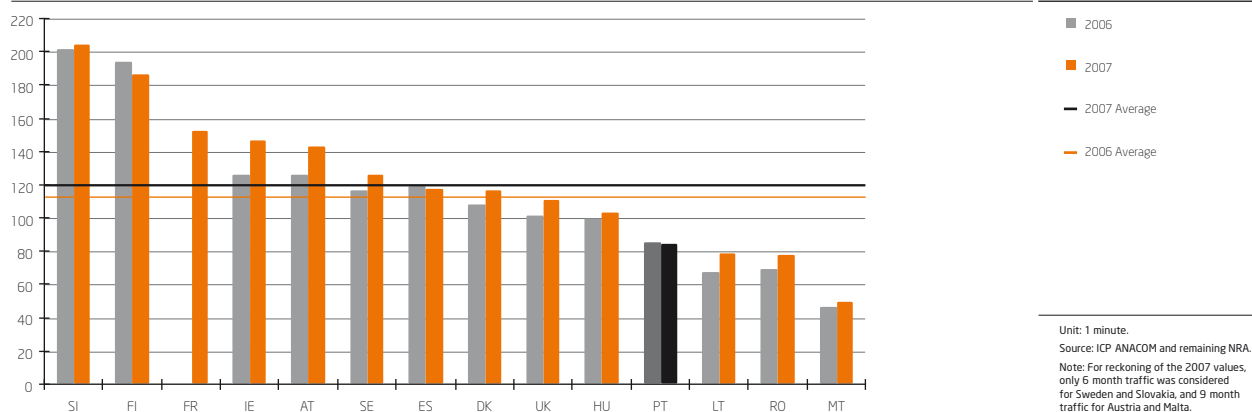
This evolution can be justified by the fact that the new service subscribers have a lower than average income level, or by macroeconomic factors that affected this service's use.

The following graph shows an international comparison of traffic per subscriber. As can be seen, according to the available data, this service's use in Portugal stands below the average of the considered countries.



Minutes per month and per subscriber - international comparisons

Graph 42.



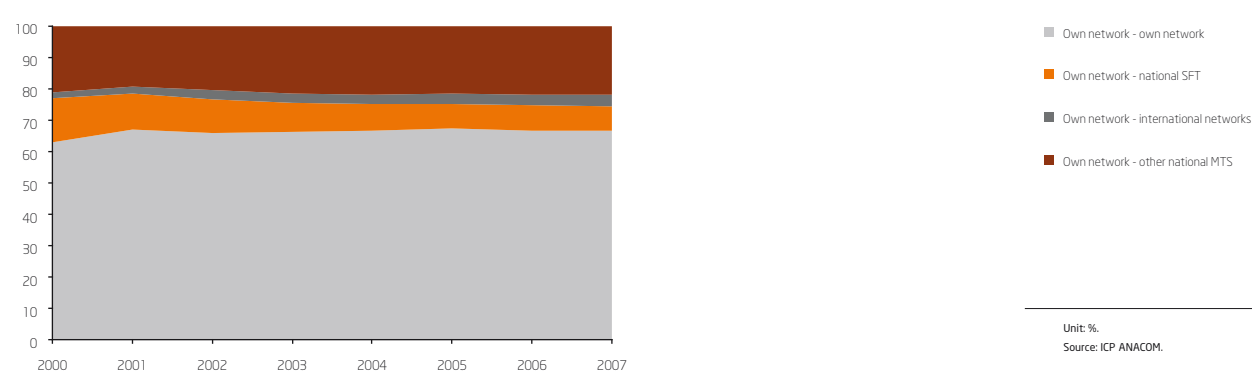
Voice traffic: type of calls

Regarding the type of calls made, about 2/3 of calls are made to the network where the call has its origin. Other mobile operators' networks are the destination of around 22 per cent of the originated traffic, and the FTS comes next. Regarding incoming traffic, the relative weight of the types of calls does not change significantly.

There is, on the other hand, a progressive decrease in the weight of calls with destination and origin in fixed networks, which should be related with the declining amount of FTS users.

Voice traffic distribution in calls per type of calls

Graph 43.



Voice traffic; average length of calls

The average length of outgoing calls reached 116 seconds. The average length of calls originated and terminated in the mobile networks has been increasing over the latest years. The average length of international calls is the exception,

which has remained constant, despite being the longest ones: 150 seconds, when they are originated in the country, and of 180 seconds, when they are terminated in the country. It should be mentioned that the average length of calls in the mobile network is lower than that of the fixed network.

Average length of calls

Table 36.

	2003	2004	2005	2006	2007
Total outgoing traffic	103	106	108	112	116
Own network - own network	104	107	109	115	120
Own network - national FTS	96	96	97	96	101
Own network - international networks	166	156	155	155	155
Own network - other national MTS	97	98	100	103	105
Total incoming traffic	104	107	109	114	118
Own network - own network	104	107	109	115	120
National FTS - own network	107	107	110	113	116
International networks - own network	176	175	174	178	185
Other national MTS - own network	97	98	100	103	105

Unit: seconds.
Source: ICP-ANACOM.

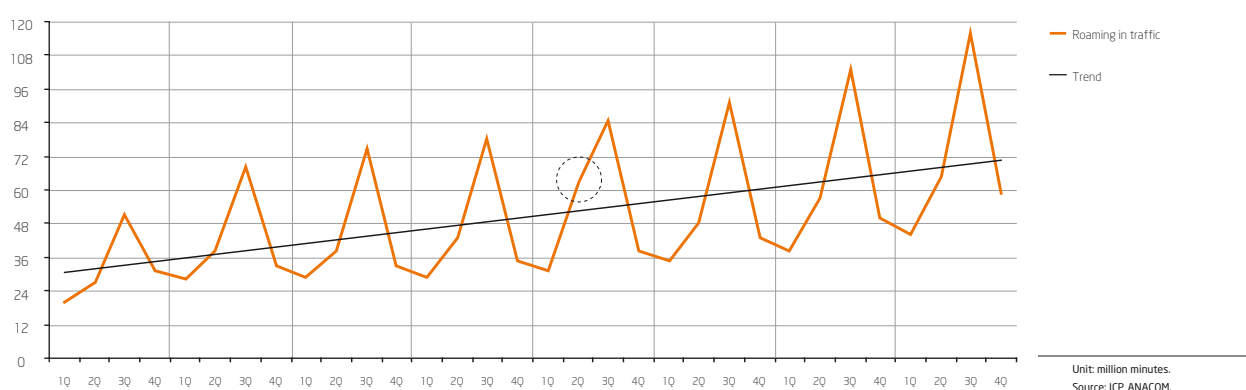
Roaming traffic: voice and SMS

The roaming traffic is highly seasonal in connection with the summer holiday period.

The following graph shows that the "Euro 2004" phenomenon had some impact on the roaming in³⁷ traffic (2nd quarter of 2004).

Roaming in traffic evolution and trend

Graph 44.



37 Traffic made by foreign operators' subscribers using national networks.



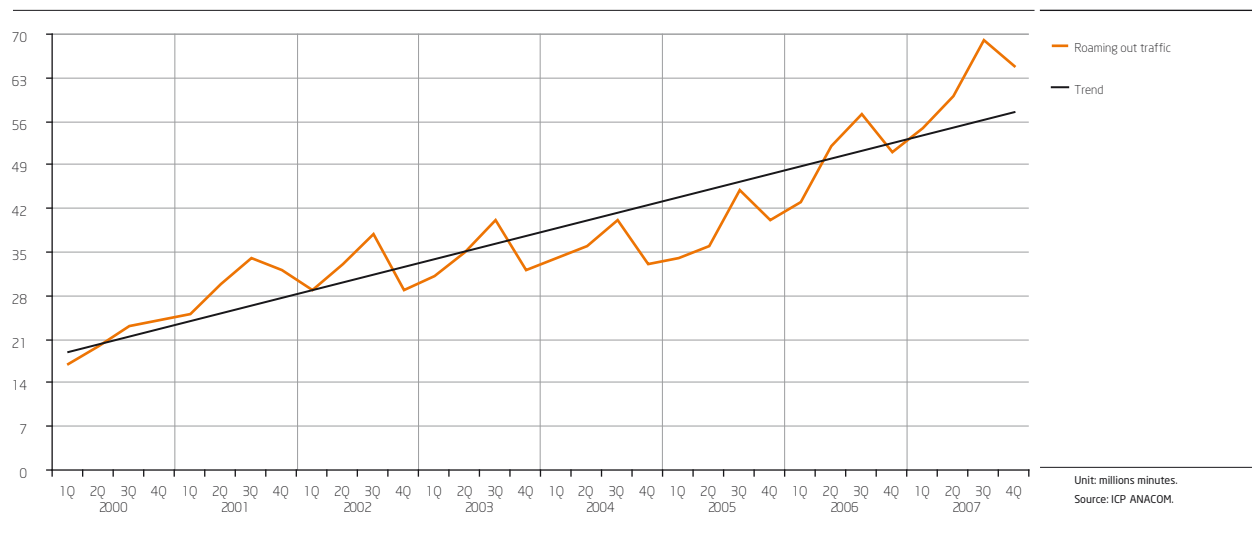
The roaming out³⁸ traffic is also highly seasonal, due to the same reasons.

Specifically regarding roaming out, there is a growing trend

in the use of SMS, which could be related with the price level of this type of calls and with the termination figures in these cases.

Roaming out traffic evolution and trend

Graph 45.



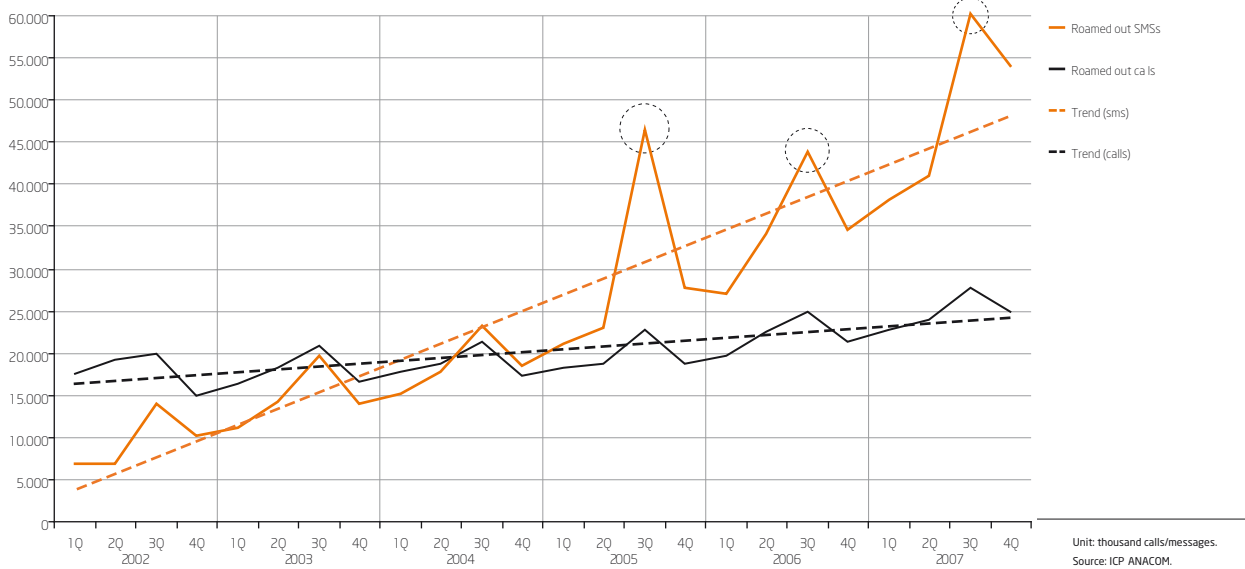
Also, promotional campaigns by operators designed to intensify the use of SMS, considerably add to the amount of roamed-in messages. It should be highlighted that roamed-in messages have no costs to the roamer and receiving a voice call means paying the part of the call in connection with the

termination cost of the foreign operator at which the roamer is registered. This, in connection with the aforementioned campaigns, can explain the peaks in the third quarters of 2005, 2006, and 2007, during the holiday seasons.

³⁸ Traffic made outside the country by national operators' subscribers using the networks of foreign operators

Evolution of the roamed-out traffic per type of traffic

Graph 46.



On average, roamed calls are longer than those made within national networks.

SMS

Until the second quarter of 2005, there was a monthly average of about 20 SMS per subscriber. This figure considerably changed after that period, a change that was intensified afterwards.

In 2007 the SMS monthly average surpassed 100 SMS. In the 4th quarter of that year this figure reached 120 SMS per subscriber.

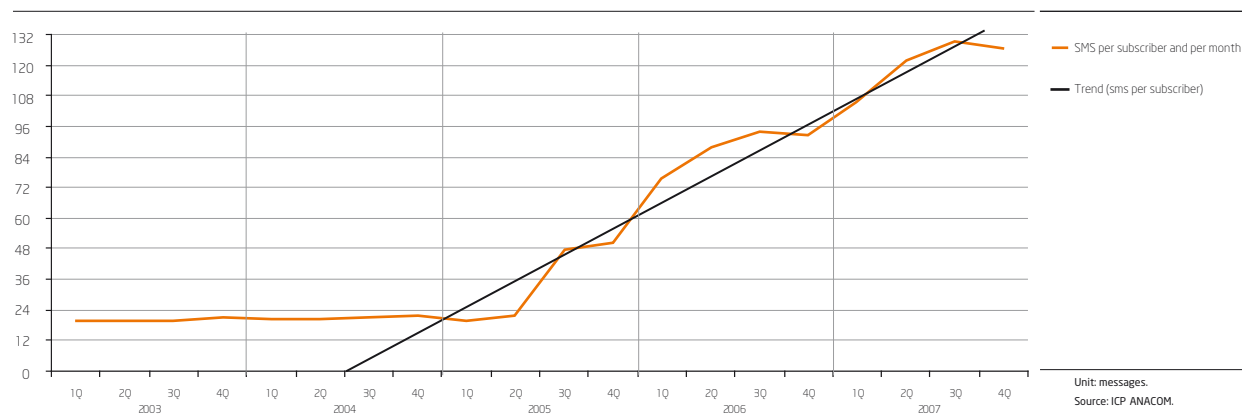
This evolution should have a relation with the new tariff offerings and promotions that the operators launched, as mentioned above.

It should be mentioned that the so-called Premium messages are only 1 per cent of the overall SMS.



Evolution in the amount of SMS per subscriber and per month, trend

Graph 47.



Data services

Sending multimedia messages (MMS) is still the mostly used 3G service, with 28 per cent of all answers. There was a sharp decrease in the use of this service, as well as of the video call service.

It should be noted that the video call service, due to its characteristics, also depends on the available devices, implying that both the sender and the receiver must have device and equipment that is compliant with the service.

Services used with the 3G mobile phone

Table 37.

	Dec. 2006	Dec. 2007
MMS	47,0	28,1
Internet access	29,3	20,2
Video calls	21,7	6,3
E-mail, Messenger or chat	12,9	8,4
Music download	n.d.	10,6
Video download	10,6	4,0
None of the above	31,7	22,4

Unit: %.

Source: ICP-ANACOM, Electronic Communications Consumer Survey.

Note: multiple answers.

Barriers to joining the service

According to the Electronic Communications Consumer Survey, among those that do not have a mobile phone, the main reason for that is "do not need it" (49 per cent).

The service's price levels, which were, in the previous year, the second main barrier to joining the service, are now the third. The ratio of non-users pointing it out decreased 9 per cent. This evolution might have been influenced by the introduction of low-cost or no-frills tariff schemes in 2005.

MTS's evolution in 2007

Below is a set of items on the MTS's performance in 2007: availability, penetration, service usage, prices and quality of service.

The service's geographic availability

MTS is available in the overwhelming majority of the Portuguese territory, and it reaches almost 100 per cent of its population.

Regarding the several MTS access technologies, 3G (WCDMA) currently has a wide coverage in most cities. But regarding major roads, coverage is bad, according to the results of the quality of service assessments carried out by ANACOM³⁹. The most recent study carried out in the autonomous regions show that WCDMA coverage in the Azores is poor.

Currently, all operators publicize on their websites their corresponding 3G and 3.5G (HSDPA) network coverage according to the available speed, per municipality and even per village.

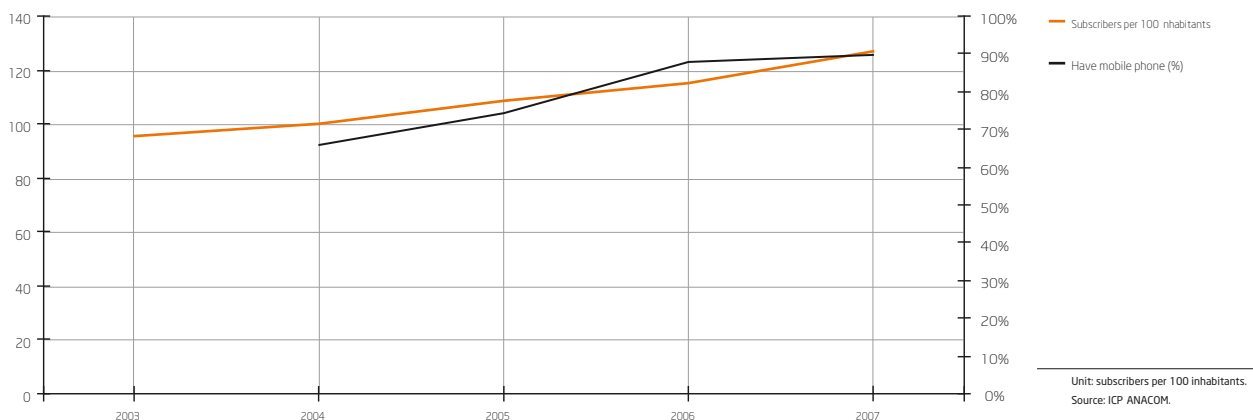
Service penetration

MTS penetration in Portugal reached again very high figures during this year. By the end of 2007, the service's penetration rate reached 126.7.

Mention should be made to the fact that, according to the December 2007 Electronic Communications Consumer Survey, around 89.8 per cent of those residing in Portugal were MTS customers.

MTS penetration in Portugal

Graph 48.



³⁹ <http://www.anacom.pt/template12.jsp?categoryId=237202> e <http://www.anacom.pt/template20.jsp?categoryId=1643&contentId=553755>.



The difference between the above-mentioned penetration rate and the answers to the above-mentioned survey are due to various reasons, such as:

- The fact that there are users with more than one active card;
- The activation of new SIM cards for exclusive use by data and Internet access services;
- The fact that there are active cards for use by machines, equipment and vehicles (automatic payment terminals using the mobile network, alarm, security, telemetry and telematic equipment, etc.);
- The fact that there are cards for use by companies.

Amount of active cards

Table 38.

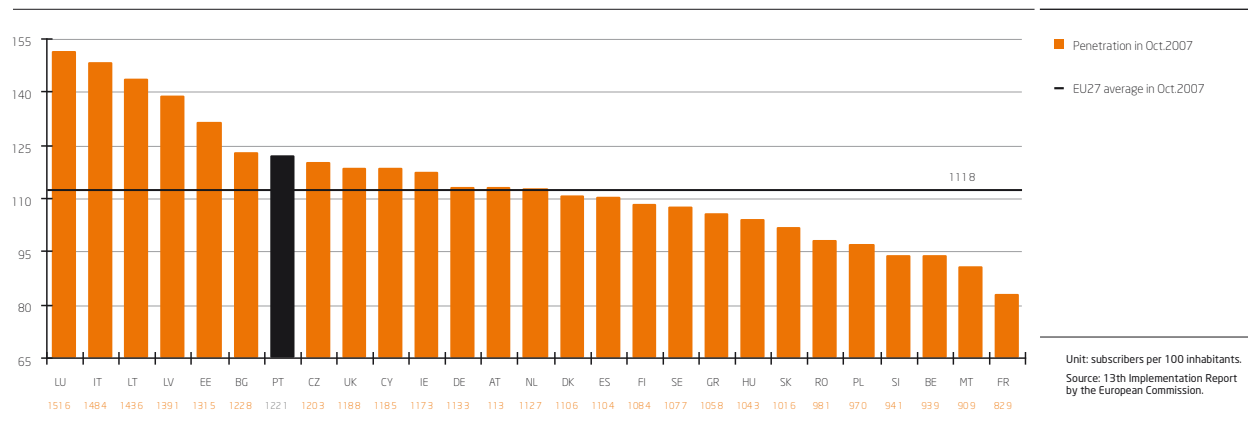
	Dec. 2006	Dec. 2007
1 Card	82,6	79,2
2 Cards	14,9	15,5
3 Cards	2,1	2,4
More than 3 cards	0,4	1,9

Unit: %.
Source: ICP-ANACOM.

MTS penetration in 2007 is still above the EU average, ranking 7th among the 27 EU countries.

MTS penetration in the EU

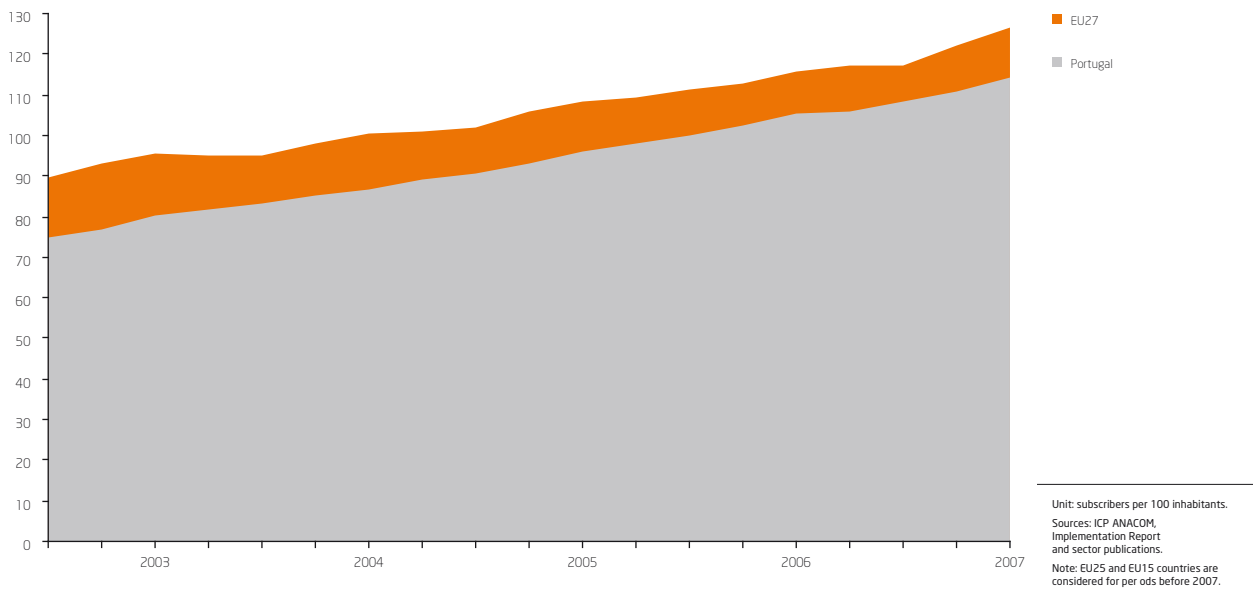
Graph 49.



This is indeed a middle term trend. MTS penetration in Portugal has consistently been above the EU average.

Evolution of the MTS penetration in Portugal and in the EU

Graph 50.



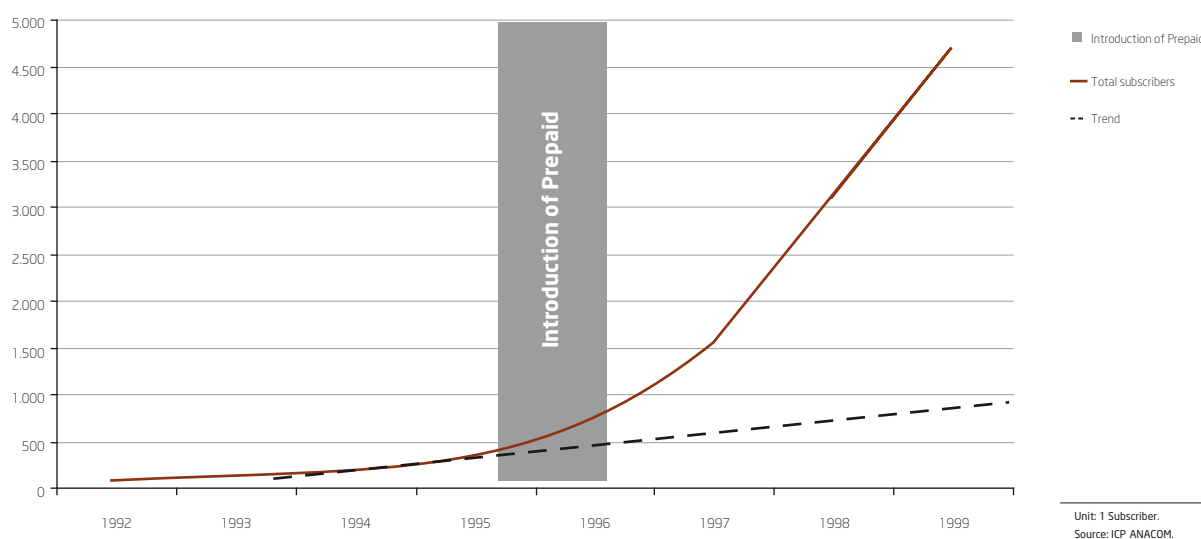
MTS penetration growth and its evolution vis-à-vis the European average should have been influenced, namely, by the fast introduction of GSM services in Portugal, the small penetration of the FTS, the marketing investment and the innovations launched by the market players (namely tariff-related innovations). Particularly, the introduction of prepaid

offerings, together with the simplified administrative procedure in connection with the purchase of the service and its activation, led to the mass use of the service and the “democratisation” of the use of the mobile phone, which, from a status symbol, became a regular commodity, available to all.



Evolution of the number of mobile telephone service's subscribers: before and after prepaid

Graph 51.

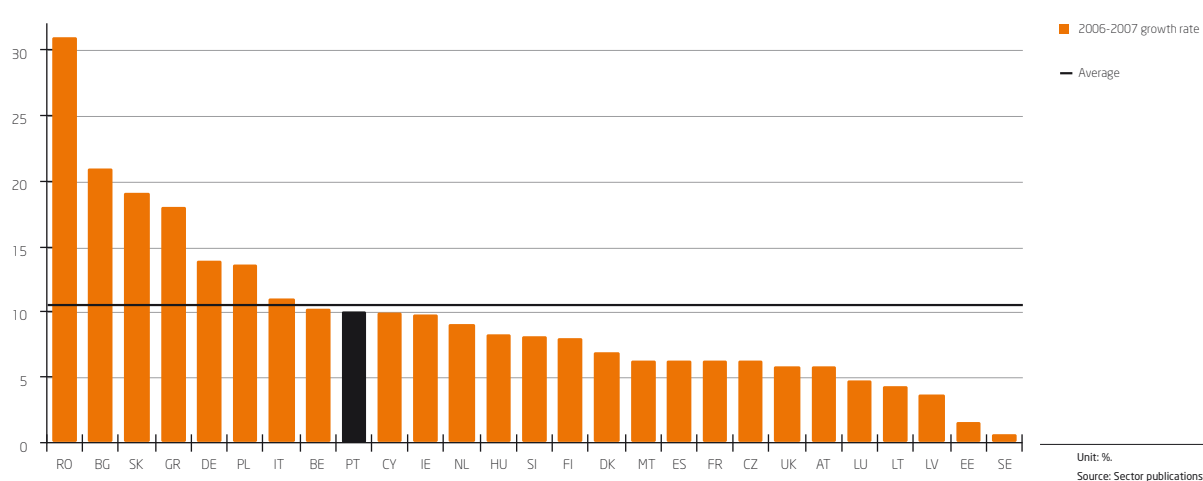


Mention should be made to the fact that, in spite of Portugal's position in the EU ranking, the service's growth has slowed down in 2007. This service is now having a strong

development mainly in the Eastern European countries, namely Romania, Bulgaria, Slovakia, Greece and Poland.

Subscriber growth rates in the EU27 countries - 2006-2007

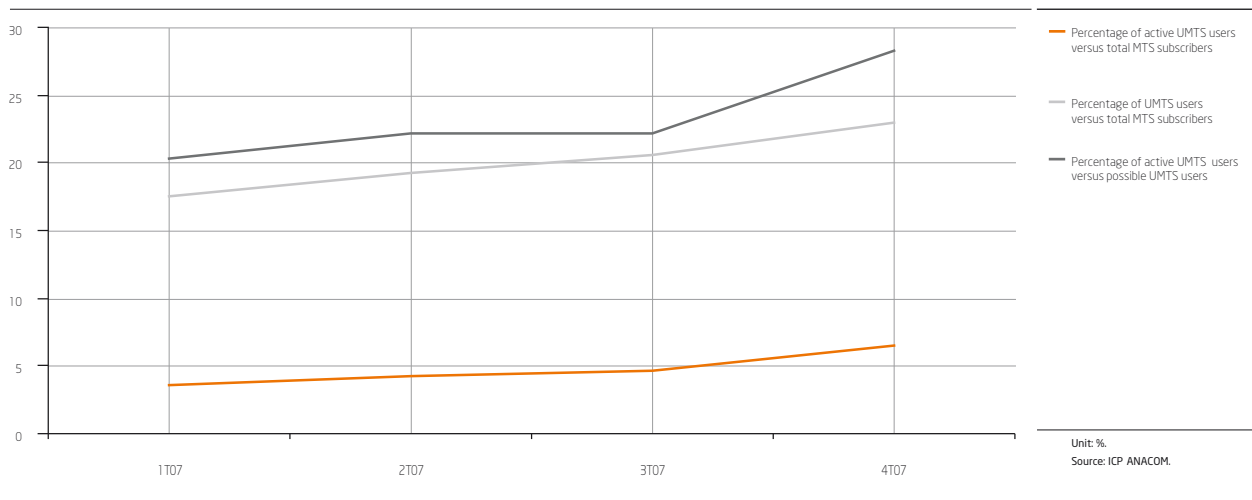
Graph 52.



Regarding UMTS service users in Portugal⁴⁰, they stood for about 23 per cent of all MTS subscribers at the end of 2007.

Evolution of UMTS penetration in Portugal

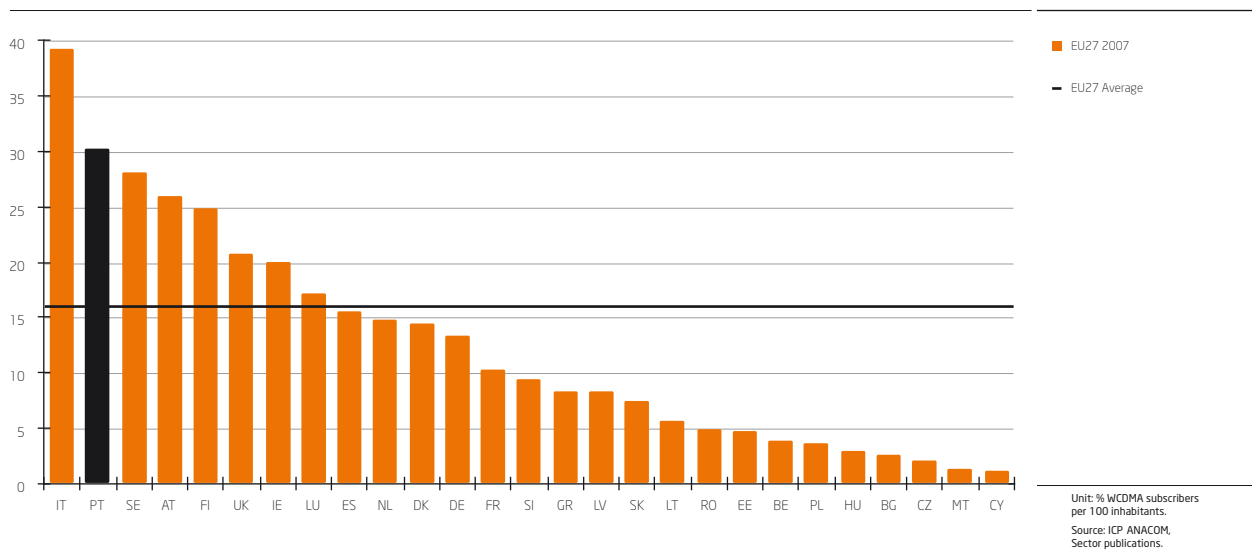
Graph 53.



At the end of 2007, Portugal ranked 2nd among the EU27 countries, right after Italy, in terms of WDCMA user penetration.

UMTS penetration in some EU27 countries

Graph 54.



40 Number of SIM/USIM (Subscriber Identity Module/Universal Subscriber Identity Module) cards that made at least one authentication and registration on the mobile operator's network, since the launch of the service, enabling it them to use any of typical UMTS network services (i.e. video-telephony or broadband data transmission). Those cards that made at least one authentication and registration on the mobile operator's network during the period under analysis are considered active cards. Cards that were deactivated until the end of the period under analysis were excluded. Migrations from SIM GSM to USIM UMTS should be considered, when it applies.



Number of service subscribers

At the end of 2007, there were 13.4 million subscribers⁴¹ to the MTS, a 10 per cent increase in the total number of subscribers vis-à-vis the previous year, a ratio that is slightly below the 2003/2007 average.

Amount of subscribers

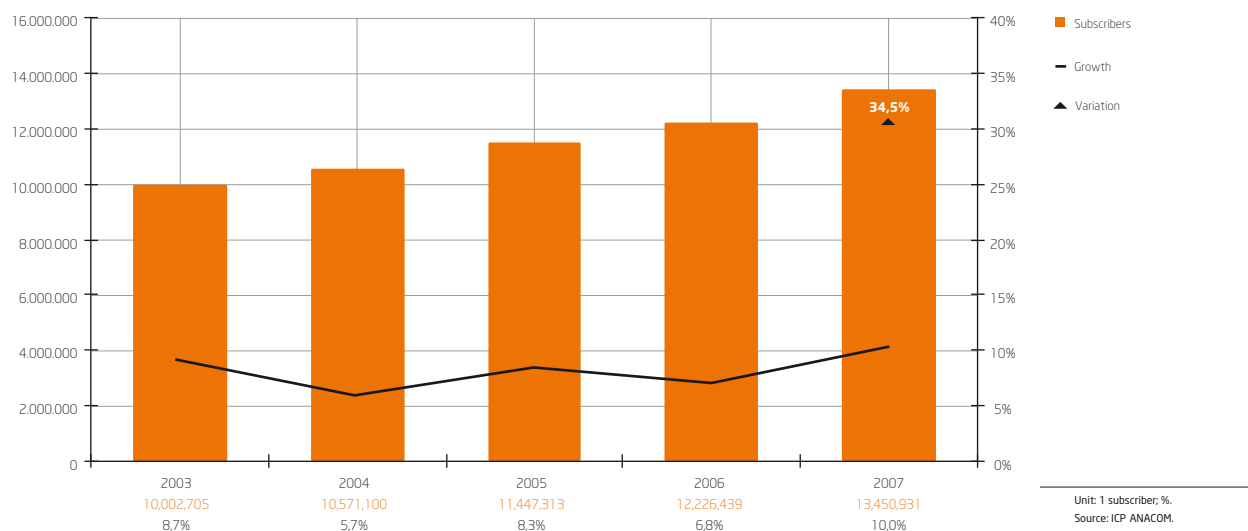
Table 39.

	2006	2007	Var. 2006/2007	2003/2007 Annual average var.	2003/2007 average
Post-paid	2.455.608	3.131.088	27,5%	10,8%	51,0%
Prepaid	9.770.831	10.319.843	5,6%	6,8%	30,2%
Total	12.226.439	13.450.931	10,0%	7,7%	34,5%

Unit: 1 subscriber; %.
Source: ICP-ANACOM.

Evolution of the amount of subscribers and growth rates

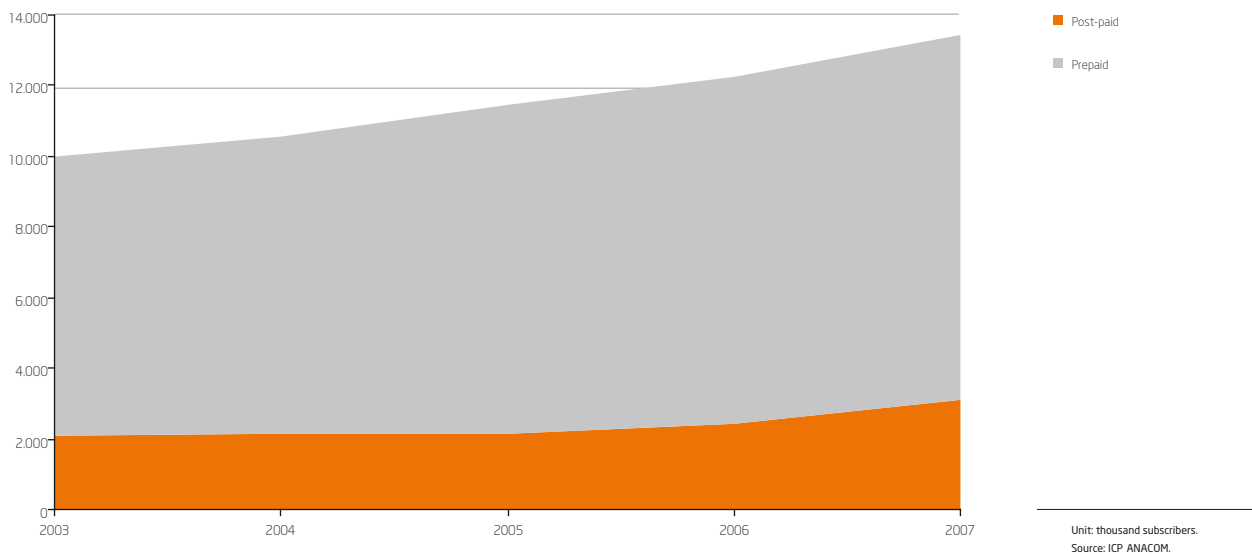
Graph 55.



⁴¹ The definition of subscriber was approved by a determination of ICP-ANACOM's Board of Directors of 07.02.2002. It relates to the number of cards that are under a contractual relationship with one of the national Mobile Telephone Service operators, which were granted the right to originate or receive traffic through their networks.

Evolution of the amount of subscribers by type of tariff scheme

Graph 56.



The recent evolution in the amount of subscribers was partly influenced by the following factors:

- The development of 3G services. The amount of 3G/UMTS subscribers in Portugal reached about 3.07 million by the end of 2007.
- The coming about of the discount offerings (Uzo, Rede 4, Vodafone Directo), in 2005.
- The coming about of new mobile broadband Internet access offers.

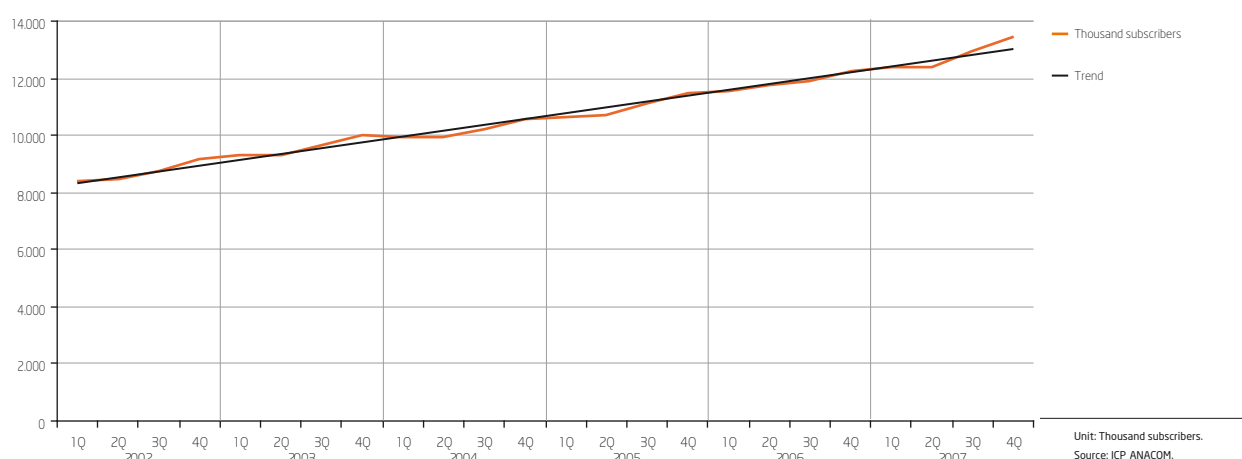
- The launch of specific offers within the scope of the development of the Information Society (Initiative Novas Oportunidades, e-opportunities, e-schools and e-teachers initiatives).
- The development of new applications for machines, for example.

These factors contributed to sustain the trend of the MTS growing number of subscribers in Portugal.



Evolution of the number of subscribers and growth trend

Graph 57.



As mentioned above, the growth recorded in the amount of subscribers was below the EU average.

That may be due to the life cycle stage of this service and/or to macroeconomic cyclical factors.

The service's usage level

Below is the evolution of the service's usage level, in terms of voice traffic, SMS, MMS, roaming, data services, video telephony and mobile TV.

Voice traffic

In 2007, MTS subscribers made more than 7 billion calls, 5.8 per cent more than in the previous year.

In that same period, MTS subscribers received over 7 billion calls, which is 5.5 per cent more than in the previous year.

Voice traffic in calls

Table 40.

	2006	2007	Var. 2006/2007	2003/2007 annual variation	2003/2007 variation
Outgoing traffic	6.648	7.035	5,8	4,9	21,1
Own network - Own network	4.439	4.693	5,7	5,0	21,7
Own network - national FTS	534	552	3,3	0,5	1,9
Own network - International networks	226	248	9,8	9,4	43,4
Own network - Other national MTS	1.448	1.542	6,4	5,6	24,5
Incoming traffic	6.693	7.064	5,5	4,5	19,1
Own network - Own network	4.439	4.693	5,7	5,0	21,7
National FTS - Own network	593	610	2,8	-3,1	-11,7
International networks - Own network	206	217	5,4	10,7	50,1
Other national MTS - Own network	1.455	1.544	6,1	5,6	24,5

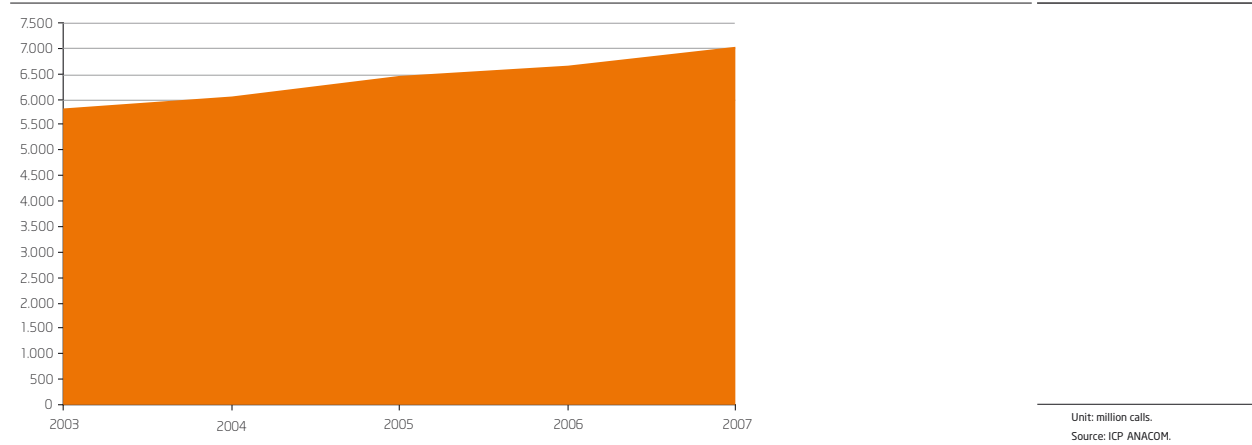
Units: million calls, %
Source: ICP-ANACOM.

Between 2003 and 2006, outgoing traffic grew about 21.1 per cent and incoming traffic grew around 19 per cent.

These traffic growth rates are below the growth rates for the number of subscribers.

Call volume evolution 2003-2007

Graph 58.

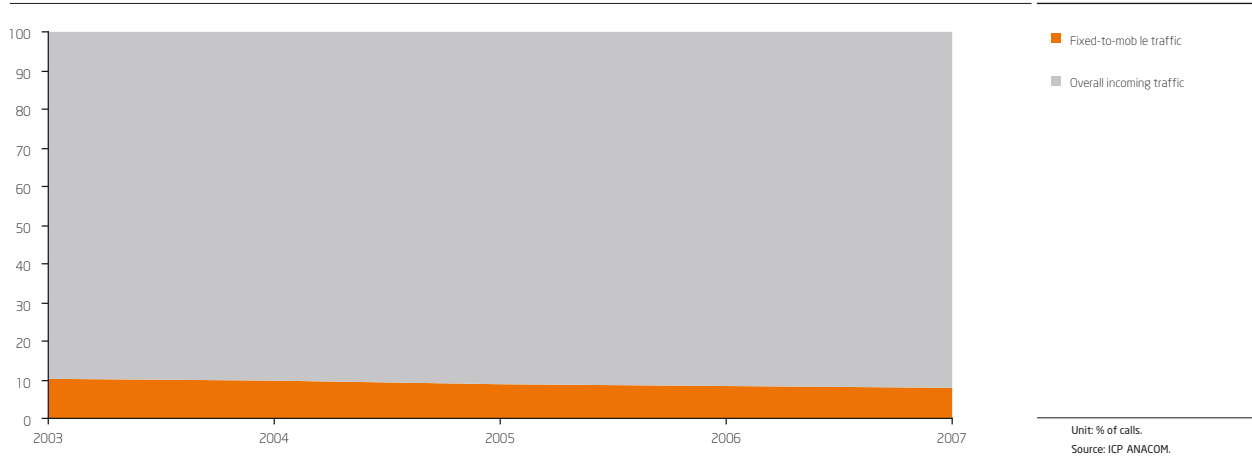


An analysis of the traffic evolution by type of call shows that the weight of intra-network traffic determines the overall traffic evolution. Inter-network and international traffic grew more than the average traffic, while outgoing international traffic was the only item that followed the growth in the number of subscribers.

Regarding fixed-to-mobile and mobile-to-fixed calls, in spite of a positive variation versus the previous year and a growth above their five-year average, this type of calls already stands for less than 9 per cent of all calls with termination in the mobile network.

Weight of fixed-to-mobile traffic in the overall incoming traffic

Graph 59.





Regarding traffic evolution in minutes, 2007 recorded the highest growth rate in the latest 5 years. The amount of conversation minutes with origin in the mobile networks grew about 9.6 per cent vis-à-vis the previous year, totalling about 13.6 billion minutes.

The amount of minutes ended in mobile networks reached over 13.9 billion minutes, a 9.2 per cent increase from the previous year.

Voice traffic in minutes

Table 41.

	2006	2007	2006/2007 var.	2003/2007 average annual var.	2003/2007 var.
Outgoing traffic	12.452	13.645	9,6	8,1	36,4
Own network - Own network	8.520	9.362	9,9	8,9	40,5
Own network - national FTS	858	932	8,6	1,9	7,9
Own network - International networks	583	642	10,2	7,6	34,2
Own network - Other national MTS	2.491	2.709	8,8	7,9	35,6
Incoming traffic	12.745	13.914	9,2	7,8	34,8
Own network - Own network	8.520	9.362	9,9	8,9	40,5
National FTS - Own network	1.119	1.177	5,2	-1,2	-4,7
International networks - Own network	613	669	9,2	12,0	57,6
Other national MTS - Own network	2.493	2.705	8,5	7,9	35,3

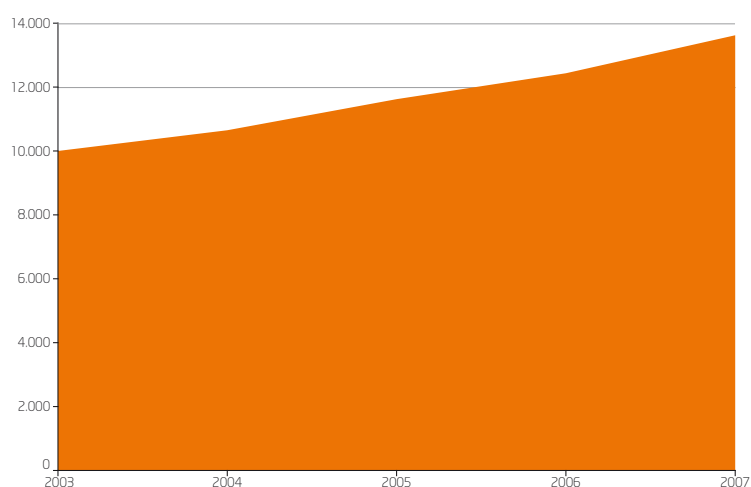
Units: million minutes; %.
Source: ICP-ANACOM.

Between 2003 and 2007, there was a growth of around 36.4 per cent in the outgoing traffic and of around 34.8 per

cent in the incoming traffic, growth rates that are similar to those of the number of subscribers.

Evolution of the minute volume 2003-2007

Graph 60.

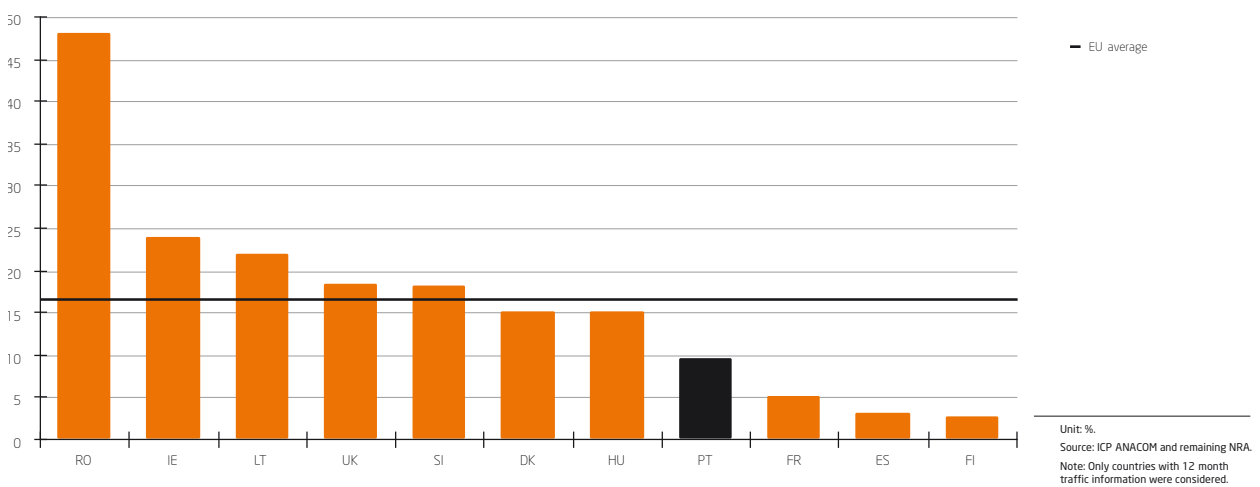


Unit: million minutes.
Source: ICP-ANACOM.

On the other hand, traffic growth in mobile networks, in 2007, was below that of other countries.

Traffic growth in minutes, in 2007 - international comparisons

Graph 61.

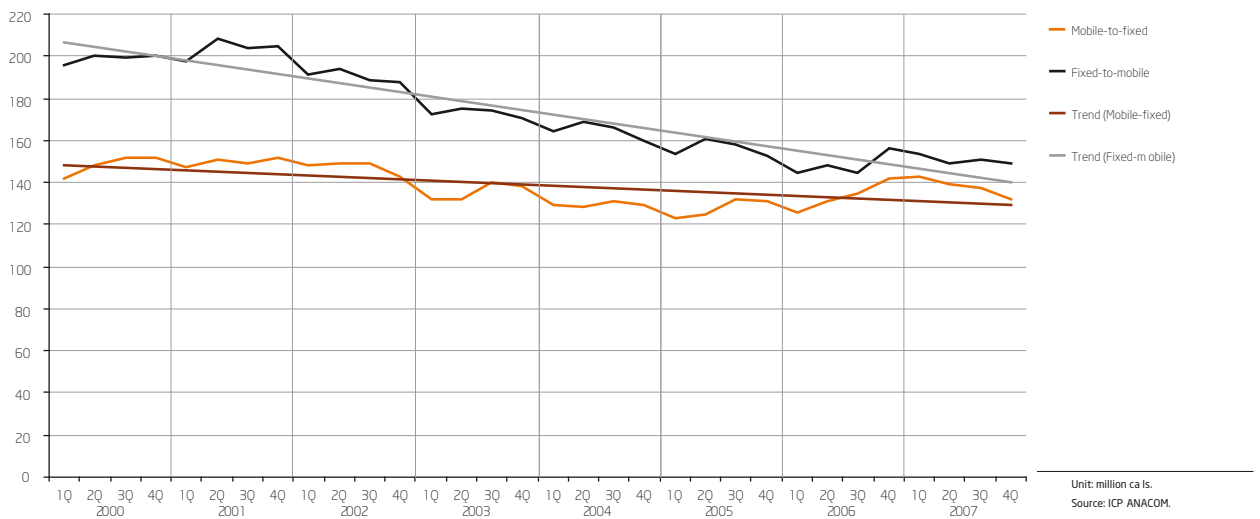


Just as with the amount of calls, during 2003-2007 the amount of minutes with origin in the fixed networks and with destination in the mobile networks has lost weight in the overall mobile networks' incoming traffic. In this case

there is even a decrease, in absolute terms, of this type of traffic (4.7 per cent). The decreasing mobile-to-fixed and fixed-to-mobile traffic trend is linked to the fixed-by-mobile replacement phenomenon.

Mobile-to-fixed and fixed-to-mobile call evolution and trend

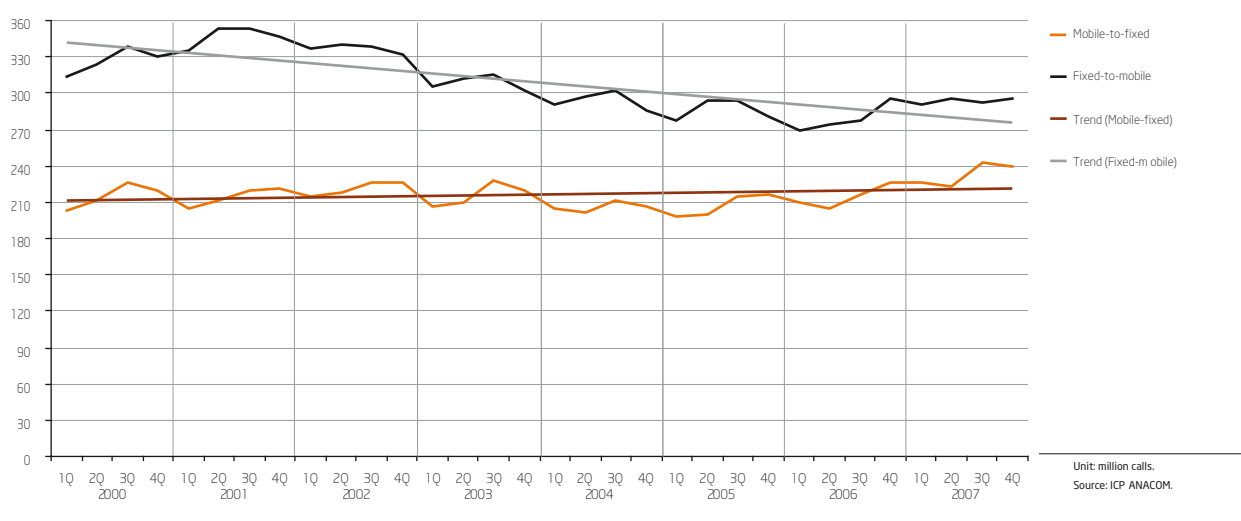
Graph 62.





Mobile-to-fixed and fixed-to-mobile amount of minutes and trend

Graph 63.

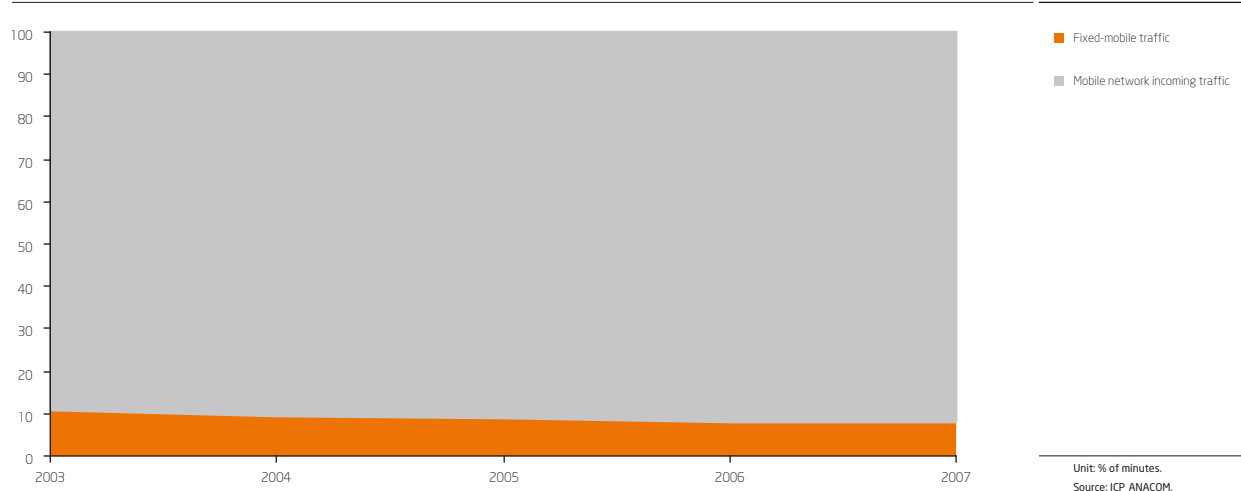


In 2007, however, the amount of fixed-to-mobile minutes grew 5.2 per cent from the previous year. Reducing mobile terminations and the coming about of low-cost tariff

schemes, with no price difference per call destination, could have fostered this type of calls.

Weight of incoming fixed-to-mobile traffic (minutes)

Graph 64.



This type of traffic already stands for less than 8.5 per cent of minutes terminated in the mobile network.

It should be mentioned that, even if the amount of traffic originated in the fixed network and terminated in the mobile network is usually higher than the amount of traffic originated in the mobile network and terminated in the fixed network, the latter has grown at a higher rate than the former. Thus, while mobile-to-fixed calls stood for 75 per cent of fixed-to-mobile calls in 2003, this figure was already 92 per cent in 2007. In terms of minutes, during the same

period, the rate between both traffic types increase 14 per cent, reaching 79 per cent in 2007.

SMS

2007 recorded again a considerable increase in the amount of sent text messages (48.1 per cent vis-à-vis the previous year).

This was due to promotional campaigns put in place by the mobile operators since early 2005.

SMS with origin in own network

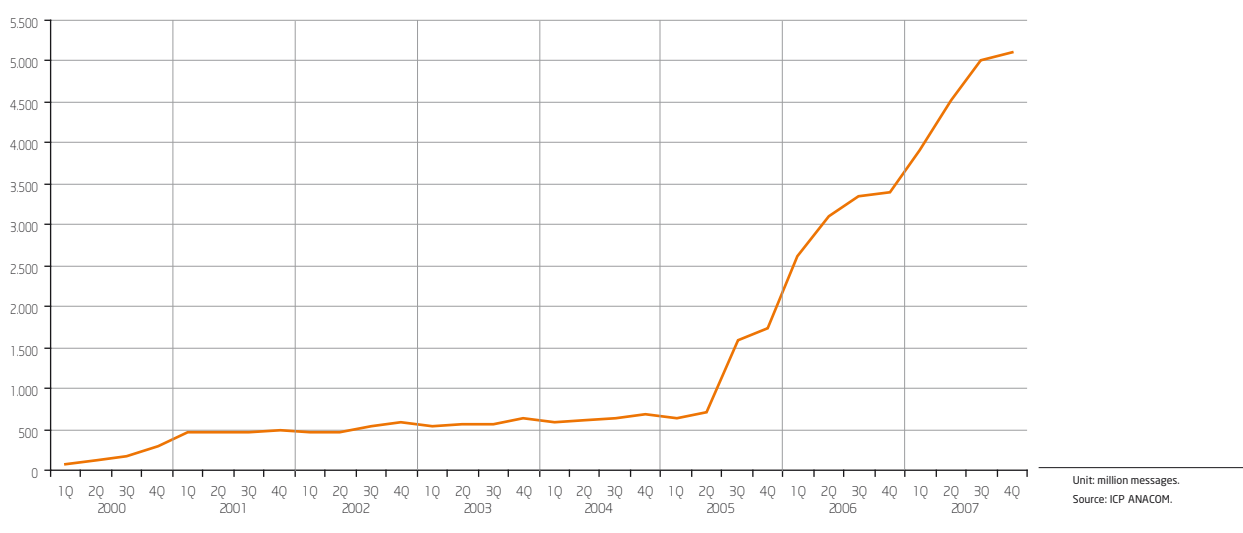
Table 42.

	2006	2007	Var. 2006/2007	2003/2007 average annual variation	2003/2007 var.
Amount of SMS messages	12.453	18.439	48,1	68,2	700,7

Unit: million messages, %.
Source: ICP-ANACOM.

Evolution in the amount of SMS

Graph 65.



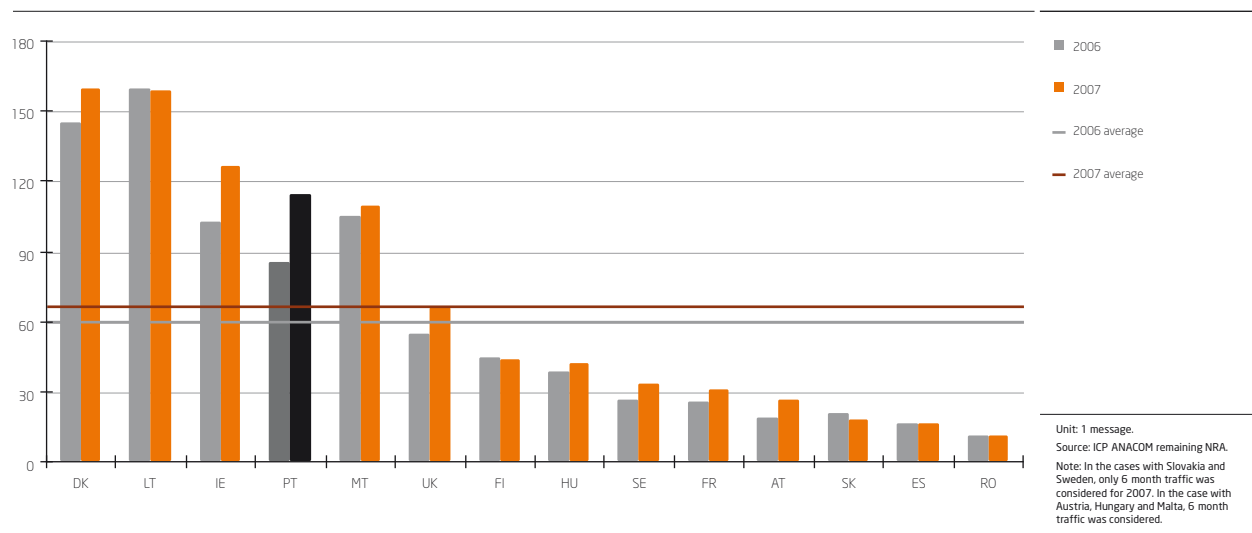


According to the available data, SMS use in Portugal is relatively low in intensity, if compared to other countries, Denmark and Latvia standing out.

There was in general an increase in the use of SMS in the considered countries. It should be highlighted that Portugal has one of the highest growth rates in the amount of SMS, among the considered countries.

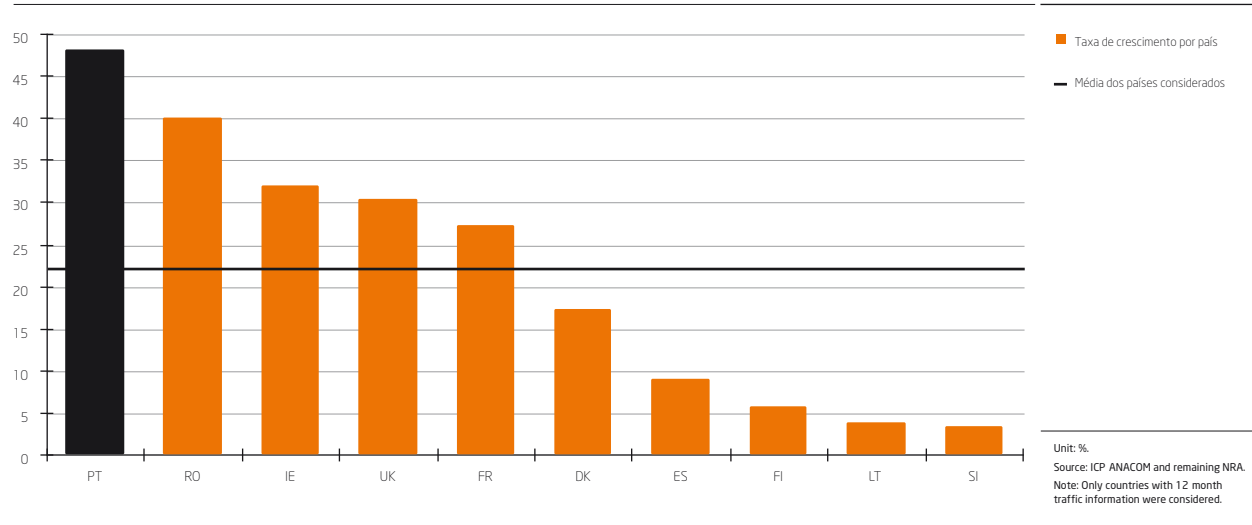
Amount of SMS per subscriber and per month - international comparisons

Graph 66.



SMS message traffic growth - international comparisons

Graph 67.



MMS

Multimedia message traffic, known as MMS, had a considerable decrease in 2007.

It should be mentioned that the use of this service implies the use of terminal equipment that is compatible with it. In the case with the called user it is also possible to refer to the message at the operator's website.

MMS with origin in own network

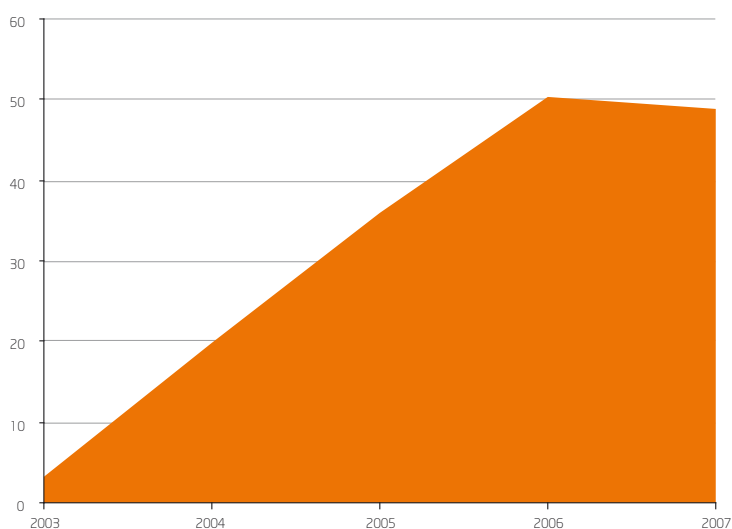
Table 43.

	2006	2007	Var. 2006/2007	2003/2007 average annual variation	2003/2007 var.
Amount of messages	50.389	48.734	-3,3	97,0	1.406,7

Unit: thousand messages, %.
Source: ICP-ANACOM.

Evolution in the amount of sent MMS

Graph 68.



Unit: million messages.
Source: ICP-ANACOM.

In comparison with the amount of SMS, the amount of MMS is relatively small.

The average roamed in call length was 123 seconds, 5 seconds above the figure recorded in the previous year.

Roaming

In 2007, roamed in traffic registered considerable variations, text messages standing out (25.8 per cent).



Roamed-in traffic

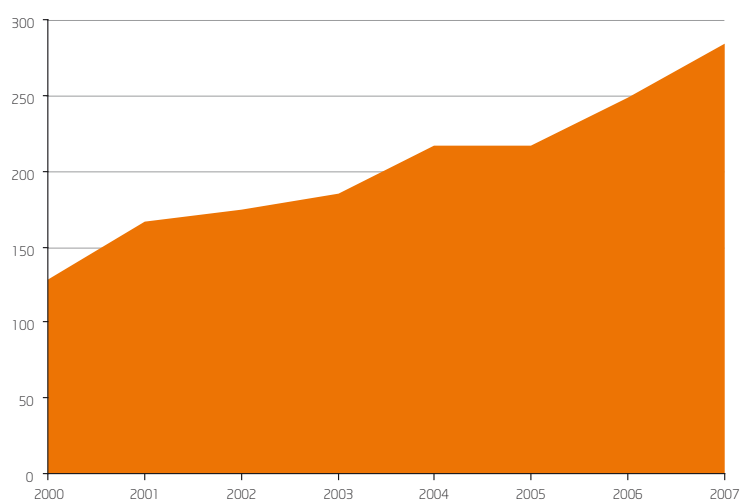
Table 44.

	2006	2007	Var. 2006/2007	2003/2007 average annual variation	2003/2007 var.
Roamed voice calls	126.077	138.772	10,1	3,7	15,7
Amount of roamed minutes	248.368	283.593	14,2	11,2	53,2
Roamed text messages	192.438	242.019	25,8	34,7	229,4
Average call length (sec)	118	123	+5 seconds		

Unit: thousand, %, seconds.
Source: ICP-ANACOM.

Evolution in the amount of roamed-in traffic

Graph 69.



Unit: million of minutes.
Source: ICP-ANACOM.

Roamed out traffic also shows considerable growths: around 12.1 per cent in calls, 22.1 per cent in minutes, and 38.5 per cent in text messages.

Roamed-out traffic

Table 45.

	2006	2007	Var. 2006/2007	2003/2007 average annual variation	2003/2007 var.
Roamed voice calls	88.434	99.140	12,1	8,2	37,1
Amount of roamed minutes	203.864	248.917	22,1	16,0	80,9
Roamed text messages	139.665	193.441	38,5	34,6	228,1
Average call length (sec)	138	151	+13		

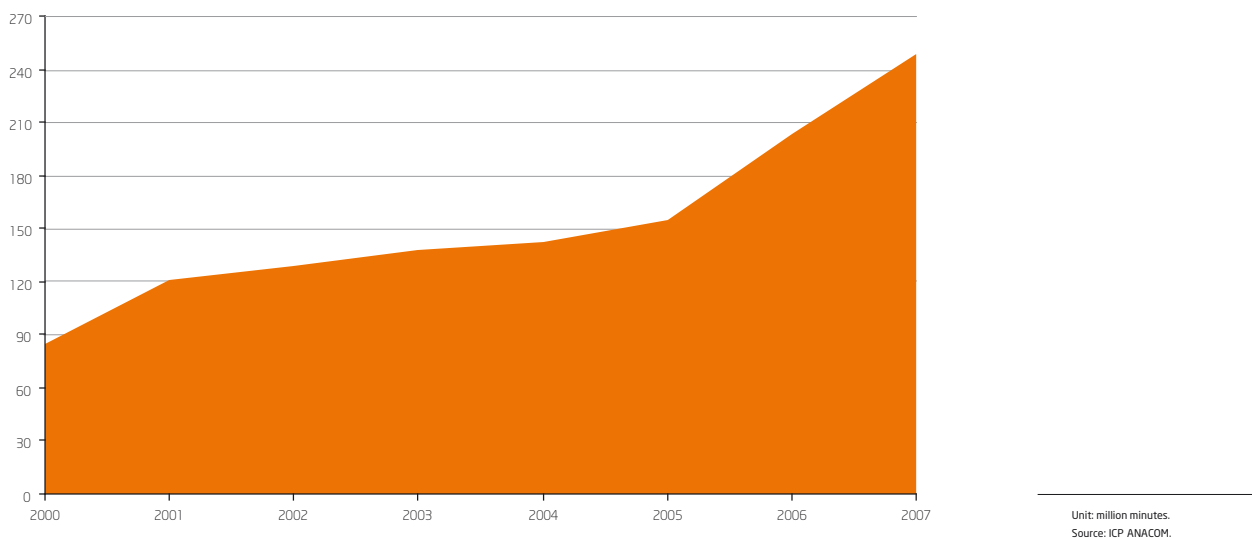
Unit: thousand, %, seconds.
Source: ICP-ANACOM.

There is a growing trend in the SMS use, probably fuelled by the price level of this type of calls and the value of the terminations in these cases. It should be underlined that receiving roamed messages has no costs to the roamer, whereas receiving a voice call means paying the part of the

call in connection with the termination cost of the foreign operator at which the roamer is registered. This, together with the afore-mentioned campaigns, may explain why using SMS is preferred over voice calls.

Evolution of the amount of roamed-out traffic

Graph 70.



There was a considerable increase in the roamed-out calls' average length, in 2007, from about 138 seconds to 151 seconds per call.

Also in that year, there was an increasing trend towards the re-balancing of roamed-in and roamed-out traffic. Although there is more roamed-in traffic than roamed-out traffic, its relative weight has been dropping.

In terms of minutes, roamed-out traffic stands for 88 per cent of roamed-in traffic, 6 per cent more than in the previous year. The relative weight of the amount of roamed-out messages increased 7 per cent, now standing for 80 per cent of roamed-in messages.

It should be mentioned that the above-mentioned evolution may have been influenced, after the 3rd quarter of 2007, by the entry into force of the International Roaming Regulation, Regulation (CE) no. 717/2007 of the European Parliament and of the Council, of 27 June 2007. Following the implementation of the rules stemming from that Regulation, there was a general trend towards the decrease of the average price per minute of roamed voice communications within the EU/EEA.



Data services traffic

The amount of data service users with the WAP protocol is relatively small. This evolution could be connected with the development of 3G services.

Data service accesses

Table 46.

	2007
APN WAP sessions	130.445
Amount of APN WAP sessions (MB)	15.917
Corporate service sessions	15.452
Amount of corporate service sessions (MB)	13.231

Unit: thousand.
Source: ICP-ANACOM.

The number of subscribers already using 3rd generation mobile services (IMT2000/UMTS) has grown considerably.

Number of UMTS service and data service users

Table 47.

	Jan.2007	Dec.2007	Var. Jan-Dec (%)
1. Total number of possible UMTS service users	1.988	3.074	54,6
Who were active during the period under review	452	869	92,2

Unit: thousand users.
Source: ICP-ANACOM.

The evolution of the number of mobile broadband users was influenced by the changes made by its providers to the offerings of this type of service, and by the implementation of the Government's initiative on New Opportunities (Novas Oportunidades): e-escola (e-school), e-professores (e-teachers) and e-oportunidades (e-opportunities). This initiative makes it possible to buy a laptop PC and to have monthly broadband Internet access fees at reduced prices.

Mention should be made to the fact that all operators have reinforced their mobile broadband offerings and started to provide access to the Internet over High-Speed Downlink Packet Access (HSDPA), and recently with HSUPA, High-Speed Uplink Packet Access.

The offerings' characteristics were also changed. The operators increased the download speeds, changed the terms of the tariffs and introduced a system for connecting to the PC via Universal Serial Bus (USB).

However, 2007 also registered the launch of specific "mobile phone Internet" offers, with daily or monthly subscription options.

Specific “mobile phone Internet” offerings – 2007

Table 48.

Optimus	TMN	Vodafone
Tariff scheme: - monthly access: € 7.5 (100MB included) - daily access: € 0.99 per day (10MB included)	Tariff scheme: - monthly: € 7.5 (up to 100MB usage) - daily: € 0.99 per day (0.33€ per each 100kb up to a maximum of 0.99€).	Tariff scheme Browsing: - 0.99€ (access to WEB or WAP site, including Vodafone Live, until 12 pm) Browsing Additional: 7.50€ (with unlimited access during 30 days) Messenger: 3€ (unlimited instant message sending) Valid during 30 days. My Mail Light: 3€ (40 emails included) My Mail Standard: 6€ (150 emails included) Mobile Internet Additional: 9.99€ month

Source: Operators' websites.

Video-telephony

The video-telephony service has a very small amount of traffic.

In 2007 there was even a considerable decrease in this service's usage level.

Video-call traffic

Table 49.

	2006	2007	Var. 2006/2007
Amount of video-calls	4.206	3.569	-15,1
Video-calling traffic volume	9.743	5.842	-40,0

Unit: thousand calls, thousand minutes, %.
Source: ICP-ANACOM.

Mobile TV

Also in 2006 the mobile TV service was introduced in the market, giving users access to the television service.

This service registered an 86 per cent user increase during the last year, totalling around 190 thousand users at the end of the year

Mobile TV users

Table 50.

	2006	2007	2006/2007 var.
Amount of Mobile TV users	102	190	85,7

Unit: thousand users, %.
Source: ICP-ANACOM.

Currently, Optimus has about 25 available channels, TMN has 29 and Vodafone has 26. Tariff schemes are in several

options, as can be seen on the table below.

Mobile TV service

Table 51.

Optimus	TMN	Vodafone
25 channels	29 channels	26 channels
Tariff scheme: : One channel per day - € 1.90 (1h traffic limit) - One channel per month (automatically renewable monthly fee) - € 2.90 (2h* traffic limit) - Pack Plus with 16 channels: (automatically renewable monthly fee) - € 7.50 (4h traffic limit)	Tariff scheme: - monthly: € 7,5 (up to 100MB usage) - daily: € 0.99 per day (€ 0.33 per each 100kb up to a maximum of € 0.99). All options grant access to all available channels except to Playboy and Blue TV channels. Playboy and Blue TV with an € 3.50 additional cost per access/day.	Tariff scheme: Daily Subscription: € 0,90 (unlimited access to all channels during 24h, except adult channels); Weekly Subscription: € 1.99 (with unlimited access to all channels during 7 days, except adult channels). First 7 days free for new activations; Monthly Subscription (30 days): € 7.5 (unlimited access to all channels, except adult channels). First 30 days free for new activations; Adult Channels: € 2.5 per two hour periods/each channel

Source: Operators' websites.



The service's revenues and Average revenue per subscriber⁴²

Revenues from services to customers reached 2.6 billion Euros, a 5.6 increase from the previous year.

Revenues from service provision to customers

Table 52.

	2006		2007		2006/2007 Var.
	Absolute figure	%	Absolute figure	%	
Revenues from monthly fees (monthly fees and supplementary services)	149.095	6,1	161.877	6,2	8,6
Revenues from Voice communications	1.907.472	77,6	1.910.847	73,6	0,2
Of which, Roaming Out	159.023	6,5	158.665	6,1	-0,2
Revenues from Data communications	334.555	13,6	464.495	17,9	38,8
SMS	226.089	9,2	248.266	9,5	9,8%
MMS	12.116	0,5	12.849	0,5	6,0
Video calls	861	0,04	1.569	0,06	82,2
Mobile TV	1.313	0,1	3.175	0,1	141,8
Internet access and mobile portal	79.336	3,2	178.908	6,9	125,5
Other data services	14.840	0,6	19.728	0,8	32,9
Other Revenues	65.905	2,7	58.569	2,3	-11,1
Total revenues with services to customers	2.457.027		2.595.788		5,6%

Unit: thousand Euros, %.

Source: ICP-ANACOM.

Note: Figures presented differ from those previously released due to corrections made by the operators. They do not include revenues from services to operators or from sales of equipment.

Revenue growth was fuelled by data services, particularly by Internet access, mobile portal and SMS.

Data services already stand for 18 per cent of overall revenues, 4.3 per cent more than in the previous year.

The drop in roaming tariffs by community imposition (vide. roaming traffic section) may have affected this traffic's revenues, which decreased 0.2 per cent from the previous

year. This occurred in spite of the increase registered in traffic (+10.1 per cent in calls, +14.2 per cent in minutes, and +5.8 per cent in messages).

According to the available data, the average revenue per user is estimated to have declined by about 1.6 per cent in 2007.

Average revenue per subscriber

Table 53.

	2006	2007	Var. 2006/2007
Average monthly revenue per average subscriber	17,30	17,02	-1,6

Unit: Euros, %.

Source: ICP-ANACOM.

Note: Reckoning on the figures: revenues from services to customers and average amount of subscribers in that year.

⁴² The presented values are reckoned based on data collected at the operators.

Service's price levels

Below is an international price comparison of this service's prices and its price evolution between 2002 and 2007.

MTS international price comparison⁴³

According to the available information, Portugal's price level is below the average for prepaid tariff schemes, in 2007. However, regarding post-paid schemes, this scenario changes considerably, for prices in Portugal were above average for medium and high consumption profiles, in 2007.

International price comparisons (November 2007) - deviations from average⁴³

Table 54.

Package	Profile		
	Low consumption	Average consumption	High consumption
Post-paid	-8,1 %	0,6%	5,9%
Prepaid	-21,5%	-45,3%	-44,1%

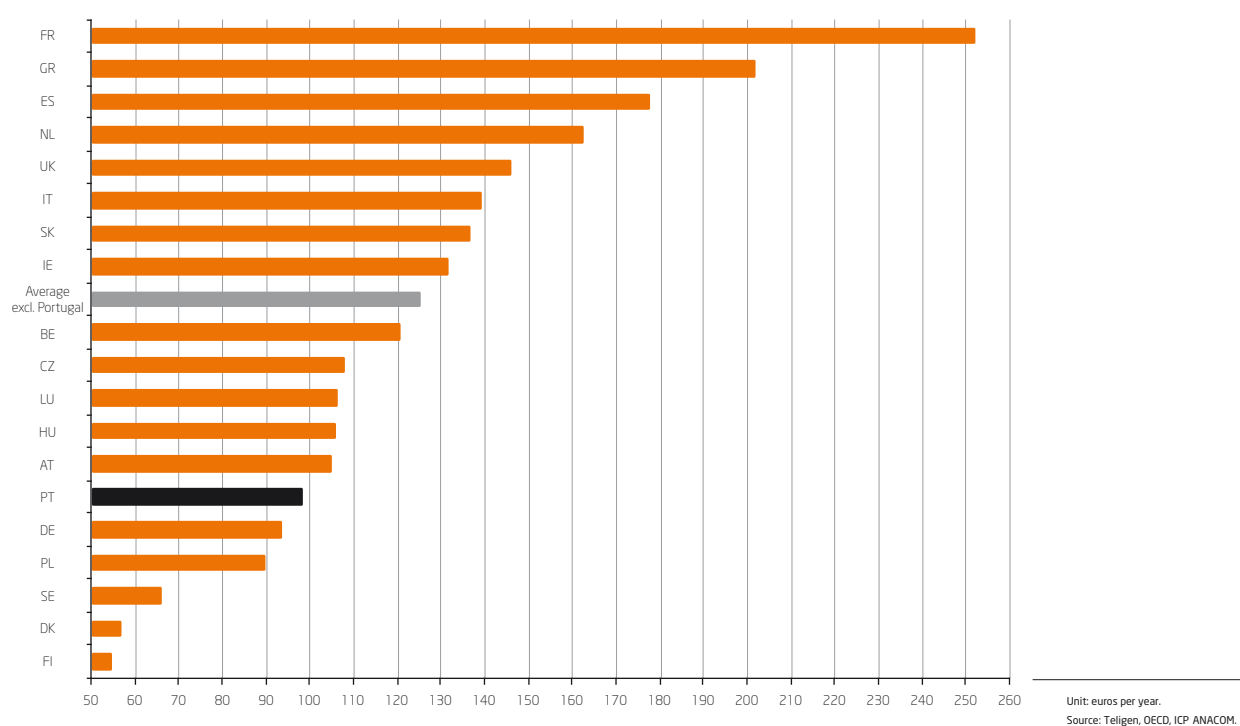
Unit: %.

Source: Teligen, OCDE, ICP-ANACOM.

Regarding the low consumption profile, the price of the prepaid packages in Portugal is about 21 per cent below the average of the considered countries.

Low consumption profile - prepaid packages (November 2007)

Graph 71.



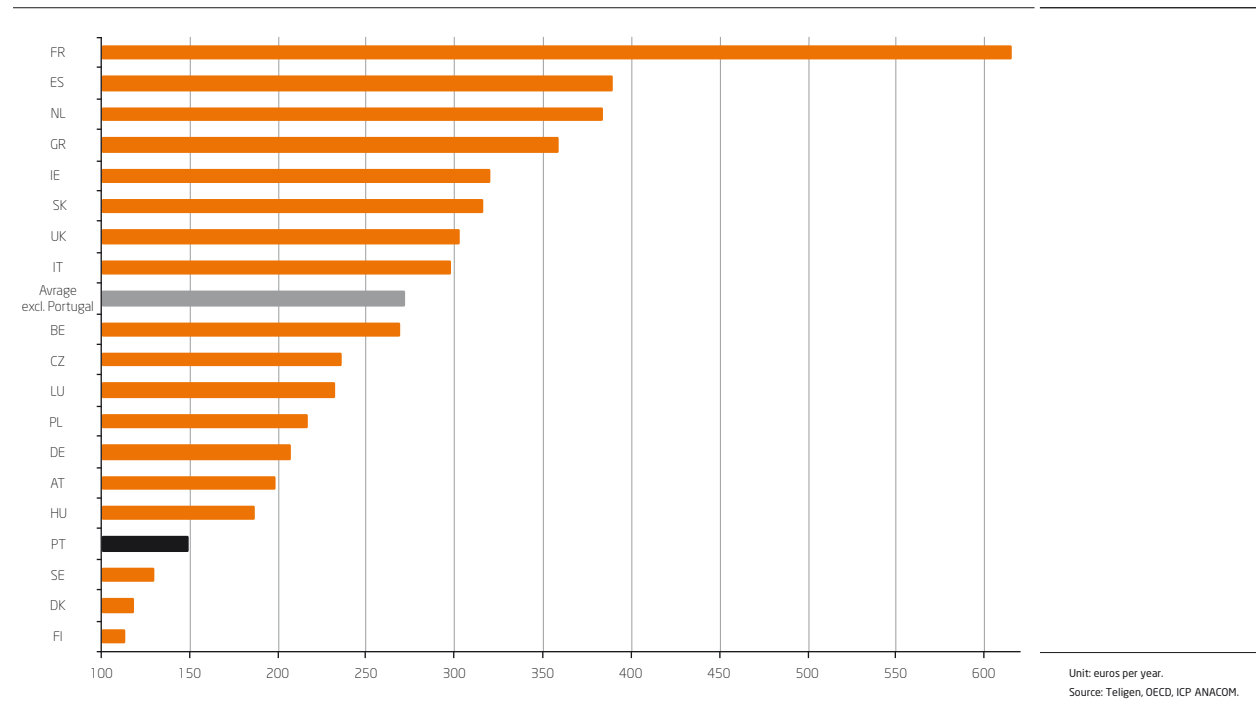
⁴³ Methodology note: The results of the shown baskets were taken from OECD/Teligen database of November 2007 and are in Euros, VAT excluded and without considering PPP (purchasing power parity). From the OECD countries, those that are part of the EU were selected. Taking into account that, by default, OECD/Teligen always produces two results by country (regarding the incumbent operator and the second most representative one), the operator with the lowest tariff plan, regarding the annual invoice for each usage basket and profile, was selected for each country. The shown deviations refer to the average of the selected countries, Portugal excluded. The shown values are those of the new baskets defined in 2006.



Regarding the medium consumption profile, the prices in Portugal are about 45.3 per cent below the average of the analysed countries, for the prepaid packages.

Medium consumption profile - prepaid packages (November 2007)

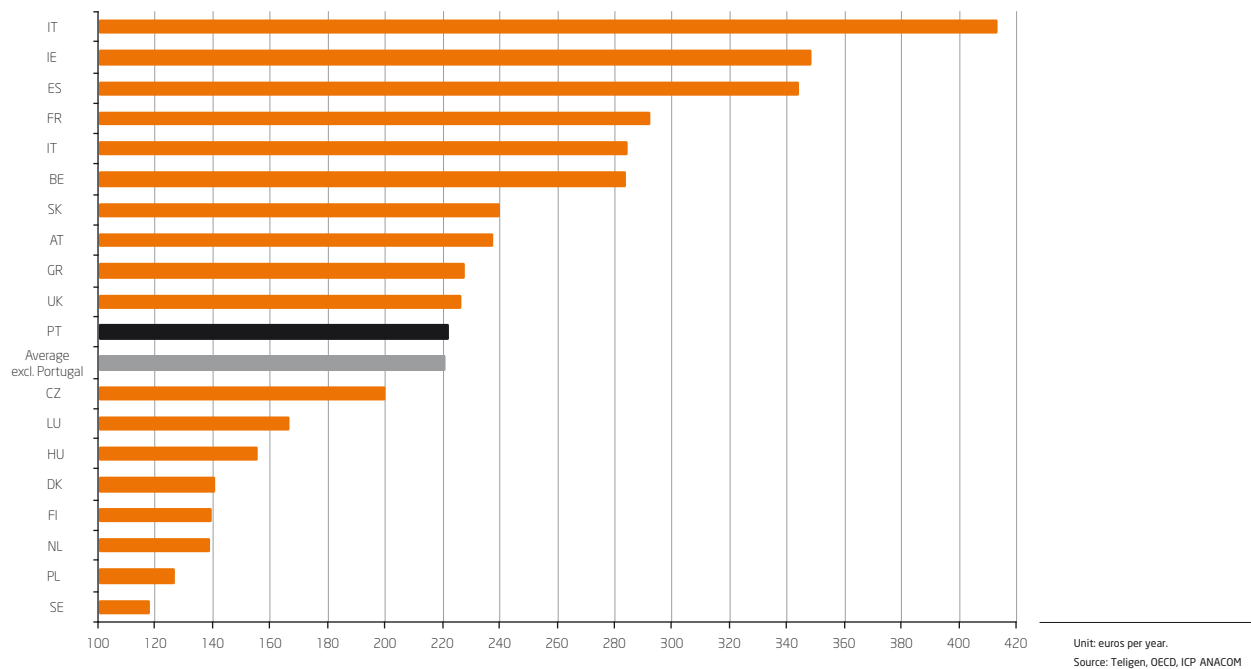
Graph 72.



Regarding post-paid packages, the prices charged in Portugal are about 0.6 per cent above average.

Medium consumption profile - prepaid packages (November 2007)

Graph 73.

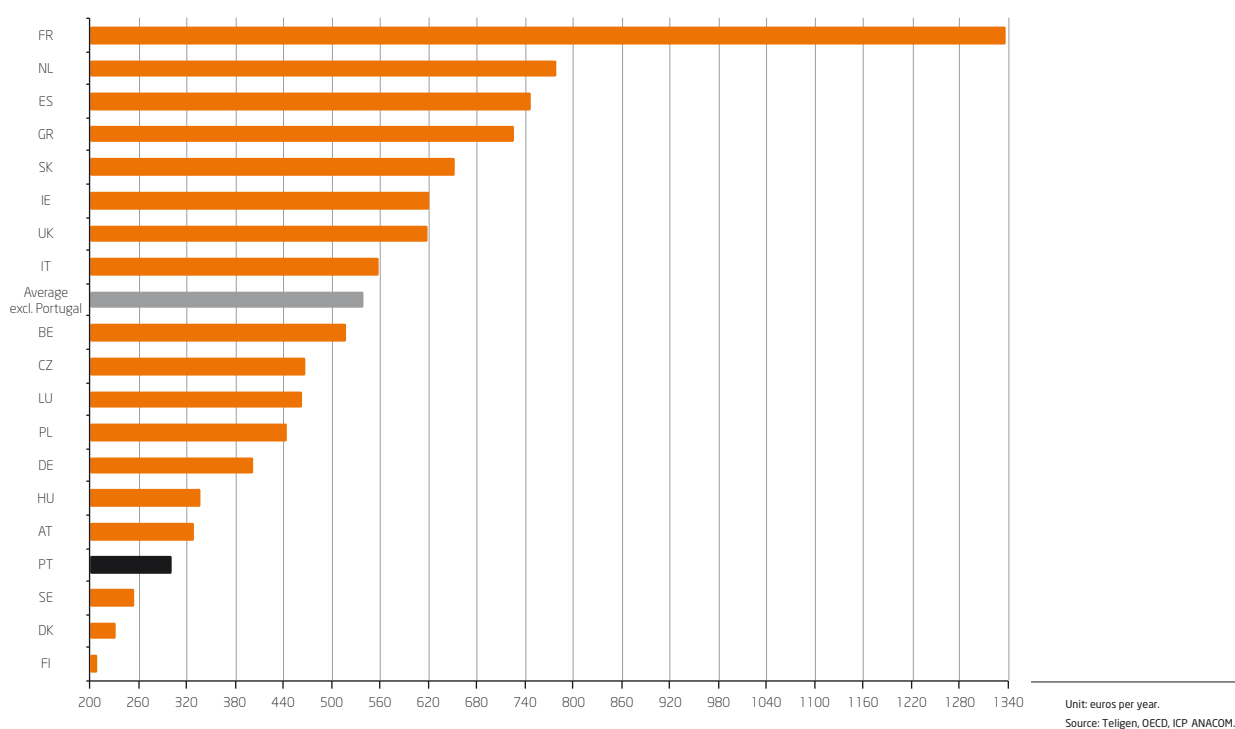




Concerning the high consumption profile, prepaid offers in Portugal have a price that is 44.1 per cent below average.

High consumption profile - prepaid packages (November 2007)

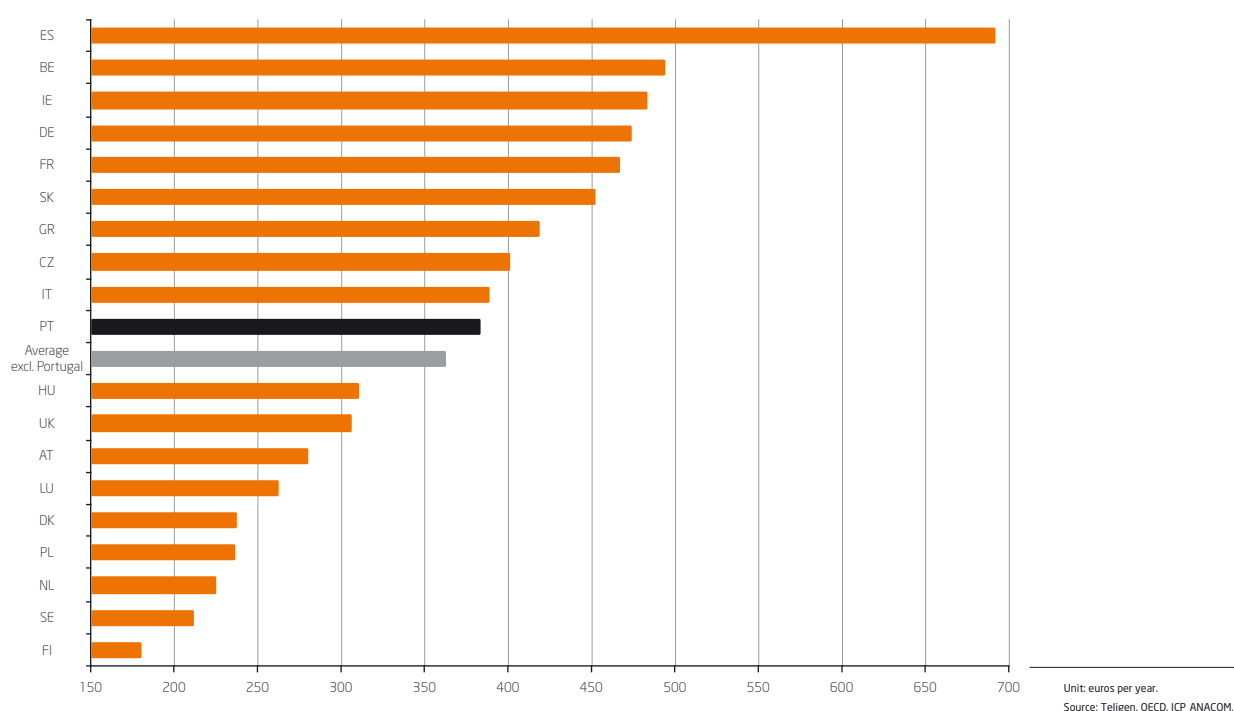
Graph 74.



Regarding post-paid packages, the deviation from the average is about +5.9 per cent.

High consumption profile - post-paid packages (November 2007)

Graph 75.



Evolution of national prices and comparison with the EU (2002/2007)⁴⁴

The graphs below show the main trends regarding the service's price evolution in Portugal.

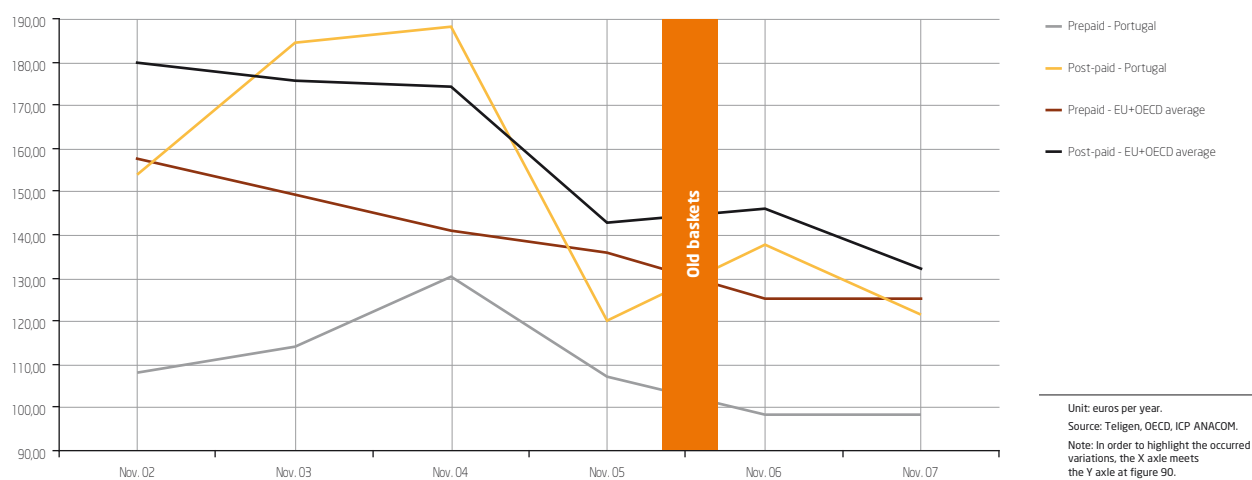
Regarding the low consumption profile, prepaid plans tend to be below average, unlike post-paid plans, which only had values below the average value of the considered countries during the latest years. After the increase recorded in the previous year, the post-paid tariff basket returned to its 2005 figure.

44 Os valores apresentados são calculados com base na informação recolhida junto dos operadores.



Price evolution - low consumption basket

Graph 76.

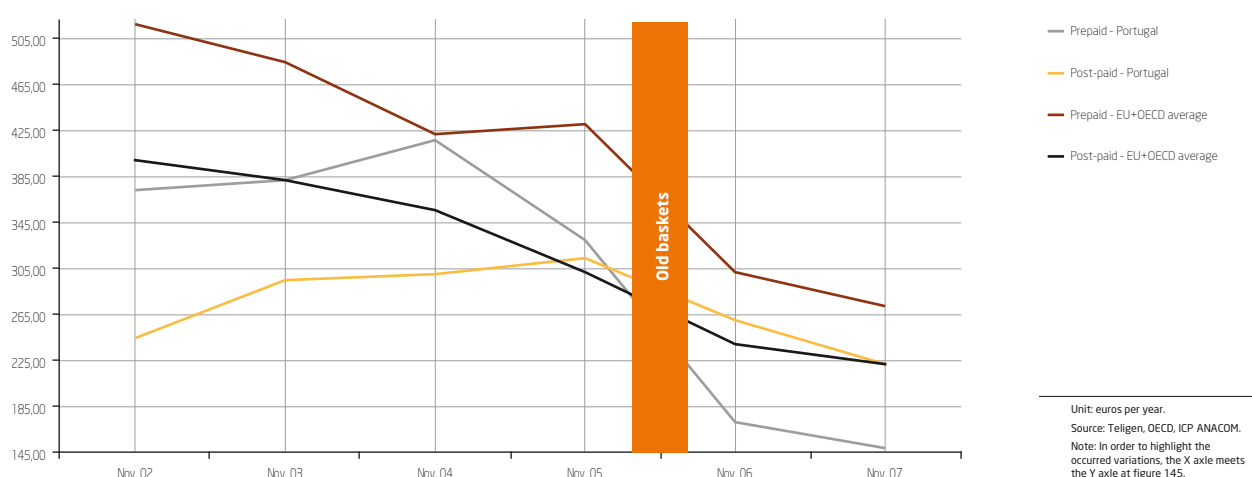


Regarding the medium consumption profile, post-paid plans slightly surpassed the average. Prepaid tariff schemes show

a decreasing trend and are quite below the average of the countries under analysis.

Price evolution - low consumption basket

Graph 77.

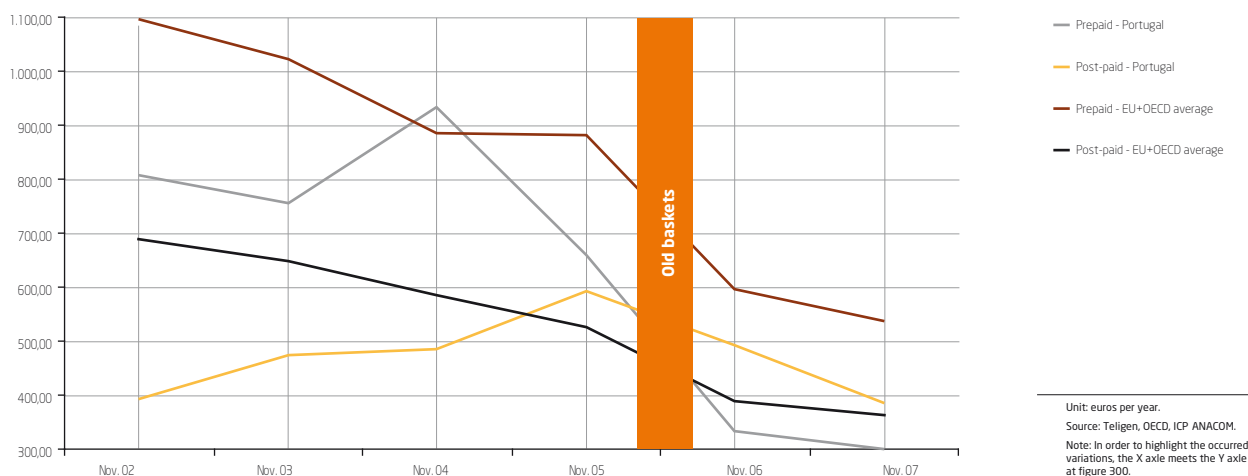


Regarding the high consumption profile, the prepaid plans' price has a decreasing trend and stands below the average figure charged in the remaining countries. As for the post-

paid plan's price, in spite of a small decrease, it is still above average.

Price evolution - high consumption basket

Graph 78.



GSM networks' quality of service

ICP-ANACOM has been carrying out study for assessment of the quality of mobile networks in Portugal.

In 2007, it evaluated the quality of mobile voice services (GSM), video telephony (UMTS) and network coverage (GSM and WCDMA) offered by the operators Optimus, TMN and Vodafone in the autonomous regions - in the main urban agglomerations of Ponta Delgada, Angra do Heroísmo and Funchal, and in the major roads of all islands of the Autonomous Regions of Azores and Madeira, by analysing the technical parameters which translate quality perception from the consumer's standpoint⁴⁵.

The results registered by the quality of service indicators analyzed in this study show considerable differences among operators.

One of the aspects contributing to the observed differences is the fact that operator OPTIMUS has no WCDMA coverage in the Azores archipelago, and only has GSM coverage in 5 of the 9 islands. Operators TMN and Vodafone also do not have WCDMA coverage in the Flores and Corvo islands.

In general, GSM coverage is wider than WCDMA coverage. However, both technologies still have large areas with little or even no radio coverage, especially on major roads.

Consumers' evaluation

In order to evaluate consumers' perception of the quality of the MTS, below are some items from the Electronic communications consumer survey and on the complaints received at ICP-ANACOM.

In general, MTS customers are satisfied with the service provided by their provider.

45 Cf. <http://www.anacom.pt/template12.jsp?categoryId=265182>.



Satisfaction level regarding the service provided by their provider

Table 55.

	Dec. 2007
Very Dissatisfied	1,1
Dissatisfied	4,2
Satisfied	71,7
Very satisfied	22,0
N.A.	1,0

Unit: %.

Source: ICP-ANACOM.

For this reasons it is not common for consumers to place complaints at the operators of which they are customers.

Most complaints are related to technical problems and invoicing errors.

Complaints at the main operator

Table 56.

	Dec. 2007
Yes	12,5
No	87,3
N.A.	0,2

Unit: %.

Source: ICP-ANACOM.

Type of complaints presented

Table 57.

	Dec. 2007
Technical problems (voice mail, unsent messages, etc)	47,5
Invoicing errors	24,9
Network failures	14,6
Contract conditions	9,6
Equipment malfunctions	3,6
Other issues	4,5
N.A.	2,1

Unit: %.

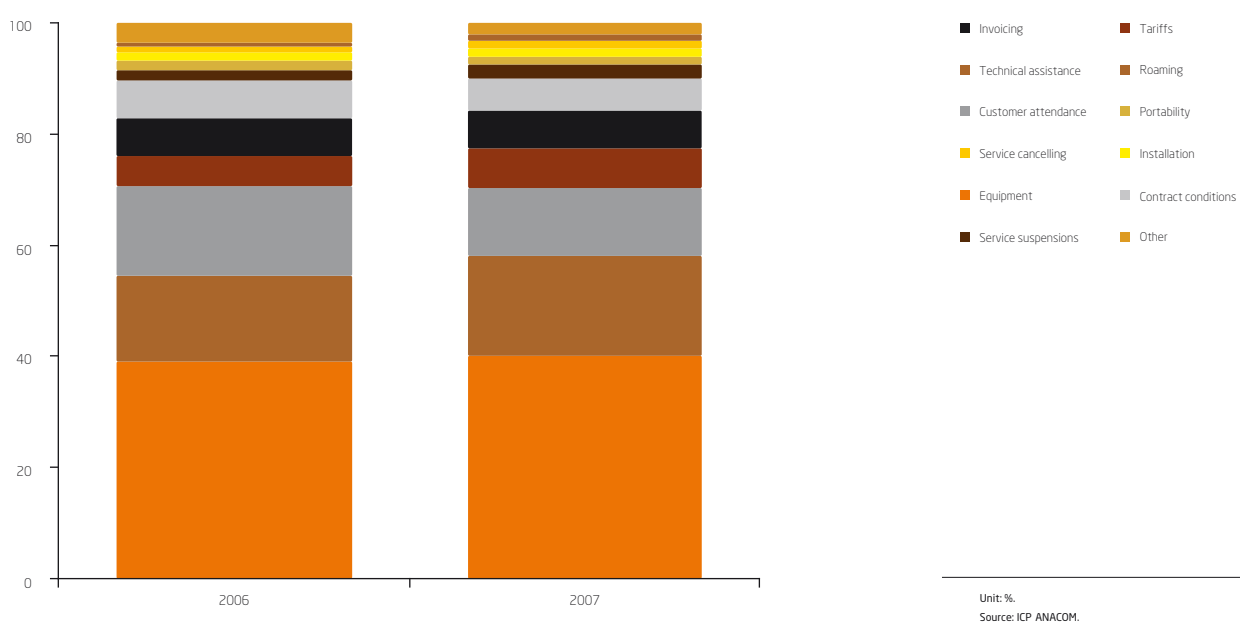
Source: ICP-ANACOM.

During 2007, ICP-ANACOM received around 4,457 complaints concerning the mobile telephone service and its providers. It should be mentioned that MTS stands for around 25.4 per cent of the overall amount of complaints received at ICP-ANACOM regarding electronic communications services⁴⁶.

About half of those requests are issues regarding terminal equipment and technical assistance, which is largely out of the service providers' hands. However, the amount of complaints regarding the operators' attendance services has decreased.

Complaints on MTS received at ICP-ANACOM

Graph 79.



⁴⁶ Includes complaints directly sent to ANACOM and via Complaints Book.



■ Internet Access Service

This chapter contains the state of the Internet Access Service by the end of 2007 and describes, namely, this service's offer, its usage and user profiles, and its evolution over that year.

Below is a summary of the main items of this service's evolution during 2007.

Main items of the evolution in 2007

Several operations took place or were announced in 2007 that affected the structure of these services' offer. On one hand, there was PT Multimédia's (TV Cabo/ZON) spin-off, promoted by PT Group. On the other hand, TV Cabo/Zon announced the acquisition of companies Bragatel, Pluricanal Leiria, Pluricanal Santarém and TVTel. The acquisition of Tele 2 and of Onitelecom's residential business by Sonaecom should also be mentioned.

As a result of the above-mentioned spin-off, which took place in November 2007, PT Group's broadband customer share reached 40.3 per cent, 30.6 per cent less than a year before (if the spin-off effect was not considered, PT Group's share would have decreased 4.1 per cent in 2007).

Considering the spin-off's results, the incumbent operator's share in Portugal (40.3 per cent) became lower than the European average (46 per cent).

Also standing out is the 6.4 per cent increase in the customer share of Sonaecom, which, in order to increase its presence on these markets, has combined a policy of buying smaller-sized operators with the use of LLU.

There was also an exponential growth in mobile broadband during 2007. At the end of the year, mobile broadband Internet active access users totalled around 1.4 million, of which 660 thousand were actually used in December.

The evolution in the amount of this service's users was not only influenced by the operator's commercial policies, which provided flat-rate offers since the beginning of this service and actively promoted it, but also by Government policies fostering information society. Together with the operators,

it made low-priced computers and mobile broadband Internet access available to students, teachers and trainees.

Portugal had the lowest growth in the fixed broadband's penetration rate among the EU15 countries, in 2007. As a result of the 2007 performance, Portugal fell 1 position in the ranking, and became 14th.

This evolution occurred in spite of the fact that the service is available practically in the entire country and given that the prices don't seem to be higher to those charged in the remaining countries. Explanations for this evolution may lay on the development of mobile broadband offers; the relatively low household PC penetration; differences regarding the EU in human capital and income levels⁴⁷, or macroeconomic conditions of a cyclical nature.

Consumers' perception of broadband service quality is generally positive.

The Internet Access Service Offer

The Internet Access service may be provided over different technologies. On the other hand, the service is provided at different bit rates, which translate into providing narrow band or broadband services.

According to the legal framework in force, the service is provided by the entities with a general authorization or, in the case of mobile broadband Internet, entities with a license for the provision of 3rd generation mobile services.

The services provided and their evolution in 2006 are described in detail below. The entities providing these services in Portugal are also listed.

The Internet Access Service

This service is mainly provided by means of dial-up access, dedicated access⁴⁸, ADSL access, cable modem access and access using 3rd generation mobile networks.

Below is a summarised description of the main Internet access modes:

⁴⁷ According to the survey "Residential Internet and Broadband take-up in Portugal", available at <http://www.anacom.pt/template20.jsp?categoryId=204042&contentId=452239> the "most important factors in adopting the Internet [are] age, education and income".

⁴⁸ line Dedicated Connection – a connection in which there is, between a user and an ISP, a communication channel that is used for Internet connection only; the channel is always open, whether the user is online or not.

- Access using a dial-up connection – Packages within this mode have a maximum bit-transfer rate of 64 kbps (narrow band). This bit rate is also affected by the need to convert data between digital and analogue formats. Switched (dial-up) connections are available to any subscriber with a fixed telephone line and a modem, just sufficing that they become a customer of one (or several) ISP. ISDN access enables higher bit rates, and the integration of voice and data into one single access. ISDN accesses can be basic⁴⁹ or primary⁵⁰.
- Access using DSL technological suites (Digital Subscriber Lines or xDSL) – These technological suites use sophisticated modulation systems to increase data bit rate over copper wires and use frequencies that are not used by the voice signal. This type of accesses enables average bit rates quite above those of the dial-up connections over analogue telephone line and dial-up connections over ISDN. The fact that voice and data are carried in different frequencies gives these technological suites the ability to perform both these types of communication simultaneously, and the Internet connection is “always on”. This technological suite is made available in pre-defined areas, where access to a connection with the minimum physical requirements is possible⁵¹.
- There are different xDSL variations, of which the most common one is ADSL (Asymmetric DSL)⁵². Regarding data bit rates, ADSL offers available in Portugal vary between 256 kbps and 24 Mbps. Besides ADSL, there are also other modes, such as SDSL (Symmetric DSL)⁵³, HDSL (High-data-rate DSL) and VDSL (Very-high-speed DSL).
- Co-axial cable access – co-axial cable is the first type of cable used by the cable television distribution industry. Its composition enables a much larger data bit rate (larger bandwidth), and a smaller exposure to electrical and radio interferences. Internet access over cable television distribution networks, with the use of a cable modem and an expansion card for the PC, leads to higher access bit rates, if compared to those of the dial-up over copper

wires. These connections’ maximum bit rates are similar to those of an ADSL access, both downstream and upstream. In order for the Internet service to be provided over this type of network, the latter has to stand bi-directionality, i.e., it has to be able to both send and receive data.

- Access using third generation mobiles – The 3rd generation of mobile services was designed to materialize convergences between fixed communications and mobile communications, and between electronic communications and multimedia, thus drawing mobile networks closer to the capacity of fixed networks and giving mobile users access to broadband multimedia services. Among the third generation mobile systems, UMTS, in the 2 GHz band, stands out. It is identified with the European standard of the global standard family of international mobile communications systems (IMT2000). UMTS technology uses the WCDMA⁵⁴ transmission mode, which is based on multiple accesses by code division.
- Other access media – Other technological suites that can be used to access the Internet are worth mentioning, namely access over dedicated connections, access over fibre optics, access over FWA and CDMA radio links, access over power line cables (PLC), access over local radio networks and access over satellite links..

Internet Access Service Providers

At the end of 2007 there were 42 registered and entitled entities qualified to provide the fixed Internet Access Service and 3 entities licensed for the provision of mobile Internet access, in Portugal. These entities are also known as ISP – Internet Service Providers.

Of all ISPs legally entitled to provide the Internet access service, 34 were active.

The following table shows the evolution of the amount of entities with a license to provide this service, the entries and exists in/from the market place during the year standing out.

49 Basic Access (Basic Rate Access 2B+D) – Customer access to ISDN using a copper pair and providing two 64kbps channels (B1 and B2 channels) for voice and data transfer, and a 16kbps D channel for signalling, package data transfer and telemetry. The overall bit rate is 192kbps.

50 Primary Access – 30B+D Access to the ISDN, with a global 2Mbps throughput. Both the 30 B voice/data channels and the D signalling channel carry 64kbps..

51 All the national territory covered by the switched fixed telephone network has the potential for this type of service, except in the case with technical constraints.

52 Digital technology transforming analogue or ISDN telephone lines into greater capacity lines, making Internet Access possible at much higher speeds. Data transmission is made asymmetrically, i.e. the downstream is faster than the upstream, which is currently at around 1 Mbps, and bandwidth is managed in an intelligent way. It makes it possible to simultaneously use the Internet and the traditional telephone line (for voice, fax service). An ADSL line has three data channels: a downstream high bit rate channel. (1.5 to 8Mbps), a duplex upstream medium throughput channel (16 to 640kbps) and a channel for the telephone service.

53 Digital technology in which data transmission is made symmetrically.

54 Broadband Access system which access discipline to the various users shares the same frequency band through different codes assigned to each one of them.



Internet Access Service Providers in 2007- Fixed

Table 58.

Name	Beginning	Entries	Exits	End
Adianis - Telecomunicações & Multimedia, S.A.	NA			NA
AR Telecom - Acessos e Redes de Telecomunicações, S.A.	A			A
AT & T - Serviços de Telecomunicações, Soc. Unip., Lda. [1]	NA			NA
Bragatel - Comp. Televisão por Cabo de Braga, S.A.	A			A
Broadnet Portugal, S.A.	A			A
BT Portugal - Telecomunicações, Unipessoal, Lda. [1]	NA			NA
Cabo TV Açoreana, S.A.	-	X		A
Cabo TV Madeirense, S.A.	A			A
Cabovisão - Sociedade de Televisão por Cabo, S.A.	A			A
CATVP - TV Cabo Portugal, S.A.	A			A
Clara.net Portugal - Telecomunicações, S.A.	A			A
Colt Telecom - Serviços de Telecomunicações, Unipessoal, Lda.	A			A
Connex - Tecnologias de Informação, Lda.	A		X	-
Cyclop Net - Informática e Telecomunicações, Lda.	A			A
Equant Portugal, S.A. (ORANGE)	A			A
Fleximedia - Serviços e Meios Inf. e Comunicação, Lda.	A			A
Global Crossing PEC Espana S.A.	NA			NA
HSIA Hospitality Services Portugal, S.A.	A			A
IPTV TELECOM - Telecomunicações, Lda.	-	X		NA
Media Capital - Telecomunicações, S.A.	A			A
Netacesso - Serviços Internet e Multimédia, Lda.	NA			NA
Neuvex - Telecomunicações, Marketing e Inform., Lda.	NA			A
NFSI - Soluções Internet, Lda.	A			A
Nortenet - Sistemas de Comunicação, S.A.	A			A
Onitecom - Infocomunicações, S.A.	A			A
Pluricanal Leiria - Televisão por Cabo, S.A.	A			A
Pluricanal Santarém - Televisão por Cabo, S.A.	A			A
PT Acessos de Internet WI-FI, S.A.	A			A
PT Comunicações, S.A.	-	X		A
PT Prime - Soluções Empresariais de Telecomunicações e Sistemas, S.A.	A			A
PT.Com - Comunicações Interactivas, S.A.	A			A
Radiomóvel - Telecomunicações, S.A.	NA			NA
Redsat - Projecto, Instalação, Venda e Aluguer de Novas Tecnologias, Lda.	NA		X	-
Refer Telecom - Serviços de Telecomunicações, S.A.	A			A
Robot - Telecomunicações, Projectos e Serviços, Lda.	A			A
Semcabo - Soluções em Redes Informáticas, Lda.	-	X		A
Sonaecom - Serviços de Comunicações, S.A. [2]	A			A
T - System ITC Iberia, S.A. (Sociedade Unipessoal) - (Sucursal em Portugal)	-	X		NA
TeleMilénio, Telecomunicações, Sociedade Unipessoal, Lda. (Tele2)	A			A
TVTel Comunicações, S.A.	A			A
Verizon Portugal, Sociedade Unipessoal, Lda.	A			A
Vipvoz - Serviços de Telecomunicações Digitais, Lda.	A			A
Vodafone Portugal - Comunicações Pessoais, S.A.	A			A
Worldbroker Telecomunicações - Sociedade de Telecomunicações e Multimédia, Lda.	A			A
TOTAL ACTIVE	31	3	1	34
TOTAL NON-ACTIVE	8	2	1	8
TOTAL	39	5	2	42

Source: ICP-ANACOM.

Legend: A – Active NA – Non-Active

1 Entity entitled to provide the Internet access service, but with apparent activity in Other Data Transmission Services (ODTS) only.

2 Following the Novis/Optimus merger process, Novis Telecom, S.A. changed its name to Sonaecom - Serviços de Comunicações, S.A.

Among the above-mentioned providers, the following ones provide Internet Service using dial-up connections:

Internet Access Service Providers with dial-up offer

Table 59.

AR Telecom - Acessos e Redes de Telecomunicações, S.A.
Broadnet Portugal, S.A.
Fleximedia - Serviços e Meios Inf. e Comunicação, Lda.
Nortenet - Sistemas de Comunicação, S.A.
Media Capital - Telecomunicações, S.A.
Onitelecom - Infocomunicações, S.A.
PT.Com - Comunicações Interactivas, S.A.
Sonaecom - Serviços de Comunicações, S.A.
TeleMilénio, Telecomunicações, Sociedade Unipessoal, Lda. (Tele2)
Verizon Portugal, Sociedade Unipessoal, Lda.
Via Net.Works Portugal - Tecnologias de Informação, S.A. (Clara.Net)
Vodafone Portugal - Comunicações Pessoais, S.A.

Source: ICP-ANACOM.

The following table lists the cable television distribution operators providing broadband Internet services using cable modems at the end of 2007.

Cable distribution network operators providing Internet Access Services

Table 60.

Bragatel - Companhia de TV por Cabo de Braga, S.A.
Cabo TV Açoreana, S.A.
Cabo TV Madeirense, S.A.
Cabovisão - Sociedade de Televisão por Cabo, S.A.
CATVP - TV Cabo Portugal, S.A.
Pluricanal Leiria - Televisão por Cabo, S.A.
Pluricanal Santarém - Televisão por Cabo, S.A.
TVTel Comunicações, S.A.

Source: ICP-ANACOM.



Providers offering broadband Internet services over ADSL accesses are shown on the table below.

Internet Access Service Providers using ADSL access offers

Table 61.

AR Telecom - Acessos e Redes de Telecomunicações, S.A.
CATVP - TV Cabo Portugal, S.A.
Colt Telecom - Serviços de Telecomunicações, Unipessoal, Lda.
Nortenet - Sistemas de Comunicação, S.A.
NFSI - Soluções Internet, Lda.
Onitecom - Infocomunicações, S.A.
PT Acessos de Internet WI-FI, S.A.
PT Prime - Soluções Empresariais de Telecom. e Sistemas, S.A.
PT.Com - Comunicações Interactivas, S.A.
PT Comunicações, S.A.
Robot - Telecomunicações, Projectos e Serviços, Lda.
Semcabo - Soluções em Redes Informáticas, Lda.
Sonaecom - Serviços de Comunicações, S.A.
Via Net.Works Portugal - Tecnologias de Informação, S.A. (Clara.Net)
Vodafone Portugal - Comunicações Pessoais, S.A.
Worldbroker Telecomunicações - Sociedade de Telecomunicações e Multimédia, Lda.

Source: ICP-ANACOM.

Regarding the FWA technology, Table 5.5 shows the licensed providers who provided Internet Access Services during 2007 using this technology.

Internet Access Service Providers with FWA offer

Table 62.

AR Telecom - Acessos e Redes de Telecomunicações, S.A.
Broadnet Portugal, S.A.
Novis Telecom, S.A.
Onitecom - Infocomunicações, S.A.
Vodafone Portugal - Comunicações Pessoais, S.A.

Source: ICP-ANACOM.

There are also broadband internet access providers using other technologies.

Internet Access Service Providers - other technologies (fixed)

Table 63.

AR Telecom - Acessos e Redes de Telecomunicações, S.A.
Broadnet Portugal, S.A.
Colt Telecom - Serviços de Telecomunicações, Unipessoal, Lda.
Fleximedia - Serviços e Meios Inf. e Comunicação, Lda.
Nortenet - Sistemas de Comunicação, S.A.
NFSI - Soluções Internet, Lda.
Onitecom - Infocomunicações, S.A.
PT Acessos de Internet WI-FI, S.A.
PT Prime - Soluções Empresariais de Telecom. e Sistemas, S.A.
PT.Com - Comunicações Interactivas, S.A.
Refer Telecom - Serviços de Telecomunicações, S.A.
Robot - Telecomunicações, Projectos e Serviços, Lda.
Sonaecom - Serviços de Comunicações, S.A.
Verizon Portugal, Sociedade Unipessoal, Lda.
Via Net.Works Portugal - Tecnologias de Informação, S.A. (Clara.Net)
Vodafone Portugal - Comunicações Pessoais, S.A.

Source: ICP-ANACOM.

It is worth pointing out that, besides the mentioned providers, operators with national licenses for the International Mobile Telecommunications Systems (IMT2000/UMTS) are also active.

MTS providers

Table 64.

Optimus Telecomunicações, S.A.
TMN - Telecomunicações Móveis Nacionais, S.A..
Vodafone Portugal - Comunicações Pessoais, S.A.

Source: ICP-ANACOM.



The structure of the Internet access offer (fixed)

Several operations took place or were announced in 2007 that affected the structure of these services' offer.

On one hand, PT Multimédia's (TV Cabo/ZON) spin-off, promoted by PT Group, took place. On the other hand, TV Cabo/Zon announced the acquisition of companies Bragatel, Pluricanal Leiria, Pluricanal Santarém and TVTel.

The acquisition of Tele 2 and of Onitecom's residential business by Sonaecom should also be mentioned.

As a result of the above-mentioned spin-off, which took place in November 2007, PT Group's broadband customer share reached 40.3 per cent, 30.6 per cent less than a year before (if the spin-off effect was not considered, PT Group's share would have decreased 4.1 per cent in 2007).

PT Group's broadband customers shares

Table 65.

	2003	2004	2005	2006	2007
ADSL access customers	87,2	90,8	83,8	73,7	68,3
Cable modem access customers	73,8	73,6	70,8	66,7	0
Other access technology customers	41,1	44,9	45,3	19,7	6,9
Total customers	78,5%	82,0%	78,2%	70,9%	40,3%

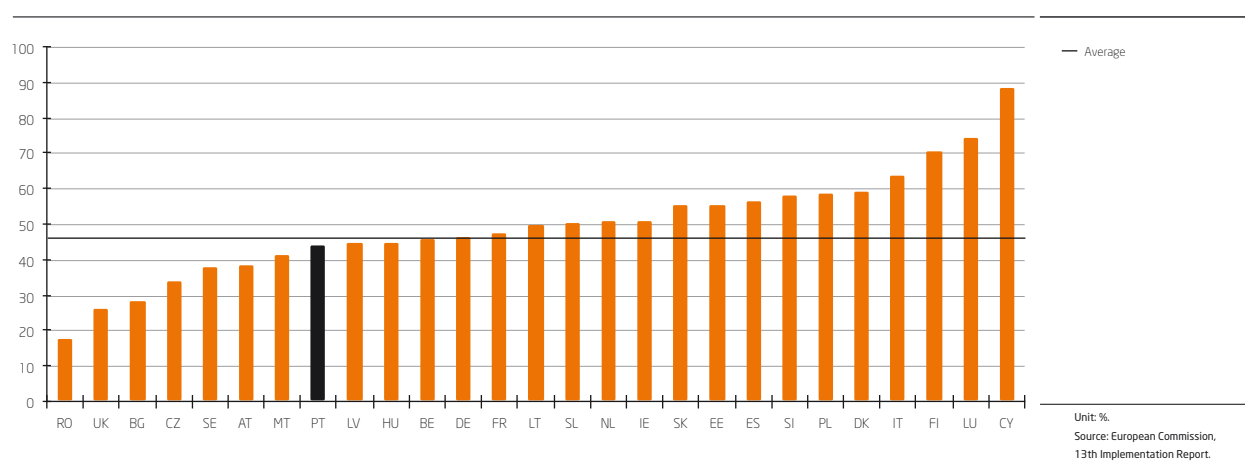
Unit: %.

Source: ICP-ANACOM.

Considering the spin-off's results, the incumbent operator's share in Portugal (40.3 per cent) became lower than the European average (46 per cent).

Access shares in the Internet Access Service using broadband in the EU27, during the 4th quarter of 2007

Graph 80.



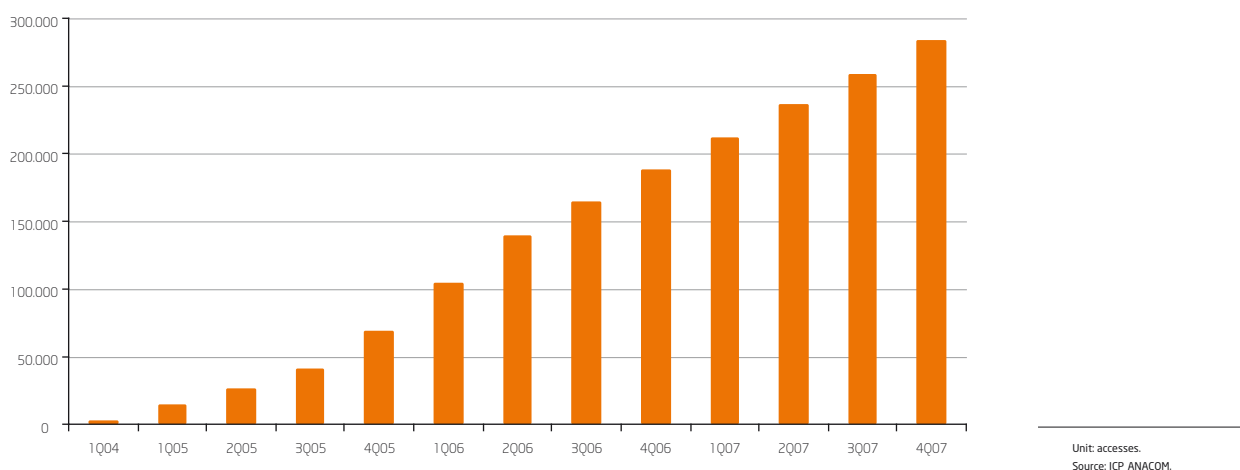
PT Group's share has not been constant over time. At a first stage, broadband was provided over cable modem, a period when Cabovisão and TV Cabo were the main operators. Further to the launch of ADSL, PT Group achieved an even greater predominance: PT Group's customer share increased about 16 per cent between 2001 and 2004.

This trend reversed in 2005, due to ICP-ANACOM's interventions in the Internet access wholesale offers, namely in LLU. About 69 thousand broadband loops were

unbundled in 2005. In 2006 the amount was about 120 thousand, and in 2007 there were about 95 thousand new unbundled broadband loops. At the end of that year, the cumulative amount of unbundled broadband loops was 283 thousand unbundled accesses – about 30 per cent of all ADSL accesses. By using this means, new operators reached consumer's households directly and developed more competitive voice and broadband offerings.

Evolution in the amount of unbundled broadband accesses

Graph 81.



At the same time, the increasing coverage of the Rede ADSL PT wholesale offer (bitstream access) contributed, together with other factors, to a strong increase in broadband penetration, as well as to the launch of new offerings with higher bit rates. Rede ADSL PT stands for about 74 per cent of all ADSL accesses.

During 2007, evolution in the customer shares of the several market operators had considerable changes. Besides the effected of the previously mentioned spin-off, the 6.4 per cent increase in the customer share of Sonaecom also stands out. In order to increase its presence in these markets, Sonaecom combined a policy of buying smaller-sized operators with the use of LLU.



Evolution in broadband access customer shares

Table 66.

Service Providers	2006	2007
PT Group	70,9	40,3
PT.COM	45,3	38,4
1TV Cabo	23,8	-
PT Prime	0,3	0,5
CaboTV Madeirense	1,4	-
CaboTV Açoreana	0,0	-
PT Wi-Fi	0,0	0,1
PT Comunicações	0,0	1,3
TV Cabo Group/ZON	-	26,5
TV Cabo/ZON	-	24,2
CaboTV Madeirense	-	1,6
CaboTV Açoreana	-	0,5
Alternative Providers	29,1	33,8
Sonaecom	9,2	15,6
Cabovisão	10,3	10,9

Unit: %.

Source: ICP-ANACOM.

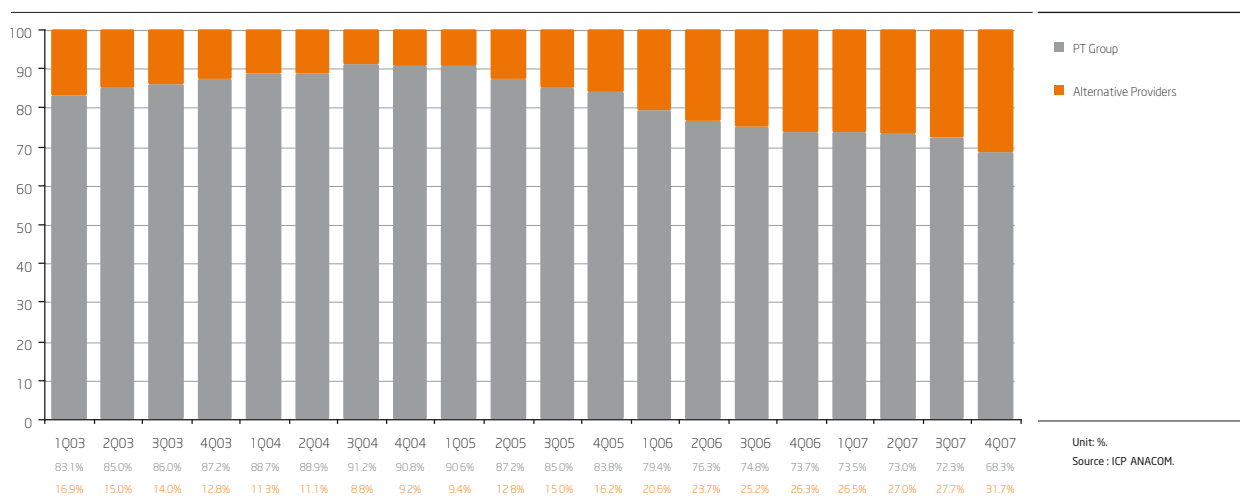
With the acquisitions promoted by TV Cabo/ZON, this group's broadband share increased in around 2.8 per cent.

Thus there are 4 entities operating in the (fixed) broadband Internet access services' markets with shares above 10 per cent: PT Group, Cabo TV/ZON Group, Sonaecom and Cabovisão.

Analysis of market shares by access technology shows that, in spite of the alternative providers' growth in ADSL, PT Group's customer share for this access technology - 69.3 per cent - is currently highly above the global average. In 2007, PT Group's ADSL customer share dropped 5.5 per cent.

Evolution in ADSL access subscriber shares

Graph 82.

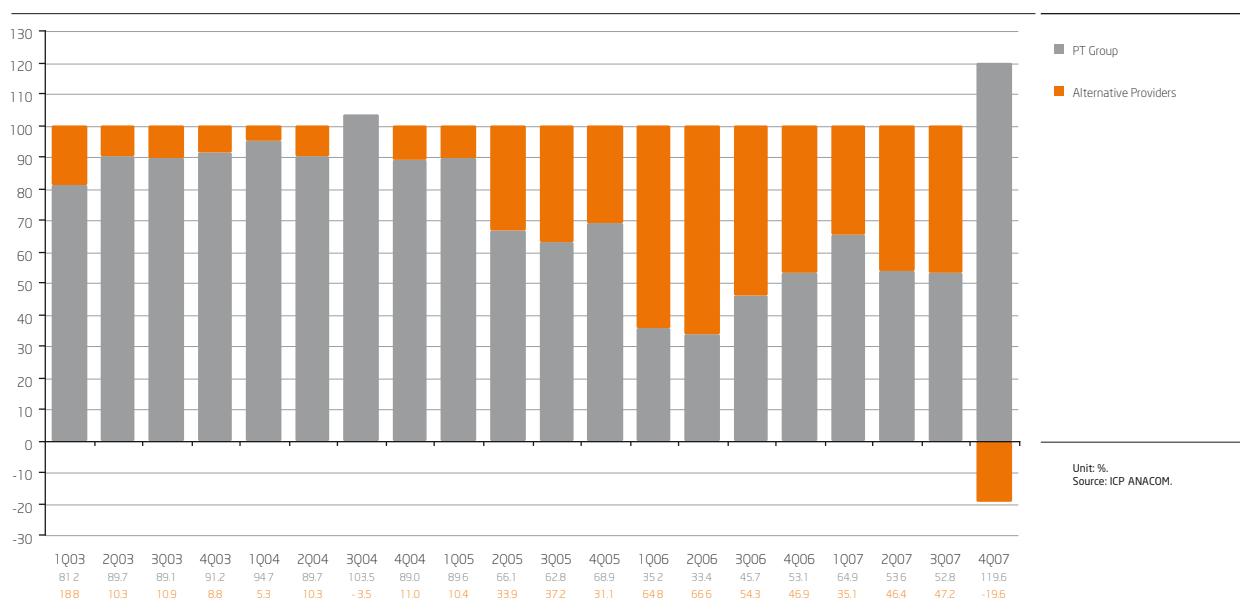


The competitive position of the companies operating this technology has however had rapid changes since the beginning of 2005. During this period, PT Group's share decreased 16 per cent, and during 2007 about 50 per cent of new customer chose the services of alternative operators.

The graph below shows the evolution of the ADSL access customer quarterly marginal shares. The figures given to the 4th quarter of 2007 result from the reduction in the amount of access subscribers that took place during the 4th quarter of 2007.

Evolution in ADSL access subscriber quarterly marginal shares

Graph 83.



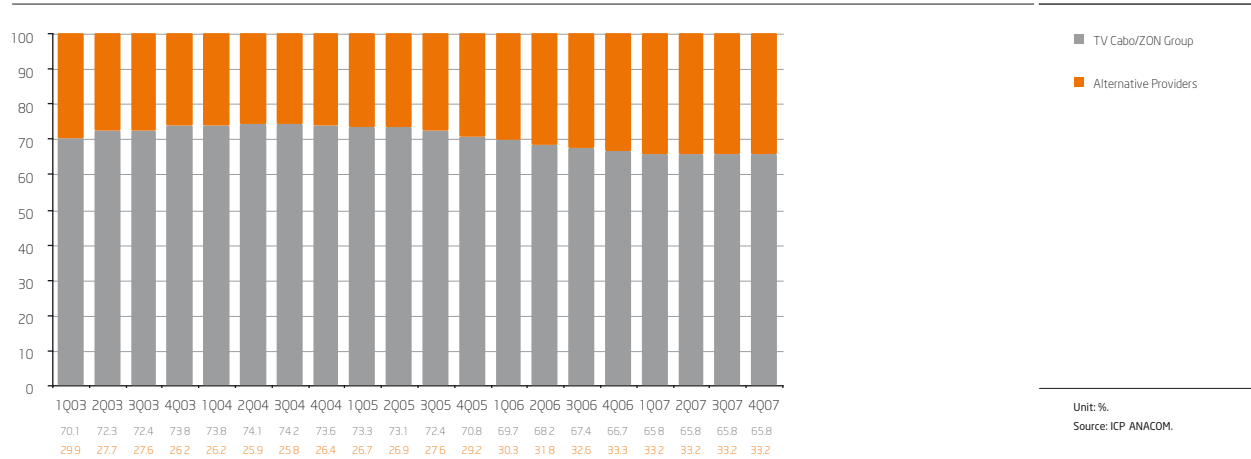


Concerning cable modem access, TV Cabo/ZON Group's share in 2007 was 65.8 per cent, 0.9 per cent less than at the end of the previous year.

About 6 out of each 10 new customers using this technology chose TV Cabo/ZON Group's operators. Cabovisão attracted 1 out of each 4 new customers.

Evolution in the cable modem access subscriber shares

Graph 84.

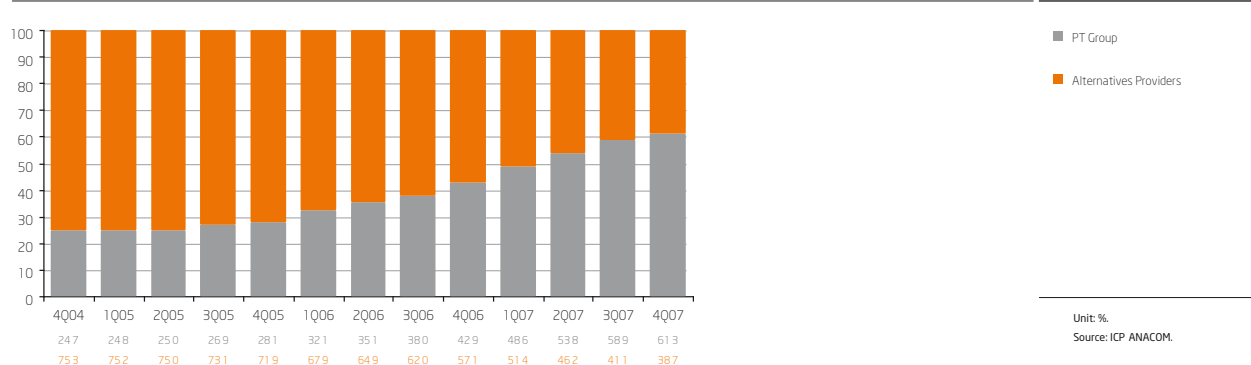


Concerning dial-up, PT Group's share at the end of 2007 reached about 61 per cent, 18 per cent more than in 2006. This share's increase mainly reflects the fast reduction in the amount of customers of this type of access, and the operators' stake on LLU-based business models.

Regarding other technologies - namely leased lines and FWA - PT Group's share has considerably decreased. In fact, these accesses' small amount, together with the considerable growth of FWA, implies that currently PT Group's share is only 6.9 per cent.

Evolution in dial-up access customer shares

Graph 85.



Internet Access Service's user and usage profile

Below are some features of the Internet user and usage..

The Internet Access Service customer's profile

Residential customers⁵⁵ are the great majority of the Internet Access Service's customers, standing for about 84 per cent of the overall amount of customers.

Characteristics of Internet Access Service Customers according to their customer segment-2007

Graph 86.

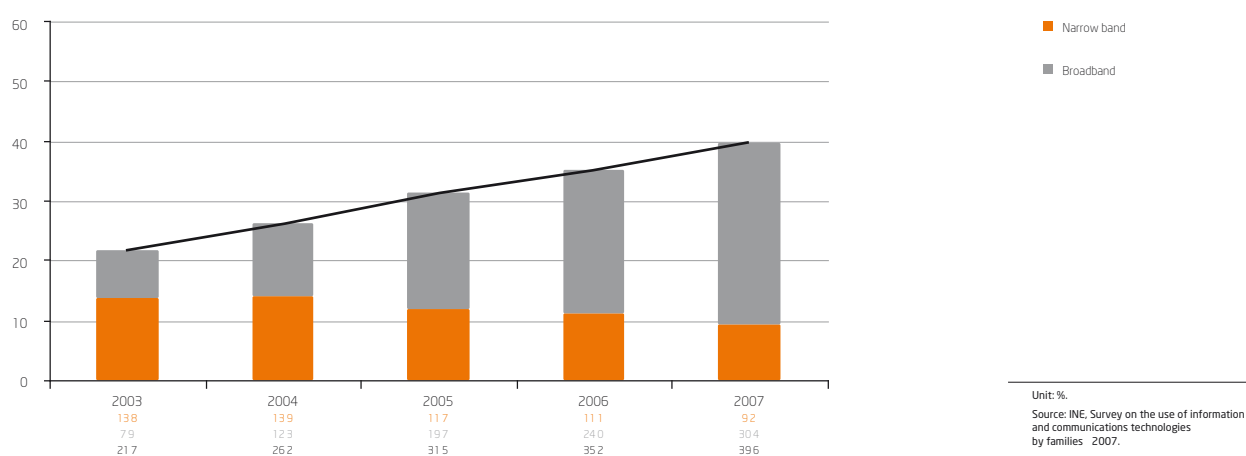


Unit: %.
Source: ICP ANACOM.

During the 1st quarter of 2007, about 40 per cent of Portuguese households had an Internet connection, 4.4 per cent more than a year before.

Evolution of the Internet Access Service's residential penetration rate

Graph 87.



Unit: %.
Source: INE, Survey on the use of information and communications technologies by families - 2007.

⁵⁵ Any customer use the service mainly as a means to pursue their economic activity is considered a residential customer.



In the residential segment, data disclosed by the Surveys on the use in broadband Internet access in Portugal, promoted by ICP-ANACOM, show regional differences regarding Internet penetration. Lisbon and Tagus Valley continues to be the

region with the highest Internet access service penetration. On the contrary, Internet penetration in the Azores, Alentejo and Algarve regions stand below the national average.

Possession of Internet connection by domestic households, by NUTS II

Table 67.

Regions	Mar-07
North	32,7
Centre	41,8
Lisbon	46,4
Alentejo	37,1
Algarve	42,0
R. A. of the Azores	39,9
R. A. of Madeira	40,9

Unit: %.

Source: INE, Survey on the use of information and communications technologies by families - 2007.

The geographical distribution of ADSL subscribers makes it possible to verify the above mentioned conclusions.

According to the Survey on the use of broadband - 2007⁵⁶, the Internet access service residential customer has an above-the-average income.

Profile of households with Internet

Table 68.

Social Class ⁵⁷	
A	86,2
B	73,7
C	54,6
D	22,7
E	29,1

Unit: %.

Source: ICP-ANACOM, Survey on the use of broadband in Portugal, December 2007.

⁵⁶ The Universe defined for this survey was made up of users 15 years old or older, living in Mainland Portugal and in the Autonomous Regions of Madeira and the Azores. The sample was made up of 3504 interviews, with a semi-proportional distribution by NUT II region. Households were selected randomly from a stratified matrix including the Region (7 NUT II regions) and the Habitat/Size of the population aggregates (5 groups). Crossing these variables ensured a proportional distribution of the sample by region regarding the Portuguese population in general. Results were later weighted in order to grant each region its real weight within the Portuguese population. Quotas were defined with base on the General Population Census (2001) by Instituto Nacional de Estatística (I.N.E.). Interviewees at each household were selected using the quota method, based on the crossing of variables Sex, Age (3 groups), Education (3 groups: primary education or less, more than primary education and less than higher education, and more than higher education - according to the categorization requested by ICP-ANACOM), and Occupation. Data was collected by telephone interviews, made to fixed network numbers and mobile phone numbers, using the CATI (Computer Assisted Telephone Interview) system. The fieldwork was conducted between 1 November 2007 and 17 December 2007. The results obtained for each of the four services considered (fixed telephone service, mobile telephone service, Internet access service, and paid TV service) have a maximum error of 4 per cent (for a confidence level of 95 per cent). The fieldwork and handling of data was carried out by company GFK Metris.

⁵⁷ A variável classe social é o resultado do cruzamento da instrução dos membros do agregado inquirido com as respectivas ocupações profissionais e estima indirectamente a classe de rendimento do agregado. A classe A tem os rendimentos mais elevados e a classe E tem os rendimentos mais baixos.

The fact that Internet penetration is higher in lower age groups also stands out.

Internet penetration per age group (%)

Table 69.

Age groups	
15 - 17	64,3
18 - 24	70,2
25 - 34	61,8
35 - 44	59,9
45 - 54	50,4
55 - 64	34,3
>65	11,0

Unit: %.

Source: ICP-ANACOM, Survey on the use of broadband in Portugal, December 2007

Regarding the non-residential service, about 90 per cent of companies had Internet access, and about 77 per cent

use broadband. Regarding company size, the larger it is, the greater the probability of having broadband Internet access.

Internet penetration by company size

Table 70.

	Internet	Broadband
10 to 49 employees	88,4	74,3
50 a 249 employees	97,8	88,8
250 or more employees	100,0	97,1
Total	89,8	76,6

Unit: %.

Source: INE, Survey on the Use of Information and Communications Technologies by Companies 2007.

By activity, on the other hand, only the construction industry shows an Internet penetration rate considerably below 90 per cent (80.5 per cent). In the case of broadband, only the

construction industry (64.9 per cent) and the transforming industry (71.6 per cent) have penetrations that are considerably below 75 per cent.

Internet penetration by activity sector

Table 71.

	Internet	Broadband
D - Transforming Industries	89,0	71,6
F - Construction	80,5	64,9
G - Wholesale and retail; Repair of Automobile Vehicles, Motorcycles, and Goods of Personal and Domestic Use	94,7	86,6
H - Lodging and Restaurants	96,6	89,3
I - Transports, Warehousing and Communications	90,8	89,4
J - Financial Activities	99,3	94,7
K - Real-Estate Activities, Leasing, and Services Provided to Companies	96,6	81,3
O - Other Collective, Social and Personal Service Activities	100,0	98,9
Total	89,8	76,6

Unit: %.

Source: INE, Survey on the Use of Information and Communications Technologies by Companies 2007.



The Internet Access Service's usage profile

Most Internet Access Service users use broadband. At the end of 2007, the ratio of broadband customers versus the overall amount of customers was 94 per cent. The growing weight of broadband mainly reflects the popularity of applications and contents requiring larger bandwidths and the coming about of always-on offerings at a fixed monthly rate that also give users a more economic and cost-controlled use.

On the other hand, and according to the previously-mentioned data from INE, at the end of the 1st quarter of 2007 89.8 per cent of companies with more than 10 employees had Internet, and 76.6 per cent used broadband⁵⁸.

Distribution of Internet Access Service Customers by bandwidth - 2007

Graph 88.



Among the main goals of Internet use, in 2007, the most important ones are sending/receiving e-mail, searching information on goods and services, downloading games, images or music and reading/downloading online newspapers and magazines.

The analysis of the Internet usage patterns, considering the evolution between the two inquiries, shows that the above-mentioned goals are stable, despite the relevant growth of the goal of getting information through sites of bodies within the general Government and downloading official forms.

Goals of Internet use

Table 72.

Activities	2007
Using a search engine (e.g. Yahoo, Google, Sapo, etc.) to search for information	42,2
Sending an e-mail with attached files (documents, images, etc.)	37,0
Placing messages on chats, newsgroups or participating in an online discussion forum	23,7
Using the Internet to make phone calls	11,5
Using a file-sharing software (peer-to-peer) to exchange movies, music, etc.	11,4
To create a web page	7,5
To search, download and install software	21,4
To protect the computer from viruses, spyware and adware	22,4

Unit: %.

Source: INE, Survey on the use of information and communications technologies by families - 2007.

58 Cf. INE, Inquérito à Utilização de Tecnologias da Informação e da Comunicação pelas Famílias - 2007.

Barriers to joining the service

In 2007, as in the previous years, the main reason that was pointed out for not joining the Internet was lack of interest or lack of usefulness (53.6 per cent). Computer-related

issues come second (18.9 per cent). The price of the service is also a barrier to joining the service (12.4 per cent).

Main reasons for not having an Internet access at home

Table 73.

	2006	2007
None of the individuals in the household has interest on the Internet	38	54
The costs of buying a computer and modem are too high	12	21
The monthly fee is too high	16	12
Household members access from other locations rather than home (which is enough)	9	16
Doesn't really know what the Internet is	16	5
Intends to have access within 6 months	7	4
Household is worried about access to sites with improper or unsafe contents	1	0

Unit: %.

Source: E-Communication Household Survey, 2006 e 2007.

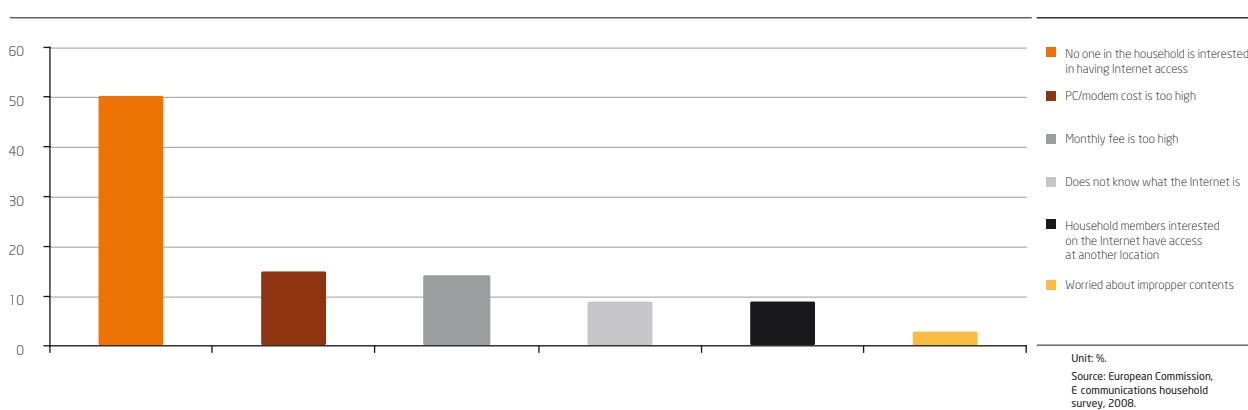
Note: multiple answering.

Mention should be made to the fact that the above-mentioned main reasons are identical to those pointed out by EU consumers for not joining the Internet.

However, barriers "no interest", "PC/modem cost" and "doesn't know what the Internet is" stand out (in this case, Portugal shows the maximum figures among the E.U.27 countries).

Main reasons for not having Internet at home in the EU 27

Graph 89.





The evolution of the Internet Access Service in 2007

Below is the evolution of the service in 2007, in terms of service penetration, usage level, prices, and consumer evaluation.

Geographic availability of this service

In 2007, the Internet Access Service was available in practically the entire Portuguese territory. Dial-up Access, particularly, is available in the entire public switched telephone network.

The availability of the broadband offers depends on the availability of the public switched network's exchanges with DSLAMs (digital subscriber line access multiplexers), on the availability of broadband-enabled cable TV distribution networks, or on existing 3G network coverage.

Concerning ADSL, at the end of the fourth quarter of 2007, there were 1,853 exchanges equipped with DSLAMs in Mainland Portugal, corresponding to the entire coverage of possible areas for ADSL provision, such as in the 4th quarter of 2006.

These infrastructures are concentrated in the Greater Lisbon and Greater Porto areas, in the northern coastline and in Algarve. Inland, exchanges density is lower, as occurs with population density.

Distribution of exchanges with DSLAM per municipality - 2007 (Mainland Portugal)
Graph 90.

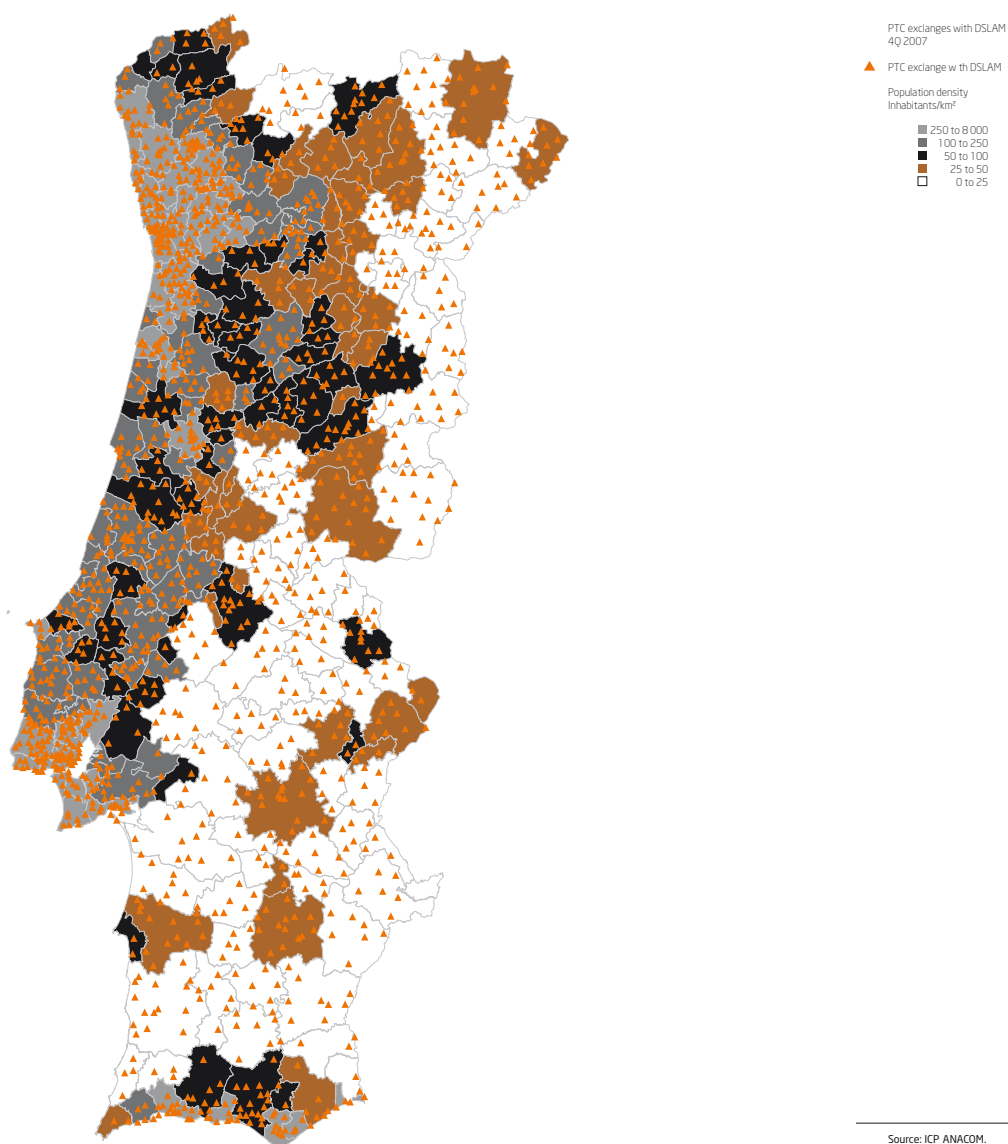




It should be underlined that there are exceptional cases when it is not possible to provide ADSL services over a given

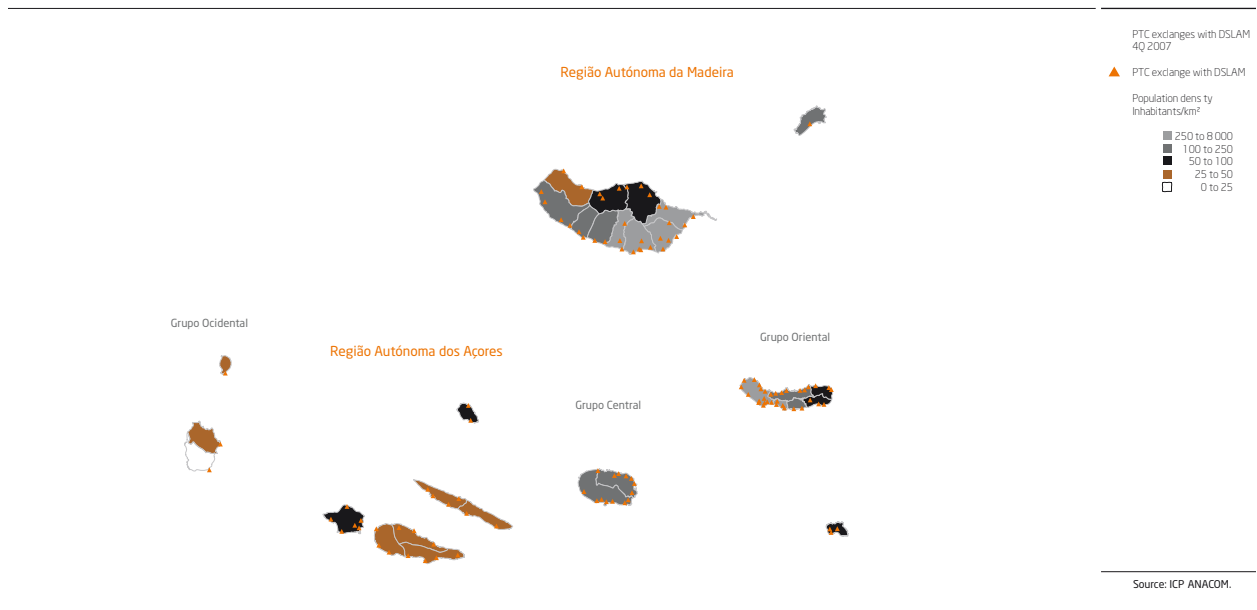
loop, due to its physical characteristics (namely its length, section and its state of conservation).

Distribution per municipality of exchanges with DSLAM and population density (Mainland Portugal)
Graph 91.



Distribution per municipality of exchanges with DSLAM and population density (Autonomous Regions)

Graph 92.



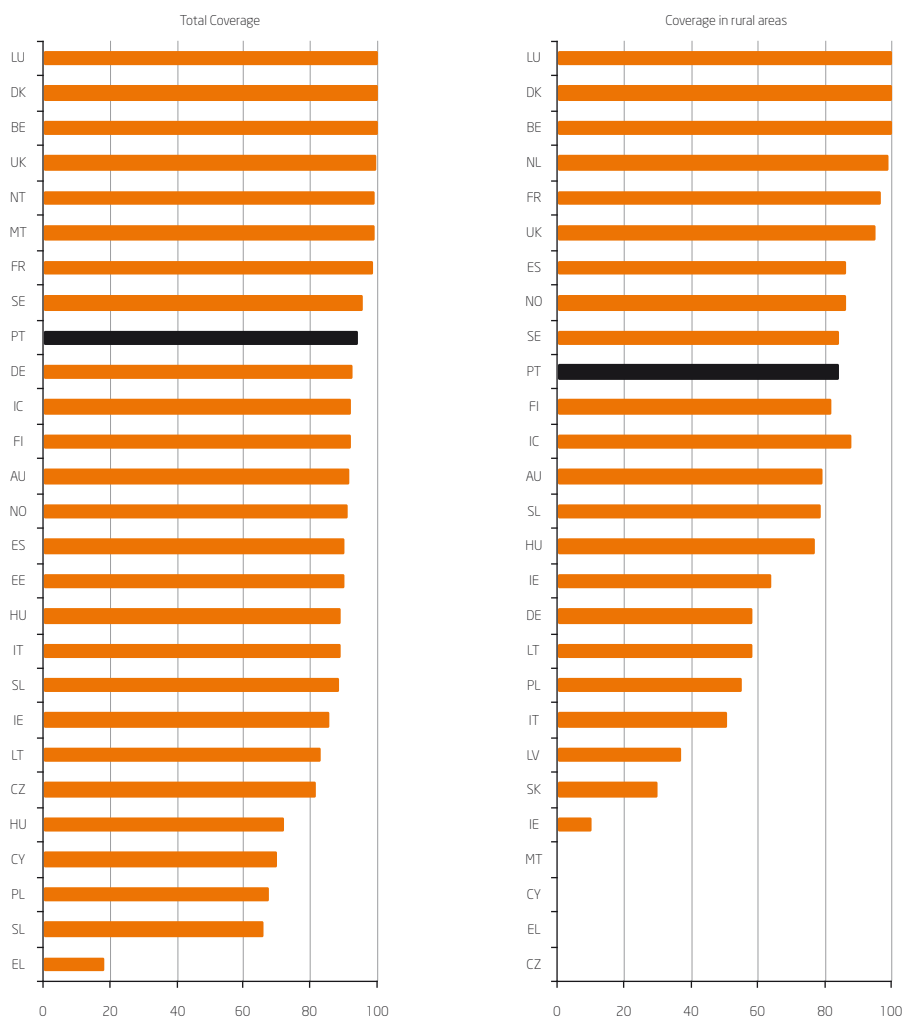
In 2007, according to the European Commission, the DSL coverage - service availability - in Portugal was the 9th highest among the 27 EU countries. In rural areas, DSL coverage in Portugal is ranked 10th.

It should also be mentioned that coverage in Portugal (94 per cent) is above the EU27 average, which is 89.3 per cent. The EU 27 average in rural areas is 71.7 per cent, while in Portugal it is 84 per cent.



DSL coverage in the EU27

Graph 93.



Unit: %
Source: IDATE,
Development of broadband Access in Europe,
DGINFSO, October 2007.

Regarding broadband Internet access using cable modem, cable distribution networks in Mainland Portugal are focused on the Greatest Lisbon and Greatest Porto regions.

Regarding the autonomous regions, Madeira had a ratio of cabled households above 90 per cent, whereas in the Azores this indicator reaches 60 per cent. These figures can be explained by the protocols among the Government of the

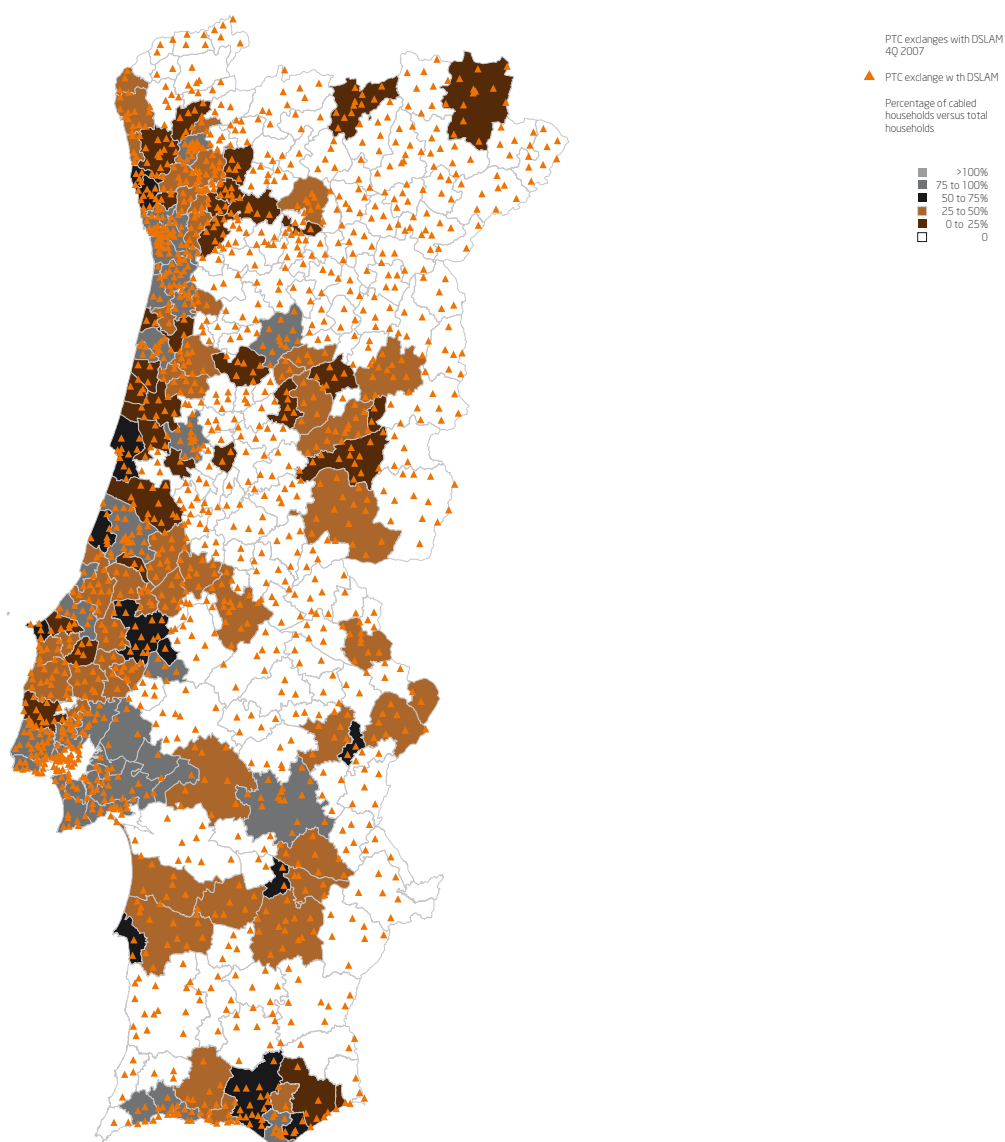
Republic, the Regional Governments, ICP-ANACOM and the only cable television distribution network operator in both the autonomous regions. These protocols aim at ensuring the necessary conditions for the citizens of the autonomous regions to have access, for free, to the broadcasts of the general free-to-air channels available in Mainland Portugal, namely RTP1, RTP2, SIC and TVI, besides RTP Açores and RTP Madeira, respectively in each of the autonomous

regions. The protocol in force in Madeira was signed on 6 August 2004 and the protocol regarding the Autonomous

Region of the Azores was signed on 5 November 2005, and remained in force for a year.

Distribution per municipality of exchanges with DSLAM in the 4Q07 and the sum of all operators' cabled households (Mainland Portugal)

Graph 94.

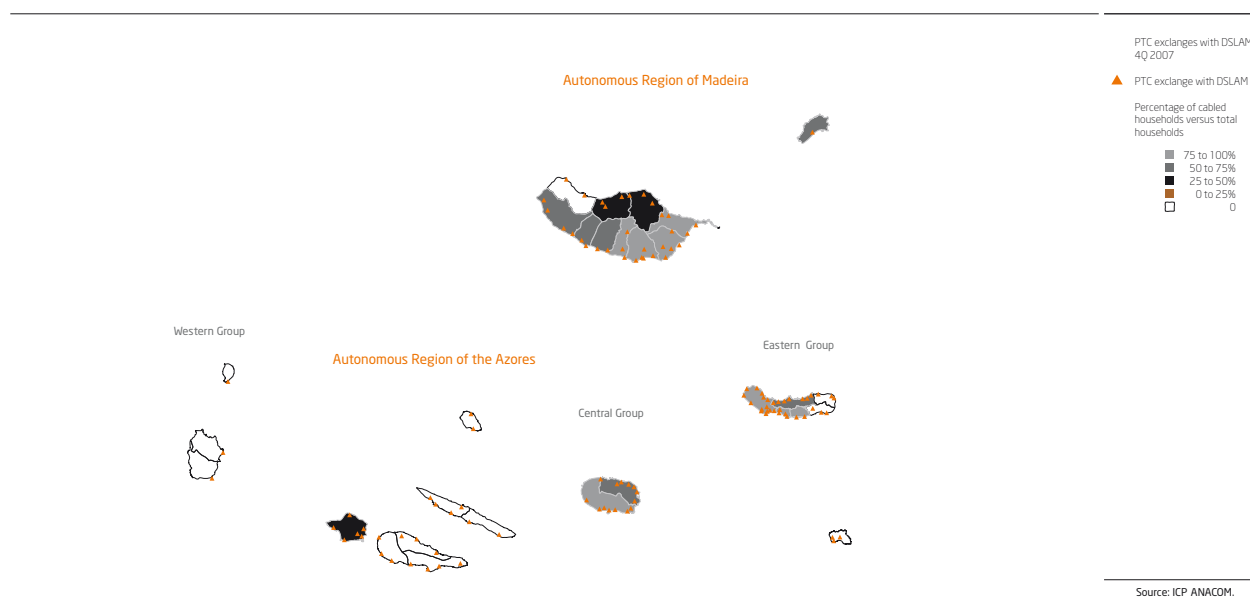


Source: ICP ANACOM.



Distribution per municipality of exchanges with DSLAM in the 4Q07 and ratio of the sum of all operators' cabled households vs. the total amount of households (Autonomous Regions of the Azores and Madeira)

Graph 95.

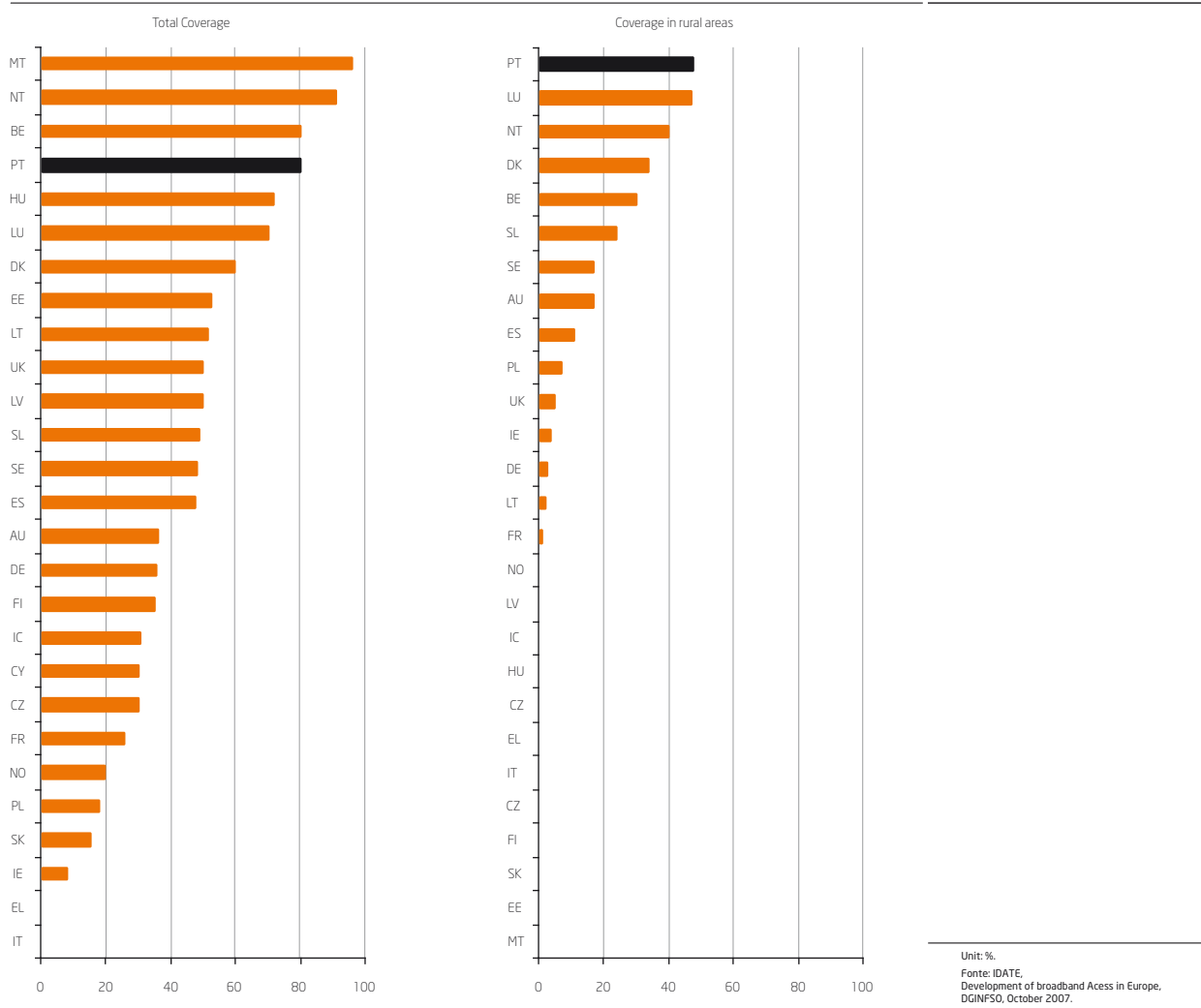


According to the European Commission, cable TV network coverage in Portugal (80.1 per cent) stands clearly above the EU average (35.5 per cent). In rural areas, Portugal even has

the highest coverage of all the EU27 (48 per cent versus a 7.2 per-cent average).

Cable modem's coverage in the UE27

Graph 96.



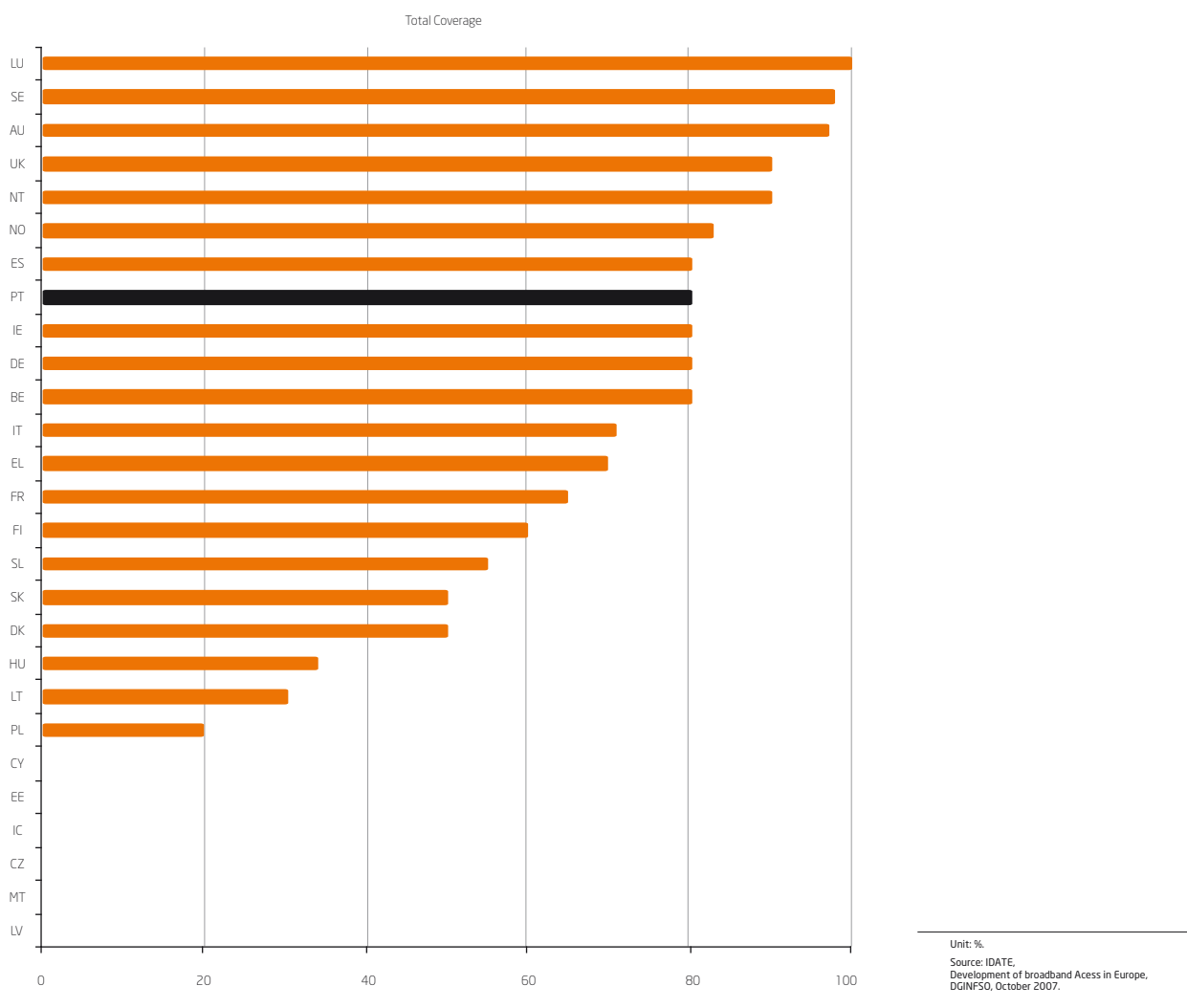
Considering the previously-presented data, fixed broadband coverage density follows the territory's population density.

Mobile broadband is available in areas where 3rd generation mobile networks are available. According to the European Commission, 2006 coverage in Portugal was 80 per cent, above the EU27 average (71.3 per cent) and the UE15 average (78 per cent).



3G coverage in the EU27

Graph 97.



Service usage level: Evolution in the amount of customers and revenues

Below is the evolution regarding the service's usage level, measured in terms of customers, accesses and revenues.

Internet access customers: narrow band/broadband

At the end of 2007, there were 1.6 million registered Fixed

Internet Access Service customers, about 2 per cent more than in the end of 2007.

Mobile broadband users reached 1.5 millions, 660 thousand of which were active in the last month of 2007. Between 1Q07 and 4Q07 the amount of broadband users increased 592 thousand.

Amount of customers

Table 74.

	2006	2007	2006/2007 Var. (%)7	2003/2007 Annual average var. (%)	2003/2007 var. (%)
Total fixed Internet customers	1.580.050	1.611.848	2,0	15,6	78,3
Dial-up access	156.403	99.326	-36,5	-29,5	-75,3
Fixed broadband access	1.423.687	1.512.547	6,2	31,7	201,3
Mobile broadband users		1.454.574			

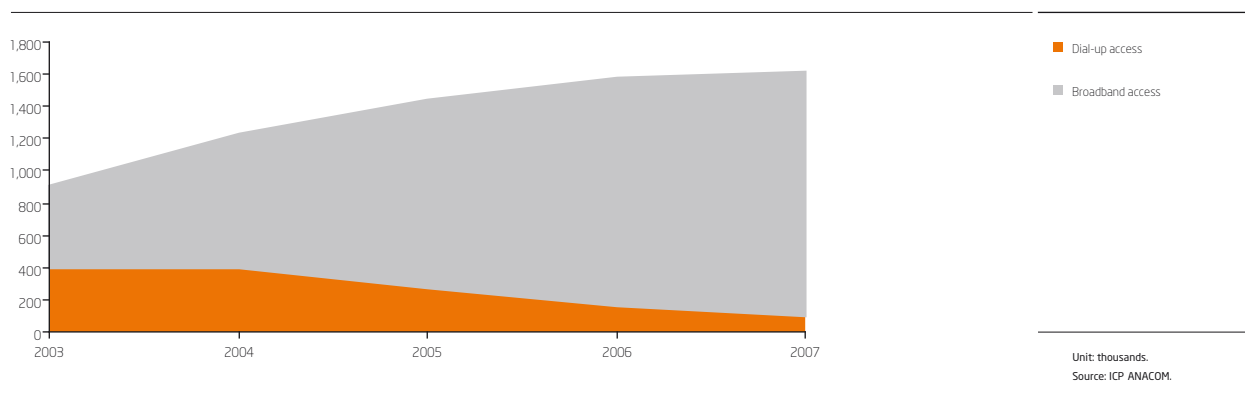
Unit: 1 customer, %
Source: ICP-ANACOM.

The migration trend from narrow band to broadband remains. The amount of fixed broadband customers grew 6.2 per cent in 2007, while dial-up access customers decreased by 37 per

cent. The ratio of broadband customers versus the overall amount of customers reached 93.8 per cent, 3.7 per cent more than in 2006.

Internet Access Customers (cumulative figures)

Graph 98.



Fixed Broadband Customers

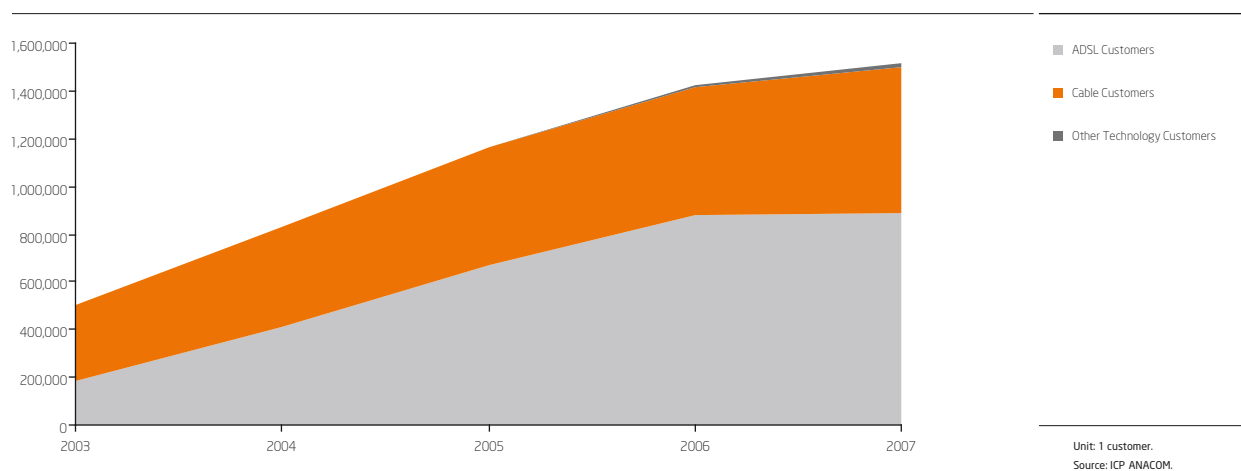
In spite of its growth (+23 per cent), the amount of new broadband customers was once again below that of the previous year. In 2007, there were about 89 thousand new fixed broadband customers, 169 thousand less than in the

previous year. The growth rate was about 5.1 times lower than the average growth rate for the 2003/2007 period. This slowing down may be explained by the previously-mentioned factors concerning the evolution of fixed broadband penetration.



Evolution in the amount of fixed broadband customers

Graph 99.



Broadband growth in Portugal continued to be fuelled by ADSL, which kept its stand after becoming the prevalent access technology by the end of 2004. Between the end of 2006 and the end of 2007, 6 in every ten new broadband customers chose ADSL access, thus resulting in a yearly

growth of about 1.2 per cent. ADSL's prominence is explained by the broader geographic availability of this type of access, and by the development of offerings based on local loop unbundling.

Amount of customers per fixed broadband access modes

Table 75.

	2006	2007	2006/2007 Var. (%)	2003/2007 Annual average var. (%)	2003/2007 var. (%)
Total fixed Broadband customers	1.423.687	1.512.574	6,2	31,7	201,3
DSL access	881.512	892.092	1,2	48,3	383,9
% of total fixed broadband	62%	59%			
Cable modem access	537.552	605.799	12,7	17,8	92,6
% of total fixed broadband	38%	40%			
Other Access Technologies	4.623	14.656	217	46,3	358
% of total fixed broadband	0%	1%			

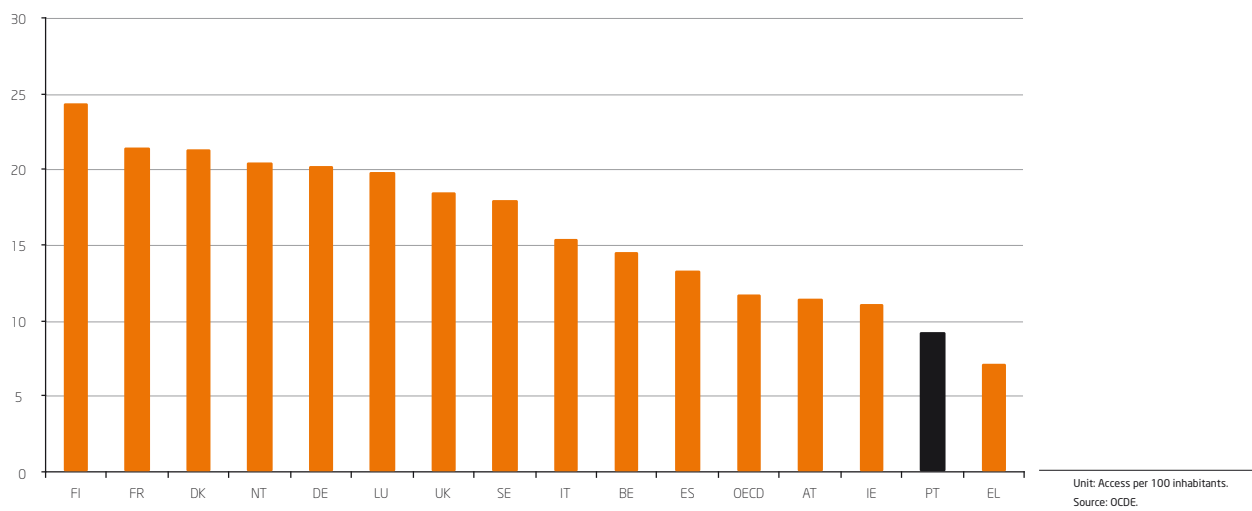
Unit: 1 customer; %;
Source: ICP-ANACOM.

In spite of the registered evolution, DSL penetration in Portugal is third lowest in the EU15, having dropped one position in the ranking since the previous year. As previously

mentioned, concerning the evolution of penetration, ADSL growth in Portugal was the lowest one within the EU15.

Amount of broadband access using DSL per 100 inhabitants in the EU15 - 2Q07

Graph 100.

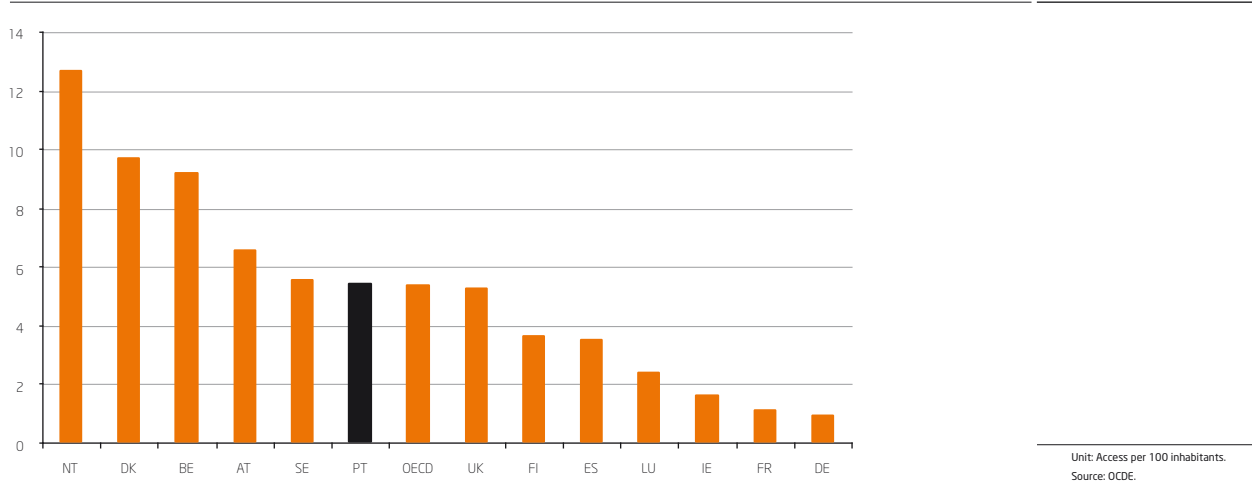


Internet Access by cable modem had an annual growth rate close to 12.7 per cent, about 4 per cent below the average of the previous years, but a growth rate above DSL. Cable modem access penetration is relatively high in Portugal, about 2.5 points above the EU15 average. Portugal ranks 6th in this group.

In spite of its small weight within the overall amount of fixed broadband customers, other access technologies grew about 217 per cent regarding the previous year, from a relatively low base (lower than 1 per cent of broadband accesses). This growth is mainly explained by the evolution of the offer of Internet access using the FWA technology.

Amount of cable modem accesses per 100 inhabitants in the EU15 - 2Q07

Graph 101.





Mobile broadband users

The amount of mobile broadband users grew exponentially during 2007. The amount of active mobile broadband users

is already above the amount of cable modem Internet access users.

Evolution in the amount of mobile broadband users

Table 76.

	1Q07	2Q07	3Q07	4Q07
No. of users with mobile broadband Internet access	862.202	983.743	1.182.555	1.454.574
Active during this period	315.230	359.369	478.017	659.812
% do total	37%	37%	40%	45%

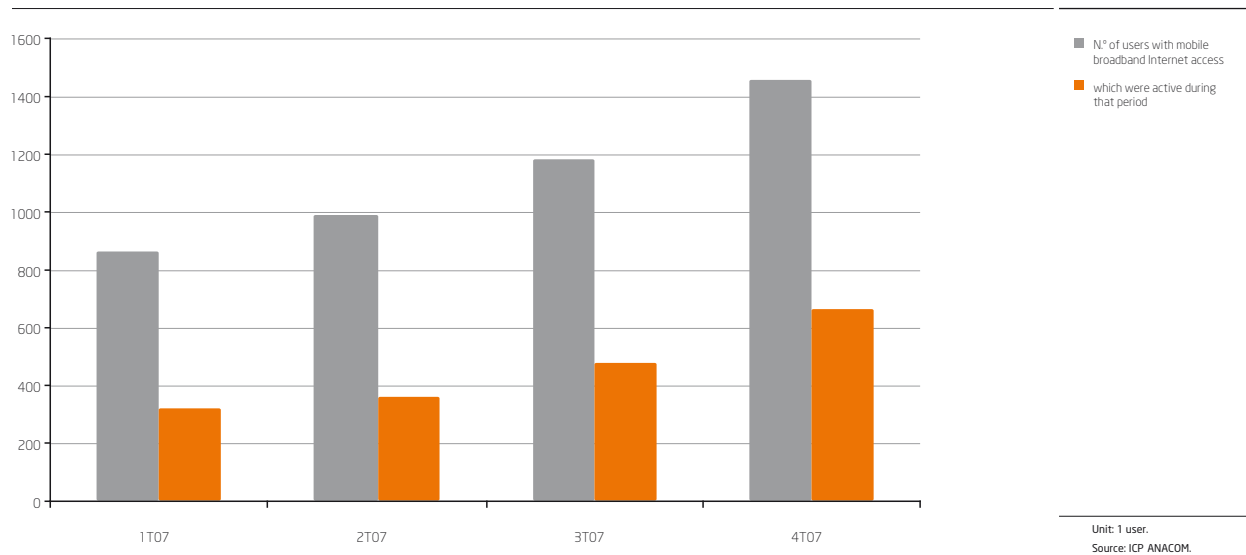
Unit: 1 user; %.
Source: ICP-ANACOM.

Between 1Q07 and 4Q07, the amount of users grew 69 per cent and the amount of active users increased 109 per cent.

The amount of new users in each quarter was always above the amount of new users recorded in the previous quarter.

Evolution in the amount of mobile broadband users

Graph 102.



The evolution in the amount of this service's users was not only influenced by the operators' commercial policies, which provided flat-rate offers since the beginning and actively promoted this service, but also by Government policies fostering information society that, together with the operators, provided low-priced computers and mobile broadband Internet access to students, teachers and trainees.

The service's usage also increased gradually along the year. At the end of 2007 almost half of the potential users actually used the service.

On the other hand, traffic per session and monthly traffic per active user also increased gradually, the second indicator reaching figures close to the traffic limits established by some of the offers..

Evolution of traffic per session and per user

Table 77.

	1Q07	2Q07	3Q07	4Q07
MB per session	16	19	19	22
MB per active user (monthly)	775	928	957	991

Source: ICP-ANACOM.

Service revenues

(Fixed) Internet Access Service's revenues in 2007 increased about 5.5 per cent.

Fixed broadband revenues grew at considerable rates, between 9 and 10 per cent, although at declining rates, regarding the average of previous years.

Fixed Internet Access Service Revenues

Table 78.

	2006	2007	2006/2007 var. (%)	2003/2007 annual average var. (%)	2003/2007 var. (%)
Internet Access (fixed)	454 598	479 611	5,5	12,3	58,8
Dial Up Access	29 632	12 699	-57,1	-43,0	-89,4
ADSL Access	260 381	287 067	10,2	51,5	426,9
Cable Modem Access	136 237	148 583	9,1	21,8	119,9
Other means (fixed)	26 160	28 602	9,3	-2,6	-10,1
Other revenues	2 188	2 660	21,6	-44,4	-90,5
Internet Access (mobile)		131 872			

Unit: Thousand Euros, %.
Source: ICP-ANACOM.

ADSL revenues stood for about 60 per cent of fixed broadband, 3 per cent more than in the previous year, while cable modem stands for about 31 per cent, 1 per cent more than in 2006. Dial-up revenues, after a 50 per cent growth for 3 years, in the launching phase of the service, influenced by the service's dissemination and the introduction of free

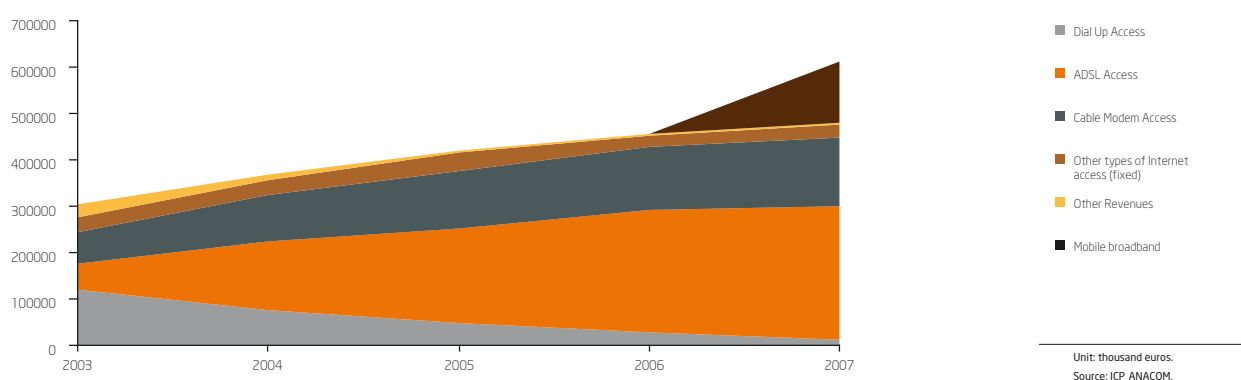
Internet offerings, began to decrease with the migration to broadband. In 2007, it represented only 2.6 per cent of fixed Internet.

Mobile Internet revenues already stood for 22 per cent of total Internet revenues.



Evolution of Internet Access Service Revenues

Graph 103.



Broadband penetration

At the end of 2007, the broadband Internet access penetration rate (in terms of customers) stood at 14.2

per 100 inhabitants for fixed accesses, and 13.7 per 100 inhabitants for mobile accesses.

Evolution of broadband penetration rates

Table 79.

	4Q06	1Q07	2Q07	3Q07	4Q07
No. of fixed Broadband Customers / 100 Inhabit.	13,4	13,8	14,3	14,7	14,2
No. of ADSL Customers/100 Inhabit.	8,3	8,5	8,7	9,1	8,4
No. of Cable Modem Customers/100 Inhabit.	5,1	5,2	5,4	5,5	5,7
No. Other Type of Access Customers/100 Inhabit.	0,0	0,1	0,1	0,1	0,1
No. of mobile Broadband Customers / 100 Inhabit.⁵⁹	1,6 ⁶⁰	8,1	9,3	11,2	13,7

Source: ICP-ANACOM.

Although the amount of available accesses is being considered for both fixed and mobile broadband, in the latter there is a greater difference in the type of access, due to the terminal equipment used (mobile phones, PDAs, cards for portable PCs, USB connection cards), in connection with different Internet usage patterns. This fact makes it advisable to collect additional data in order to better understand those differences.

ICP-ANACOM predicts that, by the end of 2007, 75 per cent of these accesses corresponded to PCMCIA cards or USB modems used for Internet access in Desktop and Laptop computers. Estimates indicate that the amount of users that

had this type of equipment increased 40 per cent between March 2007 and December 2007.

ICP-ANACOM was one of the first European regulators to collect information on mobile broadband access (since January 2007), and has also promoted all the effort in fostering international comparisons to include it.

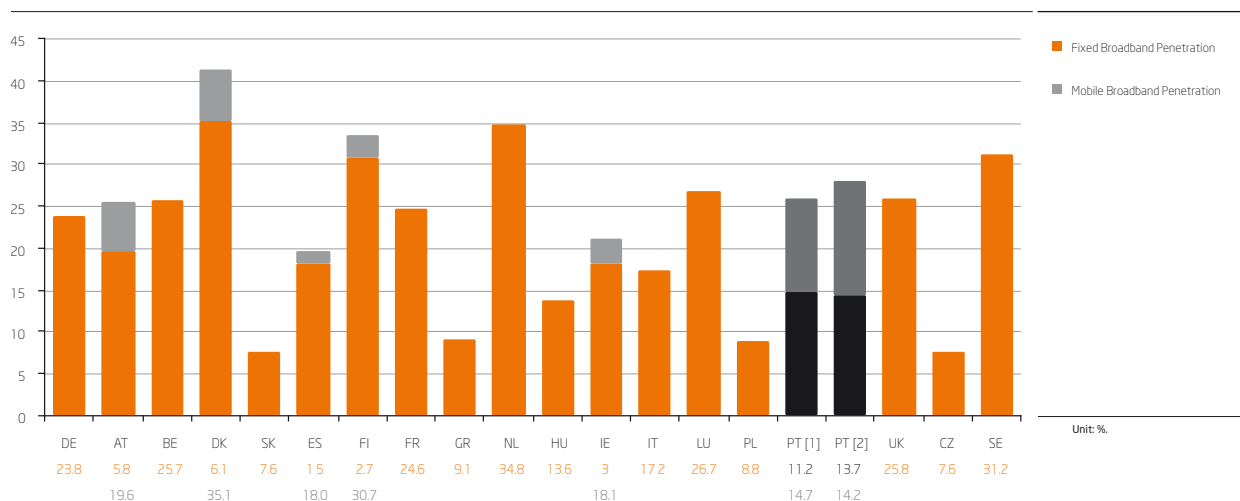
The information available at the end of 2007 is shown on the graph below, which identifies fixed and mobile accesses.

⁵⁹ Mobile operators' customers can access mobile broadband Internet, which they did at least one time, per 100 inhabitants, since the service was launched.

⁶⁰ This figure is an estimate of the mobile broadband figure.

Information on broadband penetration in some E.U. countries - December 2007

Graph 104.



Sources: OCDE Broadband Statistics 4Q07. ICP-ANACOM – penetrations for Portugal 3Q07 and 4Q07. NRAs - 4Q07 mobile broadband penetrations for Denmark, Spain, Finland, Ireland, Lithuania and Austria (3Q07). ITSD (penetration for Denmark, mobile broadband 4Q07). Definition of mobile broadband: No. of EDGE, UMTS and CDMA subscriptions that have been used by advanced data services (excluding voice, SMS and MMS), in the last 3 months. Comisión del Mercado de las Telecomunicaciones (penetration for Denmark Spain, mobile broadband 4Q07). Definition of mobile broadband: Total amount of lines that have been used for own 3G network services, at least once during the last 90 days. Own 3G network services are: the Internet Access Service, mobile TV, video calls, and music downloads. Commission for Communications Regulation (penetration for Ireland, mobile broadband 4Q07). Definition of mobile broadband: No. of mobile broadband subscriptions that combine HSPA and GSM/EDGE. RRT (penetration for Lithuania mobile broadband 4Q07). Definition of mobile broadband: No. of subscribers who connect to the Internet using the public mobile telephone network, using flat rate plans to pay the Internet access services, provided through a computer. FICORA (penetration for Finland, mobile broadband 4Q07) RTR (penetration for Austria mobile broadband 3Q07)

[1] 3Q07

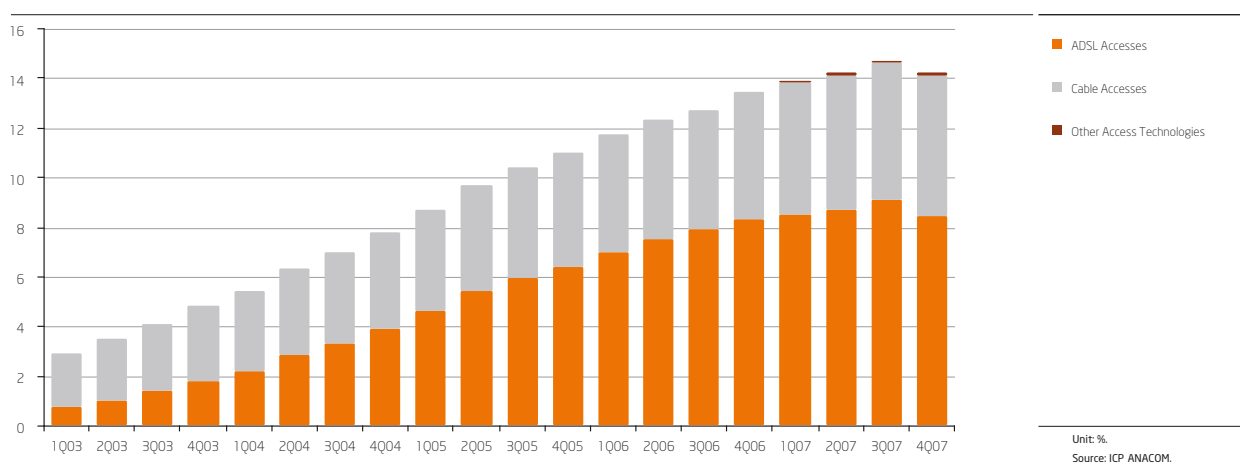
[2] 4Q07

Concerning mobile broadband, the penetration rate increased 12 per cent during the last year.

As for fixed accesses specifically, broadband penetration is about 0.8 per cent above the end of the previous year.

Evolution in the amount of fixed broadband accesses per 100 inhabitants

Graph 105.



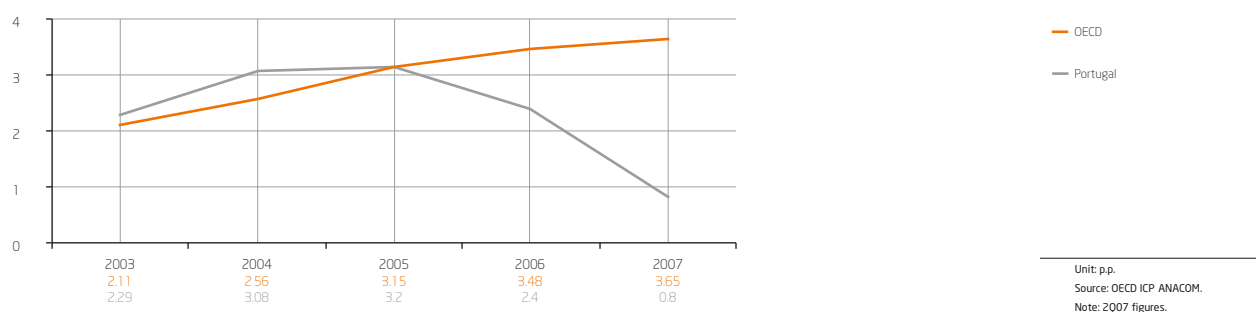


Broadband penetration growth recorded in Portugal was, however, below the one registered in the OECD countries. The gap between broadband penetration growth recorded

in the OECD and broadband penetration growth registered in Portugal increased, reaching 2.8 per cent.

Variation in the Broadband access Penetration Rate - Fixed

Graph 106.

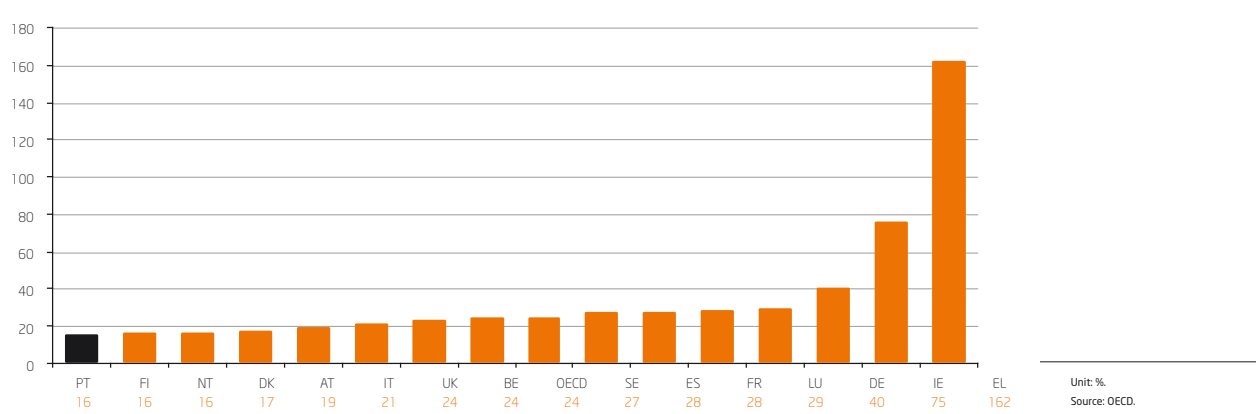


Portugal was the country in the EU15 where the fixed broadband penetration rate less grew during 2007. Broadband penetration in Portugal increased about 16 per cent

regarding 2006, while in the OECD the average growth rate was 24 per cent.

Growth rate of fixed broadband penetration in 2Q07 regarding 2Q07

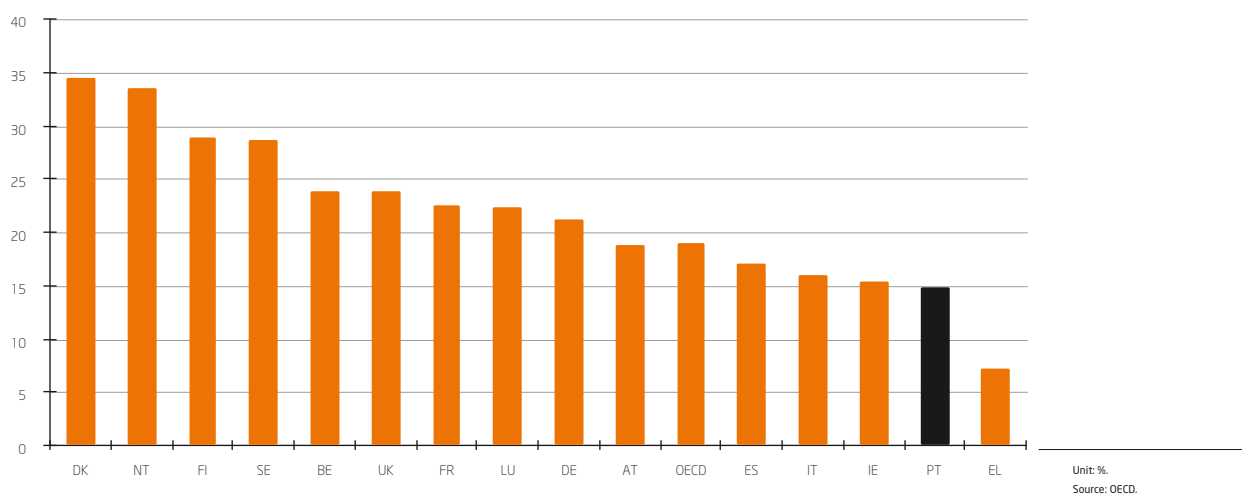
Graph 107.



As a result of the performance registered in 2007, Portugal fell one position in the ranking, now standing in the 14th place.

Amount of fixed broadband customers per 100 inhabitants in the EU15 in 2007

Graph 108.



This evolution may have been influenced by the following factors:

- The launch of mobile broadband offers. It is possible that fixed broadband consumption has been partially re-routed to mobile broadband. Mobile broadband has been marketed as a fixed broadband replacement for some market segments. Additionally, younger population groups, individuals living alone and those with higher social status are more likely to have mobile broadband⁶¹.
- The relatively low PC penetration in households. As previously mentioned, the lack of a PC is a barrier to joining the Internet. The European Commission, among others⁶⁴, even mentions that:

"... The correlation between PC rate... and Internet rate (Y-axis) is almost linear (Pearson equals 0.97). It can thus be said that the lack of PCs is an obstacle to Internet access."⁶²

The rate of domestic households in Portugal with a PC was 48 per cent, while in the EU27 it was 60 per cent⁶³.

It is thus possible for the lack of PC to partially justify the lower take up of broadband that occurred in Portugal during 2007.

- Human capital level below average. The lack of interest shown by consumers may be connected to the relatively low human capital level. Statistics on the education level and the digital literacy level, in this scope, are quite explanatory. It is even possible to conclude that the highest the education level, the more likely it is to have Internet access⁶⁵. Additionally, as previously mentioned, Internet penetration is already high among population groups with higher education levels and among younger population groups.

61 In order to characterize the choice of access provider, a model was estimated with a dependent variable equal to 1 when the chosen operator is a mobile Internet access operator, and equal to 0 when the interviewee is the customer of a fixed Internet access provider. It used the replies given during the electronic communications consumer survey. The theoretical model used for the estimate was the simple logit.

62 Vide. The Broadband Performance Index: A Policy-Relevant Method of Comparing Broadband Adoption Among Countries, Phoenix Center for Advanced Legal and Economic Public Policy Studies, July 2007.

63 European Commission, E-Communications Household Survey, April 2007.

64 In order to characterize the Internet, three models were estimated with base on the data collected during the 2007 electronic communications consumer survey. The theoretical model used for the estimate was the simple logit. Several independent variables were introduced in the models concerning the interviewee's sex, age, education level, social status, the presence of individuals aged between 7 and 24 years old in the household, and the NUTS II region where the interviewee lives. This data is included in the current model via binary variables, with value 1 in the positive cases, and values 0 for the opposite.



- Service's price levels. Some consumers indicate the price level as a barrier to joining the service. The international comparisons shown below seem to lead to the conclusion that the service's price level isn't considerably higher than in other countries. However, considering the income levels of each country, it is possible for the existing price level to be, in fact, a barrier to joining the service.

Initiatives launched by ICP-ANACOM, such as, for example, Naked ADSL and the wholesale offers connected to service provision, will foster a reduction in the service's overall price;

- Macroeconomic conditions of a cyclical nature.

Broadband Internet Access Service's price level

Regarding fixed broadband price level, and according to the collected data, it is possible to conclude that⁶⁵:

- In November 2007, the minimum broadband price in Portugal stood 32.6 per cent above the average of the considered countries and was similar to the price charged in Austria, Sweden and Denmark, which have a higher broadband penetration. The minimum price charged by the incumbent operator in Portugal was the 4th lowest one.

Minimum Broadband Monthly Fee - November 2007

Table 80.

Broadband monthly fee	Minimum Price		Minimum Price - Incumbent operator	
	Price	Ranking	Price	Ranking
Germany	12.06	6	15.03	3
Austria	8.25	2	8.25	1
Belgium	14.05	10	26.07	13
Denmark	5.37	1	17.09	7
Spain	20.00	13	21.90	10
France	12.46	8	20.82	9
Netherlands	12.56	9	16.76	6
Ireland	15.66	11	16.52	5
Italy	8.29	4	8.29	2
Luxembourg	17.39	12	22.61	11
Portugal	8.26	3	15.28	4
United Kingdom	12.35	7	22.78	12
Sweden	8.57	5	17.23	8
Total/Average Portugal excluded	12.25		17.78	
% deviation of Portugal vs. average	-32.6%		-14.1%	

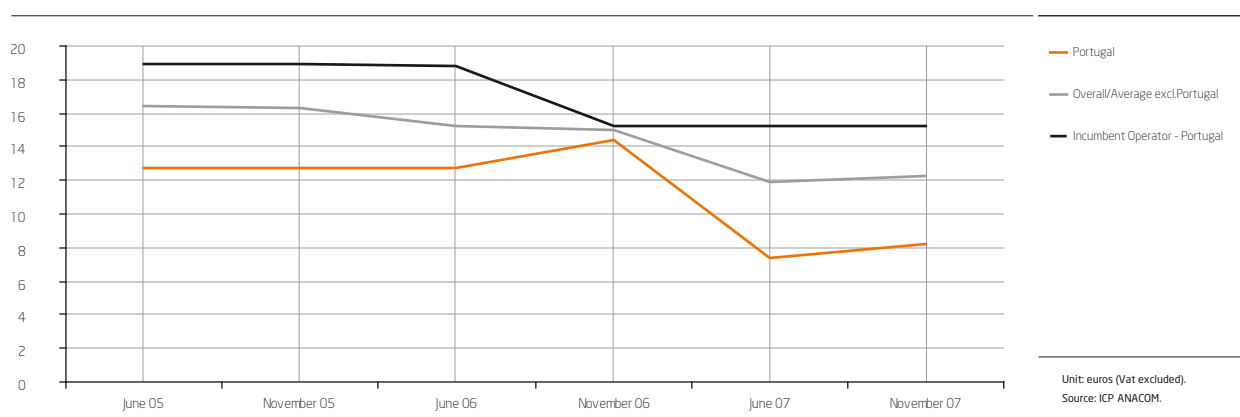
Unit: Euros VAT excluded.
Source: ICP-ANACOM.

65 Methodology: sample made up of 650 offerings by 83 ISPs in an analysis of 13 EU15 countries. This analysis did not include Greece, due to the low implementation of the service in this country, and Finland, due to difficulties in collecting data. For each of the analyzed countries, the ISPs standing for at least 70-80 per cent of the market were identified. This was made further to consultation of European Commission documents, national regulators' sites, reports and accounts of some operators and press articles. In some cases, the ISPs' market shares were impossible to determine and Internet search engines were then used. All items of the selected offerings were collected. However, it was assumed that the decision to join broadband would be incremental (i.e. the cable modem broadband subscriber already has CATV, the ADSL broadband subscriber already is a FTS customer, etc.), and that the new subscriber would pick the options that would lower its monthly fee (i.e. if there are discounts for payment by wire transfer, the subscriber would chose to pay by wire transfer). During the result reckoning procedure, offerings with downstream bit rates below 256 kbps and were excluded. It should be mentioned that the results presented regard only the monthly subscription fee (non-promotional figures). Besides discounts and promotions, the survey also did not take into account the following variables: installation and subscription prices; equipment prices (not included in the offering), traffic limits; upstream bit rate, number of mailboxes, space for mailbox, space for own site, software offers, equipment offers (e.g. MP3 player); offer of multimedia applications; training courses; offers linked to PC sales. The data collection procedure was carried out in November 2007.

- During the 2 latest years there was a decreasing trend of the minimum broadband prices in the countries under review. In Portugal, after a drop in June 2007, minimum prices recorded a slight increase.

Evolution in the (fixed) Broadband Monthly Fee

Graph 109.



The lowest minimum price charged in Portugal during the three previous years was of different offerings by the same alternative operator, using cable modem. In November 2006 this operator terminated its 1 Mbps offer (considered the minimum price offering in June 2006) and created a new 2-Mbps offering. For this reason, the minimum price in Portugal had a slight increase. By June 2007, this operator launched a lower bit rate offer, at lower prices, which was terminated in November 2007.

At the end of 2007, the minimum price charged in Portugal was the ADSL offering of an alternative provider.

- Considering the average of the minimum prices charged by the several ISP for the several transmission speeds, Portugal stands above the average for the offers with maximum download speeds of 1 Mbps and 24 Mbps.



Average of the minimum broadband prices per access speed - November de 2007

Table 81.

Broadband monthly feed in November 2007	256 Kbps		1 Mbps		2 Mbps		4 Mbps		8 Mbps		24 Mbps	
Germany	-		16.93	3	21.21	6	21.53	2	-		-	
Austria	-		8.25	1	22.02	7	33.25	9	41.58	8	-	
Belgium	-		33.11	10	-		25.46	5	29.75	4	-	
Denmark	13.87	3	20.25	6	24.93	9	30.81	7	45.40	10	-	
Spain	-		22.93	9	36.00	10	120.00	11	150.57	11	-	
France	-		20.82	7	-		-		27.09	3	-	
Netherlands	25.15	4	-		-		22.37	4	43.24	9	-	
Ireland	-		17.44	5	24.06	8	71.86	10	35.12	7	-	
Italy	-		-		16.58	1	19.74	1	-			2
Luxembourg	-		-		19.71	4	29.57	6	34.13	6	-	
Portugal	13.35	2	21.95	8	19.15	3	21.86	3	31.36	5		3
United Kingdom	-		16.45	2	18.14	2	31.65	8	19.72	1	-	
Sweden	12.25	1	17.23	4	20.17	5	-		23.63	2		1
Average Portugal excluded	17.09		19.27		22.54		40.62		45.02			
% deviation of Portugal vs. average	-21.9%		13.9%		-15.0%		-46.2%		-30.4%			

Unit: Euros VAT excluded.
Source: ICP-ANACOM.

- According to the available data, the 4 Mbps offers were the most used ones in Portugal, in November 2007. For this reason, below are some additional elements on these offers' prices.

As shown on the previous table, the average price of the 4 Mbps offerings in Portugal were about 46 per cent lower than the average of the considered countries. It was the fourth lowest one (two places lower than in the previous period).

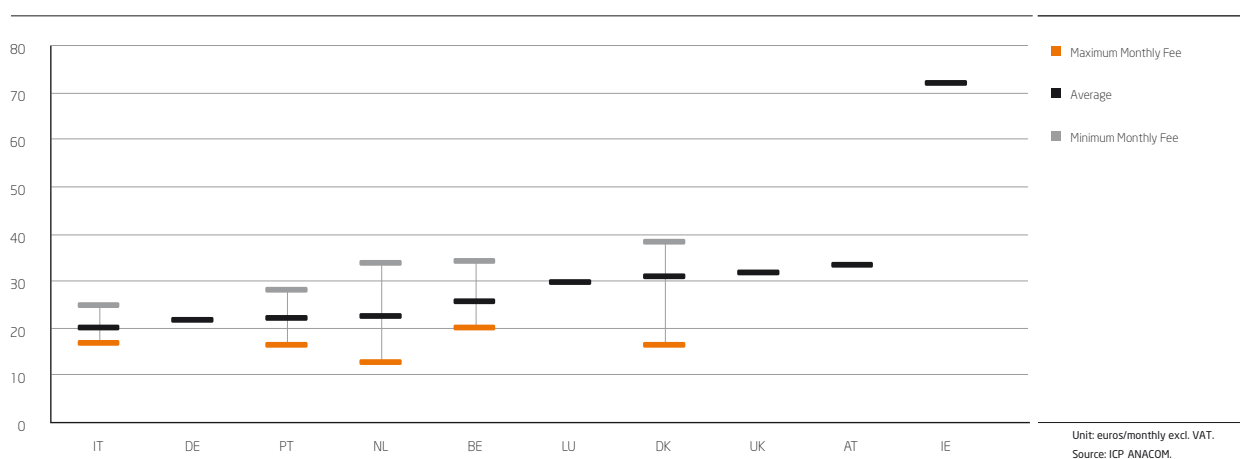
Considering the variation interval⁶⁶ and the average of the 4 Mbps offerings in the considered countries, it can be concluded that prices charged in Portugal are not above the European levels.

On the other hand, the price of the 4 Mbps offers in Portugal decreased 36 cent between June 2005 and November 2007.

⁶⁶ The shown variation interval does not take into account all prices in force in one country for each bit rate class, but only those of each ISP which are more competitive in a given country. More expensive offerings including extras (e.g. upload speeds or higher traffic limits), which could bias the results, are thus excluded.

Average variation interval of the 4 Mbps offer prices

Graph 110.



Evaluation by consumers

According to the results of the Survey on the Use of Broadband⁵⁴, consumers' perception of the quality of the broadband services is generally positive. Nevertheless, 10.4 per cent of the inquired people evaluated it negatively. Analyzing consumer satisfaction regarding the access speed

in particular, about 15 per cent of those inquired evaluated this service's feature negatively.

In spite of the quite generalized satisfaction with the service, about 29 per cent of those questioned stated that they had already filed a complaint with their operator, 8 per cent more than a year before.

"How do you evaluate the overall quality of the

Internet access services provided to you?"

Table 82.

	Dec-07
Very good	8,9
Good	75,3
Bad	9,2
Very bad	1,2

Unit: %.

Source: ICP-ANACOM, Survey on the use of broadband – 2007.

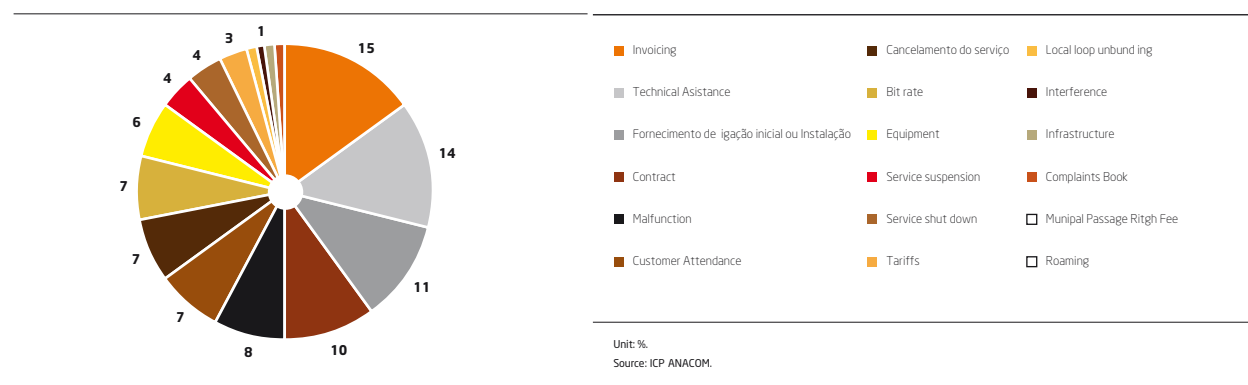


And, in fact, during 2007, ICP-ANACOM received around 5,017 complaints. In relative terms, the Internet Access Service is the second service with the largest amount of complaints. According to ICP-ANACOM's UM-TSM (Mission Unit for Handling Market Requests), this Authority received 3,956 complaints regarding the Internet Access Service and its providers.

Most of the requests regarded invoicing (15 per cent), technical assistance (14 per cent), the installation process (11 per cent), the contract (10 per cent) and malfunctions (8 per cent).

Distribution of complaints received by ICP-ANACOM - 2007

Graph 111.



■ Paid television service

This chapter presents the evolution of the paid TV service during 2007 and the previous years.

The paid TV service includes TV distribution services using cable distribution networks, satellite distribution networks (DTH), the public switched telephone network, and radio frequencies (FWA).⁶⁷

The Mobile TV service is presented in the chapter concerning mobile services since it is currently considered a *unicast* service.

Main evolution items in 2007

This service's offer structure suffered several major changes. On one hand, TV Cabo/Zon announced the acquisition of TVTel, Bragatel, and of the Pluricanal companies.

On the other hand, there was the spin-off of TV Cabo/ZON by PT Group. Within the scope of the spin-off strategy, PTC entered these services' market directly with an IPTV offering. It also announced the launch of FTH offers and in 2008 it applied for TDT licences.

Previously, TVTel had also launched a DTH offer.

In spite of these changes, TV Cabo/ZON Group maintained a 74 per cent share of cable TV subscribers. Should the above mentioned acquisition processes be concluded, TV Cabo/ZON Group's share will increase about 6 per cent. Regarding DTH, TV Cabo's share was about 99 per cent.

The amount of paid TV customers surpassed 2 million in 2007, having increased about 8.3 per cent, standing for about 36 per cent of households in Portugal.

The service grew about 8.3 per cent in 2007, fuelled by DTH, which at the end of the year stood for 24 per cent of the overall amount, and by IPTV and similar services⁶⁸, which, after PTC's entry on these markets and in spite of representing only 2 percent of the total amount, was responsible for about 24 per cent of the service's new customers.

Paid TV service's revenues grew about 9.4 per cent in 2007. Estimates indicated that the cable TV distribution service represents 72 per cent of total revenues, while DTH is responsible for 27 per cent of revenues. IPTV and similar services stood for 1 per cent of the overall amount.

According to the most recent information, cable TV and DTH penetration in Portugal stands on the second half of EU27 rankings.

Paid television services' offer

The activity of paid TV distribution service operators is the transmission and re-transmission of data, namely comprising the distribution of television and audio broadcastings, either their own or from third parties, codified or not.

Paid TV services and platforms

At first, the television broadcasting service in Portugal was offered using the radio network. Currently consumers have access to the four open-air signal channels, without further payments, through the two existing networks: PT Group's, mostly supporting broadcasting from RTP and SIC, and RETI, which belonged to TVI⁶⁹.

Paid television was introduced in Portugal with the development of cable distribution networks. The first licences were granted on 1995, on a free system and on a regional a local basis.

Currently, the paid television service reaches consumers through the following platforms:

- Cable television CATV - hybrid optical fibre and cable networks that distribute the TV signal received at the *Head end* through the cells that make up the local access networks, containing a few hundred households each.

⁶⁷ The service grouping presented on this chapter does not intend to anticipate any possible decision regarding the definition of relevant markets that can be made within other contexts.

⁶⁸ Specifically, paid television services using own Technologies and FWA.

⁶⁹ According to the media, RETI's management was transferred to PTC on April 2008.



- Satellite television (DTH) – operators have been providing, since 1998, a satellite service alternative to cable, for non-cabled areas. In order to have this service, the customer needs a satellite dish, a receiver/decoder and an access card. This offer enlarged the geographical coverage of paid television services, and the corresponding amount of subscribers has been considerably growing. Currently, the commercial offer for television is identical to the cable offer. However, interactivity is not possible.

This offer is part of the cable TV network operator's portfolio and it complements this service's offer geographically. PTC also launched a DTH offer in 2008.

- IPTV and DVB-T – At the end of 2005, two new television distribution services offers were launched: SmarTV by Novis (Clix), and TV.NET.TEL by AR Telecom. While the first one is an IPTV offer, the service provided by AR Telecom uses a special technology called Tmax. Tmax is a digital, wireless technology with a high transmission capacity supported on the DVB-T telecommunications standard and on the IP standard. Although using different technologies from those used by cable television network operators, these services have similar characteristics to cable television.

It should be mentioned that in June 2007, PT Group launched an IPTV commercial offer, only available in specific geographic zones of Lisbon, Porto and Castelo Branco.

- Mention should be made to the launch of television distribution offers based on 3G and 3.5G mobile services and on the DVB-H (Digital Video Broadcasting – Handheld) standard. The DVB-H standard is based on DVB-T, and enables the use of interactive services and the access to "on demand" programmes. The evolution of this type of mobile television offers is thus analyzed on this report's chapter concerning mobile services.
- Lastly, on February 2008, public tenders were launched for granting rights of frequency use for the digital television broadcasting service, and for the distribution operator's licence. This new platform will not be included in this report.

In general, paid television service operators provide:

- television channel packages comprising several dozens of channels, including the four national open channels, generalist channels, entertainment, information, documentary, movies, channels for children, history, music, health channels, etc.
- "premium" or "supplementary" services – service that offers conditioned access channels and that are subject to the payment of an additional amount, such as Sport TV, movie channels, and Disney Channel among others.

Services offered in areas covered by digital head-ends, further to the installation of a power box, such as:

- Near video-on-demand – possibility of watching movies on demand, by user request, at given schedules;
- TV Guide or EPG (electronic program guide);
- Interactive programming and multi-cam football – access to interactive channels and programmes.

This service implies the payment of an installation price and a monthly fee.

Some of these services are marketed in a package, together with the broadband Internet service and/or the voice telephony service.

Active operators

Following we present the list of Cable TV Distribution Service (CDS) providers.

Cable TV Distribution Service Providers - 2007

Table 83

Name	
Associação de Moradores do Litoral de Almancil*	A
Associação de Moradores da Urbanização Quinta da Boavista*	A
Bragatel – Comp. Televisão por Cabo de Braga, S.A.	A
Cabo TV Açoreana, S.A.	A
Cabo TV Madeirense, S.A.	A
Cabovisão – Sociedade de Televisão por Cabo, S.A.	A
CATVP – TV Cabo Portugal, S.A. ⁷⁰	A
Entrónica – Serviços na Área de Telecomunicações, Lda.	A
Pluricanal Leiria – Televisão por Cabo, S.A.	A
Pluricanal Santarém – Televisão por Cabo, S.A.	A
TVTel Grande Porto – Comunicações S.A.	A
Total active	11
Total non active	0
Total	11

Source: ICP-ANACOM.

Legend: A – Active; NA – Non Active.

* Cable distribution networks not accessible to the public.

Since cable distribution network operators' authorizations were granted until the end of 2003 by geographic area (municipality), the table below shows the list of entities operating in each region⁷¹. It should be highlighted, however,

that the presence of the operator in certain regions does not imply that they are present in all of those regions municipalities.

Cable distribution network operators authorized to operate, by NUT II

Table 84

NUTS II	Active operators
North	Bragatel, Cabovisão, CATVP, TVTEL
Centre	Cabovisão, CATVP, Entrónica, Puricanal Leiria, Pluricanal Santarém
Lisbon	Cabovisão, CATVP, Pluricanal Leiria, TVTEL
Alentejo	Cabovisão, CATVP, Pluricanal Santarém
Algarve	Associação de Moradores do Litoral de Almancil, Associação de Moradores da Urbanização Quinta da Boavista, Cabovisão, CATVP
Autonomous Region of Madeira	Cabo TV Madeirense
Autonomous Region of the Azores	Cabo TV Açoreana

Source: ICP-ANACOM.

Between 2000 and 2006 there were no major changes in the amount of cable TV distribution network operators. Indeed, the decrease in the number of active operators occurred in 2002 resulted from the replacement of CATVP regional companies operating in the mainland for one single company.

The increases registered in the recent years are explained by the authorizations granted to residents associations, which networks are of small size and are not available to the public.

⁷⁰ After October 2005 the full capital of CATVP – TV Cabo Portugal, S.A., previously held by PT – Televisão por Cabo SGPS, S.A., became the property of PT Multimédia – Serviços de Telecomunicações e Multimédia, SGPS, S.A.

⁷¹ Level 2 units of the Nomenclature of Territorial Units for Statistical Purposes (NUTS), established by Decree-Law no. 244/2002 of 25 November. Under the terms of that diploma, the following 7 NUTS II were established in Portugal: North (Minho-Lima Cávado, Ave, Grande Porto, Tâmega, Entre Douro e Vouga, Douro and Alto-Trás-os-Montes), Centre (Baixo Vouga, Baixo Mondego, Pinhal Litoral, Pinhal Interior Norte, Pinhal Interior Sul, Dão-Lafões, Serra da Estrela, Beira-Interior Norte, Beira Interior Sul, Cova da Beira, Oeste and Médio Tejo), Lisbon (Greater Lisbon and Setúbal Peninsula), Alentejo (Lezíria do Tejo, Alentejo Litoral, Alto Alentejo, Alentejo Central and Baixo Alentejo), Algarve, ARA and ARM.



In 2007 TV Cabo/ZON announced the acquisition of TVTel, Bragatel and the Pluricanal companies. These entities were held by the Parfite Group. In 2008 the Competition Authority conducted a profound investigation on this market concentration operation, since according to the available information it could create or strengthen a dominant position which may lead to considerable competition barriers within the paid television market nationwide.

The table below shows the companies that provide the paid television service using DTH.

Following the spin-off from PT Multimédia (TV Cabo/Zon), PTC announced the launch of a DTH offer already in 2008.

Television Distribution Service Providers using DTH - 2007

Table 85.

Name	
Cabo TV Açoreana, S.A.	A
Cabo TV Madeirense, S.A.	A
CATVP – TV Cabo Portugal, S.A. ⁷²	A
TVTel Grande Porto – Comunicações S.A.	A
Total active	4
Total non active	0
Total	4

Source: ICP-ANACOM.
Legend: A – Active; NA – Non Active.

Besides the cable TV network operators, as previously mentioned, the company AR Telecom – Acessos e Redes de Telecomunicações, S.A. is licensed to provide the television signal distribution service since April 2005, and Novis Telecom, S.A. is licensed to provide the television signal

and video distribution service since November 2005. Following the spin-off from PT Multimédia (TV Cabo/Zon), PTC launched an IPTV service included in a *triple-play* offer during July 2007.

Television Distribution Service Providers - 2007

Table 86.

Name	
AR Telecom – Acessos e Redes de Telecomunicações, S.A. ¹⁾	A
SONAECOM - Serviços de Comunicações, S.A. ^{2) 3)}	A
PT Comunicações, S.A. ³⁾	A
IPTV Telecom – Telecomunicações, Lda	NA
Total active	3
Total non active	1
Total	4

Source: ICP-ANACOM.
Legend: A – Active; NA – Non Active.

1) AR Telecom provides digital television using TMAX technology.

2) Following the Novis/Optimus merger, Novis Telecom, S.A. changed its name to SONAECOM - Serviços de Comunicações, S.A.

3) Sonaecom and PTC provide digital television using ADSL.

⁷² After October 2005 the full capital of CATVP – TV Cabo Portugal, S.A., previously held by PT – Televisão por Cabo SGPS, S.A., became the property of PT Multimédia – Serviços de Telecomunicações e Multimédia, SGPS, S.A.

The offer's structure

Specifically regarding the cable TV distribution service, TV Cabo/ZON Group's cabled household share was close to 70

per cent. In 2007 it decreased 1 per cent, standing at 68 per cent.

TV Cabo/ZON Group's cabled household share

Table 87.

2003	2004	2005	2006	2007
71	70	71	69	68

Unit: %.
Source: ICP-ANACOM.

Considering the amount of cable television subscribers, TV Cabo/ZON Group's share reached 74 per cent, 1 per cent less

than a year before and 7 per cent less than in 2003.

TV Cabo/ZON Group's cable television subscriber share

Table 88.

2003	2004	2005	2006	2007
81	79	78	75	74

Unit: %.
Source: ICP-ANACOM.

It should be mentioned that these figures still don't reflect the effects from the acquisitions of Bragatel, TVTEL and the Pluricanal companies, since the Competition Authority hasn't yet authorized the operation. If the effects of this concentration were considered, TV Cabo/ZON Group's customer share would have increased 6 per cent in 2007.

Regarding the remaining paid TV distribution platforms, they stood for about 2 per cent of total paid TV by the end of 2007.

The profile of the paid television service subscriber

Concerning DTH, which stands for about 24 per cent of the total amount of paid TV subscribers, TV Cabo/ZON Group was the only provider of this service until 2007. In 2007 provider TVTel started offering this service. This operator's share is still considerably low.

This section characterizes the paid television subscriber, according to the data of the electronic communications consumer survey of December 2006⁷³.

The paid TV service subscriber resides mainly in the autonomous regions and in the most populated urban areas.

Percentage of households subscribing television by geographical location

Table 89.

North	Centre	Lisbon	Alentejo	Algarve	Azores	Madeira
41,4	37,1	69,5	44,8	46,1	81,4	80,8

Unit: %.
Source: ICP-ANACOM, Electronic communications consumer survey December 2007.

⁷³ 2007 Electronic communications consumer survey - The Universe defined for this survey was made up of users 15 years old or older, living in Mainland Portugal and in the Autonomous Regions of Madeira and the Azores. The sample was made up of 3504 interviews, with a semi-proportional distribution by NUT II region. Households were selected randomly from a stratified matrix including the Region (7 NUT II regions) and the Habitat/Size of the population aggregates (5 groups). Crossing these variables ensured a proportional distribution of the sample by region regarding the Portuguese population in general. Results were later weighted in order to grant each region its real weight within the Portuguese population. Quotas were defined with base on the General Population Census (2001) by Instituto Nacional de Estatística (I.N.E.). Interviewees at each household were selected using the quota method, based on the crossing of variables Sex, Age (3 groups), Education (3 groups: primary education or less, more than primary education and less than higher education, and more than higher education - according to the categorization requested by ICP-ANACOM), and Occupation (2 groups). Data was collected by telephone interviews, made to fixed network numbers and mobile phone numbers, using the CATI (Computer Assisted Telephone Interview) system. The fieldwork was conducted between 1 November 2007 and 17 December 2007 and carried out by company GfK Metris. The results obtained for each of the four services considered (fixed telephone service, mobile telephone service, Internet access service, and paid TV service) have a maximum error of 4 per cent (for a confidence level of 95 per cent).



Percentage of households subscribing television per habitat size

Table 90.

Less than 2,000 inhabitants	From 2,000 to 9,999 inhabitants	From 10,000 to 99,999 inhabitants	City of Porto	City of Lisbon
15,8	33,0	47,6	62,7	64,9

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey December 2006.

On the other hand, the higher the socio-economic level of the interviewee, the higher the probability that he/she will have access to a paid television service.

Percentage of households subscribing television per socio-economic level

Table 91.

Status social	Dec. 2007
Class A	74,3
Class B	66,0
Class C	58,0
Class D	44,2
Class E	41,1

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey December 2007.

There is also a positive relation between the interviewee's education level and the percentage of households subscribing a television service.

Percentage of households subscribing television per education level

Table 92.

4th grade	6th grade	9th grade	12th grade	Higher education
26,1	33,3	49,8	49,9	66,1

Unit: %.

Source: ICP-ANACOM, Electronic communications consumer survey December 2006.

Barriers to service subscription

Geographical location and the income level are the main barriers to subscribing the service.

In fact, the cable TV distribution service is available in the urban areas of Lisbon, Porto, Algarve, the Northern coastline and the autonomous regions. In the remaining regions, namely in the country's inland, there are no cable distribution networks available. These regions also show lower income levels. However, the massive take up of satellite TV and

IPTV offerings will tend to eliminate the barrier connected to geographic location.

The evolution of the paid TV service in 2007

Below are some elements on the evolution of this service in 2007: geographic availability and penetration, service usage level, prices and quality of service.

Geographic availability of the service

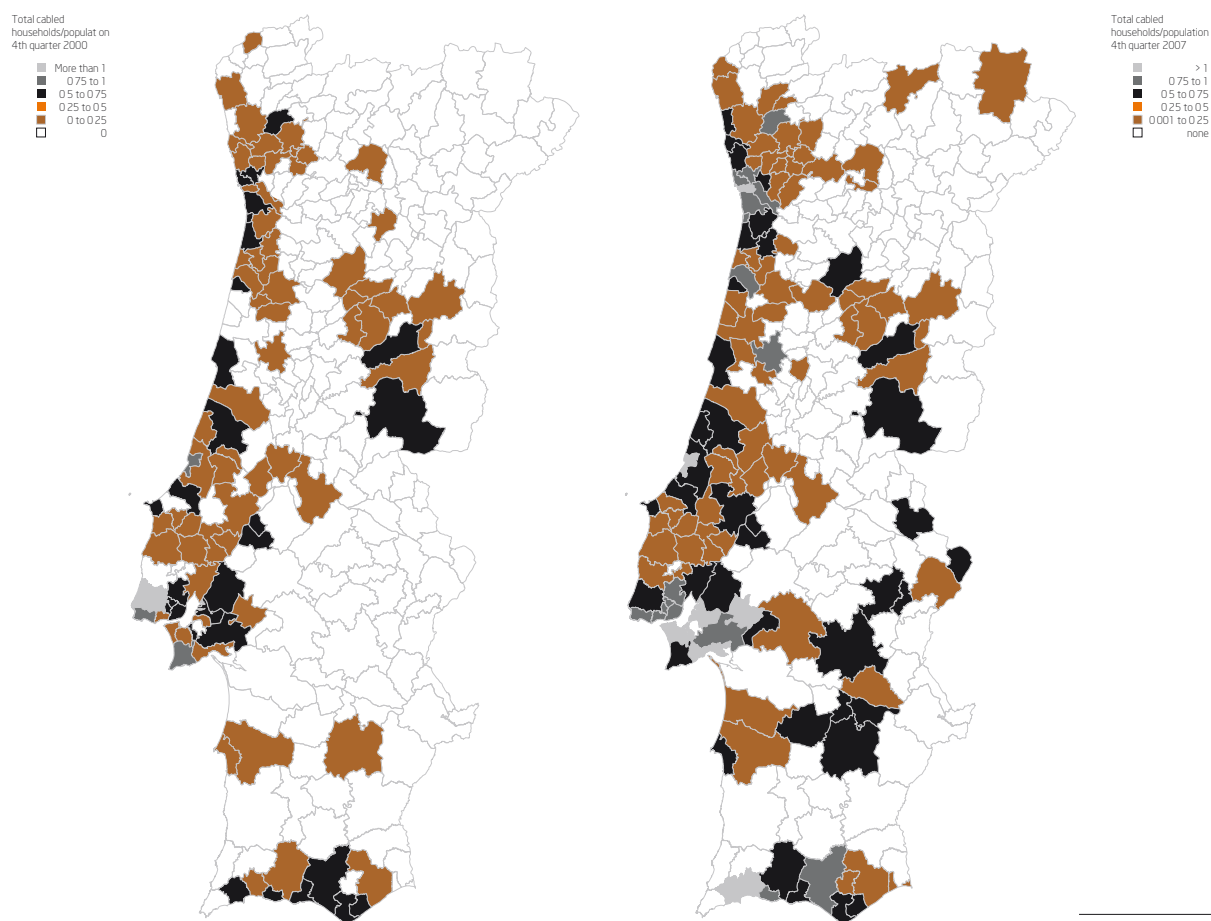
Concerning the service's geographical availability, we analyse below the geographical distribution of cabled households and the evolution of cabled household penetration in time. However, we highlight the fact that satellite TV and IPTV offerings will make it possible to access the service from almost any location in the country.

The evolution of cabled households⁷⁴

The following maps show CDS's geographical availability at the end of 2000 and at the end of 2007..

Geographical distribution of cabled households

Graph 112.



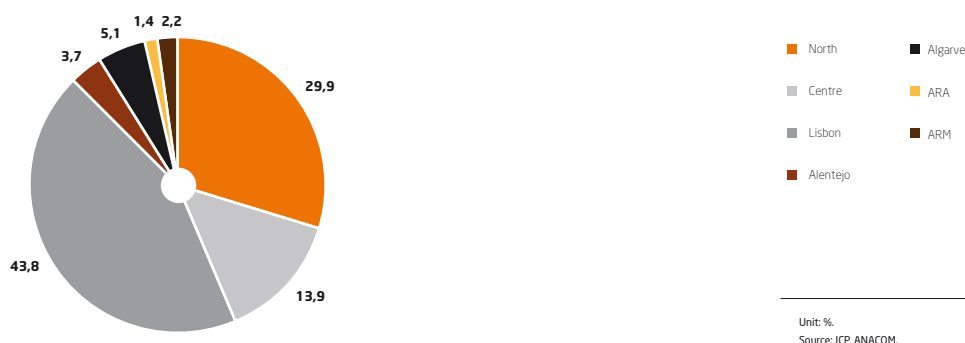
Source: ICP ANACOM.

⁷⁴ The offer of the service by more than one operator in the same region implies that a same household may have multiple cabling. This means that when adding all operators' cabled households may result in double counting. This is evident, for example, in the Lisbon region, where the sum of all operators' cabled households is higher than the total amount of households. This fact has become more relevant with the increase of competition between operators.



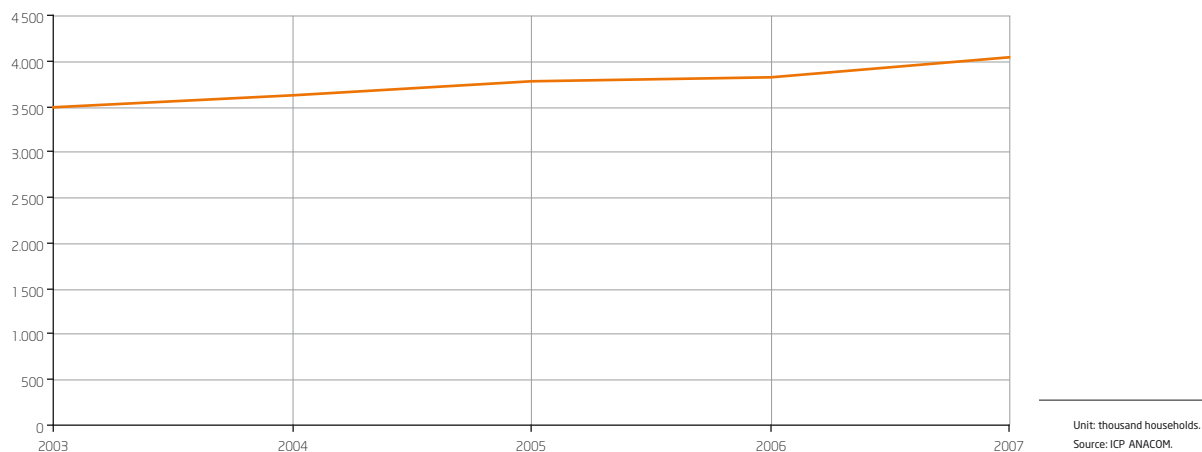
Distribution of cabled households per NUTS II - 2007

Graph 113.



Evolution of cabled households

Graph 114.



This service's current geographical distribution is explained by the following factors:

- This business' economy favours the installation of networks in more populated areas and with a much higher economic level, and the intensive use of the already installed infrastructures. In this feature, this service's spatial development is not different from other network industries demanding high initial investment and with cost structures with a higher fixed costs rate;

- The inter-relation between the incumbent operator's strategy and the new operators' strategies. The incumbent operator started installing its networks in larger urban areas. New operators, on an early stage, started to operate in smaller size urban areas and/or in municipalities where the incumbent operator was not yet installed or where its presence was less important. Later, operators started providing services in areas surrounding their initial areas or in less populated areas, and currently there are several areas with more than one operator;

- The emergence and development of DTH as a less expensive alternative for the provision of a television distribution services in less populated or remote areas..

In 2007, specifically, the sum of new households cabled by the operators was 214 thousand, a figure above that recorded in the 2003-2007 period (136 thousand households). The growth rate of all cabled households reported by the operators reached 5.6 per cent in 2007.

Cabled households

Table 93.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
North	1.125.211	1.208.386	7,4%	7,4%	32,9%
Centre	530.966	563.516	6,1%	4,1%	17,7%
Lisbon ¹⁾	1.708.294	1.768.867	3,5%	1,6%	6,5%
Alentejo	122.282	147.747	20,8%	4,9%	21,0%
Algarve	194.824	204.791	5,1%	2,7%	11,2%
Autonomous Region of the Azores	55.891	55.891	0,0%	0,8%	3,1%
Autonomous Region of Madeira	87.711	90.594	3,3%	1,7%	6,8%
Total	3.825.179	4.039.792	5,6%	3,7%	15,6%

Unit: 1 household, %.
Source: ICP-ANACOM.

1) The offer of the service by more than one operator in the same region may imply the multiple cabling of the same household. This fact has gained relevance, namely in the Lisbon region.

Service's usage level

Below we present the evolution in the amount of CDS subscribers and the corresponding penetration. We also present the evolution in the amount of customers of the television distribution service using DTH, IPTV and DVB-T technology.

CDS evolution: amount of subscribers

At the end of 2007 there were over 1.49 million subscribers to the cable television distribution service in Portugal, 69 thousand more than a year before (a 4.9 per cent growth).

In absolute terms, it was the North region that most contributed to the registered growth. Alentejo, Algarve and the Centre regions - were service penetration is lower than the average and cable distribution networks are less developed - also presented growth rates above the average.

In general, between 2003 and 2007 this service was subscribed by an average of 39 thousand subscribers per year, which corresponds to a 2.8 per cent average annual growth rate. Factors such as the development of ADSL access as an alternative means for broadband Internet access could have influenced this evolution during the mentioned period.



Amount of CDS subscribers

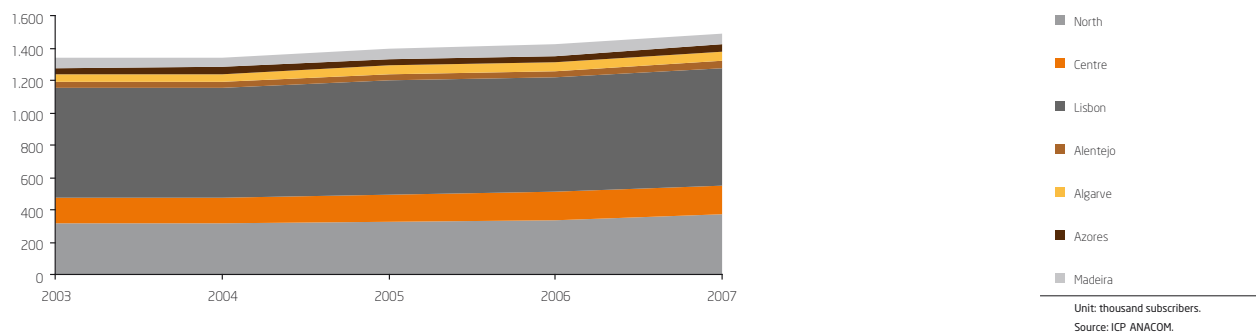
Table 94.

	2006	2007	Year-on-year variation)	2003/2007 average annual variation	2003/2007 variation
North	336.320	368.465	9,6	4,0	17,0
Centre	170.722	179.362	5,1	2,6	10,9
Lisbon	708.984	723.019	2,0	1,6	6,6
Alentejo	39.718	46.998	18,3	7,6	33,9
Algarve	52.600	56.082	6,6	2,6	10,8
Autonomous Region of the Azores	43.827	45.695	4,3	4,8	20,6
Autonomous Region of Madeira	68.367	70.277	2,8	5,6	24,5
Total	1.420.538	1.489.898	4,9%	2,8%	11,6%

Unit: 1 subscriber, %.
Source: ICP-ANACOM.

Evolution of CDS subscribers

Graph 115.



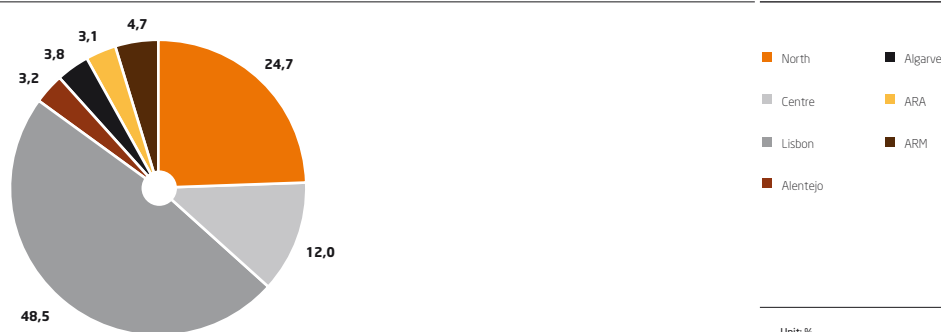
The considerable growths that occurred in the autonomous regions of the Azores and Madeira were directly influenced by the protocols signed between the General Government, the Regional Governments, ICP-ANACOM and the only television distribution network operator currently operating in each of the autonomous regions. The protocol in force in Madeira was signed on 6 August 2004, influencing the number of cable television service subscribers since the fourth quarter of that year.

The Azores protocol was signed on 5 November 2006, with the validity of one year, with its effects being reflected during 2006, namely in the increase in the number of cable television service subscribers.

Concerning the spatial concentration of cable TV distribution subscribers, Lisbon concentrates 49 per cent of subscribers, directly followed by the North region (25 per cent).

Distribution of subscriber by NUTS II - 2007

Graph 116.



CDS evolution: Penetration

In 2007, the penetration rate of cable television subscribers reached 27 subscribers per 100 households. In the period between 2003 and 2007, cable television subscriber penetration versus all Portuguese households grew 1.6 per cent.

Once again the highlight goes to growths registered in the Azores and Madeira, (5.4 and 6.1 per cent, respectively), here also due to the impact of the entry into force of the protocols signed with both autonomous regions.

Cable TV subscriber penetration versus total households

Table 95.

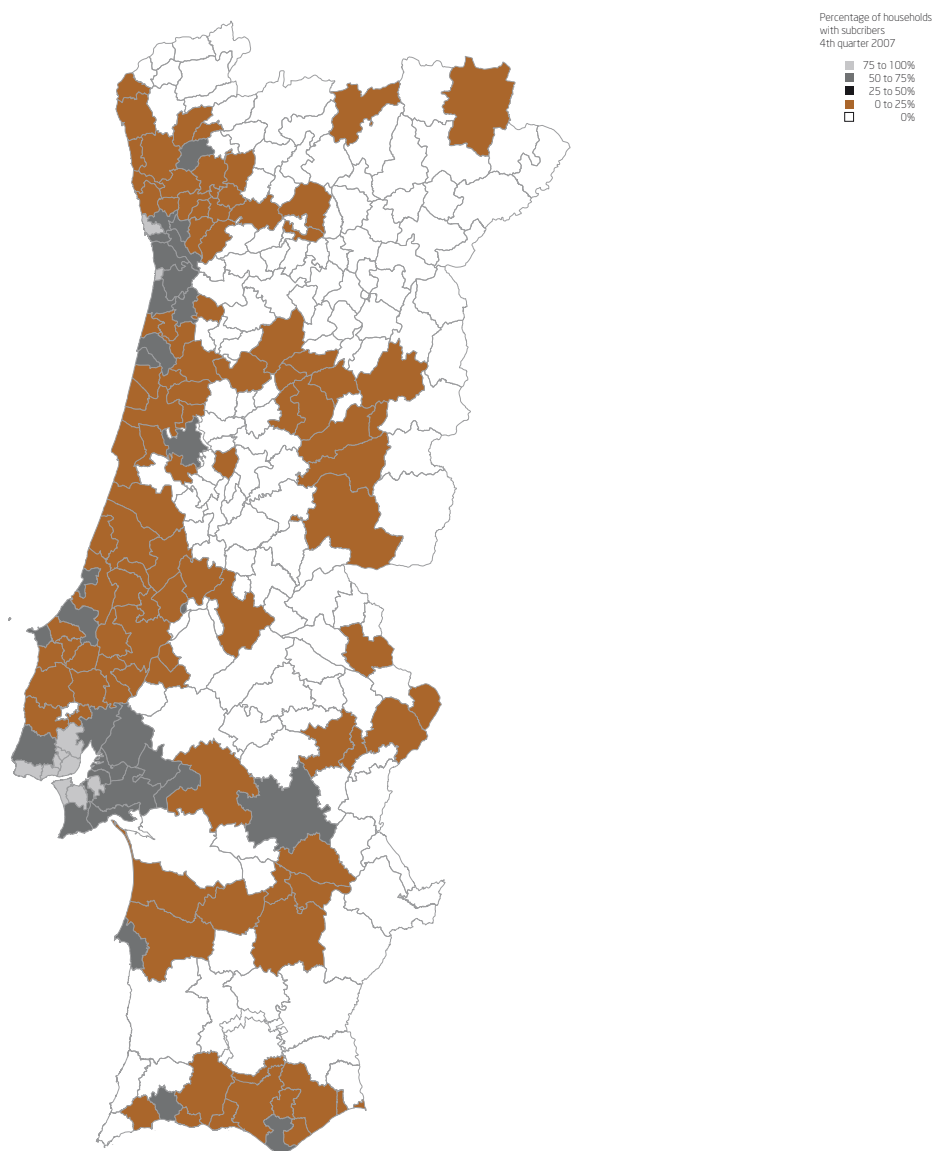
NUTS II	2006	2007	2006/2007 Var. (%)	2003/2007 average Var. (%)	2003/2007 Var. (%)
North	18,7	20,3	1,6	0,5	2,1
Centre	12,5	13,0	0,5	0,2	0,7
Lisbon	51,3	51,9	0,6	0,3	1,4
Alentejo	8,8	10,3	1,5	0,6	2,3
Algarve	16,1	16,8	0,7	0,0	0,1
Autonomous Region of the Azores	43,1	44,3	1,2	1,3	5,4
Autonomous Region of Madeira	59,8	59,8	0,0	1,5	6,1
Total	25,7	26,7	1,0	0,4	1,6

Unit: subscribers per 100 households.
Source: ICP-ANACOM.



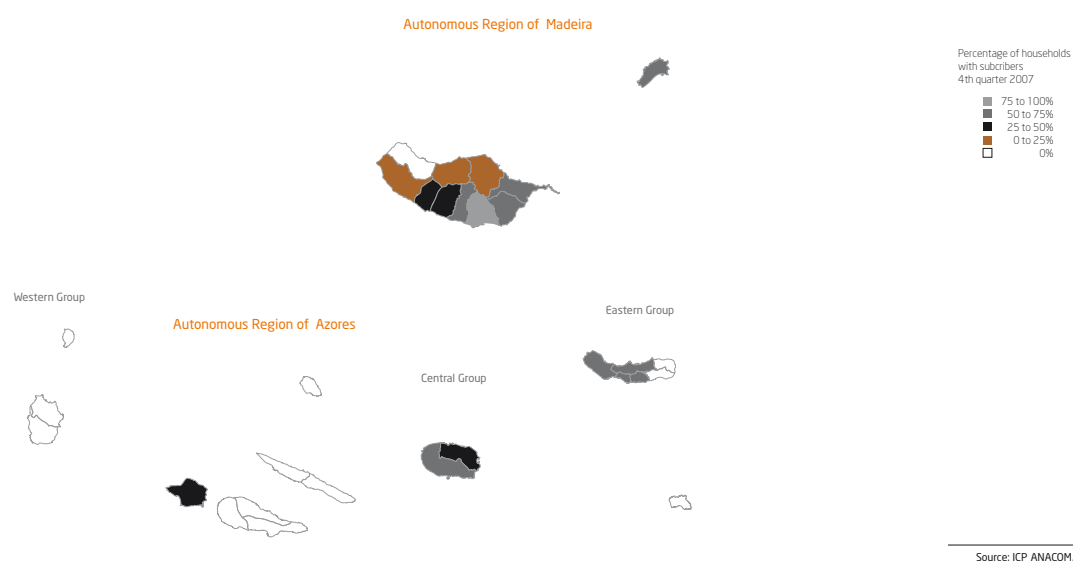
The map below shows this service's subscribers geographical distribution.

Geographical distribution of cable TV subscribers (Mainland Portugal)
Graph 117.



Source: ICP ANACOM.

Graph 6-7 - Geographical distribution of cable TV subscribers (Autonomous Regions of the Azores and Madeira)
Graph 118.

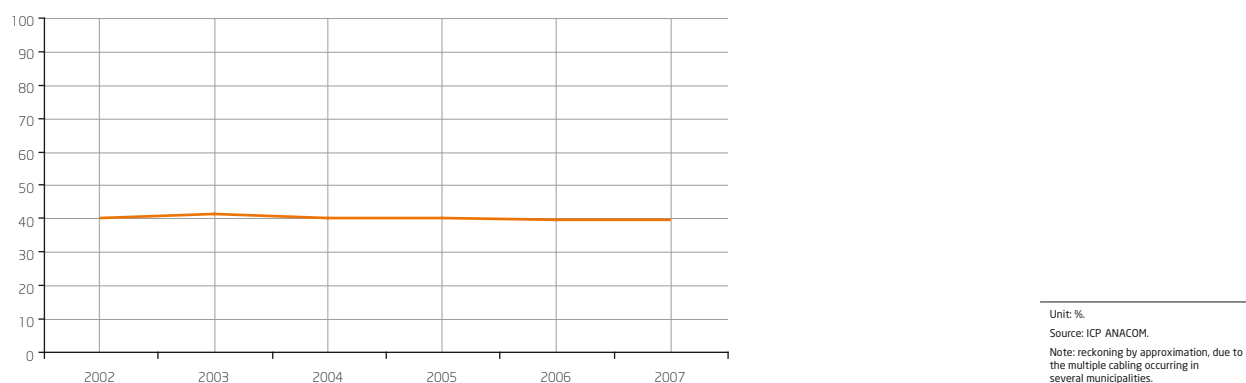


This service's subscriber penetration presents a pattern similar to that of cabled households: this service's subscribers are concentrated in the larger urban centres such as Greater Lisbon and Greater Porto, the Setúbal peninsula, Northern coastline, and Algarve, while the autonomous regions of Madeira and Azores also present a considerable amount of subscribers, particularly in the main cities.

It is also possible to measure cable TV subscribers' penetration versus all cabled households.

As shown, service penetration in cabled households is slightly below 40 per cent, a steady figure during the latest years.

Evolution of CDS penetration versus cabled households
Graph 119.

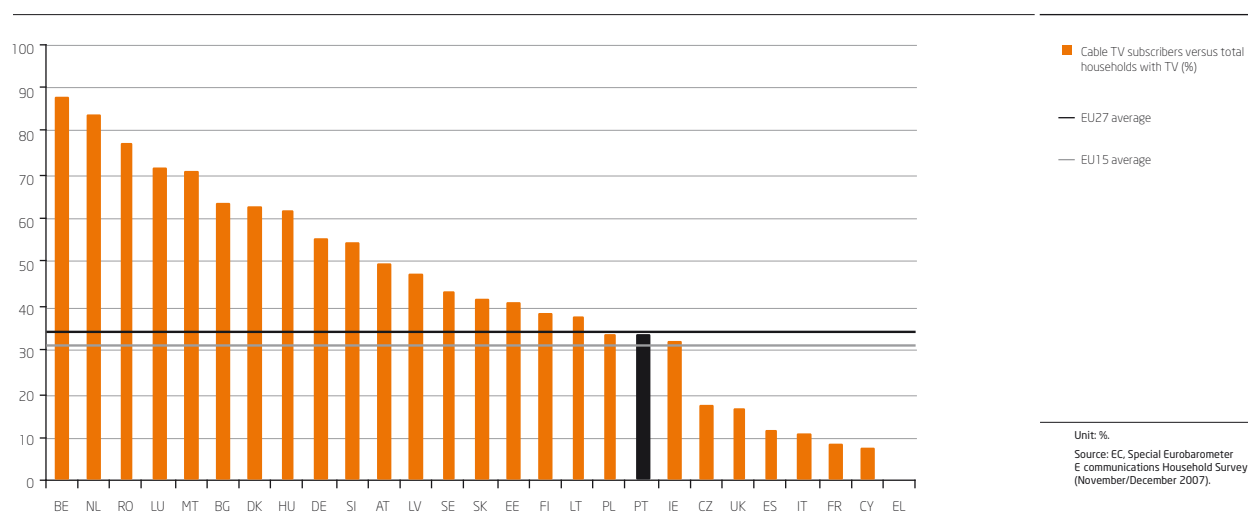




On the other hand, paid TV penetration in households with TV is still quite modest when compared with that registered in other countries of Europe.

Cable TV subscriber penetration rate versus households with TV

Graph 120.



DTH service

The DTH service is an important component of the activity of some cable distribution network operators (CATVP, Cabo TV Madeirense and Cabo TV Açoreana). Recently, as mentioned before, TVTel and PTC also launched or announced the launch of this service.

By the end of 2007 the amount of satellite television distribution service subscribers reached around 484 thousand. In 2007 this services registered an 11 per cent growth, which translates in to 48 thousand new subscribers. North, Centre and the Azores were the regions that contributed most to this growth.

Amount of DTH subscribers

Table 96.

	2006	2007	Year-on-year variation	2003/2007 average annual variation	2003/2007 variation
North	141.296	156.738	10,9	9,0	41,1
Centre	124.131	136.918	10,3	6,7	29,7
Lisbon	48.693	51.351	5,5	7,8	34,8
Alentejo	48.422	52.439	8,3	3,7	15,6
Algarve	20.454	22.185	8,5%	3,5	14,7
Autonomous Region of the Azores	34.545	44.576	29,0%	25,3	146,5
Autonomous Region of Madeira	18.020	19.325	7,2	48,7	389,4
Total	435.561	483.532	11,0	9,1	41,6

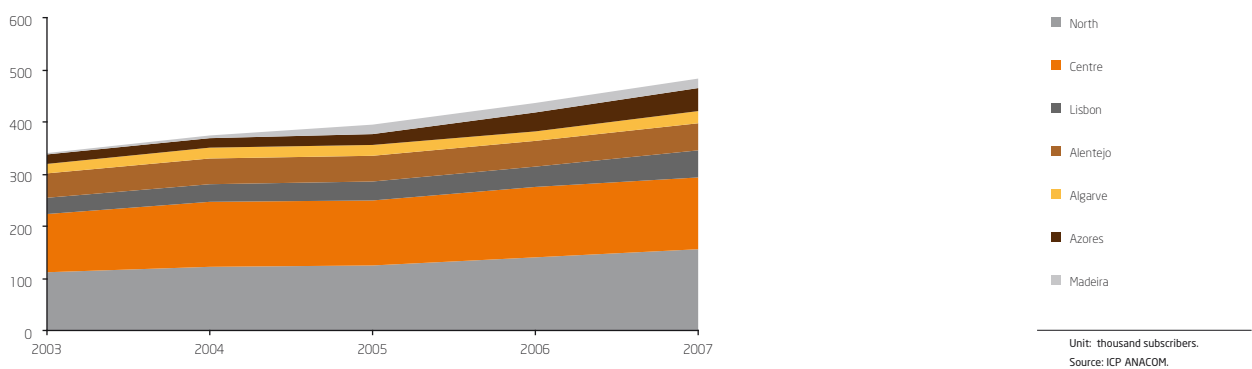
Unit: 1 subscriber, %.
Source: ICP-ANACOM.

Between 2003 and 2007, the DTH service registered year-on-year growth rates above those registered by the cable television distribution service, and recorded an average of

36,000 new subscribers per year, which corresponds to a 9 per cent average annual growth rate.

Evolution of DTH TV subscribers

Graph 121.

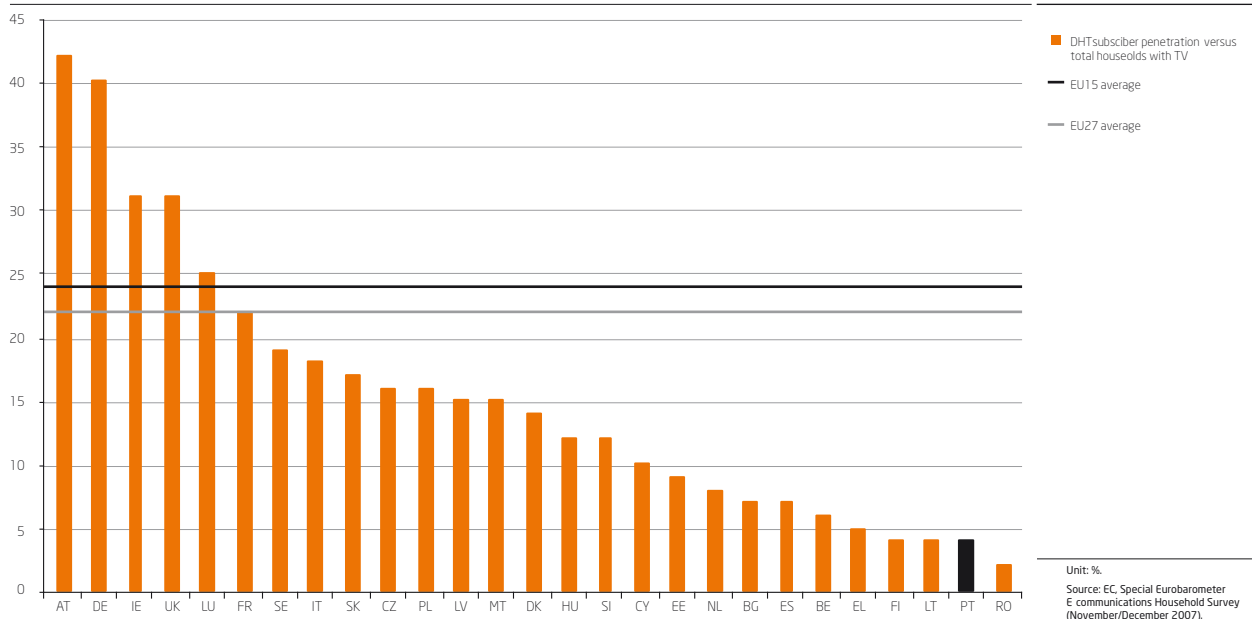


It should be mentioned that these growth rates are explained by the influence of the protocols signed with the autonomous regions, previously mentioned.

According to the most recent data, Portugal ranked 25th in the European ranking regarding satellite television service subscriber penetration, with a penetration of 4 subscribers per 100 households equipped with TV.

DTH subscriber penetration versus households with TV

Graph 122.



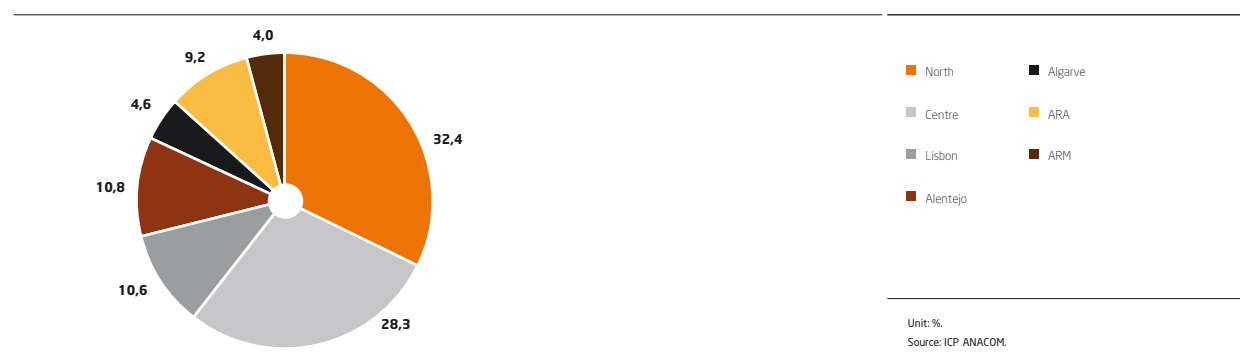


The graph below shows the geographical distribution of DTH technology subscribers at the end of 2007, where the

North and Centre regions continue to concentrate the larger percentage of users of this technology.

Distribution of DTH TV subscribers by NUTS II - 2007

Graph 123.



IPTV and similar services

As mentioned previously, new TV distribution services emerged in 2005 using IPTV and DVB-T.

The following table shows the total amount of subscribers of the new television signal distribution offers marketed since 2006 (in 2005 there were only test customers).

Subscribers to the new television signal distribution offers

Table 97.

	2005	2006	2007
IPTV and similar (Tmax) subscribers	348	3.292	40.642

Unit: 1 subscriber
Source: ICP-ANACOM.

These services' penetration is still very low, although it has been growing at considerable rates since PTC entered these markets.

The service with the greatest growth was CDS, however, DTH is growing at higher rates (11 per cent in 2007, and 42 per cent since 2003), thus reflecting the operators' commercial strategy. It should be mentioned that these new paid TV services (IPTV and similar) were responsible for over 24 per cent of this service's new customers in 2007.

The paid TV service's usage level: an integrated perspective

The amount of paid TV customers surpassed 2 million in 2007, having increased about 8 per cent.

Amount of paid TV subscribers

Table 98.

	2006	2007	Year-on-year variation	2003/2007 average annual variation	2003/2007 variation
Cabo	1.420.538	1.489.898	4,9	2,8	11,6
DTH	435.561	483.532	11,0	9,1	41,6
IPTV and similar	3.292	40.642	1134,6		
Total	1.859.391	2.014.072	8,3	4,7	20,1

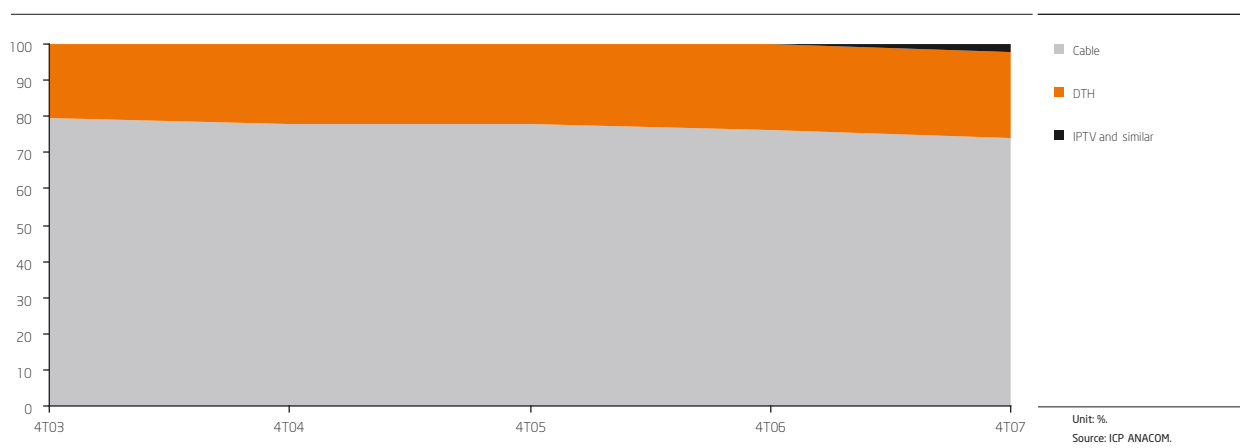
Unit: 1 subscriber, %
Source: ICP-ANACOM.

By the end of 2007, households subscribing the cable television service stood for about 74 per cent of total paid TV subscribers, leading to the conclusion that cable TV is the main access technology. However, and as mentioned above, during the period under review Dutch's growth was faster

than that of cable networks. At the end of 2007, DTH stood for 24 per cent of this service's total customers. The new IPTV and similar services were subscribed by 2 per cent of the customers.

Evolution of the percentage of paid TV subscriber by technology

Graph 124.



In relative terms, DTH is mainly present in Alentejo, where it stands for 53 per cent of all households with access to paid TV services, in the Autonomous Region of the Azores (49 per cent), and in the Autonomous Region of Madeira

(43 per cent). In the remaining regions, the paid TV service represents between 70 per cent and 9 per cent of the overall amount. DTH geographic distribution partly complements cable services.

Distribution of (cable + DTH) subscribers by technology - 2007

Table 99.

NUTS II	Television services subscriber rate	
	Cable	DTH
North	70,2	29,8
Centre	56,7	43,3
Lisbon	93,4	6,6
Alentejo	47,3	52,7
Algarve	71,7	28,3
Autonomous Region of the Azores	50,6	49,4
Autonomous Region of Madeira	78,4	21,6
Total	75,5	24,5

Unit: %
Source: ICP-ANACOM.



As shown, paid TV service's revenues have been growing at high rates. In 2007, revenues grew 9.4 per cent. According to estimates, the cable TV distribution service stands for

72 per cent of overall revenues. IPTV and similar services contributed with 1 percent of the overall figure.

Paid TV service's revenues

Table 100.

	2006	2007	Year-on-year variation	2003/2007 average annual variation	2003/2007 variation
Cable TV distribution service	366 616	392 701	7,1	7,3	32,5
Satellite distribution service (DTH)	129 597	144 820	11,7	11,3	53,7
IPTV and similar	572	5.718	898,8		
Total	496 785	543 240	9,4	8,6	39,0

Unit: 1 000 euros, %.
Source: ICP-ANACOM.

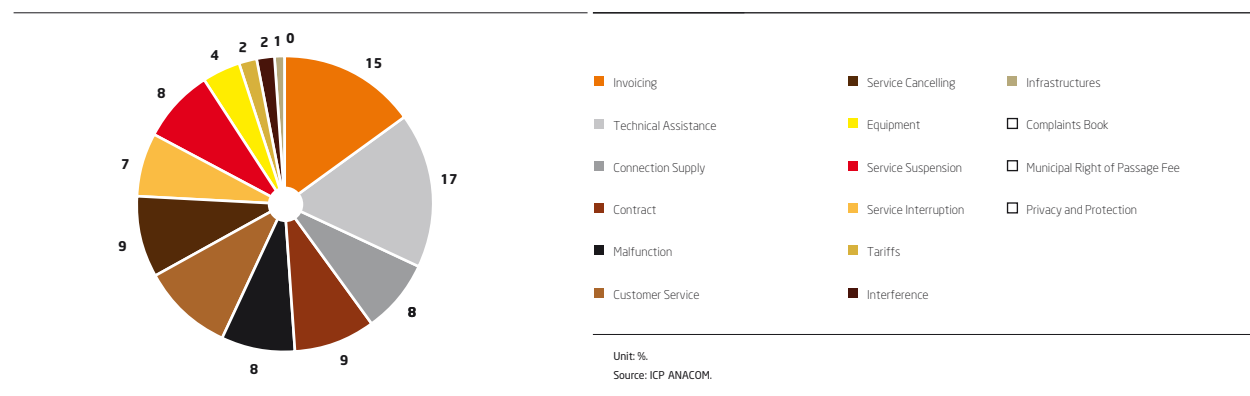
Complaints

During 2007, ICP-ANACOM received 1,696 complaints concerning the television distribution service and its operators. The cable TV distribution service is the 4th service receiving more complaints.

The main reasons why the service's users are not satisfied relate to technical assistance, invoicing and public attendance.

Complaints on the television distribution service - 2007

Graph 125.





02.

Postal Services



■ Postal Services

This chapter presents the state of postal services at the end of 2007, as well as their evolution during that year.

Main items of evolution in 2007

Two new licenses were granted in 2007 for the provision of non-reserved services but within the universal service's weight and price limits. 17 new authorizations were also granted for the provision of express mail services. Thus, at the end of the year, there were 63 licensed entities entitled to provide postal services.

50 entities were active, 5 more than a year before.

In spite of the already considerable amount of entities operating in this market – namely, besides CTT Group's companies, agents from major international express service groups – most of the authorized entities are made up of small size franchises, and therefore there is a high concentration level.

CTT Group continues to have a high share of postal traffic. By traffic destination, CTT Group's share reaches 99 per cent on national traffic, and 93 per cent on international traffic.

By type of service, the CTT Group is responsible for 99 per cent of traffic outside the express mail category, and 46 per cent of express mail traffic, close to the 2006 figure.

Network access points⁷⁵ continue to decrease, due to the policies followed by the CTT Group, thus reducing postal density and coverage.

On the other hand, the number of employees in the postal sector fell 1.8 per cent. CTT Group companies continue to reduce the number of employees while employment at the competition increased 1.3 per cent during the year under analysis. Overall, since 2003, postal sector employment fell about 6 per cent.

Postal traffic increased 1.1 per cent. Liberalized traffic increased 4.9 per cent, while reserved traffic increased 3.1

per cent. After 3 liberalization stages, reserved traffic stands for 77 per cent of the overall amount.

We highlight the fact that express mail traffic increased 8.8 per cent, fostered by the larger operators' parcels distribution activity.

The prices of the integrated provisions in the universal service continued to record real price decreases and stood below the EU15 average in 2007.

During 2007, CTT fulfilled the established quality objectives, except for the target value of Correspondence not delivered within 15 working days.

However, consumers' main complaints regard issues such as customer support and "not trying home delivery". Delays in delivery are only the third reason for complaints.

The postal services' offer

The postal sector in Portugal includes all entities and activities in connection with the establishment, management and operation of postal services on the national territory, as well as international services with origin or destination on the national territory.

A first segmentation of the sector results from the definition of universal service.

In Portugal, the universal service is the "permanent offer of postal services with a specified quality, provided on all locations of the national territory, at affordable prices to all users, in order to satisfy the communication's needs of the population and of economic and social activities"⁷⁶.

The scope of the universal service includes a postal service of sending correspondence, books, catalogues, newspapers and other periodicals weighting up to 2 Kg, and postal parcels up to 20 kg, as well as a service of registered sendings and a service of declared values, in the national and international scope.

⁷⁵ The network includes all operators.

⁷⁶ Law no. 102/99 of 26 January 1999.

To ensure the economic and financial viability of the universal service provision, there is a set of services – reserved postal services – that are exclusively provided by the universal service operator⁷⁷.

All postal services not included in the definition of reserved postal services are operated in competition and may be provided by the entity that provides the universal service or by single or collective legal persons properly authorized for that purpose.

An individual licence system applies to the provision of postal services that are non-reserved but are included in the scope of the universal service. The provision of postal services that are non-reserved and not included in the scope

of the universal service is subject to a legal authorization, which regime is characterized by being relatively less demanding regarding the terms of access to the activity and the obligations established.

Postal services

The following table sums up the reserved postal services, provided exclusively by CTT, and the non-reserved services, which can be provided by any entity entitled for that purpose.

Reserved and non-reserved postal services

Table 101.

Postal services	Name	Provider
Reserved services	<ul style="list-style-type: none"> Postal service of sending correspondence, including addressed publicity, whether or not with express delivery, which price is two and a half times lower than the public tariff for sending a 1st class correspondence of the fastest standardized weight category, as long as it weights less than 50gr; nationally and internationally; Postal service of sending registered correspondence and declared-value correspondence, including legal notices by mail and penal notices by mail service, within the same price and weight limits mentioned in the previous paragraph, nationally and internationally; Issuance and sale of stamps and other postal values; Issuance of money orders; Placing of mail stands and mail boxes for the collection of postal sending in public areas 	CTT (operation under Concession Contract)
Non-reserved services (national and international)	<p>Operation under a license</p> <ul style="list-style-type: none"> Postal service of sending correspondence, including addressed publicity, whether or not with express delivery, which price is two and a half times lower than the public tariff for sending a 1st class correspondence of the fastest standardized weight category, as long as it weights more than 50gr and less than 2kg, nationally and internationally; Postal service of sending books, catalogues, newspapers and other periodicals, weighing up to 2kg; Postal parcels service with up to 20kg; Postal service of sending registered correspondence and declared-value correspondence, including the legal notice by mail and the penal notice by mail service not included within the aforementioned price and weight limits. <p>Operation under an authorization</p> <ul style="list-style-type: none"> Express mail services (also usually known as courier). This service is characterized by the extra-fast reception/collection, handling, transportation and distribution of correspondence and parcels, being different from the corresponding basic services by fulfilling the following characteristics, among others: pre-defined delivery deadline; record of sendings; responsibility guarantee from the authorized provider; tracking of the sendings; Operation of document exchange centres – places where the users may self-distribute by the mutual exchange of postal sendings, having their own mail boxes; in order to do so, the users must form a group of subscribers, further to subscribing that service; Other services that fall in the definition of universal service and that are not included in the universal service's range, namely those which provision is made possible by technological evolution and that are different from traditional services. 	CTT and other entities entitled to provide postal services (further to a license or authorization).

Source: ICP-ANACOM.

77 Law no. 102/99 of 26 January 1999.



It should be noted that on 1 January 2006 a new postal sector's liberalization phase came into force. Under the terms of no. 3 of article 4 of Decree-Law no. 150/2001 of 7 May, with the corrections introduced by Decree-Law no 116/2003 of 12 June, the reserved area adopted the following weight and price limits: 50gr. and two and a half times the public tariff for sending a 1st class correspondence of the fastest standardized weight category, respectively.

In pursuing their activity, the entities providing postal services are based on a set of human and material resources which make up the postal network⁷⁸.

The postal service providers

In 2007 there were 63 entities entitled to provide postal services.

54 were entitled to provide express mail services and 10 were entitled to provide services outside the express mail category (CTTExpresso is entitled to provide both services simultaneously).

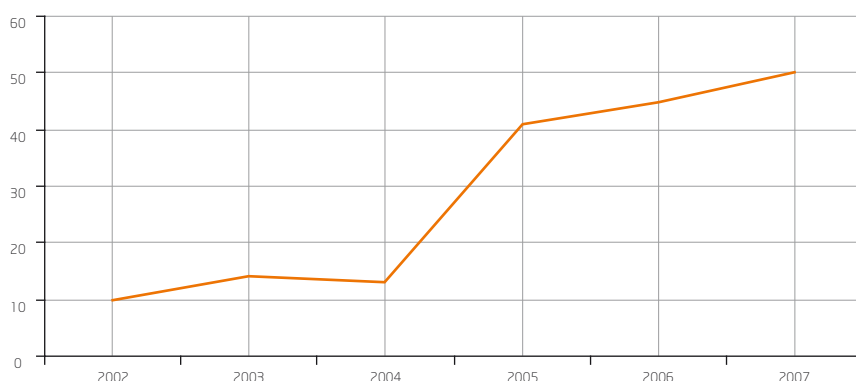
During this year two new entities were entitled to provide services outside the express mail category: Post21 and Vasp Premium. It should be mentioned that, of the 10 companies entitled to provide services outside the express mail category, CTTExpresso is not active in this segment, only offering express mail services.

17 new authorizations were granted for express mail service providers during the last quarter of 2007. The entities are franchises from Nacex (15) and MRW (2). Only four of these companies started their activity in 2007. Thus, only 41 of the 54 entities entitled to provide express mail services are active.

Thus, at the end of 2007 there were 50 active postal services providers, 5 more than a year before.

Evolution of active postal services providers

Graph 126.



Unit: %.
Source: ICP ANACOM.

⁷⁸ The postal network that is established, managed and operated by the universal service provider is called the public postal network. Entities licensed and authorized to provide non-reserved postal services may also establish, manage and operate their own postal network, as well as having access to the public postal network, according to the conditions agreed with the universal postal service concession holder. Licensed and authorized entities may also sign contracts with third parties that are not postal service providers, to provide the transportation and distribution of postal sendings.

The following tables show the postal service providers, their authorization title and its date of issuance. Some entities mentioned also operate in other markets, namely

in the transportation of goods, and have activities that are complementary to the postal one.

Entitled providers of services not covered by the Express mail category

Table 102.

Entity	License no.	Issue date	Services provided
CTT Correios de Portugal, S.A. ¹⁾	The universal postal service concessionary (CTT) can operate non-reserved services and services that are not included in the scope of the universal service, without any need for an additional authorization.		Sending of correspondence, including addressed advertising (direct mail), books, catalogues, newspapers and other periodicals. Postal parcels.
CTT expresso - Serviços Postais e Logística, S.A. ²⁾	ICP-01/2001-SP	01-10-2001	Sending of correspondence, including addressed advertising (direct mail), books, catalogues, newspapers and other periodicals. Postal parcels.
SDIM - Sociedade de Distribuição de Imprensa da Madeira, Lda.	ICP-ANACOM-01/2002-SP	13-12-2001	Distribution of books, catalogues, newspapers and other periodicals.
Notícias Direct - Distribuição ao Domicílio, Lda.	ICP-ANACOM-02/2002-SP	13-12-2001	Distribution of books, catalogues, newspapers and other periodicals.
MEEST Portugal - Unipessoal, Lda.	ICP-ANACOM-01/2005-SP	07-07-2005	Postal parcels.
TEX - Transporte de Parcels Expresso, Lda.	ICP-ANACOM-02/2005-SP	15-07-2005	Postal parcels.
IBEROMAIL - Correio Internacional, Lda.	ICP-ANACOM-01/2006-SP	18-05-2006	Postal parcels.
LORDTRANS - Transportes Urgentes, Lda.	ICP-ANACOM-02/2006-SP	28-12-2006	Distribution of postal sendings and parcels.
POST 21 - Empresa de Correio, S.A.	ICP-ANACOM-01/2007-SP	04-05-2007	Sending of correspondence, including addressed advertising (direct mail), books, catalogues, newspapers and other periodicals. Postal parcels.
VASP PREMIUM - Entrega Personalizada de Publicações, Lda.	ICP-ANACOM-02/2007	23-07-2007	Distribution of books, catalogues, newspapers and other periodicals.

Source: ICP-ANACOM.

1) The universal postal service concessionary (CTT) can operate non-reserved services and services that are not included in the scope of the universal service, without any need for an additional authorization.

2) On 1 September 2003 ICP-ANACOM authorized the transmission of the licence held by Postexpresso - Correio de Cidade, Lda to Postlog - Serviços Postais e Logística, S.A. which, from the 4th quarter of 2004 was named CTTexpresso - Serviços Postais e Logística, S.A.



Entitled Express mail service providers

Table 103.

Entity	License no.	Issue date	Services provided
CTT expresso - Serviços Postais e Logística, SA (1)	ICP-01/2001-SP	01 Oct. 2001	Express mail
DHL - Express Portugal, Lda	ICP-03/2001-SP	13 Dec. 2001	Express mail
Chronopost Portugal - Transporte Internacional, SA	ICP-04/2001-SP	13 Dec. 2001	Express mail
TNT Express Worldwide (Portugal), SA	ICP-05/2001-SP	13 Dec. 2001	Express mail
UPS of Portugal - Transportes Internacionais de Mercadorias, Lda	ICP-ANACOM-01/2002-SP	17 Oct. 2002	Express mail
Rangel Expresso, SA	ICP-ANACOM-02/2002-SP	19 Dec. 2002	Express mail
Federal Express Corporation - Sucursal em Portugal	ICP-ANACOM-01/2003-SP	10 Apr. 2003	Express mail
Ibercourier - Serviço de Transporte Urgente, Lda. (MRW) (2)	ICP-ANACOM-01/2005-SP	09 Feb. 2005	Express mail
Logista - Transportes, Lda.	ICP-ANACOM-02/2005-SP	09 May 2005	Express mail
Lisespo - Transportes, Lda. (4)	ICP-ANACOM-03/2005-SP	15 Jul. 2005	Express mail
Cavijo - Logística e Marketing, Lda.(3)	ICP-ANACOM-05/2005-SP	08 Sep. 2005	Express mail
Transworld Express - Express mail, Lda. (3)	ICP-ANACOM-06/2005-SP	08 Sep. 2005	Express mail
Nuno Miguel Alves, Unipessoal, Lda. (3)	ICP-ANACOM-07/2005-SP	08 Sep. 2005	Express mail
Globe Logistics - Empresa de Courier, Logística e Transportes (3)	ICP-ANACOM-08/2005-SP	08 Sep. 2005	Express mail
Fozpost - Entrega e Recolha de Parcels, Lda.(3)	ICP-ANACOM-09/2005-SP	08 Sep. 2005	Express mail
Mensageiro Azul - Serviços de Courier, Lda. (3)	ICP-ANACOM-10/2005-SP	08 Sep. 2005	Express mail
RANEXPRESS - Transportes Rodoviários, Lda. (3)	ICP-ANACOM-11/2005-SP	08 Sep. 2005	Express mail
Francisco & Silvina - Transportes de Documentos e Parcels, Lda. (3)	ICP-ANACOM-13/2005-SP	08 Sep. 2005	Express mail
MAILGLOBE - Transporte de Correio Urgente, Lda.(3)	ICP-ANACOM-14/2005-SP	08 Sep. 2005	Express mail
EXPRESSODÃO - Transporte de Mercadorias, Lda.(3)	ICP-ANACOM-16/2005-SP	08 Sep. 2005	Express mail
FOXIL - Gestão de Transportes, Lda. (3)	ICP-ANACOM-17/2005-SP	08 Sep. 2005	Express mail
Transportes António García & César, Lda. (3)	ICP-ANACOM-18/2005-SP	08 Sep. 2005	Express mail
P.P.Expresso - Transportes de Mercadorias, Lda. (3)	ICP-ANACOM-19/2005-SP	08 Sep. 2005	Express mail
JáEstá - Tráfego e Serviços Logísticos, Lda. (3)	ICP-ANACOM-21/2005-SP	08 Sep. 2005	Express mail
Multitagus - Transportes e Serviços, Lda. (3)	ICP-ANACOM-22/2005-SP	27 Sep. 2005	Express mail
Iberenvios - Actividades Postais e Transportes, Unipessoal, Lda. (3)	ICP-ANACOM-23/2005-SP	27 Sep. 2005	Express mail
Princeps, Comércio por Grosso, Lda. (3)	ICP-ANACOM-24/2005-SP	04 Nov. 2005	Express mail
Portomail - Transporte de Documentos e Parcels, Lda. (3)	ICP-ANACOM-25/2005-SP	04 Nov. 2005	Express mail
E.R. Parcels Rápidas, Lda. (3)	ICP-ANACOM -26/2005-SP	23 Nov. 2005	Express mail
FELCOURIER - Distribuição de Parcels Nacional e Internacional, Lda. (3)	ICP-ANACOM-02/2006-SP	02. Feb. 2006	Express mail
HMJ - Envio Rápido de Parcels, Lda. (3)	ICP-ANACOM-03/2006-SP	02. Feb. 2006	Express mail
Flash Transportes Unipessoal, Lda. (3)	ICP-ANACOM-04/2006-SP	02. Feb. 2006	Express mail
Transportes Ochôa, S.A.	ICP-ANACOM-05/2006-SP	02. Feb. 2006	Express mail
LHSTUR - Transportes Urgentes, Estafetagem, Lda.(3)	ICP-ANACOM-06/2006-SP	07. Feb. 2006	Express mail
Consigo Pelo Mundo - Transporte e Entrega de Documentos, Unipessoal, Lda. (3)	ICP-ANACOM-07/2006-SP	07. Feb. 2006	Express mail

Entitled Express mail service providers(cont.)

Table 103.

Entity	License no.	Issue date	Services provided
António Carlos Santos - Entregas Rápidas, Unipessoal, Lda. (3)	ICP-ANACOM-08/2006-SP	09. Mar. 2006	Express mail
ASL Courier, Lda. (3)	ICP-ANACOM-09/2006-SP	08 Jun. 2006	Express mail
ABASTFROTA - Transportes, Lda. (5)	ICP-ANACOM-01/2007-SP	12.Oct.2007	Express mail
TRANSALCAINÇA - Transportes, Lda (5)	ICP-ANACOM-02/2007-SP	12.Oct.2007	Express mail
António Moreira Unipessoal, Lda. (5)	ICP-ANACOM-03/2007-SP	12.Oct.2007	Express mail
SERVEXCELSE - Actividades postais e transportes, Lda. (5)	ICP-ANACOM-04/2007-SP	12.Oct.2007	Express mail
PARMILHAR TRILHOS - Transportes, Unipessoal, Lda. (5)	ICP-ANACOM-05/2007-SP	12.Oct.2007	Express mail
OBIK EXPRESS - Serviço de transportes, Unipessoal, Lda. (5)	ICP-ANACOM-06/2007-SP	12.Oct.2007	Express mail
J. FARINHA - Transportes urgentes, Unipessoal Lda. (5)	ICP-ANACOM-07/2007-SP	12.Oct.2007	Express mail
OVERSPEED - Transportes de Express mail, Lda. (5)	ICP-ANACOM-08/2007-SP	12.Oct.2007	Express mail
MEIA CURVA - Transporte de Express mail, Lda.(5)	ICP-ANACOM-09/2007-SP	12.Oct.2007	Express mail
URBEXPRESS - Transportes expresso, Lda. (5)	ICP-ANACOM-10/2007-SP	12.Oct.2007	Express mail
MASTERPOST, Unipessoal, Lda. (5)	ICP-ANACOM-11/2007-SP	12.Oct.2007	Express mail
VASTA SELECÇÃO - Comércio e serviços, Lda. (5)	ICP-ANACOM-12/2007-SP	12.Oct.2007	Express mail
MENDES & PEREIRA SOUSA, Lda. (5)	ICP-ANACOM-13/2007-SP	23.Nov.2007	Express mail
JOAQUIM LUIZ MARTHA, Lda. (5)	ICP-ANACOM-14/2007-SP	23.Nov.2007	Express mail
ATLANTILÉGUA - Serviços postais, Lda. (5)	ICP-ANACOM-15/2007-SP	23.Nov.2007	Express mail
STARTJOB - Recolhas e Entregas, Unipessoal, Lda. (3)	ICP-ANACOM-16/2007-SP	27.Dec.2007	Express mail
JOSÉ MANUEL ARAÚJO SILVA - Serviço de Transporte Urgente, Unipessoal, Lda. (3)	ICP-ANACOM-17/2007-SP	27.Dec.2007	Express mail

Source: ICP-ANACOM.

(1) On 1 September 2003 ICP-ANACOM authorized the transmission of the licence held by Postexpresso – Correio de Cidade, Lda to Postlog – Serviços Postais e Logística, S.A. which, from the 4th quarter of 2004 was named CTExpresso – Serviços Postais e Logística, S.A.

(2) Company IBERCOURIER owns the MRW brand.

(3) Company providing postal services under the MRW brand on a franchising regime.

(4) Company providing postal services under the SEUR brand on a franchising regime.

(5) Company providing postal services under the NACEX brand on a franchising regime.

(6) Company Logista own the Nacex brand.



Evolution of the offer's structure

In spite of the already considerable amount of entities operating in this market – namely, besides CTT Group's companies, agents from major international express service groups – most of the authorized entities is made up of small size franchises, and therefore there is a high concentration level.

Analyzing traffic shares by traffic destination segment, CTT Group's share kept practically unchanged, standing at about 99 per cent in the case of national traffic. With international traffic, CTT Group's share fell to 93 per cent. Regarding the year before, there was a 3 per cent reduction in CTT Group's international traffic share.

Postal traffic shares per destination

Table 104.

	2003		2004		2005		2006		2007	
	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other
National	98,9	1,1	98,9	1,1	99,0	1,0	98,9	1,1	98,9	1,1
International	97,9	2,1	97,8	2,2	96,8	3,2	96,4	3,6	93,5	6,5
Incoming intern.	96,8	3,2	95,8	4,2	91,8	8,2	94,1	5,9	93,3	6,7

Unit: %.

Source: ICP-ANACOM.

1) Includes CTT and CTExpresso.

Note: 2006 figures were corrected following the data update sent by some operators.

Considering the type of service, CTT Group's share continues to be quite high in the segment of services not covered by the express mail category (99.4 per cent). Regarding express

mail, new operators together reach a 54 per cent share, similar to that registered in 2006.

Postal traffic shares per type of service

Table 105.

	2003		2004		2005		2006		2007	
	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other	CTT ¹⁾	Other
Express services	52,2	47,8	47,5	52,5	43,1	56,9	45,8	54,2	46,2	53,8
Serv. outside express cat.	99,4	0,6	99,4	0,6	99,6	0,4	99,5	0,5	99,4	0,6

Unit: %.

Source: ICP-ANACOM.

1) Includes CTT and CTExpresso.

Note: 2006 figures were corrected following the data update sent by some operators.

The postal services usages profile

The main users of postal services are non-residential entities. The main traffic flows are originated by these entities and destined to individuals and companies. Estimates indicate that the flows originated by individual consumers stand for less than 10 per cent of the postal traffic.

We following present the postal services' user and residential usage profile.

According to the available data⁷⁹, regular mail and priority (blue) mail are the most used postal services. On the other hand, there was a considerable increase in the number of interviewees that say they use pre-paid (green) mail⁸⁰.

79 Cf. ICP-ANACOM, Survey on the Use of Postal Services, November 2006. The Universe was made up of individuals over 15 years old, residing in Portugal (Mainland and Autonomous Regions). The sample size was determined in order to assure a +/-3.5% error margin for the main results (for a 95% confidence level). The sample was stratified by NUTS II based on the last General Population Census: 2001 Census. 1000 (CATI) telephone interviews were made. The fieldwork took place between 2 and 15 November 2006 and was carried out by Metris GfK. 1000
80 The service pattern was approved by Regulation no. 1048/2004 of 16 August. Vide http://www.anacom.pt/streaming/port1048_04.pdf?categoryId=42989&contentId=224902&field=ATTACHED_FILE.

The price level of express services should justify this type of mail's low consumption levels.

Postal services are more intensely used by individuals on a working age, with highlight to the 25-30 year old age group.

Percentage of individuals that use postal service, by age group

Table 106.

Age group	Standard mail	Priority mail	Express mail	Pre-paid mail	Parcels
15-24	46,7	52,7	1,8	10,2	12,0
25-30	50,0	61,5	8,3	20,8	19,8
31-49	41,6	53,8	5,5	13,5	15,6
50-64	46,8	45,4	5,0	6,4	17,9
65-over	39,8	26,9	2,2	3,2	7,0
Total	43,8	47,2	4,4	10,1	14,3

Unit: %.

Source: ICP-ANACOM, Survey on the use of postal services 2006.

The use of postal services is greater among customers with higher education levels.

Percentage of individuals that use postal services, by education level

Table 107.

Education level	Standard mail	Priority mail	Express mail	Pre-paid mail	Parcels
Up to primary	42,0	38,5	2,8	5,6	7,7
6th or 9th grade	50,0	52,6	5,3	10,5	15,8
12th grade	53,4	58,9	5,5	17,8	19,2
Above 12th grade	60,3	58,7	3,2	14,3	14,3
Total	43,8	47,2	4,4	10,1	14,3

Unit: %.

Source: ICP-ANACOM, Survey on the use of postal services 2006.

The higher income groups are those that use mail more intensely.

Percentage of individuals that use postal services, by social status

Table 108.

Status social	Standard mail	Priority mail	Express mail	Pre-paid mail	Parcels
High (A)	53,2	66,0	6,4	21,3	17,0
Medium high (B)	46,8	69,8	10,1	18,7	20,1
Medium (C)	49,4	58,5	5,1	17,6	20,5
Medium low (D)	41,9	38,2	3,2	6,7	10,8
Low (E)	37,8	35,7	1,4	1,4	9,8
Total	43,8	47,2	4,4	10,1	14,3

Unit: %.

Source: ICP-ANACOM, Survey on the use of postal services 2006.



Lastly, it should be noted that Internet usage does not seem to hinder the consumption of postal services, or to influence the use of parcels services.

Sendings in the last 12 months, per Internet use

Table 109.

	Does not use e-mail	Uses e-mail	Average
Standard mail	9,2	15,9	14,3
Priority mail	6,9	9,5	8,8
Express mail	3,3	1,9	2,1
Pre-paid mail	9,2	7,9	8,1
Parcels	4,0	5,0	4,7

Unit: %.

Source: ICP-ANACOM, Survey on the use of postal services 2006.

The evolution of postal services in 2007

Below is a set of elements on the evolution of postal services in 2007: penetration, use of postal services, employment, network infrastructures, prices, quality of services, and consumers' complaints.

Service penetration

Postal coverage is about 21 access points per km². Since 2003 this indicator has shown a slight downward trend. The decrease in the universal service operator's access points has not been compensated by the increase of access points from the liberalized area operators.

Postal coverage

Table 110.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
No. of access points per 100km ²	20,8	20,5	-0,3	-0,3	-1

Unit: No. of access points per km², %.

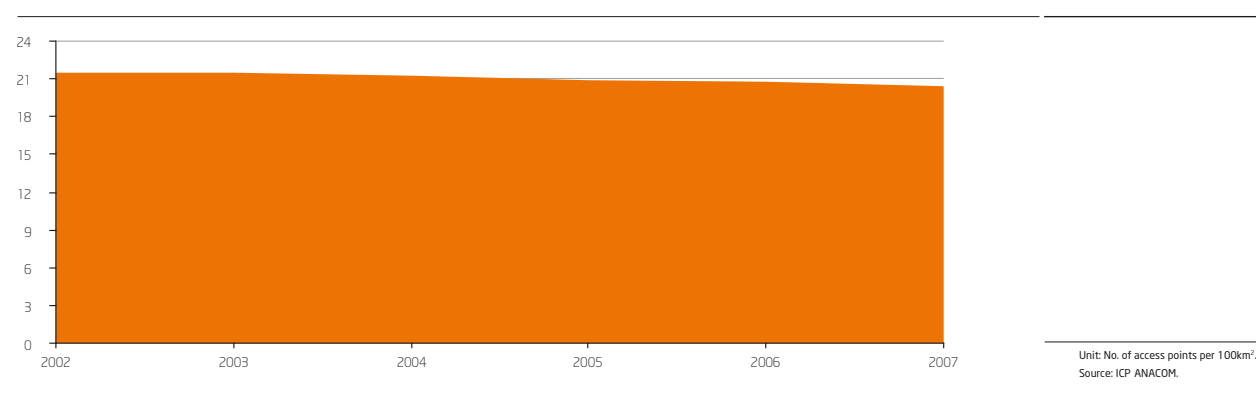
Source: ICP-ANACOM, INE.

Note 1: Portugal's full area is 92.090km² (Source: INE).

Note 2: 2006 figures were corrected following the data update sent by some operators.

Postal coverage

Graph 127.



On the other side, postal density also registers a downward trend, with the number of inhabitants per access point growing since 2002. This evolution is explained by the

already mentioned reduction in the number of access points and by the population growth registered during the period under analysis.

Postal density

Table 111.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
No. of inhabitants access point of access	554	563	9	9	34

Unit: No. of inhabitants per access point, %.

Source: ICP-ANACOM, INE.

Note 1: Population on 31 December 2006: 10,599,095 inhabitants (Source: INE).

Note 2: 2006 figures were corrected following the data update sent by some operators

The penetration rate of postal services measured in terms of postal capitacion - postal traffic per inhabitant - grew 1

per cent in 2007. The traffic evolution that determined this result will be presented in the following section.

Postal capitacion

Table 112.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Capitacion	116	117	1,1	-0,7	-2,9
National traffic	111	112	1,5	-0,6	-2,3
International outgoing traffic	5	5	-8,0	-4,4	-16,3
International incoming traffic	4	4	1,7	-2,2	-8,4

Unit: postal traffic per inhabitant, %.

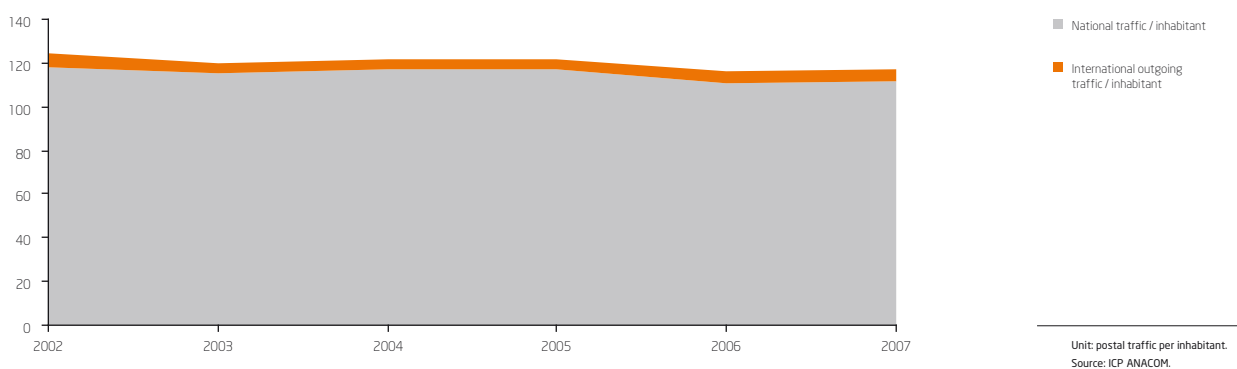
Source: ICP-ANACOM, INE.

Note 1: Population on 31 December 2006: 10,599,095 inhabitants (Source: INE).

Note 2: 2006 figures were corrected following the data update sent by some operators.

Evolution of postal capitacion by traffic destination

Graph 128.





Service's usage level

The following section assesses the evolution of overall traffic, liberalized traffic and traffic by destination.

Evolution of overall traffic

Postal traffic increased 1.1 per cent in 2007, although in cumulative terms and considering the evolution of the last 5 years, postal traffic has fell 1.8, which resulted in an average annual reduction of 0.4 per cent.

Postal traffic

Table 113.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Postal traffic	1.224.973	1.238.802	1,1	-0,4	-1,8

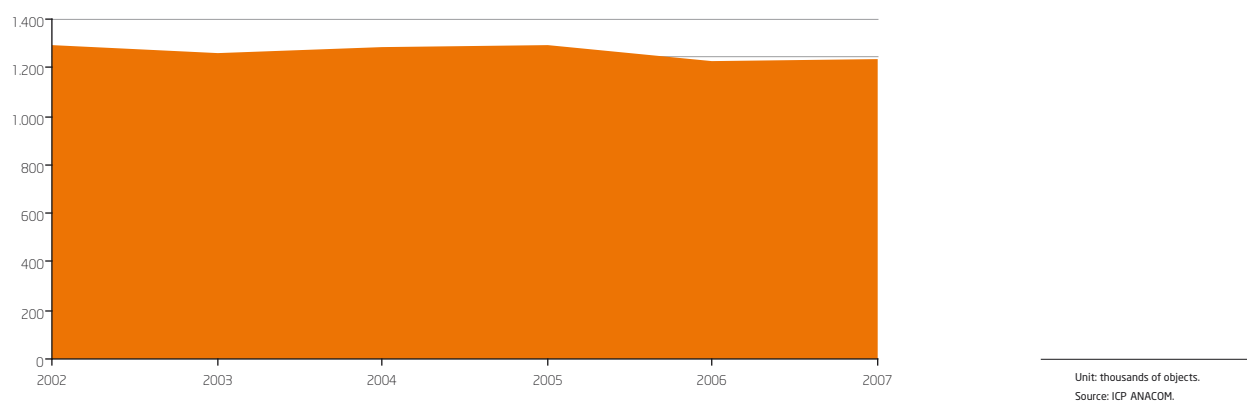
Unit: Thousands of objects.

Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

Evolution of postal traffic

Graph 129.



Traffic composition: reserved area/liberalized

2007 recorded an increase concerning reserved mail traffic (+3.1 per cent), and a reduction regarding liberalized mail traffic (-5 per cent). Thus, reserved mail reached 76.8 per cent, 1.5 per cent more than a year before.

However, in cumulative terms and considering the evolution of the last 5 years, there was a 10.4 per cent reduction in reserved traffic, and a 44.3 percent increase in liberalized traffic.

Postal traffic: Reserved area/Liberalized area

Table 114.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Reserved area	922.308	950.996	3,1	-2,7	-10,4
Liberalized areas	302.665	287.806	-4,9	9,5	43,9

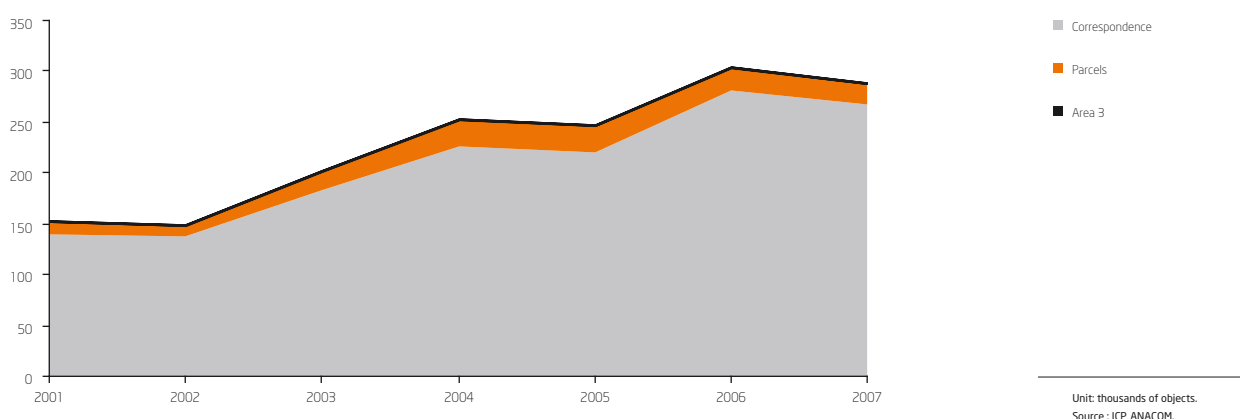
Unit: Thousands of objects, %.

Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

Evolution of reserved and liberalized postal traffic

Graph 130.



It should be mentioned, however, that the considerable changes occurred in the traffic's composition (reserved area/liberalized area) are mainly explained by the successive postal sector's liberalization phases that occurred in 2003, 2004 and 2006. These changes to the regulatory framework resulted on the re-categorization of traffic previously considered to be reserved. On the contrary, the

variations occurred in 2007 only reflect the behaviour of these markets' players.

Liberalized area traffic by type of object: correspondence and parcels

Liberalized traffic is mostly made up of correspondence (93 per cent). The variation occurred in 2007 will be analyzed in the following sections.

Postal traffic in the liberalized area

Table 115.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Liberalized area	302.665	287.806	-4,9	9,5	43,9
Correspondence	281.962	268.075	-4,9	10,0	46,2
Parcels	20.703	19.731	-4,7	4,4	18,8

Unit: Thousands of objects, %.

Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

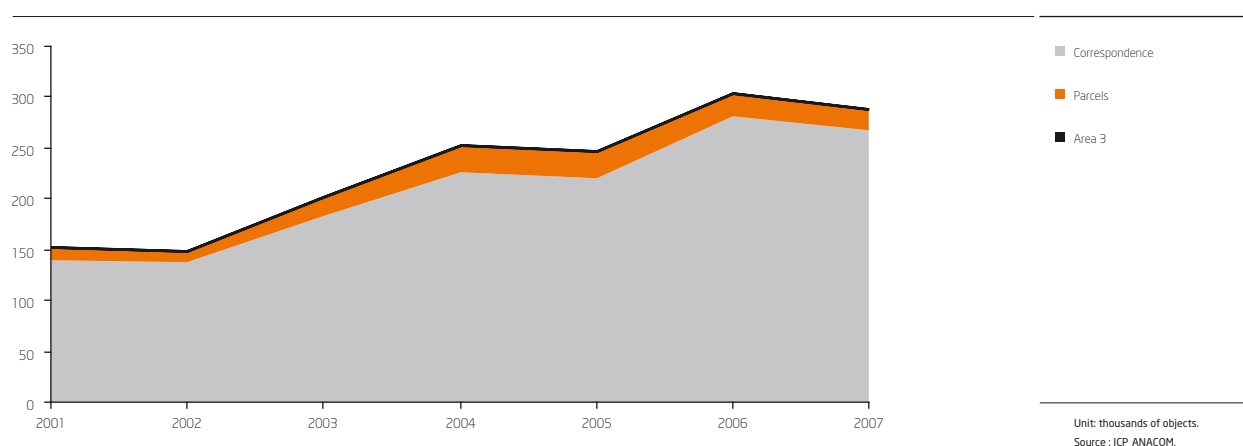
As previously mentioned, the cumulative variations occurred are mainly explained by the artificial traffic increase that

resulted from successive stages of the liberalization process.



Evolution of liberalized traffic

Graph 131.



Evolution of traffic by destination

Analyzing the behaviour of postal traffic by destination, while national traffic grew 1.5 per cent, international traffic

suffered a reduction of around 8 per cent. This reduction was mainly influenced by the evolution of traffic in the reserved areas (CTT).

Postal traffic by traffic destination

Table 116.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Postal traffic	1.224.973	1.238.802	1,1	-0,4	-1,8
National	1.172.285	1.190.317	1,5	-0,3	-1,1
International	52.688	48.486	-8,0	-4,1	-15,4
International incoming	44.051	44.811	1,7	-1,9	-7,3

Unit: Thousands of objects, %.

Source: ICP-ANACOM.

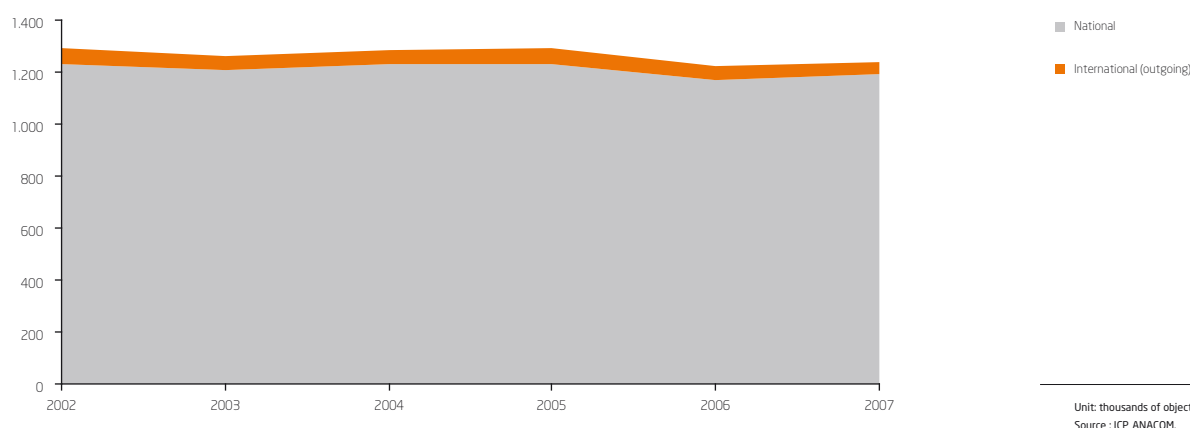
Note: 2006 figures were corrected following the data update sent by some operators.

International traffic also recorded the greatest decrease during the 2003-2007 period. This type of traffic decreased

15 per cent versus a 1.1 per cent decrease in national traffic. National traffic stands for about 96 per cent of postal traffic.

Evolution of traffic by destination

Graph 132.



Evolution of traffic by type of service

Regarding traffic evolution by type of service, the growth registered in the express mail services segment (8.8 per cent in 2007) stands out. This evolution is almost totally explained by the increase in national parcels by the sector's bigger providers.

In spite of the evolution registered, postal traffic outside the express mail category continues to represent the largest amount of liberalized traffic (98.6 per cent). However, since 2003, postal traffic outside the express mail category suffered an overall 2.1 per cent reduction.

Postal traffic by type of service

Table 117.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
Postal traffic	1.224.973	1.238.802	1,1%	-0,4%	-1,8%
Express	16.296	17.735	8,8%	7,1%	31,4%
Outside the express mail category	1.208.678	1.221.068	1,0%	-0,5%	-2,1%

Unit: Thousands of objects.

Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

Employment in postal services

Employment in postal services has shown a slightly downward trend. In 2007, the number of employees of the postal sector fell 1.8 per cent. CTT Group's companies continue

to reduce its workforce while employment by the competition increased 1.3 per cent during that year.

Since 2003, employment in the postal sector fell 6 per cent.



Employment in postal services

Table 118.

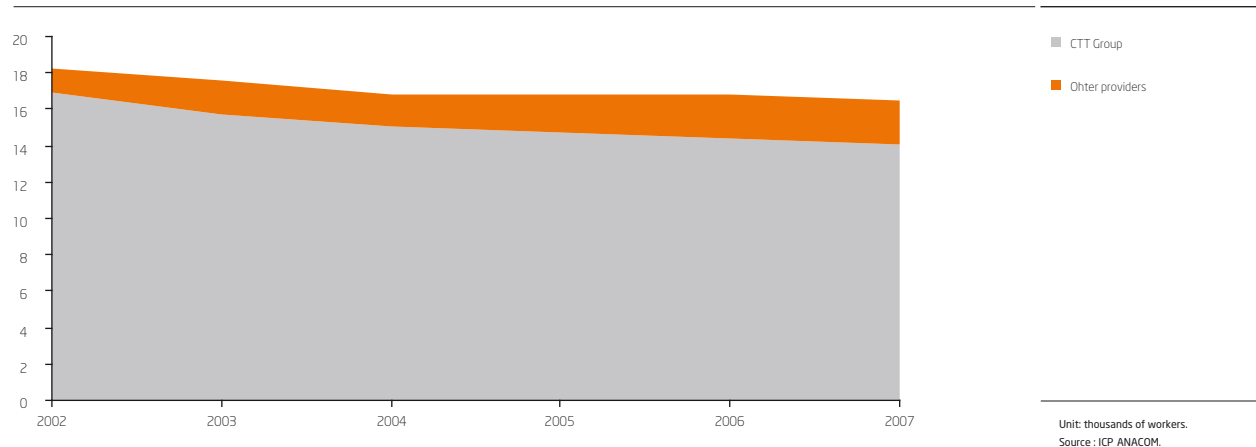
	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
No. of employees	16.826	16.528	-1,8	-1,5	-5,7
CTT Group	14.355	14.026	-2,3	-2,8	-10,7
Other providers	2.471	2.502	1,3	8,1	36,5

Unit: 1 employee, %.
Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

Evolution of employment in postal services

Graph 133.



The postal network

The evolution of the material resources of the global postal network held by the universal service provider and by the entities entitled for the provision of postal services operated in competition is shown on the following table.

Material resources of the postal network

Table 119.

	2006	2007	2006/2007 Var. (%)	2003/2007 average annual Var. (%)	2003/2007 Var. (%)
No. of access points	19.132	18.849	-1,5	-1,2	-4,8
CTT Group	19.032	18.733	-1,6	-1,3	-5,2
Other providers	100	116	16,0	30,5	190,0
No. of distribution centres	469	476	1,5	0,9	3,7
CTT Group	381	384	0,8	-2,3	-8,8
Other providers	88	92	4,5	24,7	142,1
Vehicle fleet	5.549	5.703	2,8	0,4	1,7
CTT Group	4.261	4.296	0,8	-0,9	-3,5
Other providers	1.288	1.407	9,2	5,1	21,8

Unit: %.

Source: ICP-ANACOM.

Note: 2006 figures were corrected following the data update sent by some operators.

In 2007, only the amount of access points registered a decrease, of 1.5 per cent. Distribution centres and the vehicle fleet grew 1.5 and 2.8 per cent, respectively.

The evolution shown above confirms the trends started in 2003.

It should be noted that while CTT has been reducing its network's physical resources, the remaining operators, globally, have been investing in the development of their networks.

Price level of the universal service

The rules for the setting of prices of the postal services that make up the universal service⁸¹ are subject to an Agreement (Universal Postal Service Prices Agreement) established between the regulator (ICP-ANACOM) and the universal service provider (CTT).

On 21 April 2006 CTT and ICP-ANACOM signed the Universal Postal Service Prices Agreement⁸², valid from 01/01/2006 to 31/12/2006. From what is stated in the Prices agreement, we should point out the fact that the weighted average variation of the prices of the reserved postal services cannot be above CPI-0.3 %, in nominal terms. No Prices agreement was signed for 2007, therefore maintaining the rule previously defined for 2006⁸³.

In 2007, the price of the standard mails' basic tariff (tariff for a 20gr national letter) decreased, in real terms, 2.5 per cent regarding 2006. Regarding 2003⁸⁴ there is a real reduction of 9.7 per cent. In real terms, the national priority (blue) mail's basic tariff decreased 2.4 per cent regarding 2006 and 5.4 per cent since 2003

81 The Prices agreement defines the rules for the formation of the universal service's prices, which comprises a service of sending correspondence, books, catalogues, newspaper and other periodicals weighting up to 2kg, and of parcels up to 20kg, as well as a service of registered sendings and a money order service, both for the national and international services (nos. 1 and 2 of article 6 of the Basic Law).

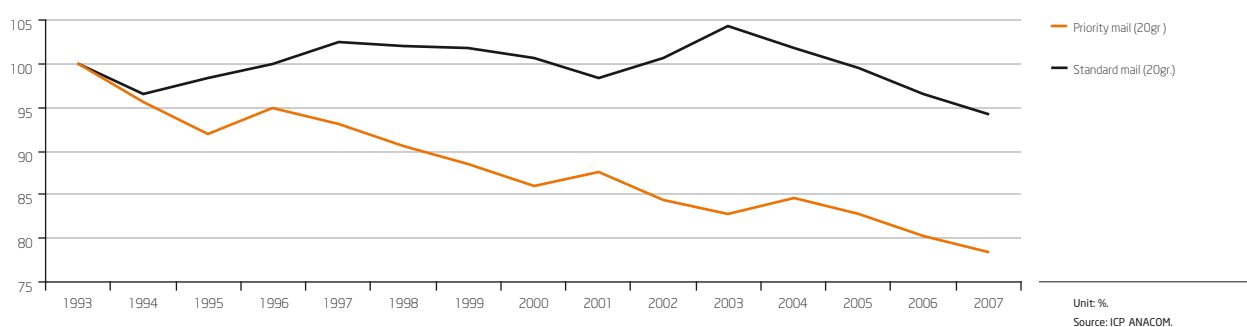
82 <http://www.anacom.pt/template12.jsp?categoryId=190245>.

83 It should be noted that a new price convention has already been signed to be in force as of 1 January 2008 and valid for 3 years.

84 Year when the first Prices agreement, signed between ICP-ANACOM, CTT and the former Directorate-General for Commerce and Competition, came into force.



Real evolution of the basic tariff (1993=100): standard and priority mail, national
Graph 134.



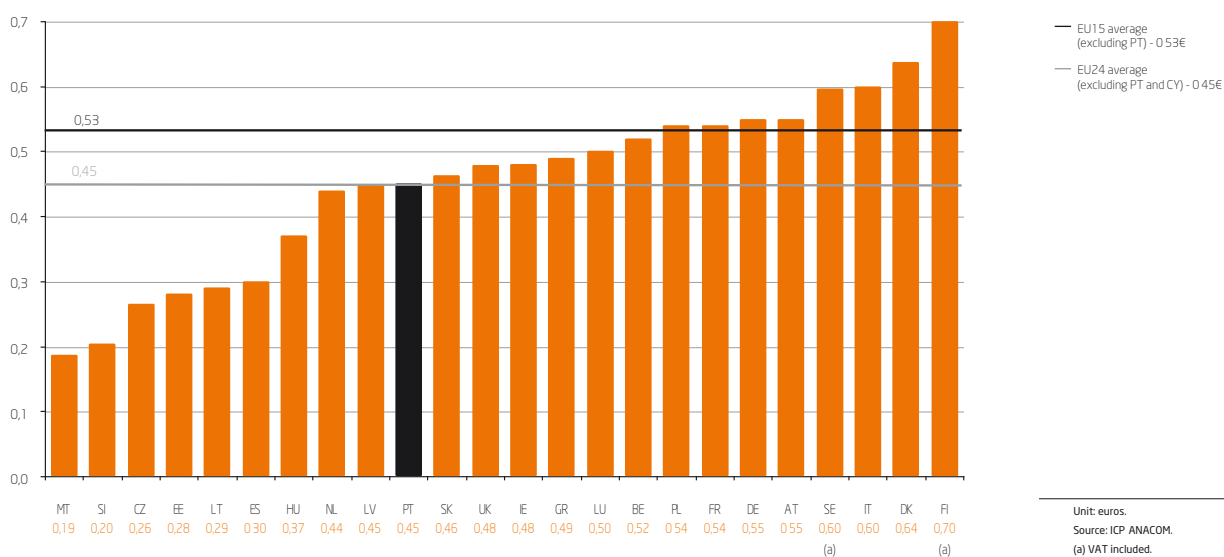
These prices stand favourably when compared with EU's average in 2007⁸⁵:

- The price of the 20g national priority mail (Blue Mail in Portugal) is 15.1 per cent below the UE151 average and equal to the EU24⁸⁶ average (excluding Cyprus);

- The price of sending a 20g non priority national mail (standard mail in Portugal) letter is 28.6 per cent below the average of the EU countries that provide an equivalent service⁸⁶.

Basic tariff of domestic priority mail - 2007

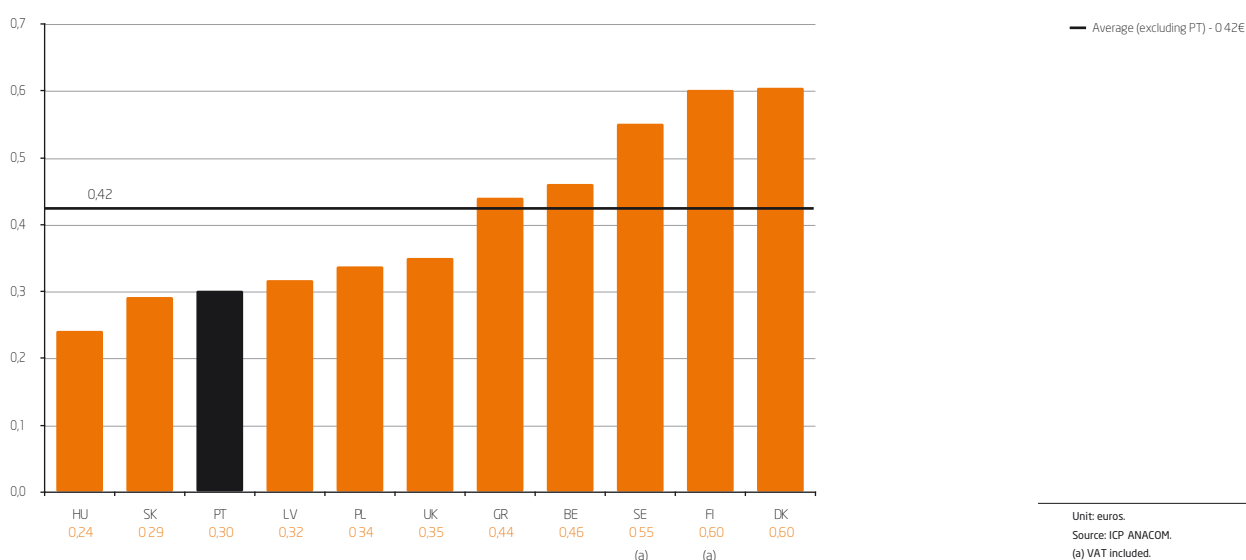
Graph 135.



⁸⁵ According to the collection of prices made by ICP-ANACOM, directly from the universal postal service operators' Internet sites, on 13/02/2007.
⁸⁶ Average excluding Portugal.

Basic tariff of domestic non priority mail - 2007

Graph 136.



The quality of the universal service

When the Prices agreement was signed (21 April 2006), the Universal Service Quality Convention⁸⁷ was also established, to be in force from 1 January 2006 to 31 December 2006⁸⁸. It sets the parameters and minimum quality of service levels associated with the provision of the universal postal service, which CTT is obliged to comply with.

The Quality Convention defines the quality of service indicators (QSI) for i) delays in delivery of standard mail, priority mail, newspapers and periodicals, intercommunity mail and parcels, ii) loss of standard and priority mail, and for ii) waiting time at postal establishments. For each of QSI there is a minimum and a target level of quality of service defined. The target level is the one that CTT is expected to achieve, each year, however, the minimum level corresponds to the minimum quality that CTT must ensure.

No Quality Convention was signed for 2007, therefore maintaining the rule previously defined for 2006.

The Quality Convention also sets an Overall Quality of Service Indicator (OQSI)⁸⁹, which is reckoned depending on the quality of service levels reached by CTT for the previously mentioned QSI.

In 2007, the indicators' values reached the minimum levels as well as all the targets set, except for the target value for correspondence not delivered within 15 working days.

⁸⁷ <http://www.anacom.pt/template12.jsp?categoryId=190302>.

⁸⁸ It should be noted that a new price convention has already been signed to be in force as of 1 January 2008 and valid for 3 years.

⁸⁹ The OQSI is reckoned the following way: Firstly, each QSI defined in the Quality Agreement is given a classification in accordance with the following methodology: i) Given the value set for each QSI, the target value is given the value 100 ii) Non-fulfilment of the minimum value = 0; iii) Proportional value from 0 to 100 for values situated in the interval between the target and the minimum; iv) For values above the target, the classification will also be above 100, in proportion to the positive variation regarding the target. Secondly, Sum of the classifications given to each QSI, weighted by their corresponding relative importance. Thirdly, Should the OQSI be: i) 100 or above 100, there is no application of the subtraction associated to the OQSI; ii) below 90, one fully applies the maximum deduction foreseen, of 1%; iii) between 90 and 100, one applies the subtraction proportionally. The subtraction corresponds to deducting up to 1% to the price variation of the reserved services allowed for the year following the year of the non-fulfilment.



QSI defined in the 2006 Quality Convention

Table 120.

Quality of service indicators (2006 Convention)		IR (%)	Mín.	Target
IQS 1	Transit time for Non-Priority Mail(D+3)	45,0	95,5	96,3
IQS 2	Transit time for Priority Mail - Mainland (D+1)	15,0	93,5	94,5
IQS 3	Transit time for Priority Mail - CAM (D+2)	4,0	84,0	87,0
IQS 4	Non-priority mail not delivered within 15 working days (per one thousand letters)	5,0	2,3	1,4
IQS 5	Priority mail not delivered within 10 working days (per one thousand letters)	3,0	2,5	1,5
IQS 6	Transit time for Newspapers and Periodicals (D+3)	11,0	95,5	96,3
IQS 7	Transit time for Intra-community Cross-border Mail (D+3)	3,5	85,0	88,0
IQS 8	Transit time for Intra-community Cross-border Mail (D+5)	3,5	95,0	97,0
IQS 9	Transit time for Non-priority Parcels (D+3)	5,0	90,5	92,0
IQS 10	Waiting time at Post Establishments (% of events < 10min)	5,0	75,0	85,0

Source: Universal Postal Service Quality Convention of 21/04/2006.w

Complaints

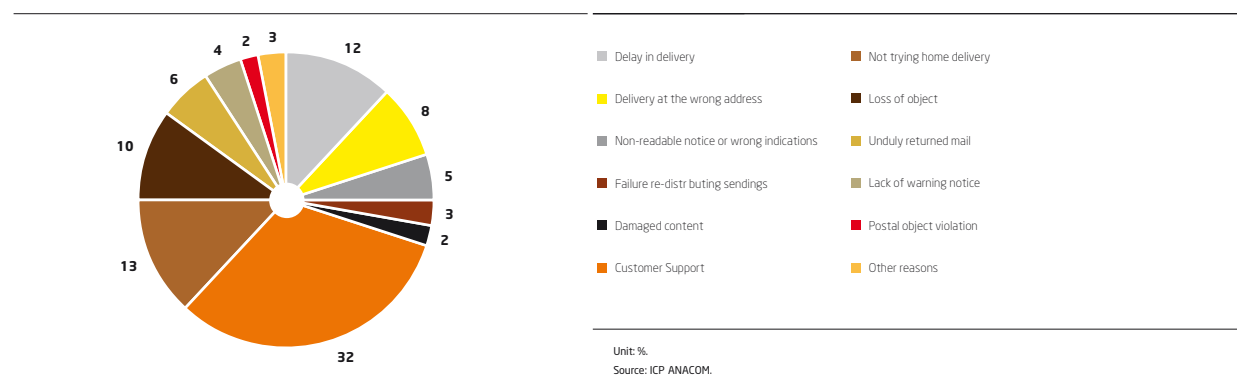
Regarding complaints, during 2007 ICP-ANACOM received 6,106 complaints and information requests concerning postal services and their operators.

According to the following graph, 33 per cent of those requests relate to matters regarding customer attendance.

Issues concerning not trying to deliver the mail at home now come in second on the list of reasons for complaint, having surpassed mail delivery delays.

Complaints regarding postal services - 2007

Graph 137.



The background is a solid orange color. It features several decorative white elements: three long, sweeping curved lines that originate from the top right and curve towards the left, and a horizontal band of small white dots in the bottom left corner that tapers off to the right.

03.

Statistical Annex



■ Postal Services

1. Postal Services

1.1 Postal Traffic

Postal Traffic

Tabela 1.

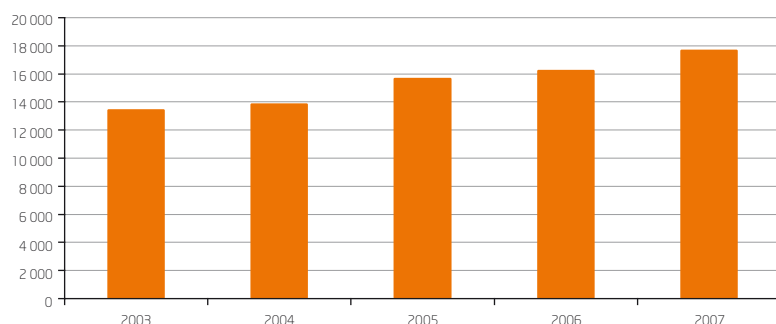
	2003	2004	2005	2006	2007
Express Mail	13.493	13.895	15.728	16.296	17.735
Standard Mail	1.247.748	1.274.289	1.273.164	1.208.678	1.221.068
Postal Traffic	1.261.241	1.288.184	1.288.892	1.224.973	1.238.802

Unit: Thousand items.
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.
This information was given from Service providers and can be corrected in the future.

Express Mail

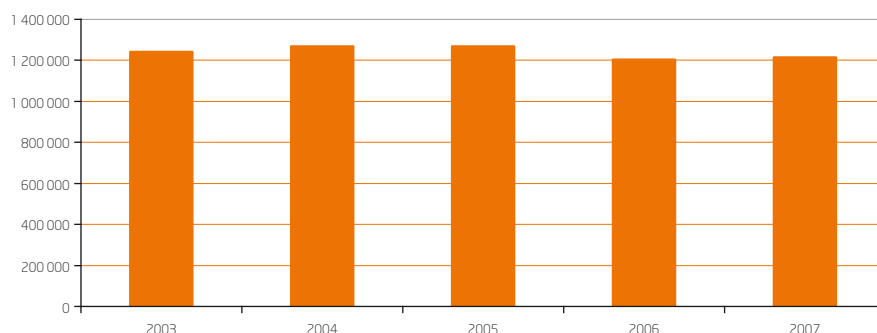
Graph 1.



Unit: % subscribers WCDMA
per 100 inhabitants.
Source: ICP-ANACOM,
Sector publications.

Standard Mail

Graph 2.



Unit: % subscribers WCDMA
per 100 inhabitants.
Source: ICP-ANACOM,
Sector publications.

Per Capita Postage

Table 2.

	2003	2004	2005	2006	2007
Postal traffic by inhabitant	120,4	122,3	121,9	115,6	116,9

Unit: Postal traffic/ Thousands Inhabitants

Source: ICP-ANACOM, INE

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future..

1.2 Postal Network Indicators

Equipment

Table 3.

	2003	2004	2005	2006	2007
Access Points (*)	19.798	19.563	19.283	19.132	18.849
Distribution Centers	459	462	472	469	476
Vehicles	5.608	5.362	5.856	5.549	5.703

Source: ICP-ANACOM.

(*) Physical sites where users may deposit mail in the postal network, including postboxes placed or not in public space, among others.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future..

Postal coverage

Table 4.

	2003	2004	2005	2006	2007
Postal coverage	21.5	21.2	20.9	20.8	20.5

Unit: Pontos de acesso/ 100 Km².

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

Postal Density

Table 5.

	2003	2004	2005	2006	2007
Number of inhabitants served by a access point	529	538	548	554	563

Unit: Habitantes/ Pontos de acesso.

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future..



1.3 Postal Service Provider Indicators

Number of Permanent Offices

Table 6.

	2003	2004	2005	2006	2007
Post Offices	1.078	1.005	981	960	924
Letter Posts	2.471	2.032	1.917	1.903	1.929
Number of Permanent Offices	3.549	3.037	2.898	2.863	2.853

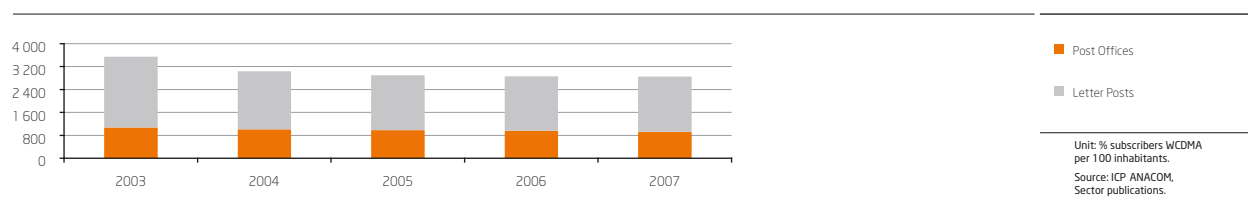
Unit: 1 Post

Source: CTT.

Note: This information was given from Service providers and can be corrected in the future.

Permanent Offices

Graph 3.



Postal Coverage

Table 7.

	2003	2004	2005	2006	2007
Area covered by a permanent office	25.9	30.3	31.8	32.2	32.3

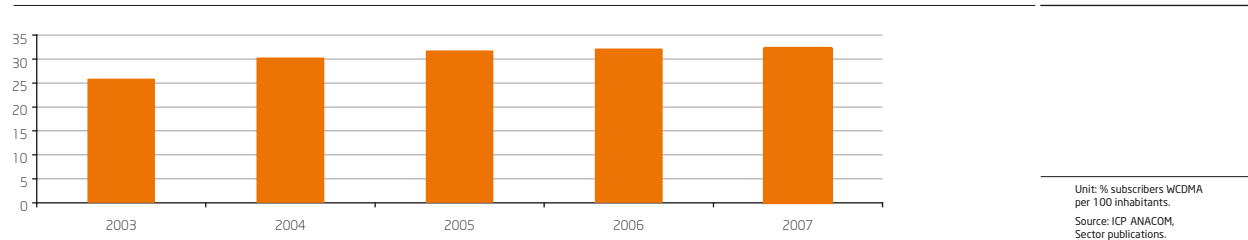
Unit: Km² / Permanent office

Source: CTT, INE.

Note: This information was given from Service providers and can be corrected in the future.

Postal Coverage

Graph 4.



Postal Coverage - EU

Table 8.

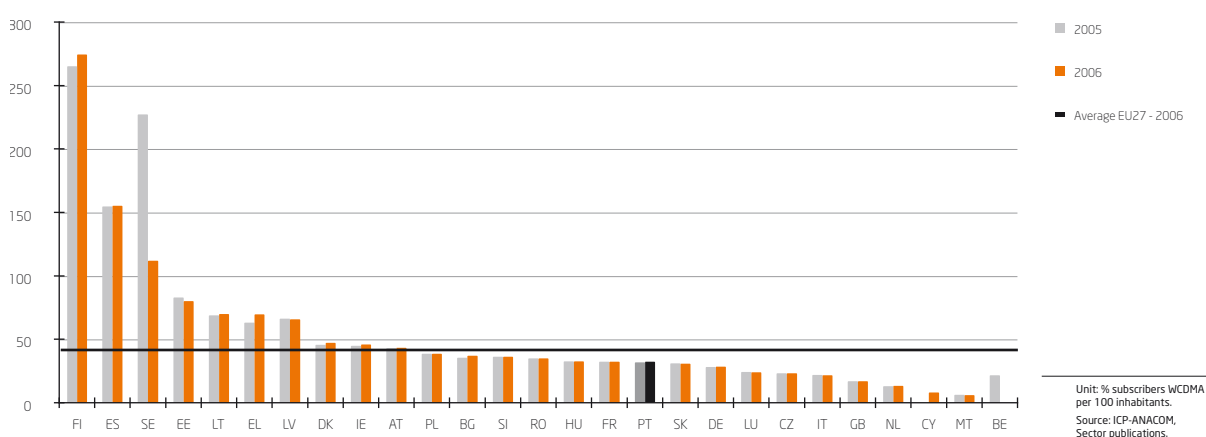
	2002	2003	2004	2005	2006
Germany	28,15	26,42	27,42	28,18	28,56
Austria	40,47	41,78	41,95	43,07	43,18
Belgium	23,45	23,47	22,30	21,67	nd
Bulgaria	36,71	n.d.	36,87	35,37	37,14
Cyprus	8,35	8,24	8,33	nd	8,09
Denmark	41,12	42,29	43,27	45,60	47,20
Slovakia	30,12	30,32	30,68	30,92	30,84
Slovenia	36,70	36,56	36,37	36,30	36,30
Spain	145,78	151,36	153,75	154,64	155,17
Estonia	82,15	82,15	82,75	82,90	79,97
Finland	243,80	251,22	257,93	265,00	274,47
France	32,41	32,46	32,54	32,43	32,36
Great Britain	14,09	15,31	16,63	16,90	17,08
Greece	60,89	59,49	59,98	63,05	69,75
Netherlands	17,73	16,12	13,03	13,01	13,18
Hungary	28,46	29,99	32,94	32,71	32,53
Ireland	39,79	42,38	43,81	44,76	45,87
Italy	21,92	21,95	21,75	21,79	21,75
Latvia	67,01	67,01	66,74	66,26	65,65
Lithuania	nd	nd	68,38	68,81	69,91
Luxembourg	23,94	23,94	23,73	24,17	23,94
Malta	6,32	6,32	6,20	6,20	6,08
Poland	39,22	38,93	29,59	38,71	38,56
Portugal	24,00	26,01	30,40	31,84	32,22
Czech Rep.	22,18	22,99	23,07	23,09	23,19
Romania	35,38	34,85	34,95	35,00	35,01
Sweden	nd	nd	nd	227,26	111,88
Average EU 27	39,51	41,05	39,35	40,27	39,90

Unit: Km² / Permanent office
Source: ICP-ANACOM, UPU.



Postal Coverage - EU

Graph 5.



Postal Density

Table 9.

	2003	2004	2005	2006	2007
Inhabitants served by a permanent office	2.951	3.467	3.647	3.702	3.715

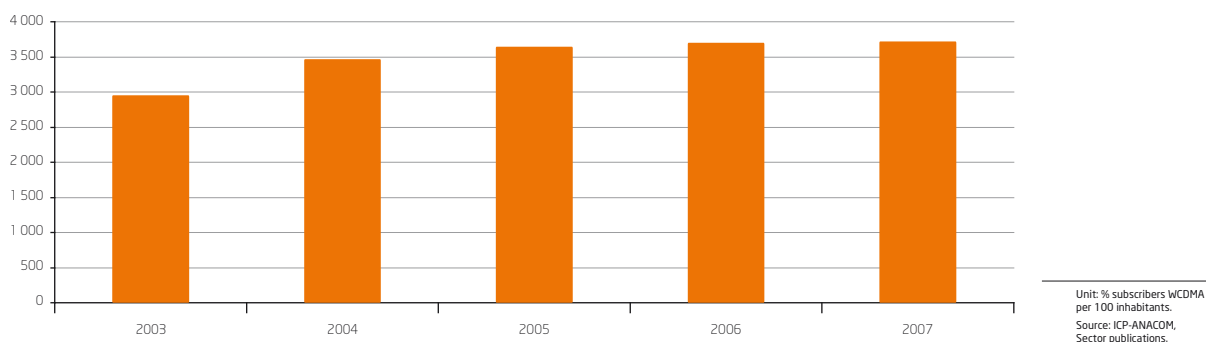
Unit: Number of Inhabitant/Permanent Office.

Source: CTT, INE.

Note: This information was given from Service providers and can be corrected in the future.

Postal Density

Graph 6.



Postal Density - EU

Table 10.

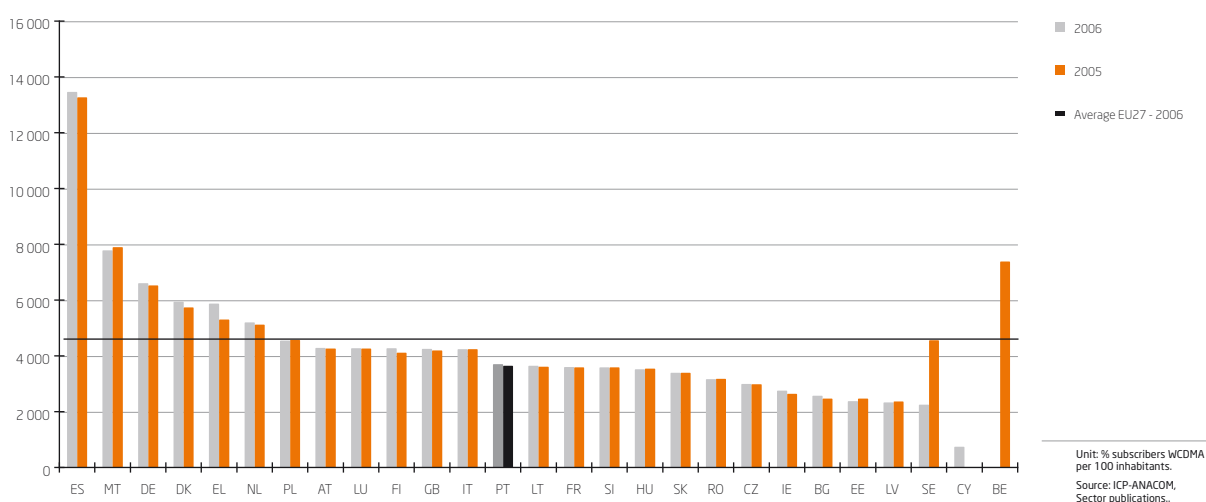
	2002	2003	2004	2005	2006
Germany	6 504	6 110	6 347	6 523	6 611
Austria	3 944	4 092	4 129	4 259	4 288
Belgium	7 889	7 930	7 567	7 380	nd
Bulgaria	2 613	nd	2 591	2 470	2 576
Cyprus	729	728	744	nd	739
Denmark	5 126	5 288	5 425	5 732	5 948
Slovakia	3 309	3 332	3 371	3 397	3 389
Slovenia	3 607	3 600	3 586	3 583	3 586
Spain	11 924	12 595	13 004	13 263	13 458
Estonia	2 471	2 463	2 474	2 471	2 376
Finland	3 751	3 876	3 990	4 111	4 271
France	3 517	3 545	3 577	3 586	3 599
Great Britain	3 444	3 761	4 105	4 191	4 256
Greece	5 094	4 986	5 036	5 303	5 879
Netherlands	6 876	6 282	5 102	5 117	5 200
Hungary	3 109	3 269	3 581	3 547	3 517
Ireland	2 223	2 409	2 536	2 639	2 755
Italy	4 223	4 245	4 221	4 240	4 243
Latvia	2 433	2 417	2 392	2 361	2 326
Lithuania	nd	nd	3 602	3 609	3 649
Luxembourg	4 121	4 154	4 151	4 267	4 272
Malta	7 888	7 947	7 846	7 894	7 784
Poland	4 652	4 612	3 502	4 574	4 550
Portugal	2 700	2 943	3 461	3 644	3 705
Czech Rep.	2 869	2 973	2 982	2 984	2 996
Romania	3 254	3 191	3 185	3 176	3 162
Sweden	nd	nd	nd	4 565	2 257
Average EU 27	4 417	4 606	4 432	4 550	4 520

Unit: Inhabitant/Permanent Office
Source: UPU.



Postal Density - EU

Graph 7.



Quality of Service Indicators

Table 11.

	Unit	2003	2004	2005	2006	2007
Ordinary Mail						
Delivery Delay (up to 3 workingdays)	%	95,6	97,0	97,2	94,9	97,1
Ordinary Mail not delivered up to 15 working days	per 1000 objects	1,4	1,5	1,1	1,3	1,6
Priority Mail						
Delivery Delay (next workingday deliveries) ⁽¹⁾	%	91,6	95,1	95,6	92,6	94,7
Priority Mail not delivered up to 10 working days	per 1000 objects	1,7	1,8	1,4	1,6	1,4
Awaiting Queue at the Post Office ⁽²⁾						
Average time		nd	92,1	92,3	92,6	89,4

Source: CTT; ICP-ANACOM.

(1) Until 2003 consider all national traffic, after 2003 consider only mainland traffic.

(2) Average percentage of waiting queue at post office of less than 10 minutes.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

■ Electronic Communications

2. Electronic communications infrastructures

2.1 Optical Fiber

Installed optical fiber

Table 12.

	2003	2004	2005	2006	2007
Own optical fiber	490.155	491.850	544.320	621.373	865.196
Optical fiber yielded by other entities	15.589	18.472	20.779	23.354	25.496

Unit: Km.pair.

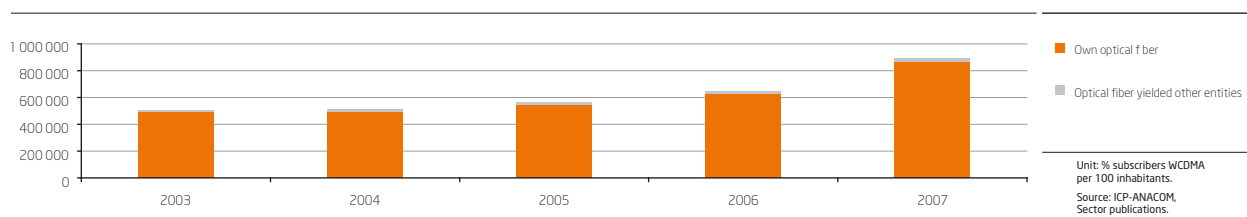
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Optical Fiber

Graph 8.



2.2 Installed Resources in Transmission Network

Installed resources

Table 13.

	Unit	2003	2004	2005	2006	2007
Optical fiber	Km.pair	319.544	348.339	376.730	437.609	518.385
radio link	Km	14.532	16.343	17.390	20.564	20.809
Coaxial Cable (includes fiber-coaxial access)	Km	1.858	1.876	1.929	1.862	1.966
Satellite access	Km	3.835	512	512	512	512

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.



2.3 Installed access - Access Network

Installed access

Table 14.

	2003	2004	2005	2006	2007
Pair of copper	6.171.182	6.164.484	5.740.093	5.649.285	5.578.026
Coaxial Cable (includes fiber-coaxial access)	1.935.951	1.918.637	1.968.811	1.983.140	2.077.613
Optical fiber	3.518	4.446	8.689	10.258	19.237
Satellite access	320.360	350.548	355.656	394.163	432.226
xDSL	188.822	436.927	689.189	945.609	978.214
Fixed Wireless Radio (FWA) *	4.861	5.434	5.703	9.486	16.223

Unit: 1 Access.

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

* The FWA data is in the scope of the licenses attributed in the public competition.

The decrease of the number of FWA accesses is due to the fact that two of the operators ceased to provide the service.

3. Leased Lines¹

3.1 Leased Lines Customers

Customers

Table 15.

	2003	2004	2005	2006	2007
Retail Leased Lines	6.953	5.530	3.714	3.302	2.768
Wholesale Leased Lines	108	125	141	184	187

Unit: 1 Customer.

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

¹ Offered in the scope of the license of Public Telecommunications Networks operator (Law no. 5/2004 of 10 of February).

3.2 Leased Lines

Leased Lines by technology

Table 16.

		2003	2004	2005	2006	2007
Retail and Wholesale Leased Lines						
	Analogue	33.970	30.871	29.151	26.225	18.820
	Digital	57.928	60.581	62.989	67.539	72.737
	< 64 Kbps	115	145	156	151	114
	64 Kbps	18.614	16.462	13.959	13.318	12.472
	n * 64 Kbps	20.606	22.309	22.563	23.810	22.721
	2 Mbps	17.772	20.743	25.175	28.972	35.883
	34 Mbps	402	402	502	503	516
	>= 140 Mbps	419	521	635	785	1.031
Retail Leased Lines						
	Analogue	8.762	7.519	6.809	6.170	5.567
	Digital	10.702	9.358	8.983	8.604	8.481
	< 64 Kbps	61	116	131	109	95
	64 Kbps	4.116	3.497	3.207	3.051	2.730
	n * 64 Kbps	4.706	4.122	3.988	3.763	3.522
	2 Mbps	1.733	1.562	1.583	1.586	2.022
	34 Mbps	38	33	70	77	85
	>= 140 Mbps	48	29	5	18	27
Wholesale Leased Lines						
	Analogue	25.208	23.352	22.342	20.055	13.253
	Digital	47.226	51.223	54.006	58.935	64.256
	< 64 Kbps	54	29	25	42	19
	64 Kbps	14.498	12.965	10.752	10.267	9.742
	n * 64 Kbps	15.900	18.187	18.575	20.047	19.199
	2 Mbps	16.039	19.181	23.592	27.386	33.861
	34 Mbps	364	369	432	426	431
	>= 140 Mbps	371	492	630	767	1.004

Unit: 1 Circuit.

Source: ICP-ANACOM.

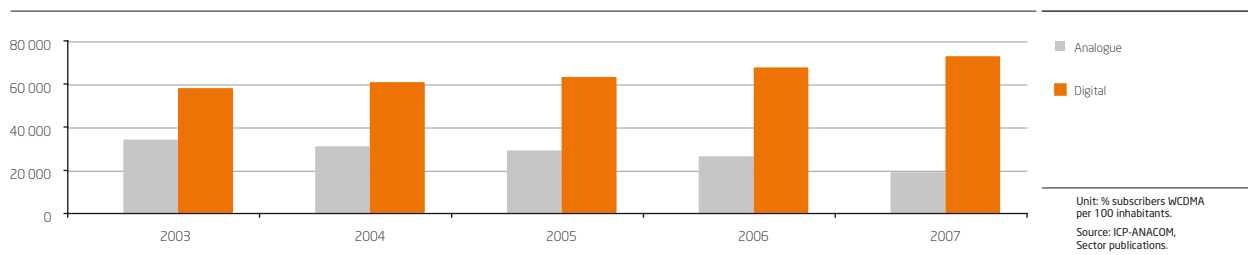
Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.



Leased Lines by technology

Graph 9.



3.3 Leased Lines Revenues

Revenues

Table 17.

	2003	2004	2005	2006	2007
Leased Lines Retail Revenues	59.641	59.495	53.162	46.899	48.382
Leased Lines wholesale Revenues	282.258	402.334	479.188	506.256	528.350
Total	341.900	461.829	532.350	553.156	576.731

Unit: 10³ Euros.

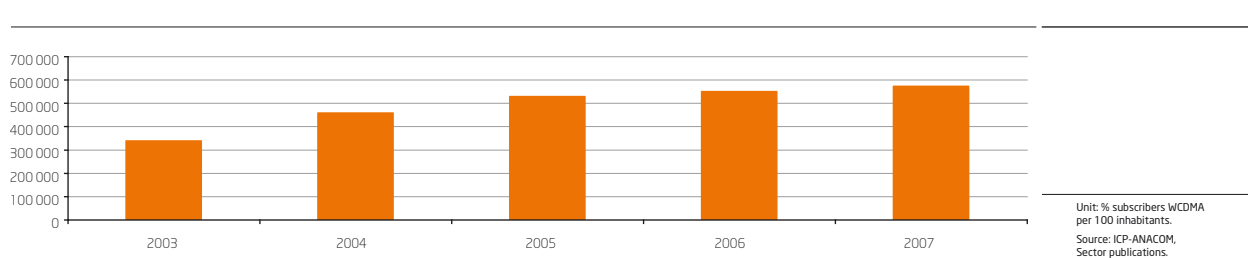
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Revenues

Graph 10.



4. Fixed Telephony and Public Telephones

4.1 Active Providers

Fixed telephone service

Table 18.

	2003	2004	2005	2006	2007
Licensed providers	26	21	22	23	24
Active providers	13	13	14	13	17
With direct and indirect access traffic	8	8	10	9	11
With direct access traffic only	2	2	1	2	5
With indirect access traffic only	3	3	3	2	1

Unit: 1 Provider.

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

Nomadic VoIP service

Table 19.

	2006	2007
Licensed providers	n.d.	14
Active providers	n.d.	6

Unit: 1 Provider.

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

4.2 Access Lines

Number of Main Lines

Table 20.

	2003	2004	2005	2006	2007
Total Main Lines (*)	4.281.1	4.238.3	4.233.7	4.234.0	4.191.0
Accesses installed on customer request	4.197.1	4.146.7	4.127.5	4.128.0	4.085.9
Analogue accesses	3.334.5	3.290.8	3.219.7	3.090.0	2.879.9
Digital Accesses	862.7	855.9	907.8	1.038.0	1.206.0
ISDN Basic Rate	542.5	535.7	528.1	514.4	497.2
ISDN Primary Rate	317.4	316.3	302.6	306.2	313.7
ISDN Partitioned Primary Rate	1.4	2.9	4.6	5.3	4.2
Others (Diginet,...)	1.4	1.1	72.5	212.1	390.8

Unit: Thousands of equivalent accesses.

Source: ICP-ANACOM.

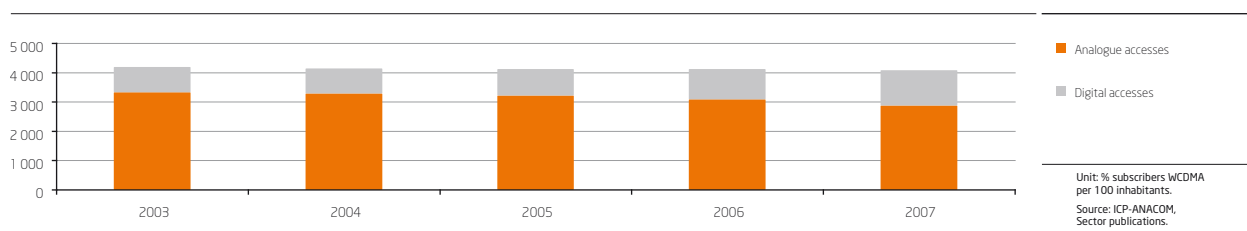
Note: This information was given from Service providers and can be corrected in the future.

(*) Includes Public Payphones and own complement.



Main Lines

Graph 11.



Public Payphones

Table 21.

	2003	2004	2005	2006	2007
Total Public Payphones (*)	41.525	47.442	45.334	43.233	41.498

Unit: 1 Phone.

Source: ICP-ANACOM.

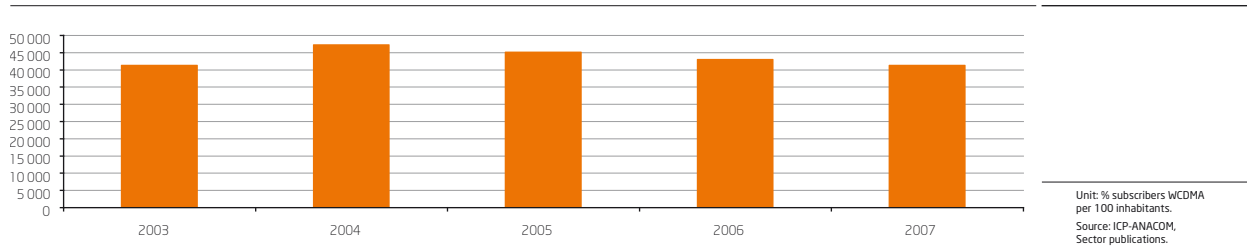
(*) Includes commercial public telephones.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Public Payphones

Graph 12.



4.3 Main Telephone Lines per 100 Inhabitants

Portugal

Table 22.

	2003	2004	2005	2006	2007
Main Telephone Lines per 100 Inhabitants (*)	40.9	40.3	40.1	39.9	39.5

Unit: Accesses/100 inhabitant.

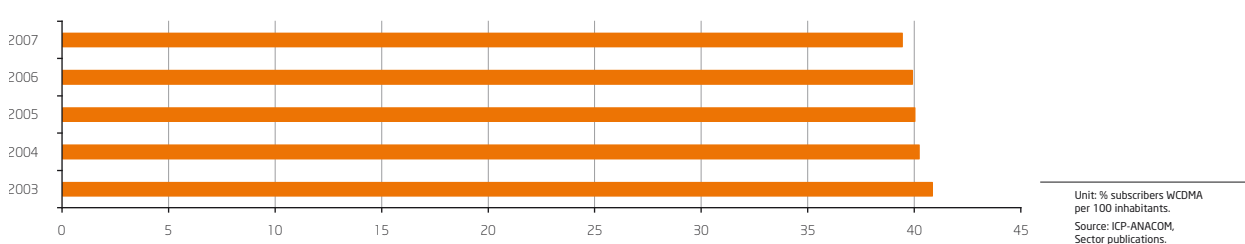
Source: INE, ICP-ANACOM.

* Includes Public Payphones.

Note: This information was given from Service providers and can be corrected in the future.

Main Telephone Lines per 100 Inhabitants

Graph 13.



Main Telephone Lines per 100 Inhabitants - EU

Table 23.

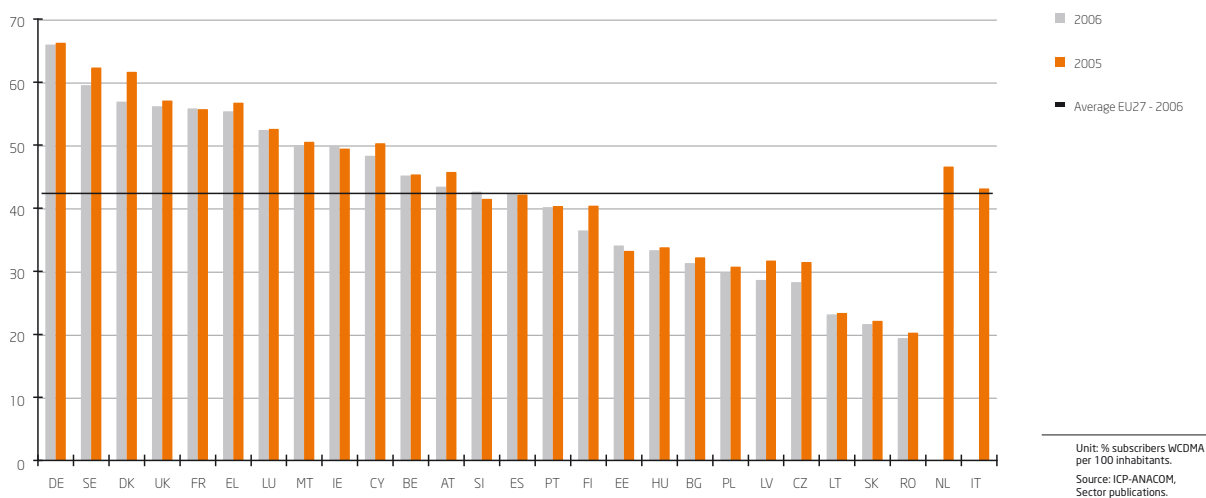
	2002	2003	2004	2005	2006
Germany	65,0	65,7	66,1	66,3	65,9
Austria	47,9	47,6	46,6	45,7	43,4
Belgium	47,6	46,9	46,0	45,4	45,2
Bulgaria	36,6	36,1	35,1	32,2	31,3
Cyprus	59,8	59,1	51,8	50,3	48,3
Denmark	68,9	67,0	64,5	61,7	56,9
Slovakia	26,1	24,1	23,2	22,2	21,6
Slovenia	40,5	40,7	40,9	41,5	42,6
Spain	42,9	41,6	41,5	42,2	42,4
Estonia	35,1	34,1	33,3	33,3	34,1
Finland	52,3	49,2	45,4	40,4	36,5
France	57,2	56,6	55,8	55,7	55,8
Great Britain	57,1	55,0	57,2	56,7	55,4
Greece	49,6	48,2	48,4	46,6	ND
Netherlands	36,2	35,6	35,3	33,8	33,4
Hungary	50,2	49,1	49,8	49,5	49,9
Ireland	48,1	45,9	44,8	43,1	ND
Italy	30,1	28,2	28,5	31,7	28,6
Latvia	26,9	23,9	23,8	23,4	23,2
Lithuania	55,7	54,3	53,4	52,6	52,4
Luxembourg	52,3	52,1	51,6	50,5	50,1
Malta	30,7	31,9	32,6	30,7	29,8
Poland	41,4	40,9	40,3	40,3	40,2
Portugal	58,8	58,1	57,8	57,1	56,1
Czech Rep.	36,0	35,5	33,6	31,5	28,3
Romania	19,3	20,0	20,2	20,3	19,4
Sweden	62,4	61,7	63,1	62,3	59,5
Average EU 27	49,7	49,1	48,9	48,2	41,0

Unit: Accesses per 100 inhabitants
Source: UIT.



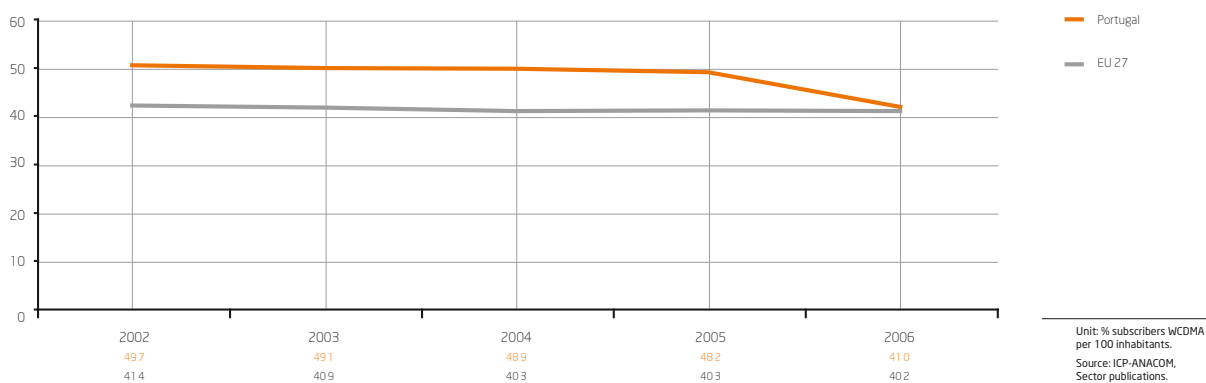
Main Telephone Lines per 100 Inhabitants - EU

Graph 14.



Main Telephone Lines per 100 Inhabitants

Graph 15.



4.4 Telephone Traffic

National Telephone Traffic

Table 24.

	2003	2004	2005	2006	2007
Minutes	13 560 723	11 413 374	9 678 335	8 497 338	7 868 144
Geografic National Voice Traffic	7 208 172	6 989 899	6 574 502	6 345 358	6 206 880
Direct access	6 200 693	5 702 758	5 214 446	5 032 705	5 160 590
De acceso indirecto	1 007 478	1 287 141	1 360 055	1 312 653	1 046 290
Fixed-to-Mobile National Traffic	1 301 530	1 253 890	1 219 520	1 154 572	1 153 560
Direct access	1 133 272	1 037 296	992 070	927 732	962 035
Indirect access	168 259	216 594	227 450	226 840	191 524
Internet Access Traffic	5 051 021	3 169 586	1 884 313	997 408	414 514
Nomadic VoIP traffic				n.d.	93 191
Calls	3 581 613	3 323 178	3 093 732	2 854 402	2 705 207
Geografic National Traffic	2 565 137	2 468 281	2 339 764	2 180 976	2 046 740
Direct access	2 178 144	1 983 702	1 842 103	1 702 681	1 642 985
Indirect access	386 994	484 580	497 661	478 295	403 755
Fixed-to-Mobile National Traffic	724 750	699 827	660 127	615 225	608 352
Direct access	634 639	583 209	539 797	497 363	510 867
Indirect access	90 111	116 618	120 330	117 862	97 486
Internet Access Traffic	291 726	155 069	93 841	58 202	30 375
Nomadic VoIP traffic				n.d.	19 740

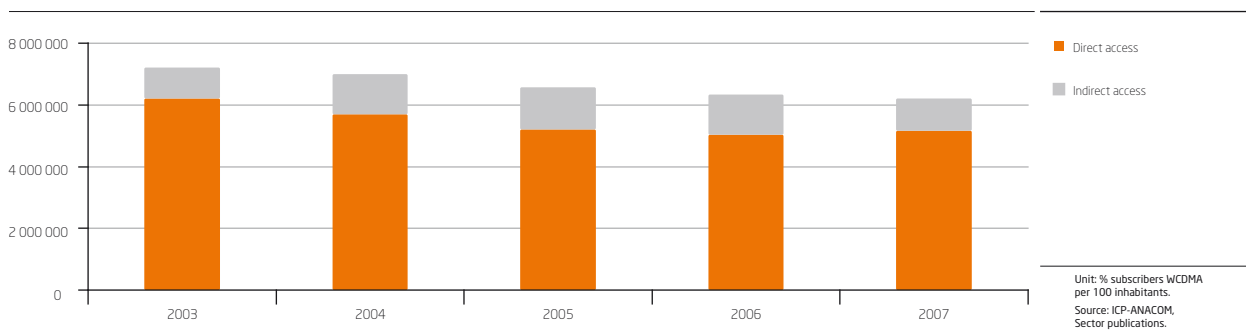
Unit: Thousand of minutes/Thousand of Calls.

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

National Telephone Traffic (minutes)

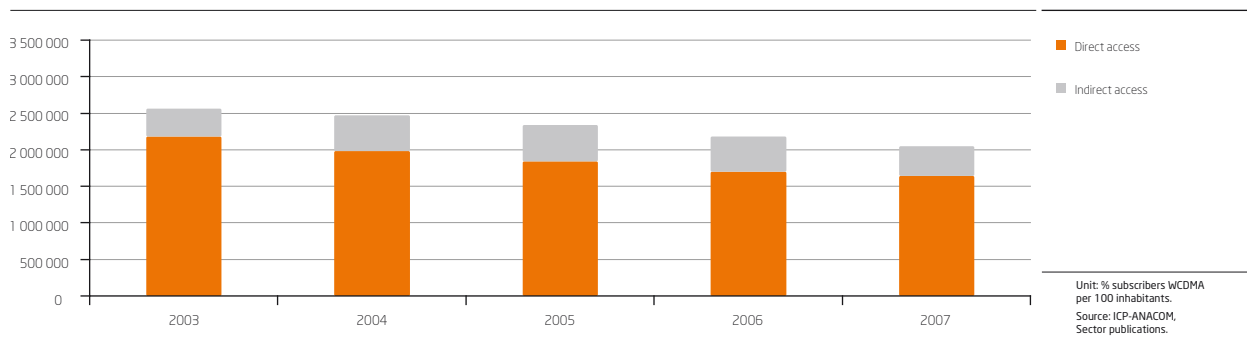
Graph 16.





National Telephone Traffic (calls)

Graph 17.



International Telephone Traffic

Table 25.

	2003	2004	2005	2006	2007
Minutes					
Outgoing	485.496	507.937	591.320	549.526	565.979
Direct access	414.600	408.404	489.328	456.532	488.542
Indirect access	70.896	99.533	101.992	92.994	77.437
Nomadic VoIP					5.168
Calls					
Outgoing	121.131	120.661	133.904	124.168	129.394
Direct access	100.007	93.743	106.569	98.465	106.201
Indirect access	21.125	26.918	27.335	25.703	23.193
Nomadic VoIP					1.188

Unit: Thousand of minutes/Thousand of calls.

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

4.5 Fixed Telephony and Public Telephones Revenues

Fixed Telephony and Public Telephones

Table 26.

	2003	2004	2005	2006	2007
Contracts	611.596	604.493	603.746	623.585	539.667
Traffic	858.819	803.299	690.421	585.170	497.190
National Traffic	679.486	649.802	554.792	470.315	390.027
International Traffic	128.286	110.710	94.523	80.623	76.441
SMS and Public Telephones	51.047	42.788	41.107	34.232	30.722
Other Revenues	61.750	12.592	15.751	12.058	9.354
Total Revenues*	1.532.165	1.420.384	1.309.918	1.220.814	1.046.211

Unit: 10³ Euros.

Source: ICP-ANACOM.

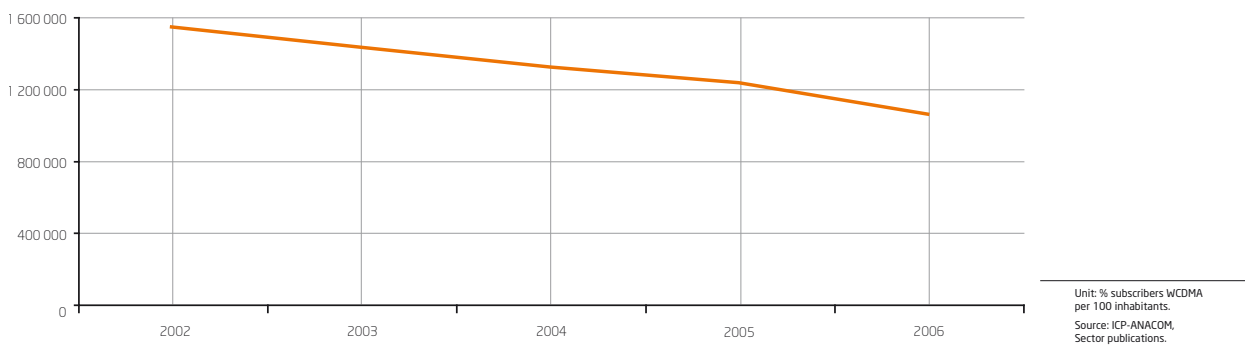
* Includes revenues from virtual call-cards.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Revenues

Graph 18.



Nomadic VoIP

Table 27.

	2003	2004	2005	2006	2007
Nomadic VoIP revenues					5.728

Unit: 10³ Euros.

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.



5. Cellular Mobile Service

5.1 Number of service providers

Number of Service Providers

Table 28.

	2003	2004	2005	2006	2007
Number of Service Providers	3	3	3	3	4

Unit: 1 Provider

Source: ICP-ANACOM.

Note: During 2007, CTT-Correios de Portugal, S.A. started the Mobile Telephone Service (MTS) provision based on a mobile operator infrastructure owner.

5.2 Number of subscribers

Mobile telephony

Table 28.

	2003	2004	2005	2006	2007
Pós-pagos	2.074	2.148	2.157	2.456	3.131
Pré-pagos	7.929	8.424	9.291	9.771	10.320
Number of subscribers	10.003	10.571	11.447	12.226	13.451

Unit: Thousand subscribers.

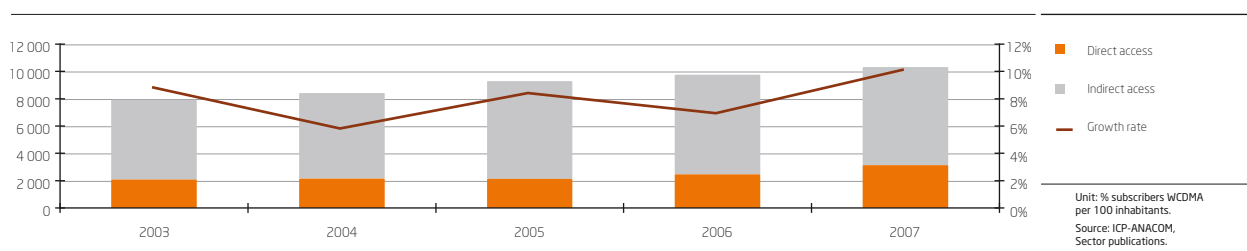
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Number of subscribers evolution and growth

Graph 19.



3G and 3.5G services users (UMTS and HSPA)

Table 30.

	2003	2004	2005	2006	2007
Total n. of possible users of UMTS services					3.074
of which were active in the period being reported					869

Unit: Thousand users

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

Mobile TV service

Table 31.

	2003	2004	2005	2006	2007
Number of Subscribers.				102.252	189.883

Unit: Thousand subscribers..

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

5.3 Market Penetration

Taxa de penetração em Portugal e na UE 15

Table 32.

	2003	2004	2005	2006	2007
Portugal	96	100	108	115	127
UE (15)	83	89	98	105	115

Unit: Number of subscribers per 100 inhabitants.

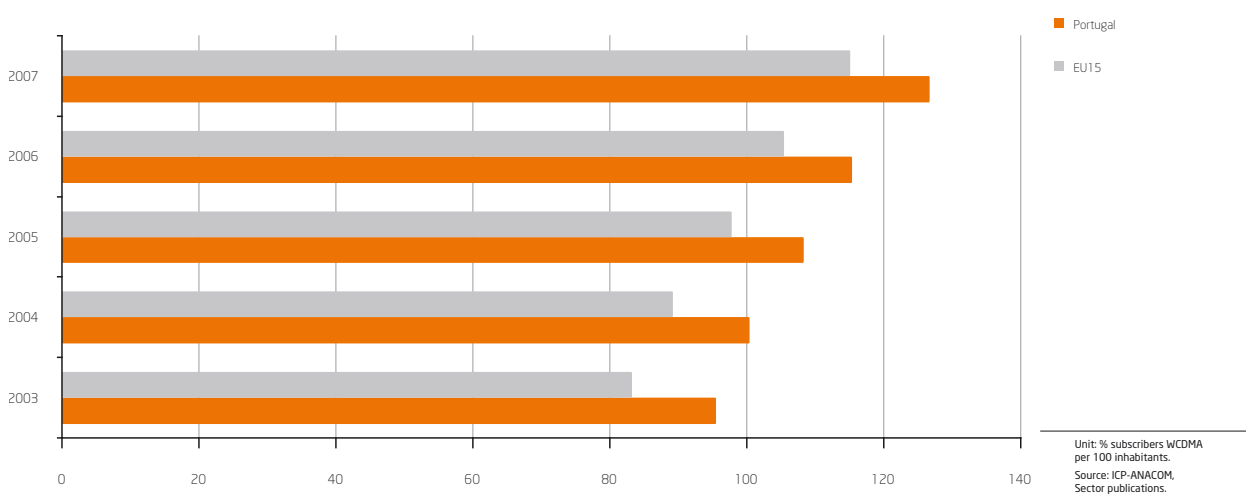
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Market Penetration

Graph 20.





Market Penetration - EU

Table 33.

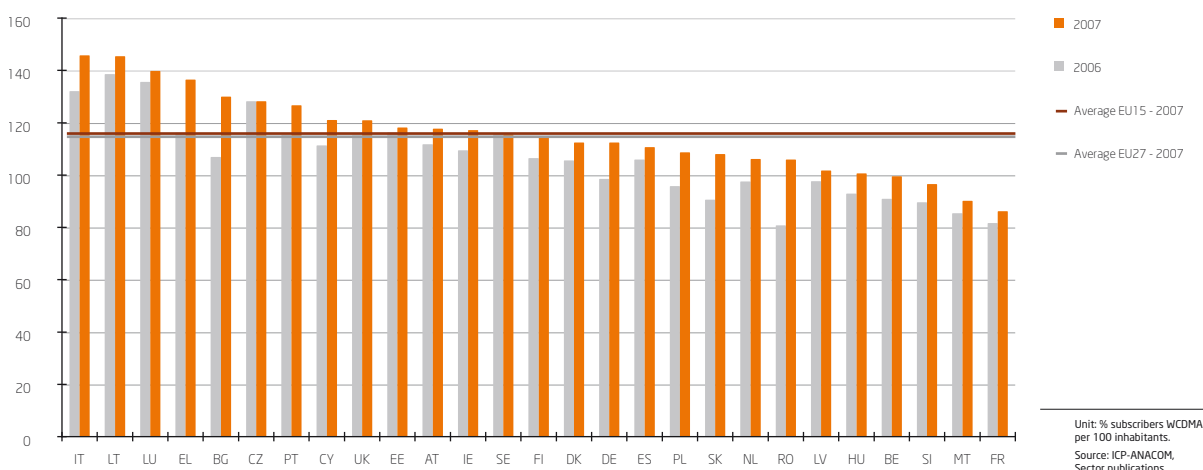
	2003	2004	2005	2006	2007
Germany	75	82	91	99	112
Austria	91	96	104	112	118
Belgium	76	82	84	91	100
Bulgaria				107	130
Cyprus	77	88	100	111	121
Denmark	92	97	99	106	113
Slovakia	68	79	84	91	108
Slovenia	91	96	90	90	97
Spain	89	88	97	106	111
Estonia	73	93	106	116	118
Finland	92	95	102	106	115
France	69	69	76	82	86
Great Britain	90	94	105	116	137
Greece	82	93	93	98	106
Netherlands	75	83	87	93	101
Hungary	86	89	100	109	117
Ireland	97	102	119	132	146
Italy	51	63	79	98	102
Latvia	64	100	125	139	145
Lithuania	118	126	134	136	140
Luxembourg	73	77	81	85	90
Malta	46	61	77	96	109
Poland	96	100	108	115	127
Portugal	90	101	108	115	121
Czech Rep.	95	106	113	128	128
Romania				81	106
Sweden	97	109	109	116	116
EU 27					114
EU 15	83	89	98	105	115

Unit: subscribers per 100 inhabitants.

Source: ICP-ANACOM, ARN's, Eurostat and Sector publications.

Market Penetration - EU

Graph 21.



5.4 Mobile traffic

Mobile traffic (calls and minutes)

Table 34.

	2003	2004	2005	2006	2007
Calls					
Outgoing traffic (*)	5 810	6 052	6 452	6 648	7 035
National mobile-fixed	542	517	512	534	552
Mobile-international	173	196	208	226	248
Mobile-mobile on-net	3 857	4 023	4 345	4 439	4 694
Mobile-mobile off-net	1 238	1 316	1 387	1 449	1 542
Incoming traffic	2 076	2 152	2 205	2 254	2 371
Mobile-mobile off-net	1 240	1 318	1 390	1 455	1 544
Fixed-mobile	691	659	627	593	610
International-mobile	145	176	189	206	217
Minutes					
Outgoing traffic (*)	10 004	10 649	11 608	12 452	13 646
National mobile-fixed	864	823	829	858	932
Mobile-international	479	510	537	583	642
Mobile-mobile on-net	6 663	7 169	7 929	8 520	9 362
Mobile-mobile off-net	1 998	2 147	2 313	2 491	2 709
Incoming traffic	3 659	3 836	4 008	4 225	4 552
Mobile-mobile off-net	1 999	2 148	2 314	2 494	2 705
Fixed-mobile	1 235	1 176	1 148	1 119	1 177
International-mobile	425	512	547	613	669

Unit: Millions.

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.



5.5 SMS,MMS traffic and video calls

SMS,MMS traffic and Video calls

Table 35.

	2003	2004	2005	2006	2007
Written messages (SMS) sent¹	2 302,8	2 528,8	4 689,4	12 452,5	18 439,1
On-net	1 469,6	1 673,5	3 793,4	11 531,3	17 449,8
Off-net	833,1	855,3	896,0	921,2	989,2
Written messages (SMS) sent "normal"	2 253,6	2 447,7	4 554,5	12 279,0	18 261,7
On-net	1 434,0	1 615,6	3 683,9	11 368,8	17 281,4
Off-net	819,6	832,1	870,6	910,2	980,2
Written messages (SMS) "Premium"¹	49,2	81,1	134,9	173,6	177,4
Incoming	35,6	57,9	109,4	162,5	168,4
Outgoing	13,6	23,2	25,4	11,0	9,0
Multimedia messages (MMS) sent²	3,2	19,9	35,9	50,4	48,7
On-net	2,4	15,0	28,1	39,5	38,5
Off-net	0,8	4,8	7,8	10,9	10,2
Video calls sent				4,2	3,6
Número de vídeo-chamadas originadas	n.d.	n.d.	n.d.	4,2	3,6
Video calls traffic volume				9,7	5,8
Video calls traffic volume	n.d.	n.d.	n.d.	9,7	5,8

Unit: Millions.

Source: ICP-ANACOM.

1 Include added value messages to content (incoming) and/or televoting (outgoing) services.

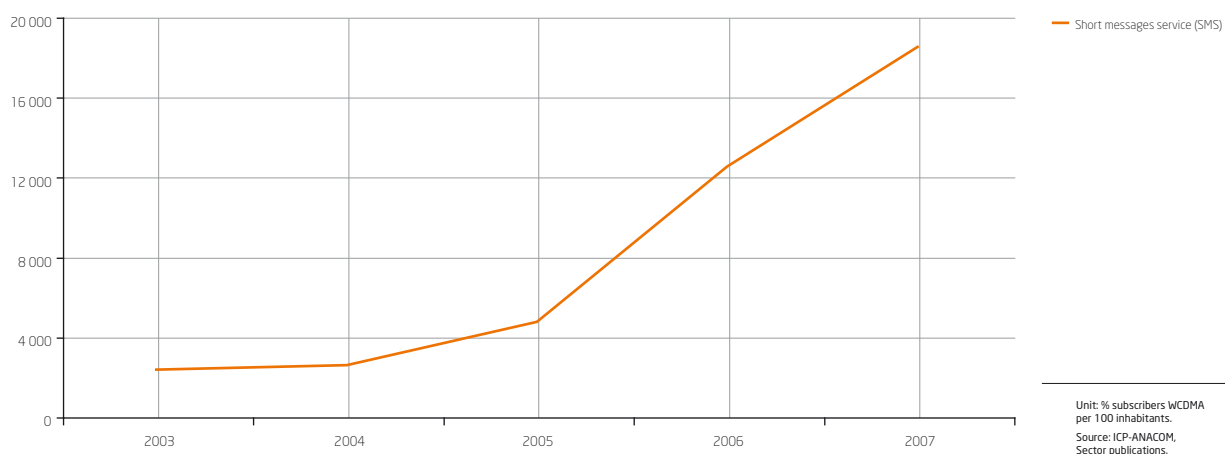
2 Valores de 2004 e de 2005 estimados.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

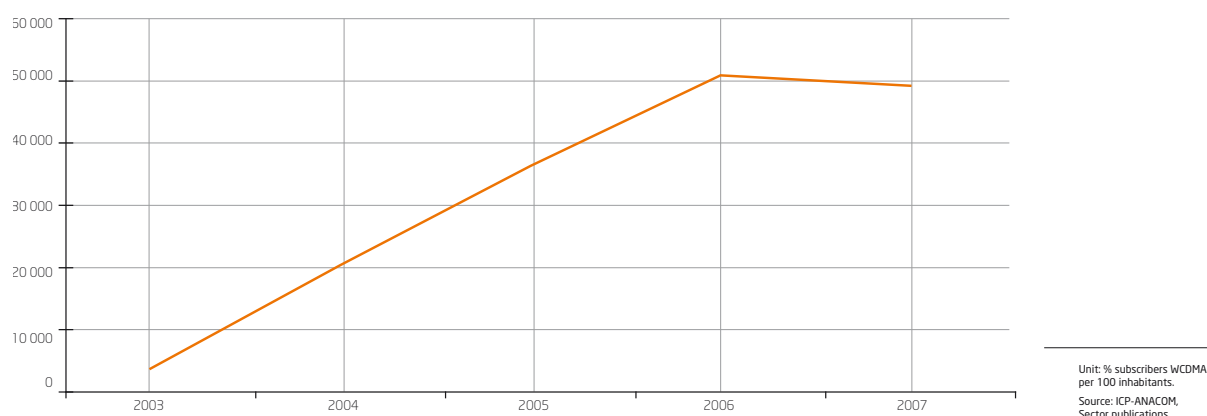
Written messages (SMS)

Graph 22.



Multimedia messages (MMS)

Graph 23.



5.6 Cellular Mobile Service Revenues

Revenues

Table 36.

	2003	2004	2005	2006	2007
Contracts and monthly fees	133.290	145.031	145.866	149.095	161.877
Traffic	1.886.543	2.072.194	2.161.422	2.242.027	2.375.342
Voice	n.d.	1.822.321	1.880.046	1.907.472	1.910.847
Data	n.d.	249.873	281.377	334.555	464.495
Others	309.967	394.472	379.176	354.214	378.089
Terminals	n.d.	n.d.	336.286	288.310	319.520
Other revenue	n.d.	n.d.	42.890	65.905	58.569
Total Revenues	2.329.800	2.611.697	2.686.465	2.745.337	2 915.309

Unit: 10³ Euros.

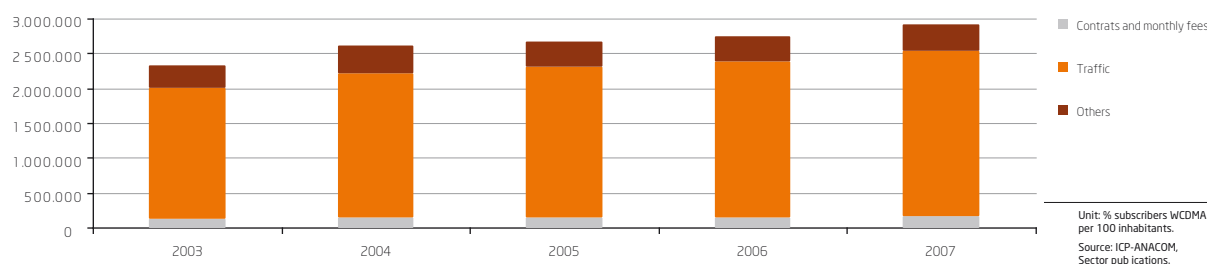
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Revenues

Graph 24.





6. Subscription TV Networks

6.1 Cable Networks

Number of Cabled Households

Table 37.

	2003	2004	2005	2006	2007
Number of Cabled Households	3.495	3.631	3.773	3.825	4.040

Unit: Thousands of Households.

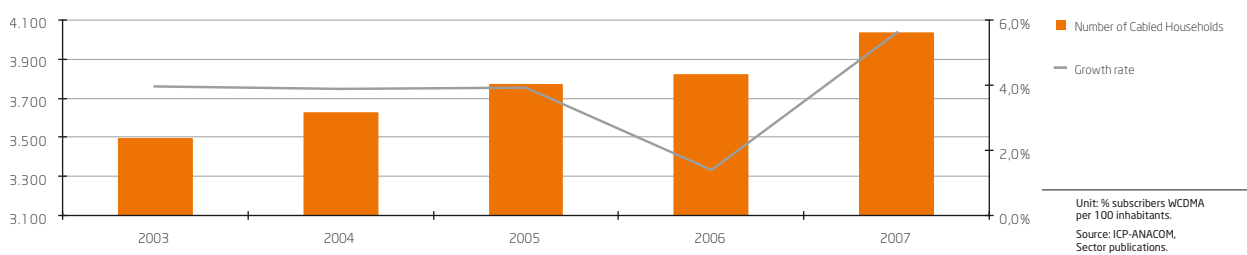
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Number of Cabled Households and Growth

Graph 25.



Number of Cable TV Subscribers

Table 38.

	2003	2004	2005	2006	2007
Cable TV	1.335	1.343	1.400	1.421	1.490
Direct to home (DTH)	342	375	395	436	484

Unit: Thousand subscribers

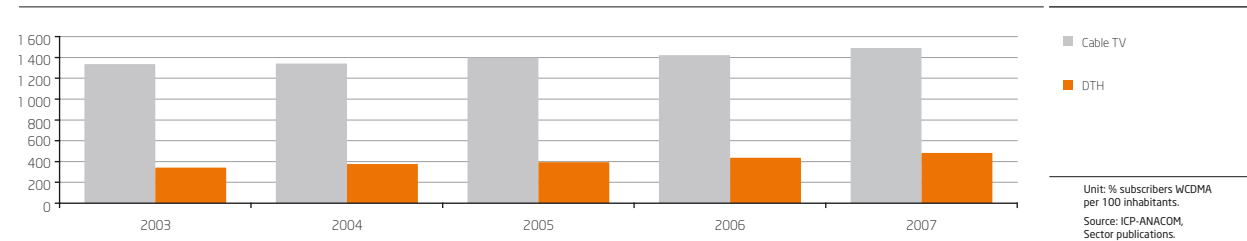
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Number of Subscribers

Graph 26.



Network infra-structure

Table 39.

	2003	2004	2005	2006	2007
Network heads (Nr.)	32	28	27	33	34
Cells (Nr.)	2.105	2.122	2.168	2.439	2.572
Bidirectional cells (Nr.)	1.939	2.022	2.109	2.387	2.516
Cables households with bidirectionality (Thousands)	3.191	3.481	3.660	3.778	4.098
Digital service subscribers	n.d.	n.d.	n.d.	779	906

Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Market penetration of Cable Networks

Table 40.

	2003	2004	2005	2006	2007
Subscribers/Households	25%	25%	26%	26%	27%
Subscribers/Cabled Households	41%	40%	40%	40%	39%
Subscribers/Population	13%	13%	13%	13%	14%

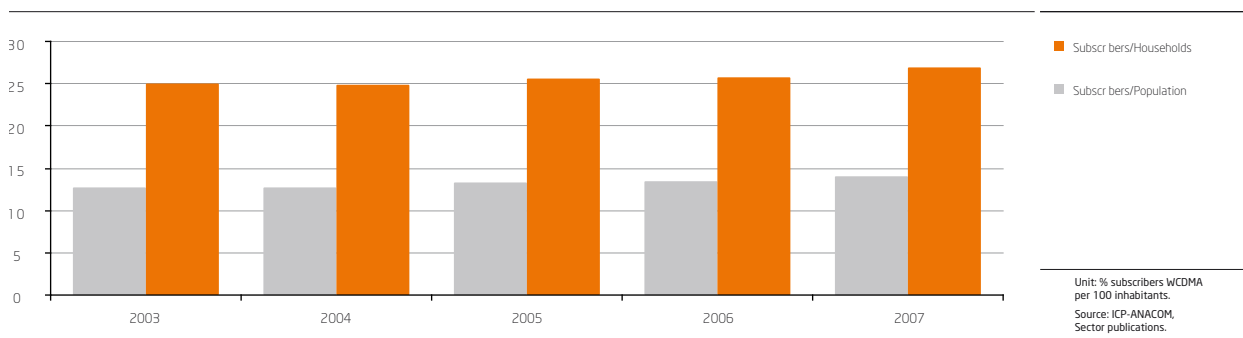
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Market penetration of Cable Networks

Graph 27.





Number of Cabled Households and Subscribers per NUTS III

Table 41.

		2003	2004	2005	2006	2007
Norte	Minho-Lima	15 703	16 236	17 534	19 542	23 801
	Cávado	114 087	118 362	122 454	138 310	140 738
	Ave	36 941	38 428	44 060	67 758	75 919
	Grande Porto	614 837	667 933	696 057	744 808	796 579
	Tâmega	11 433	11 829	12 630	28 835	29 370
	Entre Douro e Vouga	106 110	107 171	109 706	115 327	119 125
	Douro	10 052	10 342	10 793	10 631	12 796
Centro	Alto Trás-os-Montes	0	0	0	0	10 058
	Baixo Vouga	114 191	115 999	119 107	121 545	125 637
	Baixo Mondego	79 884	90 303	102 277	102 295	110 670
	Pinhal Litoral	64 975	68 999	71 253	67 404	71 622
	Pinhal-Interior-Norte	2 681	2 687	2 687	2 780	4 637
	Pinhal-Interior-Sul	0	0	0	0	0
	Dão-Lafões	46 417	46 898	48 311	48 472	52 605
	Serra da Estrela	7 003	7 047	7 047	7 138	7 138
	Beira-Interior-Norte	10 060	10 261	10 441	10 541	10 747
	Beira-Interior-Sul	17 160	17 180	17 451	18 697	18 709
	Cova da Beira	21 127	21 256	22 140	22 331	22 826
	Oeste	80 288	84 878	88 362	90 967	98 061
	Médio Tejo	35 156	35 783	38 491	38 796	40 864
Lisboa	Grande Lisboa	1 024 832	1 052 988	1 091 877	1 061 633	1 112 413
	Península de Setúbal	636 362	648 312	665 494	646 661	656 454
Alentejo	Lezíria do Tejo	60 677	61 751	65 329	59 600	62 766
	Alentejo Litoral	15 348	15 587	15 712	16 027	16 085
	Alto Alentejo	0	0	0	0	13 407
	Alentejo Central	34 031	34 266	34 858	33 033	39 741
	Baixo Alentejo	12 011	12 028	12 125	13 622	15 748
Algarve	Algarve	184 107	191 727	203 937	194 824	204 791
Açores	RAA	54 227	55 403	55 888	55 891	55 891
Madeira	RAM	84 792	86 943	86 793	87 711	90 594
Portugal	Total	3 494 492	3 630 597	3 772 814	3 825 179	4 039 792

Source: ICP-ANACOM.

Note 1: According to Decree-Law nr 244/2002, of November 5th, the region previously denominated "Lisboa e Vale do Tejo" were disaggregated. Now, the "Oeste" and "Médio Tejo" regions are part of "Centro" zone, and "Lezíria do Tejo" are part of "Alentejo" zone. The zone "Lisboa" region, only includes "Lisboa" and "Península de Setúbal" regions.

Note 2: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Subscribers

Table 42.

		2003	2004	2005	2006	2007
Norte	Minho-Lima	6 452	5 251	5 343	5 631	6 481
	Cávado	26 989	27 372	27 668	28 902	32 149
	Ave	13 742	13 148	13 270	15 756	18 833
	Grande Porto	226 207	230 117	238 085	240 931	262 862
	Tâmega	3 999	3 874	3 993	5 012	5 963
	Entre Douro e Vouga	34 457	34 813	36 138	37 080	38 549
	Douro	3 065	3 153	3 139	3 008	3 266
	Alto Trás-os-Montes	0	0	0	0	362
Centro	Baixo Vouga	41 380	41 981	44 261	45 002	47 578
	Baixo Mondego	30 980	30 402	31 320	31 435	32 648
	Pinhal Litoral	17 158	16 249	16 894	16 906	17 154
	Pinhal-Interior-Norte	989	1 020	1 033	1 028	1 233
	Pinhal-Interior-Sul	0	0	0	0	0
	Dão-Lafões	13 682	13 132	13 729	13 835	14 421
	Serra da Estrela	2 378	2 390	2 462	2 457	2 450
	Beira-Interior-Norte	4 399	4 552	4 727	4 865	4 964
	Beira-Interior-Sul	7 336	7 633	7 929	8 343	7 986
	Cova da Beira	7 828	7 941	8 272	8 638	8 860
	Oeste	25 743	26 252	27 402	28 496	31 016
	Médio Tejo	9 891	9 659	9 967	9 717	11 052
Lisboa	Grande Lisboa	496 172	495 580	515 539	514 176	519 995
	Península de Setúbal	182 166	180 363	191 852	194 808	203 024
Alentejo	Lezíria do Tejo	12 930	13 301	13 963	14 301	14 619
	Alentejo Litoral	7 127	7 269	7 547	7 665	7 801
	Alto Alentejo	0	0	0	0	3 800
	Alentejo Central	9 817	10 614	11 302	12 036	14 522
	Baixo Alentejo	5 237	5 143	5 299	5 716	6 256
Algarve	Algarve	50 633	50 336	52 596	52 600	56 082
Açores	RAA	37 881	38 751	40 047	43 827	45 695
Madeira	RAM	56 461	62 365	66 073	68 367	70 277
Portugal	Total	1 335 099	1 342 661	1 399 850	1 420 538	1 489 898

Source: ICP-ANACOM.

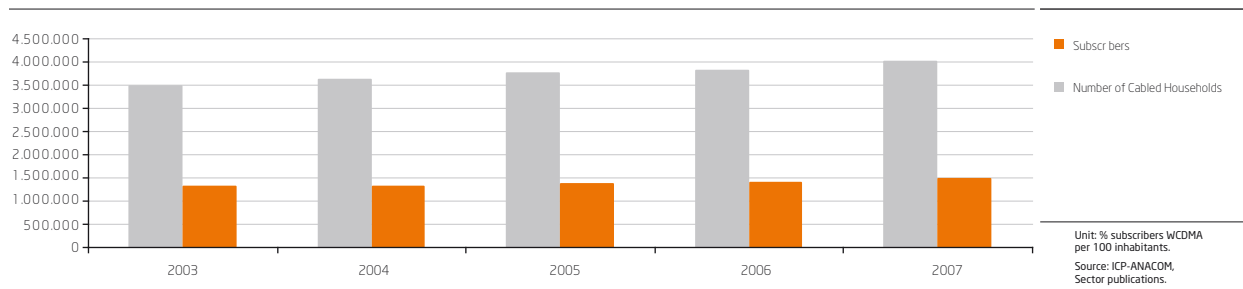
Note 1: According to Decree-Law nr 244/2002, of November 5th, the region previously denominated "Lisboa e Vale do Tejo" were disaggregated. Now, the "Oeste" and "Médio Tejo" regions are part of "Centro" zone, and "Lezíria do Tejo" are part of "Alentejo" zone. The zone "Lisboa" region, only includes "Lisboa" and "Península de Setúbal" regions.

Note 2: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Cabled Households and Subscribers

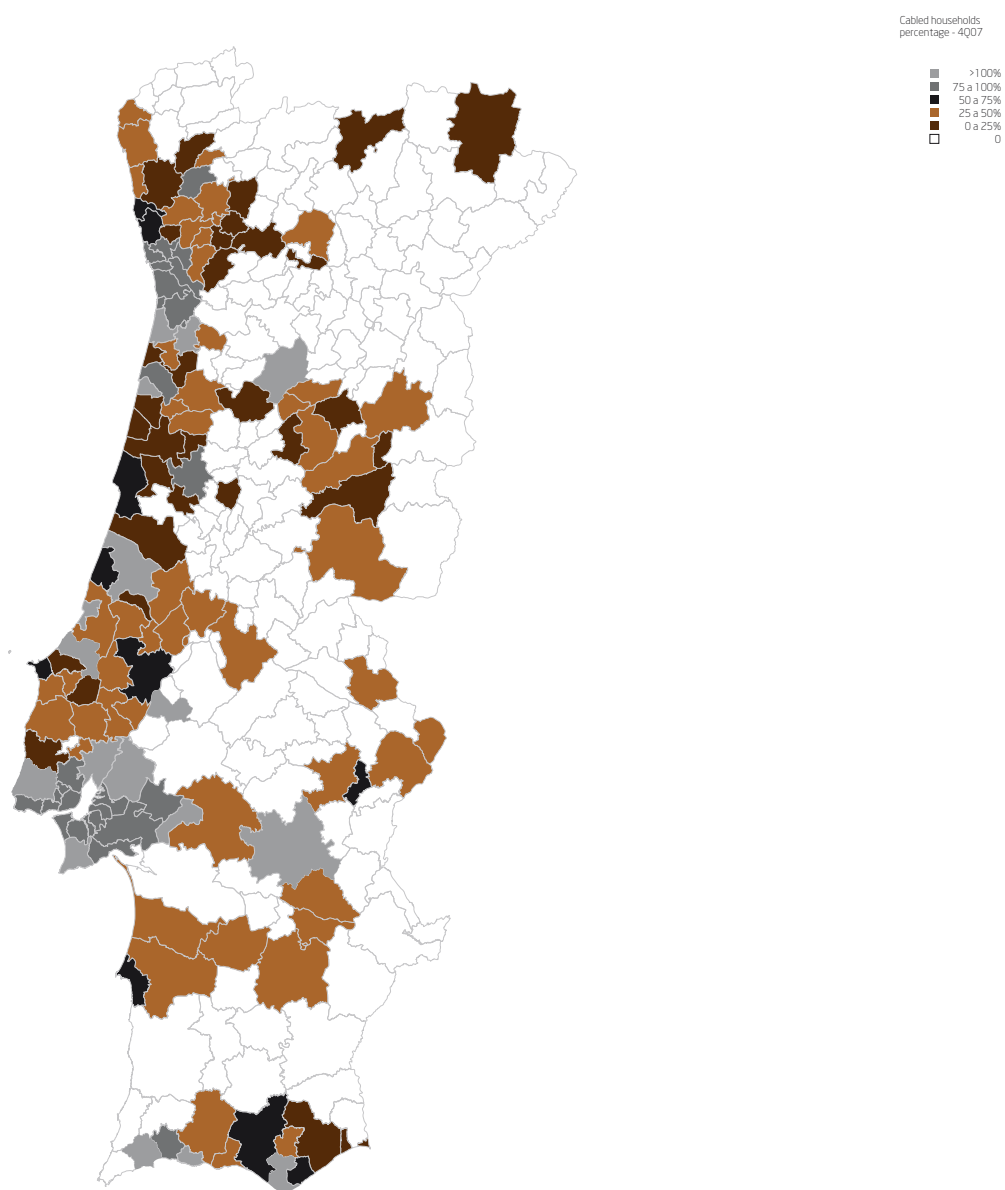
Graph 28.





Cabled Households - 2007

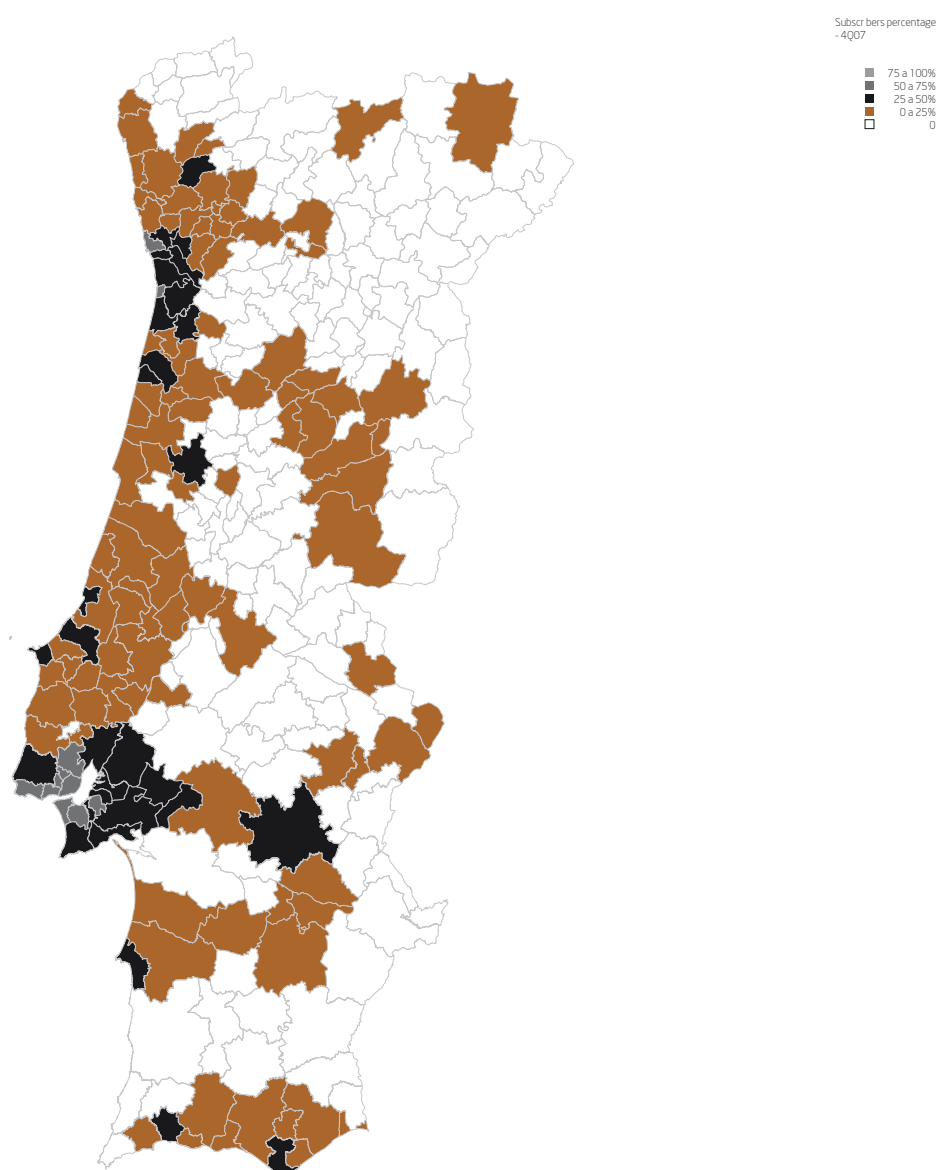
Graph 29.



Unit: %
Source: ICP-ANACOM.

Subscribers - 2007

Graph 30.



Unit: %
Source: ICP-ANACOM



Cable Networks Revenues

Table 43.

	2003	2004	2005	2006	2007
Cable TV	296.488	320.732	344.055	366.616	392.701
Direct to home	94.226	113.033	127.246	127.597	144.820
Revenues	390.714	433.765	471.301	496.213	537.522

Unit: 10³ Euros.

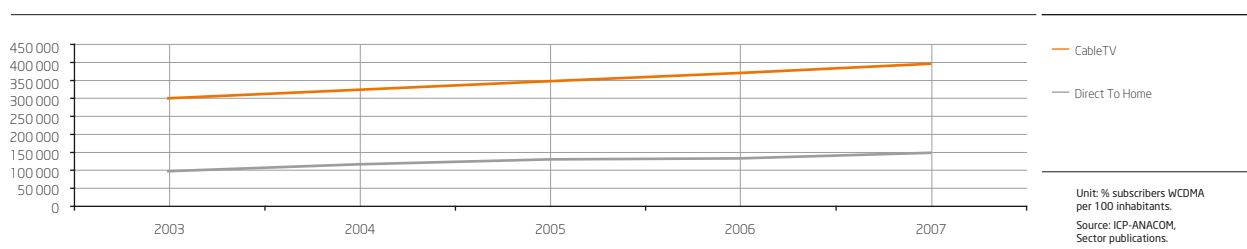
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

Revenues

Graph 31.



6.2 Other television distribution technologies (IPTV, DVBT, etc.)

Subscribers of other television distribution technologies (IPTV, DVBT, etc.)

Table 44.

	2005*	2006	2007
IPVT subscribers and similars	348	3.292	40.642

Unit: Nr Subscribers.

Source: ICP-ANACOM.

* In 2005 there were only trial customers.

Note: This information was given from Service providers and can be corrected in the future.

Revenue from other television distribution technologies (IPTV, DVBT, etc.)

Table 45.

	2005*	2006	2007
IPVT revenue and similars	13	573	5.718

Unit: 10³ Euros.

Source: ICP-ANACOM.

* 2005 revenues are only of trial customers.

Note: This information was given from Service providers and can be corrected in the future.

7. Internet Access Service and non-nomadic VoIP

7.1 Wired Technologies

Internet Access Service Providers

Table 46.

	2003	2004 ⁽¹⁾	2005	2006	2007
Authorized ISP's	52	38	39	38	42
Active ISP	26	30	30	28	34

Unit: 1 Provider.

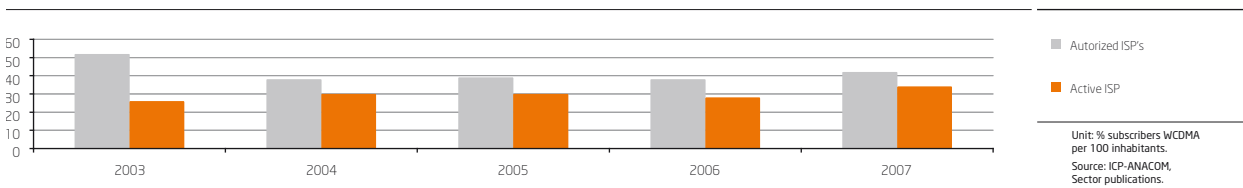
Source: ICP-ANACOM.

(1) The 2004 values were updated.

Note: This information was given from Service providers and can be corrected in the future.

Internet Access Service Providers

Graph 32.



Number of Internet Customers

Table 47.

	2003 ⁽¹⁾	2004	2005	2006	2007
Total number of customers⁽¹⁾	903 948	1 223 566	1 436 486	1 580 090	1 611 873
Residential		1 066 022	1 222 205	1 326 677	1 355 661
Non-residential		157 544	214 281	253 413	256 213
Dial Up Customers ⁽¹⁾	401 918	394 943	271 046	156 403	99 326
Residential	n.d.	371 696	253 286	139 783	86 234
Non-residential	n.d.	23 247	17 760	16 620	13 092
Other access technologies customers	3 207	2 830	2 748	4 623	14 656
Residential	0	0	0	1 893	11 382
Non-residential	3 200	2 830	2 748	2 730	3 274
ADSL access customers	184 344	410 877	672 800	881 512	892 092
Residential	n.d.	299 432	502 075	673 729	678 794
Non-residential	n.d.	111 445	170 725	207 782	213 299
Cable Modem Customers	314 479	414 916	489 892	537 552	605 799
Residential	295 839	394 894	466 844	511 272	579 251
Non-residential	18 640	20 022	23 048	26 280	26 548

Unit: 1 Customer

Source: ICP-ANACOM.

(1) The number of dial-up clients accounting criteria was changed at 2004. The published series in 2000, 2001, 2002 and 2003 did not contained active clients only. The corresponding values were estimated, including total clients.

Note 1: The commercial offer of internet access service via cable distribution networks began at the end of 1999. The commercial offer of ADSL access began in the 1st quarter of 2001..

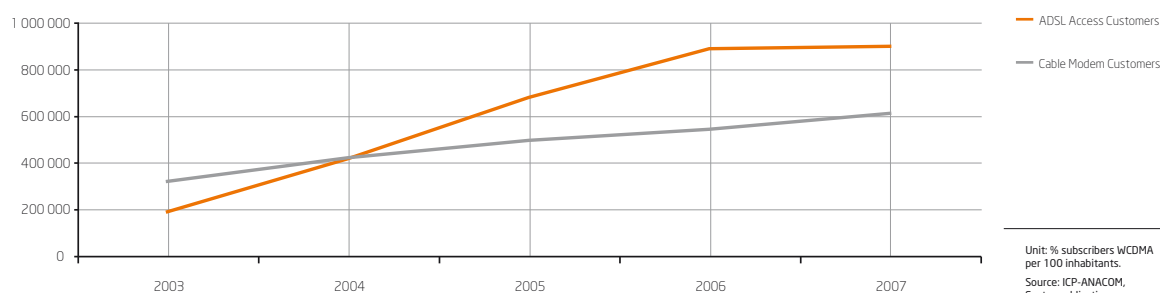
Note 2: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.



Broadband Internet Customers

Graph 33.



Internet Fixed Access Market Penetration

Table 48.

	2003	2004	2005	2006	2007
Market Penetration (*)	8.6%	11.6%	13.6%	14.9%	15.2%
Broadband customers per 100 inhabitants (ADSL + cable modem + other)	4.8%	7.9%	11.0%	13.4%	14.2%

Unit: Number of customers per 100 inhabitants

Source: ICP-ANACOM.

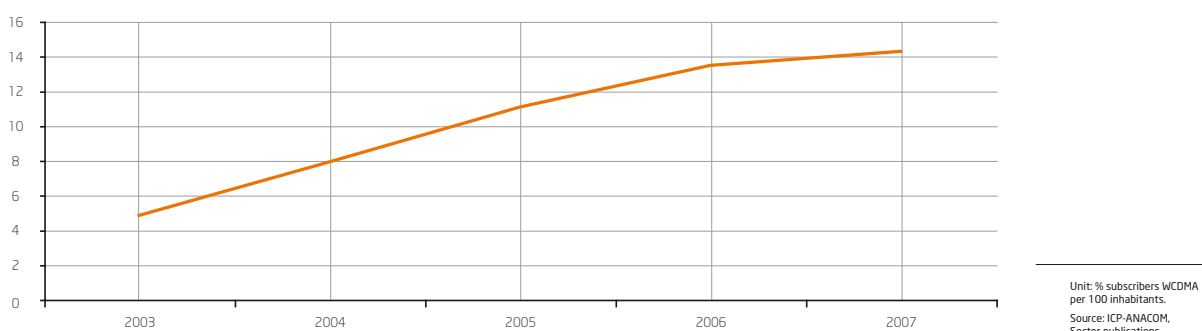
Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

(*) To calculate penetration, the total customers for any access type was considered.

Broadband Market Penetration (ADSL+Cable modem+other)

Graph 34.



Internet Users - EU

Table 49.

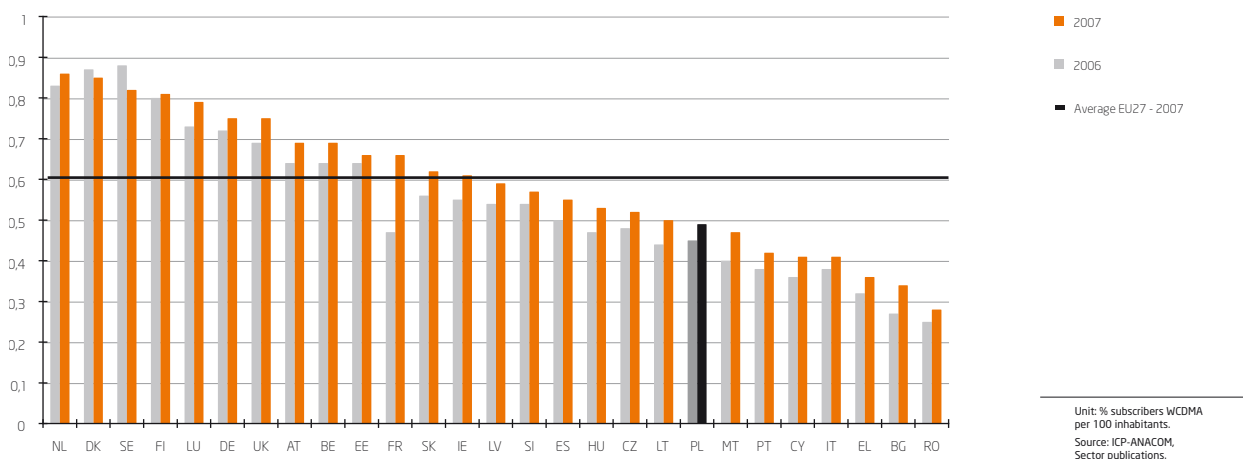
	2003	2004	2005	2006	2007
Germany	56	65	69	72	75
Austria	43	54	58	64	69
Belgium			60	64	69
Bulgaria		18		27	34
Cyprus		34	33	36	41
Denmark	76	81	83	87	85
Slovakia		53	55	56	62
Slovenia		41		54	57
Spain		44	48	50	55
Estonia		53	61	64	66
Finland	69	72	74	80	81
France				47	66
Great Britain	18	21	24	32	36
Greece			81	83	86
Netherlands		29	39	47	53
Hungary	34	37	42	55	61
Ireland	29	33	35	38	41
Italy		39	46	54	59
Latvia		31	36	44	50
Lithuania	55	66	70	73	79
Luxembourg			41	40	47
Malta		33	39	45	49
Poland	30	32	35	38	42
Portugal	65	66	70	69	75
Czech Rep.	34	35	35	48	52
Romania		15		25	28
Sweden	79	84	85	88	82
Average EU 27		47	54	55	60

Unit: %.

Source: Eurostat (percentage of individuals that used internet in the last year).

Internet Users - EU

Graph 35.





Internet Broad Band Market Penetration

Table 50.

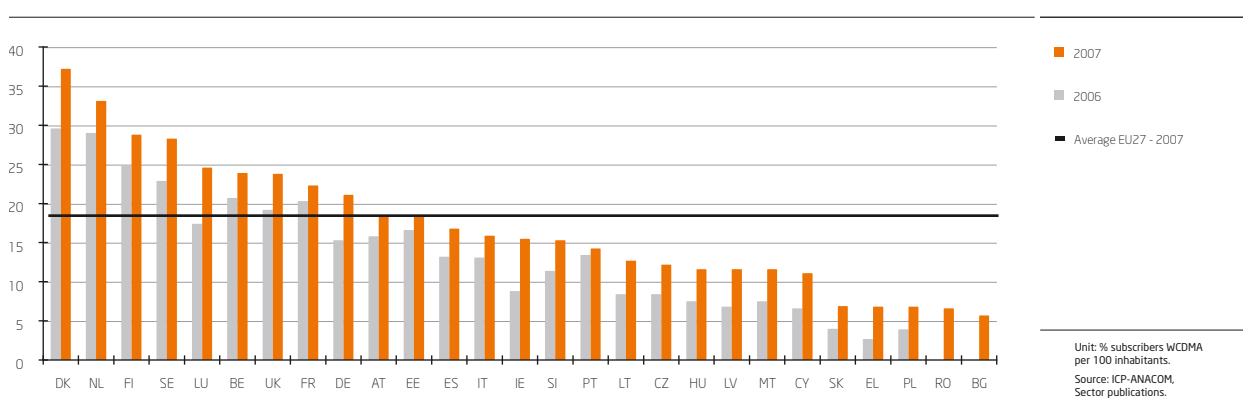
	2003	2004	2005	2006	2007
Germany	4,8	6,7	10,2	15,3	21,1
Austria	6,6	8,7	11,6	15,8	18,4
Belgium	10,1	14,0	17,4	20,7	23,9
Bulgaria					5,7
Cyprus		2,0	2,7	6,6	11,1
Denmark	10,4	15,6	22,0	29,6	37,2
Slovakia		0,4	1,5	4,0	6,9
Slovenia		3,8	7,8	11,4	15,3
Spain	4,3	6,7	10,0	13,2	16,8
Estonia		7,6	11,1	16,6	18,4
Finland	6,6	11,0	18,7	24,9	28,8
France	4,0	8,2	13,9	20,3	22,3
Great Britain	0,0	0,2	0,8	2,7	6,8
Greece	9,8	14,7	22,4	29,0	33,1
Netherlands		2,2	4,5	7,5	11,6
Hungary	0,2	1,7	4,4	8,8	15,5
Ireland	2,8	6,1	9,5	13,1	15,9
Italy		1,5	3,7	6,8	11,6
Latvia		2,5	5,0	8,4	12,7
Lithuania	2,3	5,7	11,7	17,4	24,6
Luxembourg		3,5	4,5	7,5	11,6
Malta		0,5	1,9	3,9	6,8
Poland	4,8	7,9	11,0	13,4	14,2
Portugal	3,7	7,4	13,5	19,2	23,8
Czech Rep.		0,7	4,3	8,4	12,2
Romania					6,6
Sweden	8,6	12,1	17,1	22,9	28,3
Média EU 27					18,2

Unit: %

Source: Eurostat (information referred to July of each year in absence of final year's data).

Internet Broad Band Market Penetration

Graph 36.



Broadband accesses

Table 51.

	2003	2004	2005	2006	2007
Cable Modem Accesses	314.679	415.107	490.132	537.650	605.799
ADSL Accesses	184.860	424.169	700.456	916.037	927.759
Other broadband technologies (*)	3.523	3.282	3.218	5.251	15.503

Unit: Accesses/100 inhabitant

Source: ICP-ANACOM.

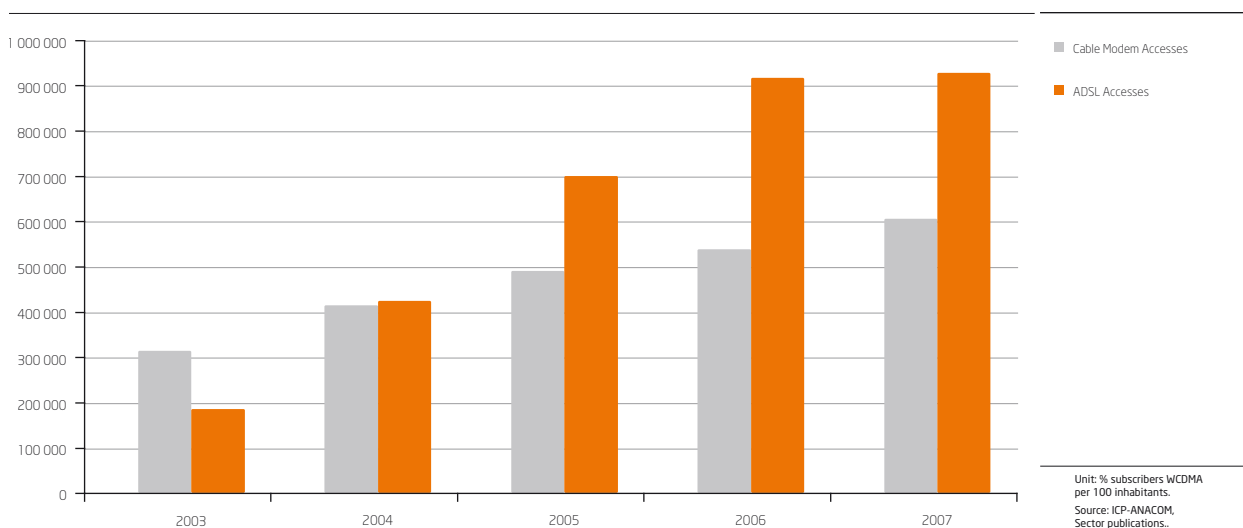
Note: Some values were revised due to providers information updates.

This information was given from Service providers and can be corrected in the future.

(*) It includes the supply of internet access service by dedicated lines, using diverse technologies and that is mainly broadband and addressed to the business category. It includes service supply using FWA (fixed wireless access) accesses.

Cable and ADSL Accesses

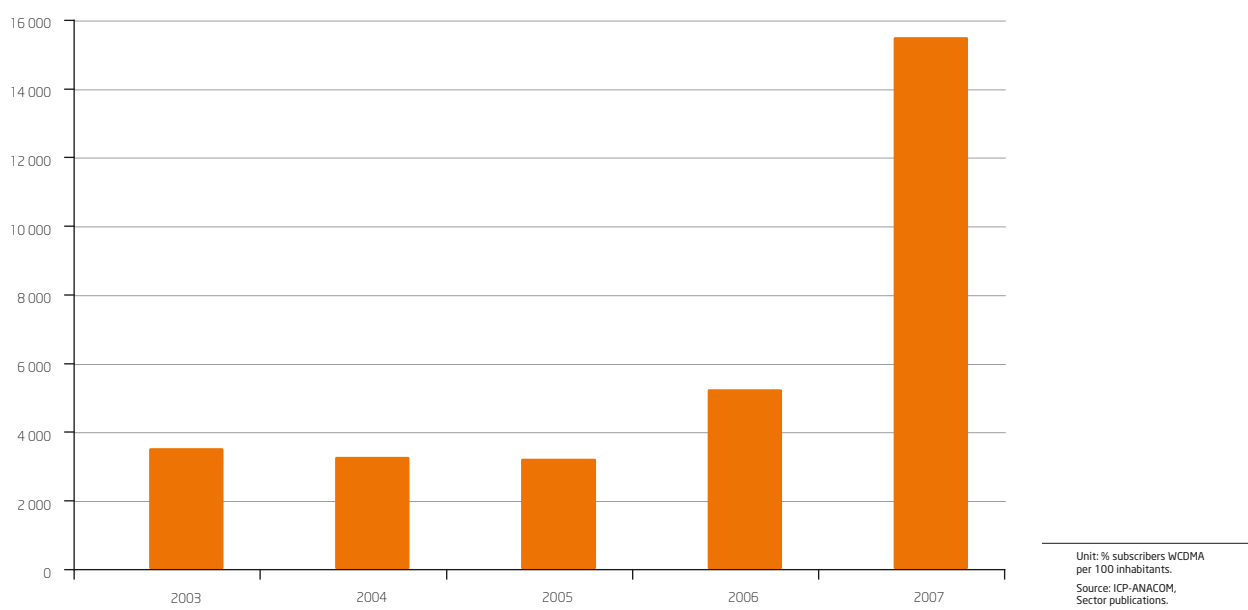
Graph 37.





Other Broadband Technologies

Graph 38.



Internet revenue

Table 52.

	2003	2004	2005	2006	2007
Internet access service	302.011	367.365	420.877	454.598	479.611
Acesso Dial Up	120.287	75.108	49.225	29.632	12.699
ADSL access	54.482	148.248	202.146	260.381	287.068
Cable modem access	67.574	101.230	126.617	136.237	148.583
Other Internet access	31.806	31.601	37.860	26.160	28.602
Other revenues	27.863	11.178	5.029	2.188	2.660

Unit: 10³ Euros.

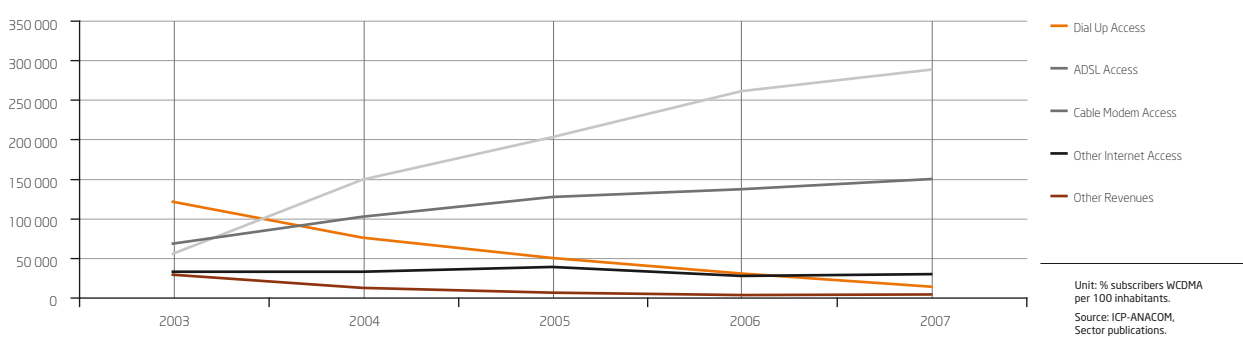
Source: ICP-ANACOM.

Note: Some values were revised due to providers information updates.

Other data transmission services were withdrawn.

This information was given from Service providers and can be corrected in the future.

Revenue
Graph 39.



Revenue
Graph 40.



7.2 Wired technologies

Internet Access Service Providers

Table 53.

	2003	2004	2005	2006	2007
Autorized ISP's	3	3	3	3	3
Active ISP	3	3	3	3	3

Unit: 1 provider

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.



Number of users

Table 54.

	2003	2004	2005	2006	2007
Nr of users that accessed broadband mobile internet in the year					1.455
Of which active					660

Unit: Thousands of users

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

Outgoing traffic

Table 55.

	2003	2004	2005	2006	2007
Nr of APN internet sessions	Thousand of sessions				257.347
Volume of APN internet traffic	Thousand of MB				5.066.187

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

Revenue from Mobile Internet Access

Table 56.

	2003	2004	2005	2006	2007
Internet access service (*)					131.872

Unit: 10³ Euros.

Source: ICP-ANACOM.

* Includes broadband and narrow band revenues

Note: This information was given from Service providers and can be corrected in the future.

Internet Mobile Broadband Access Market Penetration

Table 57.

	2003	2004	2005	2006	2007
Mobile Broadband Market Penetration					13,7%

Unit: Number of customers per 100 inhabitants.

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

7.3 Voice Over IP (VoIP)

Non-nomadic VoIP (*)

Table 58.

	Unit	2006	2007
Nr Customers	1 Customer	14.200	18.982
Revenues	Euros	394.063	495.720

Source: ICP-ANACOM.

Note: This information was given from Service providers and can be corrected in the future.

*These are Voip services with no geographic or nomadic numbering.

8. Radiocommunications Services

8.1 Licences by Service

Station Licences

Table 59.

	2003	2004	2005	2006	2007
Broadcasting	1 322	1 382	1 412	1 419	1 467
Sound MF Broadcasting	636	673	665	661	674
Sound SW Broadcasting	3	3	3	3	3
Sound MW Broadcasting	54	54	54	54	52
Television Broadcasting	629	652	690	701	738
Fixed	86	94	82	98	75
Fixed - Short Wave	14	14	14	24	24
Fixed - Satellite	72	80	68	74	51
Mobile	781	789	827	845	860
Aeronauticas Mobile Service	231	235	222	229	233
Maritime Mobile Service	550	554	605	616	627

Unit: 1 station licence.
Source: ICP-ANACOM.

Network licences

Table 60.

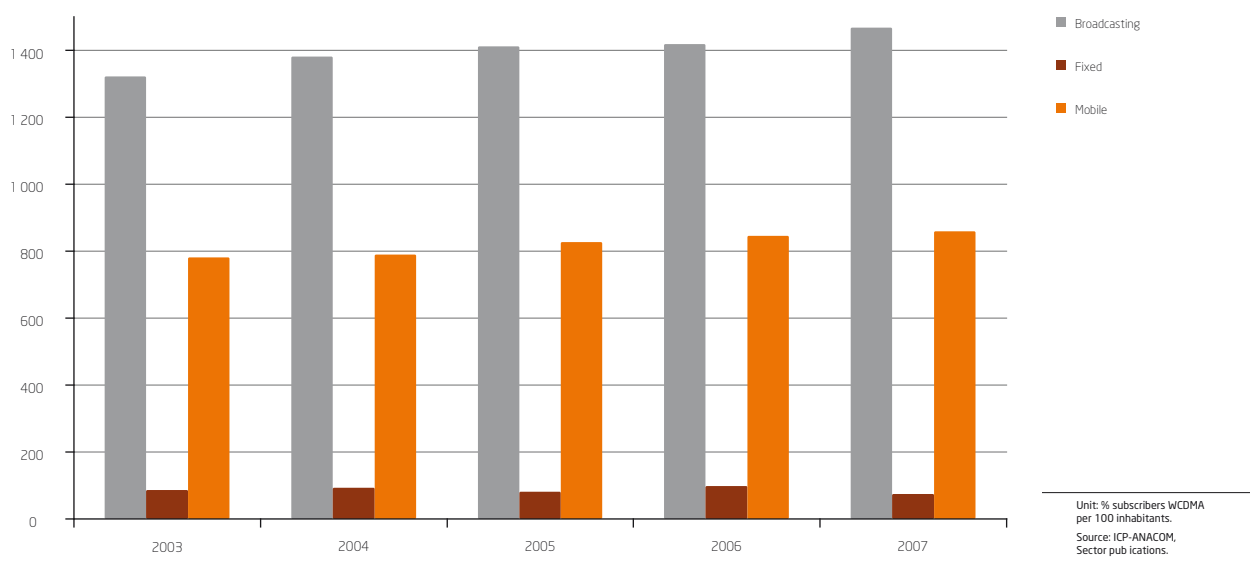
	2003	2004	2005	2006	2007
Fixed	443	454	458	483	522
Fixed - FWA Point Multipoint	9	10	9	8	8
Fixed - Point to Point	434	444	449	475	489
Fixed - Satellite	-	-	-	-	25
Mobile	2 654	2 636	2 503	2 526	2 531
Cellular Mobile Service - Private	2 654	2 636	2 503	2 526	2 531
Public Communications	6	11	10	9	9
Trunking - Public	3	5	4	3	3
Cellular Mobile Service - Public	3	6	6	6	6
Other services	40	37	53	60	126

Unit: 1 network licence.
Source: ICP-ANACOM.



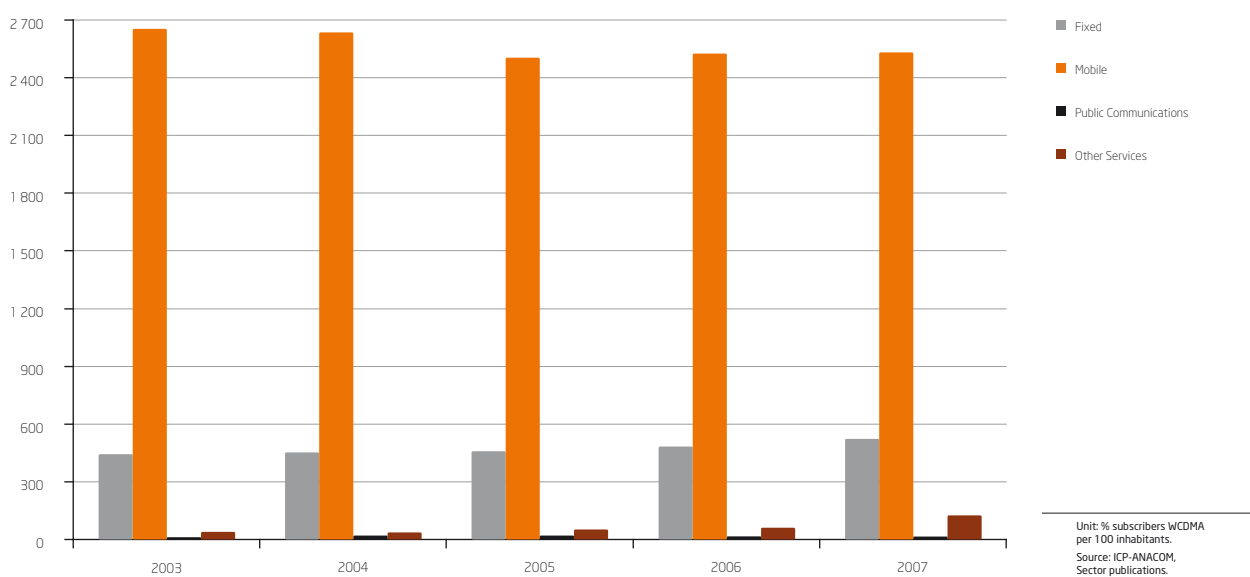
Station Licences

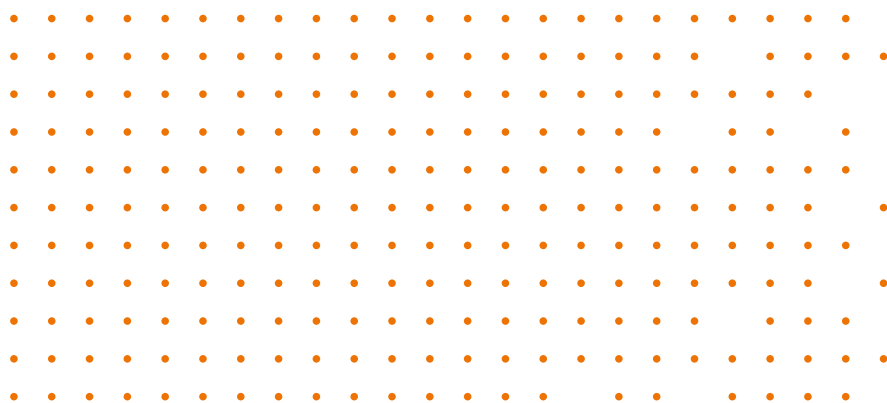
Graph 41.



Network Licences

Graph 42.



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