

I.2 Electronic Communications

For presentation sake, ICP-ANACOM's intervention in this area will be grouped in 2005 into two major scopes of action resulting from the implementation of the objectives described in section 1: to promote competition, innovation and investment, and to guarantee and protect consumers' rights.

I.2.1 Promotion of competition, innovation and investment

I.2.1.1 Market analysis – state and evolution in 2005

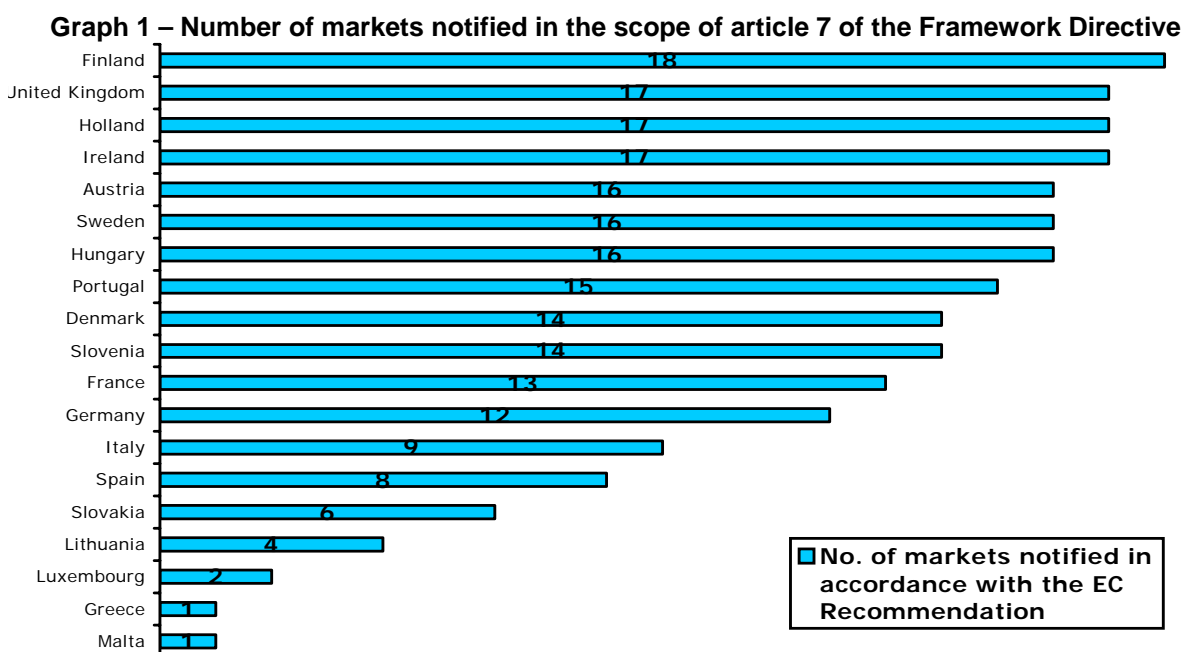
According to articles 58 and 59 of Regicom (Communications Regulation), it is ICP-ANACOM's duty to define and analyse the relevant markets of products and services of the electronic communications sector in order to enforce, maintain, change or suppress obligations, in accordance with the European Commission's Recommendations and Guidelines regarding the analysis and assessment of SMP in the scope of the community regulatory framework for electronic communications networks and services (henceforth referred to as Guidelines), and in accordance with the principles of the competition regulations.

As defined in "ICP-ANACOM's Consultation Procedures", each draft decision on these matters is subject to a public consultation, which answers and assessment report are published at this Authority's website, and notified to the national regulatory authorities of other Member States and to the European Commission. An opinion is also requested from *Autoridade da Concorrência* (Competition Authority). Further to this process, and taking into account the comments of the entities that participated in it, ICP-ANACOM approves the measures on the definition of markets and the assessment of SMP, and notifies the Commission.

In 2005, ICP-ANACOM's activity was marked, as in 2004, by the analysis of a wide range of electronic communications markets. By the end of 2005, this extremely important stage of the regulatory activity could be considered practically concluded –

of market definition, assessment of SMP situations and, finally, the process of enforcing, maintaining, changing or suppressing obligations. This means that the regulator had declared, for almost all the markets in the guidelines, the degree and type of market intervention creating the best conditions to foster consumer benefits and also investment and innovation by operators.

On 31 December 2005 Portugal was in the group of the most advanced countries regarding the number of markets notified to the Commission and to other NRAs in the scope of article 7 of the Framework Directive, with 15 completed notification processes, as can be seen in graph 1, which compares the state of EU member countries.



The following page has a summary table with the state of Portugal within that scope on that same date of 31 December 2005. It shows that, in 2005, there were interventions in the wholesale broadband markets (markets 11 and 12), in the leased lines markets (markets 7, 13 and 14), in the market of voice call termination in individual mobile networks (market 16) and in the market of transit services in the public fixed telephone network at a fixed location (market 10).

In the year 2005, the analyses concerning three of the 18 relevant markets defined according to European Commission's Recommendation and Guidelines were not completed: the market of call access and origination in public mobile telephone networks (market 15), the wholesale national market for international roaming services in public mobile networks (market 17) and the market of broadcasting services for delivery of content to final users (market 18).

Table 1 – Notified markets, Portugal

Markets	Consultation procedures		Notification to the Commission - document		Comments from the Commission		Decisions		Notification to the Commission of the adopted measures – doc.	
	Market analysis and SMP assessment	Enforcement of obligations	Market analysis and SMP assessment	Enforcement of obligations	Market analysis and SMP assessment	Enforcement of obligations	Market analysis and SMP assessment	Enforcement of obligations	Market analysis and SMP assessment	Enforcement of obligations
Retail broadband markets										
Access to the public telephone network at a fixed location for residential customers (market 1)	12-03-2003 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Access to the public telephone network at a fixed location for non residential customers (market 2)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Publicly available local and/or national telephone services provided at a fixed location for residential customers (market 3)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Publicly international telephone services available at a fixed location for residential customers (market 4)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Publicly available local and/or national telephone services provided at a fixed location for non-residential customers (market 5)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
International telephone services publicly available at a fixed location for non-residential customers (market 6)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Telephone services for non-geographic numbers publicly available at a fixed location (outside the scope of mentioned European Commission Recommendation) (market 19 - new)	12-03-2004 20-05-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	14-12-2004	16-07-2004	21-12-2004
Wholesale broadband markets										
Call origination in the public telephone network at a fixed location (market 8)	12-03-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	17-12-2004	16-07-2004	29-12-2004
Call termination in individual public telephone networks at a fixed location (market 9)	12-03-2004	26-07-2004	28-05-2004	22-07-2004	25-06-2004	03-09-2004	08-07-2004	17-12-2004	16-07-2004	29-12-2004
Transit services in the public fixed telephone network (market 10)	01-03-2005	01-03-2005	04-03-2005	04-03-2005	01-04-2005	01-04-2005	25-05-2005	25-05-2005	02-07-2005	02-07-2005
Wholesale narrow band markets										
Wholesale provision of unbundled access (including shared access) to metallic loops and sub-loops to provide broadband and voice services (market 11)	25-11-2004		25-11-2004		20-12-2004		30-03-2005		01-04-2005	
Wholesale provision of broadband access (market 12)	25-11-2004		25-11-2004		22-12-2004		24-06-2005		24-06-2005	
Retail leased lines markets										
Minimum set of leased lines (market 7)	18-03-2005		17-03-2005		14-04-2005		08-07-2005		14-04-2005	
Wholesale leased lines markets										
Wholesale market for leased line terminal segments (market 13)	18-03-2005		17-03-2005				08-07-2005		14-07-2005	
Wholesale market for leased line transit segments (market 14)	18-03-2005		17-03-2005				08-07-2005		14-07-2005	
Wholesale mobile services markets										
Call access and origination in public mobile telephone networks (market 15)										
Voice call termination in individual mobile networks (market 16)	27-12-2004		23-12-2004		04-02-2005		25-02-2005		08-03-2005	
Wholesale national market for international roaming services in public mobile networks (market 17)										
Wholesale broadcasting markets										
Broadcasting services for the delivery of content transmitted to final users (market 18)										

The evolution of each group of markets concluded in 2006 was as follows:

Wholesale broadband markets (markets 11 and 12)

By Determination of 30 March 2005, ICP-ANACOM approved the decision on the definition of product markets and geographical markets, SMP assessment and the enforcement, maintenance, change or suppression of regulatory obligations in the market of wholesale unbundled access (market 11 of Commission's Recommendation 2003/311/EC of 11 February 2003), having concluded that, in Portugal, there is a relevant market for the wholesale provision of unbundled access (including shared access) to metallic loops and sub-loops for the provision of broadband and voice services, and that companies of Grupo PT in that market have SMP.

On the other hand, on 24 June 2005 a decision was approved regarding the definition of product markets and geographical markets, SMP assessment and the enforcement, maintenance, change or suppression of regulatory obligations in the market of wholesale provision of broadband access (market 12 of Commission's Recommendation 2003/311/EC of 11 February 2003), identifying as relevant, for the purposes of *ex-ante* regulation and in accordance with the principles of competition regulations, the wholesale broadband market, which includes the services of broadband access using the public switched telephone network and the cable distribution networks, in the whole of the national territory. It was concluded that Grupo PT holds SMP in that market.

ICP-ANACOM enforced the following regulatory obligations to the companies of Grupo PT, currently PT Comunicações, S.A. (PTC), with SMP in the market of wholesale provision of unbundled access (including shared access) to metallic loops and sub-loops for the provision of broadband and voice services:

- Access and use of specific network resources;
- Transparency in the publication of information, including reference proposals;
- Non-discrimination in the provision of access and interconnection, and in the corresponding provision of information;

- Separation of accounts for specific activities in connection with access and/or interconnection;
- Price control and cost accountancy.

In the market of wholesale provision of broadband access, the following regulatory obligations were enforced:

- Access and use of specific network resources;
- Transparency in the publication of information, including reference proposals;
- Non-discrimination in the provision of access and interconnection, and in the corresponding provision of information¹;
- Separation of accounts for specific activities in connection with access and/or interconnection;
- Price control and cost accountancy, including the application of a “retail-less” rule applicable to the wholesale offers of broadband access provided by companies of Grupo PT using ADSL (Asymmetric Digital Subscriber Line) or cable modem.

Leased lines markets (markets 7, 13 and 14)

Determination of 8 July 2005 approved the decision on the definition of product markets and geographical markets, SMP assessment and the enforcement, maintenance, change or suppression of regulatory obligations regarding markets 7 (leased lines retail market), 13 (wholesale market of leased line terminal segments) and 14 (wholesale market of leased line transit segments) of Commission’s Recommendation 2003/311/EC of 11 February 2003.

Further to the analysis it made, ICP-ANACOM identified as relevant the retail market of analogue and digital leased lines up to and including 2 Mbps in all of the national territory (including circuits and routes to and from the Mainland, Azores and Madeira), the wholesale market of analogue and digital leased line terminal segments, without

¹ Including a 30 day notice period to change wholesale offers – in the case of major changes to the wholesale offers this period is widened to two months, and the launch of retail offers is conditioned to the existence of equivalent wholesale offers in the *Rede ADSL PT*.

capacity distinction, in the wholesale market of analogue and digital transit segments, without capacity distinction, both also in all of the national territory. Furthermore, it was considered that Grupo PT's companies in these markets have SMP.

In the market of minimum set of leased lines, ICP-ANACOM enforced the following obligations to companies with SMP:

- Non-discrimination in the provision of access and interconnection, and in the corresponding provision of information;
- Transparency in the publication of information;
- Price control and cost accountancy.

In the wholesale markets of leased line terminal segments and transit segments, ICP-ANACOM enforced the following obligations to companies with SMP:

- Access and use of specific network resources;
- Non-discrimination in the provision of access and interconnection, and in the corresponding provision of information;
- Transparency in the publication of information, including reference proposals;
- Separation of accounts for specific activities in connection with the access and/or interconnection;
- Price control and cost accountancy.

Market of voice call termination in individual mobile networks (market 16)

On 25 February 2005, ICP-ANACOM approved decisions concluding that there are three different relevant markets to which correspond the mobile networks of the three mobile network operators operating in Portugal – TMN – Telecomunicações Móveis, S.A. (TMN), Vodafone Portugal – Comunicações Pessoais, S.A. (Vodafone) and Optimus – Telecomunicações, S.A. (Optimus). These three operators have SMP in the corresponding wholesale termination markets.

Thus, ICP-ANACOM enforced the following regulatory obligations to companies with SMP:

- To comply with reasonable access requests;
- Non-discrimination in the provision of access and interconnection, and in the corresponding provision of information;
- Transparency in the publication of information;
- Price control (cost orientation) and cost accountancy; and
- Separation of accounts.

Market of transit services in the public fixed telephone network at a fixed location (market 10)

By Determination of 25 May 2005, in the scope of the definition of the relevant markets, as in article 58 of Law no. 5/2004 of 10 February, ICP-ANACOM defined the relevant market and assessed SMP in the market of transit services in the public telephone network (market 10 of the list of the European Commission's Recommendation 2003/311/EC of 11 February 2003), and notified the adopted measures to the Commission on 2 June 2005.

ICP-ANACOM concluded that the transit market, which geographical scope is the national territory and that includes the transit services provided by an operator when it routes calls originated and terminated in a network that is different from its own, has a mere residual relevance (about 1 per cent) in the scope of narrow band interconnection markets and that it is competitive, with no detected problems or market flaws, and therefore it was decided not to define the transit market as a relevant market for purposes of *ex-ante* regulation. At the same time, *ex-ante* obligations that PTC was subject to under the scope of the previous regulatory framework were suppressed.

I.2.1.2 Reference local loop unbundling offer (RUO) including the conditions for effective local loop unbundling (LLU)

Regulation (EC) no. 2887/2000, approved by the European Parliament and the Council on 18 December 2000 with the purpose of intensifying competition and fostering technological innovation in the local access market, via the establishment of harmonized conditions for the LLU, demands from operators with SMP that, among other obligations, they publish a RUO, that they comply with reasonable requests for unbundled access to local loops and associated resources, under transparent, equal and non-discriminatory conditions, and that they use cost-oriented prices for unbundled access to local loops.

It is also ICP-ANACOM's obligation to make an appropriate monitoring of the market in the scope of the LLU and to foster a greater efficiency in the implementation of the offer – a crucial factor for the increase of competition in the sector – so that the regulator can intervene rapidly, if needed, by enforcing corrective measures and protecting end consumers.

ICP-ANACOM's action in the scope of LLU, gradually focused on deadlines, prices, compensations, processes and statistical information – i.e., the relevant items for the success of this offer – in order to create the appropriate incentives for an effective use of this wholesale offer, making it more flexible, adjustable to different business models.

This performance is summarized in the following diagram:

	DEADLINES	PRICES	COMPENSATIONS	PROCESSES	STATISTICAL DATA
DEC-04	10 December Reduction of deadlines (draft decision)				
JAN-05					
FEB-05	17 February Reduction of deadlines (decision)	9 February Reduction of prices (draft decision)			
MAR-05					
APR-05		13 April Reduction of prices (decision)			
MAY-05					
JUN-05		24 June Market Analysis - Maintenance of the obligation of cost orientation of prices			
JUL-05			8 July Increase of compensations (draft decision)	28 July Simplification of the termination of the contract in the scope of LLU (draft decision)	
AUG-05					
SEP-05		20 September RUO proposal for 2006 (decision)			
OCT-05					
NOV-05			8 November Operating conditions (decision)		
DEC-05		14 December Prices for 2006 (draft decision)		14 December Simplification of the termination of the contract in the scope of LLU (decision)	14 December Statistical data on LLU (draft decision)
JAN-06					
FEV-06					7 February Statistical data on LLU (decision)

In 2005, ICP-ANACOM intervened to reduce the factors that prevented a greater success in the development of the ULL and of effective market competition.

Since there are already retail offers based on RUO and some accumulated experience within that scope, ICP-ANACOM considered that some of RUO's items had to be reviewed or updated (focusing especially on the need to improve processes, considering the recent implementation of the information and automatic request processing systems, and to improve the offer's prices and quality of service).

In the beginning of 2005, based on the Determination of 13 April, a price analysis was made to the wholesale offers in force that led to the changes that were defined for the RUO. For this purpose, the decision of 31 March on the maintenance of the regulatory obligations in the market of wholesale provision of unbundled access (market 11) was crucial, namely regarding the cost orientation obligation, as well as changes to prices in the wholesale offers downstream, the offer's own evolution, namely in connection with the information and automatic order handling system and the price reductions in some Member States.

The mentioned decision concerning price changes to be introduced by PTC in the RUO made way for a 60 per cent reduction in the installation price and 18.7 per cent one in the price of the local loop's monthly fee, and for a restatement of the conditions for the provision of the signal routing service (in most cases making it possible to reduce the installation's and monthly fee's prices). Furthermore, the price to un-install the local loop was eliminated.

Also to guarantee the consolidation of appropriate conditions for effective competition in the market, Determination of 8 November 2005 approved a decision on the conditions of deployment of the LLU, according to which PTC should change the RUO. The defined conditions relate to the need of guaranteeing the protection of end user's interests and the consolidation of appropriate conditions for effective market competition, namely by setting compensations for the non-fulfilment of the quality of service levels defined in the offer.

Among other items, it was determined that in the cases when, by responsibility of PTC or of its subcontractors, the final customer is kept without service for more than 30 minutes during or right after the local loop unbundling or the porting of the number and the local loop unbundling do not take place within the agreed window, that company must compensate the operator or service provider with 38 euros and one 24th part (1/24) of that value for each additional hour counting from the time when the service went down.

The determination also established that PTC must send a quarterly report to ICP-ANACOM on the levels of quality provided in the scope of the RUO and on the compensations it made.

In the same sense, simplification of the processes involving changes to, or the termination of contracts was the aim of a Determination in the scope of the LLU – by decision of 14 December 2005, on the process of termination of contracts in the scope of the LLU. It made the process of termination of contracts (full access) or subscriber authorization (shared access) comply with what was determined by this

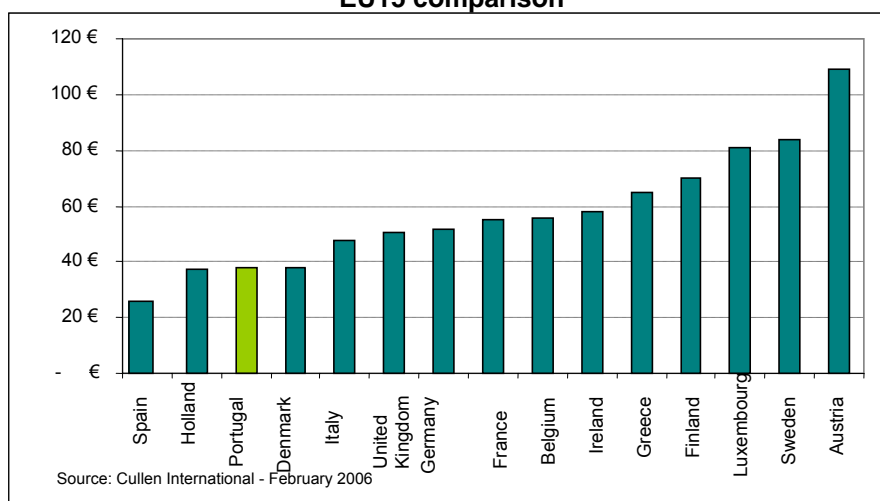
Authority in the scope of other offers such as portability, preselection and LLRO (leased lines reference offer). According to this decision, PTC begins the local loop provision process at the moment when it receives the order request from the provider chosen by the end user, with no previous check of the validity of the termination of the customers' contracts or of the authorizations, which occurred up to now, thus eliminating one of the factors delaying the provision of loops.

ICP-ANACOM also approved a draft Determination, on 14 December, concerning the information that PTC and other operators have to present to the regulator in the scope of the RUO, thus providing ICP-ANACOM with updated and detailed information that is needed to monitor the market, on the deadlines practiced by the several services in connection with the local loop.

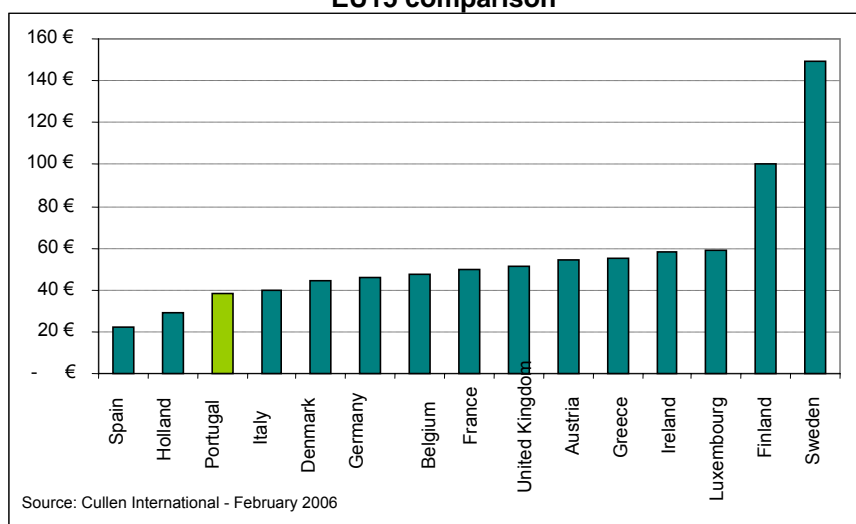
Aiming to foster business models with investment in infrastructures, ICP-ANACOM decided on 13 April 2006 to reduce the prices that PTC charges to alternative operators for the local loop, as of 1 January 2006. The decision includes reductions in the local loop's monthly fee to 8.99 euros, 7.5 per cent below the figure in force in 2005 and about 16 per cent below the price that ICP-ANACOM defined, also in 2005, for the SLRO. In the shared access, the monthly fee is reduced in 15 per cent, to 2.51 euros.

The prices defined by the regulator for the LLU are an improvement to the proposal presented by PTC, which intended to keep the prices of 2005 in force during 2006. The prices of this wholesale offer – resulting from a very quick approximation to the conditions considered appropriate, considering the Portuguese reality – are in the lowest quartile of the prices in the European Union, as shown on the following graphs:

Graph 2 – Monthly fee regarding the local loop (full access) – EU15 comparison



Graph 3 – Installation prices regarding the local loop (full access) EU15 comparison

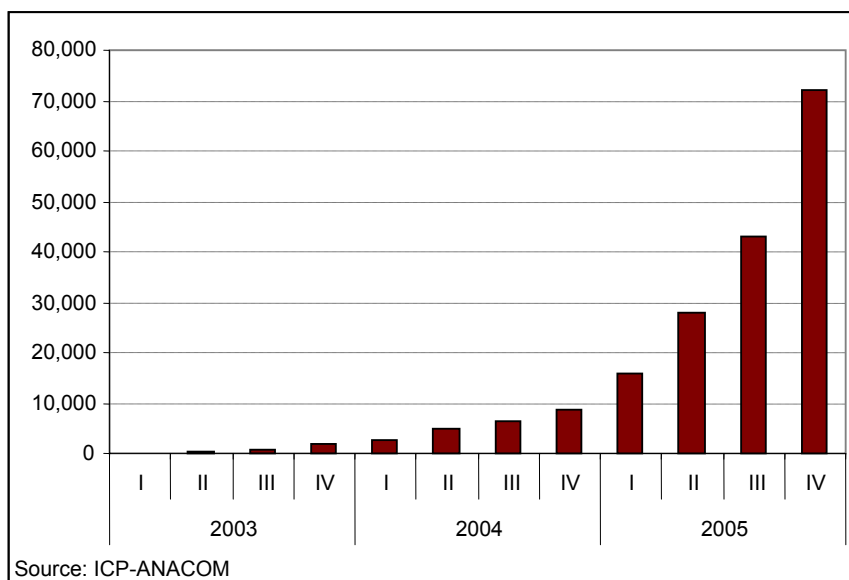


It may be considered that the wide range of measures undertaken by ICP-ANACOM in connection with the LLU where determinant to give alternative operators the chance to overcome access constraints, improving competition namely in the broadband market.

In fact, OLL-related action in 2005 increased operators' and service providers' confidence and certainty. They became more interested and started to invest more significantly in this offer and to deploy competitive commercial offers.

The operators' increased interest may be assessed by the evolution, in 2005, of the number of unbundled loops, which raised to 72,019 by the end of the year, a figure about eight times that of the 8,780 unbundled loops existing at the end of 2004.

Graph 4 – Evolution of the number of unbundled local loops



Together with the increase in the number of unbundled loops, the number of operators interested in directly reaching end users through the LLU also increased – more than doubling during 2005. In fact, by the end of December, there were already six co-installed operators in PTC's switchboards for LLU purposes. The number of switchboards with co-installed operators increased from 57 in December 2004 to 184 in the end of 2005.

The fast growth of the rhythm of loop unbundling thus very much stemmed from the set of regulatory changes undertaken by ICP-ANACOM in 2005, which made it possible to substantially reduce the local loop's prices of installation and monthly fee, besides leading to a reduction in the deadlines for provision and to a simplification of processes.

Also noteworthy is that the wholesale offers based on the LLU have greatly evolved in terms of provided bandwidth. This was possible due to ICP-ANACOM's decision to allow the installation of ADSL 2+ equipment in PTC's switchboards. Data shows that,

of the about 72,000 unbundled accesses existing in December 2005, around 69,000 were broadband. The launch of retail offers with 2 Mbps or higher throughputs led to the increase of the throughput of most retail offers, which reference offer was based on the 512 kbps to 2 Mbps.

Using the local loop unbundling gives new providers the chance to directly reach the homes of their customers and to develop more competitive voice and broadband offers.

It should be noted that, throughout 2005, in spite of an increase in the alternative operators' indirect access voice telephone traffic (in minutes) vis-à-vis 2004, the increase in the total voice traffic that they originated mainly resulted, for the first time, from the increase in the corresponding direct access voice traffic. This new trend can result, namely, from the new offers based on the RUO and on the *Rede ADSL PT*, mentioned in the following section.

Indeed, in 2005, one out of three new broadband accesses were installed by alternative operators (one out of two in the fourth quarter of 2005), although it should be mentioned that the growth in the new providers' marginal share was also due to the important growth in the access offers alternative to that of Grupo PT using cable modem.

This result led to important benefits to consumers, namely price reductions, increase in the number of packages with several services and the generalization of offers with greater throughput. It should be noted, particularly, the emergence of joint voice and broadband offers under very competitive conditions that, in some cases, gave the end consumer price reductions of about 50 per cent.

I.2.1.3 PT's *Rede ADSL* wholesale offer

It is ICP-ANACOM's priority to ensure a sustainable and competitive development of ADSL services that are provided to end users, in order to promote universal access to broadband Internet and to guarantee that end users have the maximum benefits in choice, price and quality in connection with the provision of this service.

To serve this purpose, ICP-ANACOM tried to ensure several wholesale offers and conditions that are complementary and coherent among themselves, fostering the existence of different wholesale alternatives to choose from, which require different investment levels and which, on the other hand, make it possible to have several levels of differentiation and to add value to the offers provided to end users. Alternative operators may thus choose whatever suits their investment capabilities best and, possibly, migrate from an access mode to the immediately above level, by investing in their own infrastructure, this way adding value to their offers as they move up the chain.

ICP-ANACOM's action regarding the *Rede ADSL PT* wholesale offer during 2005 is framed in this context.

As previously mentioned, further to the market analysis ICP-ANACOM determined, on 31 March 2005, that Grupo PT has SMP in the wholesale provision of broadband access (market 12). The companies of this group are subject to several obligations, with highlight to the obligations of access at several network points, transparency in the publication of information, including the reference proposals, and of non-discrimination in the provision of access and interconnection, and price control.

It should be stressed that this market, relevant for purposes of *ex-ante* regulation, includes all broadband access services, based both on the public switched telephone network (ADSL services) and on the cable distribution networks.

It should also be noted that Grupo PT is forbidden to launch broadband offers in the cable network until similar offers in the *Rede ADSL* wholesale offer exist. This kind of

regulation aims to make it possible to quickly replicate the offers by the remaining operators. Furthermore, the prices of this wholesale offer must respect the retail-less rule, which should be applied having as reference all broadband access retail offers using the public telephone network and the cable distribution network of Grupo PT's companies.

It should be mentioned that some measures taken in 2004 – such as the enforcement of a 2 Mbps class downlink offer and the prohibition to sell 1 and 2 Mbps broadband retail offers using the cable distribution network before the entry into force of the corresponding wholesale offers in the *Rede ADSL PT* offer – had major impacts on the market evolution in 2005, particularly concerning the emergence of retail offers with greater throughputs.

In 2005, following PTC's initiative to generally increase the throughputs of the broadband offers, ICP-ANACOM decided, on 24 July, not to oppose to the entry into force of those retail offers, as long as PTC changed its *Rede ADSL PT* wholesale offer, reducing the maximum price of the monthly fee for local access with ATM aggregation to 7.05 euros, and to extend its gratuity for six months for the providers of the throughput change requests foreseen for the 2, 4 and 8 Mbps classes. This decision had the purpose of guaranteeing the coherence with other offers and the appropriate investment incentives.

ICP-ANACOM tried to ensure several effective complementary and coherent wholesale offers – IP, ATM and LLU – giving incentives to operators for them to move up the investment ladder, by investing in their own infrastructure, and thus making ways for growing differentiation levels in connection with the offers available to end users.

In order to ease the process of broadband clients' migration between the several service providers, ICP-ANACOM decided – decision of 28 July – that PTC should change its *Rede ADSL PT* broadband wholesale offer, in order to begin the customer's migration process as soon as it receives the request from the operator to which the customer wants to migrate. This inversion of roles that the regulator

intended to establish, making the migration process start when the operator that will gain the client delivers the provision request to PTC, will facilitate the process of client migration among operators.

On 23 August 2005, PTC proposed new changes to the *Rede ADSL PT* offer, this time targeted at service classes with 1:10 and 1:20 contention (i.e., classes targeting the business segment). Among the reported changes, the following ones stand out: the launch of three new access classes, the reduction in the prices of classes eight and nine and the adjustment of their maximum contention rates, the termination of five classes by migration, and the launch of two additional levels of quality of service regarding the service's replacement.

Further to the analysis it made, ICP-ANACOM considered in its Determination of 13 October 2005 that it was necessary to guarantee the coherence with other offers. It decided to extend the gratuity to providers of the requests for throughput change of the 2 Mbps, 4 Mbps and 8 Mbps classes to any throughput; that the evolution for service classes with higher throughputs should not, *per se*, imply the end of the existing service classes; and that the monthly fees of the local access of the several service classes are not coherent among themselves, justifying a global review of the prices.

The changes defined by ICP-ANACOM in this scope made it possible to gather a set of conditions that made it easier for the new operators to develop their activity. Among these are the new PTC's obligation to offer a greater number of network access points, the price reductions of the *Rede ADSL PT* wholesale offer, the introduction of new throughput classes and the change of procedures that aim to ease up the migration of clients among operators, putting PTC in charge of starting the process as soon as it receives the provision request from the provider chosen by the customer.

ICP-ANACOM's intervention in connection with this wholesale offer – together, naturally, with the creation of more appropriate conditions for the development of offers based on the access to the local loop – brought clear benefits to end

consumers, which made way for a strong increase of broadband penetration and the launch of new offers with higher throughputs. Particularly, the 2 Mbps class became, during the second quarter of 2005, the one mostly used one in Portugal – corresponding to about 50 per cent of the ADSL accesses – which comes to show an important qualitative change for consumers.

According to data from the market, ADSL was the main responsible, in 2005, for the growth of Internet in Portugal. Between the end of 2004 and the end of 2005, three out of each four new broadband clients chose ADSL access, resulting in a year-to-date growth of 66 per cent.

I.2.1.4 Leased lines service reference offer (LLRO)

Leased lines are a fundamental service on which telecommunications services in general are supported, since they are used by operators as essential infrastructures for the development of their own networks and, therefore, of the retail services.

Considering this market's importance, ICP-ANACOM, still in 2004, intervened in the tariffs of the leased lines service, by defining a discount structure that would guarantee the existence of competitive and non-discriminatory conditions in the provision of leased lines.

Later on, Determination of 8 July 2005 approved the decision on the definition of product markets and geographical markets, SMP assessment and the enforcement, maintenance, change or suppression of regulatory obligations concerning markets 7 (leased lines retail market) 13 (wholesale market for leased line terminal segments) and 14 (wholesale market for leased line transit segments) of Commission's Recommendation 2003/311/EC of 11 February 2003.

Further to the analysis it made in 2004 and in the beginning of 2005, ICP-ANACOM identified, in the decision of 8 July 2005, the retail market of leased lines and the

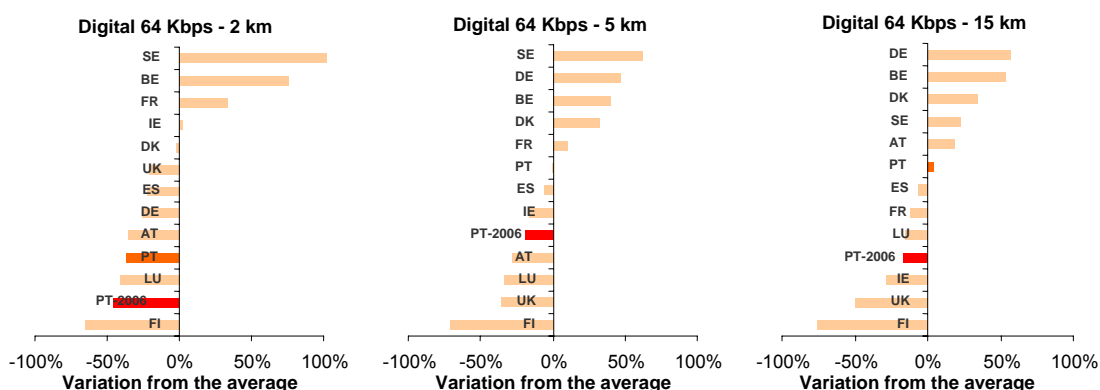
wholesale markets of leased line terminal segments and transit segments as relevant markets. It considered that Grupo PT's companies operating in these markets have SMP. Consequently, it concluded that a set of obligations should be enforced on these companies (namely of non-discrimination, transparency, and cost control and cost accountancy) with highlight, regarding the wholesale markets, to the obligation of publicizing a leased lines reference offer (LLRO).

In order to comply with this obligation, PTC sent ICP-ANACOM a draft LLRO. After analysing it, this authority decided, on 8 September, that the proposed tariff should be reviewed, since it was not in accordance with what was stated on the aforementioned decision of 8 July 2005.

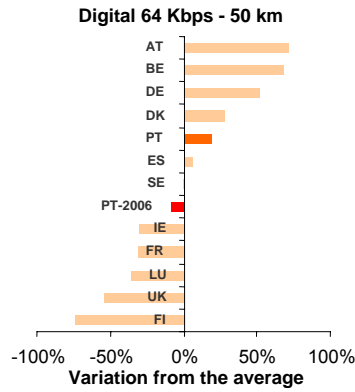
On 16 March 2006, ICP-ANACOM approved a draft determination on the LLRO with an average reduction of about 18 per cent in the prices of leased lines.

Taking this reduction into account, the prices of leased lines in Portugal are usually below the EU15 average, especially for short distances and low throughputs. The following graphs compare prices in Portugal with the remaining EU Member States, considering the current prices and the prices that are stated in the draft Determination:

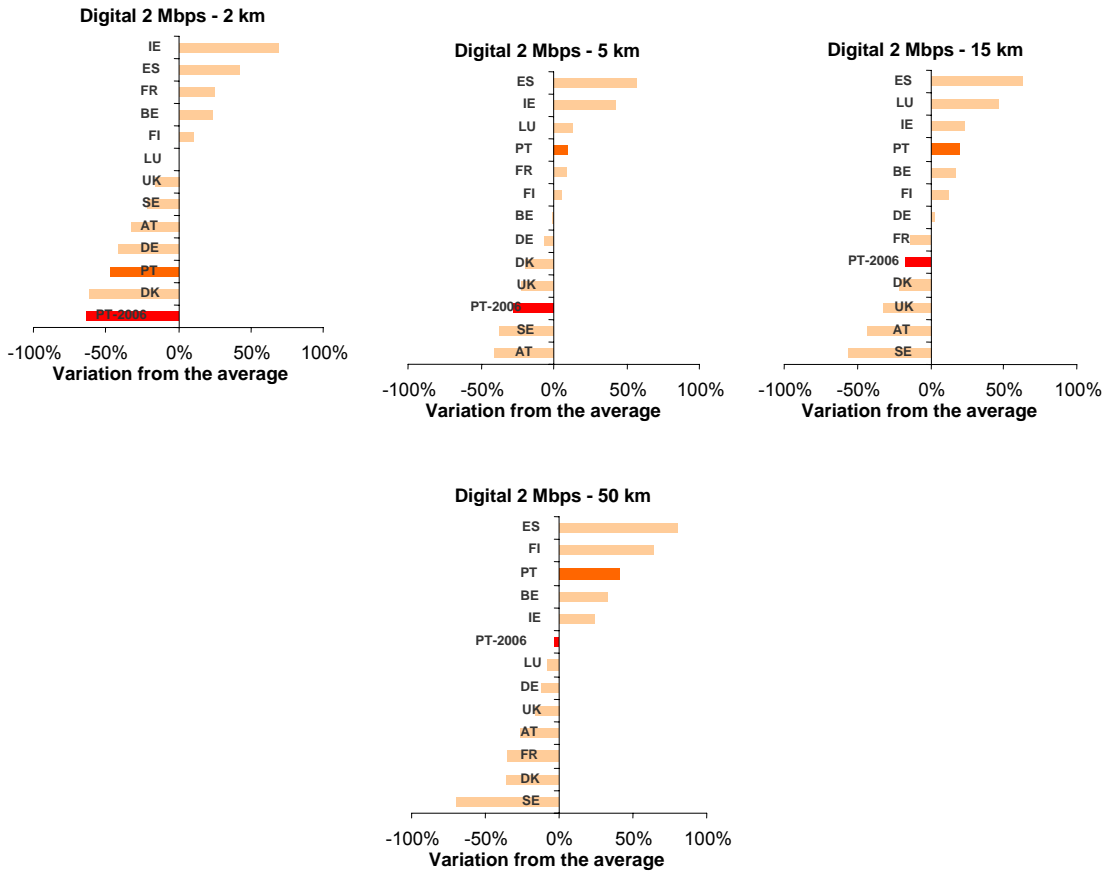
Graph 5 – Prices of 64 kbps digital circuits in the EU (EU15)²



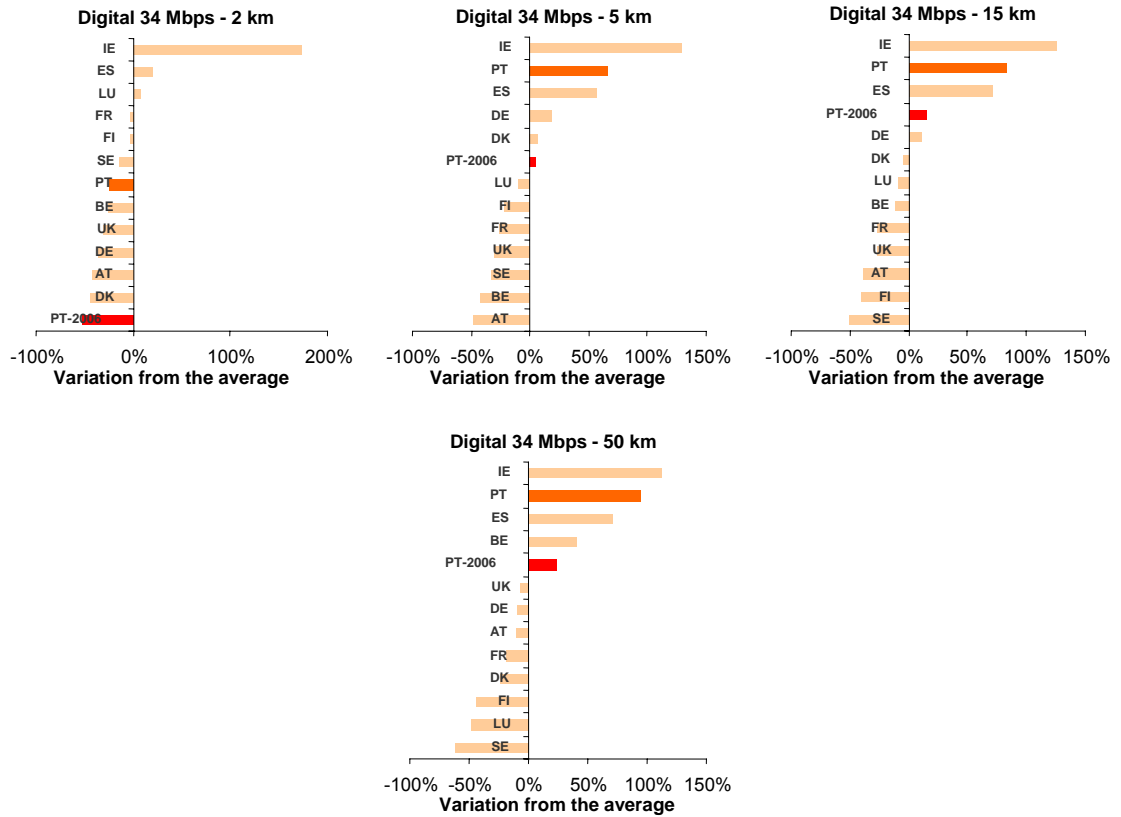
² PT – price practiced in Portugal by PTC on this report's closing date.
 PT-2006 – price resulting from the price reduction foreseen in the draft determination on the changes to the LLRO, of 16 March 2006.



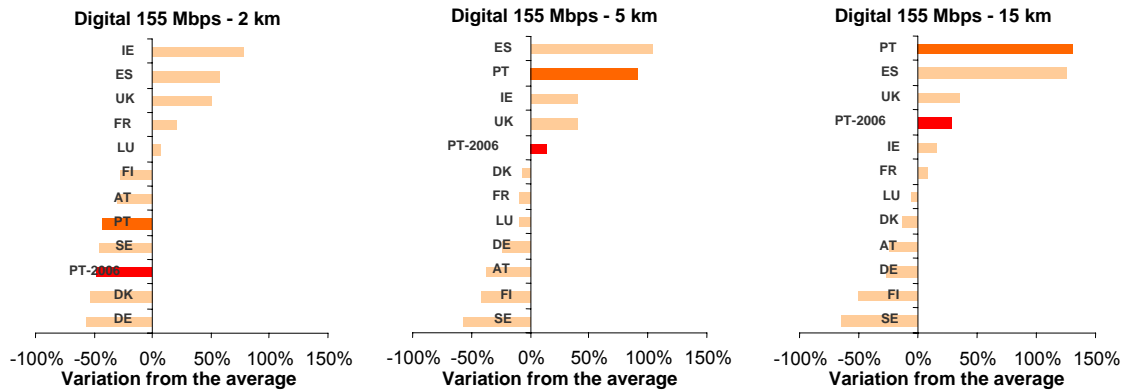
Graph 6 – Prices of 2 Mbps digital circuits in the EU (EU15)²

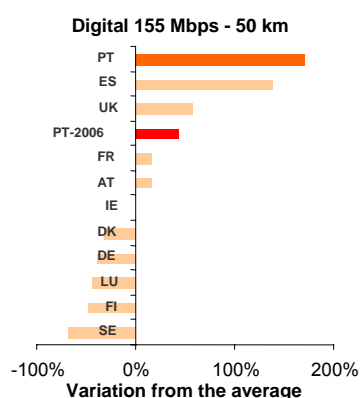


Graph 7 – Prices of 34 Mbps digital circuits in the EU (EU15)²



Graph 8 – Prices of 155 Mbps digital circuits in the EU (EU15)²





I.2.1.5 Reference interconnection offer (RIO), including specifications of capacity-based interconnection (flat rate)

Call origination and termination services

RIO 2005

Determination of 17 February 2005 defined the maximum prices for the interconnection services, a global average price reduction of about 10 per cent, resulting from the reduction of the interconnection prices and from the 2 hour enlargement of the economic period (the normal period became applicable between 9:00 and 19:00h on working days, and the economic period in the remaining periods; previously, the transition between periods was at 21:00h). The maximum prices determined by ICP-ANACOM are shown on the following table.

**Table 2 – Price per minute, based on a 3 minute call – RIO 2005
(Units in euro cents without VAT)**

Level	Termination		Origination	
	Price per minute		Price per minute	
	Normal period	Economic period	Normal period	Economic period
Local	0.68	0.43	0.68	0.43
Single transit	0.97	0.61	0.97	0.61
Double transit	1.47	0.90	1.47	0.90

According to the determination, the call activation prices shouldn't be above 0.60 euro cents for local interconnection, 0.70 euro cents for single transit interconnection, and 0.80 euro cents for double transit interconnection. This applies to the call termination and origination services. The billing would be made per second as from the first second.

RIO 2006

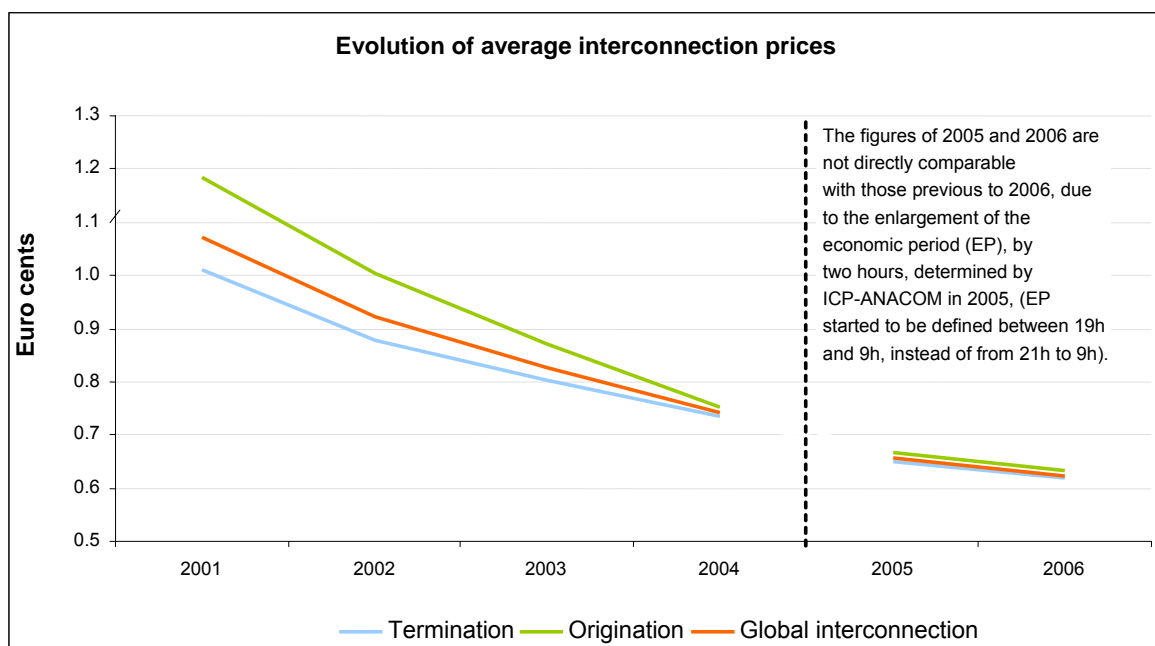
On 21 April 2006 the Determination on the changes to be made to the RIO 2006 was approved. It defined the tariff applying to the call origination and termination services, to be integrated in the RIO 2006 (see following table), of an average price reduction of about 5.1 per cent.

**Table 3 – Price per minute, base on a 3 minute call – RIO 2006
(units in euro cents without VAT)**

▪ Level	Termination		Origination	
	Price per minute		Price per minute	
	Normal period	Economic period	Normal period	Economic period
▪ Local	0.64	0.41	0.64	0.41
▪ Single transit	0.93	0.58	0.93	0.58
▪ Double transit	1.44	0.88	1.44	0.88

The maximum prices defined for call activation must be 0.57 euro cents for interconnection at the local level, 0.66 euro cents for single transit interconnection, and 0.76 euro cents for double transit interconnection. Billing is done per minute from the first second. The normal period is kept between 9:00 and 19:00 during working days, and the economic period the remaining time, as defined in RIO 2005.

The evolution in the prices of the interconnection services since the beginning of the decade should be noted. The maximum prices defined by ICP-ANACOM made it possible to maintain a strong decreasing trend since 2001, as shown on the following graph.

Graph 9 – Evolution of the average prices per minute, for a 3 minute call³

Source: ICP-ANACOM reckoning based on the prices stated on the RIO for each year and on the Determination regarding RIO 2006.

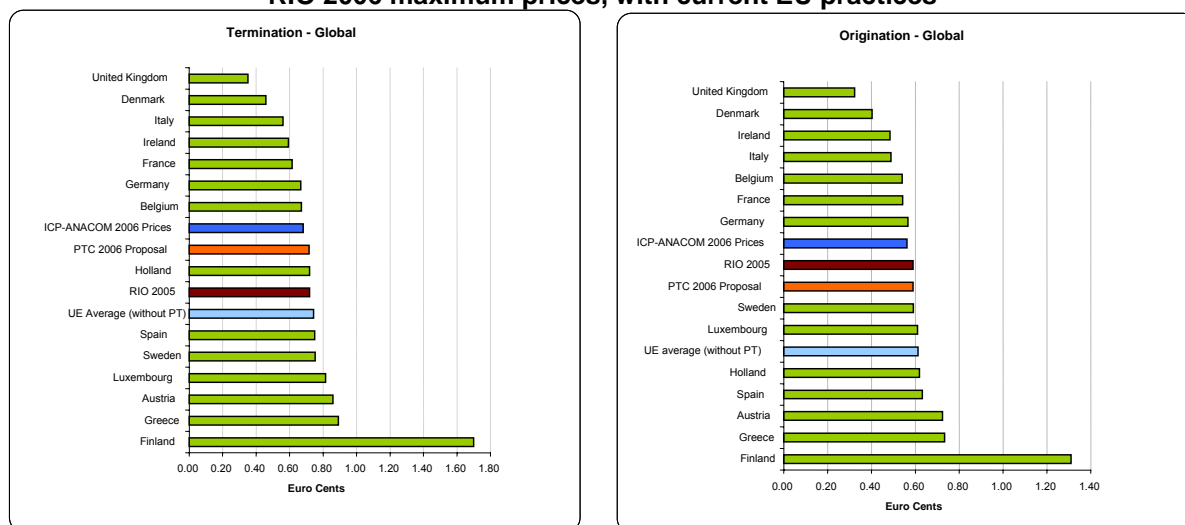
The progressive reduction of interconnection prices (decrease of about 42 per cent from 2001 to this date⁴, resulting from the 29 per cent reduction in termination and 47 per cent in origination) was an important contribution to the market development and the development of conditions for effective and sustainable competition, which resulted in a reduction of the entry barriers of alternative operators (particularly those offering preselection services). At the same time, it shows the impact of the measures adopted on the narrow band retail markets, especially the deployment of a wider range of options for the end user and the decrease in the prices of the services provided to the end user.

The maximum prices thus defined led to important decreases regarding those existing in 2001 – currently below the average values in the EU (see graphs below) – creating appropriate conditions for the alternative operators, considering the specific characteristics of the Portuguese reality.

³ The traffic profiles foreseen by PTC for 2006 were adopted for reckoning purposes, for the 2005/2006 period. For the 2001/2004 period, the profiles presented by PTC for 2004 were adopted. The use of different traffic profiles, in spite of preventing a comparison between the values of 2004 and 2005, reflects the enlargement of the economic period that occurred in 2005.

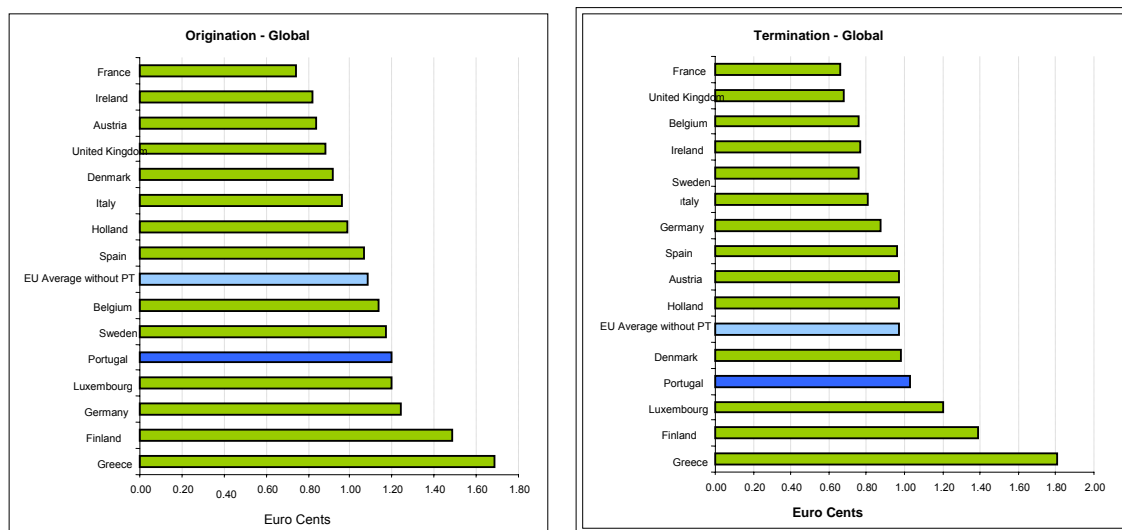
⁴ Reckoning based on the average price, per minute, of a three minute call, resulting from the application of the interconnection tariff in force each year.

Graph 10 – Comparison of the average price per minute of a 3 minute call, of the ICP-ANACOM RIO 2006 maximum prices, with current EU practices



The important evolution of the average interconnection prices in the 2001/2005 period also had an impact on Portugal's relative positioning vis-à-vis the remaining EU countries. In 2006, the maximum prices defined by ICP-ANACOM in the Determination concerning the changes to be introduced in RIO 2006 resulted in -8 per cent variations regarding the EU15 average, both for termination and for origination, while the average price in force in 2001 represented variations of about 6 per cent for termination and 10 per cent for origination (see following graphs).

Graph 11 – Comparison of the average price per minute for a 3 minute call with EU practices, for 2001



Invoicing, collection and non-collection risk service

RIO 2005

Regarding the prices defined for the invoicing and collection services for shared cost call services, and the types of calls that they apply to, ICP-ANACOM established maximum prices based on the following components: (i) cost of the activity of invoicing and collecting and (ii) cost of non-collection risk, namely the cost resulting from the provisions made to face that risk.

The prices established are:

- (a) 3.03 euro cents, per call, for the shared cost call services, where the cost to be supported by the caller is below or equal to PT local (as defined in PTC's tariff);
- (b) 3.89 euro cents, per call, for the remaining non-free special services.

The prices thus defined are 17 per cent and 25 per cent below those of the RIO 2004, for the services mentioned in paragraph (i) and (ii), above, respectively. This variation is mainly justified by the evolution in the amounts of the provisions made to support the risk of non-collection.

RIO 2006

By the Determination on the changes to be introduced in RIO 2006, approved on 21 April 2006, new prices for the invoicing and collection services for the shared cost call services were determined, and the types of calls that they apply to, based on the cost components previously mentioned. The following maximum prices were established:

- (c) 3.08 euro cents, per call, for the shared cost call services, where the cost to be supported by the caller is below or equal to PT local (as defined in PTC's tariff);
- (d) 3.44 euro cents, per call, for the remaining non-free special services, namely the customer support services, information services, universal access services and shared cost call services where the cost for the user is above that of a local call made in the scope of the universal service, provided by the operators/providers of electronic communications services.

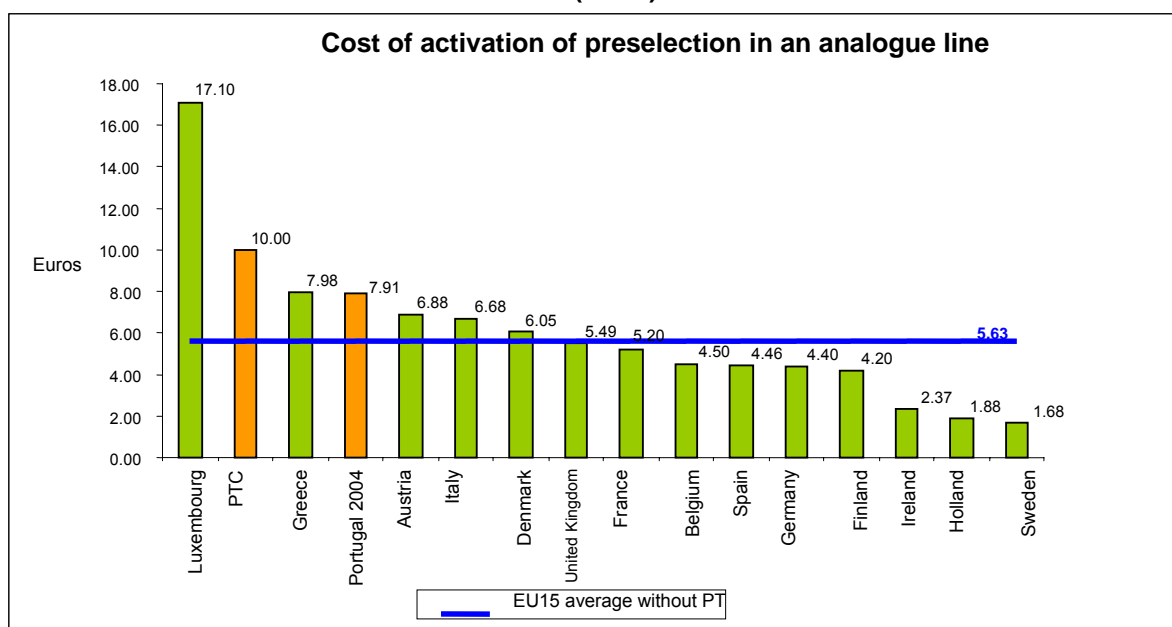
The prices thus defined mean about 2 per cent and -12 per cent variations for each of the mentioned numbering ranges, vis-à-vis RIO 2005. Furthermore, PTC had to clarify, for the conditions defined in RIO, that the prices mentioned therein include the non-collection risk component.

Preselection prices

RIO 2005

Recognizing that the price of preselection – which hadn't suffered changes since its definition in 2000 – was not appropriate and that such price is important to reinforce competition conditions, ICP-ANACOM decided that the preselection activation price should decrease to 5.60 euros, thus aligning with current European practices (see table below).

Graph 12 – Current European practices concerning the activation of preselection in 2004 (EU15)

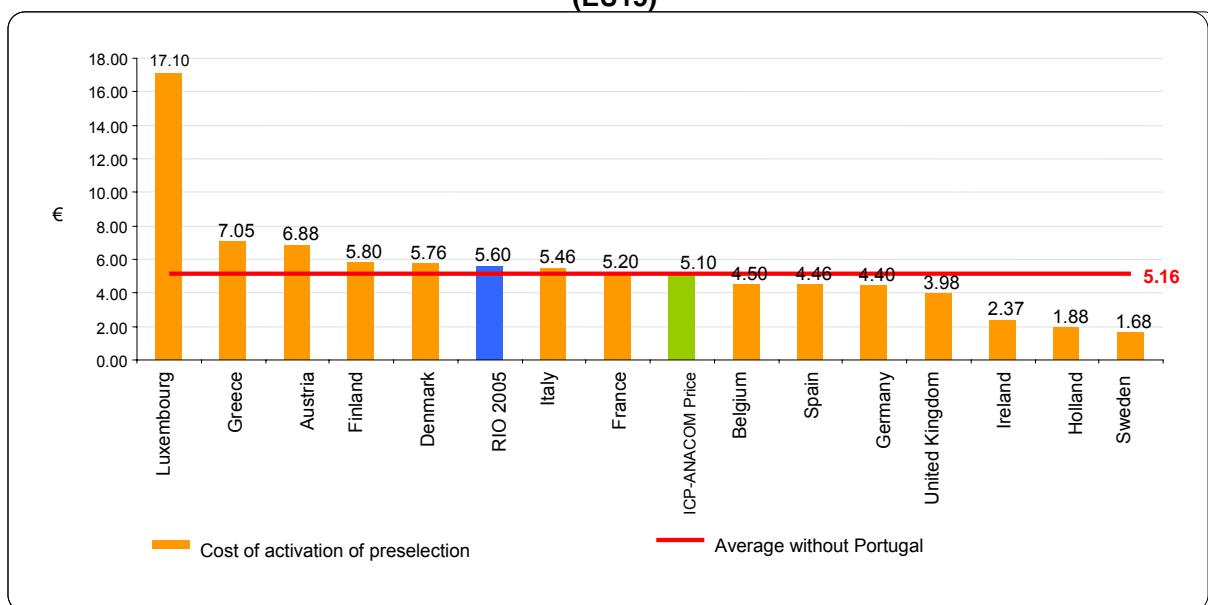


RIO 2006

Considering the reduction of the estimated unit cost put forward by PTC for the provision of the preselection service, in relation with the expected increase in demand, and also considering the achieved simplification of the preselection request process, with the agreement for the simplification of procedures of service provider change signed by PTC and most operators, ICP-ANACOM approved on 21 April 2006 the Determination establishing a maximum preselection activation price of 5.10

euros, a 9 per cent decrease regarding the price stated in RIO 2005, thus becoming much closer to the current European practices (see graph below).

Graph 13 – Current European practices concerning the activation of preselection in 2005 (EU15)

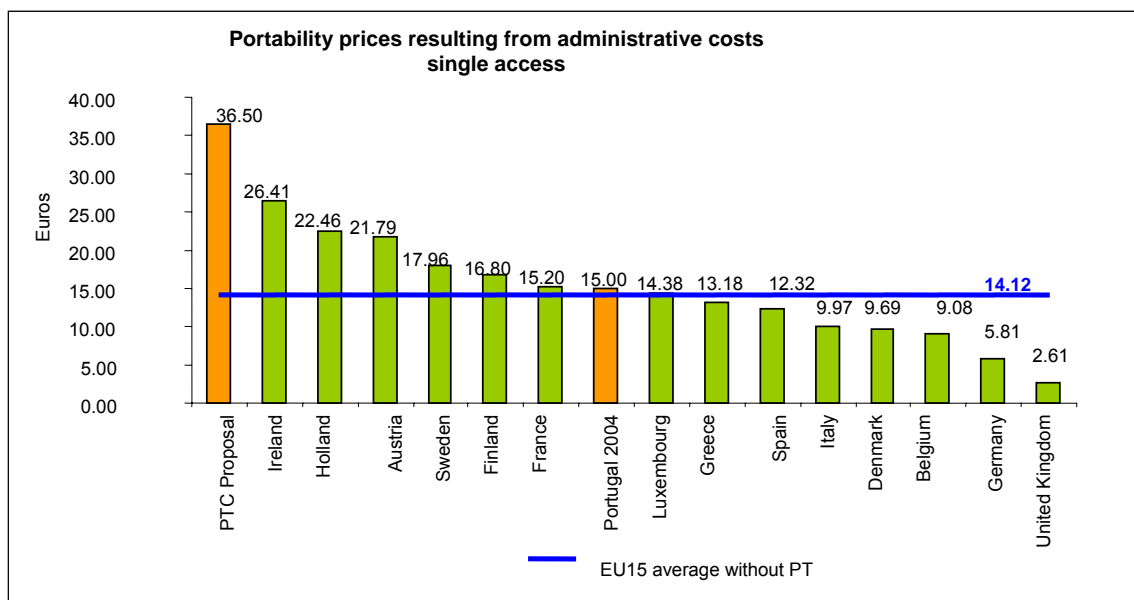


Portability prices

RIO 2005

Considering the European practices, according to the information collected in October 2004 – and not finding justification for the cost oriented price of an incremental service in the process of disconnecting a client to be above the price of the reference Entity that was set up, with commercial purposes, to only process portability requests, and which provides a more complex service under this perspective – ICP-ANACOM decided to maintain the price previously in force, of 15 euros, for it believes that the maximum price defined for portability is in line with the community average (see graph below). ICP-ANACOM will monitor the cost evolution, conditions of service provision and European practices, and will intervene whenever needed.

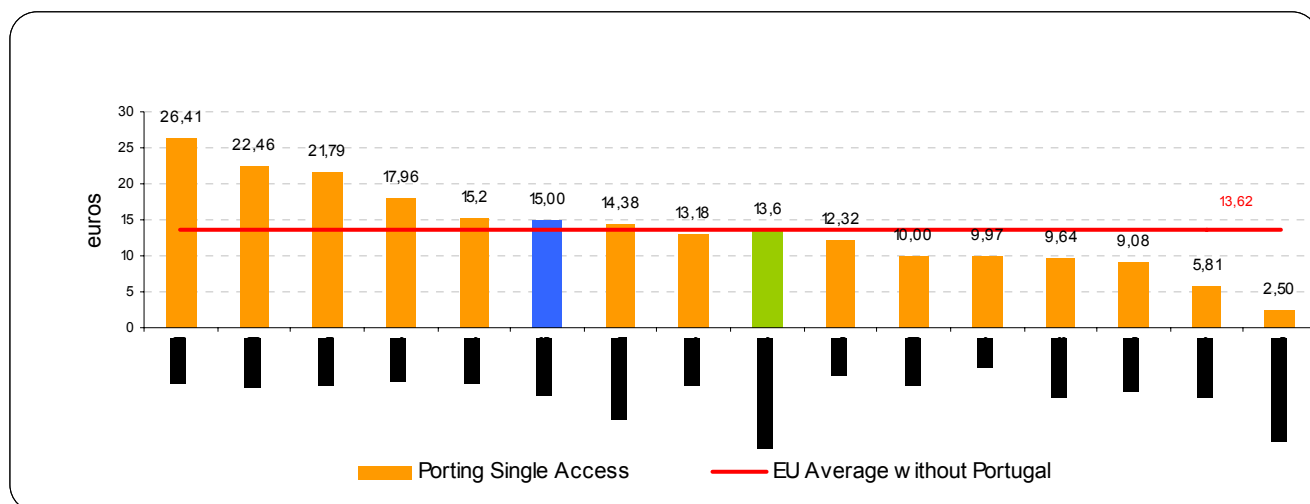
Graph 14 – Current European practices concerning the prices applying to portability (single access), EU15 – 2004



RIO 2006

Considering the (i) rationale supporting the Determination on the changes to be introduced in RIO 2005, particularly regarding the portability activation prices; (ii) the agreement for the simplification of the process of service providers change; and (iii) the expected decrease in portability costs, ICP-ANACOM approved on 21 July 2006 the Determination on the changes to be introduced in RIO 2006, which established a maximum price of 13.60 euros for porting a simple access, a decrease of about 9 per cent vis-à-vis the price in RIO 2005, in line with the current European practices, as shown on the following graph.

Graph 15 – Current European practices concerning the prices applying to portability (single access), EU15 – 2005



Specifications of capacity-based interconnection – interconnection flat fee

Considering the evolution of the electronic communications market and the emergence of competitive and innovative products and services in retail, and which the operators competing with Grupo PT could not fully replicate, given the current time-based interconnection model, it became necessary to introduce a interconnection model that is not time-based and that allows operators competing with Grupo PT to replicate in a competitive way certain offers and campaigns of Grupo PT. Therefore, in connection with ICP-ANACOM's decision on the setting of obligations in the wholesale markets of origination and termination, the provision of a capacity-based interconnection model, alternative to the time-based one (i.e., based on the length of the switched calls) became mandatory for Grupo PT.

Its introduction should contribute to a more efficient management of the interconnection resources by operators, which can now adjust them to their traffic needs and profiles, making it possible for all to offer innovative products and services and fostering the use of the fixed network, ultimately benefiting users, and contributing to create competitive conditions.

Determination of 24 June 2005 approved the launch of a public consultation on the provision of capacity-based interconnection (interconnection flat rate). By Determination of 12 October 2005, ICP-ANACOM approved its report and the draft decision on the changes to RIO in order to include the capacity-based interconnection.

The capacity-based interconnection model is made up of the transparent and non-discriminatory offer by PTC to operators and service providers of certain capacity of interconnection services alternative to the time-based interconnection model, at the interconnection geographical points (IGP) foreseen in the RIO, with a fixed price (i.e., interconnection flat rate). The interconnection flat rate varies with the contracted capacity and is independent from the length of the effectively routed traffic, with the contracted capacity being measured in multiples of the basic capacity unit, of a 2 Mbps line.

The capacity-based interconnection model is valid for voice traffic and for the narrow band (dial-up) Internet access traffic, and implies that PTC provides the network resources aimed at complying with the interconnection requests of the operators that have contracted a certain capacity to route the eligible traffic, according to the agreed quality and availability objectives. It also implies the payment of a price for traffic transport, in the sense of promoting an efficient and rational use of capacity-based interconnection.

Its beneficiaries will be the current beneficiaries of the RIO (public telecommunications network operators and FTS, MTS and data transmission service providers).

Among the basic services of switched traffic interconnection, the origination and termination services, especially the indirect access, are the fundamental support of interconnection. Thus, eligible traffic for capacity-based interconnection is: a) origination traffic: local, single transit and double transit; b) termination traffic: local, single transit and double transit. The following services are excluded from the eligible

traffic for capacity-based interconnection: a) free interconnection services (e.g.: 112, 117, 1414); b) international termination and transit traffic.

In order to foster stability on interconnection and an appropriate planning of the interconnection traffic, it is necessary to establish a minimum contracting period for the capacity-based interconnection, at the end of which the operators and service providers may maintain, change or cancel the capacity-based interconnection contract, not paying any compensation to PTC. Should this minimum period not be complied with, namely with the beforehand cancellation of the basic capacity units or the migration of part or all of the contracted capacity at a given IGP, the non-compliant part must pay a reasonable compensation, to be defined in the RIO.

The principles to be considered in the reckoning of the interconnection prices are, mainly, that the interconnection prices must be based on the real cost of their provision and the economic continuity of the model. Therefore, a relationship was established between the monthly capacity price and the price per minute, through the criterion used for sizing – the expected monthly traffic, according to the following formula:

$$\text{Basic Unit Price} = \text{Minutes per month} * \text{Average price per minute resulting from the time-based interconnection}$$

I.2.1.6 Narrow band retail markets

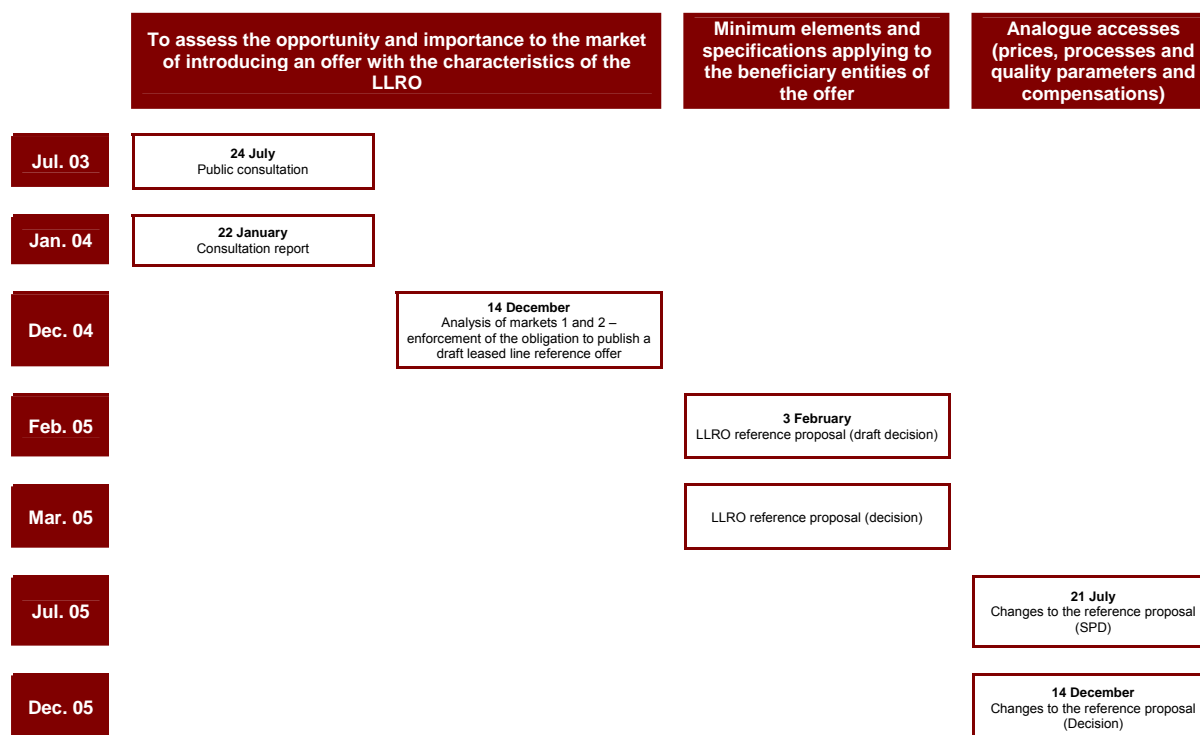
ICP-ANACOM's activity in 2005 was characterized by the intensification of solutions of access to the incumbent operator's network, also in the retail markets, the effective implementation of the leased lines reference offer (LLRO) standing out.

In the regulation model that ICP-ANACOM has been following, it is considered fundamental for the objective of promoting competition to ensure the coherence between the conditions of the several wholesale and retail offers of Grupo PT's companies.

I.2.1.6.1. Leased lines reference offer (LLRO)

The leased lines reference offer (LLRO) is a wholesale offer concerning the right of invoicing the telephone line of the operator with SMP in the residential and non-residential retail markets of access to the telephone network at a fixed location. The development of this offer makes it possible for the beneficiary entities to provide innovative retail offers, adding value for the end user by creating diversified services, and to compete with Grupo PT's offers aggregating access and other services, in optional plans.

The following figure shows the chronology of the LLRO implementation process.



The beginning of the process was in July 2003, with the public consultation on LLRO, which report was published on 22 January 2004.

On 14 December 2004 ICP-ANACOM determined that Grupo PT's companies operating in the residential and non-residential retail markets of access to the public telephone network at a fixed location⁵ have the obligation to provide the LLRO and to publish a reference proposal in that scope.

As a result of what was determined on the Determination of December 2004 mentioned in the previous paragraph, ICP-ANACOM approved, by Determination of 29 April 2005, the minimum set of elements to be included in the LLRO proposal and the specifications applying to the beneficiaries of the offer, as well as the report on the consultation and previous hearing on the corresponding draft decision. It should be noted that that document contains the analysis made by ICP-ANACOM to the comments to the mentioned public consultation on LLRO launched in July 2003, to

⁵ From hereon designated Grupo PT's companies.

the public consultation on the obligation in the narrow band retail markets, and to the experience of other Member States.

Later on, Determination of 14 December 2005 approved the changes to be made to the LLRO proposal. From the issues approached in this determination, the following stand out: (i) included accesses; (ii) prices (it was established that the LLRO's monthly fee should not be above 10.75 euros, VAT excluded); (iii) procedures for the provision of the services; (iv) quality of services parameters, applying performance objectives and compensation for non-fulfilment; and (iv) consumer invoicing and collection.

On the same date of 14 December 2005, also aiming to a quick and efficient implementation of the LLRO, ICP-ANACOM decided to approve the conditions for the provision, by Grupo PT's companies, of offers aggregating network line and traffic under one sole price. Under the terms of this Determination, companies of Grupo PT cannot provide retail offers aggregating access and telephone traffic as long as all the following requisites are not fulfilled: (i) effective provision of analogue and basic and primary ISDN accesses for LLRO activation; (ii) as long as the invoicing and collection price established by the LLRO beneficiary entity is reasonable and as long as the offer is active in the corresponding loop and for that entity, requests to the entities benefiting from the LLRO to invoice and collect all the services provided over LLRO-activated accesses, regardless of these being provided by Grupo PT's companies or by other companies, when they are invoiced to and collected from the subscribers of Grupo PT's companies; and (iii) efficient and effective implementation of the LLRO. For this last requisite, it is considered that the LLRO is being implemented in an efficient and effective way if the number of LLRO-activated accesses is, at least, 150,000 in equivalent analogue loops, excluding the activations of Grupo PT's companies.

If that amount is not reached within three months after the beginning of the LLRO's implementation, should such situation be due to non-optimised practices by Grupo PT's companies in the implementation of the LLRO, these will continue to be forbidden to provide retail offers aggregating access and telephone traffic. Otherwise,

ICP-ANACOM will not oppose to the provision by Grupo PT's companies of retail offers aggregating access and telephone traffic, as long as the applying regulatory framework is being complied with, including, namely, the compliance with the obligations of cost orientation and non-discrimination.

It is also shown that ICP-ANACOM, in the scope of its supervision and monitoring obligations, will continue to verify the implementation and functioning of the procedures associated to the LLRO, which transparency and efficiency should be guaranteed by the companies of Grupo PT.

Regarding current European practices within this scope, it should be mentioned that the United Kingdom's regulatory authority (OFCOM) published on 20 July 2005 a document where it analyses the replicability of the retail services (calls, subscriber lines and leased lines) where British Telecom (BT) has SMP, identifying the measures that BT must implement to guarantee the replicability of such services. Among those measures is the need for the LLRO to overcome the so-called fit-for-purpose test, which is the assessment of: (i) the LLRO's consistency with the corresponding functional specification; (ii) the LLRO's implementation having been made in order to minimize the barriers to an efficient competition; and (iii) the effective impact of the LLRO on the market.

Particularly regarding the prices of the LLRO's monthly fee in the countries where this measure was imposed, it should be noted that the figure established for Portugal (Determination of 14 December 2005) is about 12 per cent below the average of the considered countries (see following table).

Table 4 – Prices of the LLRO monthly fee

Country	LLRO monthly fee (euros)
Denmark	10.4
Ireland	18.0
Norway	12.7
Sweden	9.0
United Kingdom	12.6
Portugal	10.8
Average without PT	12.2
PT variation regarding the average without PT	-12.0%

The impact on the market of the implementation of the LLRO and of the changes to it approved on 14 December 2005 will be felt in 2006, considering that some maturing time is needed for the development and dissemination of the innovative retail offers made possible by that this measure.

I.2.1.6.2 PTC retail offers

ICP-ANACOM has carefully followed-up the evolution of the offers launched by PTC at the level of the retail markets⁶, ensuring that they comply with the applying regulatory principles, namely by verifying the alignment between the prices practiced and the costs (principle of cost orientation of prices) and the possibility that other operators have to replicate these offers, based on the interconnection costs practiced by PTC and which they are subject to (non-discrimination principle).

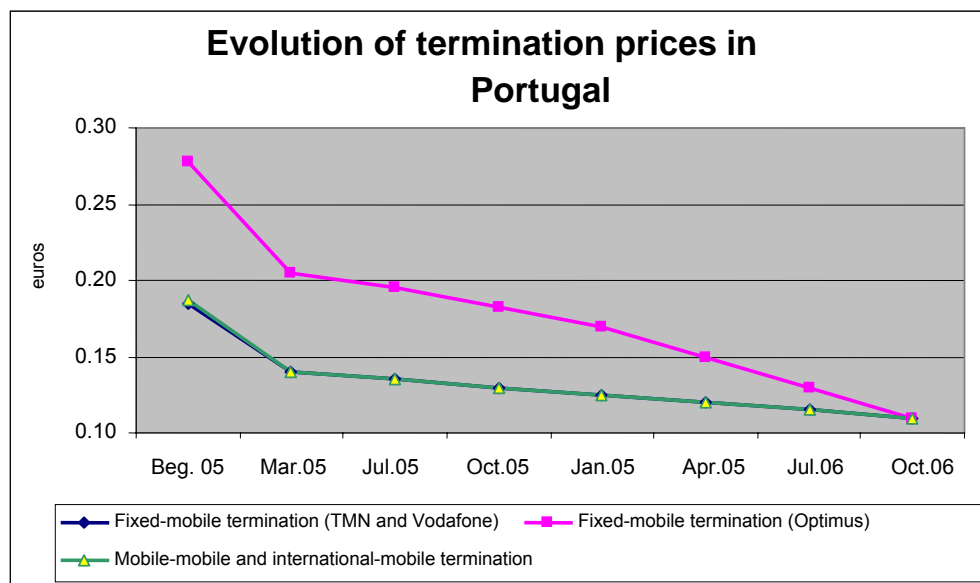
⁶ The mentioned offers provide, for a monthly fee, unlimited traffic on PTC's network or the use of a ceiling of minutes, during a given time period. Some the examples of unlimited time plans include the offers PT Total, PT Manhãs, PT Tardes, PT Tardes +, PT Dias Úteis, PT FDS, PT Noites and PT Noites +; minute packages include the PT 200, PT 100 and PT 200 Total offers.

I.2.1.7 Price control in the wholesale markets of voice call termination in individual mobile networks

In the scope of the relevant markets' analysis, the analysis to the wholesale markets of call termination in individual mobile networks was concluded on 25 February 2005, with the identification of the three mobile operators - TMN, Vodafone and Optimus - with SMP.

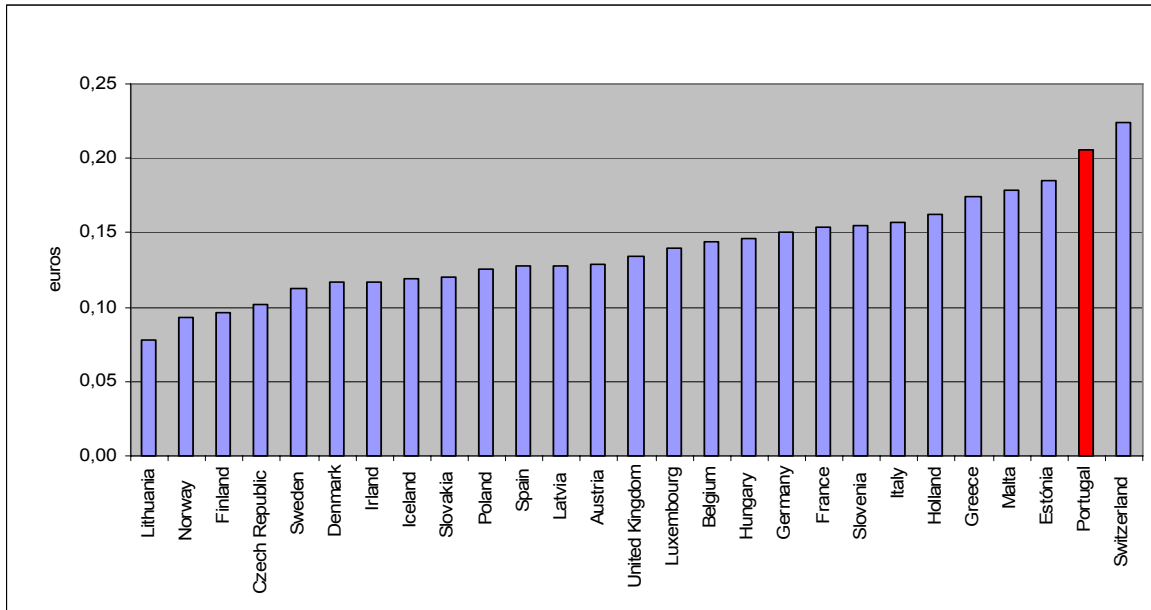
Important reductions were established regarding the prices previously practiced, through the price control implemented for the wholesale service of mobile termination. As from the first moment, in March 2005, reductions of about 25 per cent were registered, while at the end of the considered period, the price reductions will vary between 41 per cent and 60 per cent (see graph).

Graph 16 – Evolution of the termination prices in Portugal

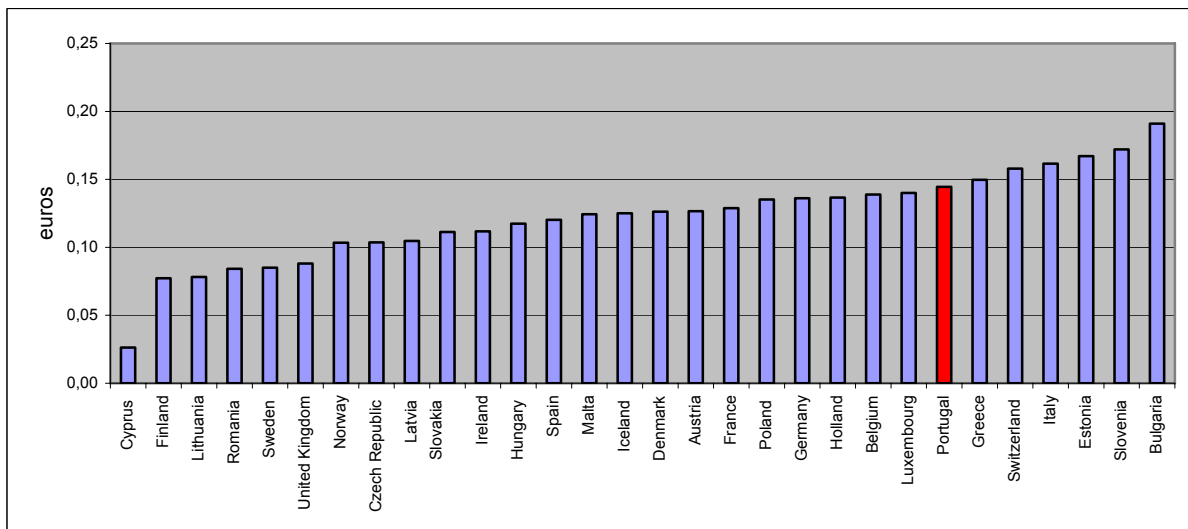


The following graphs show that the mandatory reductions resulted in considerable decreases of the average prices practiced in Portugal, and it is expected that they will become closer to the average European levels, further to the reductions to be implemented throughout 2006. The graphs also show an improvement in Portugal's relative position in July 2005 vis-à-vis that of last year.

Graph 17 – Average prices of fixed-mobile termination – July 2004



Graph 18 – Average prices of fixed-mobile termination – July 2005



Following ICP-ANACOM's decision on the reduction of the mobile termination prices of the three mobile network operators, it is considered that the competitive framework

of the mobile markets was benefited, namely by making way for commercial strategies that oppose the effects of network externalities. These effects are fostered by the practice of price discrimination at the wholesale level – between the prices for other networks and the prices for the own network – associated to the practice of *on-net* and *off-net* prices discrimination in the retail, placing smaller operators in disadvantage.

By imposing an important reduction in the termination prices, ICP-ANACOM contributed – besides the reductions in the retail prices applying to the fixed-mobile traffic – to create conditions for the emergence of more offers that do not differentiate the prices of on-net and off-net communications, and which include off-net retail prices that are more attractive to end users, which occurred in mid 2005.

I.2.1.8 Concessionaire PTC's reference conduits access offer (RCAO)

The efficient use of the existing infrastructures is a very important item in the promotion of competitive conditions in the electronic communications market, making it possible to externalise investments made by several economic agents to the whole of the Portuguese economy.

This also depends on the promotion and verification of the conditions of access to the ducts of the public service's concessionaire and to the lines of other public entities.

PTC's obligation to provide by agreement access to lines, posts and other facilities and locations it owns or manages, is mandatory under the terms of no. 1 of article 26 of Law no. 5/2004 of 10 February. Article 26, no. 4 of this law also establishes that the concessionaire is obliged to provide an offer for access to the ducts, which must include the conditions of access and use, under the terms to be defined by ICP-ANACOM.

This obligation's main purpose is to overcome certain constraints that entities offering publicly available electronic communications networks and services face, namely to efficiently replicate the investment in ducts, in certain geographical zones, where there may be physical limitations to the viability of replicating ducts, this being conditioned, in certain situations, by underground occupation restrictions resulting from its saturation, or by municipal restrictions.

Furthermore, Decree-Law no. 68/2005 of 15 March specifically established the legal regime for the construction, management and access (especially recognizing the importance of the access to ducts), having in view the infrastructures of the State's public domain to host communications networks.

It should be noted that, by determination of 17 July 2004, after consulting the interested parties, ICP-ANACOM set the principles and general conditions to which the access and use of the concessionaire's ducts and associated infrastructure should obey, as well as the minimum elements to be included in the RCAO, which

must respect the principles of transparency, non-discrimination and cost orientation of prices.

PTC and Novis Telecom, S.A. (Novis) – respectively on 15 November 2004 and 16 November 2004 – filed special administrative complaints for administrative-connected pretension against ICP-ANACOM, requesting the annulment of the Determination of 17 July 2004. ICP-ANACOM had already received, on 4 November 2004 and 24 November 2004, respectively, summonings to respond to the requests for: (a) suspension of application of the mentioned Determination, by PTC, on the following obligations: i) description of the space in ducts and associated infrastructure, considered necessary for the development of own infrastructure and presumably used during the RCAO's validity; ii) setting up, maintenance and update of a database with descriptive information of the lines and associated infrastructure, and its release to the beneficiaries; (b) legal action requested by Novis, for the issuance of a new provisory determination, in the scope of a temporary suspension request.

This legal dispute notwithstanding, PTC sent ICP-ANACOM, on 23 November 2004, a RCAO, although not including the items that were temporarily suspended.

The verdict regarding PTC's request to suspend the application of the said measure was against PTC. On 9 August 2005, the Court (*2º Juízo do Tribunal Administrativo de Círculo de Lisboa*) notified ICP-ANACOM that PTC's request to suspend the application of the said measure was given a verdict denying it, on 5 August 2005. Thus, ICP-ANACOM was no longer prevented from applying the two determinations which suspension had been requested by PTC. The latter was once again obliged to comply with them. Considering that the deadline established for the compliance with both obligations was suspended during the period that went from ICP-ANACOM being asked to respond to the request to immediately suspend the application of its measure, filed by PTC (04/1104), and the time of the verdict (11 August 2005), such deadline ended on 20 September 2005.

Thus, for the full compliance with what is stated in ICP-ANACOM's Determination of 17 July 2004, ICP-ANACOM decided, by Determination of 2 September 2005:

- 1° - To restate that PTC, in accordance with the Determination of 17 July 2004, must proceed with the setting up, maintenance and update of a database providing descriptive data on the ducts and associated infrastructure, as decided on that same Determination. PTC should within this scope send to ICP-ANACOM a description of how the database is being set up, a detailed and phased schedule of the process of its deployment (namely including its technical specifications) and of the exhaustive assessment of the records of ducts and associated infrastructure, by geographical area, in the national territory.

- 2° - To restate that PTC must, in accordance with what is stated in the Determination of 17 July 2004, present to ICP-ANACOM a description of the space in ducts and associated infrastructure considered necessary for the deployment of its own infrastructures and that is presumably used during the validity of the reference offer.

- 3° - To proceed to a previous hearing of the interested parties, so that these may comment, should they want to do so, in writing, about the changes that it intends to make to the RCAO.

I.2.1.9. Selection and preselection

Telephone services were traditionally bundled with the access to the public telephone network at a fixed location, a situation that was modified with the implementation of the so-called indirect access. Operator selection and preselection are indirect access options for users to choose an operator for their (national and/or international) calls that is not the one providing access to the public telephone network at a fixed location.

In the call-to-call selection mode (made available on 1 January 2000), should the users not wish to use the access provider's services they need to dial a code giving them access to the operator that they intend to select. In preselection (a mode that was made available on 1 July 2000), the pre-selected operator is pre-defined on a previous contract, after which all eligible calls are automatically made by this operator, with no need for code dialling.

Use of this feature has been steadily growing, and the number of indirect access clients has even had in 2005 the greatest increase since the beginning of liberalization (above 19 per cent), to which a more dynamic market approach by alternative providers has probably contributed. Preselection access points made up 17 per cent of the overall figure in the end of the fourth quarter of 2005.

Further to the strong growth in 2004, the number of call-by-call selection clients has stabilized around 101,000 in 2005.

Total FTS voice traffic has decreased every year since 2000, both in amount of minutes and in amount of calls. It is possible to observe that the overall fall is partly due to the significant decrease in traffic to fixed geographical numbers. In 2005, this traffic decreased 4.2 and 4.7 per cent, respectively. However, in spite of this trend, traffic routed using indirect traffic modes has significantly increased over the last five years, namely in 2004 and in 2005. In 2005, indirect access traffic stood for 20.1 per cent of all voice calls and 20.6 per cent of all minutes. Resulting from the progressive

relative increase of the indirect access traffic's weight in the overall voice traffic, Grupo PT's share (voice traffic, measured in minutes) has been showing a clear downward trend. By the end of 2005, it was about 74 per cent, a 4 per cent decrease versus 2004 and an 8 per cent one versus 2003.

It can be claimed that, like in the EU countries in general, the competition currently in place in Portugal in connection with the retail narrow band services has been considerably based on features such as preselection and call-by-call selection.

By the end of 2005, ICP-ANACOM took some measures that will expectedly contribute to protect the interests of the market in general and of the users, namely by reinforcing the positive evolution of selection and preselection.

The following measures stand out:

- 1 - The approval, by Determination of 14 December 2005, of the Selection and Preselection Regulation, published in the *Diário da República* on 9 January 2006 as Regulation no. 1/2006. This Regulation is based on the rules of the "Preselection Specification", approved on 12 May 2000, now broadened whenever applicable to call-by-call selection and changed or adjusted in order to take into account the experience gained from the implementation of indirect access since its beginning and the answers to the public consultation promoted by ICP-ANACOM on the issue. In this framework, mention should be made to the simpler processes of preselection activation and de-activation and to the widening of the eligible traffic to indirect access. Regarding the latter, national calls (calls with origin and destination in national public telephone networks, to geographical and non-geographical numbers) and international calls became eligible for indirect access. Still excluded from selection and preselection are calls from public payphones and temporary accesses, and toll-free international calls and national calls to emergency services and to internal services of the operator, Internet access services and toll-free numbers.

On a first phase, a Determination of 21 July 1999 considered eligible inter-urban⁷ and international calls using the fixed telephone network and/or the fixed telephone service, and, when using the mobile telephone network and/or the mobile telephone service, only international calls. Later on, a Determination of 9 October 2000 defined that the preselection option for eligible national communications made by the user/consumer would also encompass regional and local calls.

2 - SLRO's approval in 2005, made further to ICP-ANACOM's Determination of 14 December 2004, on the enforcement of obligations within the narrow band retail markets, that offer being made available by PTC as from 30 December 2005. This action is described in detail in part 001 section 2.1 of this report and it is foreseen that, together with the broadening of the eligible traffic for selection and preselection, it will make ways for pre-selected operators to more and more commonly issue unique invoices (besides the monthly telephone subscription fee being possibly invoiced by pre-selected operators, the value of the voice telephone traffic invoiced by PTC will also be residual). Thus this possibility of a smaller dispersion in invoicing will in principle give clients with preselection an accrued facility.

By determination of 15 December 2005, also made further to Determination of 14 December 2004, on the enforcement of obligations within the narrow band retail markets, ICP-ANACOM also approved the draft decision on the measures restricting actions by Grupo PT's companies to win back pre-selected clients. This draft decision targets a decrease from six to four months in the period during which, since 17 July 2003, these companies are not allowed to take such action. Some changes were also made to the current terms of this draft decision, in order to reinforce the effectiveness of this measure. ICP-ANACOM is currently analysing the answers it received within

⁷ Inter-urban calls were those made between local networks more than 50 km apart.

the defined previous hearing process and general consultation process, in order to approve a final decision on this matter.

I.2.1.10 Portability and numbering

Portability

Operator portability is the function giving subscribers to publicly available telephone services the possibility to keep their number or numbers on request, within the same service, regardless of the provider – in the cases with geographical numbers at a same location, and regarding the remaining numbers, all over the Portuguese territory.

Portability makes it possible to remove a possible barrier to the decision to switch operators – the harassment of changing telephone numbers. This function is provided for by the Community⁸ as a right of users and is considered an essential factor to make it easier for consumers to make their choices and to ensure effective competition within a telecommunications framework.

Under the terms of Directive 98/61/EC of 24 September, national regulatory authorities should make sure that numbering portability among operators would be available in January 2000 at the latest or, for countries granted an additional transition period, as soon as possible but in no case more than two years after the approved date for the full liberalization of voice telephony services.

In Portugal, portability was implemented in the fixed network on 30 June 2001 and in the mobile network on 1 January 2002. However, it has had a moderate impact on the Portuguese market so far, particularly on the mobile network and when compared with other European countries.

⁸ Considering 40 of Directive 2002/22/EC of 7 March and Directive 98/61/EC of 24 September 1998

Thus, a recent study by BoCa Consulting compared the amount of ported numbers with the total amount of users⁹ and put forward some data on the countries where portability is mostly used.

The following table contains the data made available in the said study and in the 11th Implementation Report of the European Commission and compares the amount of ported numbers with the amount of subscribers, using the consultant's method.

⁹ The amount of ported numbers should ideally be compared with the amount of granted numbers in use. Using the number of subscribers as a comparison is an approximation to this indicator.

Table 5 – Comparison: amount of ported numbers vs. number of subscribers

	Mobile service			Fixed service			Date of the data
	Amount of ported mobile numbers	Number of subscribers to the MTS	Ratio	Amount of ported fixed numbers	Number of subscribers to the FTS	Ratio	
Denmark	1,185,000	5,208,000	23.0%	457,000	3,409,000	13.0%	Jun. 2005
Spain	6,171,680	40,400,000	15.0%	1,710,651	n.a.	n.a.	Oct. 2005
Finland	3,000,000	5,100,000	59.0%	n.a.	n.a.	n.a.	Dec. 2005
France	458,900	46,100,000	1.0%	1,000,000	n.a.	n.a.	Oct. 2005
Italy	5,051,440	65,100,000	8.0%	1,182,738	n.a.	n.a.	Oct. 2005
Norway	1,700,000	4,811,000	35.0%	n.a.	n.a.	n.a.	Jun. 2005
Portugal	73,394	11,448,000	1.0%	265,077	3,133,623	8.0%	Dec. 2005
United Kingdom	4,413,152	61,600,000	7.0%	600,000	n.a.	n.a.	Oct. 2005
Sweden	1,500,000	9,000,000	17.0%	300,000	5,700,000	5.0%	Dec. 2005

Source: BoCa Consulting; 11th Implementation Report of the European Commission; ICP-ANACOM

The following table contains the evolution of the amount of ported number from the end of 2001 to the end of 2005.

Table 6 – Amount of ported numbers

	2001	2002	2003	2004	2005
Geographical numbers	2,332	63,427	118,017	158,623	265,077
Mobile numbers	n.a.	5,887	23,643	44,480	73,394
Other non-geographical numbers	6	145	215	277	351

Source: ICP-ANACOM

Regarding Portugal, the recent evolution of the amount of ported number stands out. Its growth rate from the end of 2004 to the end of 2005 was 67.1 per cent. Its absolute growth in 2005 was the greatest of all – over 100,000 numbers – since its implementation, showing how much the use of this function grew.

The strong growth in the amount of ported geographical numbers is in principle connected to the larger number of clients that changed fixed network operator in 2005. Indeed, providers not within Grupo PT had during this year a significant increase of direct Access clients (19.1 per cent), to which contributed the new GSM-based offers and the bundled fixed telephony and cable television and/or Internet offers. This increase, together with Grupo PT's companies' falling market shares, from 93.8 per cent to 88.9 per cent between the end of 2004 and the end of 2005, also in terms of direct access clients, is a sign of increasing churn rates.

The growth rate of the amount of ported mobile and other non-geographical numbers in this period was of 65 per cent and 26.7 per cent respectively, although the relatively small basis of calculation should be taken into account in the interpretation of these figures.

Portability has followed up the evolution of competition, although it has not been its drive. Apparently, new commercial offers have mostly driven this process.

The rules that were defined to frame portability were firstly part of the Operator Portability Specifications, approved by Determination of 28 June 2001.

At an initial phase there were some problems due to the lack of tariff transparency in connection with this new facility, and also several situations of diverse nature in connection with the activation process following the portability requests by users, which gave rise to countless complaints from consumers.

ICP-ANACOM approved in this framework, between 2002 and 2003, a set of measures aimed at promoting tariff transparency within the scope of portability, the following obligations standing out: (i) mobile operators should include an on-line message identifying the destination network of national voice calls to ported numbers between mobile telephone service networks, whenever there are tariff plans implying that the call to a ported number may be more expensive than before its porting; (ii) companies offering mobile or available at a fixed location telephone service and with tariff plans possibly implying that a call to a ported number is more expensive than before its porting should implement a telephone information service on the prices of voice, data and short messaging calls to ported numbers.

Thus, ICP-ANACOM approved between 2002 and 2003 a set of measures aiming to promote tariff transparency within the scope of portability. Standing out is the obligation of mobile operators to have an on-line message identifying the destination network for mobile-to-mobile calls to ported numbers, and the obligation of FTS and MTS providers in general to make available a telephone information service on the price of calls to ported numbers.

However costly to operators, the implementation of the on-line message was necessary considering the very large differences between the mobile operators' tariffs for on-net and off-net calls.

By a Determination of 22 July 2005, ICP-ANACOM approved the Portability Regulation, published in the *Diário da República*, Series II, of 18 August 2005 as Regulation no. 58/2005. This Regulation made some changes to the rules in force, namely to the content of the on-line message in mobile-to-mobile calls and to the procedural rules within the scope of the reception and handling of portability requests made by users. In order to lessen the possible harassment caused by the message, the Regulation was also changed in order to give operators the obligation to implement, up to the end of 2005, the possible inhibition of the message, at the calling user's request.

ICP-ANACOM has kept monitoring complaints on this matter and verified that the set of the above mentioned measures almost completely eliminated the reported tariff transparency problems in connection with portability.

Within the scope of tariff transparency, it is also noteworthy that, during 2005, ICP-ANACOM coordinated the making of the *Transparency of retail prices (with implementation of number portability)* report, part of the 2005 work plan of IRG (Independent Regulators Group)/ERG (European Regulators Group) and made in connection with the IRG End Users Working Group. This report described the main factors leading to tariff transparency problems in connection with portability, analysed the possible existence of such problems in several Member-States and identified the measures that were adopted to lessen them.

This *Transparency of retail prices (with implementation of number portability)* report namely contains an analysis of mobile-to-mobile calls' tariff differences among destination networks¹⁰. It verified that, up to this date, in Portugal, mobile-to-mobile

¹⁰ According to the report, a potentially high risk of tariff transparency problems in connection with tariff transparency occurs under three simultaneous conditions: significantly large price differences between on-net and off-net calls; a high degree of

off-net calls had much higher prices than those of the on-net calls, this being the largest tariff differential among the 23 analysed countries.

The results of the report showed that, in general, countries with large price differences between *on-net* and *off-net* calls have implemented an on-line message, just like in Portugal. Among these countries are Ireland, Italy, Lithuania and Austria.

Currently, mobile operators have already launched several tariff plans making no difference among destination networks and there are also tariff modes according to which *on-net* calls are free for a given monthly fee. The need to maintain the measures put in place to overcome the tariff transparency problems in connection with portability is thus kept.

association of the prefixes to the corresponding operators by consumers; orientation of call prices to network-ported numbers (i.e., the tariff of the call is made based on the new network of the ported number).

Numbering

During the year of 2005, activity within the scope of numbering took two main paths, namely the granting of rights of use and the observation and analysis of the use of these rights vis-à-vis the services' titles and possible requirements attached to their provision.

Regarding the first, 840,000 geographical numbers were granted for the telephone service at a fixed location, 120,000 numbers for non-geographical services (ranges 800, 808, etc.), 200 numbers for the Internet access service and 5,000 numbers for audiotext services.

Regarding the latter, it is worth mentioning the analysis of the use of geographical numbers both for (nomadic) VoIP services and for mobile trunking, due to unlawful uses that were then handled by the judicial authorities. Also noteworthy is the decision, by Determination of 22 July 2005, to open the national numbering plan (NNP) – E.164 – in the 11-digit 639 and 659 ranges, for access to MTS's fax and data services. The opening up of those ranges within the NNP made it possible to harmonize access to those services, regardless of the network handling them, which is relevant in a framework of portability.

Within the same context is a determination of 25 February 2005 approving a new range – 71 – within the NNP (E.164), for cost-plus tariff utilitarian services. Further to this decision came the corresponding draft decision (determination of 9 September 2004), put for the general consulting procedure and the previous hearing of interested parties. The creation of this code was subject to specific numbering allocation and usage conditions.

I.2.1.11 Regulatory approach to VoIP

2005 witnessed a progressive growth in VoIP offering. ICP-ANACOM has closely monitored how this option evolves. It is generally considered that it has advantages for users, such as potentially lower prices and innovative services (e.g. Unified Messaging), and for operators, such as a more flexible and efficient use of network resources and simpler provision elements for multiple services.

VoIP services, as publicly available electronic communications services regulated by Law no. 5/2004, can be:

- i) Offered by an access provider – namely a broadband one – at a single fixed location and under conditions that are perceived by the user as equivalent to the traditional FTS. Examples of this kind of service are Oni220, provided by Onitelecom – Infocomunicações, S.A. (Onitelecom) and others based on wholesale offers;
- ii) Of a nomadic use, i.e., subject to use on several locations and based on a third-party access, i.e. not in control of the access network (an example of this kind of services is *Skype-OUT/IN*). By the end of 2005 there were 16 authorized providers for this kind of service, although none of them offered a service with the same features of FTS.

Gradual transition to VoIP will take place with the increasing penetration of broadband; decreasing prices of VoIP calls; terminal equipment with new features and the intensification of attractive offers by traditional telephony.

The EU (with a consultation put out in June 2004) and several NRAs are currently debating VoIP matters and their impact on the market, underlining a stable and predictable regulatory framework.

Within this scope, ICP-ANACOM launched a public consultation which deadline for comments was 21 December 2005, in order to ensure a regulatory approach to VoIP, as a publicly available electronic communications service, compatible with the

enhancement of competition, encouragement of innovative, diversified and quality services, consumer protection and efficient numbering use.

The consultation covered, besides numbering, the following issues: (a) development of mobile VoIP; (b) network access control as a factor for service categorization; (c) access conditions to emergency services, including caller locating, minimizing the unlawful use of those services and participation in standard *fora* in defining technical specifications; (d) lawful interception of calls; (e) quality of service; (f) SPIT and throttling handling; (g) net costs of the universal service and retail price affordability; (h) provision of relevant and updated information to users; (i) statistical data collection by ICP-ANACOM.

On 23 February 2006 ICP-ANACOM approved the report of this public consultation on the regulatory approach to voice services based on IP technology (VoIP), with the analysis of the received replies and this Authority's position on the matter.

Among other items, this position characterizes the VoIP services and considers the opening of a new non-geographical numbering range as adequate, range 30, making a distinction between the nomadic use VoIP service and the telephone service provided at a fixed location. It also establishes the implementation of portability by the nomadic use VoIP service providers and that the Quality of Service Regulation, already approved by ICP-ANACOM (Regulation no. 46/2005, published in *Diário da República* on 14 June), applies to companies providing VoIP service at a fixed location. Besides, all VoIP service providers with NNP numbers, including those providing nomadic use services, when on national territory, must ensure the routing of their VoIP calls to the emergency services, making calls to 112 possible. VoIP service providers at a fixed location must submit the same quarterly statistical data asked from the remaining FTS providers. In order to statistically monitor the activity of nomadic use VoIP providers, ICP-ANACOM will in due time put for consultation a form for submission of statistical data.

Regarding the opening up of the 30 range for nomadic use VoIP services, a complementary decision was made to grant these numbers to providers that are

authorized to provide nomadic use VoIP services, by ranges of 10,000 numbers, under the terms defined by ICP-ANACOM. Taking into account the terms of paragraph g) of no. 1 of article 3 of the Portability Regulation, range 30 was included within the scope of portability.

VoIP services are already part of the Portuguese reality. They play a role in greater competition and service diversity. The development and an increasingly common use of VoIP services will put pressure on traditional voice operators – resulting from the downward pressure on costs and decreasing entry barriers for new operators – and will inevitably lead to an end-price reduction. Furthermore, it may jeopardize the most common tariff systems, based on duration and distance.

Foreseeing these trends, ICP-ANACOM put some regulatory measures in place – such as the subscriber line resale offer and the terms under which offers can make available, for one single price, network line and traffic – which contribute to a gradual market transition vis-à-vis the marketing of new technological solutions.