REGULATION

REGULATION

4. To promote open and competitive markets (Objective 1)

This objective seeks to ensure that market conditions are conducive to innovation, and investment, and also to efficient service delivery based on efficient infrastructure use and with a regulatory framework that ensures conditions of fair competition between the different technological platforms.

The actions aimed at achieving this goal are presented in this section of the report.

4.1. Next generation access networks (NGA)

4.1.1. Public tenders for the installation, management, operation and maintenance of high-speed electronic communications networks in rural areas

To ensure territorial cohesion and equal opportunity of access to high-quality advanced services by companies or citizens, regardless of the area of the country where they are located, on 5 February 2010, the Government awarded NGA contracts in the North, Centre and in the Alentejo and Algarve.

The project comprises an investment of 156.5 million euros and will provide these regions with high-speed electronic communications networks covering more than one million people.

In the North, the NGA contract, for which a tender was launched on 10 July 2009, was awarded to DSTelecom (DST) for a period of 20 years, entailing an investment of 68.7 million euros and covering eight districts (Aveiro, Braga, Bragança, Guarda, Porto, Viana do Castelo, Vila Real and Viseu) and 44 municipalities[1], corresponding to a population of about 490,000 people.

[1] Arouca, Castelo de Paiva, Povoa de Lanhoso, Vieira do Minho, Terras de Bouro, Cabeceira de Basto, Celorico de Basto, Alfândega da Fé, Macedo de Cavaleiros, Miranda do Douro, Mogadouro, Vimioso, Vinhais, Carrazeda de Ansiães, Freixo de Espada à Cinta, Torre de Moncorvo, Vila Flor, Vila Nova de Foz Côa, Baião, Arcos de Valdevez, Melgaço, Monção, Paredes de Coura, Ponte da Barca, Vila Nova de Cerveira, Boticas, Montalegre, Murça, Valpaços, Alijó, Mesão Frio, Sabrosa, Santa Marta de Penaguião,

In the Alentejo and Algarve area, the contract was awarded to DST for a period of 20 years, amounting to 40 million euros and covering about 263,370 people with NGA in 33 municipalities[2], belonging to the districts of Beja, Évora, Portalegre, Santarém and Faro.

In the Centre zone, about 371,000 people are covered, spread over seven districts (Aveiro, Castelo Branco, Coimbra, Guarda, Leiria, Santarém and Viseu) and 42 municipalities[3]. With investment totalling 47.8 million euros, the contract was awarded to Viatel, also for a period of 20 years.

Contracts for the Autonomous Region of Madeira and the Autonomous Region of the Azores were awarded to Viatel on 7 June 2010, also for a period of 20 years. In the case of the Autonomous Region of Madeira, the investment of 5.8 million covers a population of about 33,000 people living in five municipalities[4]. In the Autonomous Region of the Azores the investment is worth 20.8 million euros, targeting the development of NGA in 12 municipalities[5], covering a population of over 51,000 people.

ICP-ANACOM was consulted at all stages of the tender process and assisted the Government in defining the minimum requirements and conditions of the wholesale offer of "open" access included in the tender documents. ICP-ANACOM also participated in the selection phase and analysis of proposals, and in verifying the access conditions proposed by the tendering operators.

In the context of the contracts in question, ICP-ANACOM also issued an opinion on the conditions of wholesale access to the network, including the offers presented by the

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Mondim de Basto, Ribeira de Pena, Armamar, Moimenta da Beira, Penedono, São João da Pesqueira, Sernancelhe, Tabuaço, Tarouca, Cinfães and Resende.

[2] Aljustrel, Almodôvar, Alvito, Barrancos, Mértola, Moura, Ourique, Serpa, Alandroal, Arraiolos, Mourão, Redondo, Reguengos de Monsaraz, Viana do Alentejo, Vila Viçosa, Mora, Sousel, Alter do Chão, Arronches, Avis, Castelo de Vide, Crato, Fronteira, Gavião, Marvão, Nisa, Ponte de Sor, Chamusca, Coruche, Golegã, Salvaterra de Magos, Alcoutim, Aljezur, Castro Marim, Monchique and Vila do Bispo.

[3] Sever do Vouga, Idanha-a-Nova, Penamacor, Oleiros, Proença-a-Nova, Sertã, Vila de Rei, Penacova, Góis, Miranda do Corvo, Pampilhosa da Serra, Penela, Tábua, Vila Nova de Poiares, Almeida, Figueira de Castelo Rodrigo, Manteigas, Meda, Pinhel, Sabugal, Trancoso, Aguiar da Beira, Fornos de Algodres, Alvaiázere, Ansião, Castanheira de Pêra, Figueiró dos Vinhos, Pedrógão Grande, Constância, Ferreira do Zêzere, Sardoal, Vila Nova da Barquinha, Mação, Carregal do Sal, Castro Daire, Mortágua, Penalva do Castelo, Santa Comba Dão, São Pedro do Sul, Sátão, Vila Nova de Paiva, Vouzela.

[4] Calheta, Porto Moniz, Porto Santo, Santana and São Vicente.

[5] Calheta, Corvo, Lajes das Flores, Lajes do Pico, Madalena, Nordeste, Povoação, Santa Cruz da Graciosa, Santa Cruz das Flores, São Roque do Pico, Velas and Vila do Porto.

selected operators. ICP-ANACOM will monitor the execution of the contracts made between the State and the prevailing tenderers, particularly with regard to the implementation of wholesale offers and in verifying that these offers are compliant with wholesale access obligations.

ICP-ANACOM also assisted the Government in notifying the EC on the procedure related to state aid in the context of public tenders for the installation, management, operation and maintenance of NGA in rural areas.

4.1.2. SIC - Sistema de Informação Centralizado (centralized information system)

The SIC was established under Decree-Law no. 123/2009 of 21 May and aims to ensure the availability of information on all infrastructure suitable for carrying electronic communications networks.

By ensuring the availability of information on such infrastructure, the SIC is essential to achieve open and efficient access to infrastructure suitable for carrying electronic communications networks.

The SIC will bring together all record information, and also all information on the procedures and rules governing the construction of new ducts and access to existing ducts. Plans to build new infrastructure will also be published in the SIC, so that operators can become involved in these project on a cost sharing basis.

Under the law, ICP-ANACOM is charged with the design, management and maintenance of the SIC, and is also responsible for ensuring that the SIC is accessible and available, whereas the entities responsible for the infrastructure concerned remain responsible for compiling and updating relevant information and making it available.

By determination of 11 November, ICP-ANACOM approved a final decision on the definition of items to be registered and the terms and format of availability of SIC information.

In this decision, ICP-ANACOM defines the items to be registered and the elements of characterization to be included in the SIC. The decision also established the terms by

which the registration items are characterised geographically, through the association of their administrative location, as well as through geo-referencing, expressed in physical coordinates. By law, the entities covered by the obligation to provide information in the SIC are:

- the State, Autonomous Regions and local authorities;
- all entities under the authority or supervision of bodies of the State, Autonomous Regions and local authorities, performing administrative tasks, regardless of their entrepreneurial nature, as well as public companies and concessionaires, particularly those active in the field of infrastructure for roads, railways, ports, airports, water supply, sewerage, and transport and distribution of gas and electricity;
- other entities in possession of or operating infrastructure encompassed by the public domain of the State, Autonomous Regions and local authorities;
- electronic communications companies that provide publicly available electronic communications networks and services;
- entities in possession of infrastructure which is suitable for carrying electronic communications networks used by electronic communications companies.

The same determination of 11 November 2010 authorised the launch of an international tender for the deployment and management of the SIC, with approval of the respective tender specifications, tender schedule and the composition of the tender panel.

In the meantime, with the procedural phases completed, the process of selecting the SIC's managing body is being concluded, enabling deployment of the platform that will bring together the information that needs to be made available, using the templates and formats required by law.

4.2. Market analyses

4.2.1. Broadband and broadcasting markets

Several developments occurred during 2010, with regard to the provision of broadband services, with significant impact in terms of the retail and wholesale markets and confirming a number of observed trends. These include, in addition to the tender referred to in section 4.1, the following aspects:

- proliferation of bundled offers, especially triple-play bundles, which are now available from major operators and service providers in the market;
- expansion of mobile broadband, especially supported on data transmission cards connected to personal computers;
- impact of the *e.iniciativas* programmes launched by the Government, especially in terms of increasing the number of computers and accesses using mobile broadband;
- significant increase in the speeds of broadband offers supported over fixed networks with the sale of products supported over optical fibre and coaxial cable distribution (DOCSIS3.0) networks, with speeds of 100 Mbps and higher;
- decrease in the number of accesses using unbundled loops in the context of the local loop unbundling offer (LLU) and exchanges with co-located operators;
- decrease in the number of accesses based on wholesale bitstream offers (Rede ADSL PT);
- discontinuation, in late 2010, by the main beneficiary operator of the LLU of its retail offers (including multi-play) supported on LLU. This operator now only has offers supported over its own network infrastructure, including optical fibre (the same operator has also withdrawn its broadband access retail offers supported on the "Rede ADSL PT" offer, which were typically provided in areas where it lacked network infrastructure, and replaced them with mobile broadband offers);
- growing demand for physical infrastructure access, including ducts in the context of the Reference Duct Access Offer (RDAO), with a view to the installation by other

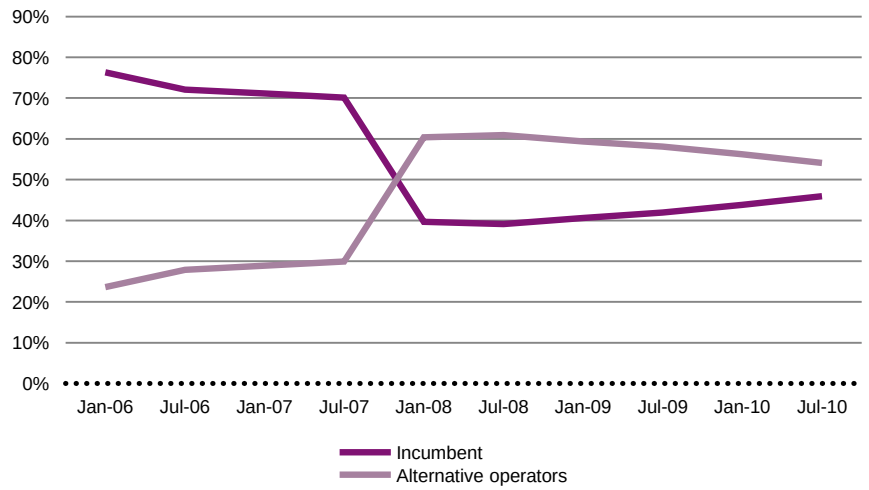
service providers (OSP) of their own optical fibre networks (fibre to the home - FTTH);

- accelerated development of high-speed access networks, involving at the end of 2010:
  - 3.8 million dwellings cabled with cable networks (DOCSIS 3.0);
  - 1.4 million dwellings cabled with FTTH;
  - 278,000 residential customers of very high-speed networks (with services supported using FTTH or Eurodocsis 3.0 accesses);

- launch and respective award, as referenced in 4.1, of the public tenders for the construction, installation, financing, operation and maintenance of new optical fibre access networks, with co-financing, in 140 municipalities of the country with a lack of infrastructure and a lack of potential supply of advanced services;
- an agreement between Optimus and Vodafone Portugal to share next generation network infrastructure.

According to data from the Communications Committee (COCOM) with respect to broadband in the EU as on 1 July 2010, it appears that, overall, alternative operators in Portugal continue to have a greater number of fixed broadband accesses (lines) than the incumbent operator, PT Comunicações, S. A. (PTC), although the incumbent has been progressively regaining market share (see graph below).

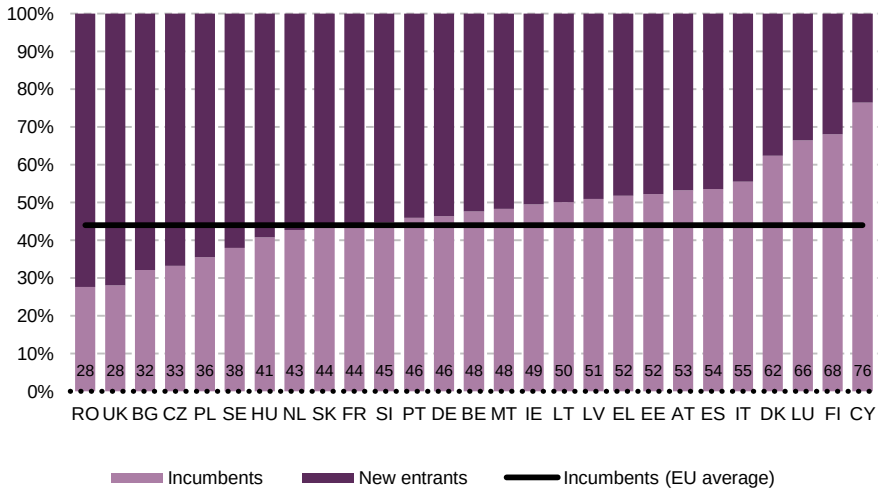
Graph 1 - Fixed broadband accesses by operator



Source: COCOM 10-29 BB.

On the other hand, Portugal is one of those EU countries where alternative operators are focusing most on using their own infrastructure instead of using the infrastructure of the incumbent operator (which can be accessed through wholesale offers - e.g. LLU, ADSL Network) – see **Graph 2**.

Graph 2 - Fixed broadband accesses - market shares of incumbents and alternative operators in different countries (July 2010)



Source: COCOM 10-29 BB.

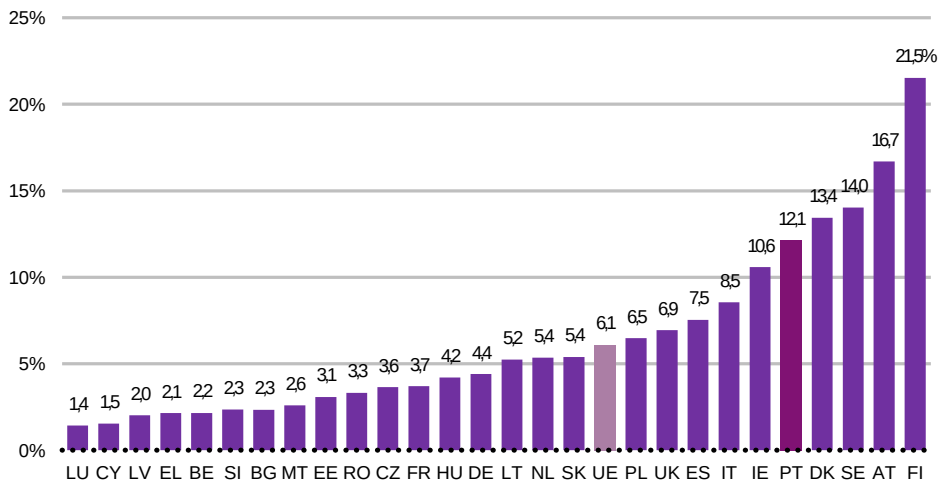
The relevancy, in Portugal, of own infrastructure use by alternative operators - in addition to the ongoing structural separation of PT Multimédia (now ZON) and Portugal Telecom -

results from the fact that Portugal has been a pioneer in making the incumbent subject to the obligation to provide its competitors with a duct access offer which enables them to expand their own networks much more cheaply than if they had to undertake construction work to install their own ducts.

According to the Country Report on Portugal in the 15th Implementation Report, published by the EC on 25 August 2010, the fixed broadband market in Portugal saw a growth rate last year in line with the EU, with broadband penetration reaching 18.6 percent (below the EU average of 24.8 percent). According to the report, the incumbent operator's market share increased from 40.6 percent in January 2009 to 43.8 percent in January 2010, while alternative operators increased their market share of non-DSL accesses (from 39.7 percent to 41.4 percent) but saw a significant decline in their market share of DSL accesses (from 32.8 percent to 27.1 percent). The percentage of cable accesses (38.5 percent) remained stable.

Even while fixed broadband penetration is lower than the EU average, Portugal is one of the countries where mobile broadband penetration is highest. According to COCOM, in July 2010, mobile broadband penetration in Portugal was 12.1 percent - the fourth highest in the EU27 (considering only cards and modems).

Graph 3 - Mobile broadband penetration - dedicated data services - cards and modems (July 2010)



Source: COCOM 10-29 BB.

When it comes to penetration of next generation networks, according to the FTTH Council Europe, Portugal is at the top of the European Ranking of fibre optics in 2010, reinforcing its leading position and affirming the country's role as a main driver of development and change in the sector in Europe".

In fact, according to data from the FTTH Council Europe, Portugal is one of five European countries with more homes passed with fibre, in addition to the significant coverage provided by cable distribution networks, updated with DOCSIS3.0 technology.

Portugal is the European country with the fifth largest absolute number of FTTH accesses, following Russia, France, Italy and the Ukraine, all much larger countries than Portugal. In 2010, Portugal was the European country with the largest absolute number of net additions of FTTH customers.

4.2.2. Markets of voice call termination on individual mobile networks

By determination of 18 May 2010, after receiving the opinion of Autoridade da Concorrência (the Portuguese Competition Authority), comments from the EC and the comments of interested parties in the context of a public consultation, ICP-ANACOM approved the final decisions on the definition of relevant markets for wholesale voice call termination on individual mobile networks, the assessment of SMP in these markets and the imposition, maintenance, amendment or withdrawal of regulatory obligations, as well as details of the implementation of the obligation to control pricing.

The decision on the market definition and analysis concluded that the product market consists of wholesale termination of voice calls in each of the existing mobile networks, encompassing termination on GSM and UMTS networks, while its geographical dimensions correspond to the dimensions of each of the networks of the active mobile operators.

Since each operator has a 100 per cent share in this market, as a monopolist in the offer of call termination on its own mobile network, there are high entry barriers that prevent other operators from offering competing services in the short term. Furthermore, there are no operators who carry sufficient countervailing power which might constrain the ability of mobile operators to act largely independently of their competitors, customers and

consumers; As such, ICP-ANACOM considers that there is no effective competition in these markets. It is so concluded, as in 2005, that the three operators (TMN, Vodafone Portugal and Optimus) have SMP in their respective markets.

The obligations are also the same: (i) responding to reasonable requests for access; (ii) non-discrimination in the provision of access and interconnection and the respective provision of information; (iii) transparency in the publication of information; (iv) control of prices and costs accounting; and (v) separation of accounts.

The analysis made in 2005 and 2008 of the identified competitive problem (related to the imbalance in traffic and the tariff differences between on-net and off-net calls) concluded that problems remain, despite the contribution made by ICP-ANACOM's intervention in July 2008 to increased competition and benefits for end-users; this underscores the need for further reduction in mobile termination rates, and in this context it was decided to implement a gradual reduction in the maximum prices charged for voice call termination on mobile networks by three mobile operators notified as having SMP. This reduction began in May 2010, and is due to reach 0.0350 per minute on 24 August 2011.

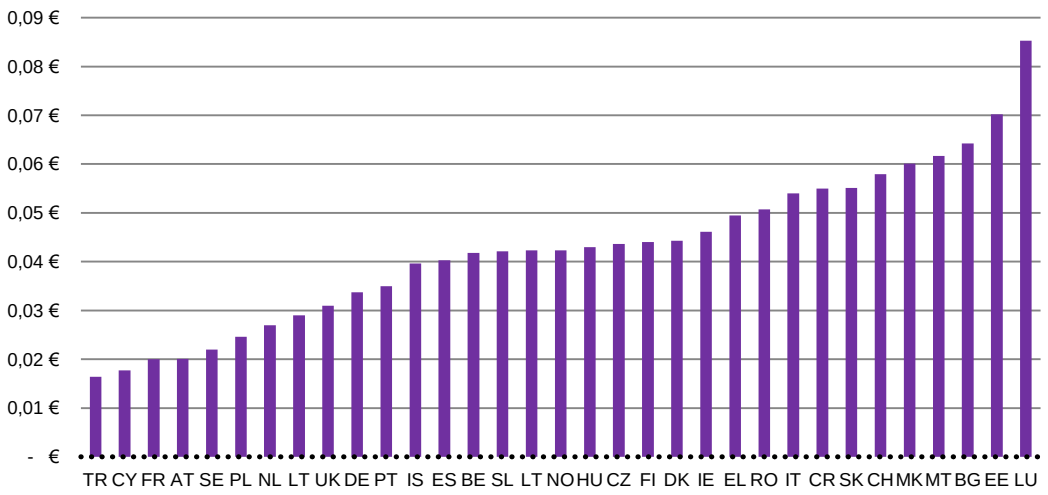
ICP-ANACOM’s intention is to bring termination rates into line with the cost of the service, aiming to reduce competitive distortions between (i) fixed and mobile operators and (ii) mobile operators of different sizes, and the decision took account of developments occurring internationally, the evolution of operator behaviour in the retail market, and a benchmarking assessment.

ICP-ANACOM also considered that there were grounds for the continued application of symmetrical pricing, as already established and in force since October 2009, throughout the period of the decision's application, in accordance with Community recommendations. The position was taken that the benefits to competition and for end-consumers resulting from the application of these new prices would be significant in itself and that no further extraordinary action was warranted.

As mentioned, this decision took international developments into account, notably EC Recommendation published on 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU. The document proposes the adoption of symmetrical termination rates based on the costs of an efficient operator, using a Pure LRIC model,

until 31 December 2012. The graph below shows an estimate of average termination prices in November 2011, showing Portugal in 11th place among 33 countries ranked by lowest price.

Graph 4 - Estimated average price of termination in November 2011



Source: ICP-ANACOM, notifications and decisions of European NRA.

Estimating the effects of its decision on consumers, ICP-ANACOM concluded that the reduction in mobile termination prices, bringing them into line with efficient costs, will lead to a gradual convergence between these prices and the prices of fixed termination, whose differentiation (at the time of the decision, was about 10 times) is a cause of strong competitive distortions. It should be noted that these differences result in a net annual transfer of about 67 million from fixed networks to mobile networks. The elimination of these distortions is crucial given the current trend in electronic communications markets towards increasing convergence between networks and between services. Such convergence products will only be developed, for the benefit of consumers, if termination rates on fixed and mobile networks are more aligned.

ICP-ANACOM has estimated that consumers will benefit from the decision to control prices in two distinct ways. Since this Authority regulates the retail prices of PTC (with a significant market share) and other operators would tend to follow the reduction of the incumbent for competitive reasons, it was considered that consumers would derive a

benefit of 30 million euros in fixed-mobile communications during the six quarters of this decision.

On the other hand, consumers would also benefit from the increased competition that would result from the reduction in the competitive distortion seen in the mobile communications market due to the existence of inefficient transfers between operators of different sizes. Using a working assumption adopted by the Commission in the Recommendation on terminations, ICP-ANACOM estimated this benefit at 24 million euros[6] for the considered period of six quarters. Total gain for consumers is therefore estimated at around 54 million euros.

This decision will be reviewed in 2011, taking into account the results of the costing model, based on the methodology contained in the Recommendation on Terminations of 7 May 2009, which is under development.

4.2.3. Leased lines markets

On 28 September 2010, ICP-ANACOM approved the final decision on the definition of product markets and geographic markets, assessment of SMP and the imposition, maintenance, amendment or withdrawal of regulatory obligations in relation to the market for the retail provision of leased lines and markets of wholesale terminating and trunk segments of leased lines[7].

In this decision, ICP-ANACOM concluded that the retail market for leased lines is not a relevant market susceptible to *ex-ante* regulation[8] and, consequently, all obligations previously imposed on Grupo Portugal Telecom (Grupo PT) in the context of this market were withdrawn.

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[6] For this calculation, use was made of the same assumptions as used by the EC in the models considered in the document "*Implications for Industry, Competition and Consumers*". The EC assumes, in this context, that the mobile operators will transfer one-third (0.33) of the changes in the terminations rates of mobile-mobile calls to consumers, a figure which, although while it may be reduced, is assumed considering the fact that retail markets are today already very competitive.

[7] Only the market for wholesale terminating segments was identified as a relevant market in the EC Recommendation on relevant markets (market 6 of Recommendation 2007/879/EC of 17 December). The market of retail leased lines and the market of wholesale trunk segments of leased lines correspond to markets identified in the previous Recommendation (markets 7 and 14 of Recommendation 2003/11/EC of 11 February).

[8] This conclusion is aligned with the EC Recommendation on relevant markets.

With regard to the market for wholesale terminating segments, the main findings included in the decision were:

- For the purposes of *ex-ante* regulation and, in accordance with the principles of competition law, the market of wholesale terminating segments of leased lines (access to end-customers), irrespective of the technology and of capacity, encompassing the entire national territory, was identified as relevant;
- Grupo PT was designated as having SMP on this market, whereby the following obligations were imposed: access to and use of specific network resources, non-discrimination in the provision of access and interconnection and in the respective provision of information, transparency in the publication of information, including the publication of reference offers, separation of accounts for specific activities related to access and/or interconnection, control of prices and cost accounting and financial reporting.

With respect to the market of wholesale trunk segments of leased lines, the main conclusions were as follows:

- the existence of heterogeneous competitive conditions in two different sets of routes identified justified the definition of two distinct, geographic markets:
  - market of wholesale trunking segments without distinction of capability and technology, consisting of "Routes C" - covers routes which connect the main urban centres (and within urban centres, especially the metropolitan areas of Lisbon and Porto) with greater population and corporate density and where there are various competing alternative network offers;
  - market of wholesale trunking segments of leased lines irrespective of capacity and technology, consisting of "Routes NC" - covering routes linking areas of lower population and corporate density and where, in most cases, only the incumbent operator is present (and, in these cases, obviously, with a market share of 100 percent).
- for the purposes of ex-ante regulation and in accordance with the principles of competition law, the wholesale market for trunking segments irrespective of capacity and technology, consisting of "Routes NC" was identified as relevant.

- Grupo PT was designated as having SMP on this market, whereby the following obligations were imposed: access to and use of specific network resources, non-discrimination in the provision of access and interconnection and in the respective provision of information, transparency in the publication of information, including the publication of reference offers, separation of accounts for specific activities related to access and/or interconnection, control of prices and cost accounting and financial reporting.
- For the purposes of ex-ante regulation, the wholesale market for trunking segments irrespective of capacity and technology, consisting of "Routes C" was not identified as relevant, whereby all previously imposed obligations were withdrawn.

In practice, the main changes over the current situation include the regulation of circuits supported on Ethernet technology and deregulation of the retail market of leased lines and of a determined set of routes (trunk segments).

In 2010, following this market analysis of leased lines, on 6 December 2010, PTC issued the ECRO, which will be analyzed by ICP-ANACOM in 2011 and, where appropriate, made subject to regulatory measures designed to ensure compliance with applicable regulatory principles.

4.3. Regulated offers

4.3.1. Reference interconnection offer (RIO)

On 21 July 2010, ICP-ANACOM approved the final decision on the conditions to apply in 2010. The conditions of the RIO are analysed on a regular (annual) bases, with a review of the prices of interconnection services, the maximum price of pre-selection activation and number portability. This analysis plays an essential role in promoting competition in the market, with subsequent benefits to end-users.

a) Call origination and termination rates

By determination on the 2010 RIO, ICP-ANACOM took the view that conditions existed which supported a reduction in the maximum prices applying at all levels of

interconnection (local, single transit and double transit). This price reduction, which is more pronounced for double transit, has basis in the results of PTC's costing system and in the usage profile of the fixed network at each level of the network, ensuring a balance between the need to promote incentives for own infrastructure development and the promotion of effective competition.

The following table illustrates the variations over prices previously in force.

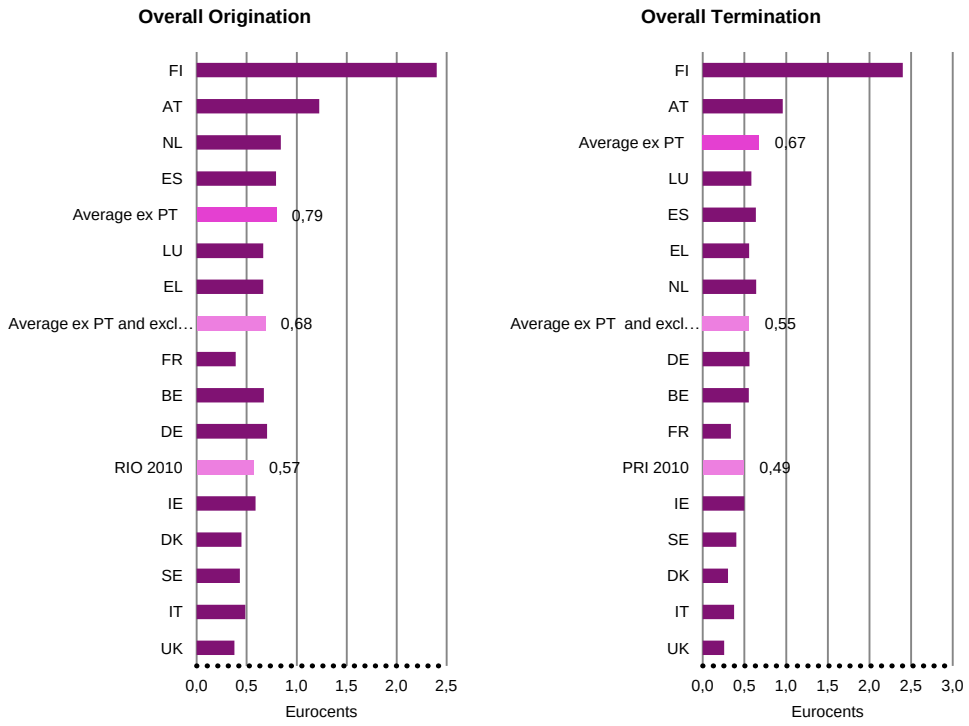
Table 1 - Variation of the interconnection prices in force under the 2010 RIO in respect of origination and termination services, based on a call duration of three minutes, compared to the 2009 RIO (in force in December 2009)

	Termination			Origination			Weighted Total Interconnection
	Peak Times	Off-peak Times	Average	Peak Times	Off-peak Times	Average	
Local	-0.6%	-0.9%	-0.7%	-0.6%	-0.9%	-0.7%	-0.7%
Tr. Single	-11.1%	-9.4%	-10.6%	-11.1%	-9.4%	-10.8%	-10.7%
Tr. Double	-34.8%	-33.5%	-34.5%	-34.8%	-33.5%	-34.6%	-34.6%
Average	-5.5%	-4.8%	-5.3%	-10.1%	-4.8%	-10.0%	-6.7%

Source: ICP-ANACOM.

The maximum prices, which came into effect on 15 April 2010, meant that Portugal maintained a favourable position compared to the EU average, as one the set of EU15 countries with lower prices, as illustrated in the graphs below.

Graph 5 - European comparisons - fixed interconnection prices (call origination and termination)[9]



Source: ICP-ANACOM.

Compared to the situation in 2009, it appears that Portugal's overall position improved from 7th to 6th place in terms of the origination and termination.

Specifically, for each level of traffic, the maximum prices established for the 2010 RIO compare favourably with those of the EU in terms of single transit and double transit interconnection at different times. If local traffic is considered, the maximum prices set for the 2010 RIO are slightly above the EU average - see table below which shows a comparison between prices in Portugal and the average prices at the level of EU15.

[9] The figures shown above for each country were obtained by applying the estimated weightings of interconnection traffic to the interconnection tariffs applying in each of the Member-States (average price per minute for a three minute call) in order to obtain, for both call origination and call termination, an indicator that can be used to assess the various elements of interconnection in an integrated manner.

Table 2 - Comparison of interconnection prices with the EU15 (price per minute of a three minute call)

	Origination						Termination					
	Local		Single Transit		Double Transit		Local		Single Transit		Double Transit	
	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak
ICP-ANACOM prices	0.54	0.35	0.67	0.42	0.78	0.49	0.54	0.35	0.67	0.42	0.78	0.49
EU average ex PT	0.54	0.33	0.94	0.65	1.17	0.69	0.53	0.33	0.93	0.64	1.14	0.67
ICP-ANACOM prices deviation from average	0.2%	6.4%	-29.1%	-34.9%	-33.4%	-28.5%	1.2%	7.0%	-28.1%	-34.0%	-31.8%	-26.5%
Average ex PT and ex extremes	0.51	0.33	0.86	0.53	1.14	0.68	0.50	0.33	0.85	0.52	1.11	0.66
ICP-ANACOM prices deviation from average ex extremes	6.6%	5.9%	-22.0%	-20.1%	-31.5%	-28.1%	7.2%	6.1%	-20.8%	-18.8%	-29.7%	-25.7%

Source: ICP-ANACOM calculation, based on information from Cullen International. Values in eurocents.

a) Prices of service of billing, collection and non-collection risk

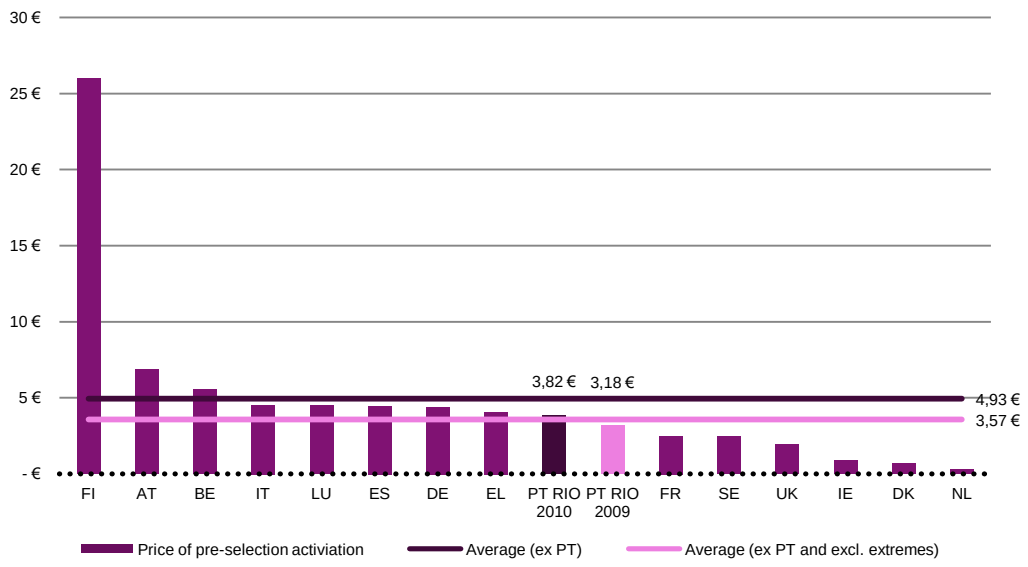
ICP-ANACOM decided to set a single price for the service of billing, collection and non-collection risk, resulting in two distinct prices, respectively, for call services where the cost borne by the caller is less or equal to Local PTC (as defined in PTC's tariff for residential customers) - 2.90 cents - and for other special charged services - 3.17 cents.

The maximum price for billing, collection and non-collection risk established in the 2010 RIO applying from 15 April was set at 3.00 cents per cal, for all services. These represent variations of approximately 3.4 percent and -5.4 percent, compared to prices established in the 2009 RIO.

b) Price of pre-selection activation

Given especially (i) the very significant variations in unit costs presented in the SCA, (ii) the existence of a clear declining trend in the number of pre-selection activations, (iii) the fact that the present moment represents the end of a round of market analyses and (iv) the need to give the market visibility as to the conditions in force, ICP-ANACOM considered that the increase in the price of pre-selection activation, effective from 15 April 2010, should be capped at 20 per cent, establishing the maximum price at 3.82 euros. This corresponds to the price of 7th country in the EU15 (see graph below).

Graph 6 - European practices in respect of pre-selection activation pricing (October 2009)



Source: ICP-ANACOM.

c) Number portability activation prices

It was decided to increase fixed number portability activation prices set in 2009, which have had been maintained from 2008. The following table summarizes the maximum prices set for number portability activation, effective since 15 April 2010.

Table 3 - Maximum prices for portability activation by number (Amounts in euros without VAT)

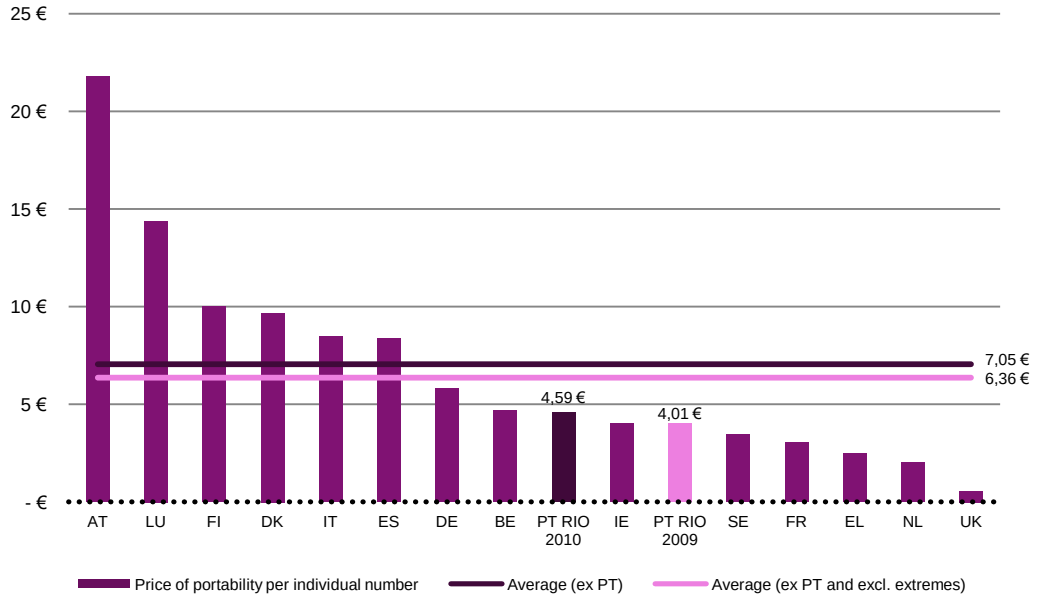
	Maximum price RIO 2009	Maximum price in RIO 2010 (with effect from 15 April 2010)	Percentage change
Individual porting	€ 4.01	€ 4.59	+15%
Blocks of 1 to 9 numbers	€ 4.01	€ 4.59	+15%
Blocks of 10 to 99 numbers	€ 1.47	€ 1.59	+8%
Blocks of 100 numbers	€ 0.73	€ 0.74	+1%

Source: ICP-ANACOM.

ICP-ANACOM'S decision took into particular account that: (i) current prices compare favourably with the situation at European level, which fact is an indication that prices are not out of line with best market practices; (ii) the favoured option is the one which represents least disruption to market conditions, including significant fluctuations in terms of portability volumes; and (iii) the lack of specific costing data for the porting of numbering ranges.

The price of porting an individual number established for 2010 in Portugal continues to be lower than the EU average (with and without extremes) putting Portugal in 8th best position - see **Graph 7**.

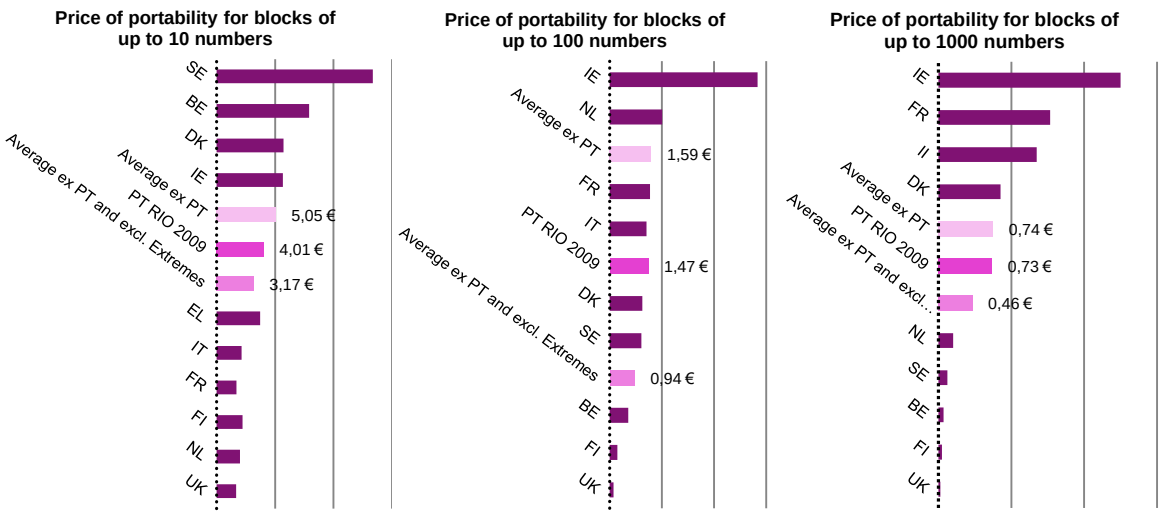
Graph 7 European practices regarding the price of single number portability (February 2009)



Source: Cullen International.

In terms of porting blocks of numbers, taking into account those EU countries for which price information is available, Portugal's position in 2009 remained in line with the EU average for the portability of blocks up to 10 numbers and up to 1000 numbers, but not in the case of blocks up to 100 numbers, as illustrated in **Graph 8** below.

Graph 8 - Current European practices with respect to the price of number portability in blocks (February 2009)

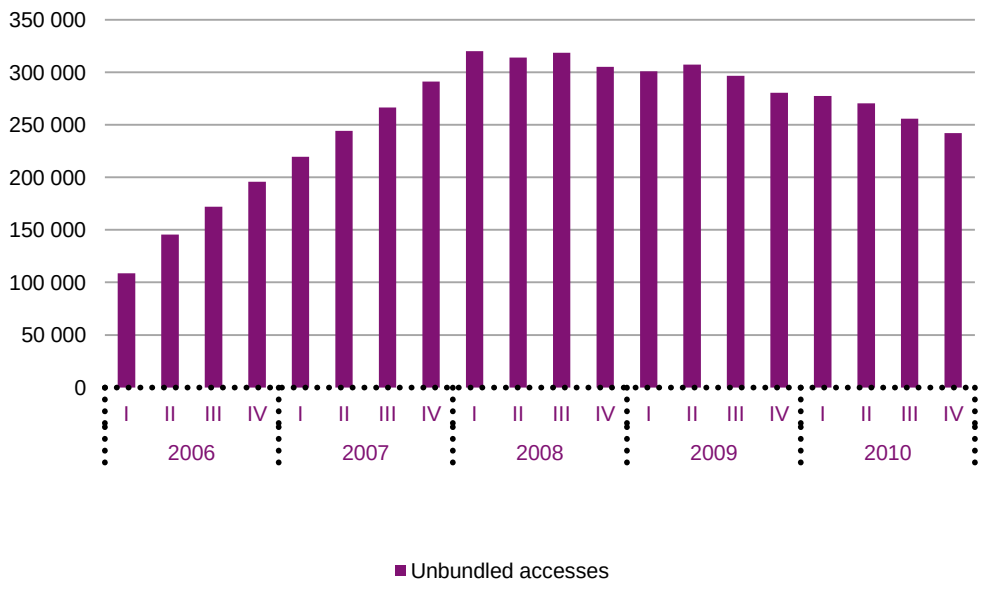


Source: Cullen International and reference interconnection offers.

4.3.2. Reference Unbundling Offer (RUO)

The LLU, which gives alternative operators physical access to the premises of final-customers via copper pairs for the provision of narrowband and/or broadband services, saw a decrease in the number of unbundled loops in 2010. The drop was reported at around 13.7 percent to 242,103 unbundled loops, against the 280,518 loops existing in 2009 (Graph 9).

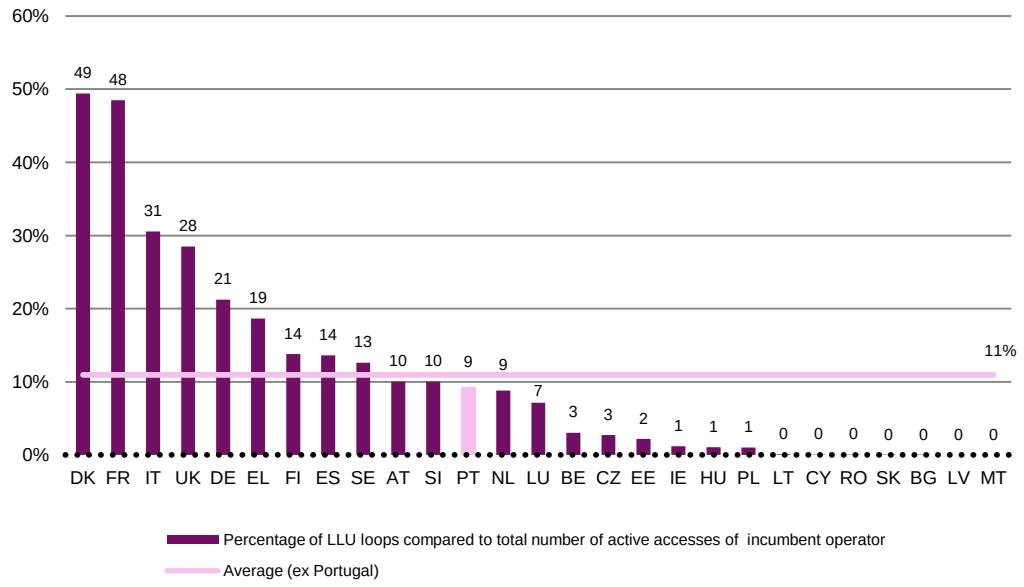
Graph 9 - Evolution in the number of unbundled loops



Source: ICP-ANACOM based on data from PTC.

Consequently, in July 2010, the penetration in Portugal of unbundled loops compared to the total number of the incumbent's active accesses is slightly below the average calculated for the considered Member States (excluding Portugal) - see **Graph 10**.

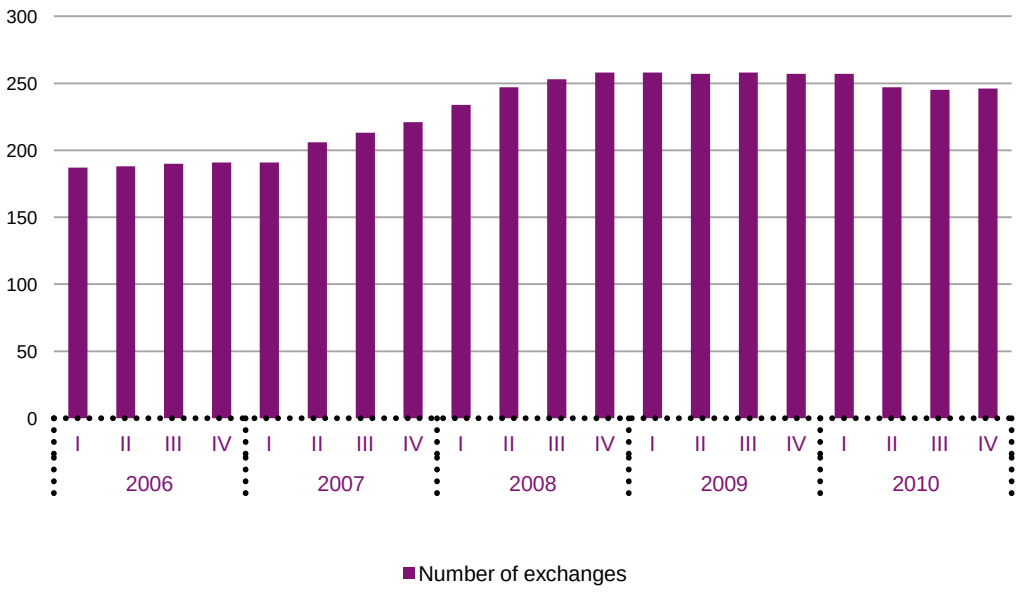
Graph 10 - Percentage of unbundled loops compared to the total number of active accesses of the incumbent operator



Source: ICP-ANACOM based on COCOM data, July 2010.

In 2010 the number of PTC exchanges with co-located OSP fell to 246 - **Graph 11.**

Graph 11 - Evolution in number of exchanges with co-located operators

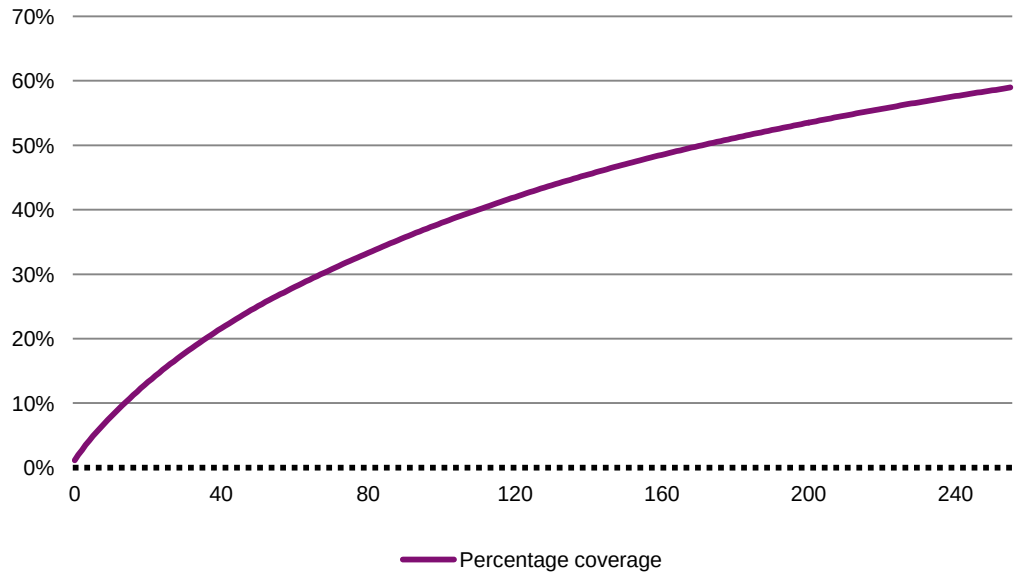


Source: ICP-ANACOM based on PTC data.

Along with the slight reduction in the number of exchanges with co-located operators, there was also a reduction in the number of loops in use, which resulted in a slight reduction in the geographic coverage of the retail offers of OSP supported by the LLU. At the end of 2010, coverage was slightly below 60 percent of the total number of PTC's FTS subscribers, as shown in Graph 12.

The distribution of accesses by PTC exchanges (there are exchanges with tens of thousands of accesses and others with only a few dozen accesses) is reflected in the shape of the curve shown in **Graph 12**, since the marginal contribution of each exchange with co-location to the increase in LLU coverage diminishes progressively.

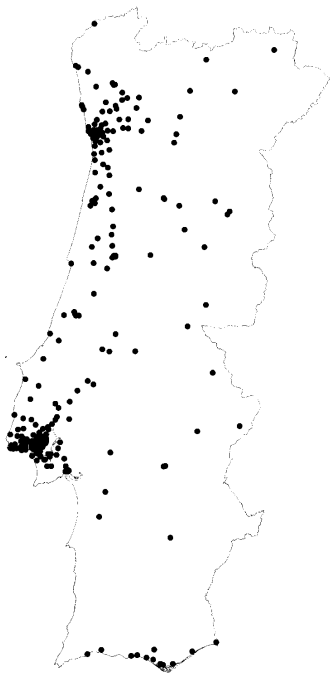
Graph 12 - LLU coverage in terms of FTS subscribers - main distribution frames considered in descending order in respect of the number of loops in use



Source: ICP-ANACOM based on PTC data.

Figure 1 shows the location of exchanges where OSP are co-located as at the end of the fourth quarter of 2010 and from which they can offer LLU-based retail services.

Figure 1 - Locations of exchanges where OSP use LLU in Portugal (4th Quarter 2010)



Source: ICP-ANACOM based on PTC data.

The regulatory intervention of ICP-ANACOM in the context of LLU during 2010 involved approval, on 17 February 2010, of a decision on amendments to the RUO.

This determination was approved with the goal of improving different aspects of the RUO, adapting it to market needs and developments, particularly in the following points:

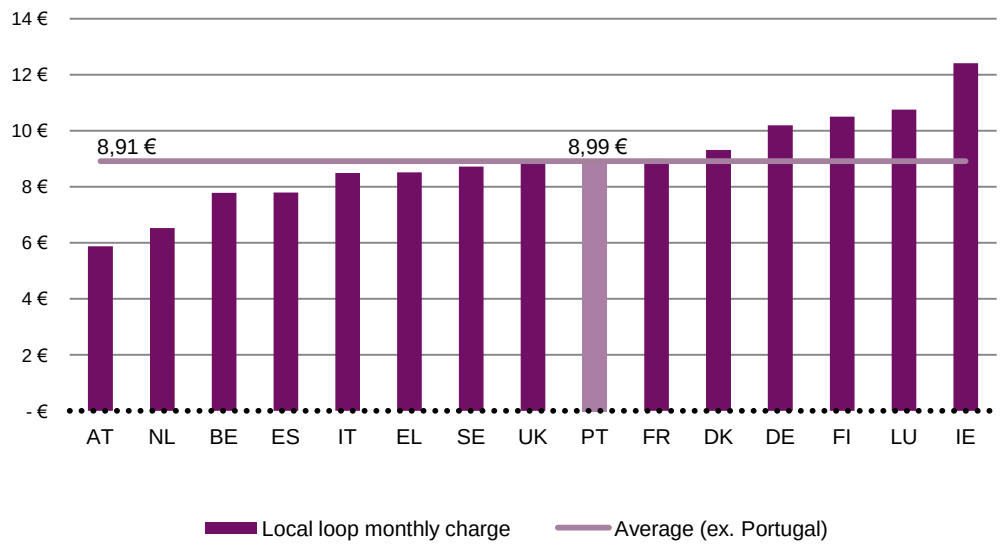
- introduction of Premium and urgent levels of service with tighter repair deadlines than those in effect.
- increase in non-compliance compensation in order to encourage compliance with obligations and elimination of the link between sending forecasts and eligibility to receive compensation;
- availability of more detailed information in terms of access points to be provided by PTC to OSP, increasing transparency and visibility with respect to the conditions of this wholesale offer;
- increase in the length of advance notice to be given in respect of network changes (particularly in the case of relocation of loops), whereby the length of advance notice becomes dependent on the proportion of loops to be relocated.

This intervention by ICP-ANACOM in the scope of the RUO aimed to facilitate investment by alternative operators in own infrastructure increasingly close to the end-user, where such investment is efficient, and the development of offers which are increasingly innovative and attractive to customers.

During 2010, this Authority did not determine any change in prices applicable under the RUO. Nevertheless, analysis and monitoring of existing prices was continued, especially through comparison with prices in other European countries.

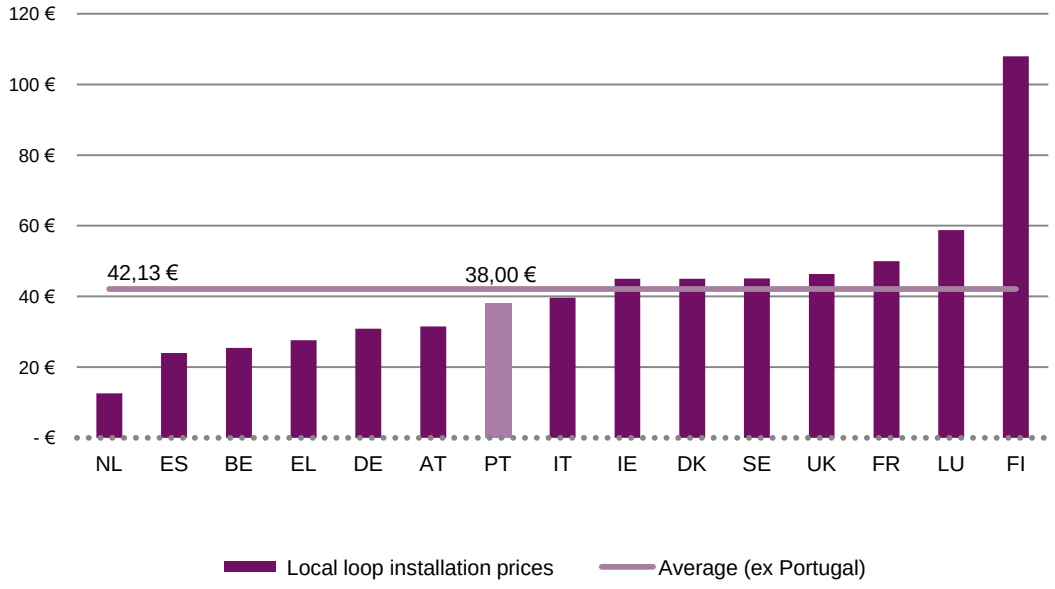
International comparisons of prices indicate that prices in Portugal remained close to best practice at EU level (EU15), as shown in the graphs below.

Graph 13 - Monthly charge for local loop (full access) - EU15 comparison



Source: Cullen International, Cross-Country Analysis (December 2010).

Graph 14 - Prices for local loop installation (full access) - EU15 comparison



Source: Cullen International, Cross-Country Analysis (December 2010).

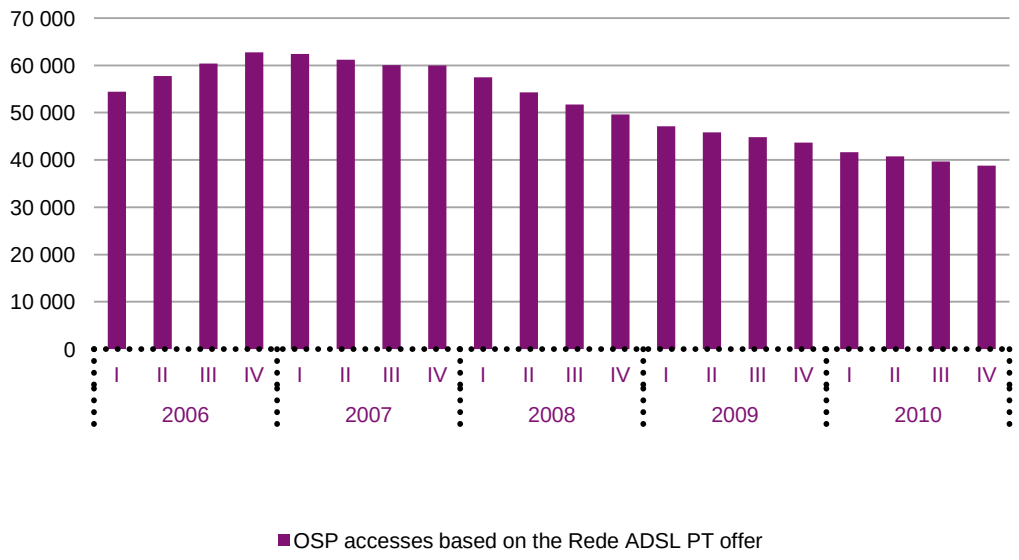
PT Comunicações has brought an administrative action seeking the partial annulment of the determination of 17 February 2010, which was duly contested - the case is pending.

4.3.3. "Rede ADSL PT" wholesale offer

The wholesale “Rede ADSL PT” offer remains an important factor in promoting the universality of broadband Internet access and in promoting the conditions which ensure the sustained and competitive development of ADSL services provided to end-users.

This offer continues to provide support to the broadband access retail offers of a number of OSP, especially in the business market, and in particular by providing integrated offers to customers with multiple sites throughout the country. Nevertheless, a continued slowdown has been reported in these accesses, and at the end of 2010 the total number of OSP accesses based on this wholesale offer fell below 40 thousand accesses (**Graph 15**).

Graph 15 Evolution in OSP accesses based on the Rede ADSL PT offer



Source: ICP-ANACOM based on PTC data.

In 2010, Grupo PT continued to provide this wholesale offer in areas "C", maintaining the coverage indicated in **Figure 2**. Meanwhile the fears expressed by a number of entities during the public consultation and in the prior hearing on the draft decision on the analysis of broadband markets (markets 4 and 5 of the EC Recommendation 2007/879/EC of 17 December) have not been confirmed.

Figure 2 - Location of exchanges with digital subscriber line access multiplexer (DSLAM) with subscribers (2010)

Source: ICP-ANACOM based on PTC data.

4.3.4. Leased lines reference offer (LLRO)

The LLRO is an offer that allows operators whose business model does not involve heavy investment in alternative access network infrastructure to have "guaranteed" access throughout the national territory, and on a non-discriminatory basis, to wholesale inputs at cost-oriented prices, in clearly defined time frames and with a determined quality of service. Besides constructing their own network, this offer enables these operators to engage in the resale of leased lines and to benefit from the ubiquity of the PTC network.

This offer, which has been available on the market since 2005, continues to be actively used by most operators and service providers, including operators acting in the retail market for leased lines.

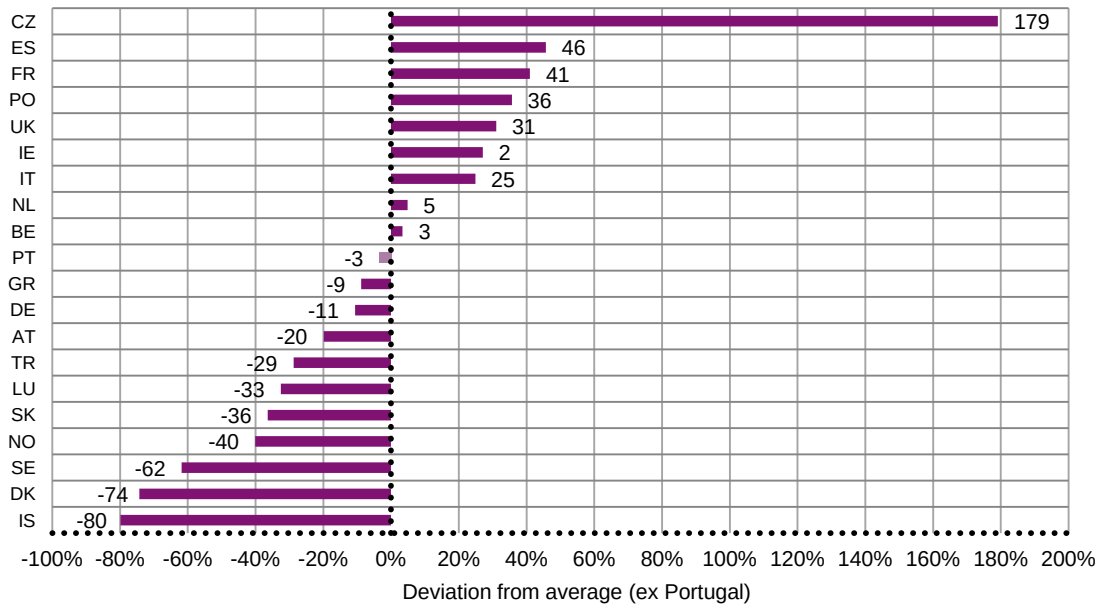
The LLRO also means that OSP are able to profit from the infrastructure in their possession through the lease of partial lines, accessible through co-location in PTC exchanges, where they can share space and features already available for other service, including access to local loops and network interconnection.

Indeed, several operators have replaced end-to-end circuit contracted from PTC with partial circuits, where they acquire the terminal segment (access to the end-customer) and connect it to their own network at PTC's exchange, reducing costs by optimising their network.

According to a comparison of prices prepared by Teligen from data in August 2010[10], in the case of lower speed circuits (2 Mbps), prices in Portugal were found to be below the average of prices in the analysed countries, which is not the case with higher speed circuits (34 Mbps).

The following graphs show comparisons of prices for these types of circuits, measured in terms of deviation from the average for the countries considered, calculated excluding prices for Portugal.

Graph 16 - Annual price of 2 Mbps digital circuits in Europe (August 2010)

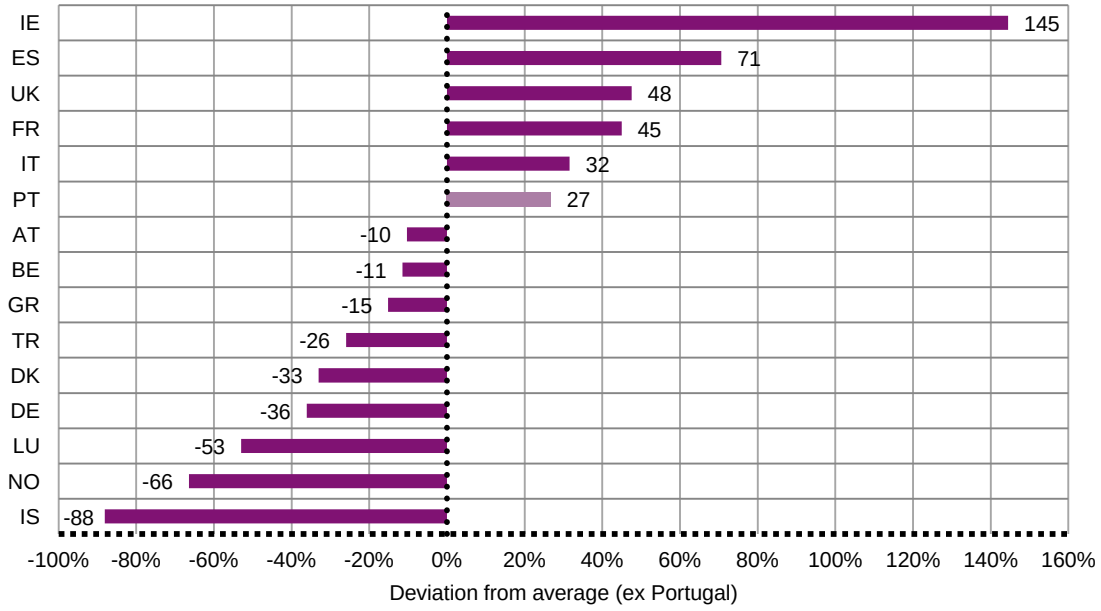


Source: Telligen, August 2010 (based on the OECD basket of distances, prices without VAT and without considering purchasing power parity).

[10] To conduct a comparison of prices for leased lines and calculate the average price of a circuit of determined capacity, Teligen takes into account the incumbent's prices in each country and used the basket of OECD distances involving six distance segments as weighting:

Distances	2 km	20 km	50 km	100 km	200 km	500 km
OECD basket	35%	20%	15%	20%	5%	5%

Graph 17 - Annual price of 34 Mbps digital circuits in Europe (August 2010)



Source: Telligen, August 2010 (based on the OECD basket of distances, prices without VAT and without considering purchasing power parity).

In 2011, ICP-ANACOM will make changes to the RDAO in order to adapt it to market needs, particularly in terms of new economic and operating conditions and inclusion of specific conditions for connection to the Autonomous Regions.

4.3.5. Ethernet Circuits Reference Offer (ECRO)

The first version of the ECRO was published on 6 December 2010, following ICP-ANACOM determination of 28 September 2010 on the analysis of leased lines and in particular resulting from the obligation to provide a wholesale offer for circuits supported over Ethernet technology.

The ECRO establishes the characteristics, the technical conditions (procedures for delivery of services and operations and maintenance) and the commercial conditions (prices and billing and payment procedures) associated with the wholesale supply of Ethernet circuits by PTC, including the definition of quality of service parameters, applicable performance targets and compensation for non-compliance. Under the offer, an Ethernet circuit corresponds to a permanent physical link between two points for the

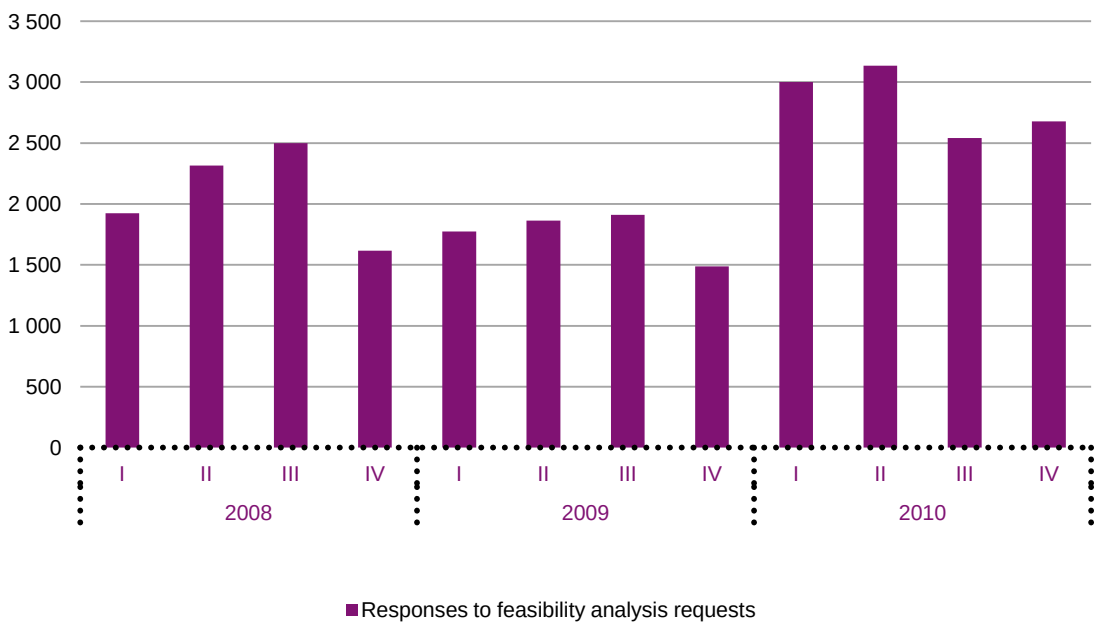
exclusive and non-shared use of the user, with guaranteed and symmetric transmission speed and over which any kind of electronic communications traffic is routed.

The ECRO will be analyzed by ICP-ANACOM in 2011 in terms of the technical and commercial conditions contained therein, particularly in terms of quality of service parameters (time and availability).

4.3.6. Reference Duct Access Offer (RDAO)

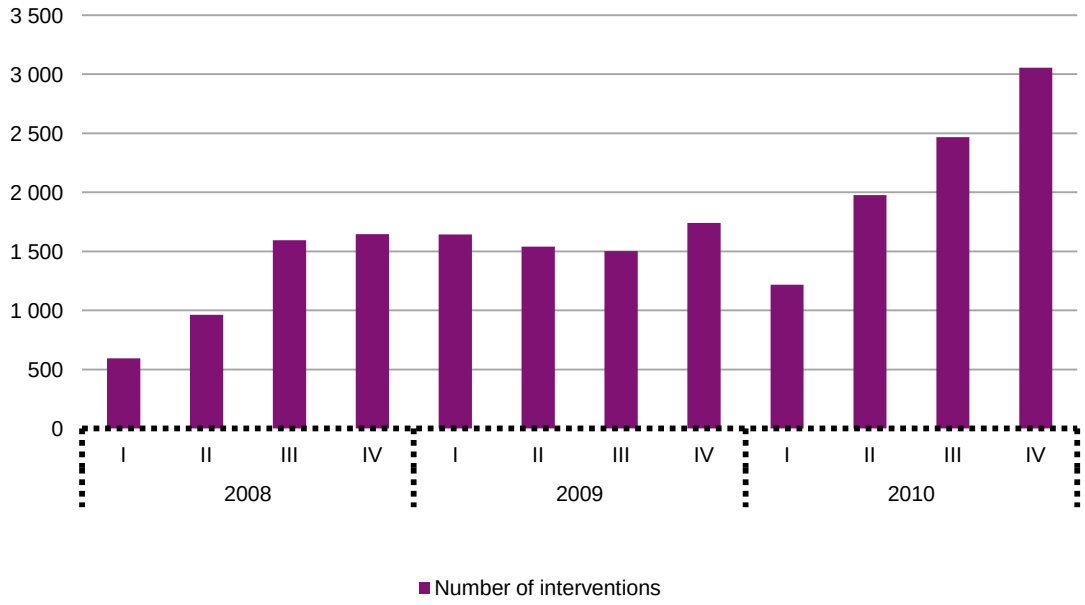
Since its entry into force (July 2006), the RDAO has generated interest from its beneficiaries, and in 2010, there was an increase reported in the number of responses to occupation feasibility analysis request, along with the number of PTC supervisions of interventions/installations performed by the beneficiaries in the ducts, as evidenced in the graphs below.

Graph 18 - Number of responses to requests for feasibility analysis



ICP-ANACOM based on data from PTC.

Graph 19 - Number of interventions in the context of the RDAO



ICP-ANACOM based on data from PTC.

The increasing use of the RDAO by the beneficiaries of this wholesale offer stems from the current market context - it focuses on the use of civil engineering infrastructure which is already constructed with a view to installing new optical fibre networks - reinforcing the need and timeliness of the adoption of measures by ICP-ANACOM in order to increase its efficiency.

In this respect, by determination of 28 October 2010, amendments were decided upon which focused on issues such as quality of service, provision of information on occupation of infrastructure, provision of a reference offer for access to PTC masts, the implementation of an information system (RDAO IS) and non-compliance compensation seeking to strengthen its effectiveness and deterrent impact. In this context, ICP-ANACOM determined in particular:

- the prioritisation of including duct occupation information in the database, according to geographic location, starting with the metropolitan areas of Lisbon and Porto;
- provision on the Extranet of indicative information on the occupancy of duct sections, based on a system with at least four levels of occupation;

- the establishment of an information system (RDAO IS) enabling the automatic processing of requests and responses, speeding up the processes of this offer;
- the reduction of certain response times;
- the extension of non-compliance compensations to all RDAO services.

ICP-ANACOM's intervention is expected to result in more efficient use of PTC's infrastructure (ducts and masts) by alternative operators for the deployment of next generation networks.

Following ICP-ANACOM's decision, on 22 December 2010, PTC issued a reference masts access offer (RMAO), which in 2011 will be subject to analysis by ICP-ANACOM and, where appropriate, to regulatory measures.

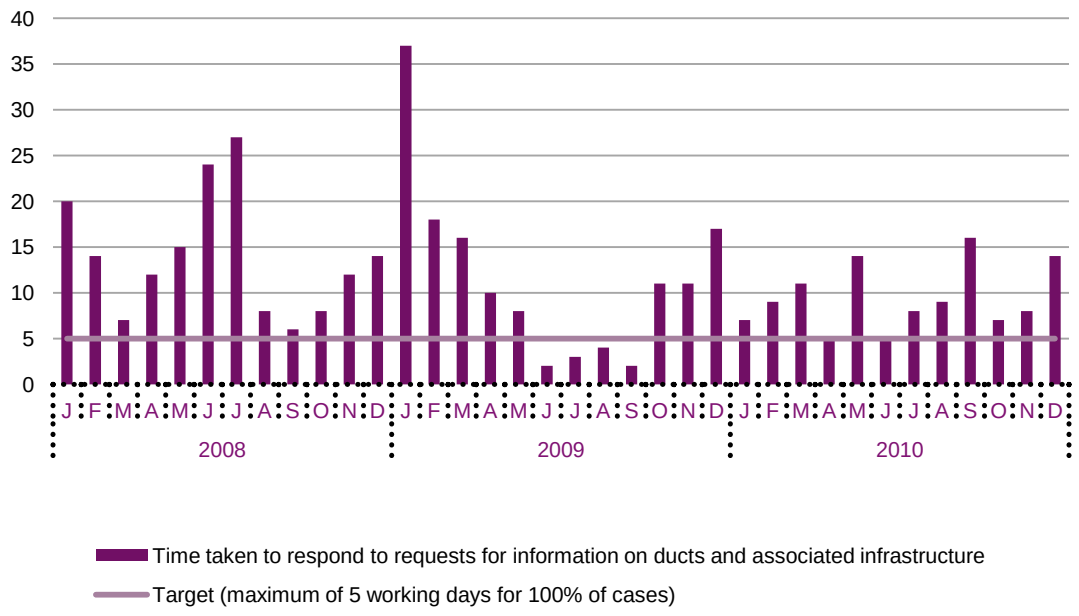
Additionally, in January 2011, PTC released indicative information on the RDAO Extranet on the occupation of ducts in the areas of Greater Lisbon and Greater Porto, as determined by ICP-ANACOM.

This Authority's intervention during 2010 also entailed monitoring the levels of quality of wholesale services provided by PTC under the RDAO, finding that, despite some improvement over previous years, performance indicators remain with reported values which are not consistent with the objectives. This is due to the fact that the target-deadlines have been set at 100 percent of occurrences since the beginning of the offer's validity[11].

Non-compliance in this respect by PTC is subject to compensation due to the beneficiaries under the RDAO. This compensation was reinforced as described above.

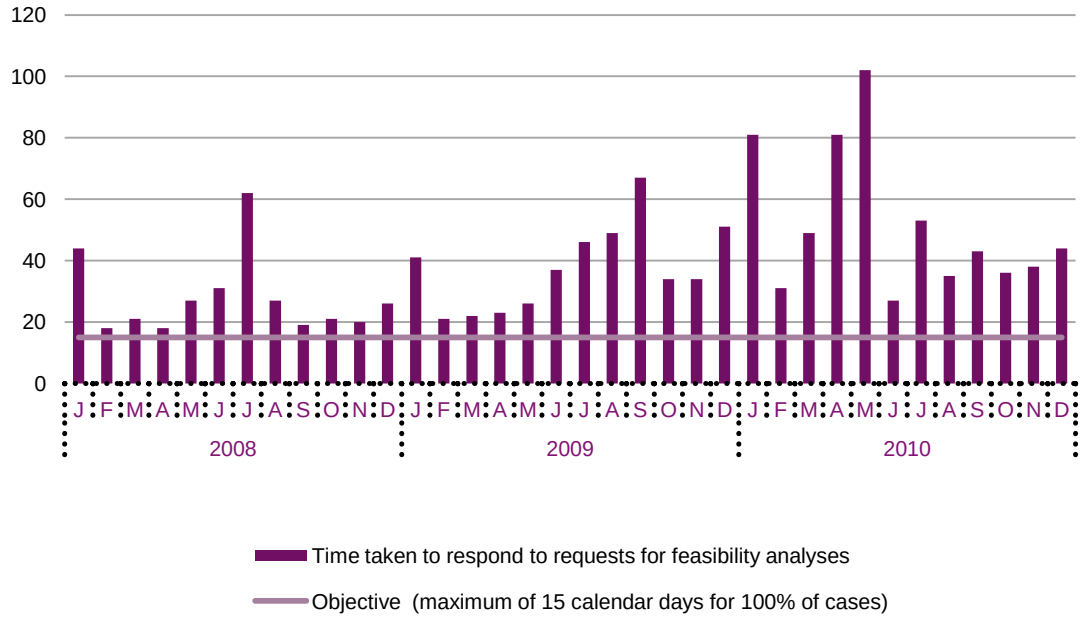
[11] That is, in the event that out of 1000 cases, PTC is compliant in 999 cases and non-compliant in 1 case, it will be considered as non-compliant in terms of the final outcome reported for the quality of service parameter.

Graph 20 - Time taken to respond to requests for information on ducts and associated infrastructure



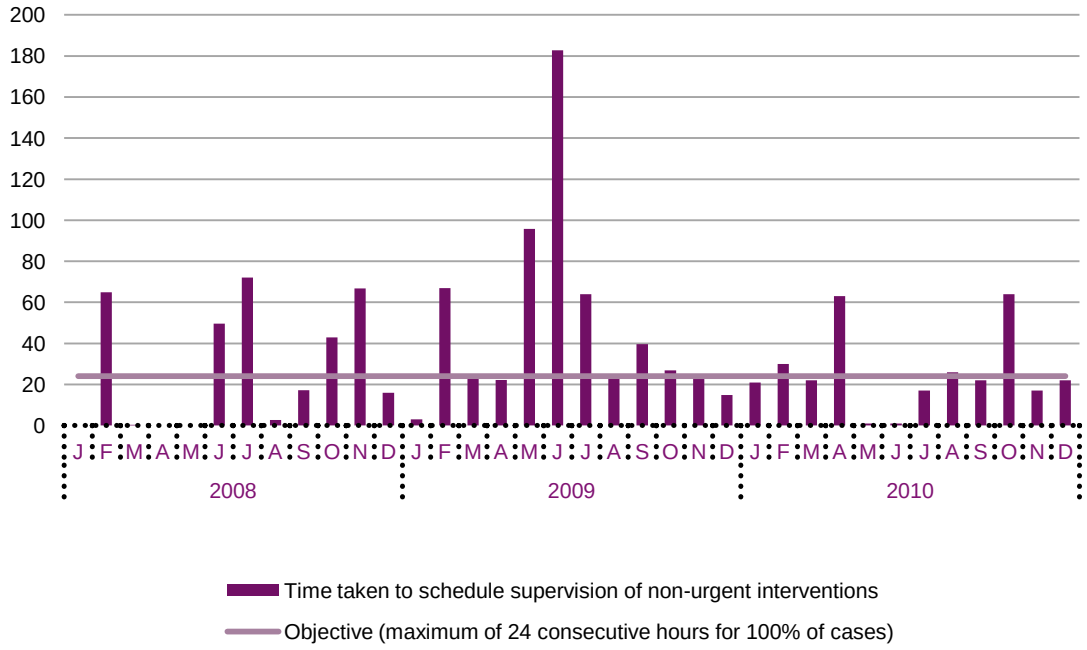
Source: ICP-ANACOM based on data from PTC.

Graph 21 - Time taken to respond to requests for feasibility analyses



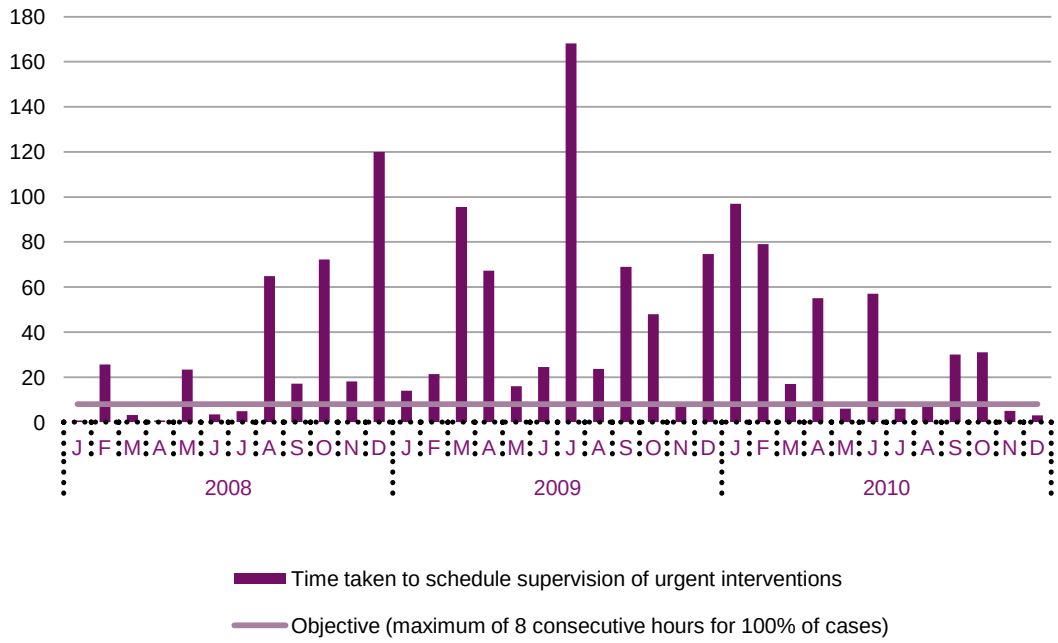
Source: ICP-ANACOM based on data from PTC.

Graph 22 - Time taken to schedule supervision of non-urgent interventions



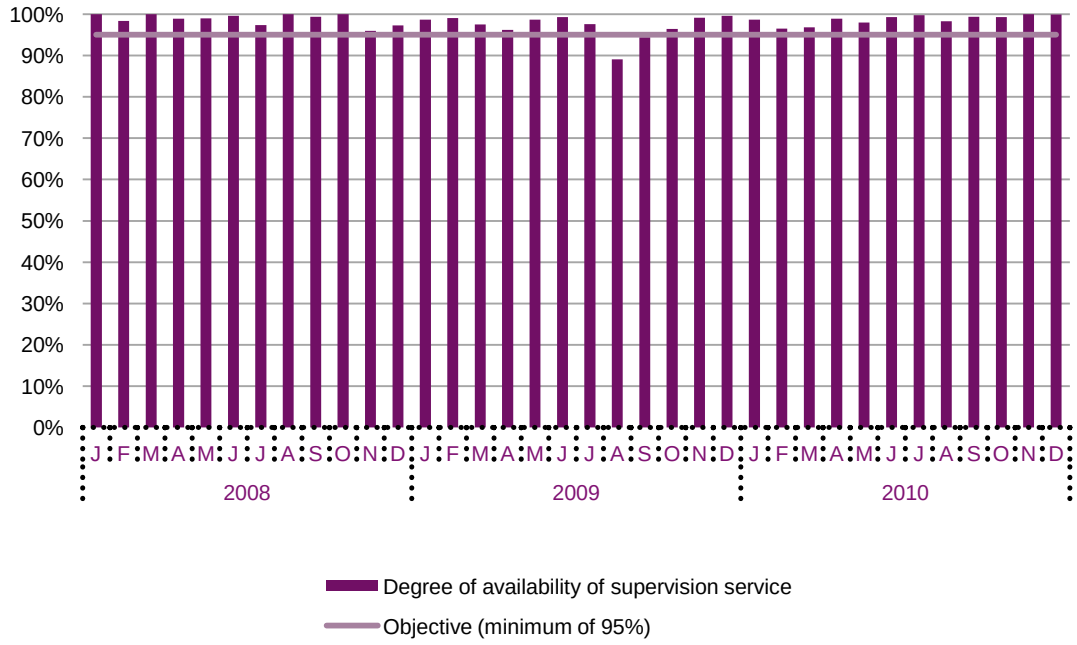
Source: ICP-ANACOM based on data from PTC.

Graph 23 - Time taken to schedule supervision of urgent interventions



ICP-ANACOM based on data from PTC.

Graph 24 - Degree of availability of supervision service[12]



ICP-ANACOM based on data from PTC.

4.3.7. Reference masts access offer (RMAO)

Following approval of ICP-ANACOM determination of 28 October 2010 on amendments to the RDAO, on 22 December 2010, PTC released the RMAO, under which PTC provides access to and use of its masts and associated infrastructure for the installation, repair, maintenance or removal of overhead cables of the electronic communications networks of beneficiaries. In order to ensure the continuity of beneficiary electronic communications networks, the RMAO also makes provision for transition between underground and overhead infrastructure.

Wholesale services provided for in the RMAO are: (i) information service; (ii) feasibility analysis service; (iii) access and installation service; (iv) intervention service (supervision); (v) route deviations; and (vi) cable removal.

Meanwhile, as in the RDAO, the RMAO sets out beneficiary obligations in terms of the transmission of technical information on cables and equipment to be used and in terms of

[12] This indicator is calculated based on the number of supervisions conducted on the dates that PTC committed to, compared to the total number of supervisions conducted.

sending updated records after completion of installation, interventions, removals and route diversions.

The widespread use of masts occurs mainly in rural areas, thereby contributing to the expansion of NGA coverage, with positive impacts in terms of the information society and in combating the digital divide.

This offer will be subject to detailed analysis by ICP-ANACOM in 2011.

4.3.8. Wholesale line rental offer (WLRO)

In 2010, ICP-ANACOM took no specific decision on this wholesale offer, keeping track of the evolution reported in its use by beneficiaries and analyzing compliance with its associated conditions.

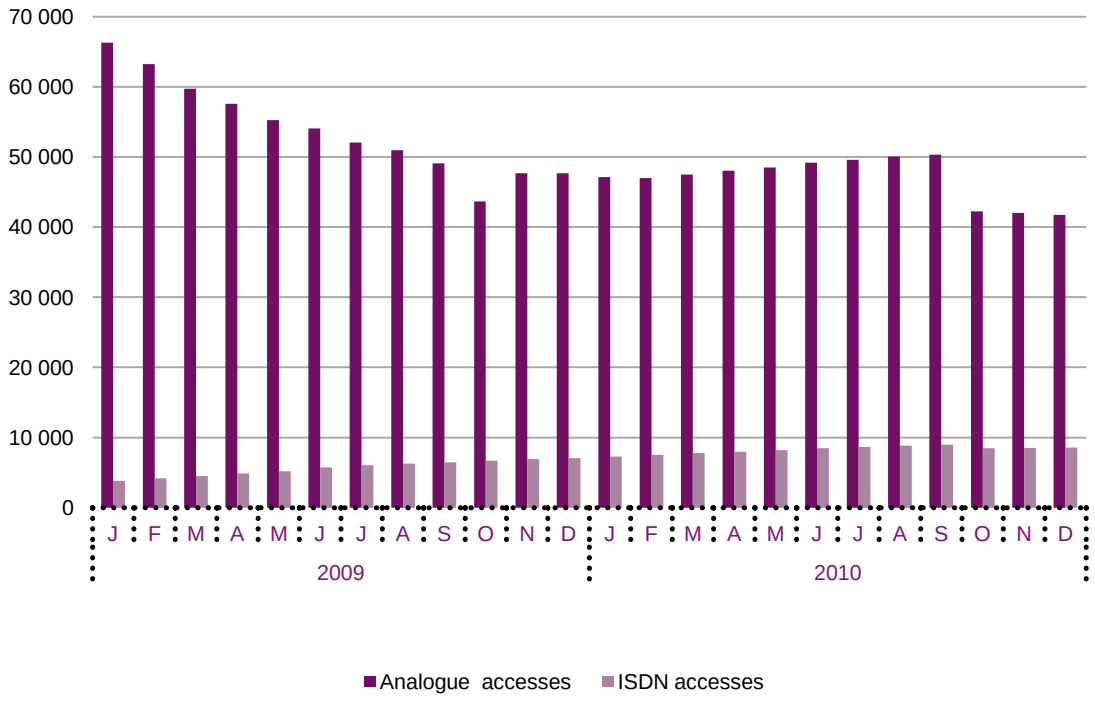
As in 2009, the number of analogue access with active WLRO continued to decline, and a reduction of around 12 percent was reported from December 2009 to December 2010. At the end of 2010 there were 43,392 accesses with active WLRO, with 1,643 belonging to Grupo PT. This is an understandable situation given the actual evolution of FTS provision in indirect access mode.

However, with the WLRO beneficiaries can activate various types of accesses (analogue, basic integrated services digital network (ISDN), basic ISDN plus, primary ISDN and fractionated primary ISDN).

In terms of ISDN accesses, normally associated with the business market, there was an increase in the use of the WLRO, to the order of 21 percent. It can also be observed that ISDN accesses with active WLRO are essentially composed of basic ISDN and basic ISDN plus, with only 11 accesses primary ISDN and primary fractioned ISDN with active WLRO from a universe of 8,602 ISDN accesses with WLRO.

The following graph shows the evolution reported in the number of accesses with active WLRO in 2009 and 2010.

Graph 25 - Information presented by PTC on analogue and ISDN accesses with active WLRO, excluding activations of the companies of Grupo PT



Source: PTC.

4.4. Costing systems

As follows from the responsibilities of this Authority, necessary measures were taken in 2010, as specified in the sections below, with a view to implementing the obligations of cost orientation applicable to the different electronic communications and postal operators holding SMP in certain markets and/or the USP.

4.4.1. SCA - Sistema de contabilidade analítica (Analytical Accounting System) of PTC

As an entity with SMP, PTC is obliged to undertake price control, accounting separation and cost accounting.

In this context and for regulatory purposes PTC uses an SCA that brings together information about revenues and costs, including direct, joint and common costs by product

or service, and its form of imputation, respecting the principles, determinations and recommendations of ICP-ANACOM.

ICP-ANACOM, or another independent entity so designated, is charged with, *inter alia*, auditing the SCA and verifying compliance with legislation and with national and international standards and best practice to ensure reliable results; it is also responsible for issuing and publishing the respective declaration of conformity.

As such, by determination of 8 April 2010, ICP-ANACOM awarded the auditing of PTC's SCA, with reference to the results of 2007, with the development of an in-depth, systematic and comprehensive analysis of PTC's SCA, concluding in 2011.

4.4.2. Cost models for electronic communications

- **Definition of the methodology to be used for calculating PTC's cost of capital for 2009-2011**

Pursuant to the obligation of price control and cost accounting to which PTC has been made subject, provision is made in article 74 of the LCE - Lei das Comunicações Electrónicas (Law of Electronic Communications) that ICP-ANACOM shall "take into account the investment made by the operator and allow said operator a reasonable rate of return on the capital invested, taking the risks involved into account (...)". This rate corresponds to the rate of cost of capital.

Taking into consideration the impact that the cost of capital has on the unit costs of products or services, ICP-ANACOM considers it essential to define a proper methodology for determining the cost of capital. As such, a consultation on this issue was conducted by an independent company.

Subsequently, considering the study undertaken by the selected consultant and the results of the prior hearing of interested parties, by determination of 10 February 2010, approval was given to the final decision on the methodology for calculating PTC's cost of capital with respect to the 2009-2011 three-year period. This decision established a linear and annual 1.0% decrement rate for the value of the rate of cost of capital between 2009 and 2011 (rounded to one decimal place for the sake of simplicity), until the defined value

of 10.3 per cent is achieved in 2011, resulting in the values described in the following table.

Table 4 - Cost of capital rate to be applied by PTC

1st year – 2009	Tx 08 – (Tx 08 – Tx 09/11) × 0.33	12.3%
2nd year – 2010	Tx 1st year – (Tx 08 – Tx 09/11) × 0.33	11.3%
3rd year – 2011	Tx 2nd year – (Tx 08 – Tx 09/11) × 0.33	10.3%

Source: ICP-ANACOM.

- **Study on the curtailment costs of PTC**

PTC's curtailment costs are associated with a staff restructuring programme, which includes early retirement and suspension of staff contracts, comprised by the company's common costs.

Given their importance, and in line with the approach taken in 2009, it was considered important to study/analyze these costs, given the significant impact they have on the unit costs of PTC's products and services.

Accordingly, the award was made to hold a consultation with respect to PTC's curtailment costs; this was conducted during 2009 and 2010, in order to enhance ICP-ANACOM's capacity to intervene with regard to PTC's regulatory accounting.

- **Cost model for mobile operators**

Under the LCE, ICP-ANACOM is charged with defining and analyzing the relevant markets, identifying undertakings with SMP and determining appropriate measures to companies which offer electronic communications networks and services, acting in accordance with the principles of competition law and giving consideration to national circumstances, as well as the EC Recommendation[13] and the EC's guidelines on market analysis and SMP assessment in the context of the EU regulatory framework for electronic communications networks and services.

[13] Recommendation 2007/879/EC of 17/12/2007, which replaced Recommendation 2003/311/EC of 11/02/2003.

Having regard to Directive 2002/21/EC[14], establishing that Member States shall ensure that the NRA take utmost account of the Recommendations of the EC, to which objective the national regulators are committed, in 2010 ICP-ANACOM began development of the cost model for the service of voice call termination on individual mobile networks, in order to comply with EC Recommendation 2009/396/EC, as has been occurring in other Member States, such as the United Kingdom, France, the Netherlands and Belgium.

The development of this cost model for call termination on mobile networks was initiated during 2010 in collaboration with the consultant Analysis Mason, Ltd., continuing through 2011. ICP-ANACOM launched a public consultation on 1 April 2011 to compile contributions from interested parties in relation to the methodological options to consider in developing, implementing and applying the cost model in question, in particular the definition of the hypothetical efficient operator to which it refers.

4.4.3. SCA - Sistema de contabilidade analítica (Analytical Accounting System) of CTT - Correios de Portugal (CTT)

The Lei de Bases dos Serviços Postais (Basic Law for Postal Services)[15] gives ICP-ANACOM, as the regulatory authority of the postal sector[16], the power and responsibility to approve and supervise the proper implementation[17] of SCA, which is an obligation to which CTT is bound[18] as US provider. As such, ICP-ANACOM is required to publish a declaration of conformity, on an annual basis with reference to the SCA and the results obtained.

As the concessionaire of provision of the universal postal service and of operation of the postal network, CTT is required[19] to maintain an SCA which enables:

i) determination of the revenues and direct and indirect costs of each of the reserved services and each of the non-reserved services; and

[14] Transposed into national legislation by Law no. 5/2004 of 10 February - Lei das comunicações electrónicas (Electronic Communications Law).
[15] Law no. 102/99 of 26 July, as amended as by Decree-Law no. 112/2003 of 12 June.
[16] Paragraph 2 of article 18 of Law no. 102/99 of 26 July.
[17] Paragraph 2 of article 19 of Law no. 102/99 of 26 July.
[18] Paragraph 1 of article 19 of Law no. 102/99 of 26 July, and paragraph 1 of Base XIII of Decree-Law no. 448/99 of 4 November.
[19] Article 19 of the Basic Law and clause 13 of the Concession Contract.

ii) separation between the costs associated with the various basic operations making up the postal services (collection, handling, transportation and distribution), seeking also the accomplishment of the principle of cost orientation of prices, in accordance with paragraph 3 of article 2 of the Convénio de Preços (Price Convention).

The SCA used by CTT was based on the Fully Distributed Costs (FDC) methodology, which is used extensively across Europe and which takes into account all the costs incurred by the operator for the purpose of funding the various products and services. In this respect, and according to the study "Main developments in the postal sector (2008-2010)", the FDC[20] is the methodology used by the provider of the US in 18 of the 31 countries considered.

Additionally, the study also revealed that ICP-ANACOM is one of 22 national regulatory authorities (NRA), out of the 31 European countries considered, to audit the SCA results of their US providers.

Given ICP-ANACOM's responsibilities, the 2007 results of the SCA were audited by an entity designated by this Authority to verify compliance with the obligations under relevant legislation, as well as with the national and international standards and best practice, and with the principles, determinations and recommendations established and issued by ICP-ANACOM, to ensure the credibility of the results. Following this audit, on 29 October 2010, ICP-ANACOM published the SCA's declaration of conformity with respect to the 2007 results, and issued a set of determinations with a view to improving the SCA.

In 2010, a process was initiated to launch a public tender to contract auditing of the results of CTT's SCA in respect of the 2009-2011 periods (launched at the beginning of 2011), with the following main objectives:

i) increase the number of potential interested tenderers, promoting competition in the selection procedure;

[20] Also known as Fully Allocated Costs (FAC).

ii) provide some stability in terms of the entity to be selected, to the extent that the gains in knowledge that it obtains will contribute to improving the quality and efficiency of the audit over the designated period; and,

iii) achieve synergies resulting from the simultaneous award of the audit of three years, resulting in improvements for the activity of ICP-ANACOM by simplifying processes and through proper optimization and scheduling of resources to speed up the completion of the SCA audits.

The process of selecting an external entity to conduct the audits for 2009-2011 has been completed, and auditing of the 2009 period is due to begin in the second half of 2011.

5. To assure and protect the rights of users and citizens in general (Objective 2)

The assurance and protection of the rights of users and the general public is an objective of paramount importance for the development of an electronic communications market based on the principles of universal access, transparency and non-discrimination. This section of the report describes several measures which have had a direct impact on consumers and, in particular, measures associated with the universal service (in terms of quality of service and in terms of affordability), number portability, international roaming , the handling of requests and user support and the security and privacy of communications.

5.1. Universal Service (US) of electronic communications

5.1.1. Parameters and levels of quality of service

As a result of ICP-ANACOM determination of 30 March 2006, the USP (currently PTC) is required to publish quality of service parameters and performance targets for the US on an annual basis and to provide information on levels of performance achieved for the preceding year.

Table 5 outlines the targets established and levels achieved by the USP for each of the indicators in 2009 and 2010.

Table 5 - US Quality of service parameters

Quality of service parameters of US	Objective	2009	2010
QSP1. Supply time for initial network connection			
(a) Supply time for connection when customer does not specify a date (days)			
(a1) which corresponds to the 95% percentile of the fastest installations	21	18	13
(a2) which corresponds to the 99% percentile of the fastest installations	43	36	29
(b) Percentage of connection requests satisfied by date agreed with the customer when the customer sets a target date	85%	89%	94%
(c) Ratio between the number of initial connections supplied by appointment with customers and the total number of initial connections provided	na	26%	22%
QSP2. Fault rate per access line	0.10	0.16	0.19
Total number of faults attended per access	na	320 229	339 722
QSP3. Fault repair time (hours)			
(a) Repair times of faults on local access network			
(a1) corresponding to the 80% percentile of fastest repairs	72	76	77
(a2) corresponding to the 95% percentile of fastest repairs	165	144	184
(b) Repair times for other faults			
(b1) corresponding to the 80% percentile of fastest repairs	47	62	71
(a3) corresponding to the 95% percentile of fastest repairs	108	114	163
(c) Percentage of faults repaired within the target period established by USP for repairs	80%	66%	66%
QSP4. Response time for operator services			
(a) Average response time for operator services (seconds)	11.0	19.0	20.0
(b) Percentage of calls to the operator services answered with 20 seconds by human operator	80%	88%	88%
QSP5. Unsuccessful calls			
(a) No. of calls eligible for the calculation of PQS5	na	1 494 090	1.368.064.847
– national calls	na	504	
– international calls	na		
(b) Percentage of unsuccessful national calls	na	0.07%	0.08%
(c) Percentage of unsuccessful international calls	na		
QSP6. Time taken to establish calls			
(a) Total number of calls eligible for the calculation of QSP6 of:			
– national calls	na	na	na
– international calls	na	na	na
(b) Time taken to establish national calls (seconds)			
(b1) corresponding to the 100% percentile of fastest calls	na	na	na
(b2) corresponding to the 95% percentile of fastest calls	na	na	na
(c) Time taken to connect calls for international calls (seconds)			
(c1) corresponding to the 100% percentile of fastest calls	na	na	na
(c2) corresponding to the 95% percentile of fastest calls	na	na	na
QSP7. Response time for directory enquiry services			
(a) Average response time for directory enquiry services (seconds)	5.0	3	3
(b) Percentage of calls to directory enquiry services answered within 20 seconds by a human operator or by equivalent answering systems	95%	95%	98%
QSP8. Proportion of coin and card operated public pay-telephones in working order			
The total number of complete days during which existing public pay-telephones are in full working order compared to the potential number of operational days of the average public pay-telephones park.	96%	98%	97%
QSP9. Complaints about incorrect bills			
Percentage of bills which are object of complaint, compared to total number of bills issued	0.04%	0.03%	0.04%

Source: PTC.

In the previous year, there was a significant improvement in the performance measured under QSP1 and QSP7 and a worsening of QSP2 and QSP3.

PTC claimed adverse weather conditions in early 2010, seeking, for the purposes of calculating the QSP3 (time to repair faults), that the values reported in January 2010 be disregarded. In this context, it presented results for QSP3 (time to repair faults) excluding the values from that month.

Table 6 - Quality of service parameter of the US revised QSP3 (excluding the month of January 2010)

US Quality of service parameters	Objective	2009	2010
QSP3. Fault repair time (hours)			
(a) Repair times of faults on local access network			
(a1) corresponding to the 80% percentile of fastest repairs	72	76	70
(a2) corresponding to the 95% percentile of fastest repairs	165	144	146
(b) Repair times for other faults			
(b1) corresponding to the 80% percentile of fastest repairs	47	62	65
(b2) corresponding to the 95% percentile of fastest repairs	108	114	123
(c) Percentage of faults repaired within the target period established by USP for repairs	80%	66%	70%

Source: PTC.

In summary, it can be observed that, from 2009 through 2010, there remains a level of non-compliance with respect to the performance targets applicable to the US quality of service parameters (including QSP2, QSP3 and QSP4(a)). This situation is being analysed by ICP-ANACOM.

5.1.2. USP public payphone strategy

At the end of 2010, PTC submitted the Declaração de Estratégia de Desenvolvimento para o Serviço de Postos Públicos (Statement of Development Strategy for the Public Payphones Service) for 2010, which put forward the following main objectives: (i) maintenance of the trend towards an overall reduction in the number of public payphones; (ii) relocation of equipment subjected to higher incidence of vandalism; (iii) redefinition of coverage in places of special social interest; (iv) maintenance of response levels to users with special needs.

In March 2011, PTC presented the report on the accomplishment of the objectives for 2010.

The following table shows the information provided by PTC in respect of total public payphones in 2010, broken down by district and by means of payment.

Table 7 - Total public payphones of PTC in 2010

	ACTUAL IN 2010					
	Exterior			Interior		TOTAL
	Card only	Card and coin	Coins only	Conventional telephone	Coins only	
Aveiro	4	299	165	720	463	1 651
Beja	9	174	137	259	159	738
Braga	13	295	118	947	530	1 903
Bragança	7	53	17	541	80	698
Castelo Branco	12	112	74	527	226	951
Coimbra	15	257	97	858	270	1 497
Évora	8	117	109	116	140	490
Faro	11	728	175	414	440	1 768
Guarda	13	76	48	556	95	788
Leiria	21	233	90	647	322	1 313
Lisbon	162	3 260	1 168	402	1 765	6 757
Portalegre	2	64	67	131	117	381
Porto	67	1 343	441	579	2 078	4 508
Santarém	13	173	107	576	308	1 177
Setúbal	34	990	327	156	742	2 249
Viana do Castelo	2	122	62	503	218	907
Vila Real	6	82	31	743	229	1 091
Viseu	15	126	93	1 020	266	1 520
Madeira	22	169	104	99	185	579
Azores	12	123	42	111	111	399
Total	**448**	**8 796**	**3 472**	**9 905**	**8 744**	**31 365**

Source: PTC.

An overall reduction of approximately 5.5 per cent (representing 1,817 phones) was reported in the total number, maintaining the downward trend seen in recent years.

Considering the different types of public payphone, the most significant reduction in percentage terms was reported in the total of interior "coins only" phones (reduction of 10.4 percent).

Regarding the siting of public payphones in locations of social interest (such as hospitals and health centres, educational establishments and airports), a general reduction was reported in the number of public payphones in 2010 compared to 2009, as seen in the following table.

Table 8 - Variation in the number of PTC public payphones in 2010 compared to 2009

	Total public payphones		Differences between ACTUAL 2010 compared to 2009	
Type of location	**ACTUAL 2010**	**ACTUAL 2009**	**Absolute difference**	**Percentage difference**
Hospitals and health centres	901	992	-91	-9,2%
Educational establishments	910	1 011	-101	-10,0%
Airports	170	179	-9	-5,0%
Prisons	323	321	2	0,6%
Bus terminals	96	104	-8	-7,7%
Rail terminals	237	251	-14	-5,6%
Metro stations	159	160	-1	-0,6%
Courts and Halls of Justice	24	27	-3	-11,1%
Hotels, Boarding houses and Hostels	116	124	-8	-6,5%
Total in places considered of special interest	**2 936**	**3 169**	**-233**	**-7,4%**

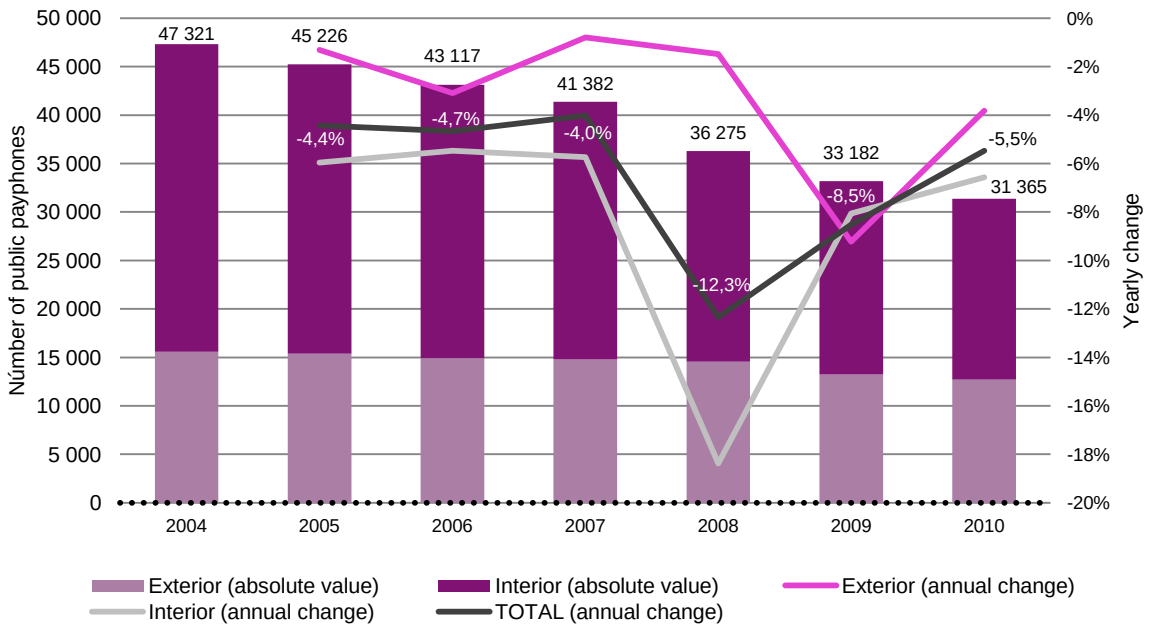
Source: PTC and calculations of ICP-ANACOM.

In relation to public payphones in places of social interest, PTC reported that it will surpass the target proposed for 2010, noting that this strategy will be maintained in 2011. PTC also reported that, occasionally, the evolution of the total does not exceed expectations due to constraints related to the availability of infrastructure.

With regard to users with special needs, there was an actual total of 310 cabins which allowed wheelchair entry, representing a variation of 5 percent over the actual figure in 2009 (294 cabins).

The following graph summarizes the information on the evolution in total public payphones in the period 2004-2010. The overall change over this period is approximately -33.7 percent for the total number of payphones (-18.4 percent for exterior payphones and -41.2 percent for interior payphones).

Graph 26 - Evolution reported in total public payphones in the period 2004-2010



PTC and ICP-ANACOM calculation.

5.1.3. Telephone directories and directory enquiry services

In 2010, ICP-ANACOM continued to monitor PTC's compliance with its determination of 8 November 2005, as revised on 14 June 2007, on the inclusion of advertising in telephone directories made available in the context of the US. Analyzing the introductory pages of nineteen telephone directories, it was found that all met the requirements set out in these determinations.

5.1.4. Affordability

5.1.4.1. Residential FTS tariff provided in context of the US

5.1.4.2. FTS Residential Tariff for 2010, provided in the context of the US

By determination of 17 November 2009, ICP-ANACOM decided not to oppose the entry into force, on 1 January 2010, of a proposal for the base tariff of the US for private residential phones, presented by PTC on 30 October 2009. At this stage, the 2010 State Budget was not yet available, and, at that time, ICP-ANACOM considered it reasonable to accept the inflation estimate presented by PTC for the purposes of establishing the price-cap (1.5 percent). It was also determined that, in the event that, when new data became available (in particular the inflation rate forecast in the 2010 State Budget and constitution of the 2009 traffic basket), it was deemed that the proposal submitted by PTC was not in compliance with the applicable price-cap, the company would be required to implement a further reduction in the base tariff.

Since the value of inflation forecast in the 2010 State Budget (0.8 percent) differed from PTC's forecast, and with the availability, in the meantime, of data on the 2009 traffic basket, on 8 February 2010, PTC submitted a proposed US tariff amendment to ICP-ANACOM (covering both the main tariff and the alternative tariff) to be effective from 15 February 2010. Subsequently, on 12 February 2010, PTC changed the date of the tariff's entry into force to 19 February 2010.

With regard to the main tariff, applicable by default, PTC proposed a reduction of about 13 percent in the price per minute of daytime communications, from 0.0368 euros to 0.0322 euros (without VAT).

Table 9 - Main FTS Tariff proposed by PTC

Values excluding VAT	Initial price (euros)				Time credit (seconds)				Price per minute (euros)			
	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am
Local	0.0700	0,0000	0,0000	0,0000	60	0	0	0	0,0322	0,0000	0,0000	0,0000
National	0.0700	0,0000	0,0000	0,0000	60	0	0	0	0,0322	0,0000	0,0000	0,0000
Installation	71.83											
Subscription charge	12.66											

Source: PTC. Values without VAT.

With regards to the alternative tariff, applicable upon customer request, PTC's proposal consisted of merging the local and national categories, aligning its structure with the base tariff, with a flat price per minute for the new category, during peak times (weekdays from 9am to 9pm) of 0.0258 euros; this would be about 1 percent and 42 percent lower than the price per minute for local and national levels, respectively, under the tariff then in force.

Table 10 - Alternative FTS tariff proposed by PTC

Values excluding VAT	Initial price (euros)				Time credit (seconds)				Price per minute (euros)			
	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am
Local	0.0700	0,0700	0,0700	0,0700	60	60	60	60	0,0258	0,0084	0,0084	0,0084
National	0.0700	0,0700	0,0700	0,0700	60	60	60	60	0,0258	0,0084	0,0084	0,0084
Installation	71.83											
Subscription charge	11.99											

Source: PTC. Values without VAT.

By determination of 17 February 2010, ICP-ANACOM decided to declare the conformity of the proposal submitted by PTC with the regulatory principles in effect, particularly with regard to compatibility with the applicable price-cap. At the same time, it referred PTC's proposal for an opinion from the Advisory Council of ICP-ANACOM, which did not oppose the decision.

FTS Residential Tariff for 2011, provided in context of the US

On 29 September 2010, PTC submitted a proposal to ICP-ANACOM to amend the universal service base tariff for private residential phones, with effect from 1 January 2011. This proposal was based on the inflation rate of 2 percent forecast in the Banco de Portugal (Bank of Portugal) Boletim Económico de Verão (Summer Economic Bulletin), considering that the 2011 State Budget was not available at that time. After the release of this document, which forecast inflation at 2.2 percent, on 22 October 2010, PTC submitted a new base tariff proposal, based on this rate.

PTC's proposal puts forward, as a main tariff, applicable by default, a 5.6 percent reduction in the price per minute of communications at peak times, to 0.0304 euros (excluding VAT).

Table 11 - Main FTS Tariff proposed by PTC

Values excluding VAT	Initial price (euros)				Time credit (seconds)				Price per minute (euros)			
	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am
Local	0.0700	0,0000	0,0000	0,0000	60	0	0	0	0,0304	0,0000	0,0000	0,0000
National	0.0700	0,0000	0,0000	0,0000	60	0	0	0	0,0304	0,0000	0,0000	0,0000
Installation	71.83											
Subscription charge	12.66											

Source: PTC. Values without VAT.

With regard to the alternative tariff applicable upon customer request, PTC's proposal consisted of a 0.58 percent reduction in the subscription charge to 11.92 euros (excluding VAT), with no proposed changes in the prices of communications.

Table 12 - Alternative FTS tariff proposed by PTC

Values excluding VAT	Initial price (euros)				Time credit (seconds)				Price per minute (euros)			
	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am	Working days 9am-9pm	Working days 9pm-9am	Week-ends 9am-9pm	Week-ends 9pm-9am
Local	0.0700	0,0700	0,0700	0,0700	60	60	60	60	0,0258	0,0084	0,0084	0,0084
National	0.0700	0,0700	0,0700	0,0700	60	60	60	60	0,0258	0,0084	0,0084	0,0084
Installation	71.83											
Subscription charge	11.99											

Source: PTC. Values without VAT.

By determination of 11 November 2010, ICP-ANACOM decided to refer PTC's proposal for an opinion of the Advisory Council of ICP-ANACOM, declaring, pending the presentation of this opinion, that PTC's proposal was in compliance with the principles of regulations in force in particular in with the applicable *price-cap*. The Advisory Council did not oppose the decision.

5.1.4.3. FTS Public payphone tariff

On 12 February 2010, following a change in the FTS base tariff in the context of the US (in particular, the change to the alternative tariff applicable optionally upon user request) occurring on 19 February 2010, PTC submitted a proposal to ICP-ANACOM to amend the tariff applying to communications from public pay phones, to be effective from 1 March 2010.

The proposed tariff represented increases in the timing of the pulses from 20 to 22 seconds on the mainland and from 22.5 to 24.5 seconds in the Autonomous Regions,

maintaining the previous tariff structure with regard to the non-differentiation of price between call categories or periods.

Following an analysis of the proposal presented by PTC, with regard to intra-PTC, fixed-fixed calls made from public payphones, it was concluded that the proposed tariff was in compliance with the obligations established in the determination of 14 December 2004, with a ratio of 3.0 reported between the average price of public payphone calls and subscriber calls, both on the Mainland and in the Autonomous Regions. In the case of fixed-fixed PTC-other operator calls made from public payphones, the tariff proposed by PTC was in accordance with the applicable regulatory framework, with no distinction made in fixed-fixed pricing based on the destination operator.

Therefore, by determination of 23 February 2010, ICP-ANACOM decided to declare the proposed FTS payphone tariff presented by PTC as compliant, and further determined to refer this proposal to the Advisory Council of ICP-ANACOM for an opinion, under point c) of article 37 of this Authority's Statutes.

The tariff proposed and approved by this determination of 23 February 2010 is presented in the following table.

Table 13 - Tariff approved by ICP-ANACOM with respect to public payphones of FTS

		Price per impulse (euros)	Initial price peak (impulse)	Initial price off-peak (impulse)	Time credit peak (seconds)	Time credit off-peak (seconds)	Impulse duration peak (seconds)	Impulse duration off-peak (seconds)
Mainland	Local	0.0583	2.0	2.0	60.0	60.0	22.0	22.0
	National	0.0583	2.0	2.0	60.0	60.0	22.0	22.0
Autonomous regions	Local	0.0614	2.0	2.0	60.0	60.0	24.5	24.5
	National	0.0614	2.0	2.0	60.0	60.0	24.5	24.5

Source: PTC. Values without VAT.

5.1.5. Net costs of universal service provision

During 2010, ICP-ANACOM continued its work of studying and analysing the definition of the methodology to be used for calculating the net costs of universal service provision and the concept of unfair burden.

In this respect, several meetings were held with PTC in 2009-2010 to discuss specific aspects associated with the methodology to be used for calculating the net costs of universal service provision and the details of the methodology that PTC is developing.

In 2010, to consolidate the compilation of the information about this complex subject, which requires a high level of technical-economic and legal expertise, ICP-ANACOM updated and added information obtained from other countries and specific studies on the US.

ICP-ANACOM prepared two draft decisions on the "concept of unfair burden" and "the methodology used for calculating the net cost of universal service"; these were finalized at the beginning of 2011 and approved on 27 January 2011, after being submitted simultaneously to prior hearing (pursuant to the Código de Procedimento Administrativo (Administrative Proceeding Code)) and public consultation (pursuant to the LCE).

With regard to the net costs of universal service provision, a judgement was handed down by the Supremo Tribunal Administrativo (Supreme Administrative Court) on the appeal presented PTC with respect to ICP-ANACOM's decision of 2003 rejecting the existence of net costs of universal service provision until 1 January 2001.

5.1.6. Designation of the USP

Following the work done in 2009 on the process of designating the provider(s) of the US, during the first half of 2010, ICP-ANACOM sent the Government its prepared drafts of the regulation of the tender to designate the provider(s) of the US along with the respective tender specifications.

On 7 October 2010, the Court of Justice passed judgement on case (C-154-09) regarding the designation of undertakings responsible for universal service obligations, ruling that the Portuguese State had failed to correctly transpose into national law the provisions of European Union law governing the designation of universal service provider(s) and, in any event, by failing to ensure in practice that those provisions were applied, the Portuguese Republic was found to have failed to fulfil its obligations under articles 3(2) and 8(2) of Directive no. 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and

services (Universal Service Directive).service and users' rights relating to networks and electronic communications services (Universal Service Directive).

5.2. Universal Service (US) of postal services

Under the Contrato de Concessão (Concession Agreement) of the Universal Postal Service (Concession) of 1 September 2000, as amended on 9 September 2003[21] and on 26 July 2006[22], CTT is bound to provide[23] the universal postal service, which encompasses a postal service for items of correspondence (including addressed publicity), books, catalogues, newspapers and periodicals up to 2 kilograms of weight and parcels up to 20 kilograms of weight, as well as a service for registered items and a service for sending items of declared value, provided on a national and international basis.

The provision of a subset of these services, which are included in the universal postal service (in accordance with point b) of paragraph 1 of Clause 2 of the Concession) are reserved exclusively to CTT. Specifically, sending items of correspondence weighing less than 50 grams, provided that the price is less than two and a half times the reference price (a letter rate of 20 grams of national priority mail ("correio azul")), and items of outgoing international correspondence, direct mail, registered correspondence and correspondence of declared value, within the same limitations of weight and price.

As postal regulator, it is incumbent upon ICP-ANACOM to oversee the quality and price of postal services covered by the US - in accordance with paragraph c) of paragraph 2 of Article 18 of the Lei de Bases dos Serviços Postais (Basic Law for Postal Services)[24].

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[21] Following the amendments to the *Bases da Concessão* (Concession Bases) introduced by Decree-Law no. 116/2003 of 12 June.

[22] Following the amendments to the *Bases da Concessão* (Concession Bases) introduced by Decree-Law no. 112/2006 of 9 June.

[23] Concluded in accordance with and pursuant to the *Bases da Concessão do Serviço Postal Universal* (Universal Postal Service Concession Bases), approved by Decree-Law no. 448/99 of 4 November.

[24] Law no. 102/99 of 26 July, as amended by Decree-Law no. 112/2003 of 12 June.

5.2.1. Universal postal service prices

Under the terms of paragraph 3 of clause 24 of the Concession and paragraph 2 of article 14 of the Lei de Bases dos Serviços Postais (Base Law of Postal Services), the rules for establishing the prices of individual services that comprise the US conceded to CTT shall be fixed in agreement between ICP-ANACOM and CTT.

The Convénio de Preços (Price Convention) of the Universal Postal Service in force during 2010 was signed by ICP-ANACOM and CTT on 10 July 2008; the key points of the Convention are that:

- it is valid for a period of three years from 1 January 2008 to 31 December 2010, renewable for successive periods of one year, unless terminated by either party with at least 60 calendar days notice prior to its expiry;
- the prices of the US are subject to the principles of cost orientation (carried out progressively and allowing for a gradual rebalancing of tariffs and ensuring affordability), of transparency, non-discrimination and uniformity as regards price application (article 2);
- the average weighted variation in prices of reserved postal services in 2010 is subject to a price cap system whereby this variation may not, in nominal terms, exceed 0.4 percentage points less than the sum of the rate of inflation forecast for 2010 in the State Budget and the value of the "CPI adjustment factor" (CPIAF), which corresponds to the difference between the inflation value forecast for 2009 in the 2010 State Budget Report and the rate of inflation initially forecast for 2009 as reported in the 2009 State Budget Report;
- the prices of non-reserved services included in the US shall take effect on the date provided for by CTT, whereas ICP-ANACOM is entitled to alter those prices at any time, stating therefor reasons based on the compliance with principles, and taking also into account the levels of quality of service achieved (paragraph 5 of article 5);
- the minimum period of notice for CTT to disclose the prices of universal postal service to users, which prices should also be made available at a specific address on CTT's website, is ten working days, except where ICP-ANACOM authorises a shorter period of notice upon reasoned request submitted by CTT (paragraphs 6 and 7 of article 5).

In 2009, a negative inflation rate was reported – this was not an occurrence foreseen by the parties to the Agreement on the date of signature. As a result, after the prior hearing of consumer organizations[25] and of the Direcção Geral do Consumidor (Directorate General for the Consumer), ICP-ANACOM and CTT signed an amendment to the Convénio de Preços (Price Convention) providing for modification of the calculation of the "CPI adjustment factor" (CPIAF), with the following amendment made to its definition, in point l) of article 3 of the Convention[26]:

- the value to be considered with respect to the forecast inflation rate for the previous year was made zero where a negative inflation rate is forecast in the State Budget Report for the year of the price cap's application and where cumulatively a positive inflation forecast is given for this year under the terms of point k);
- a maximum of 2.5 percent is applied to the difference, for the purposes of the Convention, between the inflation rate projected in the State Budget Report from one year for the previous year and the inflation rate forecast for the previous year.

With this modification, in 2010 the value of CPIAF was -2.5 percent, so that the maximum variation in the prices of the reserved services for 2010 is set at -2.1 per cent (instead of -2.9 percent as a result of the Convention prior to its amendment).

During 2010 the following changes occurred in respect of the tariffs of the universal postal service, following proposals made by CTT, under the rules set out in the Convénio de Preços (Price Convention), which did not warrant opposition by ICP-ANACOM:

- on 1 January 2010 new prices came into effect for the non-reserved universal service for sending newspapers, periodicals and books; CTT gave notice of these prices back in 2009;
- from 2 May 2010, new prices entered into force for the "correio verde" (pre-paid mail) service and for the environmentally friendly range of the direct mail

[25] Pursuant to and for the purposes of article 17 of the Lei de bases (Basic Law) and article 2 of Law no. 23/96 of 26 July (Lei dos serviço públicos essenciais (Essential Public Services Law)), as amended by Law no. 12/2008 of 26 February.

[26] Amendment to the Convention available on ICP-ANACOM's website.

service; the launch of this range is part of CTT's environmental strategy embodied in a company-wide initiative known as Projecto Terra (Project Earth);

- on June 1, 2010 new prices came into effect for other parts of the universal service, including services whose provision is reserved to CTT (reserved services); ICP-ANACOM did not oppose this tariff's entry into force, taking into particular account that the average annual weighted variation in the basket of prices of reserved services proposed by CTT for 2010 (-2.1 percent) meets the terms of the price cap defined in the Convénio de Preços (Price Convention).

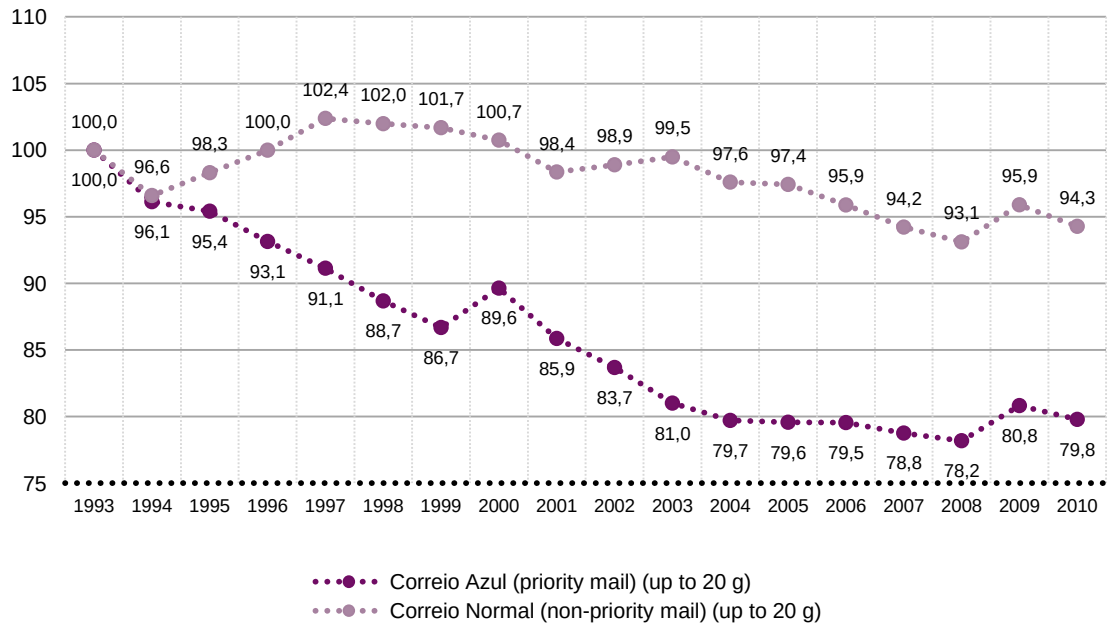
This Convénio de Preços (Price Convention) sets out that CTT must announce the prices appropriately, including through their publication at a specific website address, and that CTT must also regularly provide users with information about the conditions governing the application of prices and discounts for services that are part of the US. In this context, throughout 2010 and on a periodic basis, ICP-ANACOM monitored the information disclosed by CTT on its website.

Between 1993[27] and 2010, the average base tariff (tariff for a standard letter weighing up to 20 grams) for national *correio normal* (non-priority mail) and *correio azul* (priority mail)[28]) followed a trend that was positive for customers, with a reduction in real terms of 5.7 percentage points and 20.2 percentage points, respectively (see **Graph 27**).

[27] 1993 was the year in which the first Convenção de Preços (Price Convention) agreed between the ICP-ANACOM, CTT and the then DGCC - Direcção-Geral do Comércio e da Concorrência (Directorate General of Commerce and Competition) was in force.

[28] The prices considered are those of: stamps and franking at the post office counter; items sent according to flat-rate fee; stamps in vending machines (1 and 10 units). In calculating average annual prices, a fixed traffic structure is used, corresponding to 2009 as the last available data year. The calculation of the actual trend in the price index took each year's reported inflation rate into account.

Graph 27 - Real evolution in the average annual price index of the base tariff (1993 = 100): national correio normal (non-priority) and correio azul (priority mail)



Source: ICP-ANACOM.

Conducting a European comparison, ICP-ANACOM conducted a study entitled "Comparison of prices of Universal Postal Service providers in the European Union in 2010". The analysis revealed that, in 2010 and in local currency, no changes were made to the prices of services in eleven countries of the analysed countries, whereas in two countries - Finland and Lithuania - prices of some services fell while others increased.

In Portugal it was found that the price of national priority mail up to 20 g, national non-priority mail up to 20 g, cross-border intra-community priority mail up to 20g and of national parcels up to 2 kg remained below the EU15 average. Meanwhile, the price of cross-border intra-community non-priority mail up to 20g was 3 percent above the EU average in 2010 and 6 percent below the EU15 average; however this situation is reversed if the analysis is made using purchasing power parities (PPP), in which case the price is reported as 7 percent below the EU average and 23 percent above the EU15 average.

In the comparison made using euros and PPP, it can be seen that Portugal's relative position with respect to the services considered improved compared to 2009, with the

exception of intra-community non-priority correspondence, where, in euros, Portugal drops one place in the rankings, and parcels, where in euros Portugal maintains its position.

5.2.2. Quality of the universal postal service

Under paragraph 5 of article 8 of Lei de Bases dos Serviços Postais (Basic Law for Postal Services) and clause 12 of the Concession, the parameters and minimum levels of quality of the US to which CTT is subject are to be established in an agreement concluded between ICP-ANACOM and CTT, in a negotiation process running in parallel with the process referring to US prices.

The provisions of the Universal Postal Service Convénio de Qualidade (Quality Convention), signed on 10 July 2008, include the following key aspects:

- the Quality Convention is valid for a period of three years from 1 January 2008 to 31 December 2010, renewable for successive periods of one year, unless terminated by either party thereto with at least 60 calendar days notice prior to its expiry;
- definition of Quality of Service Indicators (QSI) and levels of quality that CTT is bound to accomplish annually;
- association of the maximum variations in prices of reserved services, as defined in the Convénio de Preços (Price Convention) with the performance by CTT of the levels of quality defined in the Convénio de Qualidade (Quality Convention), with a deduction, up to 1 percentage point, applied to the maximum variation in prices allowed for the following year; in exceptional circumstances duly substantiated by CTT and in the event of operational difficulties associated with the implementation of price reductions, the deduction made to customer prices may be replaced by other compensatory measures, which measures shall be subject to approval by ICP-ANACOM and have a financial value similar to that resulting from the reduction in prices;
- obligation of CTT to publish the QSI to which it is bound and the annually accomplished values, which obligation is set out by determination of ICP-ANACOM of 4 April 2002;

- should any force majeure or phenomenon situation take place, the burst and evolution of which are clearly outside the control of CTT, and have an impact on the quality of service provided by CTT, the latter may request, for the purpose of calculation of the quality of service indicators (QSI), the deduction of the inputs for the concerned periods of time and geographic flows; the decision regarding the request is incumbent upon ICP-ANACOM (article 6).

On 10 September 2010, changes were made to the Convénio de Qualidade (Quality Convention), altering the formula for calculating QSI 7 and 8, referring to the transit time of intra-Community cross-border mail[29], following the changes introduced in their production and publication by the International Post Corporation (IPC), which manages their measurement.

As a result of this alteration, the annual values of QSI 7 and QSI 8, which in 2008 corresponded to the average recorded over the twelve months ending in October of the year in question, the period considered from 2009 was the twelve months ending in September. This corresponded to the weighted average of the value of the last quarter of the previous calendar year and the value of the first three quarters of the year in question, using a weighting of 3/12 for the first value and 9/12 for the second value.

The Convénio de Qualidade (Quality Convention) also establishes a global indicator of quality of service (GI), which is calculated based on the quality of service levels achieved by CTT for the QSI outlined above[30].

[29] Amendments made to points g) and h) of paragraph 1 of the Annex to the Convénio de Qualidade (Quality Convention).

[30] The GI is calculated as follows: 1) a classification is assigned to each QSI established in the Quality Convention in accordance with the following methodology: i) With the verification that the accomplished value is equal to the value established for each QSI, a value of 100 is assigned to the QSI, ii) if the amount accomplished is less than the minimum value, a value of 0 is assigned to the QSI, iii) if the realized value is between the minimum and the target, a proportional value of between 0 and 100 is assigned to the QSI, iv) for values above the target, the classification will be more than 100 in proportion to the positive difference achieved for the objective. 2.) Sum of the classifications assigned to each QSI, weighting them according to their relative importance. 3) if the GI is 100 or more there will be no deduction associated with the GI; ii) If it is less than 90 the full deduction of 1 percentage point shall be applied; iii) if it is between 90 and 100, the deduction shall be applied proportionately. The deduction corresponds to the deduction of a maximum of 1 percentage point with respect to the prices of reserved services allowed for the year following the respective lack of compliance, or may be effected through the application of alternative actions providing customers with compensation.

In accordance with the Convénio de Qualidade (Quality Convention), ICP-ANACOM monitors the QSI of the provider of universal postal service (CTT) on a quarterly basis.

At the end of each year, ICP-ANACOM assesses compliance against the established requirements.

It was found that in 2010 the target values of the QSI were accomplished, except in the case of QSI4 (non-priority mail not delivered within 15 working days), which nevertheless exceeded its minimum value. The value reported for the GI exceeds 100 (see **Table 14**).

Since the GI is above 100 and all the QSI exceeded the corresponding minimum values, no deduction is to be applied to the maximum variation in the prices of reserved services allowed for 2011.

Table 14 - QSI defined in the Convénio de Qualidade (Quality Convention) and accomplished by CTT in 2010

Quality of service indicators		Convénio de Qualidade (Quality Convention)			Quality of service observed in 2010 (a)
		RI (%)	Established value		
			Min.	Obj.	
QSI1	Transit time for Non-Priority Mail (D+3)	45.0	95.5%	96.3%	96,8%
QSI2	Transit time for Priority Mail - Mainland (D+1)	15.0	93.5%	94.5%	94,7%
QSI3	Transit time for Priority Mail - CAM (D+2)	4.0	84.0%	87.0%	92,1%
QSI4	Non-priority mail not delivered within 15 working days (per one thousand letters)	5.0	2.3‰	1.4‰	1,9‰
QSI5	Priority mail not delivered within 10 working days (per one thousand letters)	3.0	2.5‰	1.5‰	1,2‰
QSI6	Transit time for Newspapers and Periodicals (D+3)	11.0	95.5%	96.3%	99,1%
QSI7	Transit time for Intra-community cross-border mail (D+3)	3.5	85.0%	88.0%	(i) 92,2%
QSI8	Transit time for intra-community cross-border mail (D+5)	3.5	95.0%	97.0%	(i) 97,9%
QSI9	Transit time for non-priority parcels (D+3)	5.0	90.5%	92.0%	93,8%
QSI10	Waiting time at Post Establishments (% of waiting time up to 10 minutes)	5.0	75.0%	85.0%	89,0%
GI - INDICATOR OF OVERALL QUALITY OF SERVICE (b)		N/A	N/A	N/A	190

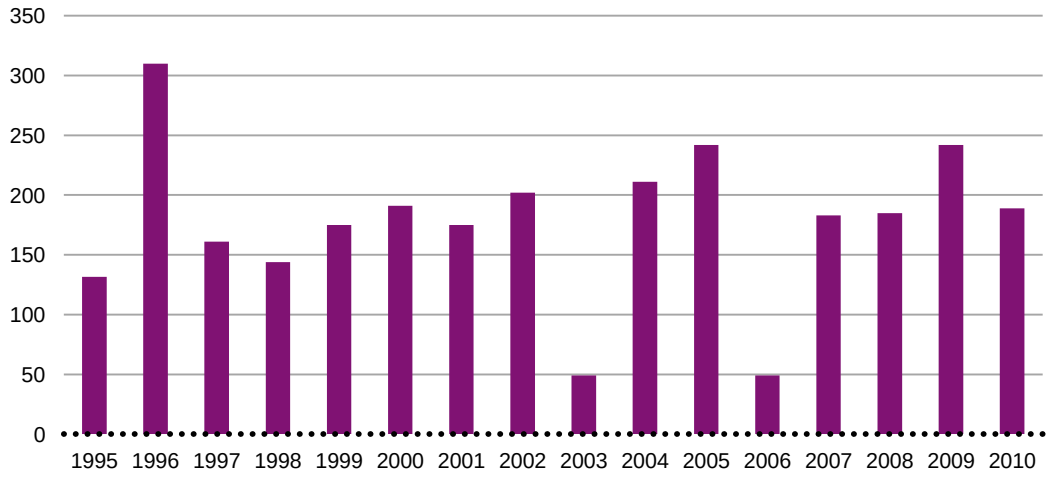
Source: (a) CTT. (b) ICP-ANACOM Calculation.

Notes: (I) Annual value corresponding to the average of 4th quarter 2009 and the value of the first three quarters of 2010.
D+X, means delivery up to X working day(s) after the deposit of the items at the mail reception point.
RI - relative importance.
Min. - Minimum value.
Obj. - Target value.
N/A - Not applicable.
Unaudited figures.

The annual QSI values achieved in 2010 and listed in **Table 14** incorporate, in accordance with the Convention, discounts of the direct effects of flooding which occurred in the Autonomous Region of Madeira in February 2010 (in accordance with ICP-ANACOM determination of 27 May 2010), the prohibitions applying to national airspace occurring in May 2010 as a result of the ash clouds resulting from volcanic eruption in Iceland (in accordance with ICP-ANACOM determination of 26 August 2010), as well as the national general strike which took place on 24 November 2010 (in accordance with ICP-ANACOM determination of 25 February 2011).

From **Graph 28**, it can be seen that since 1997, the GI has been improving, except in 2003 and 2006, when values under 100 points were reported.

Graph 28 - Global Indicator of Quality of Service (GI)



Note: Given that the value of the GI results from the individual values of the QSI, any comparison of the evolution of the GI should take account of the alterations made at the level of QSI for each year and in terms of the methodology of their calculation.

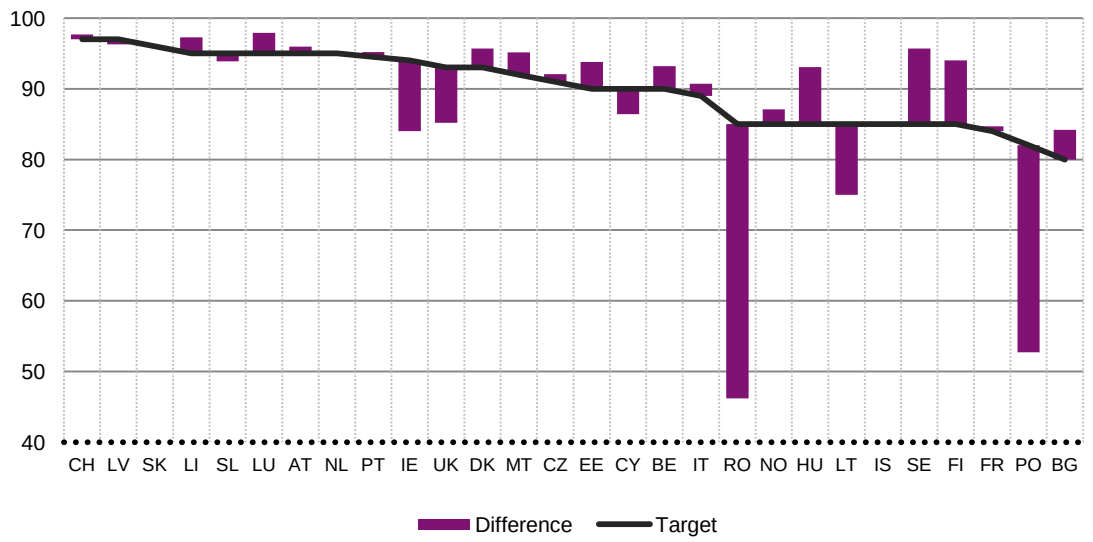
Source: ICP-ANACOM calculations.

Paragraph 7 of article 8 of the Lei de Bases (Basic Law) sets out that "the regulatory body shall ensure, independently of the universal service provider, quality level monitoring for the services actually provided. The results shall be published in a report at least once a year".

In 2010, the findings of the audit of values reported for the QSI and for CTT complaints were released for 2008. Following the award process began in late 2009, an audit of the values of the QSI and complaints of CTT is ongoing for 2009.

In comparative terms, based on data in the study "Main Developments in the postal sector (2008-2010)" of 29 November 2010, prepared by Copenhagen Economics for the EC, Portuguese *correio azul* (priority mail) clearly performs well in terms of transit time with the accomplished value exceeding the target value and with the accomplished (and target) values reported in Portugal among the highest in the EU.

Graph 29 - Comparison between target and accomplished values in priority mail transit time, 2009



Note: A positive deviation means that the target value was surpassed by x percentage points, i.e., deliveries arriving at their destination within the established deadline (D+1, 1 working day) surpass the established target value by x percentage points in 2009. Likewise, a negative deviation means that the target value was missed by x percentage point (obtained by calculating the difference between the target value and the accomplished value).

Source: ICP-ANACOM, based on data in the Study "*Main Developments in the postal sector (2008-2010)*", from Copenhagen Economics.

5.2.3. Network of postal establishments

According to paragraph 3 of clause 20 of the Concessão (Concession), the concessionaire is responsible for the establishment and closure of postal establishments and for the alteration of the working hours of postal establishments, taking into account service needs and levels of demand.

CTT is required to inform ICP-ANACOM as to decisions it takes in this respect and, in cases of closure or reduction in the opening hours of post offices, give basis to its decisions, particularly in terms of service needs, levels of demand and fulfilment of the communication needs of the population and economic activities.

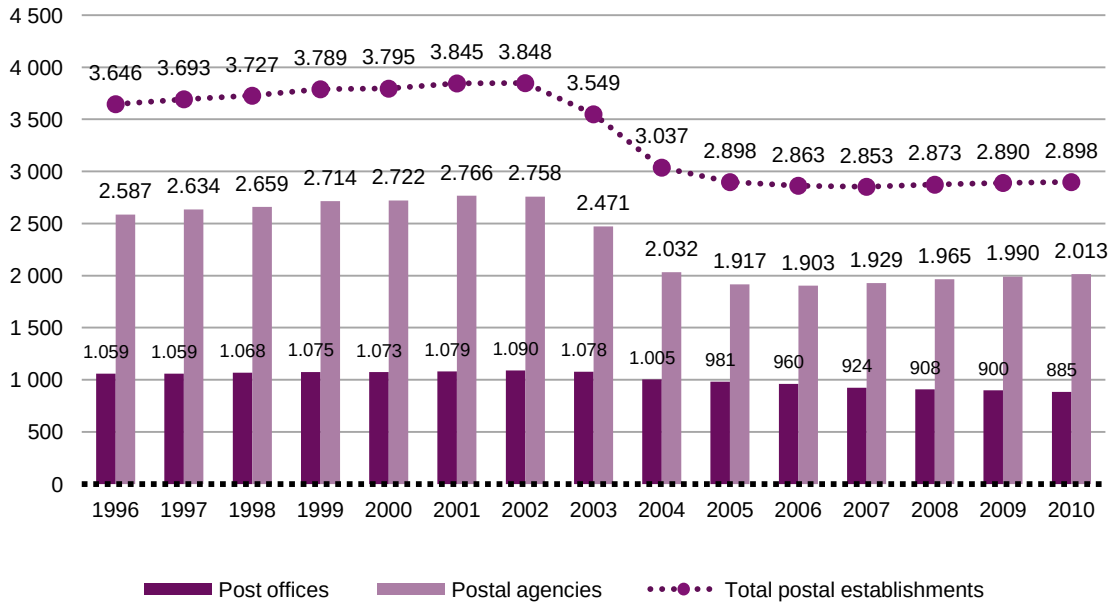
In this context, 98 notifications were received from CTT in 2010, as follows:

- 3 on the closure of post offices;
- 11 on the closure of post offices and their replacement by postal agencies[31];
- 76 on the reduction of the opening hours of post offices;
- 8 on increases to the opening hours of post offices.

In 2010, a slight increase was reported in the total number of postal establishments, confirming the upward trend observed since the second half of 2008. This increase reflects the growing number of postal agencies, which more than offset the reduction in the number of post offices, which continued to fall in line with the downward trend observed since 2002 (see **Graph 30**).

[31] According to CTT, postal agencies are establishments operated under contract by third parties, with all such establishments providing the range of postal services included in the US.

Graph 30 - Number of postal establishments

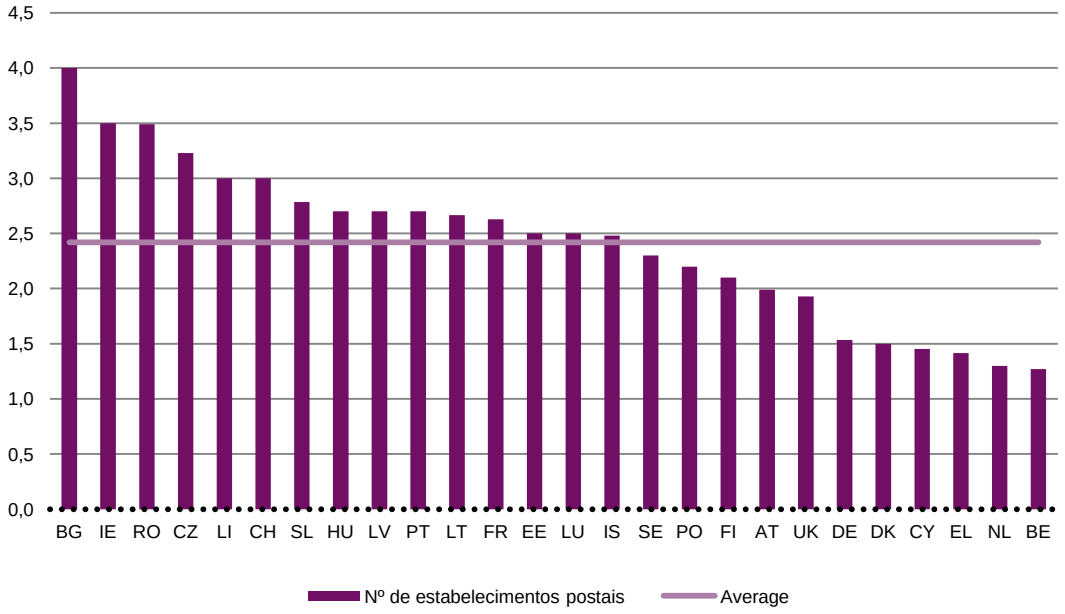


Source: CTT. Values at the end of each year.

In 2010, the total number of post offices fell from 900 to 884, while the number of postal agencies increased from 1990 to 2013.

In comparative terms, based on data contained in the study "Main Developments in the postal sector (2008-2010)" from Copenhagen Economics, an attempt was made to rank countries according to the number of postal establishments per 10 thousand inhabitants, whereby it was concluded that Portugal is 10th in the ranking of countries with higher postal density, out of a set of 26 countries, including the majority of EU countries.

Graph 31 - Number of postal establishments per 10 thousand inhabitants, 2009



Source: ICP-ANACOM, based on data in the Study "*Main Developments in the postal sector (2008-2010)*", from Copenhagen Economics.

5.3. Number portability and pre-selection

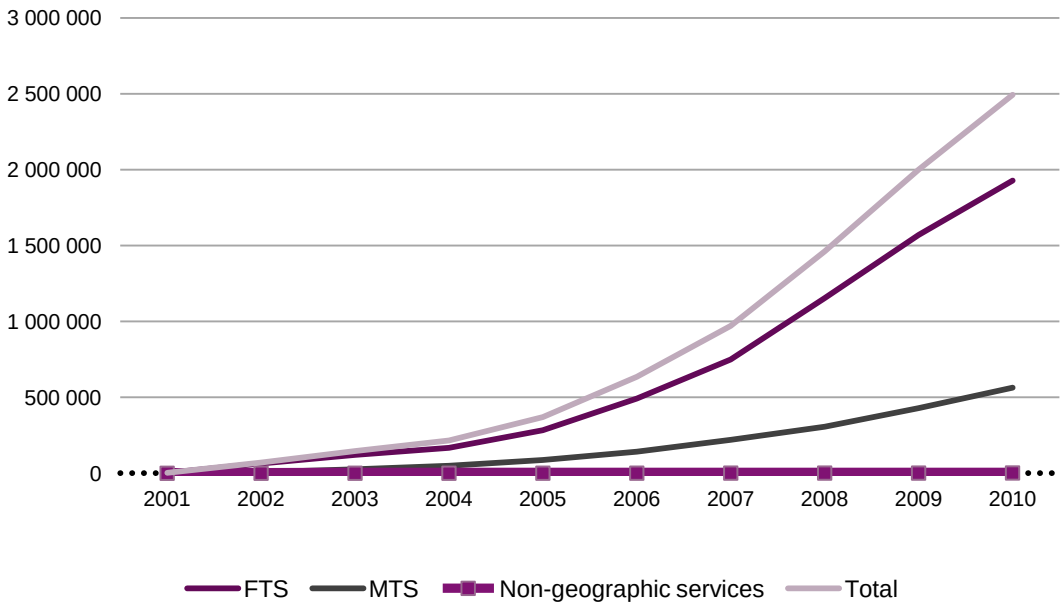
5.3.1. Portability

5.3.1.1. Evolution in ported numbers

Since the introduction of portability (in 2001) and as on 31 December 2010, 2,494,859 numbers have been ported (1,928,892 geographic numbers, 564,126 mobile numbers and 1841 other non-geographic numbers, the latter including two numbers ported in the "30" numbering range associated with the nomadic VoIP service).

The graph below shows the growth rate of ported numbers for geographic numbers and mobile numbers; an uptick is seen in the rate growth since 2004, due to a higher level of FTS competition.

Graph 32 - Evolution in the number of ported numbers



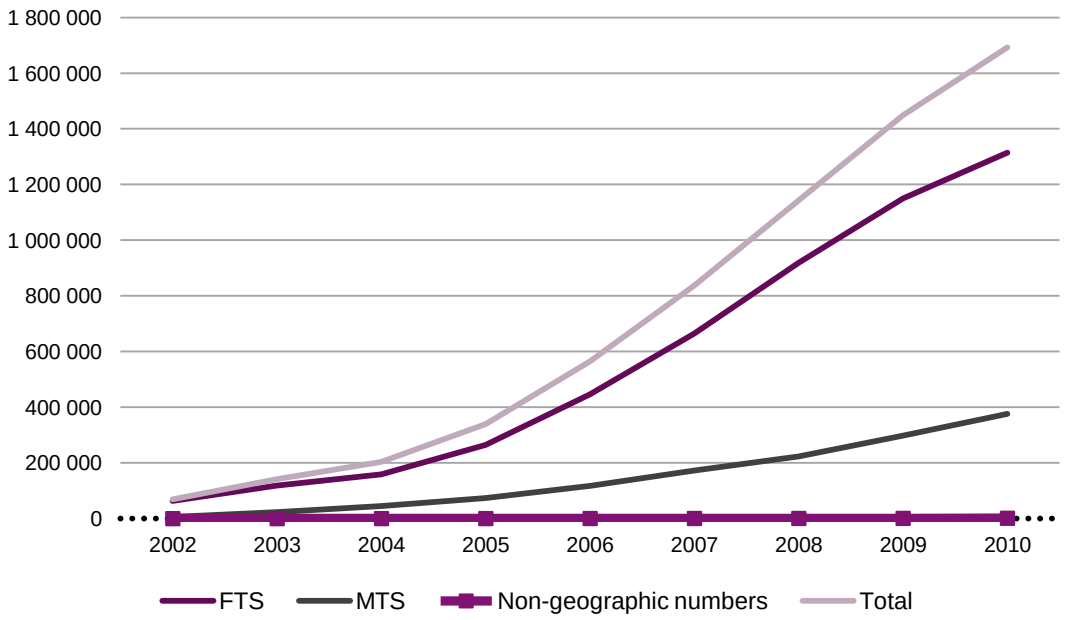
Source: ICP-ANACOM.

As in 2009, a low level of use of portability was reported in the mobile telephone service (MTS) during 2010. From 2009 to 2010, the rate of growth reported for mobile number portability (31.6 percent) exceeded the rate of growth reported for portability of geographic numbers (22.7 percent) but, in absolute terms, portability in the mobile service remains at a low level.

Evolution in terms of actual numbers ported (which reflects the quantity of numbers that are ported at any given time) is also shown, according to data recorded in the Reference Entity's database. Since portability can be used several times on the same number, where one client changes providers multiple times, including a return to their original provider, these values are lower than the values recorded in the previous graph.

As such, and as illustrated in the chart below, on 31 December 2010 there were 1,692,095 ported telephone numbers; this figure includes 1,314,178 geographic numbers (FTS), 376,445 mobile numbers (MTS) and 1,472 others non-geographic numbers (NGS) - this last category includes two ported numbers from the "30" numbering range.

Graph 33 - Evolution in the number of actual ported numbers in database



Source: ICP-ANACOM.

The proportion of FTS and MTS assigned numbers that were ported and the proportion of FTS customers with ported numbers, as at the end of the second half of 2010, can be seen in the following tables, with information broken down according to segment (residential and non-residential):

Table 15 - Proportion of numbers assigned to FTS customers, which are ported

	End of 2nd half of 2010
I. Total	17.5%
II. Residential segment	19.7%
III. Non-residential segment	14.9%

Source: Responses from providers to the six-monthly portability questionnaire.

Table 16 - Proportion of FTS direct access customers with ported numbers[32]

	End of 2nd half of 2010
Proportion of direct access FTS customers with ported numbers	15.5%

Source: Responses from providers to the six-monthly portability questionnaire.

Table 17 - Proportion of ported numbers, associated with mobile stations/MTS user equipment[33]

	End of 2nd half of 2010
I. Total	2,5%
II. Residential segment	1,3%
III. Non-residential segment	7,8%

Source: Responses from providers to the six-monthly portability questionnaire.

5.3.1.2. Evolution in portability deadlines between operators

The entry into force of the new Regulamento da Portabilidade (Portability Regulation) had an immediate effect in making number portability quicker, as can be seen in the graphs below.

Although the established deadlines do not differ by type of number, there is a more significant reduction in the timings associated with mobile number portability, due in particular to the imposition of a limit of three days to fulfil the end-user's request, with compensation payable to the customer per day of delay. Meanwhile, geographic number portability has an inherent delay, which is frequently associated with loop unbundling or the deployment of the recipient operator's own infrastructure.

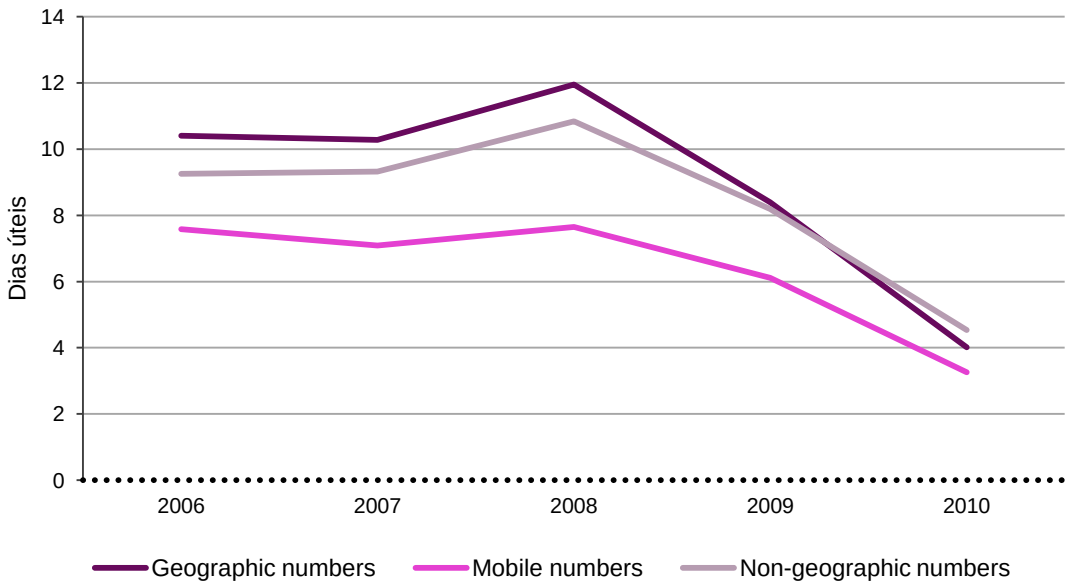
[32] Only numbers assigned to the end-customers of FTS providers themselves were considered. Numbers assigned to end-customers of other providers of electronic communications services using the numbering of the FTS providers were not considered.

[33] Active mobile stations/user equipment is considered as mobile stations/user equipment which, at the end of the period under consideration is eligible to make use of one of the services available on mobile networks (i.e., it is eligible to make or receive voice calls or messages or to access a data transmission service), without necessarily being used. However, the numbers associated with the following categories were not considered:

- mobile stations/user equipment associated with specific situations (operator tests, pre-active stations at agents/distributors, plans with minimum balance where no contractual relationship has been formalised, either by purchase of credits or by signing a contract);
- user mobile stations/user equipment supporting, exclusively, the mobile broadband service.

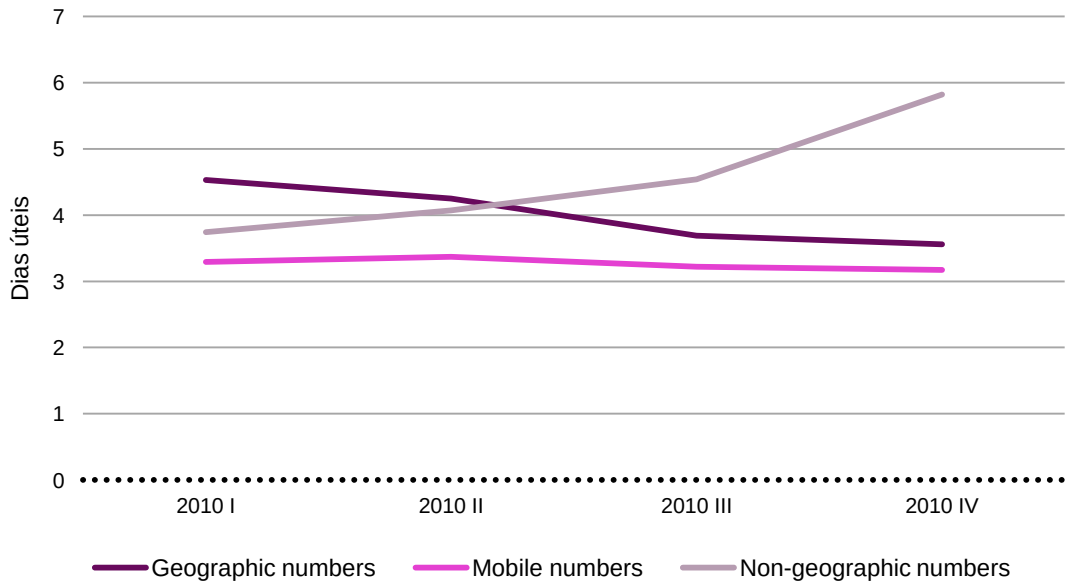
In the fourth quarter of 2010, portability timings in Portugal, for both FTS and MTS, were below the European average reported in 15th Implementation Report, which was given as 3.6 days and 3.2 days, respectively.

Graph 34 - Evolution of the deadlines for number portability



Source: ICP-ANACOM.

Graph 35 - Evolution reported in portability timings over10



Source: ICP-ANACOM.

5.3.1.3. Evolution in portability prices

ICP-ANACOM compiled information from companies providing MTS (including mobile virtual network operators (MVNO)) and companies providing FTS on prices charged to subscribers for portability operations (retail prices) and on prices charged to recipient providers (wholesale prices).

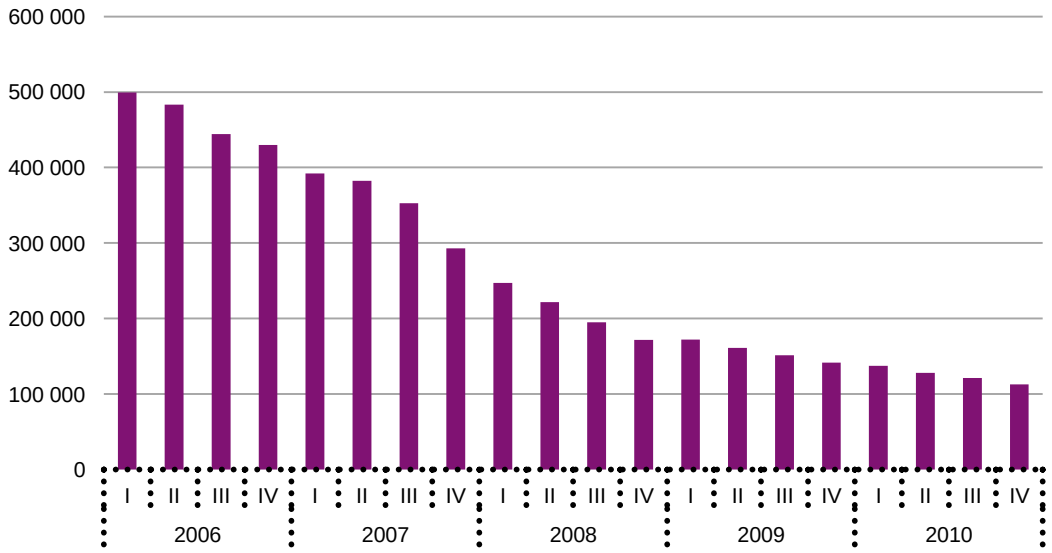
According to the information collected and disclosed on ICP-ANACOM's website, in the case of retail prices charged as at the end of 2010, it was found that, in general, MTS portability was provided free of charge (only one operator, in a business segment offer, reserves the right to charge a price of 30 euros per ported number). In the context of the FTS, it was found that nine out of fifteen providers of the service did not charge new customers who choose to keep their old number. The prices charged by FTS providers vary depending on the tariff plan or the market segment targeted, with a minimum value reported of 4.59 euros and a maximum value of 39.67 euros (excluding VAT). With respect to the nomadic VoIP service, it was found that portability is provided free of charge by six of the nine providers of this service, while the other three charge between 4.59 euros and 15 euros (excluding VAT).

In information compiled on wholesale prices, MTS and FTS providers, as well as providers of the nomadic VoIP service indicated that they charge the prices that are defined in the RIO, in accordance with the provisions of the Regulamento da Portabilidade (Portability Regulation).

5.3.2. Pre-selection

In line with the trend observed over recent years, the number of indirect access customers using pre-selection in 2010 continued to decline significantly, falling by about 20 percent since the end of 2009, as can be seen in the following graph.

Graph 36 - Evolution in the number of indirect access customers using pre-selection



Source: ICP-ANACOM.

This trend is due to the business plans of operators/service providers of electronic communications, which, in recent years, have focused on direct access (via their own network or via local loop unbundling) over indirect access.

5.4. International roaming

In 2010, there was a reduction in wholesale and retail prices associated with the international roaming service, as determined by Regulation (EC) no. 544/2009 of the Parliament and of the Council of 18 June 2009, which amends Regulation (EC) No 717/2007.

In this context, on 1 July 2010, the tariff caps established in the context of intra-EU/EEA[34] voice communications in roaming were reduced, and different caps were applied to the Eurotariff (retail level) and at wholesale level. As a result, the maximum value of the Eurotariff (Eurotariff Voice) which customers in the EU/EEA pay (excluding VAT) for

[34] EU member countries and also Iceland, Norway and Liechtenstein (European Economic Area - EEA). The geographical scope of the application of the new Regulation on roaming is due to be extended to the Member States of the European Economic Area - Norway, Iceland and Liechtenstein - under an EU/EEA agreement. However, until the Regulation enters into force in these countries, the first Roaming Regulation - Regulation (EC) no. 717/2007 - will continue to apply).

mobile voice communications made in roaming in the intra-EU/EEA region fell from 0.43 euros/minute (calls made) and 0.19 euros/minute (calls received) to 0.39 and 0.15 euros per minute respectively. In line with the previous year, Eurotariff is billed on a per-second basis and may, in the case of calls made, include an initial billing period not exceeding 30 seconds. In the case of the average wholesale price applicable by each operator, the maximum was reduced from 0.26 euros to 0.22 euros.

Meanwhile, the ceilings set in 2009 for the retail prices of SMS messages originating and terminating in the EU (Euro-SMS tariff) and for the average wholesale price (0.11 euros and 0.04 euros respectively - excluding VAT) were maintained. Furthermore, it was stipulated that SMS received in roaming will be free from 1 July 2010.

With respect to data communication services with packet switching used in intra-EU/EEA roaming, the average wholesale tariff, applicable since 2009, was reduced from 1.00 euro to 0.80 euro per megabyte downloaded, with no tariff ceiling applicable at retail level.

Since 1 July 2010, home providers have not charged customers for receiving voice mail messages while roaming. This does not prevent the application of other charges, including those related to listening to these messages.

The same Regulation also established new rules, applicable from 2010, which give the intra-EU/EEA roaming customer a better understanding of the roaming charges which apply to SMS and data communications, involving the provision of a free service that provides information on accumulated consumption, expressed in volume or in the customer's billing currency; this service guarantees that accumulated spending on regulated data roaming services over a given period of time does not exceed a specific financial limit (by default 50 euros for a monthly billing period) without the customer’s express consent.

Alternatively, the home provider may set limits in terms of volume, provided the client is informed in advance of the corresponding financial amount. One of these limits (the volume limit applicable by default) should correspond to not more than 50 euros of spending payable per monthly billing period (excluding VAT). The home provider may also offer their roaming customers other limits with different maximum monthly financial limits which are higher or lower.

It is noted that mobile operators in Portugal have been in compliance with the maximum values stipulated in the Regulations, and for some segments, have also made additional tariffs available to customers beyond those corresponding to these maximum prices.

ICP-ANACOM was engaged in various activities in 2010 related to the implementation of measures set out in this Regulation in the national territory, including, in particular:

- public disclosure of information about the application of the Regulation, in particular by updating the frequently asked questions (*FAQ*) on ANACOM's website;
- participation in the preparation and dissemination, in April 2010, of the fifth report of the Body of European Regulators for Electronic Communications (BEREC) - document BoR (10) 20), on the compilation of data on roaming which took place between April and December 2009;
- participation in the preparation and dissemination, in December 2010, of the BEREC report on the regulation of international roaming (Report on International Mobile Roaming Regulation), which sets out BEREC's opinion on the functioning and possible extension of the current Regulation;
- preparation and publication on ANACOM's website of a document that includes a range of information on international roaming, as well as specific data on the use of this service within the EU in the period from April 2007 to December 2009; certain indicators for the mobile operators working in Portugal are compared with the corresponding results obtained for all EU operators;
- update of information in the context of the *Roaming Light* information campaign launched on 24 June last year, aiming to make consumers aware not only of the new tariffs, but also of the new rules implemented in 2010, covering mobile phone and Internet access use in roaming*;*
- cooperation with other NRA in the context of BEREC's International Roaming Project Team in various related activities, including the preparation of questionnaires, compilation and processing of information relating to national operators, preparation of the report for the EC as part of its review of the Regulation, analysis of issues related to the interpretation of the new regulation, and others;

- monitoring of complaints about international roaming and performance of inspection and enforcement activities carried out pursuant to the tariff transparency measures provided for under the Regulation;
- presentation of a proposal to BEREC, following complaints made by an operator and also by consumers, preparation of a questionnaire to be sent out every six months to all its members, enabling this body to compile and subsequently disseminate information on the numbering ranges of the national numbering plans in the different Member States which are not subject to the tariff ceilings stipulated in the Roaming Regulation.

5.5. Analyzed retail offers

In 2010, an analysis was made of the tariff applying to calls made from PTC's network to other operators' networks based on the methodology defined in the determination of 14 December 2004 on the imposition of obligations in the narrowband retail markets, which is currently based on the valuation of the components:

(i) price of termination on the PTC network;

(ii) price of termination on OSP networks; and

(iii) PTC intra-network retail price;

according to the following rule:

PTC-OSP retail price = PTC-PTC retail price+ OPS Termination Price - PTC termination Price

whereas each component of the calculation indicated refers to the average price, per call, in terms of overall PTC-OSP traffic.

On 30 November 2009, PTC submitted a proposal to ICP-ANACOM with new tariffs for communications destined to direct customers of other providers (PTC-OSP), which it was proposed would enter into force on 01 February 2010. The proposal contained two separate tariffs - one applying to operators whose average termination prices are close to

the average price of termination on the network of PT (Colt, Equant and PT Prime) - Tariff Group 1, and a second tariff applying to the remaining operators - Tariff Group 2.

After an analysis of the proposal presented by PTC, and without prejudice to future review of its consequences in terms of transparency for users regarding the existence of intra-network and extra-network tariffs with substantially different structures, particularly as regards the existence of free periods, ICP-ANACOM concluded that:

(i) Regarding tariff group 1, the proposal presented by PTC consists of a tariff equal to that practiced by PTC for intra-network calls, whereby it was in compliance with the applicable obligations;

(ii) Regarding tariff group 2, it was found that the average price per call resulting from the PTC proposal does not present deviations from that resulting from the application of the defined rule, whereby tariff group 2 was also deemed to be in compliance with the applicable obligations;

Accordingly, by determination of 13 January 2010, ICP-ANACOM decided not to oppose the tariff proposal submitted by PTC, without prejudice to any applicable obligations of transparency.

Subsequently, on 12 February 2010, and following a change in the FTS base tariff within the scope of the US occurring on 19 February 2010, PTC submitted a new proposal to ICP-ANACOM to amend the tariff for communications to direct customers of other service providers, which was due to enter into force on 1 March 2010.

The proposal submitted by PTC consisted of two different tariffs, in line with the tariff which existed at the time. According to PTC, the tariff proposal consists of reducing and merging the price per minute for Local and National calls applicable to Group 2, whereas Tariff Group 1 is identical to the PTC intra-network tariff. The price proposal presented by PTC is detailed in the following tables.

Table 18 - PTC-OSP tariff proposal presented by PTC (Tariff Group 1)

	Tariff Group 1											
	Initial price (euros)				Time credit (minutes)				Price per minute (euros)			
	Working days 9am - 9pm	Weekdays 21h-09h	Weekends and holidays 09am - 9pm	Weekends and holidays 09am - 9pm	Working days 9am - 9pm	Weekdays 21h-09h	Weekends and holidays 09am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 21h-09h	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm
Local	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0258	0.0084	0.0084	0.0084
National	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0258	0.0084	0.0084	0.0084

Source: PTC. Values without VAT.

Table 19 - PTC-OSP tariff proposal presented by PTC (Tariff Group 2)

	Tariff Group 2											
	Initial price (euros)				Time credit (minutes)				Price per minute (euros)			
	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm
Local	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0338	0.0100	0.0100	0.0100
National	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0338	0.0100	0.0100	0.0100

Source: PTC. Values without VAT.

After an analysis of the proposal presented by PTC, it was concluded that both tariff group 1 and tariff group 2 were compliant with applicable obligations, and it was noted that the merger of the local and national price categories into a single category simplifies the tariff structure. The proposal comes in a context of technological evolution where call distance tends to have less influence on costs, and it also promotes transparency by replicating the structure of PTC's intra-network tariff.

As such, by determination of 23 February 2010, ICP-ANACOM decided to declare the conformity of the proposal with applicable regulatory principles, particularly with regard to the obligations set out in the determination of 14 December 2004.

On 8 November 2010, PTC submitted a new proposal to ICP-ANACOM for the tariff applying to communications to direct customers of other service providers, which is due to enter into force on 1 January 2011. This proposal follows the change in the FTS base tariff in the context of the US, submitted to ICP-ANACOM on 22 October 2010.

The proposal submitted by PTC in this respect consisted of two different tariffs, maintaining the distinction between operators whose average termination prices are close to the average price of termination on PT's network (tariff group 1), and the remaining operators (tariff group 2). The proposal did not set out changes to tariff group 1, while proposing an increase in the price of communications during peak hours (from 0.0338 to 0.0351 euros per minute) in tariff group 2.

After an analysis of the proposal presented by PTC, it was concluded that both tariffs (group 1 and group 2) were compliant with the applicable obligations, given that the average prices per call under each tariff did not differ significantly from the average prices resulting from the application of the established rule. Subsequently, by determination of 19 November 2010, ICP-ANACOM decided to declare that PTC's proposal was compliant with the applicable principles of regulations.

The price proposal approved in the determination of 19 November 2010 is detailed in the following tables.

Table 20 - PTC-OSP tariff proposal presented by PTC (Tariff Group 1)

	Tariff Group 1											
	Initial price (euros)				Time credit (minutes)				Price per minute (euros)			
	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm
Local	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0258	0.0084	0.0084	0.0084
National	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0258	0.0084	0.0084	0.0084

Source: PTC. Values without VAT.

Table 21 - PTC-OSP tariff proposal presented by PTC (Tariff Group 2)

	Tariff Group 2											
	Initial price (euros)				Time credit (minutes)				Price per minute (euros)			
	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm	Working days 9am - 9pm	Working days 9pm to 9am	Weekends and holidays 9am - 9pm	Weekends and holidays 9am - 9pm
Local	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0351	0.0100	0.0100	0.0100
National	0.0700	0.0700	0.0700	0.0700	1.00	1.00	1.00	1.00	0.0351	0.0100	0.0100	0.0100

Source: PTC. Values without VAT.

5.6. User support

5.6.1. Project to set up the national arbitration centre

In 2008, ICP-ANACOM carried out a study to look at non-judicial means of dispute resolution in the electronic communications sector. Based on the results of this study, in June 2008, ICP-ANACOM decided to launch a project to set up a national arbitration

centre specializing in the electronic communications sector, making this project a part of its management plans.

Between 2009 and 2010, ICP-ANACOM completed all the administrative steps necessary for the creation and implementation of the centre. However, the position expressed by potentially interested parties lacked the level of commitment required to pursue this initiative, and so, in July 2010, ICP-ANACOM decided to suspend the project.

Since then, ICP-ANACOM has been examining other avenues of action which, taking advantage of the mechanisms and structures already existing in Portugal, allow this Authority to engage in the fulfilment of its responsibilities in encouraging the settlement of disputes in the electronic communications sector.

5.6.2. Awareness campaign on value-added services (VAS) and provision of information to the public

In 2010, ICP-ANACOM and Direcção-Geral do Consumidor (Directorate General for the Consumer) launched a joint initiative on message-based valued added services. This included the launch of an information campaign on 15 March 2010, World Consumer Rights Day, to provide the general public with clear information on message-based valued added services.

The campaign was based, fundamentally, on the widespread distribution of a leaflet provided at all CIAC - Centros de Informação Autárquicos ao Consumidor (Municipal Consumer Information Centres).

The leaflet clearly outlines what these services are and how they can be identified, how these services are subscribed to and how they can be cancelled. The leaflet also provides information on the conditions governing the provision of these services, including subscription costs, as well as the authorities which enforce compliance with applicable rules. This initiative is part of ICP-ANACOM's strategic objective to assure and protect the rights of users and citizens in general.

Further to this campaign, information was released on matters of special interest to consumers, particularly on the unlocking of equipment, on rules governing international

roaming in the EU and their growing application to data service, as well as information on the portability of numbers through frequently asked questions (FAQ) provided on ICP-ANACOM's website, notably through the virtual assistant "*A ANACOM responde*". On portability, in particular, information was published on ICP-ANACOM's website highlighting a number of irregularities detected in its functioning, deemed as being non-compliant with the Regulamento da Portabilidade (Portability Regulation), in particular regarding the maximum period of three days for portability of mobile telephone numbers and regarding the payment of compensation when this deadline is not met.

Also within the scope of the measures undertaken to strengthen the protection of consumer interests, and with conclusion of the study in 2009 on the internal procedures of the providers of electronic communications services for handling of complaints, by determination of 10 February 2010, ICP-ANACOM approved the following lines of action:

- definition of conditions to impose on service providers in the handling of complaints;
- periodic collection of information to support oversight and regulation;
- evaluation of the enforcement and execution of the proposed regulatory framework.

In 2011, ICP-ANACOM will evaluate the possible adoption of measures implementing the approved lines of action.

5.7. Communication security

In the field of communications security, several actions were undertaken during 2010, as outlined below.

5.7.1. Technical advice with respect to E112

ICP-ANACOM held a meeting on locating calls originating on mobile networks, taking place in the 112.pt Centro Operacional Sul (South Operations Centre) with the presence of the operators involved. In addition to the onsite observation, a way was put forward to improve this feature in the light of obtained experience.

A such the requests for assistance submitted to ICP-ANACOM were satisfied and work was begun with operators and entities responsible for emergency services to bring about ongoing improvements to location accuracy and reliability with respect to mobile calls to the 112 European single emergency number, taking into account the regulatory change in line with the new regulatory package.

5.7.2. Sub-registry

In 2010, the necessary actions were developed with the Autoridade Nacional de Segurança (National Security Authority) to provide ICP-ANACOM's sub-registry with an electronic information security system, the exchange of classified material between Agência Nacional de Distribuição (National Distribution Agency) and the sub-registry by electronic means, allowing a streamlining of the process. This is due to implemented shortly.

In parallel, a process was undertaken to accredit the employees of ICP-ANACOM involved, who attended the Curso Geral de Segurança de Matérias Classificadas (General Course on Security of Classified Matters) at the Gabinete Nacional de Segurança (National Security Office).

5.7.3. Communications security exercise

On 4 November 2010, ICP-ANACOM participated in the first pan-European exercise, "Cyber Europe 2010", included in the European Action Plan for communications security (Commission Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the protection of critical infrastructure information - "Protecting Europe from large scale cyber-attacks and disruptions: enhancing preparedness, security and resilience", COM (2009) 149 final of 30 March 2009).

This exercise saw participation by 30 European countries (22 participating actively in the exercise and 8 as observers) and was organized by seven Member States of the Union with the joint support of the European Network and Information Security Agency (ENISA) and the EU Joint Research Centre; it involved about 70 public agencies.

Portuguese participation in the planning exercise was led by ICP-ANACOM, which also provided national representation in the European central cell. Nationally, ICP-ANACOM established and coordinated the national cell, with participation during the exercise involving Fundação para a Computação Científica Nacional (Foundation for National Scientific Computing). Meanwhile, at a national level, the following participated as observers: Gabinete Nacional de Segurança (National Security Office), CEGER - Centro de Gestão da Rede Informática do Governo (Government Information Network Management Centre), Serviço de Informações da República Portuguesa (Information Service of the Portuguese Republic), Sistema de Segurança Interna (Internal Security System), Conselho Nacional de Planeamento Civil de Emergência (National Council for Civil Emergency Planning) and Autoridade Nacional de Protecção Civil (National Authority for Civil Protection), which also took part in the preparation and concluding works of the exercise.

In their provisional findings, the participants of the EU Member States considered that the "cyber-stress test" was useful for the public authorities involved and there was interest in pursuing this type of exercise, focusing in future years on: the creation of a pan-European contingency plan to respond to cyber incidents and other large-scale events; wider participation of the private sector; and the exchange of lessons learned with other national or international exercises.

5.7.4. Applicational system for notification of failures

During 2010 an analysis was made of the legal framework that will govern this initiative; it was concluded that it was fitting to wait for the publication of changes to the regulatory framework, entering into force in May 2011.

6. To promote open and competitive markets / To assure and protect the interests of users and citizens in general - Management of scarce resources and digital terrestrial television (Objectives 1+2)

The management and efficient use of the radio spectrum is an essential condition for ensuring the development of various economic activities that use this scarce resource, providing benefits to consumers and citizens in general.

This section of the report covers a range of aspects analysed and given follow-up by ICP-ANACOM in terms of management of the radio spectrum (including measures to promote flexibility in its use and application of the principle of technological neutrality) and in terms of the allocation of numbering resources.

6.1. Radio spectrum management

6.1.1. National Table of Frequency Allocations (NTFA)

With a view to the future publication of the 2010/2011 NTFA, a review was made of data contained in the current version and the allocation tables were updated to include new ECC and EC Decisions, with an update of the spectrum available in the context of electronic communications services/radiocommunications applications and an update of license-exempt equipment, among other points.

There were also developments, in this regard, on the frequency information website (called e-NTFA), which was in the process of implementation; with this website, it is possible to consult and search information interactively, in the context of frequency planning, allocations and national spectrum use.

6.1.2. Reorganization of the 900 MHz and 1800 MHz bands

Under the terms of Directive no. 2009/114/EC of the European Parliament and of the Council of 16 September, amending Directive 87/372/EEC of the Council on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community, Member States are to make the 880-915 and 925-960 MHz (900 MHz band) frequency bands available for GSM and

UMTS systems, as well as for other terrestrial systems capable of providing electronic communications services that can coexist with GSM systems, in accordance with the technical implementing measures adopted pursuant to Decision no. 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision). Meanwhile, EC Decision 2009/766/EC of 16 October 2009 made provision for the harmonisation of conditions for the release and efficient use of the 900 MHz and 1800 MHz frequency bands for terrestrial systems, other than GSM and UMTS systems, capable of providing electronic communications services, provided that such systems guarantee coexistence with GSM and UMTS. These systems must also provide adequate protection to systems operating in adjacent bands. The technical conditions for the implementation of other systems not mentioned in the annex to the Decision will be defined after concluding compatibility studies in the context of the European Conference of Postal and Telecommunications Administrations (CEPT).

In accordance with these Community documents, on 31 March 2010, ICP-ANACOM determined changes to the NTFA, eliminating the technological restrictions previously imposed on the provision of the MTS in the 900 MHz (880-915 MHz and 925 -960 MHz) and 1800 MHz (1710-1785 MHz and 1805-1880 MHz) frequency bands, and providing for the so called *refarming* of GSM/UMTS spectrum.

The implementation of the decision and of the directive gives operators greater flexibility in terms of the technology which can be used in the 900 MHz and 1800 MHz bands. As such, Optimus, TMN and Vodafone Portugal were able to use UMTS technology in these bands, making the provision of coverage, of population and area, more efficient.

6.1.3. Unification of the rights of use of GSM and UMTS

By determination of 8 July 2010, ICP-ANACOM decided, in the context of the *refarming* of the radio spectrum in the 900 MHz and 1800 MHz frequency bands, to unify the conditions governing the exercise of the rights of use of frequency granted to Optimus, TMN and Vodafone Portugal to provide the land mobile service in one title, in accordance with the conditions laid down in EC Decision 2009/766/EC of 16 October 2009 and Directive no. 2009/114/EC of the European Parliament and of the Council of 16 September 2009, amending Directive no. 87/372/EEC of the Council.

6.1.4. Digital Dividend (790-862 MHz)

Following the public consultation launched in 2009 and in view of subsequent developments, particularly at European level, and given the importance of taking decisions on this subject, in September 2010 ICP-ANACOM submitted a draft decision to public consultation, with a view to:

- designating and releasing the 790-862 MHz sub-band for electronic communications services in accordance with Decision 2010/267/EU and amending the NTFA accordingly, and
- making this sub-band available before 2015, depending on the definition of technical and geographical conditions, which aim, in particular, to reconcile usage of Spain and Morocco.

By decision of 16 December 2010, ICP-ANACOM decided to maintain the content of the draft decision, assigning and releasing the 790-862 MHz sub-band for the provision of electronic communications services.

6.1.5. Broadband wireless access (BWA)

By determination of 14 October 2009, this Authority approved Regulation No. 427/2009, as amended by Statement No. 2930/2009 of 27 November, for the allocation of rights of use of frequencies for BWA in the 3400-3600 MHz and 3600-3800 MHz frequency bands, following public consultation.

Under this regulation, the auction selection procedure was begun in December 2009, representing the first auction of frequencies to take place in Portugal. Following the trend that has been observed globally in the telecommunications sector, use of this procedure sought, in particular, to promote efficient allocation and use of spectrum, as well as flexibility in the implementation of commercial operations by companies holding radio spectrum.

Following approval of the respective Regulation, applications were submitted by three undertakings: Bravesensor, Unipessoal Lda (Bravesensor), Município de Sintra

(Municipality of Sintra) and OniTelecom - Infocomunicações, S.A. (Onitelecom), which applications were all allowed.

The auction comprised two rights of use of frequencies in each of nine geographic zones[35], with one corresponding to one lot of two 28 MHz blocks in the 3400-3600 MHz frequency sub-band and two rights of use of frequencies in each of the nine geographic areas, each corresponding to one lot of two 28 MHz blocks in the 3600-3800 MHz frequency sub-band. The rights in question refer to the provision of publicly available fixed, nomadic and mobile electronic communications services and are not tied to the use of a specific technology.

Operators which held rights of use of frequencies in the 3400-3800 MHz frequency band and which had been designated in Portugal with significant market power in wholesale broadband access were barred from this auction, as were operators with rights of use of frequencies in Portugal for the provision of the publicly available MTS. It was ICP-ANACOM's intention with this decision, on the one hand, to foster competition in the provision of broadband and, on the other hand, to promote more efficient spectrum use.

The first phase of the auction, called the distribution phase, where candidates reveal their preferences and the price they assign to each combination of the number of lots sought for each geographic zone, was initiated in January 2010 and ended with the determination of two winners - Bravesensor and Onitelecom. These companies proceeded to the second phase - assignment phase - revealing their preferences for the 3400-3600 and 3600-3800 frequency sub-bands for lots assigned to them in the distribution phase.

Upon conclusion of these procedures, the auction result determined that Bravesensor obtained rights of use of frequencies corresponding to eleven lots, spread over eight geographical areas and with a final price of 2,251,000 euros, and Onitelecom obtained rights of use of frequencies corresponding to seven lots, one in each of seven regions, with a final price of 1,200,000 euros.

After payment of the sums due, ICP-ANACOM issued the titles authorising the operation of BWA in the 3400-3600 MHz and 3600-3800 MHz frequency bands to Bravesensor

[35] Territorial division according to the areas defined in annex to Administrative Rule no. 1062/2004 of 25 August.

(changing its name in the meantime to ZAPPWIMAX) on 5 August 2010 and to Onitelecom on 16 September 2010.

The rights in question were awarded for a period of 15 years, whereas commercial operations of services are to be initiated within 2 years from the issue date of the respective titles.

Since the winning bidders obtained lots in different regions (with only geographic zone 9, corresponding to the Madeira archipelago, remaining with no allocated lots), ICP-ANACOM accomplished a key objective, which was to enable the development of commercial operations in info-excluded areas. Meanwhile, the speed with which the auction was concluded, once started, and the allocation of a significant proportion of the contested lots (50 percent), leads to the conclusion that this procedure for granting rights of use was successful; it also gave ICP-ANACOM know-how in designing and conducting auctions, which will be a very useful asset in the future.

6.1.6. Introduction of mobile communication services on board vessels

By determination of 1 July 2010, approval was given to the draft decision on the introduction of mobile communication services on board vessels (MCV) using the 880-915/925-960MHz and 1710-1785/1805-1880MHz frequency bands. In light of the conclusions presented, the final decision of ICP-ANACOM was approved in early 2011 (January 6), determining:

- to alter the contents of the NTFA to allow the use of the 1710-1785/1805-1880 MHz and 880-915/925-960 MHz frequency bands for MCV services in territorial waters, between two and twelve nautical miles from the baseline;
- authorize the operation of MCV systems in the 1710-1785/1805-1880 MHz and 880-915/925-960 MHz frequency bands, subject to the general authorization regime, in accordance with the provisions of the LCE;
- to subject MCV service providers to the conditions provided for in paragraph 1 of article 27 of the LCE;

- to exempt radio networks consisting of base stations and mobile stations which provide services associated with MCV in vessels from radio licensing, subject to the licensing of the competent maritime authority;
- to waive payment by MCV operators of spectrum user fees for the use of frequencies.

6.1.7. Update of the technical specifications of radio interfaces

In light of the Provisions of Decree-Law no. 58/2000 of 18 April, notification was made to the EC through IPQ - Instituto Português de Qualidade (Portuguese Institute of Quality) of the draft technical specifications for radio interfaces. On 29 March 2010, after careful consideration of comments conveyed by IPQ about the project, changes were made that allowed the final drafting of the technical specifications for radio interfaces, in the various services including short-range and low power stations (SRD - Short Range Devices), the amateur service, the aeronautical radionavigation service, the maritime radionavigation service, the fixed service, the fixed-satellite service, the aeronautical mobile service, the maritime mobile service, the mobile satellite service (MSS), the MTS and the broadcasting service.

6.1.8. Radio licensing

This area of activity comprises the issue of network and station licenses to the various radiocommunication services, particularly in the areas of mobile services and radiodetermination services (public and private networks), the fixed and satellite service and the broadcasting service (radio and television), in accordance with the provisions of Decree-Law no. 151-A/2000 of 20 July, as amended by Decree-Law no. 264/2009 of 28 September.

ICP-ANACOM is responsible for the analysis and handling of the respective licensing procedures, including the allocation of frequencies. The distribution of radio licensing activities among the various radio services during 2010 is shown in table **Table 22**.

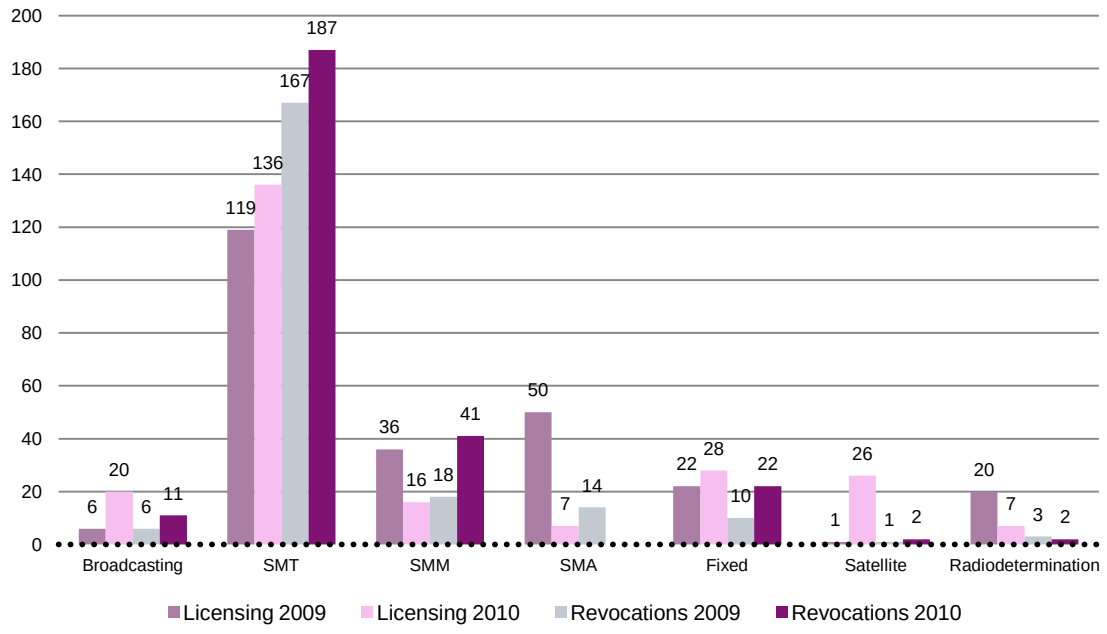
Table 22 - Radio licensing activities by radiocommunications service in 2010

Radiocommunications Service		New Licenses		License Alterations		Temporary licensing		Miscellaneous requests
		Station	Network	Station	Network	Station	Network	
Mobile	Terrestrial Private Networks	–	136	–	133	–	354	433
	Terrestrial Public networks (GSM)	–	–	–	30	–	2	18
	Terrestrial Public Network (UMTS)	–	–	–	54	–	–	18
	Terrestrial Trunking Networks	–	–	–	3	–	–	1
	Maritime Private Networks	16	–	39	–	–	–	63
	Maritime Public networks	–	–	–	–	–	–	–
	Aeronautical	7	–	8	–	–	–	9
Fixed	Fixed stations (Bands below 30 MHz)	–	–	–	–	–	–	–
	Point-Point Networks (Bands below 1 GHz)	–	–	–	1	–	1	373
	Point-Point Networks (Bands above 1 GHz)	–	13	–	109	–	–	254
	Point-Multipoint Networks (Bands below 1 GHz)	–	3	–	–	–	–	–
	Point-Multipoint Networks (Bands above 1 GHz)	–	–	–	1	–	–	3
	Studio-Transmitter Networks	–	11	–	14	–	7	69
	Transportable Connections Networks	–	–	–	–	–	–	3
Satellite Services	Fixed Satellite Earth Stations	1	–	–	–	–	–	–
	Fixed Satellite SNG stations	2	–	6	–	47	–	–
	Fixed Satellite VSAT Networks	–	–	–	3	–	–	–
	Space Operations Earth Stations	22	–	1	–	–	–	3
Broadcasting	Radio (Analogue)	19	–	18	–	31	–	137
	Radio (Digital)	–	–	–	–	–	–	–
	Television (Analogue)	–	–	–	–	–	–	45
	Television (Digital)	–	–	–	11	–	–	45
Radiodetermination	Radiodetermination Stations	–	8	–	1	–	–	35
Meteorological Aids	Radiosondes	–	2	–	–	–	–	8
SAP/SAB Applications		–	–	–	–	112		–

Source: ICP-ANACOM.

The following graph shows the licensing activity by type of service for the years 2009 and 2010.

Graph 37 - Licensing and revocations in the period 2009-2010



Source: ICP-ANACOM.

With regard to the land mobile service - UMTS - there was a slight decrease in the number of new stations registered in 2010, with 703 new registrations, compared to 825 in 2009.

A slight decrease was also reported for GSM networks, with 553 new stations registered compared to 580 registered in 2009.

With regard to the fixed service, 13 licenses were allocated and changes were made to 109 licenses, corresponding to radio networks of operators, including Optimus, Vodafone Portugal, PT Comunicações and Onitelecom which, together, installed 1,018 fixed stations, providing 509 new point-point links.

Meanwhile, on the digital television broadcasting network of PT Comunicações, 81 new stations were activated in 2010 and 63 others were altered.

In the context of satellite radio services, 47 temporary SNG (*Satellite News Gathering*) station licenses were issued, used to cover events in Portugal during 2010, with notable events including the visit of the Pope and the NATO summit.

Meanwhile, in terms of temporary licenses granted in respect of the land mobile service - 354 licenses were granted for private networks and 112 temporary licenses were granted in respect of services ancillary to broadcasting, covering a total of 326 SAP/SAB applications. Temporary licenses are usually granted for the operation of radiocommunications networks and stations to support short duration events.

6.1.9. Amateur and amateur satellite services

In 2010, the procedures laid down in Decree-Law no. 53/2009 of 2 March were consolidated, in the context of managing the amateur and amateur satellite service, with emphasis on the development of the following activities:

- update of data (names and addresses) of radio amateurs of the Mainland and of the Autonomous Regions;
- issue and sending of approximately 6,000 CAN - certificados de amador nacional (national amateur certificates);
- update of data associated with LEUC - licenças de estação de uso comum (non-proprietary station licenses);
- publication, on ICP-ANACOM's website, of all updated information on amateurs, amateur associations, CAN and LEUC;
- update of the list of Portugal prefixes in the ITU;
- update of data of additional stations;
- completion of the review of amateur radio exam questions;
- implementation of improvements in the application that supports management of these radiocommunication services.

At an operational level, 1,928 requests were received in 2010, with 1,899 concluded, which represents a processing rate of 98.8 percent. The average time for processing such requests was 10.1 days.

6.1.10. Protection of radiocommunications networks and stations

Pursuant to the licenses and authorizations granted for their operation and use, ICP-ANACOM is obliged, in the context of its powers and responsibilities, to provide radio networks and stations with the necessary and possible protection, in order to safeguard their operation and so that they can pursue their goals.

Pursuant to Decree-Law no. 597/73 of 7 November, some of these radio links and radiocommunication stations enjoy special protection through the creation of administrative easements which place restrictions on the construction and siting of obstacles in areas defined in such easements. In this context, ICP-ANACOM is asked to give an opinion on the feasibility of installing buildings and infrastructure in these areas, of creating areas subject to detailed plans and to land development plans, opinion on the feasibility of installing wind farms and energy transmission lines, constructing roads and rail, hydroelectric plants, quarries, etc. In particular, ICP-ANACOM has been asked to assess projects and issue opinion on the feasibility of installing radiocommunications infrastructure, pursuant to Decree-Law no. 11/2003 of 18 January.

The Authority has also sat on several monitoring committees to review PDM - planos directores municipais (Municipal Director Plans), representing the Government, participating in meetings of these committees, providing input with a view to the development of PDM and issuing opinions on such plans.

ICP-ANACOM handled 340 requests for advice in this area during 2010.

In the context of the objectives established for the year in question:

- a survey was conducted of all pending radio easement formation cases, identifying the obstacles to their completion, in order to carry out notification to applicants during 2011;
- digital files were created containing the geo-tagging of hertzian links and radio centres with associated radio easement so that this information can be made available on ICP-ANACOM's website, in order to provide clear information to project managers and reduce the number of requests for opinions submitted to this Authority.

6.2. Numbering

6.2.1. Creation of a specific code (703) in the Plano Nacional de Numeração (National Numbering Plan) for electronic communications services on non-publicly available private networks and definition of the conditions to be applied

By determination of 19 November 2010, ICP-ANACOM approved the final decision on the creation of a specific "703" code in the PNN - Plano Nacional de Numeração (National Numbering Plan) for the provision of electronic communications services over non-publicly available private networks. Conditions were also established to govern the allocation and use of numbers associated with these services.

This decision was based on a request made by REFER TELECOM, which expressed a need for NNP numbering resources for the operation of its GSM-R network. In this sense, the company requested a mobile network code (MNC, pursuant to ITU-T recommendation E.212) and a national code (NDC, pursuant to ITU-T recommendation E.164).

In analyzing the request the following premises were considered:

- by determination of 6 August 2008, ICP-ANACOM authorized REFER TELECOM to operate the GSM-R system in the 876-880 MHz and 921-925 MHz frequency bands under the general authorization regime, according to the provisions of the LCE; operation of this system was made subject to the conditions deemed applicable (article 27 of the LCE), including the technical conditions set out in Decision ECC/DEC(02)05;
- the NTFA was amended, following the same determination, with respect to non-publicly available networks and electronic communications services, assigning and reserving the above frequency bands to the GSM-R system;
- the use of numbers depends on the allocation of rights of use of numbers by ICP-ANACOM, which allocation must be made according to procedures which are open, transparent and non discriminatory.

As a result of its analysis, ICP-ANACOM deemed that REFER's request could not be satisfied entirely using numbering ranges already constituted in the PNN, whereby it was necessary to define and designate a new service code for this purpose.

As such, ICP-ANACOM saw fit to submit the draft determination on the creation of a new code in the NNP to the general consultation procedure laid down in said article 8, and also to the prior hearing of the company under the CPA - Código de Procedimento Administrativo (Administrative Proceeding Code), after which the determination was approved.

6.2.2. Allocation of rights of use of numbers for electronic communications services

The following tables contain data on trends in the allocation of rights of use of numbers, including the volume of numbers resulting from allocations made during 2010, and the volume of recovered numbers.

Table 23 - Geographic numbers - evolution reported in the national situation

Year	Allocated and/or Reserved (A) or Recovered (R)	Geographic numbers			
		Lisbon Geographic Area	Geographic Area of Porto	Other geographical areas	Totals
2007	A	110 000	50 000	420 000	580 000
	R	10 000	0	0	10 000
2008	A	190 000	70 000	1 040 000	1 300 000
	R	10 000	10 000	590 000	610 000
2009	A	180 000	60 000	30 000	270 000
	R	0	0	490 000	490 000
2010	A	280 000	160 000	170 000	610 000
	R	0	0	0	0

Source: ICP-ANACOM.

Table 24 - Non-geographic numbers - evolution of the national situation

Year	Allocated and/or Reserved (A) or Recovered (R)	Nomadic VoIP Services	Short numbers	Translation and voice mail services	Data Services (ISP)	MTS	Totals
2007	A	180 000	9	120 000	0	1 400 000	1 700 009
	R	0	4	0	400	0	404
2008	A	290 000	5	164 503	300	2 600 000	3 054 808
	R	50 000	8	140 000	400	350 000	540 408
2009	A	70 000	2	0	0	1 500 000	1 570 002
	R	120 000	6	160 000	0	0	280 006
2010	A	100 000	0	21 100	0	0	121 100
	R	0	2	10 000	0	0	10 002

Source: ICP-ANACOM.

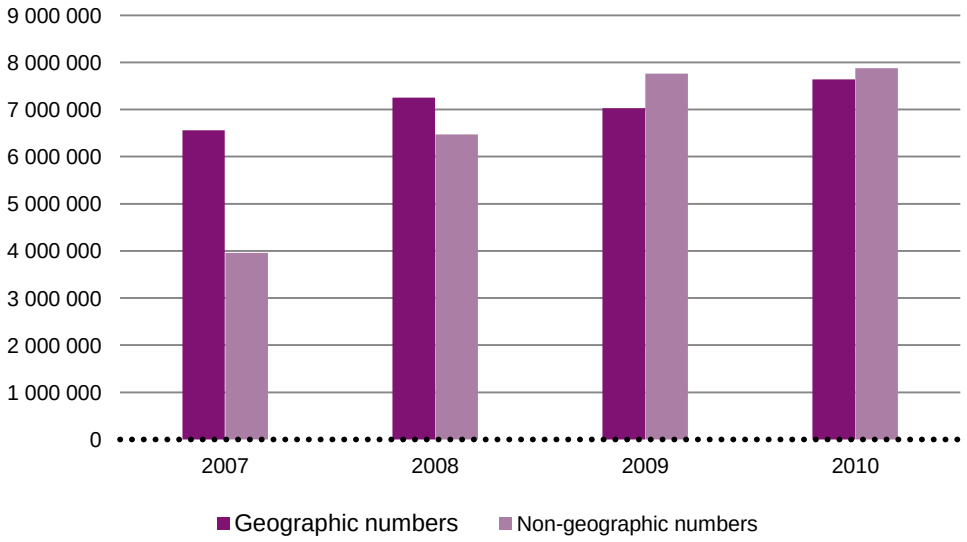
The evolution reported since 2007 in the accumulated values of allocated numbers assigned at national level is presented below; in 2010 the growth of non-geographic numbers continued, although with a reduction in demand over the previous year, and an increase in geographic numbers, reversing the decline reported in 2009.

Table 25 - Accumulated value of numbers allocated nationally

Year	Geographic numbers	Non-geographic numbers
2007	6 560 000	3 959 655
2008	7 250 000	6 474 055
2009	7 030 000	7 764 051
2010	7 640 000	7 875 149

Source: ICP-ANACOM.

Graph 38 - Accumulated value of numbers allocated nationally



Source: ICP-ANACOM.

6.2.3. Allocation of numbers to audiotext and message-based valued added services

The following tables show data on the evolution in the allocation of rights of use of numbers to Audiotext companies, where much higher volume is reported in the return of numbers than in their allocation, reflecting a significant decrease in this activity in 2010.

Table 26 - Audiotext numbers - national evolution

Year	Allocated and/or Reserved (A) or Recovered (R)	Numbers for audiotext services[36]					
		General (601)	Tele-voting (607)	Sales (608)	Contests and competitions (646)	Erotic (648)	Totals
2007	A	4 000	2 000	2 000	1 000	1 000	10 000
	R	1 000	2 000	1 000	1 000	0	5 000
2008	A	2 000	1 000	2 000	1 000	1 000	7 000
	R	3 000	0	0	0	0	3 000
2009	A	0	1 000	0	0	1 000	2 000
	R	1 000	0	0	0	0	1 000
2010	A	0	3 000	0	0	0	3 000
	R	2 000	3 000	1 000	2 000	2 000	10 000

Source: ICP-ANACOM.

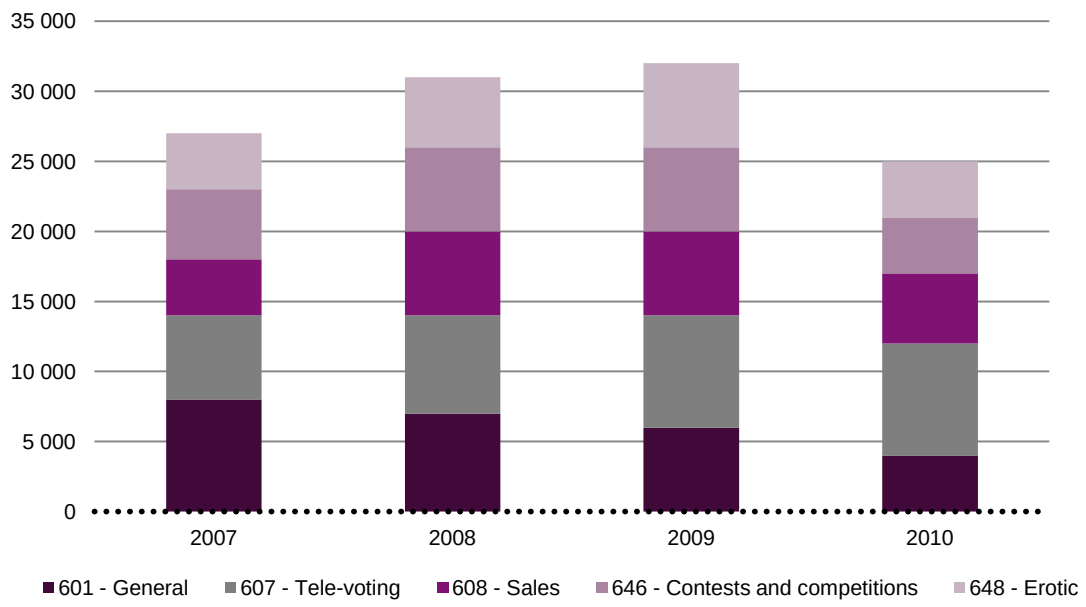
[36] The numbers are allocated in blocks of 1,000.

Table 27 - Accumulated value of numbers allocated nationally

Year	Audiotext					Totals
	General (601)	Tele-voting (607)	Sales (608)	Contests and competitions (646)	Erotic (648)	
2007	8 000	6 000	4 000	5 000	4 000	27 000
2008	7 000	7 000	6 000	6 000	5 000	31 000
2009	6 000	8 000	6 000	6 000	6 000	32 000
2010	4 000	8 000	5 000	4 000	4 000	25 000

Source: ICP-ANACOM.

Graph 39 - Accumulated value of audiotext numbers allocated nationally



Source: ICP-ANACOM.

In 2009, with the publication of Decree-Law no. 63/2009 of 10 March on message-based valued added services, allocation was begun of rights of use of numbers with the codes established by ICP-ANACOM for this activity.

During 2010 the allocation of rights of use of these same types of numbers continued. Meanwhile, there have been some returns and some procedures taking place for the transmission of rights of use of numbers between companies.

As shown below, there was an increase of close to 3 percent reported in numbers allocated to these services in 2010.

Table 28 - Figures for message-based valued added services - national situation

Year	Allocated and/or Reserved (A) or Recovered (R)	Figures for message-based valued added services				
		Raising donations subject to different tax regime (61xxx)	Sending of more than one message or sending messages on a periodic or continuous basis, with added price per message (62xxx)	Not covered by the 61, 62 and 69 codes (68xxx)	Declared as having erotic or sexual content (69xxx)	Totals
2009	A	1	202	151	51	405
	R	0	0	0	0	0
2010	A	3	14	2	4	23
	R	0	0	11	1	12

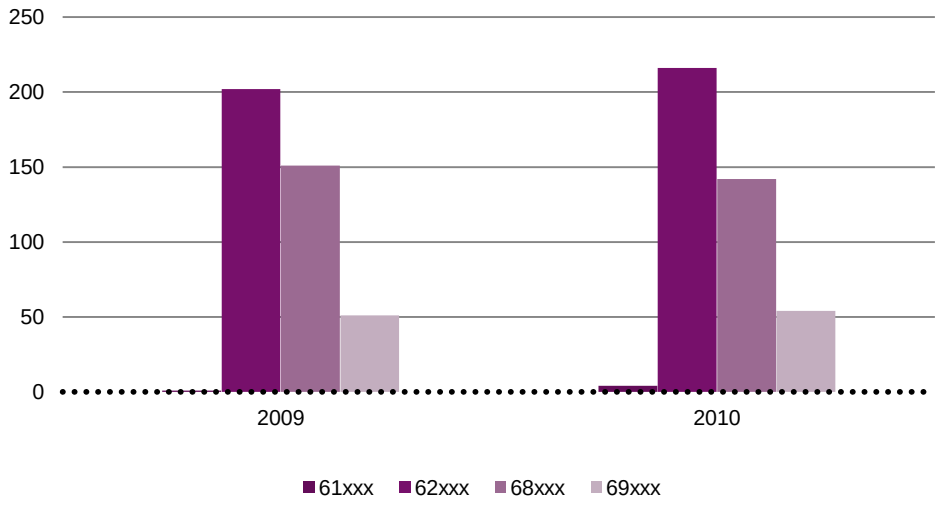
Source: ICP-ANACOM.

Table 29 - Cumulative value of numbers for message-based valued added services - national situation

Year	Figures for message-based valued added services				
	Raising donations subject to different tax regime (61xxx)	Sending of more than one message or sending messages on a periodic or continuous basis, with added price per message (62xxx)	Not covered by the 61, 62 and 69 codes (68xxx)	Declared as having erotic or sexual content (69xxx)	Totals
2009	1	202	151	51	405
2010	4	216	142	54	416

Source: ICP-ANACOM.

Graph 40 - Cumulative value of numbers for message-based valued added services allocated at national level



Source: ICP-ANACOM.

6.2.4. Electronic Numbering (ENUM)

Following the *workshop* on "ENUM: What's the Future?" promoted and organized by ICP-ANACOM in 2009 and hosting presentations from national and international manufacturers, operators, sectorial regulators and DNS/ENUM registries, leading to broad debate, ICP-ANACOM considered it appropriate to deploy a pilot project on User-ENUM in Portugal, in the "1.5.3.e164.arpa" domain.

As such, and following up on its 2007 determination on ENUM, by determination adopted in early 2011, ICP-ANACOM appointed FCCN - Fundação para a Computação Científica Nacional (Foundation for National Scientific Computing) as ENUM Tier 1 Registry for managing this domain in the context of the pilot and approved the terms of a protocol to be concluded with FCCN providing for mutual cooperation in the deployment of the pilot.

6.2.5. Implementation of the ERG Common Position on VoIP

By determination of 30 July 2010, ICP-ANACOM approved the launch of a public consultation on the implementation of the common position of the European Regulators Group (ERG) on Voice over Internet Protocol (VoIP) and on the conditions governing use of geographic, nomadic and mobile numbers.

The main purpose of this consultation was to review the measures defined by ICP-ANACOM in its determination of 23 February 2006, following the public consultation on the "Regulatory approach to voice services over Internet Protocol technology (IP) (VoIP)", to adapt them and develop a harmonized regulatory framework for Europe on VoIP, in accordance with this common position.

This issue remains under review, pending final decision in 2011, to ensure a proper balance between flexible solutions for the use of geographic and mobile numbers and the reliability of the information that they provide about the location of users when they originate calls to emergency services - 112.

6.3. Digital terrestrial television (DTT)

By letter dated 16 December 2009, PTC sought revocation of the act of allocation of rights of use of frequencies associated with Multiplexers B to F and the corresponding acts by which the titles were issued, without forfeiture of the respective guarantee deposit. The grounds for PTC's request were as follows: (i) bringing forward of investments with respect to Multiplexer A and loss of synergies; (ii) developments occurring in the subscription television market; (iii) economic and financial crisis, which broke out after it had submitted its proposal; (iv) allocation of greater transmission capacity for HD emissions; and (v) harmonized allocation of the 800 MHz band, following the publication of EC Recommendation 2009/848/EC of 28 October, which encouraged states to allocate this band to electronic communications services that facilitate development of the information society and elimination of the digital dividend, including fixed and mobile broadband services.

By determination of 29 January 2010, ICP-ANACOM approved the draft decision providing revocation of the act of granting such rights of use of frequencies and consequently, of the five titles that support them. According to the law, this draft decision was submitted to a prior hearing of interested parties, for a period of 20 working days

After PTC sent the ERC - Entidade Reguladora para a Comunicação Social (Media Regulatory Authority) an application requesting the revocation of the authorisation title for the activity of distribution operator, the two Authorities engaged in a process of mutual consultation.

On 15 April 2010, ICP-ANACOM received a letter from AdC - Autoridade da Concorrência (Competition Authority), subsequent to SONAECOM presenting a statement to AdC with identical content to the statement which it presented to ICP-ANACOM on 9 February 2010, AdC concluded that "*the matter in question is not governed by Law no. 18/2003 of 11 June (Lei da Concorrência (Competition Law))*" whereby it forwarded SONAECOM's statement to ICP-ANACOM.

Accordingly, by determination of 12 July 2010, ICP-ANACOM decided to revoke the act of granting rights of use of frequencies associated with Multiplexers B to F and, consequently, the five titles supporting the rights of use granted to PTC, without forfeiture of the guarantee deposit. ICP-ANACOM also determined the revocation decision as retroactive to the date of the draft decision of 29 January 2010.

In this context, by determination of 24 June 2010, ICP-ANACOM approved, pursuant to paragraph 2 of Resolution of Council of Ministers no. 26/2009, published on 17 March, the final decision on the detailed plan for the cessation of analogue terrestrial broadcasting (*switch-off plan*) associated with the introduction of DTT in Portugal.

Under this plan, the cessation of analogue terrestrial television will take place gradually, concluding on 26 April 2012.

In accordance with the provisions of the Switch-off Plan and by determination of 22 December 2010, ICP-ANACOM also approved the final decision that selected the relays in Alenquer, Cacém and Nazaré for the pilot phase of the cessation of analogue terrestrial broadcasting, scheduled for 12 May, 16 June and 13 October 2011, respectively.[37].

ICP-ANACOM has overseen the migration from analogue to digital television, especially with regard to PTC's obligations as holder of the right of use of frequencies for the provision of DTT services, aimed at the transmission of television programme services of non-conditional access.

[37] Meanwhile, in the public consultation on the cessation of analogue terrestrial broadcasting, a demographic, economic, social and technological characterisation was made of each of the regions which initially were potential candidates for the switch-off.

On 22 December 2010, ICP-ANACOM adopted a draft decision on the modification of some of the operating channels of Multiplexer A (Mux A) of the digital terrestrial television (DTT) broadcasting service, assigned to PTC.

Also of importance with regard to DTT, during the first quarter of 2010, ICP-ANACOM conducted theoretical coverage studies with respect to the network deployed up to the end of 2009. Seeking an assessment of the coverage obligations in the respective rights of use of frequencies, the studies concluded that the network provided radio coverage of about 82 percent of the population, corresponding to an acceptable quality of coverage, in line with PTC's estimate (83 percent).

Seeking to provide information to the general public and the consumer in particular, ICP-ANACOM has provided the required explanations to questions raised and has provided constant updates on its website on the transition process from analogue to digital.