

Regulation of market competition

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Analysis of French and European markets

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A. Market analysis process used in France in 2005

1. Status

A highlight of 2005 was the completion of the majority of market analyses required by European texts and in particular by the Commission's Relevant Markets Recommendation of 11 July 2003.

As of 31 December 2005, the Authority had completed analyses of 12 of the 18 markets covered by this recommendation. The markets still being analysed are:

- the three markets relating to leased lines, for which the Authority conducted a public consultation from 30 November 2005 to 6 January 2006;
- the broadcasting market, which was put to public consultation from 1 July 2005 to 9 September 2005 and gave rise to a formal request for the opinions of the audiovisual and competition authorities, the *Conseil Supérieur de l'Audiovisuel* (CSA) and *Conseil de la Concurrence*;
- the international roaming market, which was put to public consultation from 15 December 2005 to 20 January 2006 (and in February 2006 for English-language consultation);
- the market for mobile access and mobile call origination.

On 31 May 2005, after conducting a public consultation and having received the favourable opinion of the *Conseil de la Concurrence* and notified the European Commission of its draft decision, the Authority decided to suspend its analysis of the market for mobile access and mobile call origination in order to take account of the evolution of this market in which a number of MVNO agreements are currently being signed. The European Commission has invited ARCEP to provide notification of a new draft decision on the market before the end of 2006.

In addition, the Authority has defined two new markets:

- the market for broadband access offerings delivered at national level, which was adopted 28 July 2005;
- the market for SMS call termination.

The Authority was also led to clarify certain obligations imposed by market analysis decisions that had already been adopted. These involve:

- Decision No. 05-0960 of 8 December 2005 concerning accounting obligations imposed on certain mobile operators (Orange France, SFR, Bouygues Telecom, Orange Caraïbe, and SRR) that are dominant in the mobile call termination market;

- Decision No. 05-0834 of 15 December 2005 concerning the valuation of copper local loop assets and the cost accounting method to be applied to full unbundling.

2. Interaction of the various players

In accordance with the provisions of the CPCE and European Directives, the market analysis process undertaken by the Authority requires the involvement of numerous players.

First of all, ARCEP's various departments were particularly active in this area given the number of analyses undertaken in 2005. Next, the process also required considerable investment from the entire sector, which contributed to the numerous public consultations associated with each analysis. On average, two public consultations were held for each draft decision. These consultations enriched the debate and improved the quality of ARCEP's draft decisions. Thus, they constituted an indispensable and invaluable input to the Authority's actions

Also, the *Conseil de la Concurrence* was consulted regularly because the texts require that all draft decisions be referred to it in matters concerning the definition of relevant markets or concerning the designation of operators with significant market power. It has six weeks to render a decision, a timeframe which it honoured scrupulously.

These exchanges with the *Conseil* were particularly constructive and led the Authority to modify its analyses in order to take account of the *Conseil*'s comments. The following changes are worthy of special mention:

- changes to the definition and segmentation of retail fixed-telephony markets and the treatment of VoB (voice over broadband);
- changes to the methods of calculating market share and the exclusion of calls to value-added services provided by the operators;
- impact to the wholesale broadband market arising from the reintegration of Wanadoo into its parent France Telecom.

In addition, before notifying the European Commission of its draft decisions, ARCEP had its own departments meet with those of the Commission in pre-notification meetings. Thus, each draft decision gave rise to at least one pre-notification meeting before formal notification was made. These meetings allow the Authority to present its drafts, regulatory issues and when necessary, aspects specific to the French market to facilitate comprehension of its draft decisions.

Once the Commission has received notification of a draft decision, it is not unusual for its departments to respond, within the one-month period permitted for draft review during Phase I, with requests for information from the Authority, which the Authority must satisfy within three days. To date, no Authority decision has been required to proceed to Phase II¹. Finally, having received the Commission's observations, the Authority must

¹ See definition of Phase II later in this text.

take them into account in order for the market analysis decision to proceed to final adoption.

Once the decision is adopted, it can be contested before the *Conseil d'État*. In 2005, several appeals were filed concerning market analyses. The *Conseil d'État* ruled on those involving decisions relating to the obligations on mobile operators in Metropolitan France in call-termination markets on the one hand and the decision imposing obligations on France Telecom in the unbundling market on the other hand. In the first case, in an order dated 5 December 2005, the Conseil rejected the grounds of the petition filed by the *UFC-Que-Choisir* consumer group. In the second case, a matter brought by AFORS Telecom, a group representing the interests of alternative operators, the Conseil issued an ordinance on 23 August 2005 rejecting the group's petition for an emergency ruling on suspension, but then dismissed the case in December 2005 because the petitioner withdrew the complaint.

Because all of these processes involve multiple steps, there is a lag (of 12 to 18 months on average) between the time when the first public consultation is completed and the time when the draft decision is finally adopted. However, the period is becoming shorter as ARCEP gains knowledge and experience. Finally, it should be emphasised that in general each of these steps often help the Authority to amend, improve or clarify its draft decisions.

Also, in an effort to streamline the process, the IRG and ERG, in which the Authority participates, proposed modifications through the European Commission's public consultation on the European Framework Review. These modifications focused mainly on implementing de minimis threshold regulation for small operators and lightening the notification burden in markets where there is a "super dominant" operator. (See Part II, Chapter 2.)

Status of market analyses conducted by ARCEP as of 31 December 2005

Market	Decision status				
	National consultation	Commission notified	Decision adopted	Valid until	Appeals
Markets 1 and 2 Retail access	X	X	X 27/09/2005	01/09/2008	
Markets 3 through 6 Fixed call services	X	X	X 27/09/2005	01/09/2008	
Market 7 Retail leased lines	X				
Market 8 Call origination	X	X	X 27/09/2005	01/09/2008	
Market 9 Call termination by France Telecom (*)	X	X	X 27/09/2005	01/09/2008	
Market 9 Call termination by third party LLOs	X	X	X 27/09/2005	01/09/2008	
Market 10 Transit	X	X	X 27/09/2005	01/09/2008	
Market 11 Bitstream	X	X	X 19/05/2005	01/05/2008	X Dismissed: EC 28/12/2005
Market 12 Bitstream	X	X	X 19/05/2005	01/05/2008	
Market 13 Leased line terminating segments	X				
Market 14 Leased line trunk segments	X				
Market 15 Mobile call origination	X	X Withdrawn 31/05/2005			
Market 16 Mobile call termination	X	X	X 09/12/2004 (Metropolitan France) 01/02/2005 (overseas)	08/12/2007 (Metropolitan France) 31/12/2007 (overseas)	X Rejected: EC 05/12/2005
Market 17 International roaming	X				
Market 18 Broadcasting	X				
New market National-level broadband offerings	X	X	X 28/07/2005	23/09/2006	
New market SMS call termination	X				

B. Market analysis in the European Union in 2005

1. A new wave of notifications

Though the market analysis activity was intense at ARCEP, it was the same all across Europe. Consequently, in 2005 the Commission adopted more than 110 decisions (comprising letters of comment, initiation of Phase II proceedings, and vetoes) on notified draft decisions, wherein one Commission decision sometimes covered multiple markets. Between 2003 and early 2006, the Commission was notified of more than 300 draft decisions.

Some regulators have already completed the first round of market analyses. Thus, by 31 December 2005, the regulatory authorities of the United Kingdom, Austria, Sweden, Hungary, Ireland and Finland had reported draft decisions for all markets (except for international roaming in the case of the first five). However, they continue to provide notification of draft measures when they intend to modify or clarify obligations imposed on operators they have identified as having significant market power in a given relevant market.

On 13 October 2005, the Commission announced that it had given formal notice to Member States whose national regulatory authorities (NRAs) had not yet provided notification of any market analysis – Belgium, the Czech Republic, Estonia, Cyprus, Latvia, Luxembourg and Poland. It also stated that it would issue formal notices to the group of States that had not provided notification for each of the markets in the Relevant Markets Recommendation by July 2006.

Besides the 18 markets that the European Commission recommendation has identified for examination, the NRAs have the option to define additional markets based on specific national characteristics when those markets meet the following three criteria:

- there are barriers to entry;
- there is no evolution toward competition;
- competition law is inadequate to correct competition problems.

Therefore in 2005, some regulators demonstrated the need for new markets to be created, such as:

- the market for broadband access offerings delivered at the national level (ARCEP²);
- the market for retail leased lines at speeds above 2 Mbps (the Irish regulator, case IE/2005/138);
- the market for retail radio and television packages offered without restriction on cable networks (the Dutch regulator, see below).

ARCEP Decision No. 05-0281 of 19 May 2005 concerning the market definition of wholesale broadband access services delivered at national level, the designation of an operator with significant power in this market, and the obligations on that operator.

3 Commission communications to the Council, European Parliament, European Economic and Social Committee, and the Regional Committee on Market Analysis in application of the Community regulatory framework on 6 February 2006 (COM 2006) 28.

In connection with the Regulatory Framework Review, the Commission prepared a report on the progress of notifications since the framework was implemented in 2002³.

2. Phase II analyses initiated by the Commission in 2005

When the Commission receives notification of a draft decision from a regulator and determines that the draft decision will pose an obstacle to a single market, or when it has grave doubts concerning the decision's compatibility with Community law, it launches a Phase II analysis as provided for in the notification procedure. The Commission then has an additional two months to issue a decision. This process may give rise to an agreement, with the regulator changing the draft decision as needed, an order for the regulator to withdraw its draft decision, or a veto.

2.1. Phase II actions and vetoes in 2005

The Commission issued only one veto decision in 2005 (against two in 2003 and two in 2004). This decision (COM (2005) 1442) of 17 May 2004 involved the German regulator's notification concerning the fixed call-termination market. In its draft decision concerning the market for fixed call termination (DE/2005/0144), the regulator had determined that incumbent operator Deutsche Telekom (DT) was dominant on its own network but alternative operators were not dominant on their own networks because of the incumbent's ability to use its curtailing purchasing power against them.

The Commission determined that RegTP (now known as BNetzA) had provided no evidence that alternative operators lack significant market power and had not justified its greenfield approach.

The Commission also emphasised that a market analysis must take account of all existing economic circumstances and regulatory obligations. To avoid any risk of circular logic or analysis, it also issued a reminder that the greenfield approach proves the absence of an SMP operator only when markets are already effectively competitive and not when the absence of the SMP operator results specifically from regulation already in effect (for example when the incumbent operator obligation to grant interconnection requests enables competition in telephone services by providing access to infrastructure). Only once sustained effective competition has been established can regulation be lifted gradually until, competitive circumstances permitting, it is removed altogether.

The Commission also observed that given the scope defined for this relevant market only the local loop operator concerned can terminate calls to numbers on its own network. This operator therefore has a 100% share of this particular relevant market. However, the Commission emphasised that this definition of the call termination market does not necessarily imply that all local loop operators are SMP operators.

In order to determine whether alternative local loop operators are in fact in a position to act independently of their competitors, their customers and ultimately their end users, it is necessary to assess whether these operators are able to exercise any curtailing buyer power in the provision of call termination services. Thus, small networks may be at an effective disadvantage compared to large networks. However, this imbalance can be corrected by applying the regulatory obligations already mentioned. Besides, a large operator has no curtailing power if its call termination rates are regulated since regulation deprives it of all tools for negotiation.

Since this decision, the German regulator has provided notification of a new draft decision (DE/2005/0239) declaring that all alternative local loop operators have significant market power, and this received Commission approval on 28 September 2005.

2.2. Phase II actions and modification of draft decisions notified to the Commission in 2005

Two decisions in 2005 caused Phase II analyses to be opened without leading to vetoes but requiring instead modifications to the draft decisions which had been notified to the Commission.

First of all, on 8 November 2005 the Commission opened Phase II proceedings upon receiving the Dutch regulator's notification concerning creation of a new market: the market for retail radio and television channel packages offered without restriction on cable networks in the service areas of cable operators UPC, Essent and Casema ((NL/2005/0247). OPTA proposed that the market power of the three cable operators be evaluated based on their respective service areas and thereby defined three distinct markets. It also proposed that the following obligations be imposed on this retail market:

- these services may not be bundled with others (freely available channel packages broadcast without restriction must be provided separately from other services, such as interactive services, and decoders);
- tariffs must be transparent (making the price of each service transparent);
- tariffs for broadcasting freely available channel packages must be cost-oriented.

The Commission determined that the three relevance criteria for *ex ante* market regulation had not been satisfied in this case. It therefore reproached OPTA:

- with regard to the first criterion concerning barriers to entry; for not having taken into account in a market characterised by technological innovation, the potential competition from alternative infrastructures that could appear in this market within the timeframe of the analysis;
- with regard to the second criterion concerning the lack of evolution toward a competitive situation; for not having taken into account the fact that without regulation the market already has competitive potential and the similarity of the tariffs employed indicates that the

cable operators are subject to a common external tariff constraint even though they are active in different markets;

- finally with regard to the third criterion concerning the inadequacy of competition law; for proposing that tariff controls be imposed since this would be counterproductive in this market and would defeat the purpose of developing infrastructure competition in this market. In addition the competition authority has demonstrated that it is able to evaluate operator prices against their associated costs.

To avoid a veto, OPTA provided notification of a new amended draft decision on 12 December 2005, which the Commission approved. Pursuant to the new draft:

- regulation is imposed for one year (rather three);
- tariff controls are lifted and retail tariffs remain unregulated as long as they rise no faster than the consumer price index;
- OPTA is responsible for monitoring this market and has stated that in 2006 it will adopt exceptional measures if the prices of the cable operators concerned rise beyond the consumer price index in addition to which it will propose that this market continue to be regulated in the coming years if necessary.

Finally, on 11 November 2005 the Commission also initiated Phase II proceedings concerning the German regulator's draft decision for Market 12, the bitstream market (DE/2005/0262). The Commission reproached the German regulator for wanting to exclude VDSL-based products from the definition of this wholesale market, a new exclusion not covered in the draft decision submitted to national consultation. The Commission criticised the substitutability analysis that the German regulator had performed leading to this conclusion.

To avoid a veto, the German regulator responded with a new amended draft decision on 14 December 2005, which the Commission approved. In its letter withdrawing the serious doubts, the Commission noted that the new draft:

- no longer contained arguments claiming an *a priori* lack of substitutability between access products based on VDSL and those based on ADSL2+;
- included VDSL products in the definition of the wholesale market therefore to the extent that in the retail market VDSL-based products may be substituted for existing (ADSL and SDSL) products.

These notifications demonstrated that the initiation of Phase II proceedings does not necessarily lead to vetoes but may result in sizable modifications to the notified draft decision. However, it should be noted that to date no Phase II proceedings have ever led to the Commission approving a draft decision in its original form.

Moreover, it should be highlighted that 2005 saw a rise in the number of withdrawals of notification (11 withdrawals in 2005 compared to 3 in 2004). Also, some NRAs decided to withdraw their draft decisions before the Commission could rule on them officially. In most cases, these regulators indicated when withdrawing the draft decision, that either the Commission did not find the notified draft decision persuasive or that new circumstances had arisen changing the way the market operates. Withdrawals worth special mention include those by:

- ARCEP with respect to Market 15;
- the Swedish regulator with respect to Markets 3, 4, 5 and 6;
- the Danish regulator with respect to Markets 9 and 12;
- the Slovenian regulator with respect to Markets 13 and 14;
- the Irish regulator with respect to creation of a new wholesale market for fixed call termination to service providers.

Fixed telephony

- A. Analysis of fixed telephony retail markets
- B. Key points of the analysis

A. Analysis of fixed telephony retail markets

1. Conclusion of analysis in 2005

In accordance with Article D.301 of the CPCE, ARCEP put to public consultation during the period from 9 July to 15 September 2004, a preliminary document analysing the retail and wholesale fixed telephony markets. The Authority made proposals concerning the delimitation of the relevant markets, the determination of companies with significant influence, and draft obligations to remedy identified competition problems. This draft did not include an analysis of the market for geographic call termination on alternative fixed operator networks or of the market for special services, which will be the subject of a decision by the Authority at a later date.

When the public consultation was over, ARCEP in accordance with the provisions of the second subparagraph of Article D.301 of the CPCE, published a summary in connection with its request dated 5 January 2005 for the opinion of the competition authority, the *Conseil de la Concurrence*. Once these steps were concluded, and in particular once the *Conseil de la Concurrence* had delivered its opinion in February⁴, the Authority established a draft decision concerning the determination of relevant markets, the significant influence of France Telecom, and resulting obligations on fixed telephony markets.

Draft Decision No. 05-0571 was put to public consultation on 15 June 2005 for a period of four weeks. In particular, it included an adaptation of the retail and wholesale market scope previously envisaged, with the new scope addressing the observations of the *Conseil de la Concurrence*. It also included modifications to the remedies proposed, especially with regard to the following points:

- the mechanism exempting France Telecom from prior communication of its tariffs for retail markets;
- tariff controls on France Telecom services where the operator has significant market power in wholesale transit markets.

In parallel, ARCEP put to public consultation from 17 January to 18 February 2005, a document analysing the markets for geographic call termination on alternative fixed networks. Responses to this consultation were summarised in an amendment to the original document, which was issued in connection with ARCEP's 22 March 2005 request for the opinion of the *Conseil de la Concurrence*.

Having received the *Conseil's* opinion on 11 May 2005⁵, ARCEP put Draft Decision No. 05-0425 to public consultation on 15 June 2005 for a period of four weeks. After these public consultations, the Authority modified certain elements of its draft decisions, subsequently notifying the European Commission on 29 July 2005 and at the same time launching a new public consultation aimed at gathering comments on the latest changes.

Opinion No. 05-A-05 of 16 February 2005 concerning a request for ART's opinion in application of CPCE Article L.37-1 concerning the analysis of retail markets and the wholesale market for fixed telephony.

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Opinion No. 05-A-10 concerning a request for ART's opinion in application of CPCE Article L.37-1 concerning the analysis of markets for geographic call termination on alternative fixed networks.

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The draft decisions received the Commission's approval in mid-September 2005 and on 27 September 2005 ARCEP adopted two decisions concerning analysis of the fixed telephony market:

- Decision No. 05-571 of 27 September 2005 concerning the definition of relevant fixed-telephony markets, the designation of operators exercising significant influence on these markets, and the resulting obligations imposed;
- Decision No. 05-425 of 27 September 2005 concerning the definition of relevant markets for geographic call termination on alternative fixed networks, the designation of operators exercising significant influence on these markets and the resulting obligations imposed;

Publication of these decisions in the *Journal Officiel*, on 14 and 18 October 2005 respectively, transferred to ARCEP responsibility for enforcing retail tariffs and created the obligation for France Telecom to publish two reference offers, one for its interconnection services and one for wholesale line rental.

Finally in 2006, further to observations made by the European Commission, ARCEP will perform an analysis of relevant markets for non-geographic call termination on alternative fixed networks.

2. Relevant retail markets

2.1. Scope

By the end of the process provided by the Framework Directive, the Authority had identified the following relevant retail markets:

- the residential market for telephone access, comprising access products used by residential customers mainly to access the public telephone network;
- the business market for telephone access, comprising access products used by business customers mainly to access the public telephone network and including, in particular, capacity service offerings aimed specifically at providing business customers access to the public telephone network;
- the residential market for national telephone calls, including calls to fixed stations and calls to mobile terminals;
- the residential market for international telephone calls;
- the business market for national telephone calls;
- the business market for international telephone calls.

2.2. Significant influence

In its final decision, as envisaged in its earlier draft decisions, ARCEP indicated that until 1 September 2008, France Telecom is considered to exercise significant influence in the retail markets defined in Articles 2 through 7 of Decision No. 05-571 and the wholesale markets defined in Articles 8 through 11 of the same decision.

2.3. Obligations imposed

The obligations imposed on retail markets until 1 September 2008 by Decision No. 05-571 Articles 25 through 31 are the following:

- *a priori* proscription against certain practices in access markets and call markets: discriminatory practices, anticompetitive bundling, excessive pricing and predatory pricing;
- prevention and identification of proscribed practices: advance notification to ARCEP of access and call market pricing to the extent that these tariffs are not regulated for purposes of universal service;
- multiyear regulation of basic tariffs for calls to mobiles, under conditions to be defined at a later date;
- cost accounting of services provided in the relevant markets, according to methods which will be the subject of a decision at a later date.

ARCEP considers it necessary to impose obligations on all France Telecom services in the residential and business markets for telephone access. In call markets, it appears unnecessary to impose obligations on those France Telecom call services that are not associated with an access service included in the relevant residential and business access markets.

3. Relevant wholesale markets

3.1. Scope

Wholesale fixed telephony markets allow operators to offer their own retail electronic communication services by employing traffic delivery services purchased from other operators.

In accordance with the European Commission's Relevant Markets Recommendation⁶, the Authority distinguishes three types of wholesale market:

- the call origination market, concerning call switching services provided by a local loop operator (LLO) to other operators so that they may provide electronic communication services to customers connected by the LLO;
- the call termination market, concerning call switching services provided by an LLO to other operators so that, by means of a connection from their network to the LLO's network, they may establish electronic communications destined for customers connected to the LLO (note that because of the direction of calls switched in this way, the LLO is said to "terminate" calls to its subscribers);
- the market for transit services on the fixed telephone network, defined as traffic switching services on behalf of a third-party operator that are not otherwise covered by the call origination and call termination markets (for example, a service provided by Operator A to deliver traffic between the networks of Operator B and Operator C is part of the transit market).

Commission Recommendation of 11 February 2003 concerning relevant products and services markets in the electronic communication sector that could be subject to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and Council concerning a common regulatory framework for electronic communication networks and services.

A substitutability analysis led ARCEP to limit the call-origination market to traffic switching services delivered up to the first level of relevant interconnection switching or routing equipment to be transited.

In the same way as for the call origination market, ARCEP has limited the call termination market to traffic switching services delivered from the last relevant level of switching or routing equipment used for interconnection and transited by a call for a destination subscriber.

In accordance with the European Commission's recommendation, and in light of its own substitutability analysis, the Authority has defined a call termination market for each local loop network. This has led to the definition of as many markets as there are fixed-network local-loop operators.

The Authority first studied the market for geographic call-termination on the France Telecom network and then studied the market for geographic call termination on each of the alternative LLO networks.

With regard to transit services, ARCEP has defined the following service areas: Metropolitan France, the overseas *départements*, and Mayotte and Saint-Pierre-et-Miquelon, territories over which it has jurisdiction by virtue of the CPCE. To take account of the existence of the various territories and the specific competitive circumstances surrounding the services that provide switching between them, the Authority has distinguished each pair of territories in the nation as a separate market for transit services. In doing so, the Authority has defined two types of transit market: the market for *intra*-territorial transit and the market for *inter*-territorial transit.

The supply-side and demand-side substitutability analyses also led the Authority to include in each of these wholesale markets the traffic delivery services that correspond to retail call markets – that is, the switching of interpersonal telephone traffic, switched Internet traffic and calls to service providers.

3.2. Significant influence

Over the course of these analyses, the Authority determined that France Telecom has significant power in the markets for geographic call origination and call termination on its network and in the market for *intra*- and *inter*-territorial transit.

ARCEP also determined that each local loop operator is dominant in the market for geographic call termination on its own network.

3.3. Obligations imposed

Obligations imposed on France Telecom

Because of these analyses and because it is in the fixed-telephony markets that France Telecom has significant market power, ARCEP has imposed the following obligations on the operator:

- the obligation to grant reasonable requests for access and provide related services for connection to interconnection and access sites;
- the obligation to grant specific requests for access, namely requests for purposes of carrier selection and preselection, third-party billing, Internet flat-rate interconnection (*IFI*), and wholesale line rental (see below);
- the obligation to provide access and interconnection under non-discriminatory conditions;
- the obligation to provide access and interconnection under transparent conditions;
- the obligation to publish an access and interconnection reference offer detailing the technical and tariff conditions of certain services in the relevant wholesale markets that are particularly fundamental for operators;
- the obligation to provide a wholesale line rental offer (see below) and to publish an interconnection offer specifying the technical and pricing details and conditions;
- the obligation to set cost-based interconnection and access tariffs, except in the cases of France Telecom's so-called double-transit and (as of 1 January 2007) single-transit services where France Telecom is required to set prices that are neither excessive nor predatory;
- obligations for accounting separation and cost accounting, to be specified in a decision at a later date in accordance with Article D.312 of the CPCE and further to public consultation and notification to the European Commission; temporarily, until this complementary decision is published, France Telecom will remain subject to the group of accounting separation obligations imposed on it by virtue of Article 18 of its terms of reference annexed to Decree No. 96-1225 of 27 December 1996, in Chapter XIII of the annex to the order of 12 March 1998, and in ARCEP Decisions No. 98-901 and No. 01-650.

Obligations imposed on LLOs

ARCEP has defined obligations to be imposed on each local loop operator because of the power these operators have in the relevant market for geographic call termination on their own networks:

- the obligation to grant reasonable requests for access and provide related services for connecting to interconnection and access sites;
- the obligation to provide access and interconnection under non-discriminatory conditions;
- the obligation to provide access and interconnection under transparent conditions;

- the obligation to set geographic call termination tariffs that are not excessive.

B. Key points of the analysis

1. Voice over broadband (VoB)⁷

In its analyses, ARCEP made clear the distinctions it draws between the various services that use the IP protocol. Voice over IP, which designates technologies using the IP protocol to transport voice, is used also for voice over broadband services (or VoB). VoB services operate on Internet access networks which support speeds above 128kbps and for which service quality is controlled by the operator providing the services. These services are not comparable to voice over Internet (VoIP) offerings, which comprise voice communication services using the public Internet network; the quality of those services is not controlled by the operator that provides them.

Diagram 1 below illustrates how these telephone-network access offerings relate to one another and shows the positioning of voice-over-Internet outside the scope of relevant communication markets.

In the spirit of Article 7 of the Framework Directive, the definition of retail markets has evolved over the course of the various public consultations and requests for opinion. Thus, the question of separating voice over broadband (VoB) services from services providing access to the public telephone network was broached by the *Conseil de la Concurrence* and then by the European Commission.

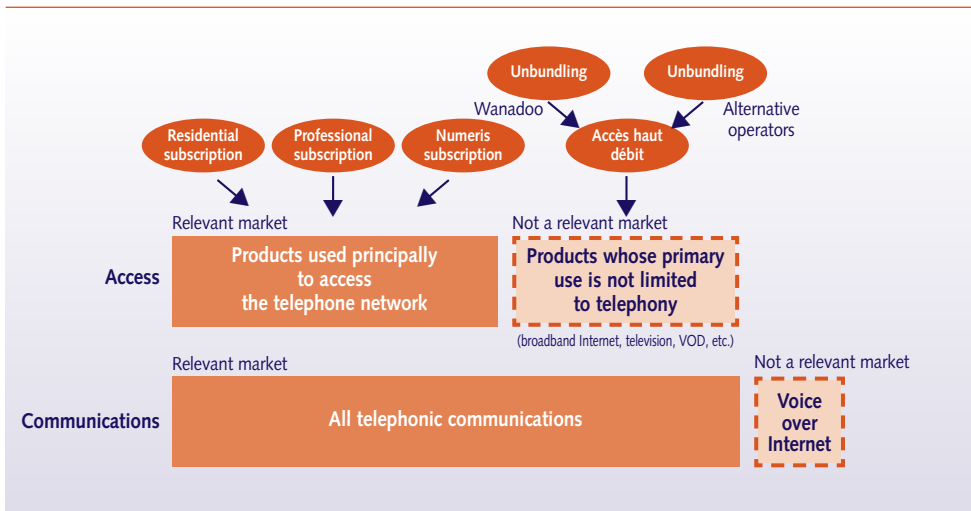
Contrary to the initial proposal, the *Conseil* wanted to see VoB calls included in the relevant fixed-telephony markets identified by the Authority. The Commission approved ARCEP's modifications to include services based on voice-over-IP technology in relevant markets when they substitute for conventional services and to impose obligations both on access services used principally for telephony and on the telephone communication services associated with them. It was finally considered therefore, that relevant markets for interpersonal telephone calls from a fixed station are conditional upon the use of one or several access lines to the public telephone network. The Commission indicated in particular that it "considers that [ARCEP's] decision not to impose *ex ante* obligations on voice over broadband (VoB) is justified."

The Authority has indicated that it is closely watching the multiservice (i.e., not principally telephonic) access segment of the call market and it may modify its decision not to impose obligations on this segment of the market. In that case, any obligation envisaged would be the subject of a draft decision put to public consultation and subsequently notified to the European Commission and other European regulators.

7 ARCEP defines "voice over broadband" or VoB as fixed telephony service using voice over IP technology on an Internet access network at speeds in excess of 128kbps where quality is controlled by the operator providing the service (ARCEP Decision No. 05-571, Section I.2.1.2).

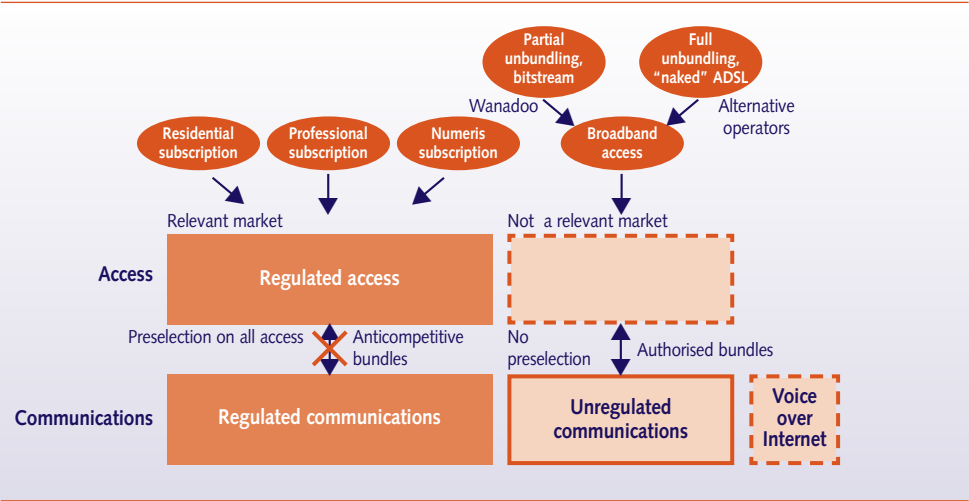
Diagrams 2 and 3 below show that broadband access offerings (outside of the markets concerned) support the sending and receiving of calls that will not be subject to regulation even though they are included in the relevant markets. Voice over Internet services, because they are excluded from the relevant markets, will not be subject to obligations on those markets. Where business customers are concerned, the diagrams show that capacity services give rise to a special distinction: the access lines themselves are not regulated, but the switched telephone network access lines associated with capacity services are. This is not true for virtual private networks even though they derive from the same relevant market.

Diagram 1: Scope of relevant markets



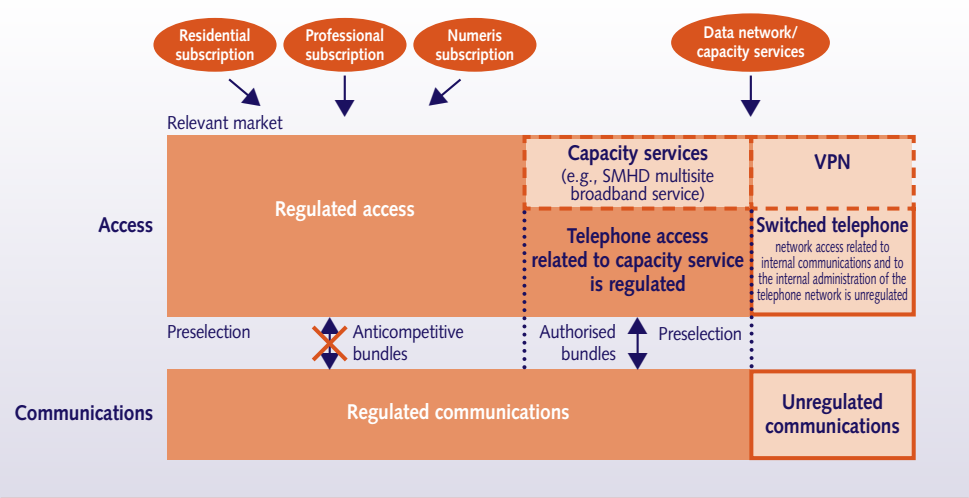
Source: ARCEP.

Diagram 2: Scope of obligations on residential markets



Source: ARCEP.

Diagram 3: Scope of obligations on business markets



Source: ARCEP.

2. Major offers

Article 29 of ARCEP Decision No. 05-571 concerning prior notification of retail tariffs for offerings available in the markets defined by Articles 2 through 7, provides a condition for exemption from the prior notification obligation. In effect, if the annual turnover from a contract with a business customer exceeds the € 500 000 threshold that qualifies a “major offering”, France Telecom is at liberty not to communicate the associated tariff prior to implementing the service. The threshold may be revised by ARCEP.

However, offerings satisfying this criterion are subject to a more appropriate obligation of providing information *a posteriori*. Essentially, a new timetable is planned according to which France Telecom will transmit to ARCEP a list of new contracts signed during the preceding quarter and report on certain contract conditions that were in force during the preceding fiscal year. The information communicated to ARCEP could be subject to a more specific request if compliance with the imposed obligations comes under scrutiny.

Moreover, the obligation to provide prior notification of France Telecom's retail tariffs does not apply to offerings made in response to requests for "specific technical features". For these, there is an obligation to provide information through the procedures for "major offers". Moreover, technical and financial conditions are to be communicated to ARCEP no later than one month after implementation. France Telecom therefore must indicate the characteristics of the custom offer so that the Authority will be in a position to determine whether the principle of non-discrimination has been applied.

3. Markets for geographic call termination on alternative fixed networks

In its analyses⁸, the Authority considered that there is justification for subjecting alternative operators to an obligation not to employ excessive prices.

Therefore, in the fixed call termination market, a distinction is made between the regulation imposed on incumbent France Telecom and that imposed on alternative local loop operators (LLOs).

Because France Telecom commands more than 95% of the retail access market, its call termination tariffs have a decisive impact on the total costs of third-party operators and conditions their retail tariff strategy. Therefore, if France Telecom were able to set its tariffs without regard to its cost of providing service, it could create a major competitive distortion by preventing alternative operators from offering retail tariffs as competitive as its own. This is why the Authority believes there is justification for subjecting France Telecom to the obligation to set tariffs that reflect associated costs.

The European Commission approved ARCEP's choice of obligations on fixed alternative operators, specifically the obligation not to price excessively given the obligation on France Telecom to offer cost-oriented tariffs for the same geographic call termination service.

ARCEP Decision No. 05-0425 of 27 September 2005 concerning the definition of relevant markets for geographic call termination on alternative fixed networks, the designation of operators exercising significant influence on these markets, and the resulting obligations imposed.

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4. Wholesale line rental (WLR)

The market analysis showed that France Telecom exerts significant influence on the wholesale market for call origination and on all retail markets for fixed telephony access and communications.

The introduction of carrier selection has certainly allowed competition to develop significantly in call markets, but effective, fair and full competition cannot be wholly attained unless alternative operators are able to commercialise a complete telephone service offering, whether analogue or digital, for customers connected to the France Telecom network. Therefore, as a remedy complementary to carrier selection, the Authority has imposed a new service on France Telecom -- *Vente en gros de l'accès au service téléphonique (VGAST)*, a wholesale line rental, or WLR, offering.

Commonly and inappropriately called "subscription resale", this wholesale offering encompasses not only the subscription in the strict sense (i.e., as network access) but also the services traditionally associated with telephone subscriptions (calling line ID, call signalling, etc.) as well as all interpersonal call services and calls to special numbers and for dialup Internet.

On 17 March 2006, the Authority opened a public consultation on its draft decision specifying the requirements for wholesale line rental. At the same time, it notified the European Commission of the draft decision.

In February 2005, in connection with the process of receiving approval for a higher main-line tariff (*Abonnement Principal*) and higher associated set-up costs, France Telecom publicly committed to publish an initial WLR reference offer on 15 September 2005, which it did, for commercialisation no later than 1 April 2006.

In parallel, a working group created by the Authority, France Telecom and alternative operators held multilateral discussions in March 2005. These discussions allowed technical and tariff specifications for such an access offer to be developed jointly. They were accompanied by trials aimed at facilitating technical implementation of the offer and creating the conditions for smooth implementation.

4.1. Technical and tariff architecture adopted for WLR

The Authority has defined the VGAST WLR offering as a France Telecom wholesale offering comprising the interconnection and access services (including call switching and services providing connection and access to the telephone network) needed by any requesting operator to enable users connected to the FT network to subscribe to the requesting operator's public telephone service offerings. The operator subscribing to the VGAST WLR service benefits from:

- services providing physical and logical connection to France Telecom's public telephone network, a prerequisite for offering telephone service to end users;

- a service that aggregates calls originating with the operator's subscribers and functions comparably to carrier selection, though as agreed by all the players concerned, the customary option of selecting a carrier on a per-call basis is not offered with VGAST;
- additional services allowing the operator to commercialise a telephone service covering all calls originated by the end customer, including calls not covered by the VGAST carrier selection and, in particular, calls to non-geographic fixed numbers; for these latter, the working group has determined (pending the conclusion of the Authority's analysis of special services that could modify switching rules) that for purposes of efficiency and in the general interest of the sector, the technical responsibility for switching is best left to France Telecom, which will transmit to operators the billing information they need to invoice their retail customers.

In addition, to effectively commercialise a retail telephone service offering in this market, an operator must have complementary tools at the time the offering is launched, especially tools for after-sales service and subscriber management, such as those allowing protective measures to be taken when customers fail to meet their contractual obligations. The VGAST offering also includes additional services provided by France Telecom to that effect .

Finally, since a telephone service can optionally be accompanied by "related services", such as name presentation or call-waiting signalling, the VGAST offering must also allow operators wishing to do so to offer this type of service to their subscribers. Some of these services cannot be replicated technically or economically by alternative operators. Therefore, in the VGAST offering, these are covered by complementary technical services provided by France Telecom.

4.2. Service quality

VGAST must allow alternative operators to offer a complete telephone service to their customers in the most satisfactory way possible. Also, the Authority has imposed minimum service quality obligations on France Telecom. One of the aims of these obligations is to ensure that, through VGAST, alternative operators have the option to provide their customers a telephone service offering of quality at least equal to that offered by France Telecom in its own retail offerings.

4.3. Traffic measurement

The multilateral working group also had to take account of the volume limitations on France Telecom's ordering platforms. Indeed, because of the possibility that a significant portion of the customers who have chosen preselection (currently more than 6 million) might migrate to VCAST, the working group wanted to ensure that possible periods of system saturation, especially during the first months, would be properly managed.

Because France Telecom is unable to process more than 75 000 orders daily - a threshold generally acceptable for steady-state periods but at risk of saturation during peak order periods - it was determined that France Telecom would allocate a number of daily orders to each operator based on the operator's past order history and thereby distribute resources proportionally to the sales capacity of each operator.

4.4. Relationship to other wholesale offerings

The VCAST WLR offering may be used simultaneously with the high-frequency band, particularly for regional or national wholesale broadband access or partial unbundling, regardless of which operator is using the high-frequency band.

Finally, because the VCAST subscriber is physically connected to the France Telecom network, subscribing to a VCAST offering does not require porting the number to the VCAST operator. The operator nevertheless has use of the number assigned to France Telecom.

4.5. Availability of the VCAST WLR offering

The VCAST offering, which the Authority has proposed should be tariffed to reflect costs, is to be available in Metropolitan France and in the overseas *départements*:

- as of 1 April 2006, for the provision of analogue telephone service on individual lines;
- as of 1 July 2006, for the provision of analogue telephone service on groups of lines and for the provision of ISDN-based digital telephone service on either individual or groups of lines.

Broadband

- A. Broadband market in 2005
- B. Regulation of wholesale broadband markets
- C. Local loop unbundling
- D. Broadband access offerings delivered at regional level

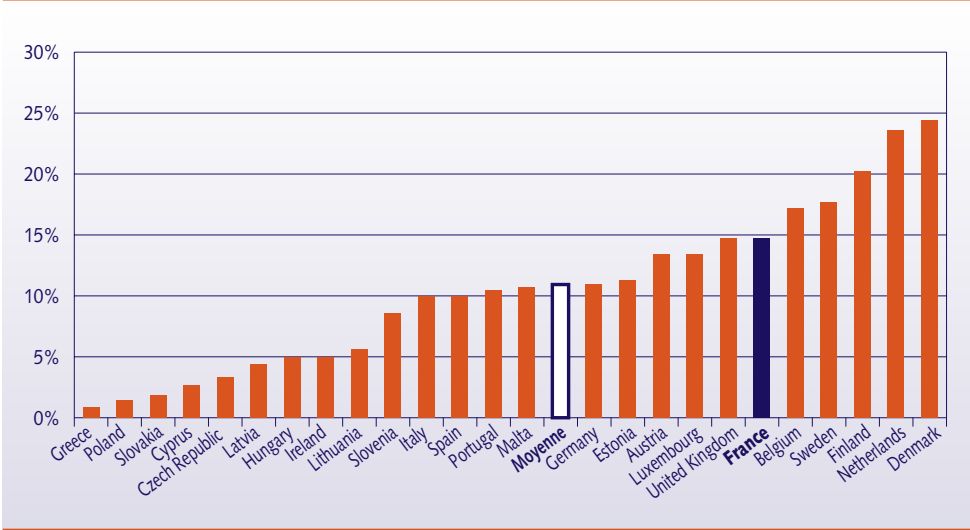
A. Broadband market in 2005

1. Retail market

In 2005, the broadband market continued to be very dynamic. It grew by 44.3% in terms of number of access lines and by 38.6% (to € 2.4 billion) in terms of turnover. Thus, as of 31 December 2005, there were more than 9.46 million broadband access lines, of which 8.9 million were DSL and 560 000 were cable. DSL technology remains predominant and as of the end of 2005 accounted for nearly 95% of broadband access lines. Finally, alternative technologies (satellite, WLL and WiFi) are still relatively marginal.

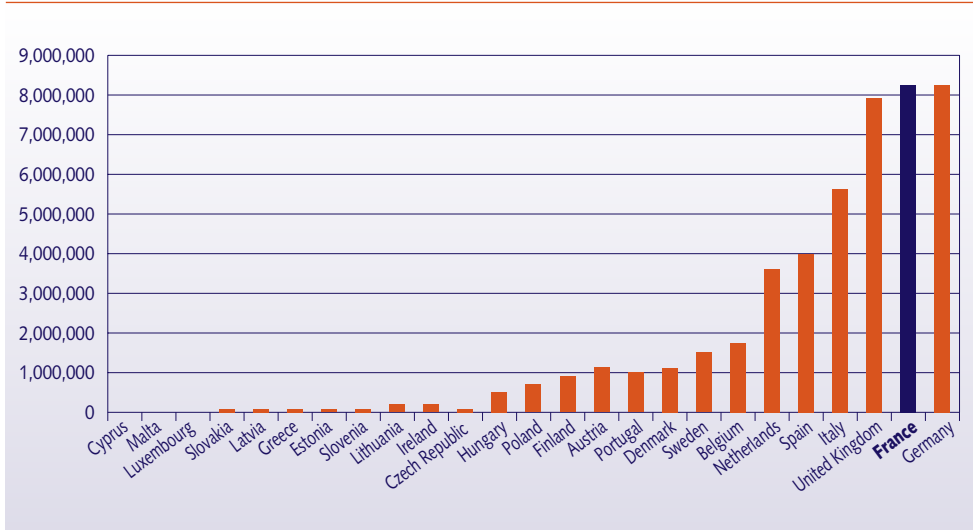
At the end of the third quarter of 2005, France ranked 6th in Europe (among the Europe 25) in terms of broadband penetration of the population and 2nd in terms of number of access lines.

Broadband penetration of population (xDSL and cable)



Source: ECTA, October 2005.

Broadband access lines (xDSL and cable)



Source: ECTA, October 2005 .

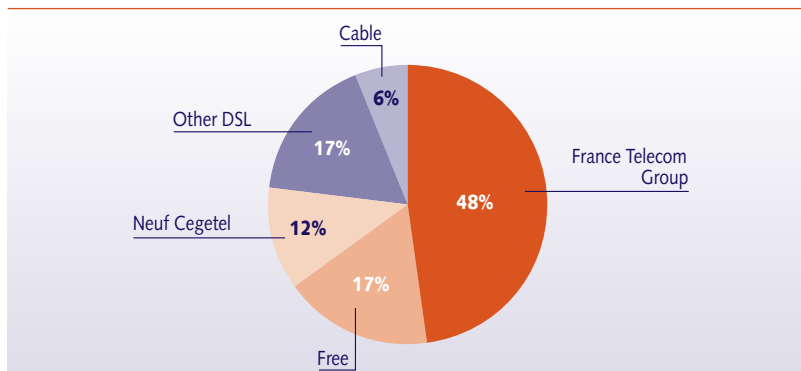
9 Triple-play offerings comprise Internet access, unlimited telephony over broadband and access to a television channel package.

These rankings are primarily due to the dynamic character of the French market. This is driven by DSL and in particular, the spread of so-called triple-play⁹ multiservice offerings, which France pioneered in Europe, and higher speeds. The driving force behind these innovations was the development of sustainable competition. This competition is based particularly on unbundling, which has made it possible to guarantee alternative operators a very high degree of technical and economic independence from France Telecom.

1.1. Retail residential market

1.1.1. Players

One of the landmark events of 2005 was the market consolidation led by the merger of Tiscali and Telecom Italia and followed by the merger of Neuf Telecom and Cegetel. Neuf Cegetel, which is present in the broadband market both as an ISP and as a wholesaler, has thus become the leading competitor of France Telecom.



Source: ARCEP and Operators – December 2005.

In terms of residential DSL alone, France Telecom's market share has grown slightly while still remaining below the 50% mark. With 1.595 million and 1.172 million access lines respectively, Free and Neuf Cegetel were the leading competitors in 2005.

1.1.2. Tariffs

For an average of € 30 after tax in areas where unbundling is available, subscribers can have Internet access at speeds up to 24Mbps, unlimited telephone service, and even access to TV channel packages. Compared to 2004, the most notable change without a doubt is the rapid development of offerings based on full unbundling. They allow subscribers to be free of all commercial ties to France Telecom. The operator using unbundled services then provides its customers a set of services including access to a telephone line (formerly represented by the subscription paid to France Telecom), Internet access, voice over DSL services and potentially television channels.

Where unbundling is not available, there are two types of offering: offerings of 1-2Mbps and offerings up to a maximum of 8Mbps. In spite of the higher speeds and lower tariffs observed in these areas in 2005, the gap between areas with unbundling and areas without remains significant, both in terms of tariffs and in terms of services offered.

In its 11th Report published on 20 February 2006, the European Commission emphasised that tariffs observed in the French market remained among the most attractive in Europe while at the same time theoretical maximum speeds in that country were rising and services were multiplying.

1.1.3. Higher speeds

ADSL2+, introduced in France after the Expert Committee¹⁰ gave an opinion favouring its use at the end of 2004, has been introduced progressively by operators that have upgraded their equipment. This technology, which offers higher theoretical maximum speeds, has allowed operators to offer Internet access services at speeds up to 24Mbps.

1.1.4. Widespread availability of multiplay offerings

Today, a growing number of operators have offerings that include Internet access, unlimited telephone, and television services. Thus, Telecom Italia has joined Free, France Telecom, and Neuf Cegetel among the number of operators distributing television services. Each of these operators distributes its own channel packages and offers access to pay-TV offerings. In addition, video-on-demand services are beginning to appear. As of December 2005, 1% of the French population subscribed to pay-TV over ADSL compared to the 16% which subscribed via cable and 21% via satellite.

Over the course of 2005, use of voice over DSL grew considerably. The Authority estimates that this traffic accounted for 8 billion minutes in 2005 as opposed to 1.4 billion in 2004. Moreover, in February 2006, France Telecom indicated that voice over broadband now accounts for 15%

The Expert Committee, created by ARCEP in September 2002, comprises experts from France Telecom, alternative operators that have signed the unbundling agreement, and the manufacturers concerned. It issues technical opinions on new xDSL technologies likely to be deployed in the copper local loop.

of total residential voice traffic and could account for nearly 40% by the end of 2006.

1.2. Retail business market

Business market offerings are most commonly offerings with high added value and are not limited to simple broadband Internet access. "Enterprise" access therefore usually consists of a virtual private network (VPN) that connects the various establishments of a multisite business and supports secure data transfer services. It also offers voice-over-IP services and several other value-added services that may be hosted by the operator.

These services also offer service-quality levels adapted to the requirements of the enterprise market. Thus, access speeds can be guaranteed at certain minimum levels. Symmetrical speeds (where speeds upstream are the same as those downstream) are offered also.

However, the business DSL market is still less competitive than the residential market. Even though prices appear to have fallen over the course of 2005, alternative operators still command a rather small share, in the order of 30%, of a total market that is growing slowly. DSL accounted for an estimated 210 000 access lines as of the end of 2005 as opposed to 150 000 a year earlier. Colt, Completel, MCI and Neuf Cegetel compete with the France Telecom Group in this market.

ARCEP estimates that only one-quarter of DSL access lines commercialised by alternative operators are based on unbundling; the remaining three-quarters are based on France Telecom's *Turbo DSL*¹¹ offering. The penetration of unbundled services is therefore lower than that observed in the residential market.

This observation could however be called into question over the coming months. Indeed, several operators specialised in the enterprise market have announced programmes to invest in unbundling, in particular Completel, which plans to invest € 120 million in 80 major urban areas to complement its optical fibre coverage.

2. Wholesale markets

To encourage the development of competition in the retail broadband Internet market, France Telecom is constrained by regulation to offer alternative operators access to its network so they can build their own competitive offerings.

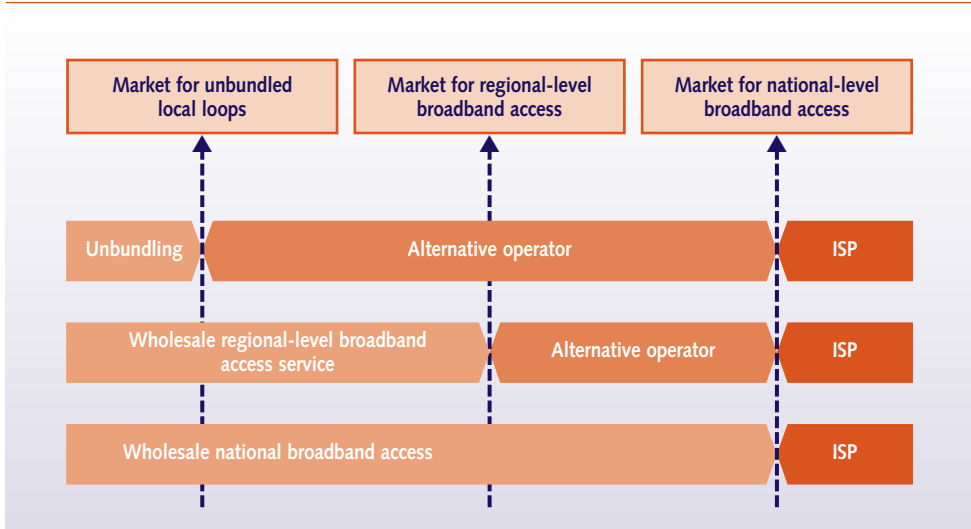
Several wholesale services of this type are offered. Though all of them are based on xDSL technologies, they differ in the level of connection they provide to the France Telecom network.

11 The *Turbo DSL* offering is destined to gradually switch over to the new DSL Entreprises offering published by France Telecom in July 2005.

Alternative operators can therefore:

- have access to the local loop via unbundling;
- subscribe to a wholesale broadband access service delivered at regional level, also called a regional or bitstream offering;
- subscribe to a wholesale broadband access service at national level, delivering broadband traffic to a single point nationwide.

Simplified diagram of the three wholesale broadband markets



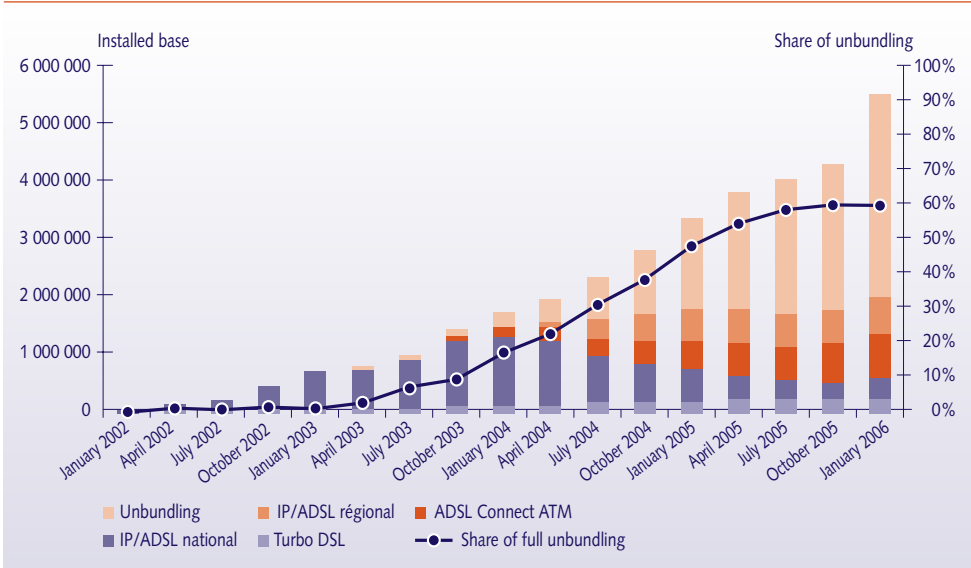
Source: ARCEP.

2.1. Local loop unbundling

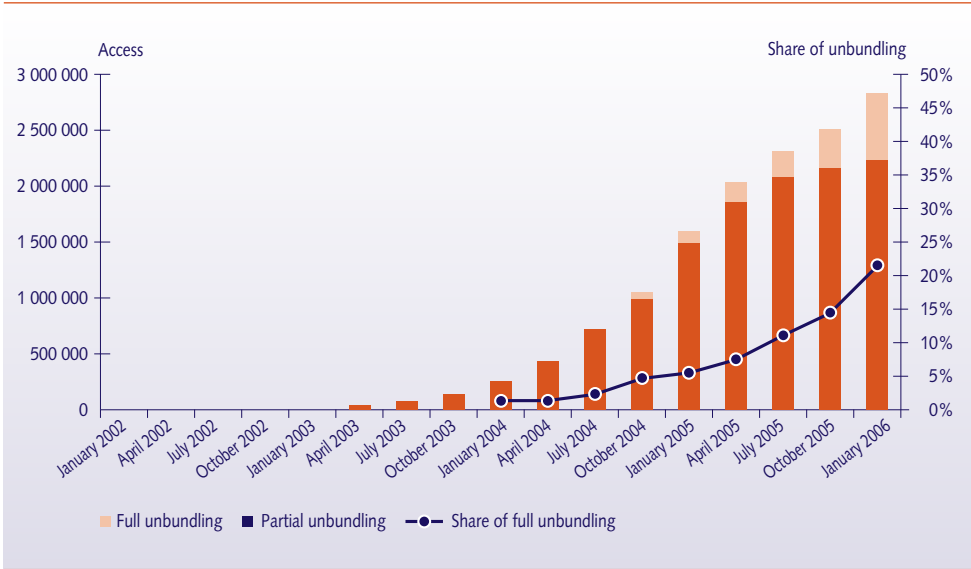
The copper local loop is the metallic part of the France Telecom network connecting the end subscriber's telephone outlet to the local telephone exchange, the France Telecom NRA (subscriber connection node), or distribution frame. In general, the physical medium is twisted copper pair.

Local loop unbundling involves making the range of frequencies authorised for the copper pair completely or partly available to alternative operators (full unbundling and partial unbundling respectively). It allows alternative operators to use the France Telecom local network (in exchange for fair remuneration) to access the end subscriber directly. In the case of partial unbundling, France Telecom manages the telephony and the alternative operator manages the broadband.

In 2005, of all France Telecom's various wholesale offerings, unbundling continued to be the most dynamic. With 2.8 million unbundled lines as of 31 December 2005 (2.228 million partially unbundled and 0.592 million fully unbundled), this offering is currently the leading access method used by alternative operators to compete with France Telecom in retail broadband markets. It represented nearly 60% of access lines at the end of 2005, against nearly 50% a year earlier.



Source: ARCEP.



Source: ARCEP.

By 31 December 2005, the installed base of unbundled lines had reached 2.8 million, up more than 80% from 1.5 million a year earlier. This growth while robust nevertheless occurred mainly in areas where unbundling already existed given that the population coverage of unbundling did not expand much in 2005.

2.1.1. Rapid development of full unbundling

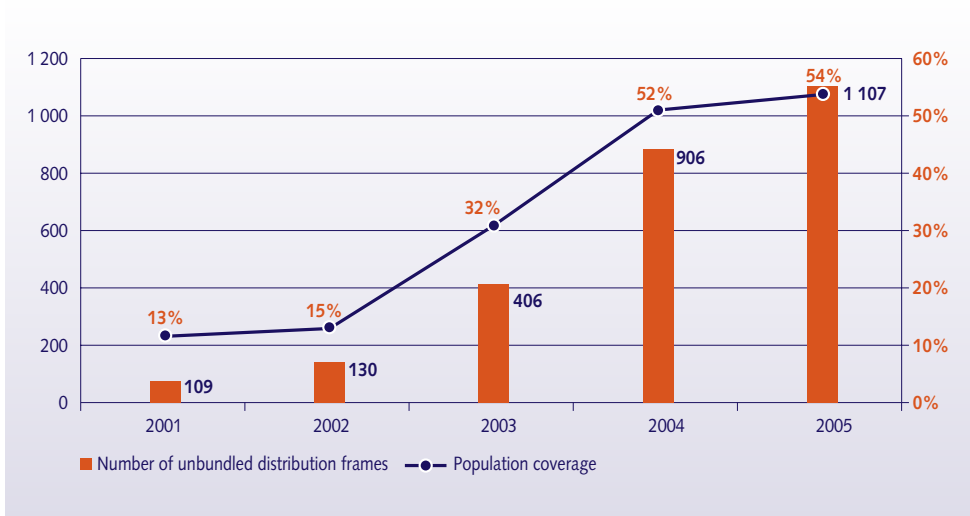
A hallmark of 2005 was the very significant development of full unbundling. Within one year, the installed base grew from 90 000 to nearly 600 000 accesses and full unbundling has now replaced partial unbundling in terms of net growth. Thus, in the last quarter of 2005, the installed base of fully unbundled access lines rose by 66% as compared with growth of just 3.5% for partially unbundled access.

Two factors account for low growth in the installed base of partially unbundled access lines in 2005. Recruitment of new subscribers for partially unbundled lines is slowing and the relatively low growth was almost entirely absorbed by migrations from partial to full unbundling.

2.1.2. Geographic reach of unbundling

By 31 December 2005, France Telecom had delivered 1 107 unbundled sites to alternative operators, 1 058 in Metropolitan France and 49 in the overseas *départements*.

Geographic reach of unbundling



Source: Operators ARCEP estimates.

One of the defining developments of 2005 was the slowdown in the geographic expansion of unbundled coverage areas. The population covered by unbundling grew only marginally, from 52% to 54% (these percentages do not take into account whether a line is eligible for service). By way of comparison, the 490 unbundled sites added in 2004 allowed coverage to be expanded from 32% of the population to 52%.

Of the 168 new sites activated by France Telecom in Metropolitan France in 2005, more than three-quarters were due to local-authority intervention, principally for four public-initiative network projects (in Alsace, Loiret, Oise, and the Pyrénées Atlantiques).

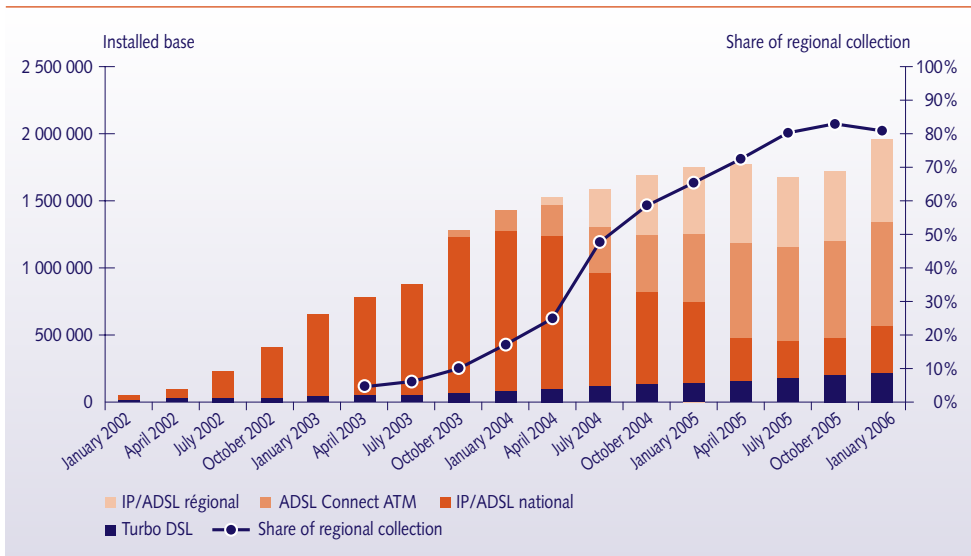
By entrusting the deployment of regional and departmental fibre networks to delegates, local authorities have taken over the work of extending unbundling coverage. These networks facilitate access to small and medium-size distribution frames for national unbundling operators.

2.2. Other wholesale offerings

Besides unbundling, other broadband offerings are available on the wholesale market. These offerings, the vast majority of which are commercialised by France Telecom, include - in addition to access - collection services allowing operators to take delivery of their subscribers' broadband traffic originating in various locations countrywide either at several regional points, in which case the service is referred to as "bitstream", or at a single national point.

France Telecom has four different wholesale offerings:

- three bitstream offerings:
 - a broadband access offering delivered regionally, using an ATM interface, and aimed at a residential customer base (*ADSL Connect ATM*),
 - a broadband access offering delivered regionally, using an ATM interface, and aimed at a business customer base (*Turbo DSL*),
 - a broadband access offering delivered regionally, using an IP interface, and aimed at the residential customer base (*IP/ADSL Régional*);
- a broadband access offering delivered nationally, using an IP interface, and aimed at the residential customer base (*IP/ADSL National*).



Source ARCEP.

The most pronounced tendency in 2005 was the continued substitution of national offerings with regional offerings. This phenomenon, which began in early 2004, can be explained principally by the series of extensions that alternative operators have made to their networks, currently allowing them to aggregate nearly 80% of their customer traffic at the regional level as compared to 65% a year earlier.

The geographic coverage of France Telecom's offerings is determined by the number of distribution frames equipped with DSLAMs. This has expanded considerably since 2003 and today nearly 96% of France Telecom distribution frames are DSLAM-equipped. France Telecom expects to equip all of its 12 300 distribution frames before the end of 2006, which according to its forecasts and bearing in mind the distance constraints on DSL technology, should allow it to reach 98% of the population.

Though the majority of these offerings are sold by France Telecom, others are commercialised by the third-party operators with the largest networks; they do this to serve operators with limited capillarity and Internet access providers that do not have their own networks. In such cases, the offerings usually are based on unbundled access. The Authority estimates that this market had nearly one million access lines at the end of 2005.

B. Regulation of wholesale broadband markets

The 9 July 2004 law profoundly changed the regulatory framework for the electronic communications sector, notably through the transposition of the market analysis process contained in the European directives of 2002.

In mid-2005, the Authority completed its analyses of the wholesale broadband markets. The decisions adopted are the fruit of a long process begun in mid-2004. They define the regulatory principles that the Authority follows for broadband.

1. General principles of broadband regulation

ARCEP's intervention in broadband markets is focused on *ex ante* regulation of the wholesale offerings of France Telecom and its competitors. The retail market itself is not regulated.

Several wholesale services are available to alternative operators depending on their own network deployment status. An operator with a highly capillary network can connect to the France Telecom network at a point closer to the subscriber thereby taking advantage of unbundled local loop service. At the other end of the spectrum, an operator whose network is less developed can connect to the France Telecom network at the regional level or even at a single national point.

The Authority believes that preference should be given to the development of unbundling. In effect, it is the form of wholesale offering that fosters development of the most sustainable competition and optimises the technical and economic independence of client operators with respect to France Telecom. Over time, the development of competition through unbundling leads to permanently lower prices and generates an innovative dynamic that benefits consumers.

In terms of obligations on France Telecom, this objective is achieved through regulation that is more restrictive at the higher end of the broadband market value chain (in other words, in the market for unbundled services) and becomes more and more relaxed as one moves closer to the retail market, which is unregulated as such.

The tariff obligations weighing on France Telecom for purposes of regulating the wholesale market for broadband access at the regional level have a two-pronged objective: to create a complementary alternative to unbundling in certain geographic areas while at the same time, avoiding direct competition in areas where unbundling makes economic sense. More precisely, the tariffs for regional services must:

- be sufficiently attractive to constitute a relevant wholesale offering in areas where there is no unbundling so operators can build nationwide retail services;
- motivate alternative operators to deploy their networks.

2. Market analyses

2.1. Unbundling and wholesale broadband access offerings delivered at regional level

Having received a favourable opinion from the *Conseil de la Concurrence* on 31 January 2005, the Authority notified the European Commission on 13 April 2005 of its draft regulatory decisions concerning the wholesale markets for unbundled services and for regional broadband offerings and submitted the decisions to public consultation.

Subsequently, on 19 May 2005, four market-analysis decisions were adopted. Two of the decisions (No. 05-0275 and No. 05-0278) concerned the delimitation of the relevant markets for unbundling on the one hand and regional offerings on the other as well as the designation of France Telecom as a dominant operator in these markets on the other. The other two decisions (No. 05-0277 and No. 05-0280) specified the obligations incumbent on France Telecom in these markets.

These decisions, which establish the framework for *ex ante* regulation of the corresponding wholesale offerings, are valid until 1 May 2008 but they may be revised before that date if required by changes in prevailing competitive conditions.

Concerning the delimitation of these two relevant markets, unbundling is defined as independent of the type of unbundling employed (partial or total, at the local loop level or the sub loop level) while wholesale regional broadband access offerings are defined as independent both of the type of end customer served (residential or business) and of the type of delivery interface used (specifically, ATM or IP). These two markets are defined for the entire national territory except Saint-Pierre-et-Miquelon and they exclude cable and access technologies other than DSL.

France Telecom was designated as an operator exercising significant power in these two markets, particularly because of its market share and because it controls infrastructure which is difficult to duplicate. For this reason, it is subject to several obligations. In particular, France Telecom must grant every reasonable request for access and must do so under conditions that are non-discriminatory. In addition, it must publish certain information (especially service quality indicators) and a reference offer that the Authority has the power to modify. France Telecom furthermore must submit to obligations concerning transparency and accounting separation.

Tariffs for its unbundling offering must reflect associated costs. Tariffs for wholesale regional broadband access offerings also must reflect corresponding costs unless doing so has a predatory pricing effect on unbundling. To encourage investment in unbundling, it is in fact essential that regional offerings do not generate a squeeze effect as far as unbundling is concerned.

2.2. Broadband access offerings delivered at national level

After receiving the 31 January 2005 opinion of the *Conseil de la Concurrence* concerning the market for broadband access offerings delivered at national level, the Authority was led to specify obligations to be imposed on France Telecom for purposes of regulating this market. On 27 June 2005, it notified the European Commission of its draft decision and put the decision to public consultation.

The Authority's final decision concerning the market analysis established the regulatory framework for this market and set the obligations to be imposed on France Telecom as an operator with significant power in the market for wholesale broadband access delivered at the national level. It should be noted that this market does not appear in the list of the 18 relevant markets pre-identified by the European Commission.

Decision No. 05-0281 adopted by the Authority on 28 July 2005 imposed obligations on France Telecom proscribing predatory pricing and requiring non-discrimination and accounting separation as well as formalisation of the technical conditions and internal transfer-pricing relating to the provision of residential broadband offerings. The importance of internal agreements and accounting separation has been heightened by the integration of Wanadoo into the France Telecom Group. The objective of such controls is to make the Group's internal leases more visible for a better view of the entire broadband value chain.

C. Local loop unbundling

The year 2005 was marked by an enormous increase in full unbundling, which now exceeds net order levels for partial unbundling. Unlike subscribers to a partially unbundled offering, subscribers to a fully unbundled offering from an alternative operator no longer have to pay France Telecom for their telephone subscription: the alternative operator now provides all services (Internet access, IP telephony, television over DSL, etc.).

Of all of the distribution frames in the France Telecom network (about 12 500 in France, including the overseas départements), more than 1 000 have been affected by unbundling and have equipment installed by at least one alternative operator. The population coverage of unbundling has currently reached 54%.

The end of the market analysis process and the establishment of the new regulatory framework have not significantly changed the way in which unbundling is regulated; it remains in line with the former regulatory framework. Indeed, the European regulation of 18 December 2000¹² is still in force. It gives NRAs (National Regulatory Authorities) the power to modify both the operational and tariff aspects of the incumbent's published reference offer for unbundled access to the local loop and to related resources.

12 Regulation (EC) No. 2887/2000 of the European Parliament and Council of 18 December 2000 concerning unbundled access to the local loop.

1. Operational and technical aspects of unbundling

1.1. Meetings of the multilateral Order-Processing Group

At ARCEP's initiative, a multilateral working group, called the Order-Processing Group, has met regularly since 2002, bringing together France Telecom and the alternative unbundled-service operators to debate operational issues related to unbundling. Over the course of 2005, the group continued its work, mainly covering:

- process improvements in fault clearing (i.e., when repairing problems on unbundled copper pairs);
- lifting operational constraints on full unbundling;
- adapting processes to address new challenges (e.g., the involvement of local authorities, implementation of France Telecom's *NRA-HD* subscriber connection nodes, saturation of distribution frames, etc.).

1.1.1. Fault clearing

Fault clearing processes are complex, particularly for fully unbundled lines because they are no longer connected to France Telecom equipment. They require information to be exchanged between the operator that uses the pair and signals the fault situation to France Telecom and France Telecom, which remedies the situation.

The group's work has allowed for upstream improvements in the quality of response time and diagnostics for faults reported to France Telecom personnel. In particular, the group has defined specifications for a diagnostic tool based

on an interactive voice-server dubbed SVI (*Serveur Vocal Interactif*), developed by the alternative operators and used by France Telecom technicians to communicate directly with the unbundled operator's equipment, thereby avoiding having to go back and forth between organisations.

Finally, discussions in the multilateral meetings covered procedures for improving the post-repair delivery of information from France Telecom to alternative operators. In particular, an increasing number of France Telecom technicians will be equipped with PDAs (personal digital assistants) so that they can transfer intervention results more quickly.

1.1.2. Order processing for fully unbundled access

Automated order processing for partially unbundled access was introduced at the end of 2004. During the first half of 2005, France Telecom successfully completed the same work for fully unbundled access. The operations required to fully unbundle an active line and port numbers are now automated (except for manual intervention required at the main distribution frame) and are synchronised.

The working group also defined methods for ordering the full unbundling of inactive lines, i.e. lines that no longer carry any service. This solution is useful for example when house or office moves have occurred. A server specifically developed by France Telecom to recognise the number of an inactive line is currently being tested by alternative operators.

Finally, in response to the new issues identified over the course of 2005, the infrastructure-supply services required for unbundled access have evolved, notably in response to requests from operators delegated to provide public service wanting to share remote tie lines.

1.2. Work of the Expert Committee

In 2005, in parallel with the work of the Order-Processing Group, the Expert Committee continued work on matters related to two principles: non-discrimination in the introduction of new innovative technologies for the copper local loop and assurance that these technologies are compatible with those already deployed.

On 17 November 2005, the committee reaffirmed its 17 May 2005 opinion, which had been adopted for a period of six months, favouring implementation of RE-ADSL signalling on copper-pair local loops under certain conditions¹³.

The introduction of RE-ADSL technology represents a true improvement because it now allows lines that were too distant from the distribution frame to be served with DSL broadband.

A document summarising the Expert Committee's opinions has been published on the Authority's website. This document also contains an updated list of techniques authorised for the France Telecom local loop at

These are pairs that at 300kHz attenuate less than 75dB between the main distribution frame and the subscriber. On 7 December 2005, the Expert Committee issued an analogous favourable opinion for a maximum attenuation of 78dB.

the distribution and sub-distribution frame level as well as a power spectral density template.

1.3. Distribution frame connection offerings based on passive infrastructure

Among the obligations the Authority has imposed on France Telecom because of the operator's dominant status in the market for unbundled local access is the obligation to offer a service that uses passive infrastructure (dark fibre or duct) to provide connection to unbundled distribution frames. Apart from interventions by local authorities through delegated public service operators, the Authority believes that the only way for alternative operators to further extend their coverage through unbundling is by means of such an offering.

In autumn 2005, ARCEP set up a working group comprising France Telecom and the operators concerned to study the technical, operational and tariff aspects of such an offering. These discussions led in particular to three multilateral meetings, the drafting of a collection-network model, and simulation testing in three *départements*. Following this work, France Telecom announced a commercial offering to lease dark fibre in early March 2006, which the Authority found satisfactory.

1.4. Settlement of disputes involving NRA-HDs

On 18 February 2005, Free asked the Authority to settle a dispute and order protective measures concerning the penalty and forecasting systems in France Telecom's reference offer for unbundled access services on the one hand, and the implementation of France Telecom's *NRA-HD* plan on the other.

France Telecom's *NRA-HD* plan consists of making available about 1500 distribution frames (or *NRAs*) over the course of 2005-2007, specifically for broadband and mainly in commercial districts. Opening access to these new distribution frames affects the unbundling plans of alternative operators.

In a 29 March 2005 decision¹⁴ citing lack of proof of emergency circumstances, the Authority rejected Free's request for protective measures. Free subsequently withdrew its request for dispute settlement before the Authority could rule on the substance of the case. Free and France Telecom have in fact agreed on accompanying measures to facilitate deployment of the *NRA-HD* plan.

14 ARCEP Decision No. 05-0270 of 29 March 2005 ruling on a request for protective measures filed by Free SAS in connection with a dispute with France Telecom.

1.5. Publication of service quality indicators

After the wholesale broadband market analyses were concluded, the Authority asked France Telecom to make public its monthly service quality indicators mainly in order to improve the overall quality of the operator's broadband service offerings in the interests of consumers and the market and to align the quality of France Telecom's wholesale and retail offerings.

The list of published indicators¹⁵ covers not only unbundling but also France Telecom's wholesale regional and retail offerings. As a result, these indicators facilitate simple comparisons of: wholesale and retail offerings, full and partial unbundling and the business and residential segments. They also ensure that the incumbent's behaviour is transparent and non-discriminatory.

Indicators for the previous month are accessible on the France Telecom website: <http://www.francetelecom.com/fr/groupe/initiatives/savoirplus/documentation/offres>.

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1.6. Changes in France Telecom's reference offer

France Telecom changed its reference offer several times during 2005, particularly to take account of developments discussed in the Order-Processing Group.

Of additional note, France Telecom agreed during the summer of 2005 to reduce the minimum commitment period for telephone subscriptions. It had previously been 12 months and was reduced to 6 months as of 1 October 2005 and is not applicable to subscribers transferring to a fully unbundled offering. Once a line is activated by France Telecom, it is possible to cancel the associated subscription without delay and without penalty when transferring to a competitive operator whose offering is based on fully unbundled access.

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2. Tariff aspects of unbundling

In 2005, changes occurred in each of the three major categories of unbundling tariffs, i.e. recurring tariffs, non-recurring tariffs, and tariffs for related services.

2.1. Recurring tariffs

On 25 February 2005, the *Conseil d'État* issued an order relating to the appeal filed by France Telecom on 14 June 2002 concerning the Authority's Decision No. 02-323 of 16 April 2002, which in particular established that the subscription charge for providing fully unbundled access should not exceed €10.5 per month.

Under the terms of this order, the *Conseil d'État* overturned the disputed decision on the grounds that it lacked transparency, concluding that the Authority should have published the method to be used before determining the new tariff because the method differed from that which had been used previously.

However, the *Conseil d'État* did not question the calculation method used in the overturned decision. Moreover, it limited the effect of its action by specifying that it would not take effect for another two months. Therefore, there was no retroactive impact as a result of the decision being overturned.

In view of the order handed down by the *Conseil d'État*, the Authority subsequently adopted within the two-month period a public decision (Decision No. 05-0267 of 24 March 2005 modifying Decision No. 00-1171) specifying the method for determining France Telecom's tariffs for local loop access.

However, the decision was intended to be only a temporary given that implementation of the new regulatory framework had led the Authority to change its method for calculating tariffs for fully unbundled access. On 15 December 2005, the Authority therefore adopted a decision¹⁶ retaining the current-economic-cost method, which led France Telecom to lower its monthly tariff for fully unbundled access to € 9.29 on 19 January 2006. This method is discussed in Chapter 6, covering basic principles and accounting considerations, of this part of the annual report.

2.2. Nonrecurring tariffs

In 2001, in another case brought before the *Conseil d'État*, France Telecom attacked the Authority's Decision No. 01-135 of 8 February 2001, which in particular had set the *frais d'accès au service*, or FAS, tariff (the fee for access to unbundled service). France Telecom ultimately withdrew its claim, as formally recognised by the *Conseil d'État* on 4 July 2005.

Until 2005, these fees (which were the same for partial and for full unbundling) amounted to € 78 for FAS and € 40 for cancellation. These fees allow France Telecom to recover a portion of its technical personnel costs (especially for jumpering operations¹⁷ on distribution frames) and its administrative costs related to order processing (information system costs in particular).

The unbundling FAS costs were revised in late 2004 and early 2005 to account for productivity gains associated with larger unbundling volumes and the amortisation of costs associated with the original information system developed by France Telecom for unbundling. This revision was all the more justified given that there had not been any change in these tariffs since 2002 and the order and delivery processes had been optimised considerably by France Telecom during that same period through dialogue with the operators using unbundled access, notably during the regular meetings of the Order-Processing Group.

16 ARCEP Decision No. 05-0834 of 15 December 2005, defining the valuation method for copper local loop assets and the cost accounting method to be applied to full unbundling.

17 Connecting or disconnecting copper pairs.

Accounting for these effects brought about quite significant reductions in the various tariffs. Thus, France Telecom published the following tariffs for its reference offer in January 2005:

	Partial unbundling	Full unbundling
Service access fee (FAS)	€ 55	€ 50
Cancellation fee	€ 35	€ 30

Source: ARCEP.

2.3. Revision of tariffs for related services

Over the course of 2005, the Authority, in conjunction with France Telecom and operators using unbundled access, conducted a tariff review covering the principal services related to unbundling i.e. those services billed by France Telecom with the exclusion of rental of the copper pair itself. Some of these tariffs had not been reviewed for several years while the sharply growing base of unbundled access lines led to lower implementation costs for these services, particularly because of scale effects.

As a group, these services constitute an important part of the bill that unbundled service operators receive. By way of illustration, the monthly charge for partial unbundling is € 2.9 whereas the cost of the various related services billed on a monthly per-access basis is nearly € 2.5 for a distribution frame of 20 000 lines, more than € 4.5 for a 7 000-line distribution frame, and nearly € 6 for 5 000 lines.

The review concluded on 27 July 2005 with the publication by France Telecom of a new reference offering for unbundled services featuring significant tariff reductions. Some of the most important tariff changes were for tie lines, intra-building links, and space in dedicated areas, which fell by an average of 35%.

These changes led to an average reduction of € 1 per access per month in an operator's monthly bill. These reductions encouraged unbundling deployment on very modest-sized distribution frames, in the order of 3 500 lines (the equivalent of a community of 7 000 inhabitants) whereas formerly it had appeared that unbundling distribution frames of less than 5 000 lines (the equivalent of a community of 10 000 inhabitants) would not be profitable for an alternative operator.

Finally, the very large reduction in tariffs for remote locations should lead to further expansion of the unbundling coverage area. Under the former tariffs, the fixed fees per distribution frame were approximately € 15 000 whereas today they are limited to € 5 300, to which another € 400 needs to be added for annual fees.

D. Broadband access offerings delivered at regional level

The regulation of regional-level broadband access offerings underwent profound change as a result of the new regulatory framework, the market analysis decisions in corresponding markets and in particular the obligation to publish a reference offer.

1. Implementation of regulation for this market

1.1. Definition of regional offerings

Regional-level broadband access offerings, also called “regional” or “bitstream” offerings, are offers providing wholesale DSL access. They are used by alternative operators to provide a broadband connection to their end customers in areas where unbundling is not yet available.

Regional offerings can be delivered in IP or ATM mode and allow alternative operators to collect Internet traffic at various regional points on the France Telecom network (21 IP points and 40-134 ATM points) and then use their own complementary transport infrastructure.

Alternative operators can use regional offerings to serve subscribers on any France Telecom distribution frame equipped for DSL. In practice, this means that the population coverage of regional offerings is identical to the population coverage of France Telecom's retail DSL offerings, which was close to 95% as of the end of 2005.

Even though other alternative operators may provide offerings (based on unbundled access) that compete with France Telecom's wholesale regional offerings, only France Telecom is subject to regulation in this market as n SMP operator given that it still commands more than 90% of the market.

1.2. Reference offer for DSL access and collection

ARCEP Decisions No. 05-0278¹⁸ and No. 05-0280¹⁹ of 19 May 2005 established the new regulatory framework for regional offerings and strengthened ARCEP's power over the market, which as a result is now regulated similarly to the market for unbundled access, particularly as concerns the obligation for France Telecom to publish a reference offer.

France Telecom's first reference offer for DSL access and collection was published on 27 July 2005. The new regional offerings are divided as follows:

- *DSL Access*, an access offering for the consumer market, which allows a user to be connected to a France Telecom DSLAM by means of DSL technologies;

18 ARCEP Decision No. 05-0278 of 19 May 2005 concerning the definition of the relevant wholesale market for broadband access services delivered at regional level and the designation of an operator with significant power in this market.

19 ARCEP Decision 05-0280 of 19 May 2005 concerning obligations on France Telecom as an operator with significant power in the market for wholesale broadband access services delivered at regional level.

- *DSL Collect ATM*, a collection offering for the consumer market, which allows the client operator to take delivery of ATM broadband flows at the regional level;
- *DSL Collect IP*, a collection offering for the consumer market, which allows the client operator to take delivery of IP broadband flows at the regional level;
- *DSL Entreprises*, an access and collection offering for the business market, which allows delivery of ATM broadband flows to be taken at the regional level (this offering is used by operators to serve the business market and - because of DSL technology - allows them to offer their customers guaranteed and symmetrical transfer speeds).

During the transition period, these new regional offerings will coexist with the older ones still in effect, such as *ADSL Connect ATM*, *Turbo DSL* and *IP/ADSL Régional*.

As a result of the reference offer for DSL access and collection (*Accès et collecte DSL*), the various regional offerings were harmonised, particularly in Metropolitan France where the offerings were made uniform, and alternative operators are no longer restricted to a peak speed of 64Mbps for residential services, which means that they can offer higher-speed services wherever there is DSL coverage.

In the residential market, the reference offer led to a 10% reduction in access tariffs. ATM collection tariffs dropped by 4% at the coverage-area hub level and by 10% at the local level while IP collection tariffs dropped by 5%.

In the business market, the *DSL Entreprises* offering, which will ultimately replace the *Turbo DSL* offering, introduced several changes bringing into more into line with the residential market offering. *DSL Entreprises* lines, unlike *Turbo DSL* lines but like residential lines, are split into two services, access and collection. In addition, the tariff structure for collection services, which is relatively complex in the *Turbo DSL* offering, is aligned with that of the residential offering, providing only two levels of collection: the coverage-area hub level and the more capillary local level. Finally, collection tariffs are also becoming more like residential tariffs.

The reference offer has changed since it was first published, particularly with the introduction of ADSL2+ access on 5 September 2005 and new access profiles on 4 January 2006.

2. ARCEP actions in this market

In 2005, the Authority intervened in the market for regional offerings in two ways: by adopting formal decisions (a tariff opinion on the *Turbo DSL* offering and a ruling to settle a dispute between Colt Telecommunications France and France Telecom) and by holding multilateral meetings with France Telecom and alternative operators.

The Authority continued to develop cost models for unbundled access and for collection with a view to being able to test tariffs for regional and unbundled access offerings for squeeze effects.

The Authority also launched a longer-term discussion on the allocation of civil engineering costs under the direction of Dominique Bureau, the director of economic and international affairs at the Ministry for Transport, Infrastructure, Tourism, and the Sea.

2.1. Opinion of 12 May 2005 on *Turbo DSL*

Before the new regulatory framework was implemented, the *Turbo DSL* regional wholesale offering used by operators to serve business customers was subject to tariff approval. The Authority was therefore required to provide an opinion on France Telecom's tariff proposals prior to the tariffs receiving ministerial approval.

Accordingly, France Telecom sent the Authority a tariff decision concerning the operator's *Turbo DSL* offering in March 2005. In particular, this decision introduced significant tariff reductions especially for monthly line charges, for certain fees for service access (FAS), and for the recurring charge for connection to the France Telecom network.

With the help of one of the operators that uses unbundled access, the Authority tested the *Turbo DSL* lines on the one hand and the costs of access and of collection on the other for tariff squeeze effects. The tests resulted in the tariff decision receiving a favourable opinion²⁰. In effect, the new tariffs did not force out of the market unbundled access operators commercialising or using services analogous to *Turbo DSL*.

2.2. Meetings of the multilateral Bitstream Group

As has been the case for the unbundling market since 2001, periodic multilateral meetings have been set up with all of the players in the market for broadband access offerings delivered at regional level.

A multilateral group called the Bitstream Group was established before the first reference offer was published. This group's scope of work covers operational and technical implementation issues, new functionality in the reference offer and tariff issues.

The objective of this group is to provide a forum where the parties can share information and raise problems encountered by alternative operators and thereby arrive at consensual solutions. It also constitutes a forum for France Telecom announcements about developments and changes in the reference offer for DSL access and collection (*accès et collecte DSL*).

Of particular note among the topics covered in the meetings held over the course of the second half of 2005 were the following:

20 ART Opinion No. 05-0397 of 12 May 2005, concerning France Telecom tariff decision No. 2005019 relating to changes in the Turbo DSL offering.

- operational implementation of the reference offer (an issue because transitioning from the old offerings to the new ones poses certain challenges);
- tariffs for services related to the regional offerings (the exchanges that took place in the multilateral meetings led notably to France Telecom reducing the tariff for changing the speed of an ADSL access line).

2.3. Settlement of the dispute between Colt and France Telecom

Following France Telecom's publication of its reference offer, , Colt Telecom France determined that certain business tariffs were too high in view of the obligations imposed on France Telecom. For this reason, it asked the Authority on 19 August 2005, to intervene in settling a dispute with France Telecom.

Its demands dealt with the monthly charges for business ADSL and SDSL as well as with the tariffs for connecting its network to France Telecom's to take delivery of traffic.

In accordance with Articles 9 and 10 of Decision No. 05-0280 concerning obligations on France Telecom as an operator with significant power in the market for wholesale broadband access delivered at regional level, France Telecom's tariffs for services in this market must reflect the associated costs provided that the tariffs are not predatory on the market for unbundled access.

Therefore, the Authority conducted a two-pronged analysis of access service tariffs, on the one hand evaluating France Telecom's costs and on the other those of an efficient alternative operator using unbundled access.

The analysis led to application of the obligation proscribing predatory pricing which produced significant reductions in the monthly tariff for access, from € 65 to € 47 for ADSL and from € 75 to € 48 for SDSL. In its decision²¹, the Authority also revised the monthly tariff for colocated connection downward from € 888 to € 265.

2.4. Model for regulating the cost of unbundled access

In 2004, the Authority, in cooperation with France Telecom and the operators of unbundled access, developed a cost model for unbundled access. The model allows the monthly cost of unbundled access (as calculated for an efficient alternative operator) to be evaluated according to the size of the distribution frame involved. Thus, it provides an overall view of the principal services in France Telecom's reference offer for unbundled access.

This model was published for the first time in November 2004 and was updated three times in 2005 - in March, July and November. The modifications took account of tariff changes in the reference offer for unbundled access (changes in the FAS service access charge, the monthly tariff for fully unbundled access, and the tariffs for related services) and also

ARCEP Decision No. 05-1103 of 15 December 2005 ruling on the dispute between Colt Telecommunications France and France Telecom.

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took account of changes associated with market dynamics since one of the key parameters of the model is the rate of DSL penetration in France.

This model provides a way of estimating the economic leeway available to operators between unbundled access and other France Telecom wholesale offerings, especially regional *DSL Access*. Thus, ARCEP can verify, in accordance with the tariff obligations on France Telecom concerning the operator's regional offerings, whether the tariffs for these offerings produce a squeeze effect relative to unbundled access.

For the November 2005 update, the Authority organised a public consultation in order to extend the model for the business market (i.e., unbundled access that meets the particular requirements of businesses) and for remote locations.

2.5. Work on a model for collection and the D. Bureau Working Group

The largest cost item in constructing a network is the civil engineering (trenches, ducts, etc.).

Therefore, a key issue when evaluating broadband costs is the manner in which civil engineering costs are allocated to each of the various services. To address this matter, the Authority has on three occasions organised a meeting of all of the players in the working group headed by Dominique Bureau. The group will continue this work in 2006 (see earlier discussion).

2.6. Changes in France Telecom's reference offer

These considerations, among others, led France Telecom to modify its reference offer on several occasions after initial publication on 27 July 2005.

The following table presents the principal changes made.

Date of modification to the reference offer	Principal changes
05/09/2005	- Implementation of ADSL2+ access profiles.
04/01/2006	- Reduction of tariff for changing ADSL access speed, from € 8.2 to € 3.8. - Introduction of new access profiles for one or two services (single-VC or dual-VC). - Greater flexibility for the use of customer authorisations.
16/01/2006	- Reduction of recurring monthly tariff for STM1 broadband connection to € 265. - Reduction of recurring monthly tariff for ADSL and for 1-, 2- and 4-pair SDSL, to € 47, € 48, € 68 and € 108, respectively. - Clarification of the procedure for requesting information in case of a system crash.
30/01/2006	- Reduction of tariff for dual-VC ADSL access, from € 15.5 to € 14.3. - Reduction of tariff for dual-VC ADSL2+ access, from € 17 to € 15.8.

Source: ARCEP.

Mobile

- A. Mobile market in 2005
- B. Mobile interconnection in 2005
- C. International roaming

A. Mobile market in 2005

1. Mobile market characteristics

With penetration already up to 78.4% as of 31 December 2005, the mobile market has reached maturity. Among the key characteristics of the market are the clear segmentation of offerings (particularly as a function of customer consumption levels) as well as policies that encourage use, resulting in an increase in consumption and customers moving up the product range. This was illustrated in 2005 by the spread of flat-rate offerings (and in particular unlimited use). Another characteristic is the bundling of mobile service with the mobile terminal at physical points of sale, which continues to be the pre-eminent method of distributing mobile telephony offerings. This seems to arise from the enormous importance that consumers attach to terminal features, the devices having become personal items providing access to a growing number of services (email, web browsing, mobile TV, etc.) and able to serve numerous functions (photographic device, personal digital assistant, MP3 reader, radio, etc.).

Because of this, the mobile telephony industry considers the market to be a “terminal market”. In addition, it is only very recently that certain network operators have begun to offer postpaid services without the terminal (called “SIM-only” offerings). The mobile market has been developed around physical distribution via outlets dedicated to telephony services using personnel and material resources to promote terminal equipment and provide customer support.

This situation has provided certain advantages for the sector, mainly in terms of furthering the spread of mobile service (by equipping users with terminals) and facilitating the spread of new services (GPRS, EDGE, 3G, etc.), but also in terms of making things easier for customers. However, this has led to a change in the normal supply and demand paradigm for mobile service because customers now appear to regard the mobile service itself as secondary. Furthermore, physical distribution could pose a barrier to entry to the market. This takes on even more weight when the market reaches maturity: as terminal renewals become the norm, having proprietary (single-brand) points of sale could provide a strategic advantage over late-arriving operators. Bearing these issues in mind, but also recognising that little is known about this topic, the Authority will conduct a more detailed study in 2006 of how the mobile market operates in terms of distribution.

2. New players: MVNOs

In contrast to network-based mobile network operators (which in Metropolitan France are Orange France, SFR and Bouygues Telecom), mobile virtual network operators (MVNOs) have no spectrum resources of

their own. In order to provide mobile service to the end customer, they use the wireless network of a “host” mobile network operator.

Seven MVNO agreements (with Debitel, Omer Telecom, Futur Telecom, NRJ, Neuf Telecom, Cegetel, and Tele2) were signed in Metropolitan France between June 2004 and April 2005. Transatel signed an agreement with Bouygues Telecom earlier, at the end of 2001.

Basically, these MVNOs operate as enhanced service providers (ESPs), operating no network elements but creating service offerings (offerings that may be low-cost or content-driven, regional or international, etc.) based on wholesale services provided by their host operator. These virtual operators target specific customers (individuals, small and medium enterprises, etc.) either using their own packages (for example “SIM-only” postpaid offerings without a terminal, or distribution without a physical network) or using existing packages.

In June 2005, Coriolis signed an agreement with SFR to launch 2G and 3G services targeting in particular videophone services for individuals and businesses. In addition, on 18 October 2005, the MVNO agreement between Orange France and Omer Telecom was modified to allow Omer Telecom's original offering to be extended nationally under the Virgin Mobile brand. The MVNO will offer a range of simple, generally prepaid Virgin Mobile services aimed at the youth market and complementary to the regional Breizh Mobile brand.

3. Competitive situation

Given that the MVNO agreements are relatively recent, the period 2005-2006 will contribute to a better understanding of how these operators are developing and ultimately how they have succeeded in stimulating the retail market.

3.1. Market monitoring

On 14 April 2005, the Authority notified the European Commission and other European regulators (NRAs) of its analysis of the wholesale market for mobile access and mobile call origination (Market 15 of the Commission's Relevant Markets Recommendation, a market in which the suppliers of service are the network operators and the demanders of service are the MVNOs). In this document, ARCEP emphasised that the MVNO agreements might not be sufficient to improve the unsatisfactory situation in the retail market. In effect, it seemed that the agreements neither offered MVNOs sufficient and sustainable economic leeway nor allowed them to differentiate themselves except by price. Because the agreements had only recently been implemented and because they may change, the Authority concluded that the competitive situation in the mobile market was too delicate to judge with certainty, especially with respect to the future. As a result, the Authority suspended its analysis of Market 15. However, at the same time it placed a watch on the mobile market to gain an understanding of the actual impact of MVNO agreements on the retail market.

To better appreciate how the competitive situation in the market was evolving, particularly in terms of pricing and market share, ARCEP began collecting statistical data by means of a quarterly questionnaire addressed to mobile operators (network operators and MVNOs in Metropolitan France): the *Suivi des Indicateurs Mobiles (SIM)*, which is published on the Authority's website. The new reporting format replaces the *Observatoire des Mobiles*. It includes indicators that are better suited to a market approaching maturity and which better characterise the market's competitive vitality. Mainly, it covers:

- gross sales (sales made during the quarter);
- virtual operator market share (of the customer base and of gross sales);
- virtual operator market share of the commitment-free customer base (customers able to cancel their contracts without penalty for cancellation before completing the minimum contract period);
- cancellation rate.

In addition, ARCEP produces a scorecard every quarter for the mobile market in Metropolitan France, which it transmits to the European Commission. Given changes in the market, the Authority will notify the Commission of a new analysis before the end of 2006.

3.2. Initial results

The data collected by questionnaire provides a fairly detailed view of how the wholesale market is developing and the extent to which competition in the retail market is being stimulated.

As of 31 December 2005, the market shares of the three mobile network operators in Metropolitan France were as follows: 46.5% for Orange, 33.7% for SFR and 17.2% for Bouygues Telecom.

As a group, virtual operators had an overall customer base of 279 800 lines, accounting for 0.60% of the total national base. Three months earlier, on 30 September 2005, their base was 108 000 lines (0.24%).

Metropolitan France	Overall market		Prepaid base		Postpaid base	
	total customers	Market share	Customers	Market share	Customers	Market share
Orange France	21 599 778	46.49%	8 206 207	48.98%	13 393 571	45.09%
SFR	16 608 999	35.75%	5 953 059	35.53%	10 655 940	35.87%
Bouygues Telecom	7 970 659	17.16%	2 516 745	15.02%	5 453 914	18.36%
Parc MVNO aggregate	279 793	0.60%	79 743	0.48%	200 050	0.67%
Total	46 459 229	100%	16 755 754	100%	29 703 475	100%

Source: ARCEP.

Reunion	Overall market		Prepaid base		Postpaid base	
	total customers	Market share	Customers	Market share	Customers	Market share
Orange Reunion	228 806	29.39%	124 882	27.50%	103 924	32.02%
SRR	549 771	70.61%	329 167	72.50%	220 604	67.98%
Total	778 577	100%	454 049	100%	324 528	100%

Source : ARCEP.

French Antilles French Guiana	Overall market		Prepaid base		Postpaid base	
	total customers	Market share	Customers	Market share	Customers	Market share
Orange Caraïbes	607 796	74.32%	257 115	75.88%	350 681	73.22%
Bouygues Telecom Caraïbes	160 319	19.61%	51 166	15.10%	109 153	22.79%
Dauphin	9 111	1.11%	8 351	2.46%	760	0.16%
Outremer	40 559	4.96%	22 193	6.55%	18 366	3.83%
Total	817,785	100%	338 825	100%	478 960	100%

Source : ARCEP.

Saint Pierre-et-Miquelon						
	total customers	Market share	Customers	Market share	Customers	Market share
SPM Telecom	-	-	0	0%	2 718	100%

Source: ARCEP.

3.3. Status of wholesale contract conditions

Except for the extension of Omer Telecom's contract to the national level, wholesale conditions have not changed noticeably since the MVNO agreements were signed. Consequently, not one convergent or fixed-mobile offer has been developed; these would have contributed to an increased range of services and would have expanded customer choice (in the residential market and in the business market), especially given the simplicity of a single combined offer.

To encourage innovation that benefits users in the electronic communications sector, the Authority believes it is desirable that wholesale contracts evolve as virtual operators grow in the retail market. Such changes might involve allowing virtual operators to operate certain core network equipment (HLR, VMS, etc.) on their own behalf.

3.4. Other indicators

In addition to precisely tracking the performance of each network operator and virtual operator, the mobile market indicator (*SIM*), aims to quantify certain market characteristics, particularly with respect to its fluidity - the freedom with which demand can be expressed - and in terms of the customer's ability to change operator freely, without being tied to an excessively long contract period.

To this end, the *SIM* tracks the percentage of commitment-free customers, i.e., customers that are no longer contractually bound to their current operator and for that reason can change to another operator without triggering the penalty clause. Thus, as of 31 December 2005, 26.8% of postpaid customers were commitment-free and therefore capable of changing operators without penalty.

By tracking gross sales, both prepaid and postpaid, together with the cancellation rate per quarter it is possible to understand the strength of competition in the retail market more precisely than by tracking net sales. In effect, a low level of net sales could just as well indicate a thriving market with a high cancellation rate as a waning market. Furthermore, using gross sales to track market share makes it possible to identify the virtual operators' share of customer acquired. Thus, as of 31 December 2005, the cancellation rate for the quarter was 3.6% for postpaid customers and 8.5% for prepaid customers.

3.5. Outlook

It is conceivable that in the short term the Authority will expand the scope of its market monitoring to include new services and in particular the examination and publication of 3G customer-base figures. Such monitoring is indeed important both for the industrial planning required for the launch of UMTS in Metropolitan France and in terms of stimulating the market.

In addition, as indicated in the introduction, the Authority notes that while the distribution of mobile telephony offerings is not, strictly speaking, within the scope of its responsibility, the activity is a structural element of competition in the retail market and for this reason may be subject to further study by the Authority.

B. Mobile interconnection in 2005

1. Voice call termination

1.1. Framework resulting from the market analysis: summary of obligations

Voice call termination is an interconnection service offered by each mobile operator to all other operators, fixed and mobile. It is the bottleneck through which every call for a mobile customer must pass, whether the call is fixed-to-mobile or mobile-to-mobile.

In accordance with the European Commission's recommendation for Market 16, the Authority has qualified as relevant the wholesale market for voice call termination on each individual mobile operator's network. In these markets, which are segmented geographically by licence area (Metropolitan France, the French Antilles and French Guiana, Mayotte, Reunion, and Saint-Pierre-et-Miquelon), the Authority has also declared each mobile operator to be dominant in the market for call termination on the operator's own network.

1.1.1. Metropolitan France

In Metropolitan France, the Authority has imposed the following obligations on the three mobile operators²²:

- the obligation to grant all reasonable requests for access and interconnection services relating to voice call termination;
- the obligation not to discriminate;
- the obligation to publish a reference offer;
- the obligation to maintain accounting separation and perform cost accounting.

The Authority also has imposed tariff controls on these operators in the form of an obligation for tariffs to reflect associated costs. Within this framework, multiyear reductions are imposed in the form of price caps:

- Orange France and SFR are subject to a cap on the average per-minute price of call termination of € 0.125 in 2005 and € 0.095 in 2006.
- Bouygues Telecom is subject to a cap on the average per-minute price of call termination of € 0.1479 in 2005 and € 0.1124 in 2006.
- The levels of 2007 price caps on the average price of call termination for the three operators will be determined no later than 30 September 2006.

1.1.2. Overseas

In the overseas territories and départements, the Authority²³ has subjected the seven mobile operators to the following obligations:

- the obligation to grant all reasonable requests for access and interconnection services relating to voice call termination;
- the obligation not to discriminate;
- the obligation for transparency;
- the obligation to apply to these voice-call termination services a tariff structure that reflects the service rendered (in particular, the tariff structure must not include indivisible billing periods).

In terms of tariff control, only the leading operators, Orange Caraïbe and SRR, are subject, as are the operators in Metropolitan France, to the obligation to employ tariffs that reflect the associated costs and the obligation to maintain accounting separation and perform cost accounting for access and interconnection services.

- In practice, the price caps imposed by the Authority on Orange Caraïbe and SRR consist of a reduction of 20% per year for three years:
- Orange Caraïbe is subject to a cap on the average per-minute price of call termination that was € 0.2056 from 1 April 2005 to 31 December 2005, is € 0.1644 in 2006, and will be € 0.1316 in 2007.
- SRR is subject to a cap on the average per-minute price of call termination that was € 0.1965 from 1 April 2005 to 31 December 2005, is € 0.1572 in 2006, and will be € 0.1257 in 2007.

In terms of tariff control, the smaller operators (Bouygues Telecom Caraïbe, Dauphin Telecom, and Saint Martin Mobiles in the French Antilles and

22 ARCEP Decisions No. 04-937, 04-938 and 04-939 of 9 December 2004 concerning the significant power of Orange France, SFR France and Bouygues Telecom in the wholesale market for voice call termination on their respective networks and concerning the obligations imposed for this reason.

23 ART Decision No. 05-0111 of 1 February 2005 concerning the determination of relevant markets for voice call termination on mobile networks in the overseas territories and départements. ART Decisions No. 05-0112, 05-0113, 05-0114, 05-0115, 05-0116, 05-0117, and 05-0118 of 1 February 2005 concerning the significant power of Orange Caraïbe, SRR, Orange Reunion, Bouygues Telecom Caraïbe, Saint Martin Mobiles, Dauphin Telecom, and SPM Telecom in the wholesale market for voice call termination on their respective networks and concerning the obligations imposed for this reason.

French Guiana; Orange Réunion in Reunion; SPM Telecom in Saint-Pierre-et-Miquelon) are subject to the obligation not to price their call termination services excessively.

1.2. Implementation of accounting obligations

For the purposes of controlling the obligation for cost-based pricing, a distinction needs to be made between cost accounting and the setting of the tariffs for the service concerned.

For purposes of cost accounting, the Authority has defined methods for valuing assets and rules for cost accounting, which should be used as the basis for the regulatory accounts and cost elements that have to be submitted. Imposing such an obligation for accounting separation and cost accounting on Orange France, SFR, Bouygues Telecom, Orange Caraïbe and SRR entails performing *ad hoc* audits.

For each operator concerned, the task of the auditor performing the annual regulatory audit consists of examining the degree to which the operator's cost accounting system complies with the rules and methods for establishing regulatory accounts. Unless the audit result is unfavourable or the audit cannot be concluded, the auditor will deliver a statement confirming that the accounts are compliant.

In the case of tariff setting, the Authority takes into consideration all submitted and audited elements, especially those relating to costs, before making a determination on the yearly or multiyear tariff framework for a given service. It is within the framework of this exercise that the Authority will establish the new price caps for 2007 no later than 30 September 2006.

1.3. First audit of accounts in 2005

The first audit of the regulatory accounts of Metropolitan France mobile operators took place in 2005 and covered the 2003 fiscal year.

With respect to the obligations concerning accounting separation and cost accounting for access and interconnection services associated with "direct" voice call termination, Article 7 of Authority Decisions No. 04-937, No. 04-938 and No. 04-939 provides that the methods applicable to these obligations are to be defined by an ARCEP decision at a later date, and as a transitional measure operators should transmit their accounting data to ARCEP according to the rules and formats defined in Decision No. 01-458²⁴.

Therefore, the first audit tasks that were performed during the transitional period (in the first half of 2005) covered regulatory accounts for the 2003 fiscal year submitted according to the guidelines adopted by Decision No. 01-458.

In accordance with the CPCE, the Authority designated the accountancy firm Ernst & Young to perform the audit of relevant 2003 information system and accounting data elements pertaining to Orange France, SFR

Decision concerning the adoption of guidelines for tariff conditions relating to the interconnection of dominant mobile operators in the national interconnection market. Under the former regulatory framework, operators Orange France and SFR were bound to provide annual informational reports using a format defined in this decision.

and Bouygues Telecom (by Decisions No. 05-0272, No. 05-0273 and No. 05-274, respectively). The audit work resulted in statements confirming the cost-accounting compliance of each of the operators concerned.

1.4. A new framework for cost accounting

1.4.1. End of transitional period

Decision No. 05-0960 established the transitional period during which operators would transmit their accounting data to the Authority according to rules and formats defined in Decision No. 01-458. For the operators concerned (Orange France, SFR and Bouygues Telecom in Metropolitan France, Orange Caraïbe in the French Antilles and French Guiana, and SRR in Reunion), it defined:

- methods of implementing the obligation to maintain accounting separation and perform cost accounting;
- rules for reporting costs.

1.4.2. Accounting for non-voice and 3G services

In this decision, the Authority required the operators concerned to submit two separate accounts:

- a specific account for voice services, comprising the historic cost of voice services, including the cost of mobile voice call termination;
- a specific account called *compte de bouclage*, comprising the historic cost of services other than voice.

To begin with, the specific account for voice services makes allowances for developments in mobile networks, especially the deployment of 3G networks, whereas the format specified for regulatory accounts in Decision No. 01-458 only considered voice services provided on operators' GSM networks. In effect, the Authority considers that given that UMTS networks are currently deployed - at least partially - in Metropolitan France, voice services delivered on 3G networks should be subject to regulatory reporting in the same way as voice services delivered on 2G networks.

Secondly, in addition to voice services and mobile voice call termination in particular, the Authority needs to be able to understand costs in their entirety, especially because the choice has been made to allocate a share of common (or unallocated) costs to each technical service on a basis pro rata of all other costs: the Authority therefore considers that submission of the *compte de bouclage* (that is, costs not attributed to voice services) is necessary to be able to control and verify the completeness of costs.

The following table itemises the technical services provided by each operator concerned. They are divided into two categories (voice services and non-voice services).

Family of technical services	Subfamily	Technical service
Voice services	Outgoing calls	Outgoing intra-territorial to third party
		Outgoing intra-territorial to fixed
		Outgoing inter-territorial or international
	Incoming calls	Completed incoming intra-territorial (i.e., terminating at the subscriber)
		Other intra-territorial calls (call forwarding, terminating on VMS, etc.)
		Completed incoming inter-territorial and international (i.e., terminating at the subscriber)
		Other incoming inter-territorial and international (i.e., call forwarding, terminating on VMS, etc.)
	On-net calls	Completed on-net calls (i.e., terminating at the subscriber)
		Other on-net calls (call forwarding, terminating on VMS, etc.) except for calls to check VMS.
	Calls to check VMS	Calls to check VMS, calls from VMS to the subscriber
	Outgoing calls when roaming out	Outgoing roaming out calls
	Other services	Calls to an operator's server or call center, calls to special services, etc.
SMS services		Incoming, outgoing and on-net SMS in particular
		SMS while roaming out
Data services	Calls within the territory concerned	WAP CSD calls (minutes)
		Packet mode calls (kbits)
	Calls when roaming out	WAP CSD calls (minutes)
		Packet mode calls (kbits)

Source: ARCEP.

1.4.3. Key principles

The key principle in Decision No. 05-0960 consisted of requiring in-depth detail for the specific voice account, particularly through the separate reporting of costs specific to second-generation (2G) networks, costs specific to third-generation (3G) networks, and costs common to the two technologies²⁵.

Given that during the initial growth phase, which is expected to last for several semesters, the costs for 3G networks will be fully amortised over

By way of example, the equipment specific to 2G and 3G is essentially radio subsystem equipment, such as base stations, base station controllers, and possibly buildings. The common equipment for 2G and 3G includes all core network equipment as well as certain buildings and radio subsystem equipment and towers supporting 2G and 3G antennas.

26 Decision No. 04-936 of 9 December 2004 concerning the determination of relevant markets for voice call termination on mobile networks in Metropolitan France, defined a wholesale market for voice call termination on mobile networks regardless of whether the service is delivered on a GSM network or a UMTS network. This market definition conforms to the principle of technological neutrality.

moderate traffic volumes, the Authority wishes to have visibility into the impact that this accounting effect has on the cost of mobile voice call termination.

This distinction does not call into question the principle of technological neutrality²⁶. In effect, the Authority does not intend to establish differentiated 2G and 3G call termination tariffs nor does it expect that different methods should be used in valuing 2G and 3G network assets.

The specific requirements are justified particularly because of the significance that mobile voice call termination holds for the electronic communication sector: this service generates the largest inter-operator financial flows, both between mobile operators and between fixed and mobile operators.

Voice call termination

	2002	2003	2004	2005	Change 2005/2004
Fixed => mobile					
Volume (billions of minutes)	10.5	11.4	11.6	12	+3.5%
Value (€ billions)	2.9	2.7	2.4	2.1	-12.5%
Mobile => mobile					
Volume (billions of minutes)	32	41.1	50.1	59.5	+18.8%

Sources: ARCEP.

1.4.4. Other accounting reports

The Authority requires operators to submit provisional cost and revenue results. These elements provide individual provisional accounts of major cost and revenue categories projected over the coming years and based on information available when the provisional accounts are drawn up. These projected accounts do not offer the same level of detail as the actual individual accounts, which are based on historic revenue and cost elements.

Finally, operators must submit their investment schedules, which are required by the Authority for evaluating, on a continuous and provisional basis, the relevance of the different asset-valuation methods including the historic-cost method used to date.

1.5. Timetable

In Metropolitan France, operators are expected to implement the specifications of Decision No. 05-0960 for regulatory reporting relating to fiscal years 2004, 2005, 2006 and 2007 from 2006 onwards.

Thus, by 1 March 2006, Orange France, SFR and Bouygues Telecom will communicate to the Authority their unaudited cost and revenue results for 2004, and these will then be audited with a view to supplying statements

of compliance (accompanying the audit reports) as the case may be, no later than 15 April 2006.

By 15 June 2006, Orange France, SFR and Bouygues Telecom will communicate to the Authority their unaudited cost and revenue results for 2005, and these then will be audited with a view to supplying statements of compliance (accompanying the audit reports) as the case may be, no later than 30 September 2006.

Finally, by 1 July 2007, Orange France, SFR and Bouygues Telecom will communicate to the Authority their unaudited cost and revenue results for 2006, and these then will then be audited with a view to supplying statements of compliance (accompanying the audit reports) as the case may be, no later than 30 September 2007.

In the overseas *départements* and territories, the operators concerned, namely Orange Caraïbe and SRR, are expected to implement the specifications of Decision No. 05-0960 for regulatory reporting relating to fiscal years 2006 and 2007 from 2006 onwards. During the transition period, for fiscal years 2004 and 2005, these operators may continue to compile their regulatory reports using the methods and a format defined in the annex to Decision No. 01-458.

By 1 April 2006, Orange Caraïbe and SRR will communicate to the Authority their unaudited cost and revenue results for 2004, and by 1 October 2006, their unaudited cost and revenue results for 2005.

The first audit work for the overseas *départements* and territories will cover the unaudited cost and revenue results for 2006 submitted by Orange Caraïbe and SRR by 1 July 2007; these then will be audited with a view to supplying statements of compliance (accompanying the audit reports) as the case may be, no later than 30 September 2007.

1.6. Implementation of obligations

1.6.1. Reference offers

In accordance with Authority Decisions No. 04-937, 04-938 and 04-939, the reference offers for interconnection and access relating to voice call termination for 2006 were submitted to the Authority by the three mobile operators in Metropolitan France before 1 February 2005. They were subsequently published²⁷ on the operators' respective websites before 1 March 2005 and are therefore readily accessible in electronic form. These offers became effective on 1 April 2005.

1.6.2. Tariff control in 2005

The operators subject to price caps observed the tariff ceilings set by the Authority, as illustrated by the 1 January 2006 tariffs shown in the following table.

The publication of reference offers by operators does not mean that the offers have been validated by ARCEP.

27

		Time credit (€)	Time credit (sec)	Price per additional minute (€)
Orange France	<i>Intra-ZA tariff</i>	0	0	0.1250
	<i>Extra-ZA tariff</i>	0	0	0.1298
SFR	<i>T1 tariff</i>	0	0	0.1250
	<i>Extra-ZA tariff (T2)</i>	0	0	0.1296
	<i>Extra-ZA tariff (T3)</i>	0	0	0.1346
Bouygues Telecom	<i>Intra-ZA tariff</i>	0	0	0.1479
Telecom	<i>Extra-ZA tariff</i>	0	0	0.1518
Orange Caraïbe		0	0	0.2056
SRR		0	0	0.1965

Sources: ARCEP.

It is worth noting that the tariff structures of overseas operators have changed in two ways: first, in accordance with ARCEP requirements, time credits are no longer used. Second, the price differentiation between peak and off-peak hours that was used in 2004 has been withdrawn at the initiative of the operators.

With respect to the smaller operators (namely, Bouygues Telecom Caraïbe, Dauphin Telecom, Saint Martin Mobiles in the French Antilles and French Guiana, Orange Réunion in Reunion, and SPM Telecom in Saint-Pierre-et-Miquelon), the Authority confirmed that all were employing a tariff structure for voice call termination that reflected the service rendered and in particular employed no indivisible time periods. Furthermore, the Authority noted that most of these operators reduced tariffs in 2005.

1.6.3. Outlook

In Metropolitan France, the main regulatory action to be taken by the Authority involves defining the tariff framework that will apply to Orange France, SFR and Bouygues Telecom in 2007 for their respective voice call termination services. ARCEP will establish this tariff framework in a decision to be published no later than 30 September 2006 and to be based on cost and revenue information in hand, particularly the audited information for the 2004 fiscal year.

In the overseas *départements* and territories, the tariff framework that Orange Caraïbe and SRR must adhere to applies through 2007. Therefore, in early 2007, the Authority, using an approach similar to the one used in early 2006, will confirm whether both operators are observing the price ceilings established by the Authority.

In addition, new operators have launched commercial services. Thus, Outremer Telecom, which has a GSM licence for the geographic area covering the French Antilles, French Guiana and Reunion, launched commercial service in French Guiana in November 2004 and in Martinique and Guadeloupe in November 2005²⁸. In 2006, ARCEP will launch a public consultation concerning the analysis of the significant influence of

28 As of early March 2006, the service had not been launched commercially in Reunion.

Outremer Telecom in the wholesale market for voice call termination on its mobile network and the obligations to be imposed in that regard.

Similarly, given Telcell's announcement that it will *a priori* begin commercial service in 2006, the Authority will launch a public consultation concerning the analysis of the wholesale market for voice call termination on that operator's mobile network.

2. SMS call termination

2.1. Market for SMS on mobile networks

2.1.1. Technical operation of SMS

An SMS (Short Message Service) message is a brief written message of no more than 160 7-bit-encoded characters. The service is available on all terminals in use in the market and operates on all networks (GSM, GPRS and UMTS). In accordance with the GSM standard, SMS uses capacity reserved for signalling and SMS messages are transmitted on the SS7 (Signalling System 7) channel.

In addition to SMS end-to-end, the GSM standard distinguishes between SMS-MO (Mobile-Originated SMS) and SMS-MT (Mobile-Terminated SMS). SMS-MO refers to the transfer of an SMS message from a mobile to the SMSC (SMS Centre) and SMS-MT refers to the transfer of an SMS message from the SMSC to a mobile.

Technically, SMS service requires that one or several specific servers – the SMSCs – be implemented on the network. The SMSCs store SMS messages in databases, distribute the SMS messages to the mobile terminals to which they are addressed (when these are active on the GSM network to which they belong), and process SMS validity dates. MSCs (Mobile Switching Centres), each of which is a switching element on the mobile network and is common to other types of traffic, serve as the network sender for SMS-MOs and the network receiver for SMS-MTs.

2.1.2. Mobile-to-mobile SMS

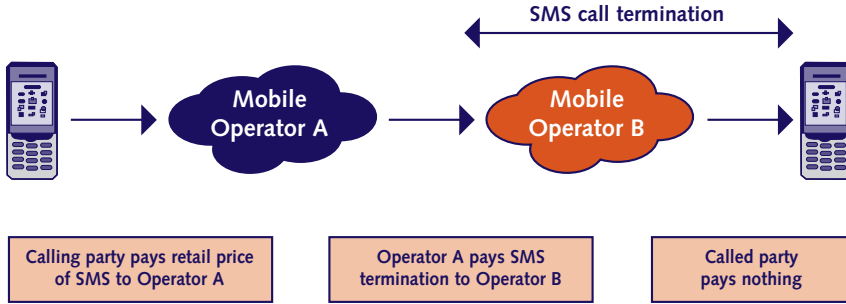
The sending of interpersonal SMS messages from a French or foreign mobile operator to the network of a third-party mobile operator is governed by an SMS interoperability contract, which generally is reciprocal. Thus, to terminate an SMS call from Operator A on the network of receiving mobile operator Operator B, Operator B converts the incoming message to the SMS-MT format and ultimately switches it to the mobile subscriber to whom it is addressed.

The SMS is billed at retail level on the basis of calling party pays: the customer sending the SMS is the one billed, and reception is free of charge. In the wholesale market, mobile operators do not pay interconnection charges for on-net SMS messages (those that are exchanged between subscribers of the same operator) but they pay SMS call termination charges for off-net SMS messages (those that transit both networks). In this

case, the price of the SMS call termination charge is the only part paid by the calling party's mobile operator to the called party's operator. As of 31 December 2005, this charge was €0.043.

Calling Party A

Called Party B

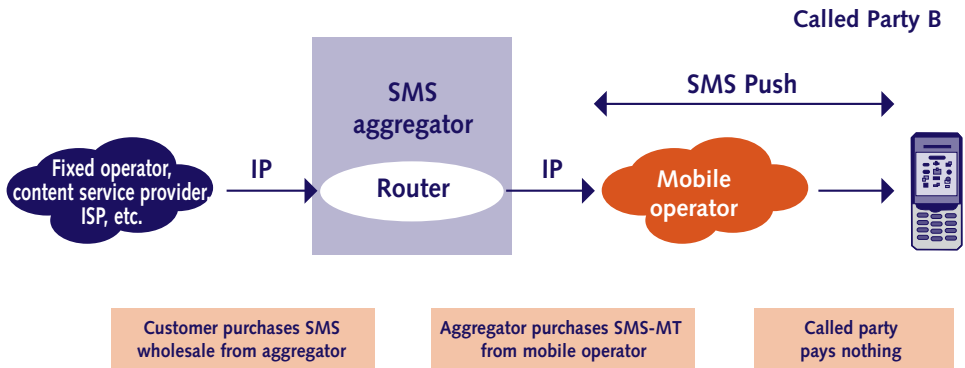


Sources: ARCEP.

2.1.3. SMS outside of the mobile environment

In addition to mobile operators, other players, particularly Internet service providers (ISPs) and content service providers, are likely to solicit SMS-MT services from the destination operator. In this context, the SMS-MT message is sent without a connection being established at the time of sending and is described as SMS-Push. Though the network architectures differ somewhat, the message exchange process is equivalent to that described earlier.

Rather than having to use several interfaces (one per destination operator), each with different characteristics and requiring a degree of technical development, the non-mobile players generally turn to the services of an aggregator (the equivalent of a transit operator for voice), which assumes responsibility for switching the SMS messages.



2.1.4. Key figures: economic context and issues

The number of SMS messages (volume) exchanged was multiplied by 8.7 between 2000 and 2005. Data exchange (SMS and MMS) represents about 12% of the turnover of mobile operators. In 2005, nearly 13 billion SMS messages were sent, generating turnover of € 1.3 billion.

Number of interpersonal SMS messages sent, 2000 to 2005

Millions of units	2000	2001	2002	2003	2004	2005 ^e
Number of interpersonal SMS messages sent	1 471	3 508	5 523	8 188	10 335	12 721

Source: ARCEP, Market Observatory.

*Estimate.

For 2005, the average number of SMS messages per customer per month was 23 according to the Market Observatory. Moreover, CREDOC considers SMS messaging a youth phenomenon even though it is spreading slowly to the rest of the French population.

Number of SMS messages sent per week

	12-17 yrs	18-24 yrs	25-39 yrs	40-59 yrs	60-69 yrs	>70 yrs
2003	19	13	9	5	2	4
2004	17	19	9	6	4	2
2005	28	20	11	7	4	2

Source: CREDOC 2005.

2.2. ARCEP's analysis

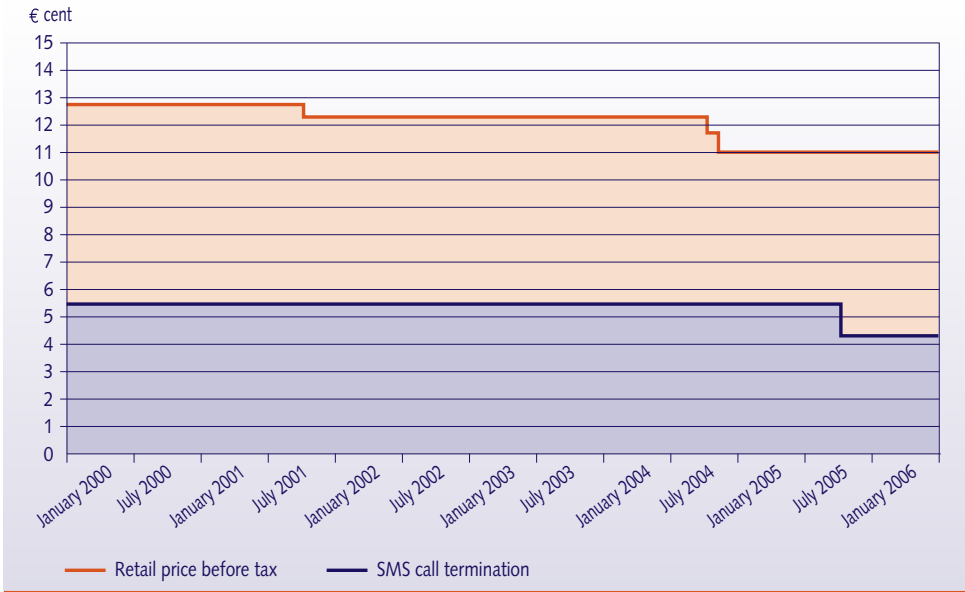
On 24 October 2005, ARCEP launched a market analysis process aimed at defining the wholesale market for SMS call termination on mobile networks as a relevant market in the same way as the wholesale market for voice call termination on mobile networks. The Authority did in fact identify certain market competition problems that need to be resolved.

2.2.1. Principal competition problems identified

- **Lack of significant price changes**

Wholesale SMS prices, like retail SMS prices, exhibit a degree of stability. Though the volume of SMS messages sent has increased considerably in recent years, reductions in retail tariffs, which occurred in the summer of 2004, were slow in coming, were limited and were concentrated essentially on large SMS flat-rate offers.

Peak-hour price per SMS message unit

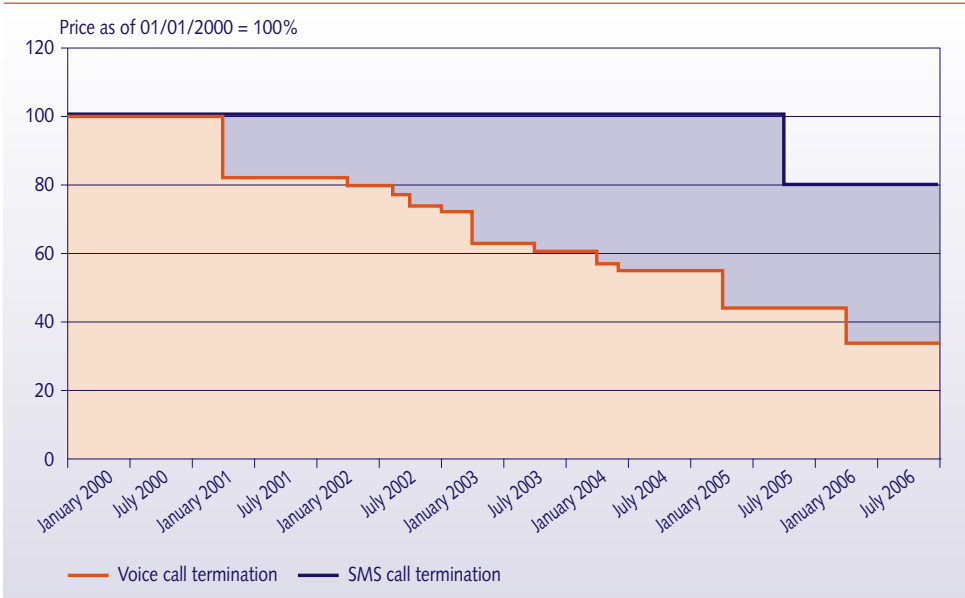


Source: ARCEP.

29 This charge dropped from € 0.053 in 1999 to € 0.043 in November 2005, effective retroactively to 1 July 2005 in accordance with Decisions No. 05-0929 and 05-0930 concerning the settlement of two disputes brought to the Authority by Bouygues Telecom against Orange France and SFR.

The relative stability of SMS retail prices must be compared with the evolution of wholesale prices. Since SMS interoperability agreements were signed in December 1999, SMS interconnection charges have actually remained stable²⁹ and appear high in view of the costs incurred.

Evolution of SMS and voice call termination



Source: ARCEP.

- **High barriers to entry**

According to the Authority, high SMS call-termination price levels automatically lead to proportionally higher costs for small operators. In effect, structural imbalances emerge, particularly where large consumers are concerned and the imbalances grow even greater as the gap between SMS call termination prices and costs widens. In addition, the existence of certain on-net/off-net price-differentiation practices favours operators with large market share by reinforcing the advantages arising from having larger user communities on the same network.

Moreover, there is a lack of offerings being developed for SMS originating on fixed networks. To date, France Telecom is the only fixed operator in Metropolitan France to offer SMS. Some non-mobile players have indicated to the Authority that they have not developed SMS activity because the cost of SMS call termination is excessively high.

Finally, market power analyses tend to show that Metropolitan France mobile operators in their respective wholesale markets are not significantly challenged, particularly as concerns the non-mobile players (SMS aggregators, fixed operators, Internet service providers, content service providers).

2.2.2. Remedies envisaged

To resolve the various competition problems, the Authority proposes that the following obligations be imposed on the three operators in Metropolitan France:

- the obligation to grant reasonable requests for access and interconnection;
- the obligation not to discriminate;
- the obligation for transparency;
- the obligation to maintain accounting separation and perform cost accounting;
- tariff control exercised in the form of an obligation for tariffs to reflect associated costs.

Under this framework, the Authority plans to establish an initial price ceiling of €0.025 per SMS when the above mentioned obligations come into effect, but with no restriction on subsequently modifying this level based on an audit of the cost elements. These remedies will become effective in mid-2006.

2.3. European context

2.3.1. European Commission

The wholesale market for SMS call termination on mobile networks is not one of the 18 relevant markets listed in the European Commission's 11 February 2003 recommendation.

In accordance with the 11 July 2002 Commission Guidelines on Market Analysis and the Assessment of Significant Market Power, the Authority relied on the three criteria used to establish the Commission's original list when qualifying the wholesale market for SMS call termination on mobile networks as relevant.

Furthermore, the Commission has announced that it will revise its list during 2006.

2.3.2. Other NRAs

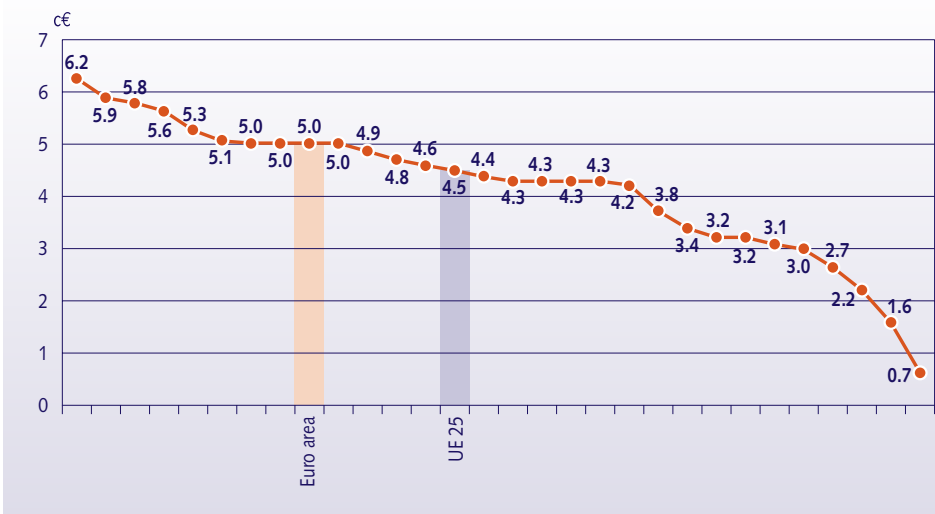
During the summer of 2005, the Authority drafted a first benchmark for SMS call termination in Europe. ARCEP presented this study in the framework of the Independent Regulators Group (IRG) at the Lisbon meeting of the Mobile Market Working Group on 13 and 14 October 2005 and at a Paris workshop on the topic on 16 and 17 March 2006. The benchmark analysis shows that:

- SMS call termination appears to be a component of SMS retail pricing and more specifically a cost of providing retail SMS;
- the longer the delay in establishing termination rates, the lower they are set (this is particularly the case in some countries that were still practicing bill-and-keep for SMS in 2002 and even 2003).

According to this comparison, SMS call termination tariffs in Europe ranged from € 0.062 to € 0.007 per message in November 2005. For the Europe 25 the average was € 0.046 and for the euro-area countries it was € 0.050.

The following graph displays the benchmark information without attribution to individual countries.

Comparison of SMS call termination charges in Europe



Source: ARCEP, November 2005.

C. International roaming

In 2005, the market for wholesale international roaming accounted for a significant portion of work performed by national regulatory authorities (NRAs) and by ARCEP in particular.

This wholesale service, which NRAs were directed to analyse by the European Commission's recommendation of 11 February 2003 (concerning Market 17), comprises all electronic communication services (access and call origination for voice, SMS and data) offered by network operators in Member States to operators in other Member States so that customers of the latter group might enjoy continuity of service when travelling abroad. For example, a Spanish operator wishing to allow its customers to make calls while in France (i.e. from a French mobile network), must acquire wholesale international roaming minutes from that French network.

1. A commission initiative taken up by the NRAs

This market has several specific characteristics, one of which is clearly its international dimension. Indeed, wholesale prices in one country necessarily affect retail prices in other countries. Thus, the roaming market is the result of international interdependence and this has motivated the simultaneous data-gathering efforts of NRAs in the European Economic Area (EEA) and the preliminary analysis of the European Regulators Group (ERG). Above all, any intervention in this market must be coordinated at the European level, justifying a high level of involvement from the European Commission.

1.1. Transparency aspects

One of the European Commission's first interventions was to establish a website³⁰ where certain retail tariffs paid by customers using their telephone while abroad are published for all Member States of the European Union. The objective of this site, which was launched in September 2005, is to provide roaming service consumers with a way of comparing, to a certain extent, corresponding prices employed by network operators and as a result be in a better position to benefit from competition.

This initiative was taken up by the Independent Regulators Group (IRG), which has assembled an *ad hoc* working group so that each of the Member States concerned will implement an equivalent site covering more specifically its own operators.

http://europa.eu.int/information_society/roaming.

1.2. Competitive aspects

The European Commission has already addressed international roaming services, notably through several interventions dealing with disputes about competition and about antitrust law.

Thus, in July 2004, it initiated proceedings against two British mobile network operators, O2 and Vodafone, on charges that they abused their dominant position by charging inequitable and excessive wholesale prices for roaming services. In February 2005, the European Commission initiated two similar proceedings against German network operators T-Mobile and Vodafone.

Furthermore, the Commission is examining the conditions of the standard purchasing agreement for wholesale roaming services and is investigating the Freemove and Starmap roaming alliances in terms of Community law (Article 81 of the EC Treaty). Finally, when Telefonica took over British operator O2, the Commission required Telefonica to withdraw from the Freemove alliance.

2. Retail market description and operation

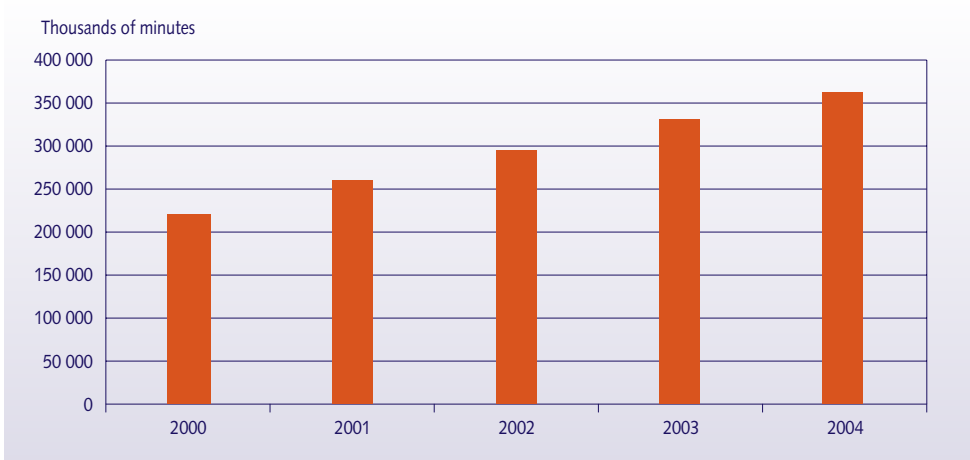
In brief, providing international roaming services to end customers consists of providing those customers with continuity of service while they are abroad. Thus, the term “roaming out” (referring to “external” or “foreign” roaming) is used to denote these services, which are more often than not available to the customer either automatically or by simple activation of the option by sending an administrative declaration to the home operator.

These services are billed as one of the component services in a mobile communication offering (consisting of a package of services). However in genera, they do not follow the same tariff plan as calls placed and received within national boundaries. In particular, postpaid customers pay for their use of roaming-out services in addition to the charge for their flat-rate plans.

Incoming calls are not tarified in the same way as provided for in the agreements for national calls, whereby only the calling party pays for the call; rather, they carry a charge to the roaming customer (which is additional to the price paid by the caller). This retail tariff for reception covers the cost of international traffic plus the surcharge covering the difference between the cost of national call termination and the cost of terminating the call on the foreign operator's network. Thus, whatever the called party's location, the calling party's cost never exceeds the price of a call to the called party when the called party is in his or her usual geographic area (i.e., the called party's “home” location where service is contracted). The same applies to forwarded calls.

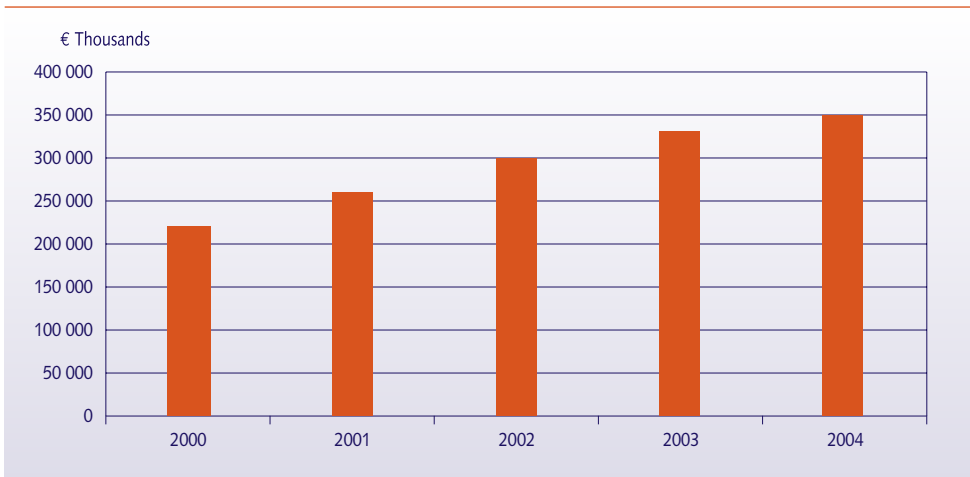
The following graphs show the traffic volumes (in minutes) and revenue (in thousands of euros) derived from outgoing calls in roaming-out mode for the group of European Economic Area countries.

Aggregated roaming-out voice traffic volume, all European Economic Area countries



Source: ARCEP.

Aggregated roaming-out voice revenue, all European Economic Area countries



Source: ARCEP.

3. Wholesale market description and operation

3.1. Institutional and technical issues

In order to provide international roaming services, operators of visiting networks sign agreements with operators of visited networks stipulating the

commercial, financial and technical terms for roaming. These roaming agreements are entered into between operators that are members of the GSM Association, and are generally reciprocal, i.e. the contracting parties agree to terms for providing each other with wholesale roaming services.

Until September 2003, operators whose customers were roaming (also called "visiting operators") had no truly effective way to direct the traffic of their internationally-roaming customers onto a given network in the visited country. Recent technological advances now allow visiting operators to break free of the problem of having calls placed at random by roaming end-customers. With differing degrees of success, these techniques are able to direct the activated terminal onto a given network and thereby offer the advantages of better adequation between supply and demand in the wholesale market for international roaming.

3.2. Economic and strategic issues

If the operators themselves are able to direct the traffic generated by their roaming customers to a preferred visited-network operator rather than having the traffic directed by the customers then it is conceivable that this type of practice might be implemented reciprocally between two operators from different countries. In particular, this would allow exclusive or partially exclusive provisioning agreements to be established. Under such an arrangement, the partners benefit reciprocally from having preferred-network status and their roaming expenses are offset by their income, such that the operators concerned engage in a type of mutual exchange by which they are able to balance their expenses independent of the wholesale price.

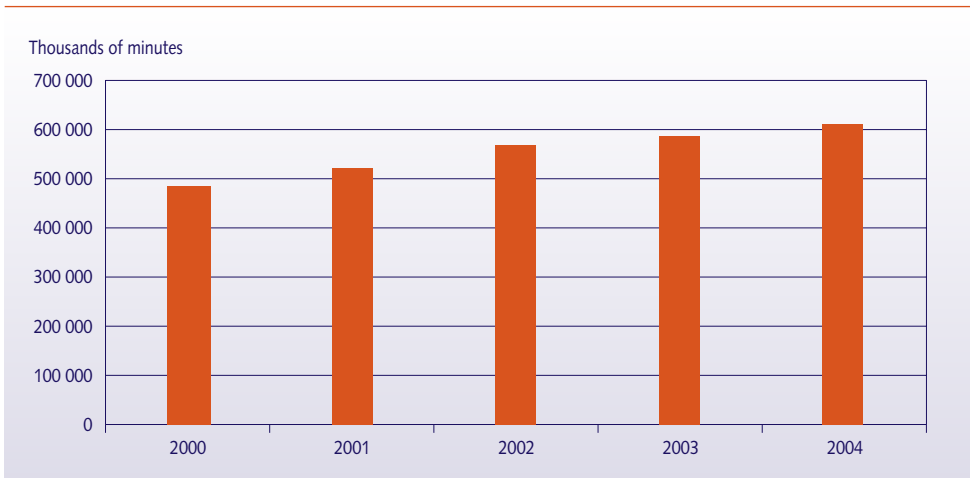
Such practices can naturally be implemented by mobile telephony operator groups with subsidiaries in several countries. In this case, it becomes self-supply (or internal consumption). Mobile telephony operators that are not members of a trans-national operating group can nevertheless create associations of this type by entering into inter-operator alliance agreements.

In principle, roaming alliances (such as Freemove and Starmap) and presumably groups such as Vodafone generally accept only one operator per country involved. Operators are in a position to encourage the use of such agreements by extending substantial discounts to their partners.

3.3. Roaming-in volume

These indicators include self-supply, meaning transactions among European Economic Area operators belonging to a single group (such as Orange and Vodafone).

Aggregate traffic volume, all European Economic area countries



Source: ARCEP.

4. ARCEP initiatives

4.1. Competition report

The Authority believes that retail prices for roaming are high (exceeding € 1 per minute after tax) and that this is due to the level of underlying wholesale prices. Wholesale price levels are very similar to, or even greater than, those seen in the wholesale market in 1999. At that time, traffic was divided among operators practically randomly; given the total impossibility of price competition, each operator was in a position to employ monopoly pricing. Thus, wholesale tariffs in 1999 were monopoly tariffs that exploited a low user-sensitivity to price. The information available to the Authority indicates that wholesale prices (net of discounts) are more than three to four times greater than their underlying production costs.

4.2. Proposals

In its public consultation, ARCEP proposes several courses of action.

The first consists of defining remedies in the context of a market analysis described in the consultation document. An oligopolistic situation without competition is seen to exist which ARCEP proposes to qualify as a situation of joint power. However in terms of the Community framework, this is a new situation since it arises from the generalised practice of maintaining prices that were set before there was a structure for competition and in spite of the fact that it became possible to direct the traffic. This analysis could be acceptable provided that the Commission does not limit the definition of joint power to tacit collusion between operators.

In addition, it is noted that the GSM Association has extensively structured the wholesale market from which MVNOs in particular are excluded. Moreover, according to the Authority, the establishment of exclusive cross-purchasing rights within alliances or groups of operators contributes to parallel behaviour at the pan-European level and in any case induces the compartmentalisation of services in each national market. Because of this, such practices could be considered restrictive under Community competition law.

Finally, in the absence of any prospect of sectoral regulation or the application of competition law to this market, the Authority believes that direct regulation by the Community legislature, similar to that undertaken for unbundling and cross-border banking services, will be necessary.

Other markets

- A. Capacity services and leased lines
- B. Wholesale market for audiovisual broadcast services

A. Capacity services and leased lines

On 30 November 2005, the Authority put to public consultation its analysis of leased line markets. The responses to that consultation were published on the Authority's website³¹. The Authority subsequently sought the opinion of the *Conseil de la Concurrence* on 28 March 2006.

See www.arcep.fr.

Once the opinion of the *Conseil de la Concurrence* has been taken into account, the European Commission and other European Union regulators will be notified of the Authority's draft decision on leased line markets. Lastly, depending on the comments received, the Authority will adopt the decision as final.

1. Definitions

Businesses that have several remote sites often use dedicated networks for their private voice, data and image communication needs. To interconnect their various establishments, they lease electronic communication capacity called leased lines, which an operator reserves for their own use. Operators may also lease capacity from third-party operators to densify their networks.

There are two types of leased lines: "conventional" leased lines based on ETSI (analogue and digital) standards and capacity services that use alternative interfaces (Ethernet, ATM, etc.).

Leased lines and capacity services account for more than € 2 billion turnover annually.

2. Delimitation of markets

In accordance with the European Commission's Recommendation on Relevant Markets³², ARCEP has analysed the retail market for leased lines (Market 7, for the minimum set of leased lines, which covers leased lines at speeds equal to or lower than 2Mbps as per Article 18 and Annex VII of the Universal Service Directive) and also the wholesale markets designated Market 13, covering the wholesale provision of leased line terminating segments, and Market 14, covering the wholesale provision of leased line trunk segments.

The retail-product substitutability analysis has led to "conventional" leased lines and capacity services using alternate interfaces being integrated into a single market regardless of speed (from a few kbps to several Gbps). However, more highly-integrated services, such as IP virtual private net-

Commission Recommendation of 11 February 2003 concerning relevant products and services markets in the electronic communication sector likely to be subject to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and Council on a common regulatory framework for electronic communication networks and services.

works and less sophisticated services such as leased physical infrastructure were not integrated into this market.

With respect to wholesale markets, two services have been identified: the link between a customer site and the operator's network backbone, called the "terminating segment", and the links between network nodes, called "trunk segments". In the second category, a distinction is made between "intra-territorial" circuits (such as those that connect Paris and Lyon) and "inter-territorial" circuits (such as those that connect Guadeloupe and Brittany).

Except for the market for trunk segments, the geographic scope of these markets encompasses service areas in Metropolitan France, in the overseas *départements* and in the territorial collectivities of Mayotte as well as Saint-Pierre-et-Miquelon.

3. Significant power

On completing its analysis, ARCEP concluded that France Telecom had significant market power in the retail market for capacity services and in the wholesale markets for terminating and trunk segments.

4. Obligations envisaged

The choice of obligations for the supply of a minimum set of leased lines for the retail market does not depend on an assessment by the Authority but is taken directly from the European and national regulatory frameworks. In application of CPCE Articles D.369 and following, obligations for transparency, non-discrimination, cost accounting, and cost-oriented pricing will be imposed.

The obligations likely to be imposed on France Telecom in the wholesale markets are aimed at making these markets more competitive by favouring the development of offerings from alternative operators and by improving very-high-speed services to businesses by encouraging all operators to invest in optical fibre.

4.1. allowing retail offers to be replicated

To encourage rapid development of competition by allowing alternative operators to replicate France Telecom's retail services, consideration is being given to setting down a requirement for the incumbent operator to offer suitable wholesale services. This goal will be achieved by imposing on wholesale markets, obligations concerning access, transparency, non-discrimination, in some cases tariff controls, and accounting. In addition, it is planned to impose on France Telecom the requirement to publish reference offers for the most critical services and service quality indicators.

4.2. Promoting the deployment of optical fibre

The Authority aims to promote competition over the long term and encourage the deployment of optical fibre infrastructure by both France Telecom and alternative operators. Because of the high investment costs, it does not envisage requiring the incumbent operator to reflect its costs of providing wholesale trunk segment services. Instead, it will regulate the retail market less than under the former regulatory framework to avoid driving alternative operators from the market. The Authority expects to lift the current obligation for prior notification of all tariffs and replace it with three less burdensome obligations: the obligation not to discriminate, the obligation not to employ predatory pricing, and the obligation to perform cost accounting.

B. Wholesale market for audiovisual broadcast services

1. Delimitation of markets

In connection with its analysis of the wholesale market for audiovisual broadcast services, which is designated as relevant Market 18 by the Commission, ARCEP launched a public consultation on 1 July 2005 in accordance with CPCE Article D.301. The Authority first of all explained that Market 18 is divided into two markets:

- a downstream market, comprising services offered by broadcasters to content service providers and multiplex operators;
- an upstream market, comprising services offered by broadcasters to other broadcasters, which typically corresponds to the market providing a new broadcast entrant with access to the infrastructure of an incumbent broadcaster.

ARCEP's analysis at this stage covers the wholesale upstream market.

After concluding supply-side and demand-side substitutability analyses, ARCEP segmented the upstream market into five markets:

- the wholesale market for AM broadcast services;
- the wholesale market for FM broadcast services;
- the wholesale market for terrestrial microwave broadcast of television programmes;
- the wholesale market for wireline (cable and ADSL) broadcast of television programmes;
- the wholesale market for satellite broadcast of television programmes.

To evaluate the applicability of *ex ante* regulation to each of these markets, ARCEP confirmed whether the European Commission's three cumulative criteria had been met (presence of high non-transitory barriers to entry, lack

of prospect of evolution toward effective competition and inability of competition law to remedy market failures on its own).

2. Obligations envisaged

On completing its analysis, ARCEP concluded that the upstream wholesale market for terrestrial microwave broadcast of television programmes is relevant. It proposed that TDF (Telediffusion de France), which owns nearly all broadcast infrastructure in France, be designated a company with significant market power. The Authority put to consultation a list of obligations which it considers proportionate and justified for imposition on TDF for the digital broadcasting segment only. The list did not include the obligation for accounting separation.

3. Opinion of CSA

33 CPCE Articles L.37-1 last subparagraph and D.301 and D.302.

34 CSA observations in response to ARCEP's referral concerning Market 18 (the wholesale market for audiovisual broadcast services) adopted at the Plenary Assembly of 6 December 2005.

Asked for its opinion³³, the broadcasting authority CSA (*Conseil Supérieur de l'Audiovisuel*) ruled on 6 December 2005³⁴ that regulation implemented for the upstream wholesale market must allow competition to develop in the downstream market and as a result produce lower broadcasting expenditures for content service providers.

With respect to digital terrestrial television (DTT), the CSA indicated that the complexity and urgency of DTT are not conducive to competition development because they reduce the latitude and time available for new entrants to develop their offerings and for content service providers and multiplex operators to negotiate their contracts.

The CSA approved ARCEP's proposal aimed at establishing a degree of accounting separation for all of the market (analogue and digital) and recommended that particular attention be given to the colocation terms TDF grants its competitors for purposes of DTT broadcasting and in particular to ensure the absence of predatory pricing for this service. It specified that ARCEP should examine the possibility for stronger *ex ante* regulation in the analogue broadcasting segment if there is the likelihood of alternative operators entering the market.

Concerning public FM radio broadcasting, the CSA stated that the question whether this segment should be subject to *ex ante* regulation needs to be addressed. ARCEP concluded that the great majority of terrestrial broadcasting sites owned by TDF for FM radio services were easily replicable, but stated that it would continue to monitor the evolution of this market.

4. Opinion of the *Conseil de la Concurrence*

Asked for its opinion³⁵, the *Conseil de la Concurrence* responded for its part on 18 January 2006³⁶ that ARCEP has the faculty to establish *ex ante* regulation for the upstream part of the market.

Concerning the spread of DTT, the *Conseil* emphasised that certain TDF sites are indispensable to alternative operators because of administrative and regulatory barriers to the construction of alternative sites and because some multiplex operators are reluctant to use such sites for their own broadcasts.

It believes that it would take time to overcome these barriers and that in the medium term they could halt or slow the evolution of the market towards competition. According to the *Conseil*, TDF should continue to benefit from its *de facto* quasi-monopoly during the market analysis period, which lasts three years.

The *Conseil* next concluded that it was impossible to envisage that all of the problems encountered by new entrants to the market could be resolved solely through protective measures. Indeed, it concluded that relying solely on competition law to verify compliance with injunctions for protective measures could prove too long and too uncertain for players such as DTT players that have very tight deployment schedules. It concluded that it was legitimate for ARCEP to use certain *ex ante* remedies to establish transitional market conditions likely to facilitate a true evolution of the market toward effective competition. To that end, priority should be given to the obligation for accounting separation so that there can be clear visibility into how costs are distributed:

- between analogue and DTT television broadcasting;
- between TDF's broadcasting activities and its other activities.

The *Conseil* also believes that this obligation should guarantee that services delivered by TDF to itself for serving the downstream market are identical to the services it offers on the upstream wholesale market.

With regard to AM radio broadcasting, the *Conseil* determined that ARCEP's position is consistent with the jurisprudence. Concerning FM, the *Conseil* observed that certain sites could be classified as essential sites and that their owner could exploit the situation, particularly by refusing access or by offering terms that cannot be economically or technically justified. The Authority said it would remain vigilant with respect to developments in this market.

CPCE Articles L.37-1 first subparagraph and D.301 and D.302.

Conseil de la Concurrence Opinion No. 06-A-01 of 18 February 2006 concerning a request for ART's opinion in application of CPCE Article L.37-1 relating to the analysis of wholesale markets for audiovisual broadcast services.

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5. Notifications to the European Commission and to NRAs

After taking account of the opinions of the CSA and the *Conseil de la Concurrence*, ARCEP prepared draft decisions which it notified to the European Commission and to the competent national regulatory authorities (NRAs) of the other Member States on 27 January 2006. In its letter of response of 24 February 2006, the Commission made two observations, one on the need to undertake a market analysis of the wholesale market downstream of audiovisual broadcast services offered to content service providers and another on the need to watch closely the evolution of competitive conditions in the wholesale market for FM radio broadcasting services. The Authority has endeavoured to take these observations into account when drawing up its draft decisions.

In parallel to the notification procedure, the draft decisions were put to public consultation from 27 January to 27 February 2006. ARCEP received one contribution in this respect. The contribution did not provide any new information compared to that provided by players on the occasion of earlier public consultations, nor did it lead ARCEP to change its analysis significantly.

6. *Ex ante* regulatory mechanism adopted by ARCEP

At the end of the market analysis process for Market 18, ARCEP determined that TDF should be subject to an obligation of accounting separation for the entire relevant wholesale market.

In addition, the Authority concluded that it was proportionate to impose several obligations on TDF for the segment of the market corresponding to wholesale DTT broadcast services. These obligations are as follows:

- the obligation to grant reasonable requests for access;
- the obligation to provide access under non-discriminatory conditions;
- the obligation for transparency (publication of an offer);
- the obligation to comply with tariff controls (proscription against excessive and predatory pricing);
- the obligation to formalise, in the form of agreements, the conditions and tariffs applicable to services internal to TDF, without prejudice to the decision that the Authority will ultimately adopt specifying TDF's cost-accounting and accounting-separation obligations.

The three-year forecast for this market may be revised before the end of the period if market conditions change significantly.

Theoretical foundations

- A. Valuation of the copper pair
- B. Tariff control

A. Valuation of the copper pair

In 2005, the Authority consulted the sector³⁷ and in mid-December adopted a decision³⁸ concerning the method to be used in valuing France Telecom's copper local loop network. This decision led to the reduction in January 2006 of the monthly tariff for fully unbundled access to € 9.29 per line.

The text of this public consultation is available on the Authority's website, <http://www.arcep.fr>.

ARCEP Decision No. 05-0834 of 15 December 2005 defining the valuation method for copper local loop assets and the cost accounting method to be applied to full unbundling.

1. Copper local loop

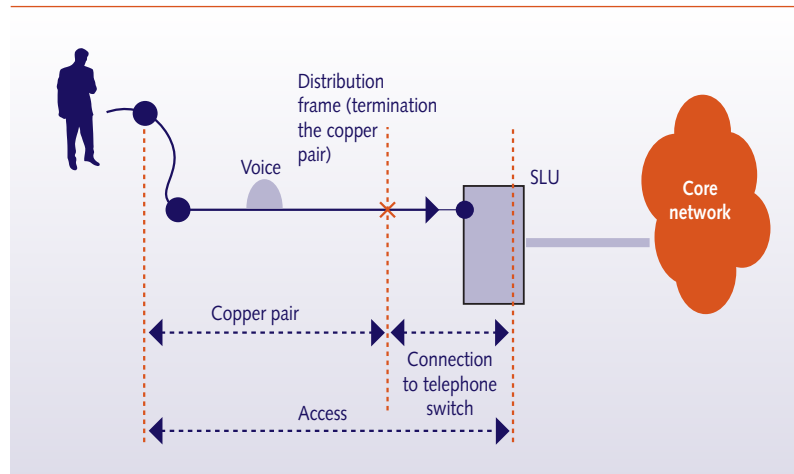
1.1. Description

The copper local loop is what is commonly called the "last mile" of the network and is the section between the subscriber and the France Telecom distribution frame. The local loop network currently comprises more than 30 million lines linking 12 000 France Telecom distribution frames (or NRAs) to subscribers' premises. Physically, these lines consist of symmetric-pair cables (the copper pairs).

France's copper local loop network was deployed widely by France Telecom in the 1970s and covers the entire country: it represents some 450 000 route kilometres of civil works, 18 million poles and 110 million pair-kilometres of cable. Significant economies of scale were achieved in deploying this network.

In the past, services provided on the access network were limited to narrowband switched telephony.

Diagram 1



Source: ARCEP.

SLU : Subscriber line Unit (see URA in the Glossary).

The advent of electronic switching and network digitisation using digital multiplexers and modems (in particular ISDN and xDSL) led to the

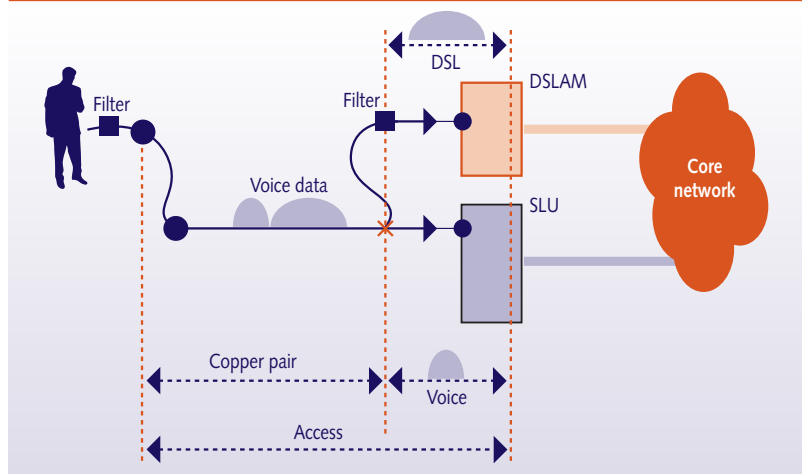
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introduction of data transport services supporting ever-higher bit rates: broadband Internet, television, virtual private networks, etc.

Diagram 2



Source: ARCEP.

SLU : Subscriber line Unit (see URA in the Glossary).

DSLAM : Digital Subscriber Line Multiplexer.

1.2. Cost of the copper local loop

The local loop accounts for the preponderant part of costs associated with reconstructing an electronic communication network: therefore, it appears that a competitor would have difficulty duplicating it. The cost of replacing the network is estimated at € 28 billion, more than half of which is for underground or overhead civil works. This cost is significantly higher than that of replacing the core network, which is estimated at € 10 billion.

Furthermore, other access technologies being deployed today do not support the same services as the copper pair. Therefore, the copper infrastructure is an essential facility for operators wishing to provide broadband offerings in particular.

To safeguard consumer interests and ensure that the treatment of operators is truly non-discriminatory, the tariff structure for the copper local loop must comply with several principles, including the principle of cost orientation.

2. Relation to tariffs for fully unbundled access

The Authority's Decision No. 00-1171 of 31 October 2000 defined the relevant costs to be used in tariffing unbundled services. In the subsequent reference offers, these costs were associated with the various tariffs in the reference offer for unbundled services:

- the non-recurring service-access charge;

- numerous specific tariffs, notably for services related to access;
- the monthly recurring charge for fully unbundled access.

The table below lists the costs that have been covered by the recurring monthly charge for fully unbundled access since 2001:

Description	Type of cost	Costs taken into account
Copper pair	Capital cost	Costs related to fixed capital (civil works, cables and distribution frames)
	Operating cost	Local network operating costs
Costs specific to unbundling	Capital and operating costs	After-sales service: intervention costs
		After-sales service: management overhead
		Billing, collection, and unbundling operator relations through <i>DIVOP</i> .
		After-sales service platform
Contribution to common costs	Common costs by type	Relevant common costs

Source : ARCEP.

A change in the valuation method may cause a change in the capital cost of the copper pair and as a result bear directly on the tariff for fully unbundled access.

3. Valuation method used until 2005

3.1. LRIC method

The method used, which used to be called LRIC (Long Run Incremental Cost) and is now called the successive-step-replacement-cost method, is based on the cost of completely rebuilding the copper local-loop network. The approach is based on the principle of ensuring that the “make or buy” decisions client operators face when deciding whether to build infrastructure or lease it are not biased one way or another.

3.2. Geographic base

In view of progress in the unbundling process, the Authority decided in 2002 to adapt the local loop cost calculation method used in setting unbundling tariffs so that the principle of cost orientation would be satisfied. In effect, various studies had shown that average line cost is a function of the population density of the area served. The cost tends to rise when density drops. Observations made in early 2000 showed that alternative operators were tending to deploy first in denser areas and underscored the fact that these operators lacked plans to deploy elsewhere.

Also, the Authority considered that the costs used to calculate unbundling prices should be restricted to the average cost in those areas where it is highly probable that unbundling will occur. More specifically, the available information showed an almost total lack of prospects for unbundling outside of a base of 21 million lines corresponding to the densest areas and 70% of the population. This base was therefore adopted with a slight correction to also take account of areas where the prospect of unbundling could not be totally excluded.

4. Valuation method issues

The valuations produced by the various methods sometimes differ significantly; thus, the historic-cost method produces a capital cost of € 3 per line per month for 2002 whereas the replacement-cost method, used by France Telecom until 2005, produces a cost of € 7.5 per line per month. The choice of valuation method therefore appears to be a major issue for the industry.

Description	Type of cost	Cost determination (€per line per month)	
		Historic cost 2002	Replaceme nt cost
Copper pair	Capital cost	3.00	7.50
	Operating cost	2.06	1.92
Costs specific to unbundling	Capital and operating costs	1.62	1.62
Contribution to common costs (10.1%)	Common costs by type	0.67	1.12
Total average for all lines to give a 10.4% rate of return on investment (€ per line per month)		7.35	12.16

Source: ARCEP.

Historic cost

As per 2002 audit Recalculated
(number of lines and rate of return on investment)

Replacement cost
As per Decision No. 02-0323

	Net value (€ billions)	Amortisation (€ millions)	Annual cost (€ millions)	Value as new (€ billions)	Annual cost (€ millions)
Civil engineering	3.8	464	859	16.5	1 650
Cable	0.8	174	257	10.2	1 150
Distribution frames	0.3	46	77	1.3	140
Total	4.9	684	1 193	28.0	2 940
Monthly cost per line (€)		3.0			7.5
Number of lines		32.8 millions			32.8 millions
Rate of return		10.4 %			10.4 %

Source: ARCEP.

5. Public consultation conducted by the Authority

5.1. Consultation process

5.1.1. Consultation on valuation methods

In April and May 2005, ARCEP conducted a consultation on valuation methods for the copper local loop. About fifteen contributions were received by the Authority, some including cost models and specific studies. Of note, the contributors were:

- electronic communications operators and operator associations;
- consumers;
- public bodies;
- economists;
- consultants.

These contributions and the summary produced by the Authority were published on the Authority's website on 7 July 2005³⁹.

<http://www.arcep.fr>

5.1.2. Consultation on the draft decision

On 30 September 2005, the Authority put to public consultation for a one-month period its draft decision on the method for valuing the copper local loop. Four contributions were offered on behalf of operators and one operator association.

On 10 November 2005, after these contributions had been taken into account, the European Commission was notified of the Authority's draft decision concerning the analysis of the wholesale market for unbundled access services (Market 11). The Commission responded on 9 December 2005 that it had no comments.

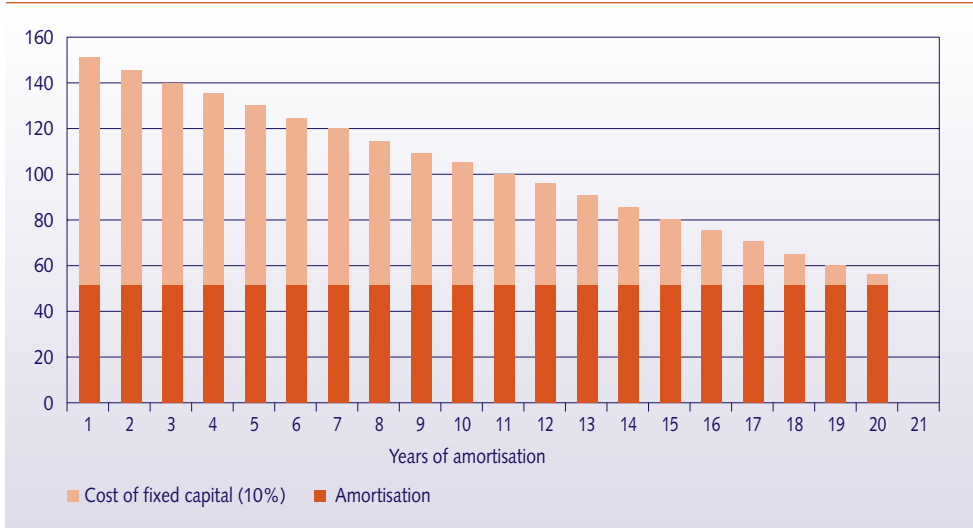
5.2. Methods studied

During the consultation process conducted by ARCEP, four methods were identified and examined. Under each method, the costs under study appeared to have two components: depreciation, representing the annual decrease in nominal asset value, and the cost of fixed capital.

5.2.1. Historic-cost method

This is based entirely on accounts provided by France Telecom. Depreciation therefore is equivalent to the accounting amortisation of the copper local loop network and fixed capital cost (return on capital) is calculated using the net accounting value.

Rental charge based on historic costs

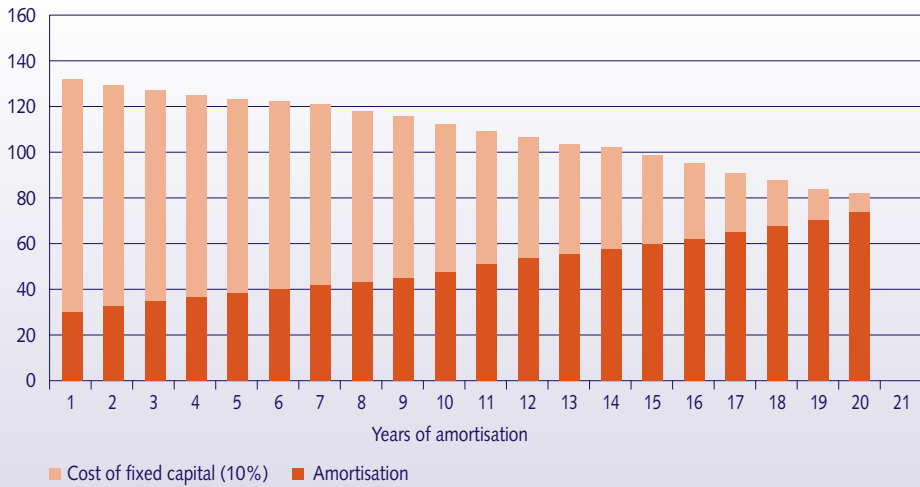


Source: ARCEP.

5.2.2. Current-cost method

Compared to the preceding method, this method modifies the amortisation and the cost of capital to reflect changes in asset pricing, meaning it takes into account both inflation and technological progress. The total annual economic cost profile is adjusted and the respective allocations to amortisation and the cost of capital modified accordingly so that the operator is regularly able to finance the required network replacements.

Rental charges based on current costs



Source: ARCEP.

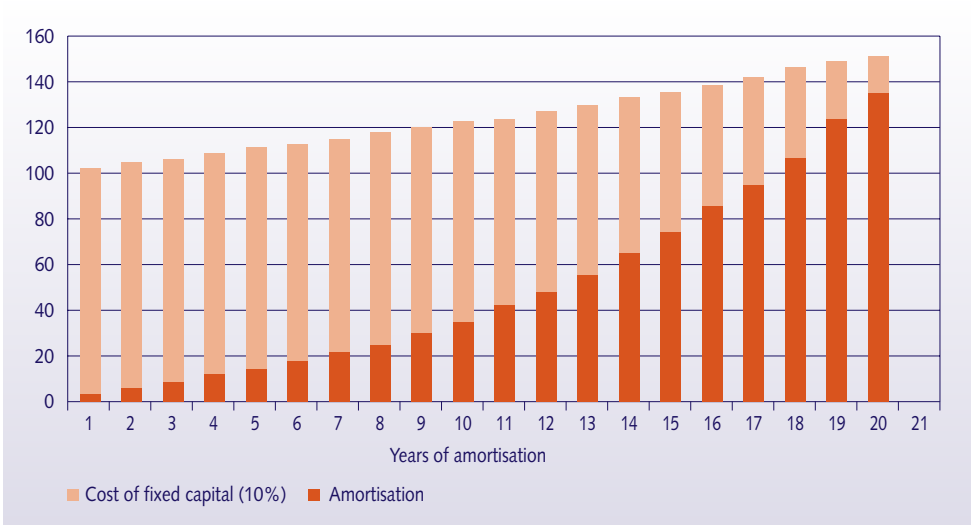
5.2.3. Current-economic-cost method

The current-economic-cost (or economic -tilted -annuity) method follows the previous logic that price changes should be taken into account. But it also incorporates a principle of spreading total costs over time so that they are less dependent on investment cycles. Thus, this method responds both to the operator's financing needs and to the regulator's desire to limit the impact of investment cycles.

5.2.4. Successive-step-replacement-cost method

The basic principles of this method, which was used until 2005, are similar to those of the current-economic-cost method and produce notably the same curves for depreciation and return on investment; however, they are not applied to the time-series of actual investments made but to a theoretical schedule deduced from the value of the network as new.

Rental charges based on replacement costs



Source: ARCEP.

5.2.5. Other methods

Over the course of the consultation process, two other methods were introduced, one by an economist and the other by a consultancy: an overall price cap on the sector and a method of infrastructure renewals accounting based on the cost of maintaining mature infrastructure. Neither of these two methods appeared suitable.

- The overall price cap: Price caps were originally developed to control monopoly businesses; a price cap is a control covering changes in the price of a basket of services and it replaces detailed cost controls on individual tariffs. The monopoly business is free to set individual tariffs as long as the price for the basket of services is within the set limit, which cannot be revised for a period of several years. The mechanism provides a form of protection for consumers and provides the business an incentive to be efficient: the business keeps all productivity gains made during that period. Thus, price caps are a way of regulating tariffs rather than a valuation method. This proposal was excluded from the options under consideration.
- Infrastructure renewals accounting method: This method was developed in the United Kingdom for the water sector. Though its objectives were not inconsistent with those pursued by the Authority, it was excluded from the outset because the fundamental assumption was too theoretical, stating that infrastructure comprises a unique asset with an infinite life. Moreover, this method is not used in the United Kingdom for the copper local loop.

Methods used in various European countries

Local loop		
Country	Valuation method	Cost allocation method
Germany	Current-cost	LRIC
Austria	Current-cost	LRIC
Denmark	Economic (tilted) annuity	LRIC
Ireland	Current-cost	LRIC
Italy	Historic-cost	Distributed-cost
Norway	Current-cost	LRIC
Netherlands	Mix: 2/5 historic, 3/5 current	Distributed-cost
Poland	Current-cost	LRIC
United Kingdom	Current-cost	LRIC + distributed-cost

Source: ARCEP

5.3. Analysis of methods presented

These methods can be compared against several criteria. In particular, they must:

- encourage economic efficiency;
- allow for network renewal;
- safeguard consumer interests;
- satisfy the principle of non-discrimination;
- ensure that the tariffs for France Telecom's offerings are consistent with one another;
- be relevant and therefore be linked to actual investments;
- be realistically able to be implemented.

5.3.1. Successive-step-replacement-cost method

To comply with the principles that have been established, the valuation method adopted must be coherent with the market context and with changes expected in the assets under discussion. The successive-step-replacement-cost method is a "make or buy" method. It aims to make neutral the basis for client operator decisions whether to build or lease infrastructure. Where the matter is one of access to replicable infrastructure, this approach is likely to be compatible with market expectations. But a method based on arbitration between the two possibilities is not suitable for tariffing essential infrastructure because there is no expectation that the infrastructure will be rebuilt. To the contrary, one needs to look at the situation from the "buy" point of view based on an assessment of the operator's actual investment.

Thus, the currently accepted analysis which considers that the copper local loop is essential infrastructure requires that the successive-step-replacement-cost method now in effect be discarded.

5.3.2. Historic-cost method

The historic-cost method will not be adopted mainly because it is unable to account for price changes and for that reason is not forward-looking.

In addition, this method does not provide a way of moderating the impact that marked variations in the rate of investment may have on tariffs, particularly when new investments are large. However such investments are likely in the medium term given that local loop investments in recent years have been historically low.

5.3.3. Current-cost methods

Also, by deliberately discarding pure accounting logic and instead incorporating fundamental economic concepts (asset life, technological progress and life cycles in particular) the economic (tilted) annuity method (current-economic-cost method) can give the right signals to investors and all market players. Martin Cave⁴⁰ arrived at a similar conclusion when he stated that incorporating economic amortisation in a current-cost accounting framework has the advantage of bringing the cost and competitive-price curves closer together.

5.3.4. Conclusions of the analysis

At the end of this analysis, in light of the principles adopted and the contributions received during the consultation, the Authority:

- determined that the successive-step-replacement-cost method is unsuitable for tariffing essential infrastructure since this infrastructure will not be replicated;
- determined that the historic-cost method is also unsuitable for valuing the copper local loop;
- identified the comparable features of the current-cost methods, in their strictest sense, and of the economic-annuity (or current-economic-cost) method -- they share many desirable characteristics of the valuation method being sought and in particular they take account of changes in price and are based on France Telecom's actual investment history;
- noted however, that the latter method provides additional advantages since it has a smoothing effect on investment cycles, which in turn encourages greater tariff stability and facilitates better visibility into the sector. It also represents less of a methodological difference relative to the former method used.

5.4. Implementation aspects

Practical implementation of the current-economic-cost method required ARCEP to study a considerable amount of data on France Telecom's copper local loop assets.

Thus, determining France Telecom's investment history gave rise to several modelling efforts. A solution based on France Telecom accounting data since 1993 and on reconstructions for earlier periods was finally adopted.

40 Professor of economics at the University of Warwick and author of Valuation issues relating to the local loop, 2005.

In addition, the Authority undertook work on economic asset life, the associated rate of technological progress, and acquisitions without cost to France Telecom (assets provided free of charge by local authorities, for example).

Finally, the base of lines used to calculate the average cost of full unbundling was modified significantly compared to the base used in 2002. Given that there is now greater consistency between the average cost of unbundled lines and the average cost of all lines, the base was set at 95% of lines, a figure that is ambitious and avoids double-counting with the universal service compensation mechanism.

6. ARCEP's decision

On 15 December 2005, the Authority decided⁴¹ to adopt the economic-annuity (or current-economic-cost) method for copper-pair valuations.

France Telecom modified its reference offer for unbundled access within the one-month period stipulated in the procedure adopted by the Authority. Following the decision, France Telecom offered a tariff of €9.29 per line per month for fully unbundled access.

ARCEP Decision No. 05-0834 of 15 December 2005 defining the valuation method for copper local loop assets and the cost accounting method to be applied to full unbundling.

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B. Tariff control

An important dimension of regulation involves exercising *a priori* control over France Telecom's retail tariffs and approving those tariffs. The new legislative and regulatory frameworks revised ARCEP's responsibilities in this domain.

Two categories of service emerge from an analysis of France Telecom tariff decisions subject to *ex ante* tariff control: services controlled for purposes of universal service and services controlled as a result of remedies arising from the market analysis process for relevant markets. A transition period has been established for the second category pending full implementation of all European directives that require completion of the market analyses⁴².

Article 113 IV of the electronic communications law of 9 July 2004 established a transitional period for purposes of controlling tariffs for services without effective competition. The period will end once CPCE Articles L.37-1 and L.37-2 have been implemented. Also, given that the Authority has not completed its relevant market analyses for markets associated with special services (voice, Minitel) and capacity services, the minister of the Economy, Finance and Industry and the minister-delegate of Industry are the only ones with jurisdiction to approve tariffs, further to the Authority publicly issuing an opinion, for services which do not have effective competition.

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The Authority controls retail tariffs in three different ways:

- for services relating to universal service over which ARCEP has exclusive responsibility for control and approval, the Authority publishes tariff opinions or opposition decisions⁴³ according to whether the tariffs offered comply with the principles established in CPCE Article R.20-30-11, particularly the principles of transparency, non-discrimination, and cost orientation;
- for products having no effective competition in markets still under study (special services and capacity services), tariffs are approved by

Decree No. 2005-75 of 31 January 2005.

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44 Article 133 of Law No. 2004-669 of 9 July 2004, concerning electronic communication services and audiovisual communication services.

45 ARCEP Decision No. 05-571, concerning analysis of these markets.

the minister of Telecommunication after ARCEP renders an opinion⁴⁴;

- for products in markets where France Telecom has been declared dominant and is obligated to provide notification of its tariffs prior to implementation, ARCEP alone has jurisdiction and has opposition power over changes in tariffs for fixed telephony with the exception of special numbers; it can exercise this power by issuing a favourable opinion if it deems appropriate, issuing an opposition decision if necessary⁴⁵, or issuing neither an opinion nor a decision (the equivalent of no opposition).

The Authority's opinions and decisions are published in the *Journal Officiel* of the French government. Published decisions and opinions are duplicated on the Authority's website.

Summary table

Universal service			Non-universal service		
Component Service 1 : Telephone service	Component Service 2 : Directory information service	Component Service 3 : Public payphone service	Telephone service (other than special services)	Special services	Capacity services
<ul style="list-style-type: none">• Tariffs for the main-line and social (<i>Principal</i> and <i>Social</i>) subscriptions• Basic tariffs for calls made from a main (or social) subscription, including tariffs for calls to special numbers	<ul style="list-style-type: none">• Tariffs for the universal telephone directory information service	<ul style="list-style-type: none">• Tariffs for calls placed from public payphones	<ul style="list-style-type: none">• Tariffs for business subscriptions (analogue and ISDN) and services related to access• Basic tariffs for calls from business subscriptions (analogue and ISDN)• Optional tariffs for calls placed from any type of switched telephone network subscription	<ul style="list-style-type: none">• Tariffs for calls to special numbers from a non-universal service subscription• Tariffs for certain services provided by France Telecom to content service providers	<ul style="list-style-type: none">• Tariffs for capacity services (for all speeds)
ARCEP'S RESPONSIBILITY			ARCEP'S RESPONSIBILITY	MINISTERS' RESPONSIBILITY WITH ARCEP OPINION	