RÉPUBLIQUE FRANÇAISE

June 2011

ARCEP's Annual Report 2010

ARCEP
Autorité de régulation des communications électroniques et des postes
www.arcep.fr

Introduction

The year 2010 testified both to the vitality of the electronic communications sector and the efficiency of its regulation.

The electronic communications sector was marked by a healthy momentum and the ongoing innovation that drives it. The growth of demand and the revival of consumption enabled operators in France to weather the recession and, unlike their counterparts across Europe, not to suffer a decline in business – with revenue that continued to grow in 2010 (+1.1%) to reach €45.1 billion. The overall decrease in prices of around 3% means that the sector's volume grew by around 4%. This growth, which was driven by fixed (+8.9%) and mobile (+2.6%) high-speed services, was accompanied by a revival of capital expenditures which rose to €6.4 billion in 2010 (+8.3%), bringing them back to pre-recession levels. They are expected to continue on apace to finance the deployment of new generation fixed and mobile networks.

For ARCEP, 2010 marked the completion of its definition of the regulatory framework for optical fibre ultra-fast broadband network rollouts. The Authority also set the terms for issuing fourth generation (4G) mobile telephony licences whose award will be complete in early 2012, and which will enable the supply of ultra high-speed mobile access across the country.

These new networks are shaping our country's ability to take full advantage of the fruits of the digital revolution. This requires the regulator to step up its forward-looking measures. So it was that ARCEP devoted increased efforts in 2010 to the issue of Net neutrality, notably during the international conference it hosted in April, in addition to drafting a first series of proposals and lines of action whose realisation have been carried on into 2011.

The Authority focused on six issues in particular in 2010.

Ultra-fast fixed and mobile broadband network rollouts

Onset of fixed ultra-fast broadband

In late 2009 ARCEP had defined the terms and conditions governing ultra-fast broadband network rollouts in the most heavily populated parts of France by setting the terms imposed on all operators for sharing the last drop of optical fibre networks. This regulatory framework was completed in late 2010 with terms that apply to the rest of the country. Setting a very high degree of network sharing (over 90%), along with terms that are very favourable to shared investment schemes, should enable operators to devise business models that are suited to less profitable regions.

Asymmetrical regulation needs to be maintained alongside these symmetrical measures, notably those governing access to France Telecom's non-replicable civil engineering network. ARCEP was in fact the first NRA in Europe to impose such an obligation on an incumbent carrier, back in 2008. The new round of analysis of fixed broadband and ultra-fast broadband markets will ensure a proper balance of these two components of regulation, and measures will be taken in 2011 to specify the practical modalities for the implementation of this regulatory framework, and to verify its efficiency. At the end of 2010, more than five million households were passed for ultra-fast broadband access, which is among the highest in Europe.

Launch of ultra high-speed mobile

The mobile internet has quickly become a part of users' daily routine, which has resulted in an unprecedented rise in data traffic on mobile networks. This newfound demand, which is driving the creation of innovative applications, is a key part of the competitive dynamic. The arrival of a fourth mobile network operator in France in early 2010, namely Free Mobile, is an integral

part of this dynamic. Free Mobile was awarded the fourth 3G mobile telephony licence and will begin marketing its services nationwide by early 2012 at the latest, thanks to a recent agreement signed with France Telecom. The Authority's award of the remaining 3G frequencies in the 2.1 GHz band, on 18 May 2010, will also help increase the network capacity of the two winning candidates: France Telecom and SFR. At the end of 2010, mobile equipment levels in France exceeded 100% of households and they have continued to rise in 2011.

This very strong demand nevertheless requires new generation mobile networks to be deployed that will provide both faster connections and increased capacity. This is why ARCEP has worked over the course of 2010 and 2011 on designing a procedure that guarantees, in accordance with the Law, priority coverage of more sparsely populated regions, maintaining a solid degree of competition and the proper monetisation of the allocated spectrum which is a State asset. The 2.6 GHz portion of this spectrum will be allocated in late 2011, and the 800 MHz band portion derived from the digital dividend in early 2012.

Ensuring nationwide coverage

The obligations to which carriers are subject for their 4G network rollouts draw on the Authority's experience in defining and monitoring 2G and 3G network coverage obligations. 2G coverage has increased since the exhaustive report that ARCEP published on the matter in 2009: it now stands at 99.9% of the population, which means there are virtually no more dead zones and fewer and fewer "grey areas" where only a single operator is present. Significant progress has also been made in 3G coverage, in particular with respect to the deadlines that ARCEP imposed on France Telecom and SFR in their formal notices to comply. As a result, 3G coverage is expected to reach 98% of the population by the end of 2011 and be equal to 2G coverage by 2013.

The Authority has observed that local authorities continue to be heavily involved in fixed networks and that, although they continue to work to complete broadband coverage supplied by the copper network, local authorities are also contributing to the transition to ultra-fast broadband, in particular by ensuring the availability of an optical fibre local loop in those parts of the country where it would not be financially feasible for carriers to undertake rollouts singlehandedly.

The shift to ultra-fast broadband may require an intermediate stage, namely increasing bandwidth on existing networks through access to the France Telecom sub-loop. This solution was presented in a report to Parliament in September 2010, and is now a mandatory solution offered by France Telecom and regulated by ARCEP, accompanied by recommendations for its implementation which are aimed at local authorities in particular.

These lines of actions serve to complement those undertaken by the Government which, in summer 2011, will begin selecting the projects that will benefit from the funds allocated to the national ultra-fast broadband programme – as part of the investments being made in the country's future.

Net neutrality

The deployment of new networks is driven by a need to satisfy growing demand for capacity and availability resulting from new consumption habits, such as video sharing and cloud computing applications. These developments are generating an increased need for network financing, but the way in which stakeholders respond to this need must avoid any form of discrimination that runs counter to the principles that underpin the shared asset that is the internet, and particularly the principle of neutrality.

This is why, instead of waiting for problems to arise, Net neutrality has been the focus of intense exploratory efforts and wide-reaching consultation, whether as part of the international conference on this issue that ARCEP hosted in April 2010, or the draft of the 10 proposals that it published in September of last year. These efforts also helped lay the groundwork for discussions held by Parliament and within the Body of European Regulators for Electronic Communications (BEREC). They have also allowed ARCEP to prepare itself for assuming the newfound responsibilities (information gathering, dispute settlement, definition of quality of service standards) it will be assigned in 2011 following the transposition into French Law of the new European framework.

Accompanying liberalisation of the postal sector

The Law of 9 February 2010, transposing a directive from 2008, resulted in the liberalisation of the postal sector starting on 1 January 2011. This law also

consolidated the Authority's regulatory powers in the sector and increased the scope of its responsibilities: ARCEP is now entrusted with processing consumer complaints, as a last resort, and with assessing the cost of the obligation of maintaining the presence of La Poste throughout the country, as ordered by Law, through 17,000 points of presence.
The postal market is facing the structural decline of mail-related activities, which has made it imperative to devise new business models. This situation also means that the Authority needs to be more attentive than ever to ensuring the supply of a high quality universal service.

Acting on behalf of consumers

ARCEP must ensure that consumers are able to fully exercise their role in the technically complex electronic communications market. It was with this in mind that – in accordance with the Chatel Act of 2008 – the Authority submitted its first status report on market transparency and liquidity to Parliament in July 2010. This was followed up by a report to Parliament and the Government in February 2011 which included 30 proposals aimed at improving the electronic communications and postal services made available to consumers. Some of these proposals have already been taken on-board by operators; others have been incorporated into the draft legislation that the Government recently submitted to Parliament.
In accordance with the new European framework, ARCEP has also been assigned the responsibility of ensuring that consumers receive better information on available products, offers and services, along with the power to set common quality of service rules and to impose a reduction in the length of the number portability process when consumers switch operators.

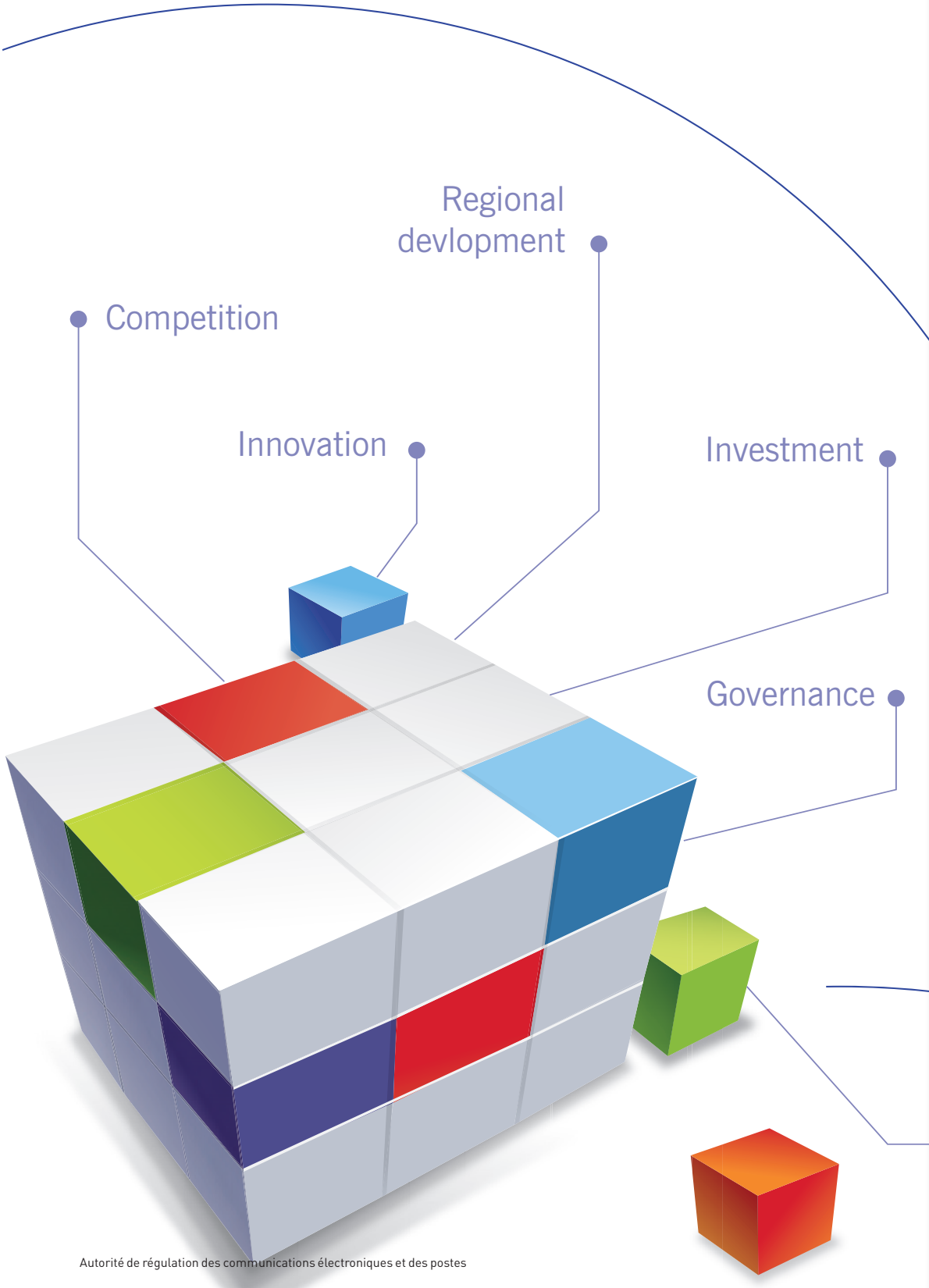
A proactive authority

As a State administration, ARCEP must make optimal use of its resources.
It must, first, be an efficient institution, to be able to assume the growing responsibilities assigned to it by Law while operating with the same size staff and reduced payment credits. Here, the reorganisation of its departments and the overhaul of the remuneration system performed in 2010 achieved the hoped-for effects. The Authority's information system was also fully evaluated in 2010 and the resulting recommendations are steadily being implemented.
As with any regulatory authority, ARCEP must always be listening to the sector, creating opportunities for consultation with all of the stakeholders as often as necessary: first, of course, with the operators who contributed to some 20 public consultations during the year gone by, but also with consumers who have been consulted regularly since 2008 within a permanent committee and, lastly, with local authorities – in particular through the GRACO discussion forum set up in late 2009, devoted to interaction between ARCEP, local authorities and operators. ARCEP has also increased its interaction with equipment manufacturers to be able to anticipate technical developments when drafting regulation.
This listening process must also reach beyond the sector itself, to be able to seize and anticipate any major trends that affect it. To this end, in late 2009 ARCEP created a multi-disciplinary Forward-planning Committee whose first cycle of work in 2010 helped the Authority prepare for the international conference devoted to the links between growth, innovation and regulation, which took place in May 2011.

Our ultimate aim, of course, is for the work carried out by ARCEP in 2010 to help create an environment that is propitious to the development of the businesses concerned and to consumer satisfaction and, beyond that, to providing relevant responses to the challenges posed by the digital revolution.

Jean-Ludovic Silicani
Chairman of ARCEP

PART ONE
ARCEP


Regional
devlopment
Competition
Innovation
Investment
Governance

ARCEP responsibilities and activities

1. ARCEP's missions

ARCEP is an independent administrative authority that was created on 5 January 1997, under the name of ART[1] for *Autorité de régulation des télécommunications*, or Telecommunications Regulatory Authority, to accompany the French telecommunications sector as it was opened up to competition, and to regulate the markets created in the process. In 2005, the Law on postal regulation [2]expanded the Authority's powers. It thus became the Electronic communications and postal regulatory authority, or ARCEP (Autorité de régulation des communications électroniques et des postes), as it assumed the responsibility of overseeing the postal market's liberalisation and proper ope- ration. Since 1 January 2011, the date on which the French postal market was fully opened up to competition, in accordance with the Law on postal regulation and postal activities, the Authority has been responsible for:

- issuing authorisations to exercise a postal activity;
- issuing opinions, which are made public, on tariffs and universal service quality objectives;
- approving the tariffs applied in the reserved area;
- and processing complaints received from users of the postal service which were unable to be resolved through the procedures put into place by authorised postal service providers.

Consumers

ARCEP's chief role in the electronic communications sector is to ensure fair and effective competition in the electronic communications market, which benefits consumers.

The Authority's primary tool is market analysis which consists of defining relevant markets, of designating those operators that enjoy significant market power (SMP) and of setting the obligations to which they are subject, generally in wholesale markets — in other words markets where operators bill for services provided to one another – to resolve competition issues that have arisen. This is referred to as "asymmetrical" regulation as it does not apply equally to all of the market's operators. ARCEP also has the power to set the general obligations that apply to all operators, within the scope set by law and subject to the prior approval of the Minister responsible for electronic communications. This is what is known as "symmetrical" regulation as it applies equally to all market operators – one example being mobile number portability, i.e. user's ability to keep their telephone number when switching providers.

1 - Law No. 96-659 on telecommunications regulation of 26 July 1996, Journal Officiel (Official Gazette) of 27 July 1996.

2 - Law No. 2005-516 of 20 May 2005 on postal activity regulation, JO of 21 May 2005.

In addition, the Authority has the power to impose penalties on any operator that does not meet its obligations, and to settle disputes between operators on the technical and pricing terms governing network access. The allocation of spectrum and numbering resources is another responsibility entrusted to ARCEP.

And, finally, the Authority sets the amount of the contributions to the universal service fund, defined by the Law of 1996, and ensures the oversight of these financing systems. The legislative provisions that define ARCEP's role and status are contained in the French Postal and electronic communications code, or CPCE (*Code des postes et des communications électroniques*)

2. ARCEP activities

2. 1. Performance indicators

In a bid for clarity, when enacting the Finance Act of 2006, referred to as the LOLF (*Loi organique relative aux lois de finances*), a common performance objective was set for all three of the independent administrative authorities responsible for economic regulation – ARCEP, the Energy Regulation Commission, or CRE, and the Competition Authority – namely to "*make quality decisions within a set timeframe*".

This objective has resulted in similar indicators being set for all three bodies, all tied to respecting those timeframes. For ARCEP this applies to the average timeframe for issuing opinions on texts (13.5 business days in 2010 compared to 15.8 business days in 2009), opinions on tariffs (16.8 business days in 2010 compared to 13.4 business days in 2009) and timeframes for settling disputes (3.5 months in 2010 compared to 3.0 months in 2009) Additional indicators were defined in 2009 and updated in 2010. These are indicators that pertain more specifically to "professional" performance.

In addition, the Authority has the power to impose penalties on any operator that does not meet its obligations, and to settle disputes between operators on

Performance indicators

	2007	2008	2009	2010
Regulator's administrative efficiency				
- Number of opinions or decisions issued	1 114	1 457	1 133	1377
- Number of cancelled decisions	0	0	1	0
Electronic communications				
a) Regulated market development: equipment				
- Number of broadband and ultra-fast broadband subscribers (million)	15.8	17.8	19.7	21.3
- Number of mobile subscribers (million)	55.3	58.0	61.5	64.4
- Number of Internet subscribers (% of households)	49.3	57.8	62.6	69.2
- Number of ultra-fast broadband subscribers (million)		0.165	0.290	0.460
b) Regulated market development: geographical coverage (% of the population)				
- Mobile	99.1	99.5	99.8	99.9
- Broadband (access at 512 Kbit/s or more)		98.3	98,7	99v0
- (base: eligible homes)		1.3	2.4	3.2
Postal sector				
a) Quality of service				
- % of single-piece priority letters delivered in D+1	82.5	83.9	84.7	83.4
- % of "Colissimo guichet" parcels delivered in D+2	85.8	85.0	87.7	84.8
b) Number of operators	10	23	22	22

Source: ARCEP.

the technical and pricing terms governing network access.

In 2009, in tandem with the Energy Regulation Commission, CRE (*Commission de Régulation de l'Energie*), and with the help of firms Capgemini Consulting and Ylios, ARCEP performed a comparative analysis of the means and resources employed by its fellow independent regulatory authorities in other countries (Germany, Italy, the UK, Spain).

It emerged that, compared to the revenue generated by the electronic communications sector in 2008, ARCEP's human and financial resources were significantly smaller than those of counterpart NRAs. This proved true once again in 2009, with a diminished ratio of staff per billion euros of revenue for the sector (3.4 in 2009 compared to 3.5 in 2008) and of the Authority's budget (€0.46 million per billion€ in revenue), which remains unchanged compared to 2008.

2.2. Decisions and opinions

In 2010, ARCEP adopted 1,377 opinions and decisions.

a) Decisions

The ARCEP Board issued 1,338 decisions:

- 1,281 concerning the allocation of resources (994 on spectrum resources and 287 on numbering resources);
- 57 concerning its other regulatory powers, including 8 dispute settlement decisions and two decisions concerning penalties.

Any ARCEP decision may be appealed in an administrative court – either the Conseil d'État for Executive Board decisions or the Tribunal Administratif (Administrative court) for decisions made by the Chairman or the Director General, in accordance with their powers. Decisions concerning dispute settlements fall under the jurisdiction of the Cour d'Appel de Paris (Paris Court of Appeal).

In 2010, three Authority decisions were appealed before the court of the Conseil d'État and two were brought before the Paris Court of Appeal.

Decisions appealed to the Conseil d'Etat on which a ruling was issued in 2010

Application date	Applicant	Defendant	Decision rendered on
13/08/2008 Application No. 319816	Mediaserv	ARCEP	Order of 2 April 2010 (rejected)
30/09/2009 Application No. 332393	Bouygues Telecom Vivendi SFR	ARCEP Gouvernement	Order of 12 october 2010 (rejected)
17/03/2010 Application No.337669	Bouygues Telecom	ARCEP	Order of 22 december 2010 (withdrawal)

Source: ARCEP.

• Médiaserv and 3G roaming in overseas markets

The *Conseil d'Etat* considered that, given the state of the market, it was unnecessary to require 2G/3G carriers in the French overseas *départements* and collectivities to provide a 3G roaming service to new entrant 3G operators.

In its Order of 2 April 2010, the Conseil d'Etat states that, *"the provisions contained in Articles L. 42-1 and L. 42-2 of the French Postal and electronic communications code in no way prevent the Authority from exercising the powers afforded it by Articles L. 36-6 and L. 36-7 of this same code to demand that certain operators which have been issued a licence to use spectrum in the 900 MHz or 1800 MHz frequency bands to operate a 2G standard system, or spectrum in the 2100 MHz to operate a 3G system, allow new entrant operators who only have a licence to use the latter frequency band to have access to the 900 MHz and 1800 MHz-band spectrum used for 2G systems. It can*

only do so, however, if an analysis of the market reveals that such an obligation is crucial to ensuring fair and effective competition [...] and proportionate to this objective".

- **Bouygues Telecom, Vivendi and SFR and the fourth 3G licence awarded to Free Mobile**

The Conseil d'Etat ruled that the determination of the amount of the set portion of the licensing fee due from the fourth operator, of €240 million, was neither too low nor discriminatory compared to the sum of €619 million paid by the three existing mobile operators in 2001-2002, in particular due to the lesser quantity of spectrum allocated to the fourth operator and the fact that it is entering the market ten years after its competitors.

On the matter of the awards procedure itself, the *Conseil d'Etat* has confirmed that it was carried out in accordance with the principles of transparency and objectivity, and that the terms of the spectrum licence issued to Free Mobile in no way discriminated against the three existing mobile operators.

The *Conseil d'Etat* also issued a reminder of the benefits to the general public inherent in opening the market up to a fourth operator, in helping to improve the state of competition in the French mobile telephony market. In particular, it underscored that the 2G roaming rights that will be extended to Free Mobile do not constitute an unjustified advantage, but rather a small corrective measure whose purpose is to enable, at the very least, a greater chance of fair competition between the operators. The *Conseil d'Etat* also emphasised the fact that the fourth mobile operator needed to deploy its network very quickly, in a market that is nearing a state of maturity and lacking in liquidity. It is worth mentioning that the question of possible 3G roaming rights being extended to the new operator did not enter into the complaints that were filed.

- **Bouygues Telecom and access to optical fibre lines**

The firm Bouygues Telecom had requested that the Conseil d'Etat nullify ARCEP Decision No. 2009-1106 of 22 December 2009, specifying the terms governing access to optical fibre ultra-fast broadband electronic communications lines, and instances in which the shared access point can be located on private property, in accordance with CPCE Articles L. 34-8 and L. 34-8-3 1. Bouygues Telecom eventually withdrew its request.

b) Opinions

In 2010, ARCEP issued 39 opinions:
- 14 opinions on draft legislation, decrees and orders;
- 10 opinions submitted in response to a request from the Competition Authority[3] ;
- 10 opinions on La Poste tariff decisions;
- 5 opinions on France Telecom tariff decisions.

2.3. Consultations, surveys and reports

Twenty one public consultations were launched in 2010, either as part of market analyses procedures, on matters that are within the Authority's regulatory purview, or as part of the process of implementing operators' asymmetrical obligations and market-wide schemes (universal service, spectrum allocation, numbering, postal sector).

ARCEP published 10 surveys or reports during the year. These were reports to Parliament and the Government (increasing bandwidth, overseas markets, status report on the Chatel Act), surveys (e.g. intangible assets in the postal sector) and reports on fact-finding missions overseas (the United States, Japan).

ARCEP also published handbooks (on optical fibre installations inside buildings, the deployment of DTT) and documents meant to serve as guidelines, such as the ten proposals on network neutrality published in September 2010[7] and the 30 proposals for improving consumer offers published in February 2011[8].

3 - The list of the opinions submitted to the Competition Authority can be found in the appendix to this report.
4 - See page 104.
5 - See page 109.

2.4. Operator licences and declarations

a) In the electronic communications sector

The Act of 9 July 2004[6] altered and simplified the regulatory framework that applies to electronic communications in France, as a result of which operators are required only to declare themselves to the Authority, whereas they had previously been required to apply for an authorisation.

In 2010, 176 new operators declared themselves, of which close to a quarter operate a local business that covers only a single *département* at most. As of 31 December, ARCEP recorded 1,051 declared operators: 672 of which were operating a network, 555 providing a telephone service, 497 an internet access service and 87 were providing mobile services.

b) In the postal sector

In 2010, ARCEP issued four new authorisations to distribute postal items in France to the firms 3L, ARD Services, Frédéric Veigneau and Post Center, which brings the number of authorised domestic operators to twelve. Three enterprises put an end to their operations: Stamper's and Let France Routage in 2010, and Courriers Services 63 in early 2011. Meanwhile in the international mail segment, Let France Routage put an end to its international operations and the Austrian Post Office was issued an authorisation, which brings the total number of operators to 10, which is the same number as in 2009.

2.5. Dispute settlements

In 2010, six requests for dispute settlement were filed with ARCEP which issued nine decisions as a result. Three of these decisions were appealed to the Paris Court of Appeal.

Décisions de règlement de différend rendues en 2010

Date of th request	Requesting party	Defendant	Date of the decision rendered
30/11/2009	Infosat	SFR	Decision No. 2010-0323 of 18 March 2010
04/03/2010	Mobius	La Réunion Numérique	Decision No. 2010-0742 of 1er July 2010
18/03/2010	Teleno	SFR	Decision No. 2010-0716 of 24 June 2010
21/04/2010 Interim measures	Mobius	La Réunion Numérique	Decision No. 2010-0474 of 20 May 2010
07/07/2010 Application to suspend enforcement	France Télécom	NC Numéricable	Decision No. 2010-1179 of 4 November 2010
07/07/2010 Application to suspend enforcement	France Télécom	Numéricable SAS	Decision No. 2010-1179 of 4 November 2010
23/07/2010	Bouygues Telecom	France Télécom	Decision No. 2010-1232 of 16 November 2010
30/07/2010	SFR	France Télécom	Decision No. 2010-1254 of 25 November 2010
19/08/2010	France Télécom	SFR	Decision No. 2010-1351 of 14 December 2010

Source: ARCEP.

6 - *Act 2004-669, dated 9 July 2004, concerning electronic communications and audiovisual communication services, JO of 10 July 2004.*

Dispute settlement decisions appealed to the Paris Court of Appeal			
Date of th request	Requesting party	Defendant	Date of the decision rendered
07/09/2010	Mobius	La Réunion Numérique	Order of 24 February 2011 (rejected)
20/12/2010	NC Numéricable	France Télécom	Currently before the Paris Court of Appeal
18/01/2011	France Télécom	Bouygues Telecom	Currently before the Paris Court of Appeal

Source: ARCEP.

Noteworthy among the dispute settlement decisions issued by ARCEP in 2010 were:

a) Settlement of a dispute between the firms Mobius and La Réunion Numérique[7]

This dispute concerned chiefly a request from the firm Mobius for a decrease in the price charged for three services marketed by the firm La Réunion Numérique: collocation in the neighbourhood cabinet, dark fibre rental and the activated DSL access offer for residential customers ("DSL Grand Public").

La Réunion Numérique, which operates under a local public service contract, works in the electronic communications wholesale market in Reunion, providing solutions that constitute the "building blocks" which retail market carriers can use to create their solutions for residential and business customers.

ARCEP considered, first, that the price of the neighbourhood cabinet collocation solution marketed by La Réunion Numérique must not exceed €5,500 a year.

On the matter of the dark fibre solution, ARCEP ascertained that the prices per linear metre being charged by La Réunion Numérique were close to those being charged for the France Telecom "LFO" optical fibre link offer. The process of settling this dispute revealed the possibility of enacting a significant decrease, especially in the price of flat rate fibre offers (rental of a substantial portion or of the entire network). However, without having all of the elements needed to make a complete assessment of the costs shouldered by La Réunion Numérique, and given the possible mechanisms the company employs for balancing tariffs between the various products in its catalogue – to serve the public interest – ARCEP rejected the request submitted by Mobius concerning the dark fibre offer.

Lastly, on the matter of the consumer DSL solution marketed by La Réunion Numérique, ARCEP concluded that the access and cancellation fees must be at most equal to those charged by France Telecom for its reference offer, with a maximum €5 surcharge per connection for management fees.

b) Settlement of a dispute between the firms Numéricable and France Télécom[8]

In those cities listed in the French cable rollout plan ("*plan câble*"), Numéricâble had upgraded a portion of its coaxial networks by deploying optical fibre cable using civil engineering ducts owned by France Telecom, in accordance with the terms of the transfer agreements that it had signed with France Telecom in 1999, 2001 and 2004.

France Telecom considers that, because several operators have come to use its ducts to deploy their optical fibre networks since 2008, under the terms of its regulated civil engineering access offer, Numéricâble

7 - *Decision No. 2010-0742 of 1 July 2010.*
8 - *Decision No. 2010-1179 of 4 November 2010.*

should be required to comply with the same operating modalities as all of the other operators.

Numéricâble considers that the changes France Telecom has requested are unfair, arguing that they would impose unjustified restrictions on the cable company which would slow down its ability to upgrade its cable networks.

The operating modalities targeted by the complaint were defined by France Telecom to allow all of the other operators to be autonomous, to industrialise the optical fibre rollout process and to coordinate work in the field. This includes primarily operational processes governing and formalising exchanges between France Telecom and each operator, concerning work done in the field, reserving civil engineering ducts before any optical fibre rollouts are carried out and, lastly, performing an exhaustive inventory of the work that has been done.

ARCEP allowed most of the requests submitted by France Telecom, considering it fair that Numéricâble comply with the same operating modalities as those followed by all the other operators. These modalities were in fact designed specifically to ensure that all operators have shared and efficient access to France Telecom civil engineering ducts, which therefore includes Numéricâble for its cable network upgrade operations.

c) Settlement of a dispute between the firms Bouygues Telecom and France Telecom[9]

In 2010, Bouygues Telecom announced plans to enter the fixed ultra-fast broadband market, and to invest in a fibre-to-the-home (FTTH) network. It was within this context that Bouygues Telecom considered that several of the provisions contained in France Telecom's infrastructure-sharing offer – providing access to optical fibre-to-home (FTTH) lines in very high-density areas – constituted barriers to entry and prevented it from co-investing in those buildings that had been equipped by France Telecom, and therefore appealed to ARCEP to settle this dispute.

ARCEP allowed Bouygues Telecom's request to have permanent access to an FTTH line access solution that allows it to enjoy lasting rights of use on the deployed infrastructure, and to be able to amortise the resulting investments under reasonable conditions, in exchange for a proportionate rate of return given the risk involved. The Authority also considers it fair to plan on having the commercial operator who recruits the customer assume at least 90% of the relevant cost of installing the branching unit on the floor.

This decision will help to lower the barriers to entry in the France Telecom infrastructure-sharing offer, while maintaining incentives to invest and infrastructure-based competition in very high-density areas in France.

d) Settlement of a dispute between the firms SFR and France Telecom[10]

As part of its business operations in the traffic collection market for calls to VAS (value-added service) numbers, the carrier SFR purchases a dedicated call origination service from France Telecom when its customers call VAS numbers for which SFR collects the traffic.

France Telecom invoices this dedicated call origination service with a mark-up referred to as a "VAS surcharge". This surcharge is to reflect the cost of hosting the France Telecom retail technical support service concerning calls to VAS numbers, for handling instances that ultimately result from malfunctions that can be attributed to an operator other than the originating operator (France Telecom).

SFR filed a complaint concerning the different rates that France Telecom was applying to this VAS surcharge, and appealed to ARCEP to settle the matter.

The Authority considered that France Telecom must invoice SFR an identical VAS surcharge for all special numbers in the national numbering plan, regardless of format, and bring the highest pricing tier in line with the lowest pricing tier which has applied up until now to 086B and 3BPQ numbers, in other words a maximum 0.017 eurocents a minute, excluding VAT, for the regular rate, 0.011 eurocents a minute, excluding VAT, for the reduced rate and 0.007

9 - *Decision No. 2010-1232 of 16 November 2010.*
10 - *Decision No. 2010-1254 of 25 November 2010.*

eurocents a minute, excluding VAT, for the night-time "blue" rate – and taking effect as of 13 March 2009.

e) Settlement of a dispute between the firms France Telecom and SFR[11]

As part of its business operations in the traffic collection market for calls to VAS (value-added service) numbers, France Telecom purchases a call origination service from fellow carrier SFR when SFR customers call VAS numbers for which France Telecom collects the traffic.

France Telecom filed a complaint, claiming that the rates that SFR was charging for its call origination service and the associated VAS surcharge were not reasonable, and appealed to ARCEP to settle the dispute.

The Authority recognised the merits of the complaint concerning the SFR VAS surcharge. As a result, SFR must invoice France Telecom the same VAS surcharge that France Telecom has been ordered to charge SFR for the same service, in other words a maximum 0.0144 eurocents a minute, excl. VAT .

As to the call origination tariff, ARCEP ruled that it was not reasonable for SFR to have been charging the same rate since 1 October 2008 as it meant that SFR had not passed on the efficiency gains achieved since then. SFR was therefore ordered to set the tariffs it charges France Telecom in such a way as to reflect the efficiency gains generated since 1 January 2007.

2.6. Penalties and official notices to comply

In 2010, the Authority opened 11 penalty procedures against operators to require them to meet their obligations. One procedure that was launched in September 2008 was resolved, along with 13 procedures that had been launched in 2009.

Three decisions concerning official notices to comply were issued, of which one was made public.

Pursuant to a decision from the General Director of ARCEP of 23 November 2010, the firm Free was issued with an order to put an end to certain practices, namely the exclusion of geographic numbers starting with 01 to 05 and non-geographic numbers starting with 09 from its high-volume "*abondance*" offers, the result being that customers were being billed for calls to these numbers on top of their flat rate fee.

A procedure was launched that resulted in a Decision of official notice on 28 July 2010.

3. The legal framework and its evolution

3.1 Changes to the French legal framework

a) The electronic communications sector

- **Change in the method for calculating the VAT rate**

The legal framework governing the electronic communications sector in France has been relatively stable.

The Finance Act[16] nevertheless altered the method used to calculate the value-added tax (VAT) rate applicable to electronic communication services that include a television component – i.e. triple play bundles and certain mobile flat rates – which, for some, resulted in an increase in VAT. Carriers' initial desire to carry this increase over to the flat rate prices they charged meant that customers had the option of cancelling their contracts, without incurring a penalty, in accordance with Article L. 121-84 of the French Consumer Code. However, because this ran the risk of resulting in a large number of cancellations, carriers ultimately elected not to carry this increase in VAT over to the monthly flat rate prices charged for mobile services, although they have been carried over to the price of triple play bundles.

11 - Finance Act for 2011 No. 2010-1657 of 29 December 2010.
12 - In accordance with Decision No. 2010-1254 of 25 November 2010, and taking effect as of 13 March 2009.
13 - Loi de finances pour 2011 n° 2010-1657 du 29 décembre 2010.

- **Focus on environmental and health issues: the Authority's new responsibilities**

The Law[14] concerning the national commitment to the environment is an extension of the law on the implementation of Grenelle Environment Round Table, referred to as "Grenelle 1". Chapter II "*Preventing environment-related health risks" of Section V "Risk, Health, Waste*" brought changes to several articles in the French Postal and electronic communications code (CPCE).

In particular, CPCE Article L. 34-9 was amended to made it compulsory for mobile phones to be equipped with an accessory that limits the brain's exposure to radio electromagnetic waves (ear-piece, hands-free kit, etc.).

In the same vein, Article L. 34-9-1 was amended to require that the results of electromagnetic field tests performed on equipment used in electronic communications networks and by certain installations, be systematically be transmitted to the National Frequency Agency, ANFr. These results will then be made public on a dedicated website: cartoradio.fr. On the matter of residential buildings, the law introduces a principle of systematically informing residents of the results of measurements of their exposure to electromagnetic waves. ANFr will be required to provide this information to any resident who requests it.

Lastly, Chapter III "*Public enquiry reform*" of Section VI "*Governance*" of the Grenelle 2 Act, completes sub-paragraph 4 of Article L. 56-1 by specifying that the protection plan on electromagnetic disturbance will be submitted to ANFr for commentary and to a public enquiry.

- **New regulatory provisions for installations on public land**

The single regulatory change in 2010 resulted from Decree No. 2010-726 of 28 June 2010 which sets the minimum number of days scheduled for performing work on an electronic communications installation located on public land which require the local authority to be informed beforehand, giving the local authority the opportunity to make a request to the contractor to access their own installations during that time. The decree also specifies the method to be used for sharing the costs between the contractor and the local authority.

b) The postal sector

The first title of Law No. 2010-123 of 9 February 2010 concerning the public enterprise La Poste and postal activities came into effect on 1 March 2010. It pertains to the internal organisation of La Poste: the Public industrial and commercial establishment, EPIC (*établissement public industriel et commercial*) has been transformed into a limited liability company to which all the rights and obligations of EPIC have been transferred. Title II of the Law came into effect on 1 January 2011 – one of the chief purposes of which is the transposition into national law of European postal directive 2008/6/EC of 20 February 2008, amending ARCEP's regulatory powers and responsibilities[15].

3.2. Transposition of the third Telecoms Package

a) Draft text from the Minister responsible for electronic communications

After the European Parliament and Council's adoption of the two EC directives[16] amending the Telecoms Package of 2002, on 25 November 2009, the Minister responsible for electronic communications quickly produced the initial draft transposition legislation, in concert with all of the administrations concerned, beginning with ARCEP.

The Minister then launched a public consultation on the legislative portion of the draft text, which ran from 5 to 25 May 2010. ARCEP played an active role in this work, and submitted a response to the public consultation.

14 - *Law No. 2010-788 of 12 July 2010 concerning the national commitment to the environment, referred to as the "Grenelle 2" published in the JO of 13 July 2010.*
15 - *See page 120.*
16 - *European Directives No. 2009/140/EC "Better regulation" Directive and No. 2009/136/CE "Citizens' rights" Directive of 25 November 2009..*

During an inter-ministerial discussion in early summer 2010, the Government decided to transpose the new Telecoms Package by means of an order, in particular to meet the deadline of 25 May 2011.

On 15 September 2010, the Cabinet examined the draft legislation, "*containing various proposals for the adaptation of legislation to European Union Law in the areas of health, labour and electronic communications*" including Article 11 which authorises the Government to adopt, by means of an order, the provisions required for the transposition of the latest Telecoms Package Directive.

In addition to the transposition, Parliament also empowered the Government to adopt the provisions enabling the development of a spectrum trading market, to take measures against harmful interference, to reinforce security and privacy protection, and any other measures consistent with the code.

Put before the National Assembly on 15 September 2010, the draft legislation was examined and adopted by Members of Parliament on first reading on 13 January 2011, and by the Senate on 10 February 2011. The government amendment which sought to install a government commissioner to the Authority was adopted by the National Assembly but rejected by the Senate, and was eventually discarded by the joint committee.

The Government's draft legislation is thus due to become an ordinance that is expected to be published within six months of the publication of the empowering statute, then ratified within three months of its own publication after the compulsory consultation with several organisations, including ARCEP, and submission for opinion to the Conseil d'Etat.

b) Planned amendments

The planned amendments to the legislative portions of the French Postal and electronic communications code, CPCE, nevertheless pertain primarily to strengthening the Authority's independence and increasing its powers, and to strengthening users' rights and improving spectrum management.

- **Greater independence and increased powers for ARCEP**

A second clause has been inserted in CPCE Article L. 131 to stipulate that: " *The members of the Electronic communications and postal regulatory authority perform their duties in an entirely impartial fashion, without any instruction from the Government or from any other institution, person, enterprise or organisation*". At the same time, the power to settle disputes is to be extended, in Article L. 36-8 of the code, to include disputes that arise: "*between an operator and an enterprise providing online communication services to the public*".

By the same token, ARCEP is expected to also be empowered to impose penalties, pursuant to Article L. 36-11, without the prior notice to comply being limited to a minimum period of one month. The two other signs of the regulator being endowed with increased powers are the newfound ability to impose functional separation on a vertically integrated operator deemed to enjoy significant market power, along with the ability to gather information from individuals and corporate entities that supply online communication services to the public, and no longer solely from operators.

- **Users' rights strengthened**

In addition to the principles enumerated in the code governing postal and electronic communications markets in France, increased guarantees for users should translate into better information on the products, offers and services available – before, during and after the signature of agreements.

To this end, and in accordance with Article 21 of the Universal Service Directive, ARCEP will work to ensure that price schedules are made available which allow users to make useful comparisons of the different offers available in the marketplace. Invested with a new power to enact general regulations that

help combat against a decline in service quality, the Authority will act on behalf of all users. The number portability process is also due to be shortened, and any delays in the supply of this service should result in compensation for the subscriber.

Mindful of the needs of disabled users, ARCEP submitted concrete and achievable legislative proposals to the Ministry, whose purpose is to enable equal access to all electronic communication services, notably thanks to an obligation to supply end-user equipment that is adapted to the needs of people with disabilities and to distribute information, which includes invoices, in formats that are accessible to these users. ARCEP hopes that its proposals will be retained.

In a more general fashion, ARCEP will continue to act on behalf of all users. The adoption of its 30 proposals in support of consumers is proof of its abilities and its determination in this areas[17].

- **Better spectrum management**

Lastly, the new regulatory framework provides for reforms in spectrum management, notably the introduction of the principle of service neutrality, a reinforcement of the principle of technological neutrality and an encouragement to favour general authorisations over individual ones.

As a result, although the institutional effects of the transposition are limited in scope, it nevertheless remains that the amendments planned for the legislative portion of the CPCE will have an impact that will be directly visible to all users, in terms of the management of their electronic communications service contract(s) and of the services to which they have access.

The maturity of the electronic communications market allows major technical improvements to be made that are beneficial to everyone.

17 - *See page 109*

ARCEP's organisation and operation

1. The Executive Board

Photo : Dominique Simon

Frontrow, from left to right:
Joëlle Toledano, Jean-Ludovic Silicani (chairman), Marie-Laure Denis.
Backrow, from left to right:
Jérôme Coutant, Nicolas Curien, Denis Rapone, Daniel-Georges Courtois.

ARCEP's Executive Board is composed of seven members. Three of them, including the Chairman, are appointed by the President of the Republic, based on proposals from the Prime Minister; two of the other four are appointed by the President of the National Assembly and two by the President of the Senate.

Since the adoption of the Law of 5 March 2007[1], this appointment takes place after receiving the opinion of parliamentary commissions.

Members of the Board cannot be dismissed, their six-year mandate is not renewable and their position is incompatible with any other business activity, national appointment or civil service position[2].

Three members of the Board were appointed by decree of the President of the Republic: Chairman, Jean-Ludovic Silicani and Board members, Marie-Laure Denis and Jérôme Coutant. Nicolas Curien and Denis Rapone were appointed by the President of the Senate, Daniel-Georges Courtois and Joëlle Toledano were appointed by the President of the National Assembly.

1 - Law No. 2007-309 of 5 March 2007 concerning modernisation of audiovisual broadcasting and television in the future, JO of 7 March 2007..
2 - Pursuant to the French Postal and electronic communications code, CPCE (Code des postes et des communications électroniques)

2. Organisation and department budgets

2.1. ARCEP's organisation

Organisation chart as of 1 May 2011

Institutional Relations
Patricia LEWIN

Synthesis
Christian GUENOD

Interconnection and Access Committee

Consumer Affairs Committee

GRACO (Working group between ARCEP, local authorities and operators)

Forward-planning Committee

Human ressources, administration and finances

Manages ARCEP's means and resources as well as its publications, documentation and intranet.

Claire BERNARD
Deputy: *Elisabeth CHEHU-BEIS*

- **Human Resources** — *Catherine AUTIER*
- **General administration** — *Pierre-Jean DARMANIN*
- **Finances** — *Bernard THOUVIGNON*
- **Documentation** — *Elisabeth CHEHU-BEIS*
- **Information Systems** — *Jean-Philippe MOREAU*

Legal Affairs

Responsible for all legal aspects of ARCEP's activity, ensures the legal certainty of decisions

Stéphane HOYNCK
Deputy: *Loïc TAILLANTER*

- **Procedures, Frequencies, Audiovisual Broadcasting, Interconnection and Consumers** — *Loïc TAILLANTER*
- **New Regulation, New Networks, Local Authorities and Europe** — *Laurent PERRIN*

European and International Affairs

Coordonne et met en œuvre l'action internationale de l'ARCEP.

Anne LENFANT
Deputy : *Joël VOISIN-RATELLE*

- **European Affairs** — *Françoise LAFORGE*
- **International Affairs** — *Joël VOISIN-RATELLE*
- **ITU Coordination and Standardisation** — *Marie-Thérèse ALAJOUANINE*

Economics and Forward Planning

Coordonne les analyses économiques.
Service et annuaire universels.
Observatoires et études externes.
Prospective.

Nicolas DEFFIEUX

- **Statistical Observatories and Market Monitoring** — *Sophie PALUS*
- **Network Economics, Forward-planning and Universal Service** — *Gaëlle NGUYEN*
- **Costs and Tariffs** — *Matthieu AGOGUE*

Executive Board

Chairman
Jean-Ludovic SILICANI

Members
Daniel-Georges COURTOIS
Jérôme COUTANT
Nicolas CURIEN
Marie-Laure DENIS
Denis RAPONE
Joëlle TOLEDANO

Communication
Jean-François HERNANDEZ
Deputy : *Ingrid APPENZELLER*

Directorate-General

Director General
Philippe DISTLER

Deputy Directors General
Michel COMBOT
François LIONS

Policy officer
Pascal DAGRAS

Directions

Spectrum and Equipment Manufacturer Relations
Licence issuing and monitoring.
Setting up and issuing calls for candidates
Spectrum management

Jérôme ROUSSEAU
Deputy : *Olivier COROLLEUR*

- **Mobile Operators**
  Julien MOURLON
- **Spectrum Regulation and Management**
  Olivier COROLLEUR
- **Technological Monitoring and Manufacturer Relations**
  Edouard DOLLEY

Broadband/Ultra-fast Broadband Markets and Local Authority Relations
Regulation of wholesale and retail markets for broadband networks and services
Monitoring of relations with local authorities for purposes of regional digital development.

Antoine DARODES
Deputy : *Renaud CHAPELLE*

- **Broadband and Ultra-fast Broadband Infrastructure**
  Bertrand VANDEPUTTE
- **Fibre Sharing and Broadband and Ultra-fast Broadband Downstream Markets**
  Guillaume MEHEUT
- **Relations with Local Authorities**
  Renaud CHAPELLE

Fixed and Mobile Markets and Consumer Relations
Point of contact for operators
Regulation of fixed and mobile services markets
Tariff regulation
Numbering management

Michel COMBOT
Deputy : *Christophe COUSIN*

- **General Authorisation, Network Security and Numbering**
  Catherine GALLET-RYBAK
- **Mobile Networks**
  Clémentine PESRET
- **Capacity Services and Fixed Telephony Markets**
  Guillaume MELLIER
- **Consumer Relations**
  Stéphane KUNA

Postal Regulation
Regulation of mail-related postal activities: operator authorisations, universal service controls, accounting and tariff controls on the universal service operator.

François LIONS

- **Accounting, modelling and economics**
  Lionel JANIN
- **Authorisations and Universal Service**
  Julien COULIER

2.2. Budgetary resources

Since 2009, ARCEP's budgetary allotment has constituted Action 13 – "electronic communications regulation" – of programme 134 of the Finance Act's economic mandate, "business and job development". For 2010, Parliament allocated ARCEP a budget of €8 million in payment credits for operating expenses, and €15 million for personnel expenses. This marks a decrease compared to 2009 equal to the precautionary reserves passed by Parliament (5% for item 1 and 0.5% for item 2).

• Increased control over spending in 2010

ARCEP used virtually its entire allotment of payment credits, consuming 97% of its available funds, i.e. €7.56 million, which is 4.5% less than in the previous fiscal year.

ARCEP took the proactive step of renegotiating the terms of the lease on its offices, as a result of which its rent was decreased by 16% under the terms of a nine-year lease that was signed in early July 2010.

Furthermore, in keeping with the circular entitled "Exemplary State" (Etat exemplaire) dated 1 September 2010, on managing the federal government's fleet of vehicles, the Authority undertook to reduce its fleet which has decreased from 22 vehicles in 2009 to eight in 2011.

Lastly, ARCEP performed a complete audit of its information system, examining its security, its overall architecture and performance. In addition to the need to improve the existing system, the process provided an opportunity to engage in strategic discussions on how to improve all of the Authority's IT operations (file sharing, processing and use of multiple resources).

ARCEP will continue to reduce its spending in 2011, and will satisfy the imperatives of the new three-year budgetary cycle, namely a 5% decrease in its operating budget in 2011, and a further 2.5% decrease in 2012 and in 2013.

And, finally, 2010 was marked by an especially high level of revenue (licensing fees and taxes) collected by the Authority, which are deposited into the State's general budget: coming to a total €1.13 billion, of which €634 million from 3G licensing fees and €240 million for the fourth 3G licence issued to Free Mobile.

The numbering taxes and administrative taxes collected came to €21.7 million.

ARCEP's commitment to sustainable development

Begun back in 1999 with the collection of printer and photocopier cartridges, this commitment to going green has been steadily expanded into the areas of printing, recycling waste, IT solutions, general services, utilities and even the technical operation of the offices leased by the Authority.

Controlling energy consumption

ARCEP adopted a virtual file server solution back in 2005, called VMWare, which helps to reduce the number of physical servers used, hence our energy consumption, while also optimising the use of storage and network resources. Work stations have also been equipped with an energy management system that makes it possible to measure the actual amount of power consumed by our computer system.

Real-time reporting of consumption per day/week/month/year by all of the connected equipment allows us to simulate and automatically deploy possible energy-saving tactics (putting to sleep, switching on/off).

3 - Finance Act No. 2001-692 of 1 August 2001, referred to as the LOLF (Loi organique relative aux lois de finances)

Our staff can also minimise their travel by using conference calling and videoconferencing solutions in the meeting rooms and in certain offices.

Creating a "smart" building

Major work was performed in 2009/2010 on the air conditioning and lighting systems: the building where ARCEP's offices are located is equipped with a centralised technical management system that enables energy saving while also ensuring the daily comfort of our staff: presence detectors activate (or leave idle) the air conditioning and lighting depending on the occupancy of the office.

This optimisation mechanism, combined with low-power lamps which are being installed throughout, help to reduce rental and electricity expenses. In 2011, these environmental efforts continued with the installation of a new lift technology that enabled a drastic (75%) reduction in the energy consumed by the lifts.

Reducing paper consumption thanks to touch-screen tablets

ARCEP has been using digital photocopiers since 2002 which are smaller, less noisy and more energy efficient. With the new sales contract that will be signed for 2011, the number of units will be reduced; the amount of copying done has been cut in half over the past 10 years, and the use of touch-screen tablets, which is currently being tested, should help accentuate this trend.

The amount of paper used has already been practically cut in half since 2004, going from 19 to nine tonnes. In addition, the quality of the paper recently selected by ARCEP meets European eco-label standards. .

2.3. Human resources

As of 31 December 2010, ARCEP had a staff – as it did in 2009 – of 169 people (45% women and 55% men), of which 40% employees (either secondments or on assignment) and 60% contractors (under public contract).

The average age of ARCEP personnel is 41 years. Staff credits provided for in the Finance Act increased by 2.5%, with an authorised maximum staff that has remain unchanged in three years.

The Authority was able to hire 26 new staff members in 2010 while maintaining the same size of personnel.

2.4. Outside expertise

The pace of the changes at work in the sector, and the highly technical nature and importance of regulatory issues have led ARCEP to seek outside technical, economic, statistical and legal expertise.

The work of consulting firms has allowed ARCEP to benefit from specialised skills and unbiased outside advice.

For the Authority, this usually results in the appropriation of tools for internal use which are not intended to be made public.

However, certain reports and consumption or quality of service surveys are intended as a means of informing the sector, and consumers in particular, and are thus freely available on the ARCEP website.

In 2010, the report budget amounted to €1,189,005.

Eighteen reports were commissioned at an average cost of €66,055 and an average duration of six months[4].

Chief external reports and surveys commissioned in 2010
Fibre and broadband
Ultra-fast broadband rollouts schemes in rural areas
Overhead infrastructure that can be used for optical fibre ultra-fast broadband network rollouts
Identification of relevant monitoring indicators for the bandwidth actually supplied to consumers, and for monitoring the increase in access rates
Frequencies and licences
Assistance with auction planning
Postal activities
Assistance in drafting the methodology for a bottom-up modelling of the distribution process for a postal services provider operating nationwide or in a portion of the country
Socio-economic practices and user requirements concerning the supply of a priority postal service
The routing business in France
Voice and capacity services
Fixed call termination cost modelling
Update of the technical-economic cost model for a mobile operator in Metropolitan France
Technical-economic report on a scheme for putting an end to the current configuration of the international roaming market
Verification of obligations and audits
Audit of 3G network coverage in Metropolitan France
Audit of electronic communication services revenue for 2009
Methodology for updating intangible gains in the electronic communications sector
Market knowledge
Monitoring tariffs for local and trunk calls, calls to special numbers, international calls, fixed-to-mobile calls and broadband and mobile services in the residential market in Metropolitan France and the overseas départements in 2010
The availability and usage of information technologies in French society ● ▲
Legal and institutional reports
Impact of corporate tax reforms on electronic communications operators
Comparison of national regulatory authorities in Europe
Features of indefeasible/irrevocable right of use (IRU) ●

● Report available (in French) on the ARCEP website: www.arcep.fr

▲ Survey commissioned jointly with the Committee for industry, energy and technologies, CGIET (Conseil général de l'industrie, de l'énergie et des technologies)

2.5. Documentary resources

ARCEP's documentation centre is the only centre specialised in electronic communications and postal issues that is open to the public. A system of legal, economic and technical monitoring was created for staff, which allows ARCEP to then make non-confidential information which is drawn from these observatories available to the public.

An online documentary portal was introduced in 2010, which marks a considerable improvement to the internal distribution of information.

Outside users can access up-to-date information on the sector, browse trade journals from both France

and abroad, along with reference publications on both telecommunications and postal affairs.

3. ARCEP's modernisation efforts

Efforts in 2009 were devoted to discussion and issuing the first decisions, while 2010 was a year devoted to putting these major reforms into application – which meant considerable changes for both ARCEP staff and the Authority's overall performance.

In 2010, ARCEP was therefore able to properly test the relevance of the reorganisation of its services – the aim of the plan designed in 2009 being to better reflect changes occurring in the regulated sector and to concentrate the Authority's efforts on the new regulatory issues at hand.

The overhaul of the compensation scheme for all of the Authority's staff (both employees and contractors) – whose purpose was to take better account of the functions performed and the results obtained – was implemented in the first quarter of 2010, and is now visible on payslips. As an extension of this reform which aims in particular to achieve more individualised compensation, a working group composed of management and staff representatives helped to plan annual evaluations at ARCEP and to improve the system in place, in a spirit of consultation and mutual exchange. ARCEP also committed to a dual process devoted to diversifying its recruitment pool, increasing its ties with the "*grandes écoles*" (post-graduate business/ admi- nistrative schools in France) and universities, in addition to offering attractive transfer opportunities with other administrations and expanding the recruitment process to include other major NRAs across Europe.

Finally, on the matter of internal operations, the complete audit of our information system is part of a commitment to upgrading how the Authority's entire IT system operates (file sharing, processing and use of multiple resources). This project must result in the draft of a three-year IT system master plan in 2011, geared to:

- improving the management of strategic information streams to ensure the credibility of the regulator's decisions and actions;
- better cost control, at a time of increasing budgetary constraints.

4. Le comité de prospective

In late 2009 a Forward-planning committee was formed, made up of ARCEP Board members and seven other scientific, technological, legal, city planning, regional development and human sciences experts: Jacques Cremer, researcher at the Institute of Industrial Economics of Toulouse, IDEI *(Institut d'économie industrielle de Toulouse*); Michèle Debonneuil, member of the Economic Analysis Council, CAE (*Conseil d'analyse économique*); Mathias Fink, member of the Academy of Sciences; François Heran, Chairman of the Scientific Council of the Institute for research and documentation in health economics, IRDES (*Institut de recherche et de documentation en économie de la santé*); Paul Kleindorfer, professor at INSEAD; Martine Lombard, professor at Paris Panthéon Assas University (Paris II) and Henri Verdier, President of the Cap Digital technology hub.

The committee met on four occasions in 2010 to discuss the general topic of the development of supply and demand in the electronic communications sector. This purpose of this series of talks is to pinpoint the reasons for the low rate of penetration for optical fibre offers today and, more generally, to further discussions on the role that public authorities and ARCEP can play in stimulating the development of new markets.

The aim of the first meeting, held on 18 February 2010, was to provide an overall view of the telecommunications sector. Speakers at the meeting included historian Pascal Griset[4], professor of the history of innovation research centre at the Sorbonne, who spoke on the topic of pioneer telephone network deployments and the States' role in market development; marketing strategy firm Vertone on the impact of ICT integration on consumption habits; economist and Forward-planning committee

4 - The Pascal Griset article can be found (in French) in Cahiers de l'ARCEP issue No. 2, from June 2010. http://www.arcep.fr/uploads/tx_arcepcahier/C02-08-09-D_01.pdf

member Michèle Debonneuil[5], who shared his views on how the efficient integration of ICT into the economy would open up the various sectors and allow us to move from a "have more" to a "be better" economy.

The second meeting, held on 17 June 2010, focused on the development of demand. On hand to shed light on the topic were Joël Hamelin of the French Government's Strategic analysis council (Conseil d'analyse stratégique), who spoke about the report entitled, "Digital economy issues up to 2015-2025", and paleoanthropologist Pascal Picq who offered an examination of the behaviour of market players, consumers and public authorities from a "Lamackian" and "Darwinian" perspective.

The third meeting, on 16 September 2010, provided an opportunity to explore the reasons for optical fibre solutions' lack of commercial success. Speakers on the topic included Jean-Baptiste Soufron, Director of the Cap Digital competition hub think tank, who spoke of the rise in consumption and the increasing number of internet-ready devices; Marc Fossier[6], France Telecom's Director of Corporate social responsibility, who presented the different perceptions that carriers and consumers have of new technologies and, lastly, Thierry Zylberberg, Director of France Telecom's Health Division, who spoke of ICT development in the healthcare sector.

The fourth meeting, held on 15 February 2011, allowed ARCEP departments to deliver a summary of how they had appropriated what had been discussed at the previous meetings, in the form of a summary response to three issues: how to integrate a long-term, forward-looking view into the actions taken by ARCEP? What role should public authorities and ARCEP play in helping to stimulate new markets? How to explain the low penetration of optical fibre offers?

ARCEP Board member, Nicolas Curien, then spoke about the relationship between innovation, growth and regulation – looking ahead to the conference on 4 May 2011 on that topic, which brought this first series of Forward-planning committee meetings to a close

Growth, innovation, regulation

On 4 May 2011, ARCEP hosted an international symposium on the topic of "Growth, innovation, regulation" with several goals in mind:

- to discuss the different views of government intervention in market economics; to examine the innovation process and how regulation can encourage without inhibiting it;
- to discuss the terms and conditions of deploying and financing an electronic com- munication and information infostructure for the 21st century; and, lastly, to examine the most appropriate regulatory scheme for promoting the digital society and the digital economy.

Reputed experts from a wide variety of fields were on hand to discuss these topics: regulators, carriers, members of Parliament, economists, investors and entrepreneurs [7].

5. The other ARCEP advisory committees

5.1. The Consumer committee

ARCEP's consumer relations unit created a Consumer committee back in 2007, which provides a forum for discussions between consumer associations and ARCEP. It also brings together government representatives responsible for regulation, consumers representatives, and representatives of the electronic communications ombudsman and the national consumer agency, CNC (*Conseil national de la consommation*).

The purpose of the committee is to improve the flow of information in both directions between ARCEP and the associations.

5 - *The Michèle Debonneuil article can be found (in French) in Cahiers de l'ARCEP issue No. 2, from June 2010. http://www.arcep.fr/uploads/tx_arcepcahier/C02-16-17-D.pdf*

6 - *The Marc Fossier article can be found (in French) in Cahiers de l'ARCEP issue No. 4, from December 2010. http://www.arcep.fr/uploads/tx_arcepcahier/024_025_M_Fossier_FT_Orange_CAHIERS_4.pdf*

7 - *Videos of the talks are available online at : www.arcep.fr*

The committee generally meets three times a year. A once-yearly plenary meeting brings together association heads and consumer representatives, to whom ARCEP presents the specific work being done on their behalf. The plenary session on 19 May 2010 provided the Authority with an opportunity to share and discuss findings on the impact of the application of Article 17 of the Law of 3 January 2008, commonly known as the "Chatel Act"[9].

5.2. Electronic communications advisory committee

The Electronic communications advisory committee, CCCE (La commission consultative des communications électroniques) was created on 23 June 2009. It replaces the two previous advisory committees: the Advisory committee for radiocommunications, CCR *(Commission consultative des radiocommunications*) and the Advisory committee for electronic communications networks and services, CCRSCE (*Commission consultative des réseaux et des services de communications électroniques*).The CCCE is consulted on all draft measures aimed at setting or altering the terms governing declaration and the establishment and operation of electronic communications networks and services, particularly in the areas of interconnection, network access and the use of radio spectrum. Composed of 24 members, the committee provides equal representation to network operators and service providers, consumer representatives and experts. The committee chairman is Engineering Corps member, Charles Rozmaryn. The Electronic communications advisory committee was consulted on four occasions in 2010, and asked to give its views on two major matters in particular:

- the call for applications in view of the allocation the remaining spectrum in the 2.1 GHz frequency band;
- the terms for accessing optical fibre ultra-fast broadband lines outside of very high-density areas.

5.3. Interconnection and access committee

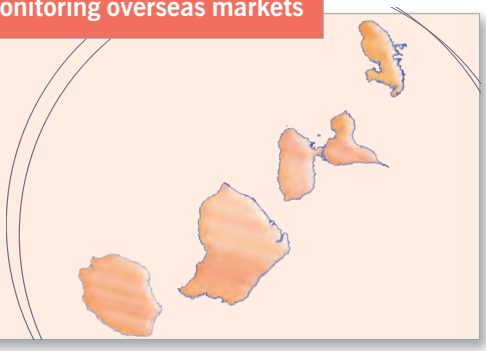
The Interconnection and access committee (*Comité de l'interconnexion et de l'accès*) is made up of representatives of network operators which are active in the interconnection and access market and of service providers, appointed by ARCEP decision. The Authority's Chairman presides over the committee, and the Authority itself ensures its secretarial duties. This committee, which meets three times a year, provides the sector's stakeholders with a forum to discuss current issues relating to fixed and mobile services.

The committee's efforts in 2010 were devoted in particular to:

- ultra-fast broadband, notably issues relating to fibre sharing;
- broadband, particularly increasing access speeds in the different regions;
- the market analysis decisions concerning offers for accessing local loop infrastructure, broadband and ultra-fast broadband offers (bitstream) and capacity service offers;
- the regulation of mobile voice call and SMS termination;
- provisions governing the general authorisation system;
- the publication of QoS indicators for the fixed service.

Creation of a committee for monitoring overseas markets

In 2010, ARCEP also created a committee devoted to overseeing the operation of access and interconnection offers in the French overseas markets. The process of implementing regulation in the overseas *départements* can result in specific problems. This committee will therefore focus on the methods to be employed in the operational deployment of access and interconnection offers that the Authority may need to impose in the overseas *départements*.



8 - *See page 110.*

5.4. Forum for discussions between ARCEP, local authorities and operators (GRACO)

Local authorities, which are authorised to act as electronic communications operators by virtue of Article L. 1425-1 of the local and regional collectivity code, CGCT (*Code Général des Collectivités Territoriales*), have very deep concerns about the digital development of their regions.

This is why ARCEP created a forum back in 2004 called GRACO (*groupe d'échange entre l'ARCEP, les collectivités territoriales et les operateurs*), to host discussions between the Authority, private sector operators and local authorities.

Over the course of 2010, the work performed by GRACO continued on through several working groups which devoted their efforts in particular to issues surrounding "ultra-fast broadband" and "increasing bandwidth".

Other working groups also met to discuss topics that are of key importance to local authorities:

- the "network knowledge" group, which produced a practical guide for the implementation of CPCE Article L. 33-7 and the Decree of 12 February 2009[9] which provides local authorities with information on network rollouts in their region. This guide, which was published in September 2010, is currently being updated to take account of the measure taken by the *Conseil d'Etat* on 10 October 2010, setting aside part of the Decree;
- the group devoted to buried networks, which is continuing to work on encouraging the integration of the legislative changes brought by the Law on bridging the digital divide;
- the "service coverage" group whose aim is to facilitate the application of the Decree of 12 February 2009, calling on operators to publish coverage maps, and to prepare a draft decision by ARCEP enabling the establishment of a common system for calculating fixed network coverage, and for verifying this coverage. This group was created in early 2010.

Ultra-fast broadband: a central preoccupation for elected officials in 2010

Fibre rollouts were one of the main topics of debate at the plenary meeting of GRACO – the forum for discussion between ARCEP, local authorities and carriers – on 28 September 2010. Close to 250 people, including members of Parliament, local elected officials, representatives of local authority associations, the heads of the main carriers and State officials all took part in the discussions. ARCEP Chairman, Jean-Ludovic Silicani, believes there is now a consensus that deploying ultra-fast broadband through optical fibre has become a national priority, explaining that, "*Today, all citizens and all businesses are asking that rollouts be carried out simultaneously throughout the country, naturally at a different pace and over different lengths of time, but simultaneously […] Why? Because it is no doubt even more useful in more sparsely populated areas, where fibre will be decisive in bridging the economic and cultural divide, than for very high-density areas that already have very high quality broadband access*".

In addition to the technical means being deployed, the question of financing is often raised, and several elected officials spoke of their concerns on this topic. The Chairman of ARCEP stated that the Authority would be making a detailed assessment of the cost of deploying fibre, but that it should not be more than €25 billion. Offering up the hypothesis, which is realistic at this stage, of a 50-50 split in financing between the private and the public sector, carriers will therefore be investing around €12 billion over 15 years, or €800 million a year – a figure which is consistent with their announced spending for the next five years. As to public financing, Mr. Silicani considers that if the State and the European Union (through the ERDF – European Regional Development Fund) each contribute €200 million a year, that leaves close to €400 million a year to be provided by local authorities, or an average €4 million a year, per *département*.

9 - *Decree No. 2009-167 of 12 February 2009.*

5.5. Expert committees

There are two expert committees that meet on a regular basis. One is devoted to the technical issues relating to the copper local loop and the other to optical fibre-related technical matters.

These committees bring together the various stakeholders: equipment manufacturers, carriers and local authority representatives – the purpose of their work being to discuss the technical specifications of projects that are underway.

- The purpose of the **expert committee devoted to the copper local loop** (*comité d'experts relatif à la boucle locale cuivre*) is to perform a comparative analysis to recommend whether or not a new technique or technology can and should (or should not) be deployed, in terms of technical feasibility, and maintaining the integrity of the existing network and services. The committee issued a positive opinion on introducing ADSL2+ in the France Telecom sub-loop, following a series of trials that were carried out by several carriers. This will enable operators to implement sub-loop unbundling using the "bi-injection" method explored by the Authority as part of its efforts devoted to increasing bandwidth on the existing France Telecom copper network. The committee is currently working on the fibre extension option, which is another scheme being examined to increase bandwidth, along with the introduction of VDSL2 which makes it possible to achieve much higher access rates on the copper local loop.

- Meanwhile **the optical fibre expert committee** (*le comité d'experts fibre*) made it possible to establish the maximum signal loss values between the concentration point and the optical network terminal, to satisfy the network interoperability objective. The committee's more recent efforts have been devoted to the specifications for passive equipment to be used in shared optical fibre configurations in more sparsely populated areas. It also examined the characteristics of indoor cabling, as part of an opinion to be drafted on an order concerning greenfield projects. The committee is working as well on establishing benchmark references for indoor deployments and standard quality levels for shared equipment.

telecom-infoconso.fr

arcep.fr

lettre.arcep.fr

Communication and information

For it to be efficient and indisputable, the business of regulation requires that the responsible body take an impartial approach to its environment. Sustaining a dialogue with the various interested parties (elected officials, consumer associations, economic actors, etc.) and the dissemination of information are essential to the success of the actions performed, and to ensuring that these actions are understood by all of the players involved.

To carry out its missions in a comprehensive manner, ARCEP relies on a vast array of modern information mechanisms which it has implemented and upgrades as the need arises. It also calls upon the sector for input on a regular basis, encouraging dialogue and even debate on the issues for which it is responsible.

1. Broad palette of communication tools

The Authority employs a wide array of communication tools which guarantees that the entire sector will have access to the most exhaustive information possible on both the work being performed by ARCEP and on the sector itself.

1.1. ARCEP websites

ARCEP manages four websites, which are being continually refreshed: its core institutional site, which marked its 13th anniversary in March 2011; a site devoted to consumers which was created in late 2008; a site devoted exclusively to 118 numbers (telephone directory services) and the Fratel website (a network of telecom regulators from French-speaking countries).

www.arcep.fr, the Authority's institutional site

ARCEP's website is the preferred platform for disseminating information, in both French and English.

Acting as the Authority's memory bank, it contains all of the information, both past and present, which has been made publicly-available since the Authority was created in 1997.

Updated on a daily basis, it satisfies the essential requirement of providing instantaneous information on a sector in a state of constant evolution.

Easy to read and easy to use

- important information is displayed in chronological order on the homepage, in addition to being posted to the different dedicated sections;
- there are four dedicated areas – postal sector, local authorities, consumers and electronic communications operators – which provide information that is of particular interest to these four groups;
- two searchable databases: on the spectrum that ARCEP is responsible for allocating, and on the telephone numbers that the Authority assigns to telecom carriers (searched by entering the first digits of a number).

A democratic tool

The information is made available to everyone at the same time: press releases, for instance, are sent to the press at the same time as they are put online.

Accessible to the visually impaired

Since mid-December 2008, a portion of the ARCEP website has been providing dedicated access for the visually impaired: press releases are systematically "translated" into an audio version thanks to the use of a robot that automatically transcribes text to speech in the form of MP3 files that can then be listened to. The main speeches by the Chairman of ARCEP along with the discussions from conferences organised by the Authority are also made available in MP3 format.

A powerful tool

- The main information is also distributed via e-mail to users who sign up for the ARCEP mailing lists, of which there are two: telecommunications and the postal sector, both available in French and English. Close to 12,000 people subscribe to these lists.
- Some of the documents produced by ARCEP that are available for download in PDF format have been very popular. For instance, the day it was uploaded to the site, "La fibre optique arrive chez vous" (Fibre optic coming to your home) guide proved so popular that the site went down for 24 hours… As of the end of April 2011, this guide had been downloaded close to 34,000 times.

Outward looking

- Although a particular effort is made to provide English translations (press releases are systematically translated and posted online, at the most 24 hours after the publication of the French-language version), information is provided in other languages as well: abstracts are available in six other languages, namely Spanish, German, Italian, Portuguese, Korean and Chinese.
- In most cases, the summary reports of Board members' fact-finding missions abroad are produced in both French and English and available for download in a dedicated section. These documents are generally downloaded several thousand times.

ARCEP published three new reports in 2010: two on the United States (in July 2010 and April 2011), of which one was devoted to the postal sector and the telecommunications sector, and one on South Korea.

Making use of video

- The conference on Network neutrality that ARCEP hosted on 13 April 2010 provided an opportunity to make extensive use of video on the website: 21 videotaped interviews with a variety of players from along the internet value chain (telcos, service providers, internet companies, TV operators, copyright management bodies, manufacturers, elected officials, other regulators) were carried out and put online on the ARCEP website, on Daily Motion and on YouTube.

These interviews were watched more than 24,000 times over the course of the year, in addition to being aired 65.000 number of times on TV.

Consumer chats

In 2010, ARCEP hosted two live chats on its site: on internet and network neutrality, and on fibre deployment.

The chat on internet and network neutrality, held on 21 October 2010, attracted **487 people in total** over the course of the hour, with a peak audience of **262 people** connected simultaneously.


Dossier

La neutralité d'internet et des réseaux

L'événement du printemps 2010

Dans le cadre de son colloque international sur la neutralité des réseaux, le 13 avril 2010, l'Autorité a réalisé qui ont permis de réfléchir à la notion de neutralité des réseaux et d'engager le débat. Morceaux choisis.

et diffusé, sur son site internet, une série d'interviews vidéo

Quand la neutralité du net et des réseaux font débat...

Ils ont dit...

Retrouvez l'intégralité de ces interviews vidéo sur le site de l'ARCEP : http://www.arcep.fr/index.php?id=10370

Jean-Ludovic Silicani, président de l'ARCEP

Azdine El Mountassir Billah, directeur général de l'Agence Nationale de Réglementation des Télécommunications du Maroc

Marcel Codesh, vice président de la Comisión del Mercado de las Telecomunicaciones (Espagne)

Gabrielle Gauthey, directeur des relations institutionnelles d'Alcatel-Lucent

Wassim Chourbaji, directeur de la réglementation et des frequences Europe chez Qualcomm

Bruno Retailleau, sénateur de la Vendée

Charles-Emmanuel Bon, directeur du développement de RTL

Pascal Rogard, directeur général de la SACD

Jean-Bernard Lévy, président de Vivendi

Stéphane Richard, directeur général de France Télécom

Maxime Lombardini, directeur général d'Iliad-Free

Bernard Miyet, président de la SACEM

Pierre Col, directeur marketing de KissTV, bloqueur 3Dnet France

Gilles Maugars, directeur technique et innovation de TF1

Vincent Toissier, directeur du développement de Cogent

Michel Riguidel, enseignant-chercheur, Telecom Paris Tech

Olivier Esper, directeur des relations institutionnelles de Google France

Benjamin Bayart, président de French Data Network

Winston Maxwell, avocat, Hogan Lovells

Alain Bazot, président de l'UFC Que-choisir

Giuseppe de Martino, président de l'ASIC

28 LES CAHIERS DE L'ARCEP • AOÛT | SEPTEMBRE | OCTOBRE 2010

LES CAHIERS DE L'ARCEP • AOÛT | SEPTEMBRE | OCTOBRE 2010 29

The second chat on fibre installations inside of buildings, which was held on 21 December 2010, was especially popular, attracting a total **616 people** over the course of the hour, with a with a peak audience of **311 people** connected simultaneously. This is the highest attendance for any of ARCEP's live chats to date. The topic no doubt had something to do with it, as consumers are very eager for concrete answers to their questions about fibre.

A live chat is scheduled for early June 2010 on the topic of increasing bandwidth on existing networks.

A few figures on www.arcep.fr

- The site logged more than 2.5 million unique visitors[1] in 2010 – 300,000 more than in 2009, or a 15% increase, which translates into an average of 7,000 visitors a day. There have already been more than 830,000 unique visitors to the site in the first four months of 2011.
- In the past 13 years, the site has had more than 16.5 million unique visitors.
- 27.4 million page views in 2010.
- As of April 2011, the site's telecom mailing list had 9,607 French language subscribers (619 for the English language version), and its mailing list devoted to the postal sector had 1,574 subscribers (around **60** for the English language version).

www.appel118.fr, the directory services site

Since 3 April 2006, consumers have had access to new telephone directory services by dialling 118, followed by three digits.

To inform users, ARCEP created a website that provides a list of open 118 services, their main tariffs and a history of the changes to these tariffs.

Also included on the site is an FAQ on 118 numbers (access, choice, billing, etc.) and on the universal directory (registration in the directory, subscriber rights, etc.), which are updated on a regular basis.

The *appel118.fr* site logged 58,000 visits in 2010, or an average 160 visitors a day.

www.telecom-infoconso.fr, dedicated site for consumers

In early January 2009, ARCEP launched a website aimed specifically at telecommunications services users: www.telecom-infoconso.fr

Informative, practical and educational, the purpose of the site is to provide consumers with access to all of the information they need to better understand how the sector operates and the issues at hand. Intended to be enhanced over time, its content and format will evolve according to users' needs and suggestions.

There were **close to 200,000** unique visitors to the site in 2010 – and **61,000** in the first three months of 2011 – logging close to 600,000 page views (**180,000** in Q1 2011).

1 - Unique visitor: we log each different IP address connected to the site, regardless of the number of visits from this same address, contrary to the notion of multiple visits where several connections can correspond to the same visitor, in which case the visitor is counted several times.

1.2. Cahiers de l'ARCEP

ARCEP publishes a quarterly review of around 50 pages that examines a variety of themes from different angles, including a forward-looking perspective. A total of 6,500 print copies are distributed for free, and a PDF version is available on the ARCEP website in a "light", "medium" and high definition version. Each issue is downloaded around ten thousand times, on average.

To help broaden readers' perspective, the *Cahiers de l'ARCEP* devotes a great deal of space to market players' viewpoints in the form of *interviews*. Issue 5, for instance, which was published in early April 2011, contains more than 50 interviews and articles of or by personalities from a wide range of backgrounds, from both France and abroad: national and local elected officials, a European commissioner, a Finnish minister, several captains of industry, as well as regulators from other countries, academics, an historian…

Four issues published in 2010

- The first issue of the year was devoted to **digital regional development.** This issue, of which 18,000 copies were downloaded, included a series of interviews with elected officials speaking about ultra-fast broadband rollouts, mobile coverage, opening up the overseas markets, infrastructure sharing, eradicating ultra-fast broadband dead zones and on increasing bandwidth.

- The second issue (11,000 downloads from our website) focused on the digital revolution which, like a tsunami, is making its way into every corner of our lives and causing disruptions: tremendous rise in access speeds, especially on mobile, consumers now active market players, new consumption habits (mobility, ubiquity, ergonomics); markets becoming all electronic; time-shifted content; interfaces; location-based services; e-commerce.

- Issue three of the *Cahiers de l'ARCEP* was dedicated to **Net neutrality** (6,000 downloads). The huge surge in traffic, the growing security threats and the need to finance future networks are all causing upheavals in the Web's ecosystem. How does this affect freedom of expression, the right to privacy, revenue sharing between the stakeholders, the networks' organisation and technical issues?


Dossier

Les autres aspects de la net neutralité

Diffusion

Neutralité Exclusivité

Pages web Media


TIC et développement durable

Le numérique, levier de l'économie verte

- Issue four of our journal (7,500 copies downloaded) took a look at the societal challenge of sustainable development. Entitled "ICT and **sustainable development**", it examined how telecom industry players are taking a growing number of initiatives to reduce their carbon footprint, as a response to problems caused by climate change. It also looked at how the spread of ICT into other sectors of the economy can help reduce greenhouse gases by 7% between now and 2020.


Dossier

Tri et acheminement

Quel avenir pour le secteur postal ?

REPORTAGE

Le Hub Courrier de La Poste à Roissy : un lieu hors norme

- Issue five of the Cahiers de l'ARCEP focused on the postal market: given the decreasing amount of mail being sent – i.e. their core business – how are Europe's post offices reinventing themselves? How can they stay competitive while continuing to satisfy all of their customers nationwide, and provide a high quality universal service? How are they reacting to the growing trend of being replaced by electronic communications?

Starting in October 2009 and throughout 2010, the ARCEP publication was available in a PDF version for the blind and visually impaired who could "listen" to the document using their dedicated voice synthesis mechanism and their Braille tactile display. We were obliged to discontinue this option in early 2011 for cost reasons.

2. ARCEP conferences

Since its creation in 1997, the Authority has been holding regular talks on topics that relate either directly or indirectly to its areas of responsibility. These events provide an opportunity to have open discussions on often complex issues, to exchange differing viewpoints, particularly by hearing from speakers from foreign markets, and to engage in forward-looking analyses.

On 13 April 2010, ARCEP hosted a large international conference in Paris on the topic of Net neutrality, which attracted 400 people – of which a third came from outside France – along with 7,300 people who watched it live on the Web. To prepare for discussions on this complex subject of neutrality, 21 videotaped interviews were carried out and posted online, on the ARCEP website (www.arcep.fr) and on social networking sites. Proceedings of the discussions were also produced.

On 4 May 2011, ARCEP held is annual conference, this time devoted to the topic of "*Growth, innovation, regulation*".

Introduced by Eric Besson, the French minister responsible for the digital economy, some 20 speakers from France and around the world participated in four round-tables, moderated by Eric Le Boucher, Editor-in-chief of Enjeux-Les Echos and by Philippe Escande, Editorial writer for Les Echos. The topics of the four round-tables were: *Regulation and growth: why, how and to what effect? – Regulation and innovation: are they compatible? Building and financing the infostructure for the 21st century What regulation for the digital society and the digital economy?* Each debate was prefaced by a talk from a leading industry player from France: Stéphane Richard, President & CEO, France Telecom; Jean-Bernard Levy, Chairman of the Management Board, Vivendi; Xavier Niel, Vice-president & Chief Strategy Officer, Iliad Free, and Pierre Danon, Chairman of the Management Board, Completel Numericable all shared their views.

Elected officials, academics and representatives of various administrations were also on hand to contribute to the discussions.

The conference debates were broadcast live on the Web in two languages: they were watched live by a total 3,338 people, of which around a hundred in English. They are also available in VoD[2] on the ARCEP website.

3. A new tool deployed in autumn 2010: the weekly e-newsletter

Up until summer 2010, ARCEP had several communication "tools" for keeping the public informed about its activities, each of which operated on a very different schedule. One, the newsfeed on our main website, is updated on a very regular basis, virtually daily, as news occurs. A second instrument, the "*Cahiers de l'ARCEP*", is a quarterly publication and our annual report is published only once a year.

But there clearly lacked an instrument that would allow us to provide a weekly update to the decision-making public who, by definition, have very little time to read but with whom the Authority did want to maintain regular contact.

2 - *Video on demand.*

This is why in autumn 2010 ARCEP launched a weekly e-newsletter (in French) that is sent out every Friday afternoon, and whose purpose is to satisfy the often-expressed need for regular, succinct and recent information on the Authority's activities, and on the sectors that it covers, namely electronic communications and postal affairs.

Viral tools were incorporated into the e-newsletter that allow subscribers to share the information it contains on Facebook, Twitter, MySpace and Viadeo.

Introduced in September 2010 and sent out initially to a very targeted readership, the newsletter was then opened up to everyone in December 2010. It now has 1,600 subscribers and an open rate of close to 45%, which is very good when compared to the average open rate for e-newsletters sent out by institutions.

4. Consolidated editorial policy

Every year, ARCEP publishes several brochures and booklets, both in a PDF version which is available online and a print version:

- reports on overseas fact-finding missions
- reports to Parliament:
- "Increasing bandwidth", September 2010
- "Developing competition for the benefit of consumers", July 2010
- "Telecommunications in French overseas markets", January 2010
- documents aimed at local authorities (summaries of the work performed by GRACO)
- proposals and recommendations (on Net neutrality, on consumers)
- brochures for the general public (on the deployment of DTT, on optical fibre, for trustees and property owners and managers).

Relations with other public authorities and institutions

1. Relationship with Parliament

Over the course of 2010, the Authority gave a regular account of its activities to Parliament, in the form of reports or hearings. It also addressed permanent National Assembly and Senate committees and delegations on several occasions, as part of hearings on decisions that would affect the market in a fundamental way and during the examination stage of proposals and draft legislation.

1.1. Hearings

a) Meetings on core industry issues

The Chairman of ARCEP addressed the National Assembly Economic affairs commission (*Commission des affaires économiques*) on 8 September 2010, and the Parliamentary commission on the digital dividend *(Commission parlementaire du dividende numérique)* on 8 July and 15 December 2010, on the topic of spectrum allocations in the 800 MHz and 2.6 GHz frequency bands.

The Authority Chairman was also questioned on the topic of ultra-fast broadband by Senator Hervé Maurey, the head of a delegation on ultra-fast broadband network financing, on 24 February and 26 May 2010.

Net neutrality is another topic in which members of Parliament took a keen interest in 2010. This led to regular interaction with the Authority, in the form of round-tables and working meetings:

- on 22 September 2010 with Laure de La Raudière; on 20 October 2010 with the working group on the internet, audiovisual and the information society, on Net neutrality and ultra-fast broadband (groupe d'études sur l'internet, l'audiovisuel et la société de l'information sur la neutralité du net et le très haut debit), whose members include Patrick Bloche, Jean Dionis du Séjour and Patrice Martin-Lalande;
- round-table on 26 October 2010 hosted by the Senate Culture and Economic affairs committees;
- briefing on Net and network neutrality on 25 November 2010, with Laure de La Raudière.

As part of the preparatory work being done on the 2011 budget for the post and electronic communications, the draftsman of the budget, Alfred Trassy-Paillogues, queried the Authority on 6 October 2010 on monitoring the progress of the Chatel Act, and measures concerning consumers.

b) Talks on proposals and draft legislation

As part of the process of preparing draft legislation on the national loan (*le grand emprunt*), the Chairman of ARCEP was interviewed in the Senate by Bruno Retailleau on 3 February 2010.

The Chairman of ARCEP was interviewed on 17 February 2010, as part of an assignment on the new flat tax on network industry businesses, IFER (*impôt forfaitaire sur les entreprises de réseau*), led by Bruno Durieux, the Inspector-general of Finance.

The National Assembly Public policy assessment and verification committee (*Comité d'évaluation et de contrôle des politiques publiques*) met with the Chairman of ARCEP on 22 April 2010 to discuss a report on independent administrative authorities[1] drafted by René Dosière and Christian Vanneste.

On 8 September 2010, ARCEP Board member, Joëlle Toledano, met with the Public service commission for posts and electronic communications, CSSPPCE (Commission supérieure du service public des postes et des communications électroniques), which is composed chiefly of members of Parliament. On 30 November 2010, the ARCEP Board and CSSPPCE had a working meeting on postal regulatory issues in 2011, 3G mobile coverage and fibre-sharing schemes outside of very high-density areas.

1.2. Report submission

ARCEP submitted its annual report for 2009 to the President of the Republic, to the Prime Minister, to concerned members of the Government and to the Presidents of the National Assembly and the Senate on 9 June 2010.

In response to specific requests, the Authority submitted three reports to Parliament in 2010. They pertained to the electronic communications sector in French overseas markets, on the application of Article 17 of the "Chatel Act" for development of competition for the benefit of consumers[2], and on making the transition to ultra-fast broadband.

Other reports are planned for 2011:

- on assessing the net cost of the regional development mandate assigned to La Poste, in addition to its universal postal service obligations, pursuant to the Law on La Poste and postal activities[3];
- on the instruments and procedures employed for monitoring the quality of internet access services;
- on the status of data interconnection markets and the outlook for their future development;
- on traffic management practices being used by electronic communication operators.

2. Relationship with the French government

ARCEP works in tandem with the government on the various topics that fall under its purview.

The Authority maintains close ties with the Minister responsible for electronic communications, with whom it shares a certain number of powers in the area of regulation. The actions that ARCEP undertakes in accordance with its regulatory powers are in part subject to the minister's approval, one case in point being the regulatory framework governing optical fibre rollouts in very high-density areas[4] and outside of the these areas[5]. The Authority therefore maintains regular contact with the Minister of Economy and Finance and with Ministry departments, particularly the General directorate for competition, industry and services, DGCIS (*Direction générale de la compétitivité, de l'industrie et des services*), the legal affairs department, DAJ (*Direction des affaires juridiques*) and the General directorate for fair trade, consumer affairs and fraud

1 - Information report, "Independent administrative authorities: for an independence guaranteed by Parliament" (Les autorités administratives indépendantes: pour une indépendance sous la garantie du Parliament) published in November 2010: http://www.assemblee-nationale.fr/13/rap-info/i2925-ti.asp

2 - Law No. 2008-3 of 3 January 2008 for the development of competition for the benefit of consumers, commonly known as the "Chatel Act", published in the JO of 4 January 2008.

3 - Law No. 2010-123 of 9 February 2010 concerning the public enterprise La Poste and postal activities, published in the JO of 10 February 2010..

4 - Regulatory framework adopted by ARCEP on 22 December 2009 and approved on 15 January 2010

5 - Regulatory framework adopted by ARCEP on 14 December 2010 and approved on 10 January 2011

control, DGCCRF (*Direction générale de la concurrence, de la consommation et de la répression des fraudes)*.

ARCEP also maintains relations with other ministries, notably the Minister of the Interior, the Minister for Overseas France and local authorities (General directorate for local authorities/*Direction générale des collectivités locales*), the Ministry of Culture and Communications (General directorate for media and cultural industries/*Direction générale des médias et des industries culturelles*), the Ministry of Rural affairs and regional development (*Ministère de l'espace rural et de l'aménagement du territoire*), the Ministry for Overseas France (*Ministère chargé de l'outre-mer*) and the Secretary of State for forward planning and development of the digital economy (Secrétariat d'Etat chargé de la prospective et du développement de l'économie numérique). ARCEP also works with the inter-ministerial land planning and regional action delegation, DATAR (*Délégation interministérielle à l'aménagement du territoire et à l'attractivité régionale*), in addition to maintaining ties with local government departments, most notably the 27 ICT policy officers with the General Secretariats for Regional Affairs (*Secrétariat Général pour les Affaires Régionales*).

3. Relationship with local authorities

Since 2004, local authorities have been authorised to establish and operate electronic communications networks when private sector initiative is lacking, and to provide services to end users. The Authority monitors local authorities' projects and sustains discussions between local authorities and telcos within GRACO (see page 34).

2010 emerges as a year of transition from broadband to ultra-fast broadband for public-initiative networks. While a great many projects devoted to increasing broadband coverage were put into action between 2007 and 2009 in the form of partnership contracts (in the (Auvergne, Meurthe-et-Moselle, Gironde, Hautes-Pyrénées, Languedoc-Roussillon and Finistère region, etc.), there were fewer large-scale broadband projects in 2010, and most began to focus on optical fibre rollouts. Some were designed under local authority supervision (Ain, Pays Chartrain, Saint-Quentin-en-Yvelines), while others took the form of public service contracts (Hauts-de-Seine, Laval, Loiret). Local authorities also began to design new projects that incorporate the issue of increasing bandwidth on the incumbent carrier's existing copper network (Haute-Marne, Loiret), in accordance with a legal framework whose principles were defined by ARCEP in early 2011, based on discussions between local authorities and carriers within the ad hoc GRACO working group.

4. Relationship with jurisdictions, other independent administrative authorities and other public organisations

4.1. Relationship with jurisdictions

In its capacity of independent administrative authority, ARCEP makes decisions which can be appealed to administrative courts: either to the *Conseil d'État* for Executive Board decisions or the *Tribunal Administratif* (Administrative court) for decisions made by the Chairman or the Director General. Decisions concerning dispute settlements fall under the jurisdiction of the Cour d'Appel de Paris (Paris Court of Appeal). During the process of awarding the fourth 3G mobile licence to Free Mobile, for instance, several applications requesting the cancellation of the awards procedure were filed with *Conseil d'Etat*. In a decision dated 12 October 2010, the *Conseil d'Etat* rejected all of these requests

The Conseil d'Etat issued the opinion that the amount of the set portion of the licensing fee due from the fourth operator was neither too low nor discriminatory compared to the sum paid by the three existing mobile operators in 2001-2002. It also confirmed that the procedure was carried out in accordance with the principles of transparency and objectivity, and issued a reminder of the benefits to the public interest attached to opening the market up to a four operator, to allow for an improved state of competition in the French mobile telephony market. Lastly, the Conseil d'Etat upheld the Authority's choice of Free Mobile based on the chosen criteria and reasons, and set aside accusations that the Authority in any way unduly favoured Free Mobile's application..

In addition, in accordance with the Code of administrative justice, electronic communications operators can appeal to the *Conseil d'Etat* judge responsible for hearing applications for interim measures, by simple request – even without a prior administrative decision – to ask that judge to order any call for expertise or examination deemed necessary. During the call for applications for licences to the remaining spectrum available in the 2.1 GHz band, which was launched on 25 February 2010, the company SFR stated that there were difficulties inherent in using the block of 4.8 MHz, and appealed to the Conseil d'Etat to request a referral for expert investigation. The *Conseil d'Etat* rejected the carrier's request in an order dated 19 April 2010. It upheld the Authority's argument, stating its belief that the requested expert opinion would not be useful, "*given the length and thoroughness of discussions to date, especially those initiated by ARCEP on the creation of blocks of spectrum in the 2.1 GHz band which would be likely to be subject to a new allocation procedure, and given the knowledge that SFR – an experienced mobile telephony operator – has of the technical findings of these discussions, combined with the very short length of time that an expert would have to carry out its investigation due to the only brief gap between the date on which the request for expert advice was submitted and the scheduled deadline for submitting applications*".

ARCEP decisions concerning dispute settlements can be appealed to the Paris Court of Appeal. The firm Mobius submitted an application to the Court on 7 September 2010, seeking to appeal the Authority's dispute settlement decision of 1 July 2010 which primarily concerned the request from Mobius that the firm La Réunion Numérique be required to lower the price of three of its offers: collocation in the neighbourhood cabinet, dark fibre rental and its activated "DSL Grand Public" (consumer DSL) solution. In an order dated 24 February 2011, the Paris Court of Appeal upheld the ARCEP decisions in full.

The Chairman of ARCEP also informs the public prosecutor of any facts that are likely to receive a penal qualification, as the Postal and Electronic Communications Code provides for penalties for infractions of the postal and electronic communications market regulation.

4.2. Relationship with the Competition Authority

ARCEP has close institutional ties with the Competition Authority (*Autorité de la Concurrence*), and can solicit its opinion when it believes that an SMP operator is abusing its dominant position, or in the event of practices that are preventing competition from being exercised freely in the electronic communications sector or in the area of postal activities[6]. In return, the Competition Authority informs ARCEP of any incoming matters concerning the electronic communications and postal sectors that it is called up on to regulate[7].

Moreover, when it performs an analysis of electronic communications markets to determine whether or not any operator enjoys significant power in a relevant market, ARCEP must hold public consultations on its draft decisions and solicit the opinion of the Competition Authority and, if applicable, that of the Broadcasting Authority, CSA (*Conseil supérieur de l'audiovisuel*) on the market definition and the SMP operator analysis.

4.3. Relationship with CSA

The legislature has sought to strengthen the cooperation between the French Broadcasting Authority, CSA (*Conseil supérieur de l'audiovisuel*) and ARCEP by putting mutual consultation procedures in place. In general, ARCEP must obtain the Broadcasting Authority's opinion when making decisions that will have a significant impact on the broadcast of radio and television services. In exchange, CSA must obtain ARCEP's opinion on any decision it makes that concern electronic communications.

ARCEP requested the CSA opinion on requests for spectrum allocation to perform technical trials in the 790 – 862 MHz band, whose priority use CSA is responsible for assigning up until 31 November 2011. The two authorities also called on one another for an exchange of opinions: ARCEP appealed to CSA on the matter of requests for spectrum allocation to perform electronic communications service trials in the 41.5– 42 GHz frequency band, which CSA is responsible for assigning, and CSA requested ARCEP's opinion on

6 - *CPCE Articles L. 5-8 and L. 36-10.*
7 - *CPCE Articles L. 5-8 and L. 36-10.*

requests for spectrum allocation to perform electronic communications service trials 42 – 42.5 GHz frequency band, which ARCEP is responsible for assigning. Finally, ARCEP also requested the broadcasting authority's opinion on a request for an exceptional and temporary allocation of spectrum for short-range devices to perform clinical trials on healthy patients, in a frequency band around 608 MHz, which CSA is solely responsible for assigning.

4.4. Relationship with CNIL

When performing its market analyses, ARCEP is careful to solicit the opinion of the French national commission on computing and freedom, CNIL (*Commission nationale de l'informatique et des libertés*) on matters that concern the treatment of personal data. The two authorities have therefore discussed the issues that the application of the Law on Computing and Freedoms of 1978 raises for telecom carriers. One particular instance occurred in 2006 when defining the content of the subscriber listings needed to produce universal service directories. There were no dossiers in 2010 that required the two authorities to engage in any such comparable talks.

4.5. Relationship with ANFR

ARCEP works with the National Frequency Agency, ANFR (*Agence nationale des fréquences*) in its capacity of member of the Agency's Board of Directors, in addition to playing an active role on its different committees. These committees are devoted to forward-planning for spectrum in tandem with the technical and regulatory work being carried out at the European level, and on managing national spectrum use through logs of radio transmission sites and logging frequency assignments in the databases managed by the Agency. ANFR, meanwhile, provides ARCEP with services that are listed in an agreement which is reviewed every year.

ANFr requested ARCEP's opinion on applications submitted by the company Eutelsat for authorisations to use frequency assignments for satellite systems in different orbital positions. ARCEP commented on each of these requests through 10 opinions that were issued on 11 March 2010.

5. Relationship with European and international bodies

5.1. In Europe

a) Relationship with European institutions

The European Commission unveiled the information and communication technologies portion of the "Europe 2020 Strategy" . This "Digital Strategy for Europe" is one of the seven flagship initiatives. Among other things, it determines the objectives for broadband and ultra-fast broadband rollouts[10], along with a set of measures aimed at improving the way Europe's electronic communications market operates.

In pursuit of its digital strategy, the Commission also submitted a draft decision to the European Parliament and Council, proposing to establish the first multi-annual Radio Spectrum Policy Programme (RSPP), a recommendation on regulated access to new generation access (NGA) networks and a communication on broadband[11] that clarifies the terms governing the use of Community funds for financing electronic communications networks.

The European Parliament and the Commission also hosted two summits: on radio spectrum in March, and on Net neutrality in November, along with a workshop on universal service. The goal of these events, to which ARCEP contributed, was to help guide the European Commission in drafting its proposals.

8 - *Commission communication "EUROPE 2020 – Strategy for smart, sustainable and inclusive growth", COM/2010/2020 final version, 10 March 2010.*

9 - *Commission communication "A new digital strategy for Europe", COM/2010/0245 final version, 26 August 2010.*

10 - *Namely Europe-wide coverage for "basic broadband" by 2013, and ultra-fast broadband coverage by 2020 at the latest, which corresponds to providing all European Union citizens with high-speed access at 30 Mbps, and the availability of services providing access rates of over 100 Mbps to 50% of European households.*

11 - *Commission communication, "European Broadband: investing in digitally driven growth", COM/2010/0472 final of 10 September 2010.*

Texts adopted by the Commission following a comitology procedure, via the Communications Committee (COCOM)[12] and the Radio Spectrum Committee, RSCOM.

After a lengthy period of consultation, the European Commission adopted the recommendation on regulated access to new generation access (NGA) networks[13] which specifies the terms governing the application of the sector specific regulation to ultra-fast broadband access networks. The purpose of these recommendations, of which NRAs must take the utmost account, is to allow for a consistency in the regulatory measures that national regulators apply to new networks, ensuring incentives to invest and maintaining a high degree of competition.

COCOM also approved the Commission's planned mandate to standardisation bodies on providing location data for calls made to the "112" emergency number.

Meanwhile, RSCOM[14] issued favourable opinions on the Commission's draft decision concerning the harmonisation of the terms governing the use of spectrum for mobile communication services on-board ships, and the harmonisation of spectrum used for short-range devices.

b) Relationship with national regulatory authorities in the European Union

The gradual implementation of the Body of European Regulators for Electronic Communications (BEREC)[15] continued on through 2010, which comes to replace the European Regulators Group, or ERG. BEREC headquarters are located in Riga, Latvia. The Office's Management Committee, whose task is to assist the Board of Regulators, was quickly put into place and staff has begun to be recruited. ARCEP took an active part in each of these processes, hosting the first plenary working meeting of the Board of Regulators in February 2010 in Paris.

Interview with John Doherty, Chair of BEREC in 2010 [16]

Why was BEREC created?

The creation of BEREC marks an important step forward in the regulation of electronic communications in the European Union. European regulators have accumulated an enormous body of knowledge and experience over the past two decades, which they have shared through the Independent Regulators Group (IRG) then the European Regulators Group (ERG) – of which BEREC is the natural evolution. By giving NRAs a formal role, the Parliament and Council are recognising that national regulators are a crucial part of efficient regulation. BEREC will play an important role in developing and disseminating state-of-the-art regulation and assisting NRAs in the cohesive application of this framework.

12 - COCOM allows Member States to give the European Commission their official opinion, either in areas that are within the scope of their powers of consultation, or within the purview of their regulatory powers. ARCEP works on the Committee alongside the Ministry for the Economy, Industry and Employment, or MINEIE, Directorate General for Competitiveness, Industry and Services, or DGCIS (Direction générale de la compétitivité, de l'industrie et des services of Ministère de l'Economie, de l'Industrie et de l'Emploi).

13 - Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access (NGA) networks, 2010/572/EU, OJ L 251 of 25.9.2010, pp.35-48.

14 - The Radio Spectrum Committee, RSCOM, was created through European Parliament and Council Decision No. 676/2002/EC of 7 March 2002 concerning the regulatory framework for radio spectrum policy in the European Community ("radio spectrum decision"). The European Commission submits appropriate technical measures of application to RSCOM in view of harmonising spectrum management and ensuring spectrum availability. RSCOM is also consulted on the definition, draft and application of Community radio spectrum policies. ARCEP contributes to the Committee alongside the national frequency agency, ANFR and the Ministry for the Economy, Industry and Employment (MINEIE) Directorate General for Competitiveness, Industry and Services (DGCIS).

15 - In accordance with the provisions of the European Parliament and Council Decision No. 1211/2009 of 25 November 2009 instituting the Body of European Regulators for Electronic Communications (BEREC) and the Office which ensures its permanent administration, OJ L 337 of 18.12.2009, pp.1-10.

16 - The John Doherty interview can be found (in French) in Cahiers de l'ARCEP issue No2, June 2010.

What is your role with respect to the European Commission?

Unlike the ERG, BEREC is formally recognised by European Union institutions – the Council, the Commission and the Parliament – and is a central part of the framework. Its opinions, of which the Commission and NRAs will need to take the utmost account, will have greater status than those issued by the ERG. BEREC also plays a central role in assessing NRAs' proposed remedies. The Commission will continue to have veto power over market definitions and revised definitions, but it does not extend to remedies as had been proposed initially. The Council and Parliament indeed recognised that national regulators were in the best position to choose their remedies, according to the state of their national markets. A new procedure was nevertheless defined to bring a degree of consistency: the Commission will have a month to examine the notified remedies. If it has serious doubts, a three-month moratorium will be ordered, during the first six weeks of which BEREC will examine these serious doubts and decide whether the notification must be amended or withdrawn. Specific proposals will be made, if necessary. In instances where BEREC shares the Commission's serious doubts, it will work closely with the NRA to identify the most appropriate measures. In cases where BEREC disagrees with the Commission, or if the NRA decides to maintain or amend the draft measure, the Commission can lift its reservations or recommend their amendment or withdrawal, while taking full consideration of the BEREC opinion. Especially in cases where BEREC does not share its doubts, the Commission must provide a detailed justification of its position.

Noteworthy among the documents published by BEREC in 2010 were:

- a report and a response to the European Commission's public consultation on Universal Services principles in e-Communications, in preparation for a future legislative proposal by the Commission;
- an opinion on the European Commission's Draft Recommendation on regulated access to Next Generation Access Networks (NGA);
- a response to the European Commission's consultation on the open internet and Net neutrality in Europe – building on the work performed by BEREC on the topic;
- a report on the review of European regulation on international mobile roaming in Europe, extended in early 2011 by the BEREC response to the Commission's public consultation on the matter, prior to publishing a report to the European Parliament which is scheduled for June 2011;
- various publications on topics that are of interest to all NRAs, notably reports on bundled services, convergent services, best practices to facilitate consumer switching and a Common Statement on Next Generation Networks' Future Charging Mechanisms;
- reports and quantitative surveys, chiefly on mobile call termination prices and international roaming tariffs in Europe.

ARCEP participates in all the BEREC working groups that are responsible for these works, acting as the co-chair of two of them.

On 10 August 2010, the European Regulators Group for Postal Services (ERGP) was also created, its purpose being to act as an advisor to the European Commission and facilitate cooperation between national authorities in Members States. ARCEP Board member, Joëlle Toledano, was elected Chair of the European Regulators Group for Postal Services for 2011[17] .

c) Relationship with other regulators within groups devoted to radio spectrum

ARCEP is represented primarily in the French delegation of the Radio Spectrum Policy Group[18] (RSPG) and on the CEPT Electronic Communications Committee (ECC) [19]).

17 - For more information on the ERGP, please see page 131.

18 - Radio Spectrum Policy Group, as instituted by European Commission Decision No. 2002/622/EC of 26 July 2002, to assist and advise the Commission on spectrum policy, Official Journal L-198 of 27.7.2002, p.49

19 - Electronic Communications Committee, European Conference of Postal and Telecommunications Administrations (CEPT) which addresses spectrum and telecommunications matters.

In accordance with the provisions in the new Article 8B of the Framework Directive, the RSPG adopted a preliminary opinion on the definition of a multi-annual Radio Spectrum Policy Programme (RSPP) whose purpose is to set the strategic directions and harmonisation measures needed within the European Union. The European Commission took this programme into full consideration when drafting the programme it presented to the European Council and Parliament on 20 September 2010, whose adoption process has continued on into 2011.

The RSPG also submitted two position papers on the stakes surrounding the digital dividend, notably on the efficiency use of radio spectrum in the targeted bands, a report on cognitive technologies, along with a joint report with BEREC on how technological developments and competition issues in the area of spectrum affect the markets.

Furthermore, under a mandate from the European Commission, the ECC further clarified the terms governing the use of LTE (Long Term Evolution) and WiMAX systems in the 900 and 1800 MHz frequency bands.

5.2. Around the world

In addition to its work at the European level, ARCEP also maintains relations with international bodies.

a) International Telecommunications Union (ITU)

In 2010, ARCEP participated in the ITU plenipotentiary conference which took place in Guadalajara, Mexico, from 4 to 22 October and which provided the opportunity to define the organisation's directions for the next four years. Also on the agenda was the election of the ITU directors: Hamadoun Touré was re-elected Secretary General, Houlin Zao was re-elected Deputy Secretary General of ITU and Malcolm Johnson was re-elected as the Director of Telecommunication Standardization Bureau.

Brahima Sanou was elected Director of the Telecommunication Development Bureau and François Rancy, the former Director General of the French National Frequency Agency, ANFr (*Agence nationale des fréquences*) was elected Director of the Radio-communication Bureau with 90 votes from the 157 pays countries in attendance.

François Rancy

In 2010, ARCEP also took part in the fifth World Telecommunication Development Conference that was held from 24 May to 4 June in Hyderabad, India.

The conference set the plan of action for the sector's development over the next four years, and particularly the programmes and the topics to be addressed by study commissions.

The Authority was a member of the French delegation at the different preparatory meetings held as part of the CEPT (European Conference of Postal and Telecommunications Administrations), whose purpose was to draft the common positions that were supported

From left to right : Brahima Sanou, Director of the ITU Telecommunication Development Bureau ; Malcolm Johnson, Director of the ITU Telecommunication Standardization Bureau ; Hamadoun Touré, ITU Secretary-General ; Houlin Zhao, Deputy Secretary-General of ITU and François Rancy, Director of the ITU Radiocommunicatin Bureau.
Source: ITU / V. Martin

at the World Telecommunication Development Conference and the ITU plenipotentiary conference that took place in 2010.

In addition, as it does every year, ARCEP spoke at the Global Symposium of Regulators which was held in Dakar from 10 to 12 November 2010, on the topic of best practices for the creation of open access networks.

ARCEP helps prepare the French government's position on telecommunications in the decision-making bodies of the ITU, in particular on monitoring the study committee responsible for defining services, numbering, routing and network management, and the committee devoted to telecommunications development strategies and policies.

b) Organisation for Economic Cooperation and Development (OECD)

In 2010, ARCEP continued to contribute to the work being done by the OECD Working Party on Communications and Infrastructure and Service Policies (WP CISP) and the Committee on Information, Computer and Communications Policy (ICCP).

Efforts were devoted in particular to better monitoring broadband and ultra-fast broadband (bundled offers, national rollout schemes) and wireless (developments in 4G techniques, creation of new tariff baskets, roaming voice and data solutions) developments and policies.

In 2010, the OECD also collected data for its biannual statistical survey, "Communications Outlook 2011", and the first preparatory meetings were held for the for high-level "Internet Economy" meeting which is due to take place on 28 and 29 June 2011 in Paris.

c) Cooperation with Francophone countries: FRATEL

ARCEP is responsible for the Executive Secretariat of FRATEL, the network of telecommunications regulators from French-speaking countries.

The FRATEL 2010 action plan included the following:

- the 8th annual meeting on 8 and 9 December 2010 in Ouagadougou, Burkina Faso, which was attended by over 90 participants, including 15 regulators, along with the International Telecommunication Union, represented by its Secretary General, Hamadoun Touré, and the Director of its Telecommunications Development Bureau, Brahima Sanou, as well as consulting firms, lawyers, carriers and academics, who discussed the topic of "the new regulatory issues created by content";;

Nicolas Curien and Mathurin Bako, president of ARCE, Burkina Faso

Brahima Sanou, Director of the ITU Telecommunication Development Bureau, Hamadoun Touré, ITU Secretary General, with Noël Kabouré, Minister of Posts and ICT in Burkina Faso.

- the technical seminar on 27 and 28 April 2010 in Tunis, Tunisia, which brought together 90 representatives, including 17 regulatory authorities from network member countries and players from the telecommunications sector who shared their views on "network neutrality";

- support for the training provided to executive members of French-speaking African regulatory authorities and operators by the *grandes écoles* (i.e. the most prestigious higher education

establishments in France), known as BADGE training, which enjoys the support, through an agreement, of Telecom ParisTech, the *Agence de régulation des télécommunications* (ART) of Cameroun, the University of Buéa (Cameroun), the French National Frequency Agency (ANFr) and ARCEP. Since its creation, the BADGE programme has provided training to more than 100 people from 15 different countries.

ARCEP also represented FRATEL at the annual ITU regulatory associations meeting, which was held in Dakar on 9 November, as part of the Global Symposium of Regulators (GSR).

d) Euro-Mediterranean network of Regulators: EMERG

ARCEP has been involved in the Euro-Mediterranean network of Regulators, or EMERG – an initiative financed by the European Commission – since its creation. In 2010, the Authority sent experts to take part in three workshops: "Using market analyses as tools of regulatory intervention," "New generation access networks: impact on markets and regulation" and "Universal service obligations: how to prevent imbalances in the marketplace?" ARCEP also participated in the network's planning and benchmark conference meeting in December 2010 and was represented at the plenary session, which took place in January 2011 in Rome, during which the network's definitive work programme for the year was established.

e) Bilateral relations

In response to their requests, ARCEP hosted talks with 20 foreign entities involved in the telecommunications and postal services markets (ITU, UPU, foreign regulatory authorities, research institutes, etc.) over the course of 2010.

Board members also travelled overseas for four fact-finding missions:

- to Japan, led by Patrick Raude, to discuss the challenges of electronic communications market regulation and the issues surrounding the development of fixed and mobile ultra-fast broadband;

- to South Korea, led by Denis Rapone, to present the Authority's views on the development of ultra-high-speed mobile in France and its regulation, at the Global Mobile Summit in Seoul, and to explore the issues surrounding electronic communications regulation in South Korea;

- to Singapore, led by Denis Rapone, to take part in the CommunicAsia2010 Forum on tele-communications, and to discuss the economic and social changes brought by electronic communications market regulation, and the issues surrounding the development of broadband and ultra-fast broadband;

- to the United States, led by Daniel-Georges Courtois and Denis Rapone, to gain a deeper insight into the issues and constraints affecting both postal market and electronic communications market regulation in the United States, and to better understand the institutional relationship between the different authorities responsible for regulating competition in the telecom industry.

Relationship with economic stakeholders

1. Operators

1.1. Electronic communications operators

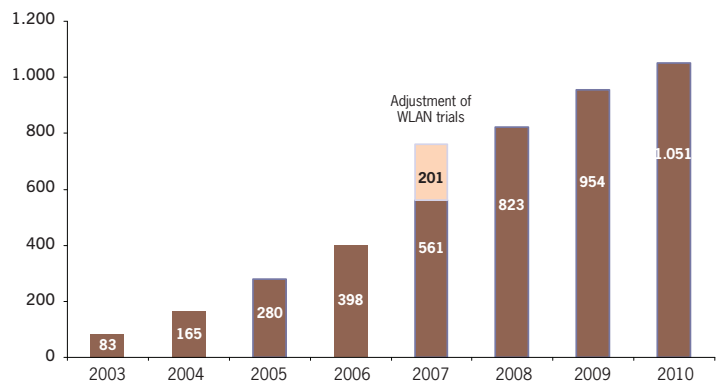
Operators of fixed and mobile electronic communications networks that are open to the public, or which provide the public with electronic communications services are the market players that are the most immediately concerned with the work performed by ARCEP. They are subject to a system of prior declaration to the Authority.

As of 31 December 2010, the Authority had recorded 1,051 declared operators:

- 672 of which operate an electronic communications network (fibre, cable, Wi-Fi…),
- 555 providing a telephone service,
- 746 providing services other than telephony, including:
  - 497 supplying internet access,
  - 455 data transmission services,
  - 87 mobile services,

The number of operators has increased steadily, by around 100 to 150 a year, since the declaration regime was implemented, as illustrated in the following graph. In 2010, 176 new operators declared themselves and 79 put an end to their activities, which translates into a net increase of 97 operators.

Growth of the number of operators



Source: ARCEP.

a) Systematic consultation with operators when drafting ARCEP decisions

The interaction between the country's main operators or their representative associations can take several forms:

- through formal bodies, such as the Electronic communications advisory committee (Commission consultative des communications électroniques), which is consulted by both ARCEP and the Minister responsible for electronic communications, or the Interconnection and access committee (*Comité de l'interconnexion et de l'accès*) whose thrice-yearly meetings are chaired by the ARCEP Chairman, and attended by all fixed and mobile operators. It therefore constitutes a forum for direct discussion and exchange with the telecommunications sector, which is of strategic importance for a regulator's work[1];
- meetings with the Executive Board when preparing decisions, dispute settlements or penalty procedures or, more generally, on any topic that is of interest to the Authority;
- specialised, technical meetings which are either bilateral (an average 450 to 500 such meetings take place every year in the Authority's offices), multilateral or of monitoring committees;
- public consultations, based on open questions or draft texts, or on ad hoc questionnaires. The Authority held 27 consultations in 2010, as a result of which operators are closely involved the Authority's decision-making process.

b) In-depth interaction with operators for the benefit of consumers

In 2010, ARCEP continued to devote efforts to improving the efficiency of operators' performance of their compulsory procedures in the areas of number portability, providing users with contractual information, and the legal interception and routing of emergency calls. These efforts are part of an ongoing process of interaction and discussion with the sector's stakeholders. What progress was made on these issues in 2010?

Number portability

The Authority is responsible for the smooth operation of number portability. In 2010, 2,325,000 mobile numbers were retained by consumers when switching operators – which marks a 29% increase compared to 2009 – and 2,560,000 fixed numbers, which is 12% fewer than in 2009[2]. ARCEP is committed to the principle of a one-step process whereby only the customer's new operator performs the necessary administrative procedures on their behalf with their old operator. ARCEP acts as an observer in the groups of operator representatives in charge of number portability. For mobile numbers, it is the Unit in charge of mobile number retention within the Economic interest group, GIE EGP (*Groupement d'intérêt économique Entité de gestion de la portabilité*) and, for fixed lines, the Fixed number portability association, APNF (*Association de la portabilité des numéros fixes*). The Authority welcomes the progress made by APNF which deployed a centralised routing base in January 2010, and worked throughout the year on implementing a common inter-carrier protocol – which is to become operational by April 2011 – intended to make the process more reliable and reduce the length of service interruptions. At the same time, the Authority relaunched multilateral working groups in mid-2010 to implement the new provisions that will result from the transposition into national law of the European directives of 2009. These concern the overall reduction of the length of the number portability process and of the service interruption on the day the number is ported. The current portability process takes seven days for mobile numbers and 10 days for fixed numbers.

Value-added services

Working in partnership with general directorate for fair trade, consumer affairs and fraud control, DGCCRF (*Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes*), the Authority provides support for the work being done by the French Telecoms Federation, FFT. In July 2010, the FFT installed a free information server that can be accessed by calling 3008[3], and which allows users to obtain information on the price

1 - See page 33.
2 - ARCEP figures (2010 market observatory).
3 - Decision No. 2010-0629 of 3 June 2010.

charged for calls to all value-added service (VAS) numbers, depending on their subscription[4]. This collaboration with the operators' (FFT) and service providers' (ACSEL) representative associations is part of a long-term process devoted to concrete measures for restoring consumers' trust in value-added service numbers.

Legal interception and routing of emergency calls

Carrying through with the work begun back in 2009, ARCEP continued to engage in actions geared to reminding operators of the obligations contained in the terms of their licences. It played an active role in the work performed by the Inter-ministerial committee on telecommunications network and services coordination, CICREST (Commission interministérielle de coordination des réseaux et des services de télécommunications), devoted notably to emergency call location. The Authority also contributed to the project being carried out by the Inter-ministerial committee on disabilities, CIH (Comité interministériel du handicap) whose aim is to make emergency services available to the hearing impaired, which led to the introduction of the 114 emergency number.

Work performed by CICREST

Chaired by the Defence telecommunications commission, CTD (*Commissariat aux télécommunications de défense*[5]), CICREST members include government ministries, ARCEP, ANFR and operators. Its efforts are focused on the following issues:

Crisis management procedures: information and actions taken by State departments during a significant network malfunction;

Priority calls: ability for listed subscribers to make calls when the networks are overloaded;

Emergency calls:

- ecall: a system on-board vehicles that automatically calls emergency services after an accident;
- emergency call routing schemes: nationally centralised information gathered by regional authorities (prefectures);
- assistance for emergency number managers: resolving issues reported by commission members;
- emergency call location: organisation and design of interfaces for transmitting this location;
- signal jammers: developing regulation for preventing their proliferation;

Cell broadcast: sending alert SMS and instructions over a certain geographical area.

Together, these various professional groups representing the sector helped to optimise the interaction and exchanges between ARCEP and the market's stakeholders, and to facilitate the implementation of the Authority's decisions, along with self-regulation and co-regulation schemes.

1.2. Postal operators

Postal operators are subject to an ARCEP-controlled authorisation system. Since June 2006, ARCEP has issued 31 authorisations, 22 of which were still in effect at 1 January 2011.

There are two types of authorisation:

- domestic delivery of items of correspondence (12 operators);
- outbound cross-border mail (10 operators).

La Poste holds an authorisation for both domestic delivery of items of correspondence and outbound cross-border mail.

In 2010, four new authorisations for delivery in France were issued and three operators put an end to their activities: Stamper's, Let France Routage in 2010, and Courriers Services 63 in early 2011.

4 - In accordance with the Order of 10 June 2009 on providing information on the price of calls to value-added services, published in the JO of 11 June 2009.

5 - The Defence telecommunications commissioner, Constant Hardy, was interviewed in Cahiers de l'ARCEP No. 5. Available (in French) online at: http://www.arcep.fr/uploads/tx_arcepcahier/C5_064_065_C_Hardy_CTD.pdf

In the international market, Let France Routage, which also held this type of authorisation, put an end to its international business, while the Austrian post office, Die Österreichische Post AG, was issued an authorisation – bringing to 10 the total number of operators in this market.

Alongside La Poste, the main domestic operator is Adrexo which has its roots in the unaddressed advertising delivery sector, and which covers virtually all of Metropolitan France. The other operators are small and medium enterprises established in a town or region that offer various postal services, including the delivery of items of correspondence.

In the outbound cross-border mail market, the main operators besides La Poste are subsidiaries of foreign postal companies (Germany, the Netherlands, Switzerland, the UK and Belgium). Also present in the market is private French operator, IMX.

ARCEP maintains regular contact with all postal service providers. Investigation of authorisation requests involves on-the-spot inspections, and operators' progress is also monitored, in particular through the annual Statistical Observatory on Postal Activities published by ARCEP.

2. Consumers

2.1. Maintaining close and proximate relations with consumers

ARCEP has a unit of six people devoted entirely to consumer relations. Their task is to interact directly with consumers who have encountered a problem with their operator or who want information about the sector (commercial offers, technological changes, ARCEP decisions, etc).

Close to 5,300 requests were processed in 2010. This activity not only allows the Authority to assist consumers but also to be made aware of malfunctions in the marketplace when they occur, and so to be able to inform the ARCEP departments responsible for the sector's regulation as well as its stakeholders, consumer associations, users and operators.

The Authority also hosts meetings of the Consumer committee throughout the year[6], which provides a dedicated forum for discussion and passing on information between ARCEP and consumer associations.

Lastly, ARCEP hosted two live chats in 2010. The first, held on 21 October 2010, was devoted to internet and network neutrality[7], and coincided with the publication of the Authority's 10 proposals concerning consumers. The live chat attracted 487 people over the course of the hour, who asked some 100 questions. The purpose of the second chat, which was held on 21 December 2010, was to answer consumers' questions on fibre installations inside of buildings[8]. It attracted more than 600 people.

2.2. Improving the quality of the information and the services offered to consumers

There is a website dedicated entirely to informing consumers: www.telecom-infoconso.fr.

6 - *See page 32.*

7 - *A transcript of the chat is available (in French) on the ARCEP website: http://www.arcep.fr/fileadmin/reprise/chat/script-chat-neutralite-211010.pdf*

8 - *A transcript of the chat is available (in French) on the ARCEP website: http://www.arcep.fr/fileadmin/reprise/chat/script-chat-fibre_21122010.pdf*

Updated on a regular basis, this site allows comments from users who can, if they want, help amend the information supplied, in addition to suggesting new topics to be explored.

Moreover, the Universal service Directive amended by the new Telecoms package contains several provisions aimed at strengthening the protection afforded consumers in their relationship with electronic communications service providers, and notably Article 21 on "improving the transparency and publication of information for end-users".

This article gives national regulatory authorities increased responsibilities and powers, allowing them to "demand" greater transparency on prices from operators. NRAs must therefore be able to require operators to publish transparent, comparable, adequate and up-to-date information on their prices and tariffs.

3. Equipment manufacturers

ARCEP firmly believes in maintaining strong and constant relations with equipment manufacturers, whether they be from France, Europe or around the world, and with the trade associations that represent them.

Excerpt of the talk given by Jean-Ludovic Silicani to the Strategic committee for information and communications services and technologies, resulting from the Industrial consultative assembly (*Etats généraux de l'industrie*) on 30 March 2011

Providing training in the new fibre-related professions will be one of the major challenges facing the telecom sector in the coming years. ARCEP General Director, Philippe Distler, agreed to sponsor the first class of "ultra-fast broadband network and services technician" graduates from NOVEA, the first expertise and training centre to provide courses on ultra-fast broadband network and services, which is based in Mortain in the Manche département (50).

"Investments need to be made in deploying fibre – and that's operators' role – but we also need men and women in the field," he said.

Around 60 technicians will be trained in 2011 for some 20 enterprises located across France.

These are new professions that should be safe from the effects of the recession and from unemployed for a long time to come.

Equipment manufacturers are involved in the Authority's work in various ways:

- regular bilateral talks for exchanging and sharing analyses;
- la participation des équipementiers aux consultations publiques et groupes de travail de l'ARCEP ;
- manufacturers' contributions to public consultations and ARCEP working groups;
- monitoring trials and demonstrations;
- manufacturers' representation on the Electronic Communications Advisory Committee (*Commission consultative des communications électroniques*), alongside ARCEP and the Minister responsible for electronic communications.

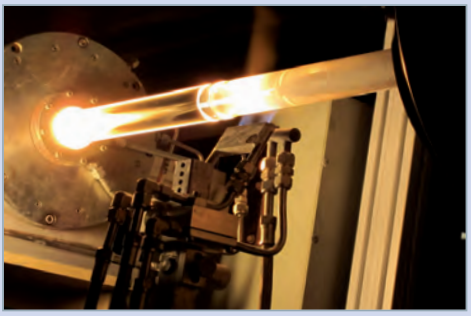
These interactions provide ARCEP with precious input on how demand for new applications is evolving in the marketplace, on the maturity of the supply of new technologies and roadmaps for new generation equipment.

Every year, the Authority attends the *Mobile World Congress* hosted by the GSM Association to meet with mobile equipment makers.

9 - *European Parliament and Council Directive 2009/136/EC of 25 November 2009.*

ARCEP Chairman's visit to the Draka plant

On 24 September 2010, ARCEP Chairman, Jean-Ludovic Silicani, travelled to Douvrin (Pas-de-Calais) to visit the Draka optical fibre manufacturing plant. He took the opportunity to underscore how important equipment producers' capacity for innovation is to fibre rollouts: "*The contribution made by the sector's manufacturers will be crucial to triggering the virtuous circle of decreased unit costs and amplified deployments, which will be beneficial to everyone: by reducing fibre installation costs, their capacity to innovate with both the equipment and installation techniques will play a decisive role". He went on to emphasise the role of training: "Human resources are a key part of the costs of an optical network, and can become a bottleneck in production output. To prevent this from happening, public authorities and economic stakeholders need to pool their efforts to facilitate the training and recruitment of this personnel*".



Equipment manufacturers are also consulted on a regular basis on the feasibility of implementing new technologies, to ensure the availability of equipment compatible with solutions chosen on a large scale in other countries, so that they might benefit from attractive economies of scale in their future deployments.

To give an example: ARCEP encouraged and authorised several technical trials, both in the 2500-2690 MHz frequency band and in the digital dividend band (790-862 MHz), to help prepare for future ultra high-speed mobile network rollouts.

In 2010, ARCEP began an internal examination of the future use of TDD[11] frequencies, both as part of the an assessment of the wireless local loop in the 3400-3600 GHz band and with a view to the future allocation of TDD spectrum in the 2570-2620 MHz frequency band. ARCEP also tracks the results of trials being carried out in France and abroad on the new use of TDD frequencies in the 1900-1920 MHz band.

On the matter of fixed networks, ARCEP has created expert committees whose members include equipment manufacturers – the goal being to establish the technical terms for implementing schemes to increase bandwidth on existing and future networks [11].

10 *- TDD: Time-division duplexing.*
11 *- See page 35.*

ARCEP General Director sponsors the first class of "fibre technician" graduates

Providing training in the new fibre-related professions will be one of the major challenges facing the telecom sector in the coming years. ARCEP General Director, Philippe Distler, agreed to sponsor the first class of "ultra-fast broadband network and services technician" graduates from NOVEA, the first expertise and training centre to provide courses on ultra-fast broadband network and services, which is based in Mortain in the Manche département (50).

"*Investments need to be made in deploying fibre – and that's operators' role – but we also need men and women in the field,*" he said. Around 60 technicians will be trained in 2011 for some 20 enterprises located across France. These are new professions that should be safe from the effects of the recession and from unemployed for a long time to come.

PART TWO

The Authority's main areas of focus

National coverage

1. Local authorities' central role in achieving regional coverage

Because they are concerned with ensuring the availability of the services needed to sustain economic and social development, local authorities are naturally very involved in the digital development of their region. They are the guarantors of residents' demand for access to a varied and high quality selection of electronic communications services, both fixed and mobile, throughout their region.

The dual development of liberalisation and decentralisation increased the role that local authorities play in electronic communications network deployments – the core objectives being to achieve complete regional coverage and increase competition in the marketplace. Authorised to act as carriers[1] since 2004, local authorities have deployed optical fibre backhaul networks and made passive infrastructure (ducts, towers) available to carriers, which in turn has helped stimulate private investment.

Local authorities in France are now also involved in deploying fibre-to-the-home (FTTH) networks, as a natural extension of their digital regional development mandate. This marks a real change in their responsibilities: whereas with broadband, local authorities' role was to make up for inadequacies in coverage on the existing copper network, with the deployment of an optical fibre local loop, they are now actual stakeholders in the deployment of a new network within a competitive situation. This new state of affairs makes the dialogue between local authorities and carriers more crucial than ever, which is why ARCEP has been hosting regular discussions between the two since 2009 within the GRACO[2] working group, which was created for just that purpose. Wide-reaching discussions have been held with local authorities on the tariffs for accessing France Telecom civil engineering, and on the terms and methods for implementing a scheme for sharing the last drop of FTTH networks.

The Authority also continues to devote efforts to enabling increased bandwidth on existing networks through unbundled access to the France Telecom local sub-loop. On 24 January 2011, ARCEP published a draft analysis of the market for broadband and ultra-fast broadband infrastructure (market 4), along with a draft recommendation on a scheme for increasing bandwidth. This scheme will be adopted in spring 2011, after having obtained the opinions of the French Competition Authority and the European Commission.

The year 2010 was therefore a time of intense discussion between local authorities, telecom carriers and ARCEP, all striving to establish a regulatory framework for fibre-to-the-home rollouts outside of very high-density areas, a scheme for

1 - Article L. 1425-1 of the Local and regional collectivity code, CGCT (Code général des collectivités territoriales)

2 - GRACO (Groupe d'échanges entre l'ARCEP, les collectivités territoriales et les opérateurs), i.e. Forum for discussion between ARCEP, local authorities and carriers.

accessing the sub-local loop to increase bandwidth on the existing copper network, and on setting the price for accessing the France Telecom local loop underground civil engineering infrastructure.

2010 also gave local authorities an opportunity to prove the central role they could play in achieving regional coverage, in terms of both planning and investment.

There is a general consensus that the market alone is unable to finance the deployment of new generation access networks across the country. As a result, the "Pintat Act" created the Digital Regional Development Fund, or FANT[3] (*fonds d'aménagement numérique des territoires*) to help the stakeholders, and particularly local authorities, to undertake ultra-fast broadband rollouts in those parts of the country where the economics of the projects make it impossible for the market to finance them singlehandedly.

Meanwhile, the Government announced a national "ultra-fast broadband" programme as part of its upcoming investments, with plans to spend €2 billion on network rollouts, broken down into three stages. The second stage, for which €750 million have been earmarked, will bring to 33% the percentage of public monies invested in FTTH rollout projects backed by local authorities.

Moreover, the French Parliament and Government have recognised the central role that local authorities play by awarding them new powers. Strategies for achieving consistency in regional digital development schemes makes it possible to coordinate regional initiatives before local authorities draft a regional digital development master plan[4]. This means that local authorities' actions must be registered in a preliminary roadmap whose purpose is to ensure proper coordination between the regions and the marketplace. To this end, the legislature made the drafting of a master plan one of the prerequisites for obtaining aid from the FANT programme.

2. Status of fixed networks in France

2.1. Broadband coverage measurements

According to France Telecom, close to 434,000 lines were still ineligible to deliver broadband services over DSL at the start of 2010. This is due chiefly to the fact that these lines are too long and to the resulting signal loss (310,000 lines), and to the presence of multiplexing equipment (124,000 lines).

- The inability of a substantial number of lines to deliver broadband access via DSL is due to the fact that the households in question are too far from the exchange or neighbourhood cabinet where the ADSL signal originates. These equipment rooms located in the subscriber connection point house active equipment (DSLAM) which makes it possible to distribute the DSL signals. DSL technology is nevertheless subject to the technical constraint of signal loss which depends on the length of copper line and the diameter of the wires that make up that line. This loss is measured in decibels (dB). For instance, on a copper pair with a diameter of 0.4 millimetres, there is a loss of close to 15 dB per km. Beyond 78 dB, which is the current eligibility threshold defined by the local loop expert committee[5], the DSL signal coming from the DSLAM becomes too weak to ensure a high enough quality connection.

- Ineligibility due to multiplexing equipment is caused by the implementation of this technical solution which consists of having several subscribers' telephone signals carried over a single copper pair thanks to the use of multiplexing.

ADSL employs a multiplexing technique that makes it possible to have both classic telephone signals and data signals transit over the same copper pair. It is impossible for these two multiplexing methods to cohabitate on the same copper pair, and will

3 - Article 24 of Law No. 2009-1572 of 17 December 2009 on bridging the digital divide, known as the "Pintat Act", published in the JO of 18 December 2009..

4 - As provided for in Article L. 1425-2 of the Local and regional collectivity code (CGCT) created by Law No. 2009-1572 of 17 December 2009 on bridging the digital divide, known as the "Pintat Act", published in the JO of 18 December 2009.

5 - See page 35.

automatically result in the multiplexed lines being ineligible to supply DSL services.

There are several technical solutions available for helping to eradicate dead zones (i.e. areas bereft of coverage), and combining different technologies can in many instances allow local authorities to optimise digital coverage in their region. To gain a better understanding of their actions, in spring and summer 2010, ARCEP queried the main local authorities involved in deploying public-initiative networks that included a broadband dead-zone eradication component (regions, *départements* and major cities). The goal was to obtain a clear picture of the dead zones that had already been covered by local authorities as of 1 September 2010 and, over time, to be able to continue to have an up-to-date view of local authorities' coverage of those areas that were previously without broadband access. Public-initiative networks that have a broadband dead-zone coverage component are implementing that component gradually, and these deployments need to be tracked over time. This is an ongoing exercise, and updates could be performed on a yearly basis.

The questionnaire that ARCEP sent out to local authorities endeavoured not only to measure broadband coverage in the field, but also to take stock of the different technologies being used to provide coverage in the areas in question. The results of the questionnaire revealed that, on the whole, there are two types of solution being employed:
- wireline solutions;
- and wireless solutions (WiMAX, Wi-Fi, satellite).

a) Wireline solutions

Wireline solutions consist of performing work on the France Telecom local loop to eliminate the causes of ineligibility. This could involve removing or neutralising multiplexing equipment (an operation that only France Telecom can perform) or a reconfiguration of the incumbent carrier's local loop network – a solution referred to as NRA-ZO (*Noeud de raccordement d'abonnés Zone d'Ombre*) or dead-zone subscriber connection point plan. This solution consists of creating a dedicated broadband connection point near the existing neighbourhood cabinet, to be able to house active equipment (DSLAM) that will supply DSL services over the copper pairs which will be much shorter than the ones they are replacing. The switched telephone service remains unchanged, and continues to be distributed from the connection point to which the neighbourhood cabinet is connected.

Public-initiative networks often employ wireline solutions supplied by France Telecom NRA-ZO wholesale offers, which can also be marketed by alternative carriers.

It emerged from the ARCEP questionnaire that around 40,000 lines have been made eligible for ADSL thanks to NRA-ZO solutions.

b) Wireless solutions

When wireline solutions are either technically or economically impossible, or appear not to be the best options, wireless solutions can be used to complete regional broadband coverage.

WiMAX and Wi-Fi are two solutions that are regularly used in public-initiative networks. These technologies make it possible to supply access speeds of 2 Mbits and up, and so providing an alternative to wireline solutions.

The responses to the ARCEP questionnaire revealed that close to 100,000 lines are connected or capable of delivering broadband access via WiMAX or Wi-Fi.

In addition to WiMAX and Wi-Fi, satellite too can offer an alternative solution, although restrictions such as caps on data traffic and problems tied to IP telephony make it a less appealing option. There are around 25,000 lines today with a broadband internet connection delivered via satellite, as part of public-initiative networks. Some public-initiative networks include financing for satellite solutions in their blueprint, and provisions for subsidising either the installation or connection kits, for instance.

c) Overall results

The different solutions listed above allow local authorities to contribute to the eradication of dead zones and reducing the digital divide.

The development of backhaul networks thanks to public-initiative networks not only helps to increase broadband coverage but also competition in the marketplace, and the choices available to consumers.

As a result, taking into consideration the projects that are currently underway or recently concluded, the estimate of 434,000 lines not eligible for DSL[6] can be brought to down to around 394,000 at the end of 2010. In all, 140,000 previously ineligible customers have been supplied with broadband coverage through terrestrial solutions (of which 100,000 thanks to wireless solutions) and 25,000 through satellite solutions.

2.2. Eradicating dead zones on multiplexed lines

As mentioned earlier, multiplexed lines cannot be used to supply broadband access. A distinction is made between large multiplexers that are installed in the "backhaul" portion of the local loop, i.e. between the subscriber connection point and the neighbourhood cabinet and generally located close to the cabinet, and small multiplexers (PCM-2 with two lines or PCM-11 with more than 11 lines) installed in the "distribution" portion of the local loop, between the neighbourhood cabinet and the subscriber. In June 2010, there were around 90,000 lines ineligible for broadband due to the presence of large multiplexers, and 34,000 that were ineligible due to small multiplexers [7].

In the report submitted to Parliament in September 2010 on increasing bandwidth on the existing local loop, ARCEP examined several possible solutions for making this lines eligible to supply broadband access.

a) Solutions for small multiplexers

France Telecom estimates that there are still 34,000 lines connected to small multiplexers that are unable to supply broadband. To make them eligible for DSL, the multiplexers need to be removed and copper cable installed, which is a costly process. The incumbent carrier has stated that, at this point, it is proceeding on a case-by-case basis after having examined the situation, and when technical-economic conditions allow.

Removing the multiplexer will not, however, make the 12,000 lines served by small multiplexers which are too long eligible for DSL. It should nonetheless be remembered that some of these lines are located in areas that are covered by alternative technologies such as Wi-Fi or WiMAX, notably thanks to local authority deployments. If no terrestrial solution is available, there is still the possibility of employing a satellite solution, particularly under the Government's "broadband for all" (*haut débit pour tous*) scheme.

b) Solutions for large multiplexers

The situation with large multiplexers is different as there can be no case-by-case examination for making a line eligible for DSL. Of the 90,000 customers on large multiplexers who are still ineligible, only half will be able to access the internet via DSL thanks to the removal of the multiplexers, while the other half is still too far from the subscriber connection point (signal loss of over 78 dB). Removing the multiplexing equipment would be a costly undertaking as it would require copper cable to be deployed.

The most relevant solution for enabling a DSL connection would therefore consist of creating an NRA-xy[8] installation near the neighbourhood cabinet or DSLAM. There would in fact be several positive outcomes to installing an NRA-xy:

6 - *France Telecom estimates for 2010. .*

7 - *On the matter of small multiplexers, there are around 126,000 lines that France Telecom considers as being "under examination" following a request for broadband access. 73% of the requests for an ADSL connection are satisfied annually. The connection can indeed be installed after France Telecom has launched an eligibility examination process (of the 30,000 requests received annually, only 8,000 are unmet). France Telecom estimates that fewer than 35,000 lines affected by this equipment remain ineligible.*

8 - *The term NRA-xy is used here to refer to the different methods being employed or investigated by France Telecom for reconfiguring the local sub-loop: "NRA HD" or broadband-enabled exchange, "NRA-ZO" or broadband dead zone exchange and, whenever possible, a solution for increasing bandwidth.*

- it would remove the multiplexer on the DSL signal on all of the lines in the backhaul segment;
- it would make all of the lines in that cabinet that were initially too long (whether multiplexed or not) eligible for broadband access;
- it would enable a significant increase in bandwidth for all of the lines in the cabinet (98% of the lines would be eligible for a triple play bundle and 87% for access at 10 Mbit/s);
- it would bring a complementary telephone service (multiservice offering) to the classic POTS whose quality can be adversely affected by the presence of large multiplexers.

ARCEP asked France Telecom to take a series of measures to eradicate the dead zones that are due to multiplexing equipment, which the incumbent carrier accepted.

- For those lines served by small multiplexers, ARCEP invited France Telecom to continue its current system of processing DSL access requests case by case – which in 2010, had a success rate of 73% – and to assess the cost of bringing this success rate to 80%.

- On the matter of neutralising large multiplexers by installing an NRA-xy solution, which France Telecom estimates will cost around €65 million, ARCEP has asked the carrier to launch a programme to render the lines served by large multiplexers eligible for broadband access by the end of 2013.

The Authority considers that a substantial portion of the cost of eliminating the multiplexers would legitimately be covered by the expenses tied to operating the copper local loop, since they are part of the cost of maintaining and upgrading this network.

France Telecom accepted these requests and submitted a plan for neutralising large multiplexers in October 2010.

2.3. Increasing bandwidth on the copper local loop

At the request of several local authorities, in late 2008 ARCEP began to work on defining a regulatory framework for enabling increased bandwidth by providing access to the local sub-loop of the France Telecom copper network. By bringing the point of supply of the DSL signal closer to subscribers, the solution will render a number of lines eligible for broadband access and will improve the connection speeds that are already available on other lines. This is why ARCEP devoted itself to defining a framework that would allow all carriers to access the local sub-loop under identical conditions, as part of an overhaul of the local loop initiated by a local authority and carried out by France Telecom. After a first public consultation in late 2009, ARCEP published guidelines in February 2010 that helped to pinpoint potential competition issues, and to define a work programme to alleviate them.

a) Creation of a working group

After having published its guidelines[9], ARCEP formed a dedicated working group whose members include France Telecom, LLU operators (SFR, Free, Bouygues Telecom), operators working under public contracts (Axione, Covage) and associations representing local authorities – the Association of cities and local authorities for electronic communications and audiovisual media (AVICCA), the Association of the regions of France (ARF), the Association of French *départements* (ADF), the French Mayors Association (AMF) – to draft a common frame of reference and to define a scheme for the operational implementation of increasing bandwidth through sub-loop access. Most of the projects for increasing bandwidth are indeed expected to be instigated by local authorities.

9 - *"Increasing bandwidth: ARCEP guidelines on increasing bitrates via local sub-loop access, and its relation to fibre-to-the-home (FTTH) network rollouts" published in February 2010.*

The group's multilateral efforts helped to streamline analysis of the potential schemes for achieving an increase in bandwidth thanks to sub-loop access solutions. They made it possible to identify two main methods to be implemented to increase connection speeds thanks to sub-loop access. These methods are referred to as "bi-injection", or dual-signal supply, and "mono injection, or single-signal supply.

- The method referred to as "bi-injection" involves sending DSL signals equally to both the local loop (as is currently the case) and the sub-loop. This supposes that the DSL signals sent from the neighbourhood cabinet will be technically alternated and attenuated so as not to disturb the remaining DSL signals being sent from the subscriber connection point. This results in technically limiting the maximum bandwidth available from the sub-loop, as opposed to a DSL technology that is used without restriction. Thanks to "bi-injection", carriers can therefore continue to activate their connections at the original LLU exchange for the customers in question, but without the benefit of increased bandwidth.

- The method referred to as "mono-injection" consists of sending DSL signals to the sub-loop for all of the lines in the neighbourhood cabinet in question, with no particular technical restrictions. In this instance, activating the DSL connection for all of the subscribers downstream from the cabinet is no longer performed at the original exchange, but entirely at the neighbourhood cabinet level. This means that carriers are required to move down to the neighbourhood cabinet if they want to continue to activate the connections they supply via unbundling. It should be noted that technical solutions for reconfiguring the local loop, along with shared fibre extensions, which were listed in the public consultation in 2009, both involve "mono injection".

These two "injection" systems are comparable in terms of the civil engineering and infrastructure that needs to be built, and with respect to the necessary administrative permits required. The infrastructure used can be broken down into two parts:

- installing and outfitting points of presence (PoP) capable of hosting carriers' equipment near the neighbourhood cabinets, and supplying customers with broadband signals from this point in the France Telecom local copper sub-loop;
- the deployment of optical fibre upstream from this PoP to the original France Telecom exchange which has already been connected to an optical fibre collection network.

Once this multilateral work had been completed, it emerged that only the "mono injection" solution was capable of satisfying the demands and the legal constraints of the local authorities that will be required to finance the sub-loop access operations. This solution enables more significant improvements to connection speeds overall[10]. It is also the only solution where the local authority's investment of public monies benefits all of the operators, which is a crucial point with respect to EU regulation concerning State aid.

ARCEP therefore focused its efforts on the operational implementation of "mono injection" solutions, in particular by examining the means of preventing the competition issues that it was likely to entail.

Lastly, to assist the stakeholders involved in projects devoted to increasing bandwidth, ARCEP submitted a draft recommendation that summarises all of the key elements involved in implementing this type of project[11] – and aimed especially at local authorities – to a public consultation that ran from 24 January to 7 March 2011.

b) Regulatory framework for implementing increased bandwidth through access to the France Telecom local copper sub-loop

If no particular provisions are in place, implementing schemes for increasing bandwidth, whether "bi-injection" or "mono injection" solutions, can lead

10 - In the case of "bi-injection", the fact of having one DSL signal coming the local loop and a second one from the sub-loop in many instances results in a lesser increase in bandwidth, as a traffic shaping solution is also implemented to avoid interference between the different signals. Such is not the case with "mono-injection" wherein the DSL signals are all supplied at the same level.

11 - "Increasing bandwidth through access to the France Telecom local copper sub-loop - Presentation, guide and draft recommendations" published 24 January 2011.le 24 janvier 2011.

to significant distortions of competition that are likely to hamper carriers' future investments and decrease the market's competition dynamic, which would be detrimental for consumers.

In the process of reviewing its analysis of market 4[12] ARCEP therefore sought to bring changes to the obligations imposed on France Telecom with respect to local loop unbundling, to enable modalities for implementing increased bandwidth that guarantee LLU operators' relocation, and so maintain the same level competitiveness in the marketplace. The fact of implementing a "mono injection" scheme for increasing access speeds has a direct impact on unbundled lines in the vicinity of the neighbourhood cabinet involved, to the extent that each LLU operator needs to switch their connections, either by moving their installations and delivering unbundled access from the new point of supply at the sub-loop level, or by contracting a bitstream solution.

Given the potential threats to competition that a "mono injection" solution represents, in its draft market analysis decision[13] ARCEP therefore proposes to set the terms for reconfiguring the local loop, in accordance with the obligations imposed on France Telecom with respect to unbundling, to guarantee that LLU operators will relocate to the new sub-loop supply points.

c)) France Telecom's obligations with respect to other operators

ARCEP plans on imposing obligations on France Telecom when it undertakes a reconfiguration of the local loop with a view to implementing a "mono injection" scheme for increasing bandwidth.

First, France Telecom will be required to offer LLU operators collocation and optical fibre backhaul solutions for their active equipment installed in the new supply points in the sub-loop, and at prices that provide enough of an incentive to allow alternative carriers to deliver unbundled access from the new location.

Second, France Telecom will need to compensate for the negative impact that this reconfiguration of the original exchange has on LLU operators, particularly with respect to compensating the partial loss of sunk costs.

In light of the obligations being planned as part of the reconfiguration of the local loop, France Telecom needs to be in a position to offer alternative carriers collocation and optical fibre backhaul solutions when it grants a request for access to the local sub-loop, through "mono injection", particularly when part of a project for increasing bandwidth instigated by a local authority.

d) Wholesale offers for implementing bandwidth increase projects

In accordance with its obligations resulting from the analysis of market 4[12], France Telecom was required to propose two wholesale solutions for local authorities and their partner operators, with a view to implementing "mono injection" bandwidth increase projects:

- an offer of prior information on the local copper sub-loop that allows the operators and local authorities to obtain detailed information on the structure of the France Telecom copper local loop to plan their projects and ensure their consistency;
- a shared access point solution – referred to as PRM (*Point de Raccordement Mutualisé*) – for implementing access to the copper sub-loop which is aimed at carriers, and especially those who are partnered with local authorities, enabling the new shared delivery point at the sub-loop level to be fully outfitted, the migration of all the broadband connections from the original exchange, along with financial measures for offsetting the economic impact of the reconfiguration process on the operators involved.

All of the services included in the shared access point solution are crucial to ensuring that France Telecom can meet its obligations with respect to LLU operators, particularly in terms of the quality and sustainability of the service.

12 - Market 4 corresponds to the market for wholesale access to local loop infrastructure.

13 - Draft decision on the analysis of market 4, submitted to the Competition Authority for commentary on 24 January 2011, and notified to the European Commission on 27 April 2011.

This shared access point offer for implementing a "mono-injection" solution can only be supplied when market analysis considers the demand for access to the France Telecom copper sub-loop to be reasonable, in terms of the obligations imposed on the incumbent carrier – notably with respect to the other operators.

3. Status of mobile networks

Significant progress was made in mobile broadband coverage in 2010, both 2G and 3G.

3.1. 2G coverage

In August 2009, ARCEP published a detailed report[14] on the status of second generation (2G) mobile coverage in mainland France and the overseas départements, as of 1 January 2009. 2G coverage has made further progress since then.

a) 99.9% of population covered for 2G as 1 January 2011

98.2% of the population of mainland France is covered by all three mobile operators. These "black areas" represent 86.6% of the country's surface area. More specifically Orange France covers 99.7% of the population, SFR 99.2% and Bouygues Telecom 98.6% [15].

The remaining areas are referred to as either "grey areas" or "dead zones": "grey areas" are covered by only one or two of the country's three operators. They represent 1.7% of the population and 11.83% of the country's surface area.

Last are "dead zones" which are not covered by any mobile operator. These areas now represent only 0.10% of the population and 1.57% of the surface area of France.

b) Dedicated programmes for expanding 2G coverage continued in 2010

Operators continued to invest in covering the entire country with GSM, especially as part of the "dead zone" programme whose goal is to achieve complete mobile coverage nationwide.

Over the course of 2010 more than 70 town centres were covered thanks to the programme, bringing the total to 2,957. There are still 353 town centres left to cover before the programme's scheduled completion at the end of 2011.

Progress is also being made in providing 2G coverage on major transportation arteries , which is helping to reduce the number of dead zones. At the start of 2010, ARCEP was able to ascertain that Orange France and SFR had covered around 95% of these roadways. These carriers have also implemented action plans for covering all major transportation arteries, whose progress the Authority is actively monitoring.

c) Publication of coverage data

Operators are required to publish maps of their mobile coverage, and to update them at least once a year.

They must also ensure the consistency of the maps with the reality in the field, based on a set technical

14 - Available on the ARCEP website: http://www.arcep.fr/uploads/tx_gspublication/rapport-complet-bilan-couv2G-aout09.pdf

15 - The stated notion of coverage reiterates the terms and conditions of the carriers' licences: an area is considered to be covered if a phone call can be made outdoors, in a static situation and using a classic handset, for one minute, with a success rate of at least 95%. Two coverage indicators are listed:
- the rate of national coverage measures the percentage of the surface area of those locations identified as being covered on each carrier's coverage map;
- the rate of coverage of the population measures the percentage of the population identified as being covered on each carrier's coverage map. This rate is calculated based on an estimated distribution of the population across the country. Although relatively accurate, this method is still only approximate since it relies heavily on the age, nature and accuracy of the databases employed.

16 - Roads and motorways where traffic exceeds an average 5,000 vehicles a day, and on the roadways in each département that connect the prefecture (i.e. the département's administrative capital) to the sub-prefectures (secondary administrative centres). This represents 58,000 km of roadway, as defined by the national agreement for providing mobile telephone coverage on the country's major transportation arteries, of 27 February 2007.

protocol. ARCEP uses this protocol when performing its annual field surveys to verify the accuracy of the published maps. To meet their obligations, Orange France, SFR and Bouygues Telecom performed surveys in 249 districts/municipalities in 2010.

The results of these surveys, which were submitted to ARCEP in January 2011, revealed that the maps are over 98% accurate when compared to measurements taken in the field. Despite being good on the whole, the accuracy of these maps still needs to be improved in certain districts.

ARCEP therefore reminded operators of the need to correct the published maps, and requested that new surveys be performed in these areas as part of the procedures scheduled for 2011[17].

3.2. 3G coverage

In December 2009, ARCEP published a detailed report on the status of third generation (3G) mobile coverage in France. Significant progress has been made in further increasing coverage since then.

a) ARCEP issues Orange France and SFR with a notice to comply with their rollout obligations.

In late 2009, the Director General of ARCEP issued Orange France[19] and SFR[20] with a notice to comply with their 3G coverage obligations, i.e. 98% and 99.3% of the population, respectively, as of 21 August 2009.

Orange France was ordered to achieve 3G coverage of 91% of the population before the end of 2010 and 98% before the end of 2011.

SFR, meanwhile, was ordered to reach a level of 84% coverage of the population by 30 June 2010, 88% before the end of 2010, 98% before the end of 2011 and 99.3% by the end of 2013.

Carriers' 3G network coverage obligations
(% of the population covered)

Deadline	30/06/10	12/12/10	31/12/10	31/12/11	12/01/12	31/12/13	12/01/15	12/01/18
Orange France[1]			91%	98%				
SFR[1]	84%		88%	98%		99,3%		
Bouygues Telecom[2]		75%						
Free Mobile[2]					27%		75%	90%

1. Dans le cadre de leurs mises en demeures.
2. Dans le cadre de leur autorisation.

Source: ARCEP.

b) ARCEP verified SFR compliance with its coverage obligations as of 30 June 2010

In summer 2010, ARCEP performed surveys in the field to verify whether SFR had met the first 3G coverage obligation listed in the notice to comply. ARCEP thereby ascertained that the map submitted by SFR by and large matched the level of coverage required under the terms of its licence.

The calculations of the percentage of the population covered revealed a rate of 3G coverage of 84% of the population as of 30 June 2010.

On 20 September 2010, the Director General of ARCEP therefore considered that there was no cause to pursue the demand of performance procedures with the carrier concerning its first rollout deadline.

17 - Decision No. 2011-0270 of 8 march 2011.
18 - Available on the ARCEP website: http://www.arcep.fr/uploads/tx_gspublication/synthese-rapport-atlas-couv3g-dec09.pdf
19 - http://www.arcep.fr/uploads/tx_gsavis/09-1065.pdf
20 - http://www.arcep.fr/uploads/tx_gsavis/09-1064.pdf

c) ARCEP verified the three carriers' rollout obligations in late December 2010

In late 2010, ARCEP verified that all three mobile operators had met their rollout obligations:

- 12 December 2010 for Bouygues Telecom which, under the terms of the licence it was awarded in 2002, was to have achieved 75% coverage of the population;
- 31 December 2010 for Orange France and SFR which, under the terms of their notice to comply dated 30 November 2009, were to have achieved 91% and 88% coverage of the population, respectively.

The results of these verifications were obtained in April 2011, and revealed that all three carriers had exceeded the 3G mobile telephony deployment levels they were required to achieve by the end of 2010.

Excerpt of the editorial by Jean-Ludovic Silicani in the ARCEP weekly newsletter of 1 April 2011

"The recent work performed in the field and in verifying the accuracy of the carriers' coverage maps allowed us to take stock of the progress that has been made: Orange France and SFR have reached 3G coverage levels that match the levels listed in the deadlines set by the Authority, i.e. 91% and 88% of the population, respectively, as of 31 December 2010. Meanwhile, the coverage achieved by Bouygues Telecom meets the obligation stipulated in the licence it was issued in 2002 to cover at least 75% of the population. Without prejudice to the results of the new survey to be performed early next year, we should be both cautious and optimistic about the way 3G coverage is progressing: cautious because each of the operators still have some way to go, and optimistic because 2G and 3G coverage levels are gradually levelling out across the country, which is helping to reduce a regional divide that was keenly felt, as high-speed mobile access becomes ubiquitous."

d) 3G coverage comparable to existing 2G coverage by 2013

The target coverage obligations for Bouygues Telecom, Orange France and SFR require them to provide 3G coverage to 75%, 98% and 99.3% of the population of Metropolitan France, respectively.

Orange France and Bouygues Telecom have nonetheless indicated to ARCEP their desire to pursue their 3G mobile network deployments beyond their set rollout obligation levels.

As a result, 98% of the population will be covered for 3G access by the end of 2011 and, by the end of 2013, this coverage will be comparable to existing 2G coverage levels.

e) Implementation of network sharing agreements

Achieving these coverage levels is being facilitated by the fact that operators have the option of implementing 3G network sharing schemes[21].

On 11 February 2010, Orange France, SFR and Bouygues Telecom signed an agreement to share their mobile network infrastructure in a bid to help expand 3G coverage in Metropolitan France. On 23 July 2010, this scheme was expanded to include Free Mobile which had been awarded the fourth 3G licence on 12 January 2010.

The agreement, which concerns the three carriers' deployment of a shared 3G radio access network (RAN sharing), plans on upgrading the 2G sites that

21 - Decision No. 2009-0328 of 9 April 2009.

are listed in the national "dead zone" programme (i.e. for bringing mobile access to uncovered areas) to 3G, and on deploying an additional 300 sites outside the areas covered by this programme.

Free Mobile will join the shared network on a different timetable than the three other carriers. Under the terms of its licence, Free Mobile must be covering 27% of the population by 12 January 2012, then 75% in January 2015 and 90% in January 2018.

And, finally, on 3 March 2011, Free Mobile and Orange France signed a 2G roaming agreement that was expanded to 3G[22]. This means that Free Mobile will be able to provide 3G access throughout the areas that are covered by the Orange France network once it has achieved the coverage level of 25% of the population stipulated in its licence.

This agreement will help stimulate competition in the French mobile market which still has significant growth potential.

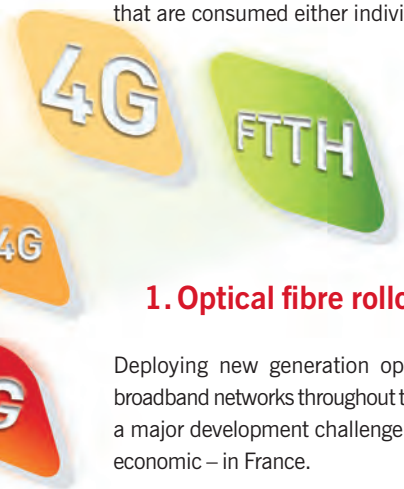
The new offers should indeed be beneficial to consumers, while also maintaining the carriers' ability to continue to develop, invest and innovate.

22 - *See page 91.*


FTTH
3G
4G
3G
FTTH
3G
FTTH
3G
3G
FTTH
3G
4G
FTTH
3G
FTTH
3G
3G
FTTH
3G
FTTH
FTTH
FTTH
4G

The transition to fixed and mobile ultra-fast broadband

The electronic communications sector is thriving, and the digital economy as a whole today represents 6% to 7% of GDP in France – a percentage that some analysts predict could climb to 20% by 2020-2025. The surge in internet traffic, the development of audiovisual content and the emergence of new services that are consumed either individually or collectively will drive a demand for ultra-fast broadband solutions on both fixed and mobile networks in the coming years.



1. Optical fibre rollouts

Deploying new generation optical fibre ultra-fast broadband networks throughout the country represents a major development challenge – at once social and economic – in France.

Infrastructure-based competition is a central tenet of wholesale market regulation which favours operators' rise up the ladder of investment. It in fact enables the development of ultra-fast broadband by combining a decrease in the prices charged to consumers, investment and innovation.

In some parts of the country it is possible to have facilities-based competition up to the customer premises, in other words in those areas where it is economically viable for several operators to deploy their own optical fibre network to, or close to, customer premises – referred to as very high-density areas. But, outside of the largest cities where the population density is at its highest, it is much more difficult, if not impossible, economically speaking, for all operators to perform fibre-to-the-home rollouts.

The per-subscriber cost of deploying new generation access (NGA) networks depends a great deal on the population density and the housing structure. As a result, the consensus is that below a certain density it becomes very unlikely that several operators could deploy parallel networks to the customer premises which would be profitable, even over the long term. To encourage deployments outside of very high-density areas, it therefore appears necessary for the players to share a much larger portion of the optical fibre network.

Over the course of 2010, working in tandem with the operators and local authorities, ARCEP finalised the regulatory framework for optical fibre nationwide, to be able to promote innovation and efficient investment, and to ensure a consistency in the rollouts and a homogeneity in the areas covered. To this end, the Authority specified the terms governing access to optical fibre lines in very high-density areas, and later

those that applied to the rest of the country, outside of very high-density areas[1].

This symmetrical regulatory framework is in keeping with the Law, which is itself in keeping with Community legislation which allows for the introduction of this type of regulation to govern the deployment of new generation electronic communications networks.

1.1. Fibre-to-the-home rollouts in very high-density areas

The Law on modernising the economy of 4 August 2008[2] sets the legal framework for regulating the last mile of fibre networks. It instils the principle of having operators share the last drop of the networks, thereby reducing the amount of work that needs to be done on the private property, while ensuring that property owners and tenants can choose their operator freely. It defines regulations aimed at facilitating fibre deployments on private property and pre-equipping new buildings. And, finally, it gives ARCEP the responsibility of implementing the network sharing scheme, and allows the Authority to define those instances when the concentration point – i.e. the point where third-party operators can access the indoor network deployed by the operator hired to do so by the property owner(s) – can be located on private property.

Since the adoption of the Law on modernising the economy, greater detail has been steadily brought to the regulatory framework to furnish operators with the financial and legal clarity they need to invest.

After having consulted with the Competition Authority and the European Commission, ARCEP adopted a decision and a recommendation on 22 December 2009[3]. The decision, which pertains primarily to very high-density areas in France, came into force after its publication in the *Journal officiel* (Official gazette) of 17 January 2010. It defines very high-density areas as being heavily populated areas where it is economically viable for several operators to deploy their own optical networks to, or close to, the customer premises.

The Decision contains the following stipulations for the country's very high-density areas:

- location of the concentration point: it can be situated on private property when the building is connected to a visitable public sewage network, or when the building has more than 12 residential or office units;
- the building operator must grant all reasonable requests for a dedicated fibre which are submitted prior to the fibre installation in the building;
- the building operator must also guarantee access to all operators who request access after the building has been equipped.

As a result, the structural profitability and the regulatory framework, based on a principle of technological neutrality, allow all operators in very high-density areas to have a dedicated network end-to-end, using the architecture of their choice, i.e. point-to-point or point-to-multipoint. This is a model that guarantees a state of sustainable competition between the operators.

What is the difference between FTTH and FTTLA? ?

FTTH (fibre-to-the-home) technology, which is being deployed primarily by carriers France Telecom, SFR and Free, consists of deploying optical fibre up to the customer premises, while FTTLA (fibre to the last amplifier) technology, which is being deployed by cable company, Numéricable, consists of replacing a portion of the coaxial cable located on public property with optical fibre, up to the last mile or metres of the network which remain in coaxial cable.

1 - Decisions No. 2009-1106 of 22 December 2009 and No. 2010-1312 of 14 December 2010.
2 - Law No. 2008-776 of 4 August 2008 on modernising the economy, published in the JO of 5 August 2008.
3 - ARCEP Decision No. 2009-1106 of 22 December 2009

a) Definition of fibre-sharing offers (FTTH)

The Decision also imposes obligations on operators that apply nationwide:

- provide an offer of passive access to the concentration point, a guarantor of competition and innovation;
- all building operators must publish an access offer, specifying the terms governing installation, and access to the optical fibre lines and associated resources;
- the building operator must provide prior information on its planned indoor fibre deployments and concentration points;
- the pricing applied to this access must be reasonable, non-discriminatory, relevant and efficient.

b) Calls for co-investment in spring 2010 (FTTH

Following the publication of Decision No. 2009-1106 of 17 January 2010 in the Journal officiel, building operators had a period of one month to publish a wholesale infrastructure-sharing offer. Most operators did publish such an offer, the only exception being Bouygues Telecom which, although not discounting the possibility of taking part in co-financing schemes in certain municipalities, has no plans as yet to become a building operator. The scope of the offers includes connection to and investment in existing and future FTTH networks.

All of the operators then issued a call for co-investment in spring 2010, with a view to performing joint rollouts in very high-density areas. The operators' prior consultations took the form of a registration form sent out to the other carriers that included a list of the targeted municipalities/districts, the corresponding investment ceiling and questions that gave the other operators a chance to list their specific needs and requests (e.g. dedicated fibre, switch room, etc.).

The investment cycle has therefore begun and concerns 84 of the 148 municipalities identified as being in very high-density areas. This should result in close to 800,000 additional households being passed for optical fibre access.

Furthermore, in the Decision dated 17 November 2010 that was issued as part of a dispute settlement between Bouygues Telecom and France Telecom, ARCEP allowed Bouygues Telecom's request to have permanent access to an FTTH access solution that allows the alternative carrier to enjoy lasting rights of use on the deployed infrastructure, and to be able to amortise the resulting investments. The Authority also considered that it was fair for the commercial operator who recruits the customer to assume at least 90% of the relevant cost of installing the branching unit on the floor.

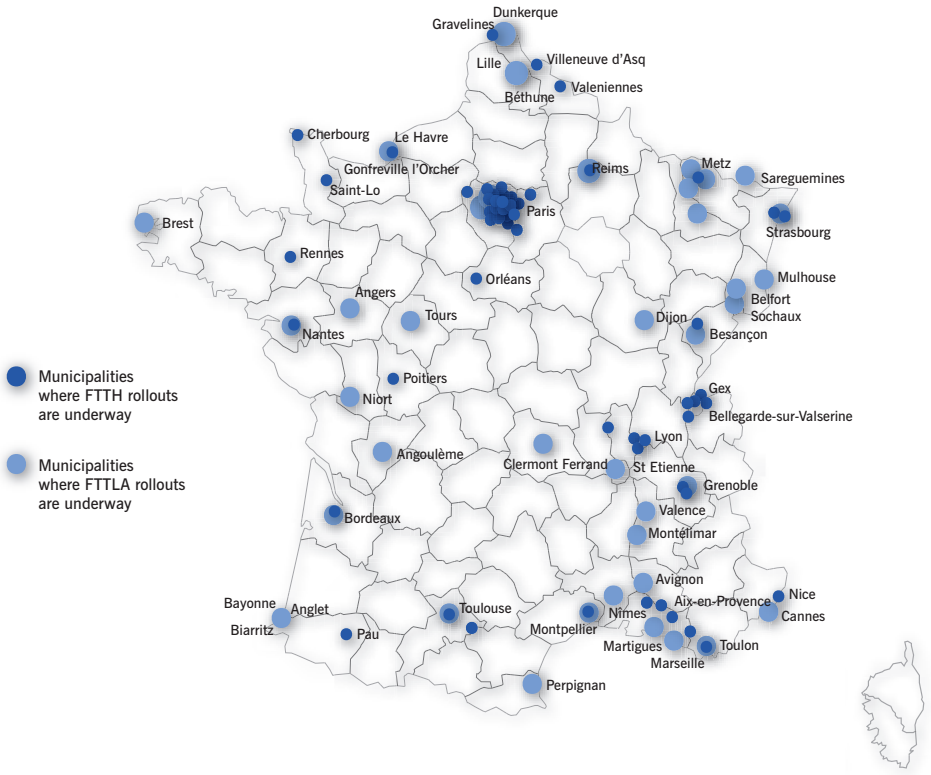
This decision will help to lower the barriers to entry in the France Telecom infrastructure-sharing offer, while maintaining incentives to invest and infrastructure-based competition in very high-density areas.

France Telecom has appealed this decision to the Paris Court of Appeal, which is due to hand down its ruling before the end of the year.

c) Rollout status as of 31 December 2010 (FTTH and FTTLA)

The following map depicts the status of optical fibre rollouts underway in France as of 31 December 2010, for the two technologies:

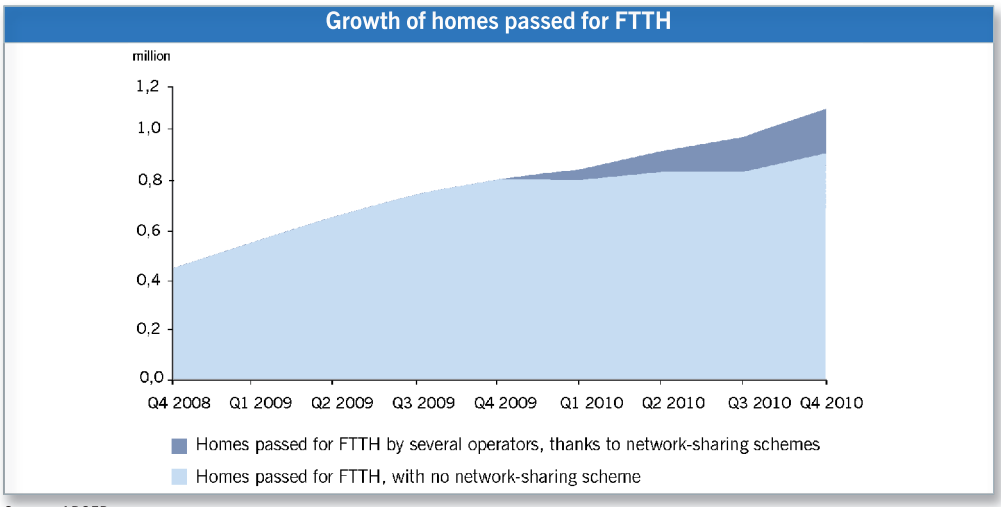
Etat des déploiements de la fibre optique



Summary of FTTx customer growth and deployment progress in 2010

Indicators	31 december 2009	31 march 2010	30 june 2010	30 september 2010	31 december 2010	Annual growth
Ultra-fast broadband subscribers	288,000	337,000	364,000	421,000	464,000	+ 61.1 %
Of which FTTH subscribers	69,000	81,000	89,000	103,000	118,000	+ 70.7 %
Buildings passed for FttH	29,300	33,800	38,700	44,000	46,500	+ 58.7 %
Homes passed for FttH	800,000	840,000	910,000	967,000	1,075,000	+ 34.4 %
Homes passed thanks to network-sharing	10,000	40,000	83,000	130,000	175,000	+ 1650 %
Subscriptions based on network-sharing	350	450	850	1,800	3,300	+ 843 %
Km of civil engineering infrastructure leased by France Telecom	560	910	1,320	2,030	2,690	+ 380 %

Source: ARCEP.



Source: ARCEP

d) Connecting "early adopters"

One of the Authority's major preoccupations since the first half of 2010 has been getting buildings that were passed for fibre prior to the adoption of Decision No. 2009-1106[4] covered by network-sharing schemes. It has only been possible to measure the impact that sharing agreements have had since the start of 2011, however.

As of 31 December 2010, 175,000 households were passed for fibre thanks to sharing agreements – i.e. covered by at least two operators – out of the 1,072,000 homes passed for FTTH in France, which marks a close to 35% increase from Q4 of the previous year. This increase is due in large part to an infrastructure-sharing agreement between France Telecom and SFR relating to the buildings that were equipped with fibre prior to Decision No. 2009-1106.

We have seen a growing number of network-sharing schemes in buildings since September 2010, thanks to the improved interoperability of operators' information systems. For progress to continue to be made in these buildings, sizeable and ongoing efforts will nevertheless be required since technical issues need to be resolved on an *ad hoc* basis, especially given the disparities in the network architectures deployed in the buildings.

e) Keeping consumers informed

To help stimulate fixed ultra-fast broadband rollouts across the country, ARCEP engaged in several courses of action devoted to increasing stakeholders' (trustees, shared property owners, fibre industry professionals, etc.) awareness and provide greater transparency on the terms and conditions governing these deployments.

In February 2010, a practical guide to optical fibre deployments inside residential buildings (*Guide pratique pour l'installation de la fibre optique dans les immeubles*) was made available to all of the users of

ultra-fast broad- band FTTH networks[5]. Produced by ARCEP, the purpose of the guide is to facilitate these network rollouts by providing clear and simple answers to the most frequently asked questions about optical fibre and its regulatory framework.

The topics addressed include clarifications on:

- joint property owners' and end users' role in choosing the building operator and in signing a fibre installation agreement;

4 - Decision No. 2009-1106 of 22 December 2009..

5 - Available on the ARCEP website (in French): : http://www.arcep.fr/fileadmin/reprise/dossiers/fibre/guide-fibre-immeubles-2011.pdf

- the technical conditions of indoor installations;
- the terms governing access to the commercial offers marketed by the other operators.

This handbook was updated in December 2010 to take regulatory and technical developments into account, and particularly the conveyance of concentration points to the premises, along with operators' ability to enter the building to connect to the concentration point.
The aim of this update was to make joint property owners aware of the fact that each of the operators would need to enter the premises to install an initial connection when the concentration point is located inside the building.

Let's talk fibre!

On 21 December 2010, ARCEP hosted a live chat on fibre installations inside of buildings to give consumers a chance to have their questions answered. Attracting 616 people in all, the chat provided the opportunity to answer to some 20 questions. A PDF (in French) of all of the answers can be found online at:*http://www.arcep.fr/fileadmin/reprise/chat/script-chat-fibre_21122010.pdf.*

f) Relationship between property owners and operators

In response to the expectations that all of the stakeholders, both private and public sector, expressed concerning the deployment of these networks, a working group formed by ARCEP drafted a sample agreement[6] that includes the clauses to be set between operators and property owners when deploying optical fibre inside a building.

The members of the group include the parties most involved in the issue, namely consumer and user associations, representatives of property and joint property owners and the operators.

This reference document provides a secure framework for FTTH deployments indoors, and can be used directly by all of the players. The sample agreement is meant only to serve as a reference, and has no normative powers: the parties are therefore free to negotiate the specific terms of their contracts, and taking any specific local circumstances into consideration. ARCEP could update this document, after having consulted with all of the stakeholders, particularly to factor in regulatory or technical developments as they arise.

g) Specific features of buildings with fewer than 12 units

Decision No. 2009-1106 sets the general principles but does not impose strict regulation on the operational terms of infrastructure-sharing for buildings with fewer than 12 units, particularly with respect to the location of the concentration point. Initial feedback concerning this type of building also revealed the great disparity in circumstances, which can result in a per-unit cost of connecting the residential units in those buildings that varies by as much as ten times. To guarantee reasonable economic conditions for connecting third-party operators to the concentration point, and so avoid squeezing out any operator that wants to be connected, common rules need to be set for these buildings. The Authority will therefore be adopting a recommendation by summer 2011 on the terms governing network-sharing in buildings with fewer than 12 units, and located in very high-density areas[7].

1.2. FTTH rollouts outside of very high-density areas

Outside of very high-density areas, fibre-to-the-home rollouts are subject to a different set of economic and technical constraints that demand a greater degree of infrastructure-sharing. Because of the low population density in these areas more extensive sharing schemes will, first, make it possible to provide third-party

6 - *Available on the ARCEP website: http://www.arcep.fr/fibre*
7 - *Draft recommendation, public consultation from 7 April to 4 May 2011. Available (in French) on the ARCEP website: http://www.arcep.fr/uploads/tx_gspublication/consult-proj-recom-ftth-ztd-070411.pdf*

operators with access to the concentration point under reasonable economic conditions and, second, to eventually achieve complete and consistent optical fibre coverage nationwide. The Decision dated 14 December 2010[8] concerning FTTH rollouts outside of very high-density areas comes as the result of work that was performed through GRACO in concert with the parties involved in these rollouts, notably local authorities.

a) Setting the minimum size of the concentration point

Since 2005, unbundling has gone a long way to ensuring a high degree of competition in the broadband market in France, which has in turn enabled the development of innovative services that have been beneficial to consumers. The deployment of ultra-fast broadband fibre networks must not result in a less competitive market, anywhere in the country. A greater degree of network sharing thus makes it possible to reduce the per-unit cost of the rollouts, while sustaining the competition dynamic and consumers' freedom to choose their service provider.

A crucial issue here is the number of lines that can potentially be accessed from the concentration point, in other words its size. This shared access point must allow the building operator to optimize its network configuration while also taking into account the disparate local housing features. This optimisation process helps to reduce the rollout costs which will ultimately be shouldered by the consumer. The configuration must also allow competing operators to connect to the concentration point under reasonable economic conditions.

The rollout costs that third-party operators have to shoulder include a shared portion of the network, located downstream from the concentration point, and a portion that is not shared, located upstream from the concentration point. The existence of an offer providing shared distant connection from a location upstream from the concentration point, e.g. through a dark fibre rental solution, is a key parameter when calculating the rollout cost for third-party operators on the portion of the network located upstream from the concentration point.

The decision therefore stipulates that, in light of the elements that are currently available, and in the absence of a qualified distant connection offer from the building operator, the concentration point must house connections to at least 1,000 residential or office units.

The decision does, however, allow for an exception in instances where the building operator supplies a qualified distant connection solution – in which case the concentration point can be smaller, provided it serves at least 300 residential or office units.

b) Encouraging consistent rollouts nationwide

Outside of very high-density areas, fibre deployments and the principle of infrastructure-sharing require a greater degree of coordination between operators and local authorities.

The objectives of nationwide coverage and cost-efficiency also led the Authority to provide for the ability to interconnect the concentration point's service areas, to enable the gradual, consistent and potentially full coverage of the country with optical fibre.

ARCEP particularly wants to avoid having spontaneous and unilateral rollouts by several operators result in lasting dead zones, or in the existence of inefficient overlapping rollouts in the concentration points' service areas. The decision therefore stipulates that the building operator will define the concentration point's service area over a broader geographical expanse, and offer the other parties (third-party operators and the local authorities concerned must be consulted) a partition of this grid into potential concentration point service areas.

8 - Decision No. 2010-1312 of 14 December 2010.

c) Ensuring complete rollouts

During the public consultation, a great many players pointed out that the lack of a coverage obligation could undermine the target of eventually achieving complete and homogenous optical fibre network coverage across the country. A building operator could therefore declare large service areas for the concentration point while, in practice, confining the actual equipment of the service area to only a portion of the residences.

The decision therefore stipulates that the building operator who installs the concentration point must deploy a horizontal network, within two to five years, which runs from the concentration point to the immediate vicinity of the residences in the service area, and scaled in such a way as to be capable of connecting all residential and office buildings.

To ensure that coverage is truly complete, for buildings whose owners have chosen another operator for their premises, the decision also stipulates that the original building operator must provide an offer to deploy fibre to those buildings in their concentration point's service area that are not yet equipped.

d) Guaranteeing collocation of passive and active equipment at the concentration point

The optimal location for the active and passive equipment depends on the rollout technology employed. As a result, in the case of deployments in the more sparsely populated parts of the country, a third-party operator's ability to collocate its passive and equipment will have a considerable impact on the economic equation of its rollout.

This means that an operator that has opted for a point-to-multipoint configuration will want to be able to access this point of flexibility to install its splitters, while the ability to have its passive equipment housed at the concentration point allows an operator who has opted for a point-to-point configuration to reduce its network displacement costs.

In both cases, collocating the passive and active equipment at the concentration points helps to reduce the traffic on the backhaul network, and especially in France Telecom ducts since, regardless of the technology they have chosen, each operator can collect traffic at the concentration point with a limited number of optical fibres.

To ensure technological neutrality, ARCEP requires building operators to grant all reasonable requests to have active and passive equipment collocated at the concentration point.

e) Ongoing work on the modalities for implementing the regulatory framework

ARCEP continues to work in tandem with market players on specifying certain modalities for implementing its decision, in particular with respect to some of the legal and economic aspects of co-investment schemes across the country, outside of very high-density areas.

The adoption roadmap for the regulatory framework is consistent with the roadmap for the national ultra-fast broadband programme ("Programme très haut debit") whose target is to provide all households in mainland France with an ultra-fast broadband service – i.e. over 100 Mbps – by 2025, using the most suitable technology in each area. The implementation of this programme is therefore supported by a complete regulatory framework which gives operators and local authorities clarity on the terms governing infrastructure-sharing outside of very high-density areas.

The national "ultra-fast broadband" programme

When delivering the closing remarks at the symposium on rural regions (Assises des territoires ruraux) on 9 February 2010, the President of the Republic set a coverage target for ultra-fast broadband of 70% of the population by 2020 and 100% by 2025. He also announced that the Government would be earmarking €2 billion for future investments in ultra-fast broadband networks.

Following a public consultation, on 14 June 2010 the Prime Minister unveiled the national "ultra-fast broadband" programme which is structured into two phases: a launch phase and a project support phase.

The government programme concerns the entire country and is comprised of three parts. Its aim is to: enable FTTH rollouts by stimulating investment in potentially profitable parts of the country, outside of very high-density areas, through long-maturity loans (part A); to support local authorities' digital regional development projects by contributing to local subsidies (part B); and, finally, to explore solutions for achieving systematic nationwide coverage through complementary rollout schemes (part C). Part C of the programme was the focus of a public consultation in late 2010 whose purpose was to define which support methods to employ. The programme's three parts have been allocated a budget of €1 billion, €750 million and €250 million, respectively – although these amounts are not final.

During the launch phase, "*public authorities are working to increase regulatory, technical and commercial clarity for operators and local authorities to allow them to draft their rollout plans*". It is during this phase that calls for statements of intent were issued to hear from parties who are intending to invest in rollouts over the next five years, and who do not need subsidising. This, in turn, will help to identify those areas that will be eligible for subsidies. The deadline for submitting these statements of intent was 1 January 2011[9].

Performing trials also satisfies this same goal of objectivity. Seven pilot projects were selected, the goal being to benefit from concrete experience and feedback as quickly as possible from different locations that are representative of those areas that could be covered by public-initiative networks. These trials will take place in the municipalities of Maurienne (*département* 73), Issoire (63), Chevry-Cossigny (77), Aumont-Aubrac (48), Sallanches, Saint-Lô (50) and Mareuil (85).

Decision on the Digital regional development fund (FANT)

The Law concerning the digital divide[10] provides for aid from the digital regional development fund – commonly known as FANT (fonds d'aménagement numérique des territoires) – which is contingent on several criteria, starting with the population's access to ultra-fast broadband. Among these criteria, the legislature gave ARCEP the responsibility of defining the terms of network and infrastructure accessibility and openness.

In its Decision dated 15 December 2010, the Authority underscored the relative nature of the notion of ultra-fast broadband and reiterated the various existing schemes according to their different access and openness-related characteristics – as per the Local and regional collectivity code, CGCT (Code général des collectivités territoriales), the Community guidelines for applying regulation governing State aid for broadband communication network rollouts, and decisions relating to FTTH network deployments. It also sought to issue a reminder that infra-structure-sharing schemes require relevant engineering rules to be established.

The law also stipulates that aid will be awarded to the parties responsible for performing work that is part of regional digital development master plans. ARCEP therefore sought to ensure that private contractors offered the same guarantees in terms of accessibility and openness as public enterprises.

As a result, ARCEP Decision No. 2010-1314 is based on the principle of technological neutrality. An infrastructure is therefore deemed accessible if it is provisioned in such a way as to allow for the deployment of at least one ultra-fast broadband network that serves all of the users in the area. A network is deemed accessible and open if it provides operators with end-to-end access ultra-fast broadband, and with a proper passive access solution.

9 - *Government map of the results of the call for statements of intent, published on 27 April 2011, can be found online at: http://agriculture.gouv.fr/IMG/pdf/DP_Cartes_THD_27-04-2011.pdf*

10 - *Loi n° 2009-1572 du 17 décembre 2009 relative à la lutte contre la fracture numérique (dite « loi Pintat ») publiée au JO le 18 décembre 2009*

2 – Advent of ultra high-speed mobile: frequency assignment

On 12 January 2009, the Prime Minster announced a global strategy for allocating spectrum to the development of high-speed and ultra high-speed mobile networks.

This strategy was composed of three stages:

- the aim of the first stage was to issue a fourth 3G licence – which was eventually realised on 12 January 2010 when ARCEP issued a licence to a new mobile network operator: Free Mobile;

- the second stage consisted of allocating the remaining blocks of 3G spectrum available in the FDD portion of the 2.1 GHz band. On 18 May 2010, the Authority selected SFR and Orange France from among the candidates to respond to a call for applications, and issued them a licence on 8 June 2010;

- the purpose of the third stage is to allocate spectrum in the 790 – 862 MHz (digital dividend) and 2500 – 2690 MHz frequency bands for the deployment of ultra high-speed mobile networks. ARCEP was actively engaged in preparatory work throughout 2010, with a view to issuing a call for applications in 2011.

2.1. Completing construction of the 3G mobile market

a) A little background on the French mobile market

Up until 2009, France had a particular feature that distinguished it from most other European countries: a quarter of the 2.1 GHz-band spectrum available for use in the deployment of third generation mobile networks, and reserved up until then for a new entrant operator, had yet to be allocated.

Despite several calls for applications having been issued since 2000:

- the first on 18 August 2000 for the award of four licences: Orange and SFR submitted an application, and both were awarded a 3G licence;
- after the government revised the financial terms for being awarded a 3G licence (applied retroactively to Orange and SFR), a second call for candidates was launched on 29 December 2001 to award the two remaining licences: Bouygues Telecom was the only candidate to respond. It was awarded one licence, which meant that the fourth licence remained available;
- a third call for applications was issued on 8 March 2007: the sole applicant, Free Mobile, did not satisfy the selection criteria and the Authority rejected its submission on 9 October 2007.

This situation led public authorities to engage in discussions over the system to be used for awarding the spectrum that was still available at the outcome of these calls for applications. As had been allocated to the three licensed mobile operators, this spectrum corresponded to a duplex of 14.8 MHz for an FDD[11] channel arrangement and 5 MHz for a TDD[12] arrangement.

On the basis of these elements and the public consultations it held, working in concert with the Government, ARCEP designed a strategy for the allocation procedures which consisted of dividing the remaining FDD spectrum into three blocks of 5 MHz, one of which was reserved for a new entrant.

b) Fourth 3G licence awarded to Free Mobile

On 12 January 2010, ARCEP awarded Free Mobile a licence to use frequencies to establish and operate a third generation mobile network open to the public in Metropolitan France[13].

11 - FDD pour Frequency-division duplexing.
12 - TDD pour Time-division duplexing.
13 - Decision No. 2010-0043 of 12 January 2010.

Free Mobile files arriving at ARCEP headquarters

The call for applications was launched on 1 August 2009. This call was a follow-up to the ARCEP decision in which it proposed to the Minister responsible for electronic communications that a new call for applications be launched for the allocation of the remaining 2.1 GHz frequencies for the establishment and operation of third-generation mobile systems in Metropolitan France.

The licence awarded to Free Mobile includes a list of the commitments the carrier made in its application dossier. Among other things, the new 3G operator committed to begin marketing 3G services within two years, i.e. by 12 January 2012, at which time it would be covering 27% of the population. It must then cover 75% of the population by 12 January 2015 and 90% by 12 January 2018.

The expectation is that, by altering the market's existing three-operator structure, the arrival of a new mobile network operator will result in a more dynamic state of competition which will ultimately benefit consumers.

c) Allocation of remaining 2.1 GHz band spectrum to Orange France and SFR

Following the procedure that resulted in Free Mobile being issued a licence, there remained a 9.8 MHz duplex of FDD spectrum in the 2.1 GHz band in Metropolitan France: a 5 MHz block of spectrum and a 4.8 MHz block of spectrum.

The call for applications for the allocation of this remaining spectrum was officially issued on 25 February 2010, following the Authority's adoption of a decision on 11 February 2010 in which it proposed to the Minister the terms and methods to be used for awarding a licence to use the remaining 2.1 GHz band frequencies, for the establishment

Price paid by operators for spectrum licences in 2010 (million €)

Pays	Total amount	Of which 2.1 GHz band spectrum for 3G mobile spectrum	Of wich 800 MHz and 2.6 GHz band spectrum for 4G mobile spectrum	
			800 MHz	2,6 GHz
France	822 M€	822 M€ (2x15 MHz) 43 c€/MHz/capita	Process begun in june 2011	
Germany	4 383 M€	360 M€ (2x20 MHz) 11 c€/MHz/capita	360 M€ (2x20 MHz) (11 c€/MHz/capita)	344 M€ (190 MHz) 2,2 c€/MHz/capita
Denmark	135 M€			135 M€ (190 MHz) 13 c€/MHz/capita
Netherlands	2.6 M€			2,6 M€ (2x65 MHz) 2,2 c€/MHz/capita
India	11 700,0 M€	11 700 M€ (2x20 MHz) 25 c€/MHz/capita		
PREVIOUS YEAR				
Finland (2009)	3.8 M€			3,8 M€ (190 MHz) 0,3 c€/MHz/capita
Sweden (2008)	226 M€			266 M€ (190 MHz) 13 c€/MHz/capita
Norway (2007)	29 M€			25 M€ (190 MHz) 3 c€/MHz/capita

NB: the rights and obligations attached to licences (life, coverage obligations, etc.) may vary from country to country.

and operation of third-generation mobile network in Metropolitan France.

On 18 May 2010, the Authority selected SFR and Orange France from among the responses to a call for applications[14], and awarded them a licence to establish and operate a third-generation mobile network in Metropolitan France.

Among other things, the terms of these licences include the commitments to host MVNOs that SFR and Orange France made in their applications, which will apply to the entirety of both operators' mobile network in the different frequency bands that they are licensed to employ – namely the 900 MHz, 1800 MHz and 2.1 GHz bands.

This procedure helped to improve the hosting conditions afforded MVNOs and increased the State's revenue considerably, bringing in a total of €582 million.

The allocation of the 15 MHz of spectrum remaining in the 2.1 GHz band to be used for 3G ultimately brought in €822 million for the State, or 43 eurocents per MHz and per capita – which is relatively high compared to other European countries.

It is also worth mentioning that the award of the first three 3G licences, of 15 MHz each, had generated in €619 million per licence for the State.

2.2. Vers le très haut débit mobile

Jean-Ludovic Silicani editorial in the ARCEP weekly newsletter of 15 October 2010

"Radio spectrum is one of the components of the State's public domain. It is a strategic asset.

After having completed the allocation the spectrum to be used for 3G mobile telephony in 2009 – a process that included the award of the fourth mobile licence to Free Mobile, a decision that was approved by the Conseil d'Etat on 12 October; and the allocation of the remaining blocks of spectrum in May to Orange and SFR – ARCEP is now putting the final touches to its preparations for the allocation of the "golden frequencies", also referred to as the digital dividend which resulted from the switchover from analogue to digital TV broadcasting.

There are three concomitant objectives attached to this process: to consolidate the mobile telephony market's competitive nature, to ensure good coverage nationwide, in accordance with the Law on bridging the digital divide of December 2009, and to guarantee the State a proper remuneration of its heritage. ARCEP is committed to achieving all three."

a) New spectrum for ultra high-speed mobile

Over the course of 2010, ARCEP continued to prepare two spectrum allocation procedures for frequency bands that had been newly assigned to mobile services:

- the 790 – 862 MHz band (commonly known as the 800 MHz band), from the digital dividend to come from the switch-off of analogue terrestrial television, and which the Prime Minister decided to assign to mobile services starting on 1 December 2011;
- the 2500 – 2690 MHz band (commonly known as the 2.6 GHz band), harmonised at the global level as an extension band for mobile services, and which the Ministry of Defence and Veteran Affairs has ordered to be liberated, region by region, between 2010 and 2014.

These frequencies are to be used in the deployment of ultra high-speed mobile (a.k.a. 4G) networks, to provide consumers with a greater capacity and quality of service than what existing mobile internet services deliver. The expected technologies, such as LTE (Long Term Evolution) and mobile WiMAX, should therefore supply users with connection speeds of several dozen Mbps, which is well above the performance of currently deployed 3G and 3G+ technologies.

14 - Decisions No. 2010-0633 and No. 2010-0634 of 8 June 2010.

The efforts devoted to ultra high-speed mobile in 2010 were an extension of earlier work carried out in concert with stakeholders. Among other things, on 15 January 2010 ARCEP published a summary of the public consultation[15] held in 2009, along with all of the responses. This consultation made it possible to work with stakeholders to elucidate the issues surrounding the terms and methods to be used for allocating this newly available spectrum. In spring 2010, ARCEP also conducted a series of interviews that allowed it to fine-tune its analysis.

Based on the findings of all of these meetings and consultations, ARCEP drafted possible scenarios for the call for applications for the 800 MHz and 2.6 bands, which it made public through a second consultation that ran from 27 July to 13 September 2010. The aim of this consultation was to obtain feedback from stakeholders on the details of the methods described in the scenarios, and which could apply to these calls for applications.

b) Proposals contained in the public consultation of July 2010[16]

The document submitted for consultation on 27 July 2010 contained detailed scenarios for the terms and system to be used for allocating 800 MHz and 2.6 GHz band spectrum. The goal of these proposals was to identify those modalities that would make it possible to satisfy the threefold objective of digital regional development, mobile market competition and monetising the State's intangible asset.

• Priority objective of digital regional development

The terms for allocating 800 MHz band frequencies must make digital regional development imperatives a priority, in accordance with the Law on bridging the digital divide, commonly known as the "Pintat Act".

To satisfy this objective, the public consultation proposed a three-pronged procedure for allocating the 800 MHz band:

- ambitious coverage targets, at both the national and departmental level;
- an obligation to give priority to deployments in certain regions;
- network-sharing obligations in hard to cover areas.

First, the licences issued to use the 800 MHz band could include ambitious coverage targets, at both the national and departmental level. Target coverage levels for the population of Metropolitan France could be set by taking account of existing 2G and 3G coverage levels. These targets could extend to coverage levels set for the population of each département, with the same deadlines.

Second was the proposal that certain regions be set as priority rollout locations, namely sparsely populated areas that account for around 20% of the population and which are hard to cover with high frequencies. Specific rollout obligations would be set for these areas to ensure that these sparsely populated regions be covered apace with the deployments being carried out in the rest of the country.

Third, this scheme would be completed by infrastructure-sharing obligations to help reduce operators' rollout costs and so to make it easier to achieve these ambitious coverage targets, but also to help in achieving high-speed connections on these upper channels.

• Lasting competition in the mobile market

To satisfy the objective of competition that benefits the consumer, the public consultation discussions about the allocation procedures for the 800 MHz and 2.6 GHz frequency bands were conducted as part of the competition analysis that led to the award of a fourth third-generation mobile network operator's licence in early 2010. It contained the following proposals.

The 800 MHz band could be divided up into four blocks of spectrum which could be combined. This approach meant that four licences in the 800 MHz band could be issued, but that number was not mandatory since the

15 - Available on the ARCEP website: http://www.arcep.fr/uploads/tx_gspublication/synt-thtdebit-mobile-150110.pdf

16 - Law No. 2009-1572 of 17 December 2009 on bridging the digital divide, a.k.a. the "Pintat Act", published in the JO of 18 December 2009.

blocks could be combined up to a maximum quantity of spectrum that would be determined ahead of time. The number of licences to be awarded and the quantity of spectrum attached to each licence would therefore not be predetermined.

To satisfy the goal of achieving a state of balanced competition in the marketplace, the ability to combine the blocks of spectrum in the 800 MHz band would be contingent on the licence-holder providing a roaming service to an operator that has a licence only to use spectrum in the 2.6 GHz band. This solution would therefore provide the hosted operator with indirect access to 800 MHz band frequencies, but would be confined to the priority deployment areas (mentioned above) to complement a deployment in the 2.6 GHz band.

Meanwhile, the FDD portion of the 2.6 GHz band would be divided up into 14 equal blocks of spectrum. These blocks could be combined, up to a maximum 40 MHz, allowing operators to acquire significant quantities of spectrum. The procedure would nevertheless guarantee that at least four licences will be issued, provided there are at least four candidates.

For each of the two allocation procedures, the candidates would be invited to make commitments with respect to the terms and conditions for hosting mobile virtual network operators. MVNOs can indeed play a crucial role in stimulating competition in the marketplace, provided they have enough independence from their host operators from a contractual, technical and economic standpoint.

• Monetising the State's intangible asset

Monetising the frequencies, which are one of the State's intangible assets, is a general objective that ARCEP must consider when designing the allocation procedure. Given the value of the spectrum, and especially of the low frequencies, monetising them represents a significant stake for public authorities.

The public consultation of July 2010 mentions that the price for acquiring the frequencies could be one of the candidate's selection criterion. As a result, a reserve price, below which the frequencies would not be allocated, could therefore be set to guarantee a minimum revenue for the State.

• The procedures

The consultation proposed that a sequential process be used for the allocation of the two frequency bands.

The calls for applications for the 2.6 GHz (FDD portion) and 800 MHz-band licences would be issued simultaneously. The deadlines for submissions and announcements of the results could be issued for the 2.6 GHz band first, and then for the 800 MHz band. This means that candidates would know the results of the allocations for the 2.6 GHz band before finalising their application for the 800 MHz band.

The public consultation also proposed that the TDD portion of the 2.6 GHz band be allocated after the 800 MHz-band frequencies and the FDD portion of the 2.6 GHz band had been allocated.

A new status report will be issued on this point in late 2011 once the 800 MHz and 2.6 GHz frequencies have been awarded, to determine a relevant timetable with the stakeholders for the allocation of this spectrum in tandem with the other TDD frequencies.

c) Finalisation of the calls for applications

The large number of responses to the consultation, which ARCEP made public on 15 November 2010, confirmed the interest that players have in being awarded a licence to use the 800 MHz and 2.6 GHz frequency bands for the deployment of ultra high-speed mobile networks.

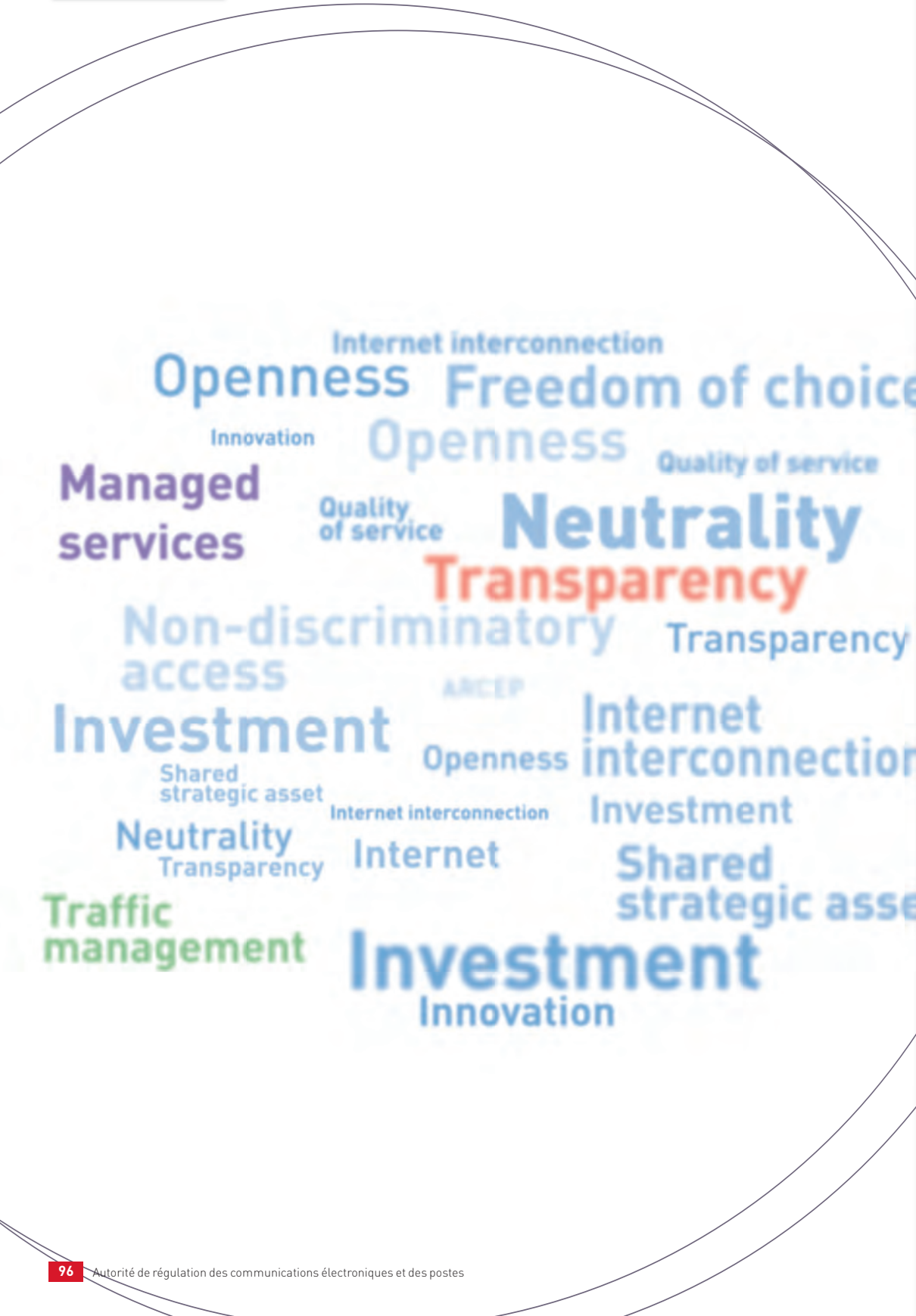
Based on the findings of this consultation, ARCEP finalised the scheme for its call for applications which it included in its proposal to the Minister responsible for electronic communications, after having consulted with the Electronic communications advisory committee (*Commission consultative des communications électroniques*).

In accordance with CPCE Article L.42-2, both of the allocation procedures will be the subject of an ARCEP decision containing its proposals to the Minister responsible for electronic communications on the terms and methods to be used for allocating the frequencies.

The official launch of procedures will be marked by an order from the Minister approving the terms proposed by ARCEP.

As to the terms governing the allocation of the 800 MHz-band digital dividend spectrum, they will be set after receiving the opinion of the Parliamentary Commission on the digital dividend (*Commission parlementaire du dividende numérique*).

As an adjunct to these calls for applications, two ARCEP decisions will set the technical terms of use for the spectrum, in the 800 MHz and 2.6 GHz bands respectively, which will be submitted to the Minister for approval.


Internet interconnection
Openness
Freedom of choice
Innovation
Openness
Quality of service
Managed services
Quality of service
Neutrality
Transparency
Non-discriminatory access
Transparency
ARCEP
Investment
Internet interconnection
Openness
Shared strategic asset
Internet interconnection
Investment
Neutrality
Transparency
Internet
Shared strategic asse
Traffic management
Investment
Innovation

Internet and network neutrality

Begun in the early 2000s in the United States, the debate over internet and network neutrality began to gain momentum in France and Europe starting in 2008. In late 2009, the revised Telecoms Package directives set national regulatory authorities' the new objectives of *"ensuring that there is no distortion or restriction of competition in the electronic communications sector, including the transmission of content"* and *"promoting the ability of end-users to access and distribute information or run applications and services of their choice"*[1].

In France, Parliament requested "*a report on the question of electronic communications network neutrality*[2]" from the Government as part of a legislative amendment procedure. These initiatives from European and national political authorities have underscored the crucial role that the internet plays in our society, from both an economic and social perspective, and give government and regulatory authorities the responsibility of ensuring that citizens have broad and easy access to all of the internet's functions.

Getting a head-start on these provisions, the Authority began a cycle of exploration and discussion with the sector's stakeholders back in September 2009 on the topic of internet and network neutrality, which increased in scope in 2010 and culminated in late September with the publication of ten proposals.

1. October 2009 – September 2010: exploring and discussing the issue

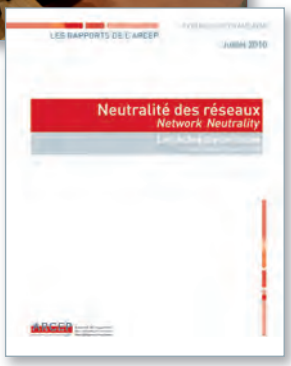
1.1. Discussion background and stakes

Electronic communications are becoming an increasingly prominent part of both the economic and social landscape, in particular thanks to the internet. At the same time, technological developments and changing consumption habits are causing upheavals in the relationships between the stakeholders, whether they be content providers, electronic communications operators or internet users.

The information and communication technologies sector already generates revenue of €2,700 billion, or close to 7% of global GDP, and could account for 20% of GDP within the next 10 years. But, going beyond the confines of this sector, many believe that the internet could become the backbone of our entire future economy and society, and so constitutes a shared global strategic asset that needs to operate in an optimal fashion, for everyone's benefit. Ensuring the future viability of electronic communications networks and of the internet will therefore be one of the central issues of the next decade, which naturally means that public authorities need to concern themselves with it.

1 - Article 8, Paragraphs 2.b and 4.g of European Directive 2002/21/EC ("Framework" directive) amended on 25 November 2009.
2 - Law No. 2009-1572 of 17 December 2009 on bridging the digital divide, referred to as the "Pintat Act", published in the JO of 18 December 2009.

At the heart of these issues is the question of internet and network neutrality. The crux of the debate is how to reconcile maintaining a public digital space that is a vehicle for freedom and innovation with financing the investments made necessary by the ongoing and ever-faster rate of increase in the use of the internet, but also with the protection of certain rights? This debate emerged in the mid-2000s and has already led certain regulatory authorities around the world (the United States, Canada and Japan) and in Europe (Norway, Sweden) to examine and publish works on the subject.



1.2. ARCEP involvement

ARCEP began its examination of the issue back in October 2009. From November 2009 to March 2010, the Authority conducted some fifty interviews along with a survey, the purpose being to engage in a dialogue with the players concerned by the question of internet and network neutrality (electronic communications operators, providers of content, service and applications, equipment manufacturers, consumer associations, public authorities, etc.) from both Europe and around the globe. The Authority also held talks with other institutions and regulatory authorities that were interested in the matter, and drew on existing publications on the subject to help further its exploration.

On 13 April 2010, the Authority hosted an international conference on internet and network neutrality. This widely covered event marked the end of the period of investigation that began in autumn 2009, and which resulted in the Authority' publication of a document entitled "*Discussion points and initial policy guidelines on internet and network neutrality*", which it submitted to a public consultation that ran from 20 May to 13 July 2010. The responses to this consultation allowed it to draft its final proposals, which were published on 30 September 2010.

The process of drafting these proposals involved regular interaction with the Government and with other European regulatory authorities. At the national level, parallel to the process begun by the Authority in October 2009, and in response to a request from French Parliament for the Government to submit a report on Net neutrality before 30 June 2010 – pursuant to the Law on bridging the digital divide that was ratified in December 2009 – the French Government submitted its report to Parliament on 29 July 2010. At the European level, a working group devoted to Net neutrality, of which the Authority is a member, has also been created as part of the Body of European Regulators for Electronic Communications, or BEREC, which published a report on the topic in late 2010. Meanwhile, the European Commission launched public consultation on this topic which ran from 30 June to 30 September 2010, and published a report on the subject in April 2011[3].

Lastly, the Authority devoted an issue of its quarterly publication, "Les cahiers de l'ARCEP" to the topic of internet and network neutrality.

3 - Available on the ARCEP website: http://ec.europa.eu/information_society/policy/ecomm/doc/library/communications_reports/netneutrality/comm-19042011.pdf

2. The Authority's process

2.1. Initial findings

The regulator was already aware of some of the demands that the debate over internet and network neutrality encompasses, notably the obligation of "neutrality with respect to the content of the transmitted messages"[4] which is listed in the French Postal and electronic communications code, CPCE (Code des postes et des communications électroniques). Nevertheless, to properly ascertain the full scope of the issue and assess the state of the relationships between all of the players involved, it became necessary to take a look at markets and practices that had not been or were very little regulated up until then, such as traffic routing (beyond just national operators) and traffic management techniques which are often invisible to users.

It soon became apparent, first, that all the stakeholders wanted clarification brought to the terms of the debate, not only on the terminology employed but also the distinctions made between different types of services that may or may not be connected with internet access, and which often share the same infrastructure resources. Second, it emerged that the way networks operate was key to the issues raised by the debate since it has a major influence on the internet's swift and economically sustainable development, on innovation and on respecting fundamental rights and freedoms. Lastly, other developments in various links of the internet chain (devices, exclusive rights to content, development of CDN[5]…) were also identified, albeit in a less crucial manner, as having the potential to affect users' access to the services of their choice on the Web.

On the matter of potential breaches of Net neutrality, although some players did speak of difficulties, the majority agreed on a relatively satisfactory state of affairs. Most of the concerns relate more to the potential development of certain behaviours than to existing malfunctions in the marketplace. The consequences of such developments nevertheless appear to be significant, and justify that specific actions be taken. The Authority's general approach is therefore one of prevention.

2.2. The Authority's objectives and chosen approach

The vast majority of the parties involved in the debate agree on a certain number of ultimate aims that need to be reconciled: transparent and non-discriminatory access to the internet's functions, high quality services grounded in efficient technical and economic choices, and conditions that are propitious to innovation for all networks and services.

ARCEP believes that most of these goals can be pursued at the same time. It proposed to define – in accordance with the legal provisions in effect – demands attached to internet access which satisfy the requirements of all of the infrastructures, and whose compliance could be analysed by the regulator, or possibly imposed as an obligation if necessary.

To define these demands, and achieve the objective assigned to NRAs to promote users' freedom of choice, two conditions need to be met:

- First, that the growing number of internet services, content and applications be easily accessible, thanks to broad and fair access solutions from internet service providers (ISPs): non-discrimination with respect to the different internet service vendors (ISV[6]), open interconnection, proportionate traffic management;
- Second, that users be able to find and choose a solution for connecting to these services in the marketplace that is of good quality and tailored to their consumption habits: this requires a satisfactory level of competition between access offers, and a sufficient level of transparency and quality for all of the services on offer.

4 - Excerpt of Par. 5 - II. of Article L. 32-1 of the French Postal and electronic communications code (CPCE).

5 - Content Delivery Network: refers to all of the computers that are networked via the Web and that interoperate to deliver content or data (generally large multimedia files) to users.

6 - European Directive 2000/31/EC ("e-commerce" directive) and European Directive 98/34/EC, as amended by European Directive 98/48/EC: "Service provider: any natural or legal person providing an information society service [in other words] any service normally provided for remuneration, at a distance, by means of electronic equipment for the processing (including digital compression) and storage of data, and at the individual request of a recipient of a service."

The pursuit of these objectives formed the core of the Authority's approach, and of its first draft of internet and network neutrality guidelines which were submitted to a public consultation that ran from May to July 2010. This draft text contained a view of the particular demands that should be applied to internet access offers. While departing from certain more determined but less realistic viewpoints, these guidelines reconfirmed and provided a framework for the need for certain forms of traffic management, as well as reiterating the benefits of allowing managed services to develop. Lastly, the draft guidelines included a preliminary list of data to examine, including the terms governing data interconnection and quality of service parameters. Among the points emphasised by stakeholders in their responses to the public consultation (most of which were positive), were queries concerning the means that ARCEP had (or hoped to implement) to monitor these demands.

In light of these concerns, the Authority therefore amended and brought more detail to certain elements, to arrive at the ten proposals that it published in late September 2010. The aim of these proposals is to promote a lasting state of equilibrium, neutrality and quality for all networks, and for the internet in particular. It also drew on a more in-depth analysis, first, of its current responsibilities and those that could be attributed as a result of the new Telecoms Package, and, second, the relevant courses of action given the organisation of the markets in question.

The proposed courses of action, which are spread out over time, are therefore rooted in recommendations, co-regulation initiatives and the development of more prescriptive tools that can be used if it proves necessary.

3. Completion of the work: publication of the 10 ARCEP proposals

3.1. The core principles in the Authority's proposals

On 30 September 2010, ARCEP published ten proposals and recommendations on internet and network neutrality. The outcome is underpinned by specific overall aims, some of which can be found in several proposals. What are these aims?

• Promote competition above all

Ensuring that multiple internet access offers are available to consumers is the best way to guarantee them a vast choice of applications, since it provides ISPs with an incentive to make a broad selection of content available to remain competitive. It is in fact this model, as opposed to one based on differentiation through proprietary platforms or walled gardens, which proved very successful in most European countries, especially on fixed networks, and has made it possible to achieve massive broadband penetration in France among others.

ARCEP therefore plans, above all, on pursuing a policy of promoting competition in broadband and ultra-fast broadband retail markets to sustain the dynamism and robustness of alternative access offers. Beyond that, the goal is to ensure that this competition is effective. This involves stimulating market liquidity, in other words users' ability to switch providers (here, ARCEP published guidelines for consumers in February 2011 which address the terms governing cancellation and switching to a new provider. See page 112). Moreover, the offers must be transparent enough to allow consumers to compare them: this applies particularly to the features of internet access provision, in other words the terms and prices for using the different functionalities, and the quality of the connection.

The importance of this last point warrants particular attention and increased efforts on the part of public authorities, and that work be performed on the matter in tandem with market players. Two major courses of action can be distinguished in terms of transparency: first, to make the internet access service clearly identifiable within consumer offers and, second, to improve the information provided on the characteristics of these services.

• Specify the meaning of internet access service

Whether for commercial reasons or to optimise their investments in infrastructure, carriers are led to share their network resources between several types of service, both at the local loop and the core network level.

Internet access plays a special role here, particularly as it has become an indispensable support for so many economic and personal applications and uses. It is therefore vital that an ISP's customers know the terms and conditions governing the service being provided to them, and notably the way in which and whether their network connectivity is shared between the different services made available to them and with other users.

This same particular feature of the internet is what has led the regulator to draft specific ex ante obligations concerning the provision of service, to equip itself with the instruments needed to assess the extent to which ISPs are actually complying and, if necessary, to take more prescriptive measures to impose these obligations.

Traffic management: differentiating "internet access" and "managed services"

One of the central issues of the Net neutrality debate consists of defining the extent to which traffic management practices can be used legitimately in a service provided to end users.

Two categories of service emerge here which are characterised by very different objectives and restrictions – which go a long way in determining the acceptability of the measures employed. On the one hand are specific services which, to exist, require certain properties to be guaranteed end-to-end – such as classic telephony – and for which traffic management is indispensable: these are referred to as managed services. On the other hand are internet access services which, on the contrary, operate in a mode often qualified as "best effort" whose overall principles consist, by default, in handling all traffic equally – in other words without considering the service being transported and so without employing any particular form of traffic management. For these two types of service to exist, it seemed advisable that internet access and managed services be relatively autonomous and identified as such.

It was for all of these reasons that the Authority decided it was important to make a clear distinction between what falls under the definition of:

- internet access, where neutrality must be the rule. As a result, users must be able to clearly identify this service, and operators must provide the service while complying with some of the principles described below;
- managed services, whose importance must also be recognised and which operators must be allowed to develop, within the limits set out below.

• State the general operating rules expected of an internet connection

At the heart of the chosen approach are two proposals that are a concrete expression of the Authority's recommendations with respect to the provision of internet access. These are the proposals on the "Freedom and quality of internet access" (Proposal 1) and "Non-discrimination between internet traffic streams" (Proposal 2).

The principles of freedom of use, of sufficient quality and non-discrimination between traffic streams specified in these proposals must be adhered to by both fixed and mobile internet access offers.

ARCEP nevertheless recognises possible exceptions to these principles, provided any resulting departures are limited: it therefore drafted an additional proposal (Proposal 3) concerning the supervision of internet traffic management mechanisms, which lists five criteria that any traffic management practice employed by ISPs must satisfy. The choice of criteria for assessing the different situations involving traffic management, preferably a predefined list of best practices, is justified given the complex and ever-changing nature of the techniques that may be employed and, even more so, by the variety of motives that underpin these practices.

It is these motives which, in most instances, define the division between justified differentiation and discrimination which is detrimental to the market and to users.

The document contains a first set of useful details on the manner in which the criteria should be understood, which states the decisions that ARCEP could take should there be litigation over a specific practice. Details are also given on the way different situations are assessed, for instance the fact that the same measures cannot be justified to remedy a state of widespread and lasting congestion and in cases of temporary overload, particularly in terms of gauging the dosage between traffic management and investments in increasing network capacity. The fact that a given protocol or application is a "heavy" consumer of bandwidth is also not justification enough when other protocols or applications with similar properties, or which have an even greater impact on the network's traffic load, are permitted.

- **Tracking the development of internet access offers with respect to the stated demands**

To monitor compliance with the demands applying to internet access, the Authority will, on its own initiative and in accordance with its existing competencies, design and implement market tracking instruments, first for traffic management practices and, second, for quality of service. This is the goal of Proposal 6 on "Monitoring traffic management practices".

The objective here is twofold:

- an immediate objective: in instances where ISPs have implemented traffic management practices, to ascertain what they are and check that they satisfy the five criteria mentioned earlier;
- a more long-term objective: to assess any departures from the stated principles over time, to ensure that the five criteria remain sufficient.

Monitoring the quality of the internet service is the aim of Proposal 7. It is vital that this complex task be undertaken immediately by all of the parties concerned. It will allow users to better compare the offers available in the market, and the regulator to intervene should it become necessary – potentially to impose minimum obligations on ISPs. These efforts also appear to be the indispensable counterweight to affording operators the freedom to develop managed services.

- **Analysing and taking interconnection conditions into account**

Maintaining an internet connection that complies with the stated demands over time requires, among other things, both monitoring and a deeper understanding of how the wholesale data interconnection market works, in particular to be able to assess the state of competition. Such is the aim of Proposal 8 which pertains to "Monitoring the data interconnection market".

Regulators have little knowledge, in fact, of the different contractual relations that are in place, even though major developments now appear to be affecting this market: both the characteristics that are shaping it – the asymmetry of traffic streams, for instance – and the balance of power between the players. ARCEP therefore deemed it advisable to anticipate and, when necessary, to prevent any malfunctions in this area, as they could affect the terms and conditions of users' access to internet services. Already, a principle of non-discrimination applying to all players can be included in the terms governing interconnection on the internet.

- **Improving the information provided to users about their internet access**

ARCEP has specified an obligation for ISPs to increase the information they provide to end users about the features of their offers, taking account of the previous demands (Proposal 5 on "Increased transparency with respect to end users"). In particular, any departures from the principles listed earlier must be clearly indicated, and the term "internet" cannot be used to qualify a service if it employs traffic management practices that do not satisfy the five criteria mentioned earlier. The sector's stakeholders are due to take concrete measures – under the supervision of ARCEP and the General directorate for fair trade, consumer affairs and fraud control, DGCCRF (*Direction générale de la concurrence, de la consommation et de la répression des fraudes*) – to establish best practices for providing information that is clear and readily available to users.

• Reaffirming the benefits of managed services

In tandem with the actions already described, which pertain primarily to internet access, in Proposal 4 the Authority recognises the importance of managed services and the latitude afforded to ISPs to supply them, within a framework aimed at ensuring that the dedicated offers in the wholesale market between ISPs and ISVs comply with competition regulation and any other specific regulation that might apply. Beyond that, the parallel development of managed services and internet access warrants special attention, particularly in the last mile where, in France, a wide variety of services can be delivered to end users at attractive prices, using the existing local loop. Ideally, future investments will be made, insofar as possible, on a win-win basis for the two types of service so that both will benefit over the long term.

• Taking the diversity of the ecosystem into account

The Authority also drafted two proposals – Proposal 9, "Taking account of the ISV's role in Net neutrality" and Proposal 10, "Increasing the neutrality" of networks – that recognise the role that players other than ISPs play in ensuring neutrality. These proposals, which do not fall under the Authority's immediate purview, are an invitation to the concerned private and public sector decision-makers to take these issues fully into consideration.

• Employ more prescriptive measures, if necessary

In future, it could become necessary to ensure that the stated standards and principles become ubiquitous.

It could indeed occur that the properties of internet access offers diminish to such an excessive degree, or become scarce – replaced either by feature-poor solutions or entirely by managed services – in which case the Authority could rely on the new courses of action introduced by the revised European directives, for which the legislature will specify the terms of application during the transposition process.

After their transposition into French Law:

- the Authority could be given the power to settle disputes over traffic routing conditions, not only between two ISPs but also between and ISV and an ISP;
- the Authority would be in a position to order ISPs to comply with a minimum set of quality of service requirements for their offers, and particularly internet access offers.

3.2. The 10 proposals

a) Neutrality of internet access networks

Freedom and quality of Internet access — **Proposal 1**

ARCEP recommends that, in accordance with the legislative provisions that are in effect, ISPs marketing Internet access be required to provide end users with:

- the ability to send and receive the content of their choice;
- the ability to use the services and run the applications of their choice;
- connect the hardware and use the programmes of their choice, provided they do not harm the network;
- a sufficiently high and transparent quality of service.

There may be exceptions to this principle, provided they comply with the guidelines set out in proposed recommendation No. 3.

Non-discrimination between Internet traffic streams — **Proposal 2**

On the matter of Internet access, ARCEP recommends that, as a general rule, no differentiation be made between the way in which each individual data stream is treated, whether according to the type of content, the service, application, device or the address of the stream's origin or destination. This applies to all points along the network, including interconnection points. There may be exceptions to this principle, provided they comply with the guidelines set out in proposed recommendation No. 3.

Supervising Internet traffic management mechanisms — **Proposal 3**

Marking exceptions to the principles stated in proposals nos. 1 and 2, and to limit any possible deviations from these principles, ARCEP recommends that when ISPs do employ traffic management mechanisms for ensuring access to the Internet, that they comply with the general principles of relevance, proportionality, efficiency, non discrimination between parties and transparency.

Managed services — **Proposal 4**

To maintain all of the players' capacity to innovate, all electronic communications operators must be able to market "managed services" alongside Internet access, to both end users and information society service vendors (ISV), provided that the managed service does not degrade the quality of Internet access below a certain satisfactory level, and that vendors act in accordance with existing competition laws and sector-specific regulation.

Increased transparency with respect to end users — **Proposal 5**

ISPs must provide end users – in both their sales material and the contractual terms and conditions for their electronic communications services, and in the information that is available to the customers of these offers for the duration of their service contract – with clear, precise and relevant information on:

- ISPs must provide end users – in both their sales material and the contractual terms and conditions for their electronic communications services, and in the information that is available to the customers of these offers for the duration of their service contract – with clear, precise and relevant information on:
- the services and applications that can be accessed through these data services,
- their quality of service,
- their possible limitations,
- and any traffic management practices that might affect them.

To this end, ARCEP recommends in particular that:

- any restriction of a data transmission service marking a departure from the principles of freedom of use and non discrimination between the streams, stated in

proposals nos. 1 and 2, be stipulated explicitly in the ISP's sales material and contractual clauses, in a clear and understandable fashion;

- the term "Internet" cannot be used to qualify these services if certain of these restrictions do not comply with the demands of proposal No. 3;
- the term "unlimited" cannot be used to describe service offerings that include "fair use" type limitations that result in access being cut off temporarily or extra billing for the services, or an excessive degradation of access speeds or the quality of the service.

The Authority will initially request that ISPs and consumer association representatives work together to define common systems for providing end users with information on the limitations of the offers and their traffic management practices, and to submit their proposals on the matter to ARCEP by the end of Q1 2011.

Subsequently, should it prove necessary, the Authority could work in tandem with the General directorate for fair trade, consumer affairs and fraud control, "DGCCRF" (*Direction générale de la concurrence, de la consommation et de la répression des fraudes*), to complete these proposals.

Monitoring traffic management practices — Proposal 6

ARCEP will ask ISPs and their representative associations, ISVs and their representative associations, as well as consumer associations to work together to identify and qualify the different types of traffic management practices, including "fair use" limitations associated with so-called "unlimited" offers, and to submit their proposals on the matter to ARCEP by the end of Q1 2011. In the meantime, the Authority will monitor the evolution of the traffic management practices that operators are employing, in particular to evaluate whether they are complying with the criteria of relevance, proportionality, efficiency, non discrimination between parties and transparency. Subsequently, should it prove necessary, the Authority could work in tandem with the DGCCRF to complete these proposals.

Monitoring the quality of the Internet access service — Proposal 7

To ensure that the quality of the Internet access service is both sufficiently high and transparent, ARCEP will be devoting efforts to:

- define the main Internet access quality of service parameters and establish suitable indicators;
- require ISPs to publish these QoS indicators for their retail data transmission services periodically, particularly for Internet access on both fixed and mobile networks.

This work will be performed in tandem with the DGCCRF, operators and their representative associations, ISVs and their representative associations, as well as consumer associations

Monitoring the data interconnection market — Proposal 8

ARCEP recommends:

- that parties providing end users with access to the Internet grant, in an objective and non-discriminatory fashion, all reasonable requests for interconnection whose purpose is to provide these users with access to Internet services or applications;
- that parties providing ISVs with access to the Internet grant, in an objective and non-discriminatory fashion, all reasonable requests for interconnection whose purpose is to make these vendors' services or applications accessible to Internet users.

To eradicate the opacity that currently exists in data interconnection markets, and to obtain information that will be useful to exercising its powers, the Authority will soon adopting a decision on the periodical collection of information on these markets, before the end of Q1 2011.

Based in part on this information, the Authority will later assess whether it is necessary to implement more prescriptive regulatory measures in these markets.

b) Other aspects of neutrality

Taking account of the ISV's role in Net neutrality — **Proposal 9**

ARCEP underscores the fact that users' actual ability to exercise their freedom to choose between offers (services/applications/content) made available by ISVs over the Internet implies that these vendors comply with:

- a principle of non-discrimination towards the different operators ability to access these offers;
- principles of objectivity and transparency with respect to users, in terms of the rules employed, in cases where the ISV selects and/or ranks content coming from third parties, which is notably the case with search engines.

The Authority invites the private and public parties concerned to take these issues into full consideration.

Increasing the neutrality of devices — **Proposal 10**

As part of the upcoming review of the RTTE Directive, ARCEP recommends that the opportunity to complete this directive be examined, to take better account of developments in the devices market, particularly the growing importance of the software layers and interactions with ISVs.

The Authority invites the private and public parties concerned to take these issues into full consideration.

4. Follow-up

4.1. Ongoing Parliamentary debates

Parliament has continued to discuss the matter. The National Assembly ordered a fact-finding mission in late 2010, which was headed up by Members of Parliament Laure de La Raudière and Corinne Erhel. Moreover, draft legislation on Net neutrality introduced by MP, Christian Paul, was rejected on 1 March 2011.

Parliament did adopt a law that authorises the Government to transpose the directives of the third Telecoms Package by means of an order. This transposition is expected to endow ARCEP with new powers – which will be crucial to its ability to monitor and control a healthy balance in the area of neutrality – and notably an expansion of its power to settle disputes to include those that arise between internet service vendors and ISPs, as well as the ability to set a minimum quality of service threshold should it become necessary.

This Law No. 2011-302 of 22 March 2011, published in the *Journal officiel* of 23 March 2011, requires ARCEP to submit a report to Parliament and the Government in the first quarter of 2012, on several key matters relating to neutrality for which the Government has announced the creation of working groups: traffic management, quality of service and interconnection.

4.2. Actions performed by the Authority

These ten proposals constitute a major step forward. First, they mark the completion of the period of discussion and consultation in late 2009 that made it possible to define a sort of "moral standard" – which was something that Tim Wu[7] had expressed as part of his wishlist at the ARCEP conference in April 2010.

And, second, they mark the start of a cycle of work and monitoring of internet companies' practices, which will take place in an open and concerted fashion, involving all of the market's stakeholders. What is needed now is much closer analysis since, as the old saying goes, "the devil is in the details" and because, to gain the support of all parties concerned, attention must be paid to the issues that each and every one of them faces.

7 - Tim Wu is a professor at Columbia University. His best-known works concern the development of the Net neutrality theory – a concept that he popularised in article published in 2003 called, "Network Neutrality, Broadband Discrimination".

In accordance with its proposals, ARCEP began several work cycles in the first quarter of 2011:

- **on transparency and traffic management:** joint proposals are expected from the sector's stakeholders – including ISPs, service providers and consumer associations – in Q2 2011. The French Telecoms Federation, FFT (*Fédération française des telecoms*) has been tasked with organising this work, and stakeholders were invited to contact the Federation;
- **on quality of service:** ARCEP created and is overseeing a dedicated working group made up of ISPs, service providers, consumer associations and equipment manufacturers, whose purpose is to establish relevant indicators for measuring and monitoring the quality of internet services;
- **on interconnection:** ARCEP is engaged in efforts devoted to gathering information that will allow it to deepen its understanding of this relatively opaque market and to analyse the inner workings of its competition.

A summary of these different works, and the follow-up given or to be given, will be included in the report requested by Parliament, which is due in early 2012.

Working on the consumer's behalf

1. ARCEP's responsibilities and objectives with respect to consumption

ARCEP has been devoting itself for several years now to responding better to consumer demands in the markets it is responsible for regulating. A Consumer committee was created back in 2007, which meets three times a year[1]. A unit devoted entirely to consumer relations handles requests on a daily basis, with six full-time employees. And, finally, a dedicated website (*www.telecom-infoconso.fr*) informs consumers and users of electronic communications services (fixed and mobile telephony and internet) of their rights with respect to operators.

The Authority stepped up its commitment in 2010, making actions on behalf of consumers one of its top priorities, as many other regulators across Europe have done.

Excerpt from Chairman Jean-Ludovic Silicani's speech at the Authority's New Year's ceremony on 12 January 2011.

"In accordance with the Law, the Authority's approach to the market is the opposite of consumerism, a pathology that has translated into a proliferation of often incomprehensible offers and by reductions in price that are often artificial since they mask a decrease in content or quality. We must avoid this type of transgression at all costs. The President of the Republic has said on several occasions that, to convince our fellow citizens, especially in France, of the relevance of the market economy, they need to be convinced of its concrete benefits. It seems to me that this general remark is particularly apt when applied to relations between operators and consumers. I am convinced that, thanks to ongoing dialogue and the work being performed, we will see real improvements in months ahead."

The legislature increased ARCEP's responsibilities in the area of consumption, first by giving it the power to process complaints from postal users, starting on 1 January 2011 and, second, by requesting that ARCEP deliver an assessment of the application of Article 17 of the Law of 3 January 2008 for the development of competition for the benefit of consumers[2].

1.1 ARCEP's responsibilities in the area of consumer affairs

- ARCEP is not responsible for regulating retail markets. The French Postal and electronic communications code, CPCE nevertheless stipulates that the Authority is responsible for ensuring *"effective and loyal competition which is beneficial to consumers"* and

1 - See page 32.
2 - Status report submitted to Parliament and published by ARCEP on 30 July 2010.

that it must ensure, *"a high level of consumer protection, notably thanks to the supply of clear information"* (L. 32-1);

- In the postal market, ARCEP works to ensure that the universal service provider and authorised operators meet their obligations with respect to the creation of the universal service and the performance of postal activities;
- Lastly, the provisions contained in the new European directives of December 2009, and particularly the "Universal Service" Directive, increase national regulatory authorities' role in the area of consumer protection, and notably with respect to the disabled.

1.2. ARCEP actions on behalf of consumers

The Authority's actions in the area of consumer affairs consist of ensuring:

- on the one hand, that operators are able to develop innovative and quality offers at an affordable cost thanks to fair and effective competition between them;
- on the other hand, working in concert with the administrations that are responsible specifically for consumer protection, to ensure that end users – i.e. consumers, enterprises and local authorities – have access to these offers under satisfactory conditions, in other words that they have access to transparent, up-to-date and homogenous information on the content of the services on offer, and on the contractual terms applying to the supply of these same services.

At the request of the legislature, and as part of its responsibilities, ARCEP submitted a report to Parliament concerning the application of Article 17 of the Chatel Act, which was made public on 30 July 2010.

In the follow-up to this report, the Authority specified a series of actions to be taken in support of consumers whose purpose is to achieve the goals listed earlier. This led to the publication of 30 proposals on 18 February 2011, whose aim is to improve the offers made available to the consumers of electronic communications and postal services.

Article 17 of the Chatel Act

I. – After Article L. 121-84 of the Consumer code are inserted two articles: L. 121-84-6 and L. 121-84-7 which state:

"Art. L. 121-84-6. – "Art. L. 121-84-6. – The present article is applicable to all providers of an electronic communications service, as defined in Par. 6 of Article L. 32 of the French Postal and electronic communications code, providing electronic communications services to consumers, whether directly or through an intermediary third-party.

"Service providers may not make the conclusion or modification of the terms of the contract governing the supply of an electronic communications service contingent on requiring the consumer to accept a clause that imposes a minimum contractual period of more than twenty-four months from the date of the conclusion or modification of the contract.

"Any service provider that makes the conclusion or modification of the terms of a contract governing the supply of an electronic communications service contingent on requiring the consumer to accept a clause that imposes a minimum contractual period of more than twelve months must:

"1) Simultaneously propose the same offer of services attached to a minimum contractual period that does not exceed twelve months, at an affordable ("non disqualifying") price;

2) offer the consumer the ability to cancel their contract before it expires, starting at the end of the twelfth month following acceptance of such a clause, in exchange for payment of at most one quarter of the remaining balance due for the remainder of the minimum contractual period.

"The above stipulations apply to the conclusion or execution of all other contracts that bind the service provider and the consumer when the conclusion of this contract is contingent on the existence and execution of an initial contract governing the supply of the electronic communications service, without the total of the amounts due in exchange for early cancellation of these contracts, prior to the end of the minimum contractual period, exceeding one quarter of the remaining balance due for the

remainder of the minimum contractual period. "Art. L. 121-84-7. – The present article is applicable to all providers of an electronic communications service, as defined in Par. 6 of Article L. 32 of the French Postal and electronic communications code, providing electronic communications services to consumers, whether directly or through an intermediary third-party. "The service provider may only invoice the consumer the fees corresponding to the costs that it has actually incurred as a result of the cancellation, without prejudice, if applicable, to the contractual provisions pertaining to a commitment to minimum contractual period.
"The fees mentioned in the present article can only be demanded of the consumer if they are provided for explicitly in the contract and duly justified."
"II. – Within two years of the adoption of the present act, and based on information gathered during that period, the Electronic communications and postal regulatory authority will produce an impact assessment report on the provisions of the present article. This report will be made public and submitted to Parliament."

2. ARCEP diagnosis delivered as part of its consumer action plan

From July to October 2010, ARCEP undertook the first round of discussions with the different stakeholders: operators and their representative associations, consumer associations as well as the general directorate for fair trade, consumer affairs and fraud control, DGCCRF (*Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes*).

Upon completion of the first round of discussions, ARCEP submitted a document – which contained a reminder of the legal framework and of the Authority's powers in the area of consumer affairs, followed by a diagnosis of the situation in each of the areas being examined – to a public consultation that ran from 26 November 2010 to 14 January 2011, before drafting its proposals. Alongside this public consultation, ARCEP also held talks with all of the sector's stakeholders during the month of January 2011.

ARCEP published its final document, containing its 30 proposals, on 18 February 2011.

Some of the proposals constitute only a reiteration, an interpretation or the enforcement of existing provisions, so are to be put into effect immediately. Other proposals are intended to follow through on or instigate work performed in tandem with public and private sector players, while the final category constitute recommendations aimed at operators or public authorities – Parliament, Government and administrations.

The five themes that ARCEP selected relating to electronic communications concern: the transparency of offers, market liquidity, the quality and availability of services, value-added services (VAS) and providing the disabled with access to electronic communications services.

The Authority's actions in the area of postal affairs concern four themes: the procedures for processing complaints from users whose complaint to their postal

provider did not have a satisfactory outcome, meeting universal service obligations and obligations concerning postal activities, postal markings and the principle of the equal value of registered mail.

For each of these nine themes, ARCEP:
- provided a reminder of the legal framework and its powers in the area of consumer affairs;
- established a diagnosis of the situation;
- drafted several proposals for improving the offers made to consumers.

L'ARCEP évaluera, d'ici la fin de l'année 2011, la mise en œuvre de ces propositions, notamment celles ayant fait l'objet d'engagements des opérateurs auprès des pouvoirs publics.

2.1. ARCEP diagnosis concerning electronic communications

a. Transparency of the offers

To be able to make a free and informed choice, consumers need to have access to the most transparent information possible, in accordance with Article L. 32-1 of the code governing French postal and electronic communications markets, CPCE. In its analysis of the markets' performance, ARCEP concluded that significant improvements still needed to be made in this area, both before and after subscription to an electronic communications service.

The consumers of these services are faced with a multitude of offers: more than a thousand mobile offers were available in October 2010. It is difficult for consumers to perform an accurate assessment of these offers. For fixed line access solutions, the lack of clarity lies in particular in the actual connection speed supplied (both before and after subscribing), and the numbers that are excluded from so-called high-volume ("*abondance*") offers.

For mobile services, the lack of clarity lies more in the definitions of the terms "internet" and "unlimited", the various choices in terms of contract lengths, the terms for renewing a contract and handset subsidy practices.

Carriers' more detailed pricing tiers, e.g. according to the network or time of day for instance, require consumers to have a detailed knowledge of their consumption habits to be able to make an informed choice. For consumers to be able to gather information on their own usage is in itself a complicated and costly affair, given the time and effort it demands. Moreover, it is not encouraged by carriers' commercial strategy which consists of marketing a flat-rate, or possibly "unlimited" quantity of access to several services, for a set fee.

This lack of information on their usage prevents consumers from being able to perform an accurate comparison of the offers marketed by carriers, and to identify the one best suited to their needs. This is why ARCEP wants to see carriers introduce a consumption profile, notably for mobile flat rates. The profile would detail the customers' consumption of voice minutes, of SMS and MMS, Mb of data exchanged, broken down by time of day – and would be identical for all carriers.

b. Market liquidity

As ARCEP stated in its report to Parliament on the impact of Article 17 of the Chatel Act, electronic communications markets are characterised by the persistent, and possibly growing, presence of impediments to switching providers.

Whether intrinsic to the switching process or artificially put into place by operators to keep their customers, vendor switching costs are such that they are limiting consumers' ability to change offers and take advantage of market competition. This can therefore constitute a significant impediment to the development of healthy market competition.

In the mobile market in particular, the difficulties encountered by consumers wanting to unlock their handset or switch operators, along with some of the features that are proper to flat rate services, can be viewed as built-in switching costs.

ARCEP considers that the fact of having to request a code from one's carrier to unlock a mobile handset constitutes an artificial switching cost which tends to reduce market liquidity.

Consumers are not always aware that such a code exists, nor are they likely to be aware of the procedure

for actually unlocking their handset. In the specific instance where the consumer wants to unlock her handset to be able to use it on another carrier's network, the system in place recreates a potentially prejudicial two-step switching process that provides carriers with an opportunity to try to keep the customer from switching.

Some customers have encountered a great deal of difficulty in obtaining this code, which in some cases has resulted in them giving up on trying to switch operators. In a similar vein, this two-step process occurs when a consumer wanting to change carriers and having trouble estimating the cancellation fee she will have to pay, due to a lack of clear information in her contract, is required to call the carrier's customer service to find out the amount of the fee.

In addition, flat rates, which attract the vast majority of mobile service consumers, have two features that are capable of hampering market liquidity:

- first, this type of offer maintains a lack of clarity on pricing for the consumer, since the sum of the flat rate is in reality broken down into a portion paying for services consumed, and another portion that allows the carrier to recover its handset subsidy;
- and second, most of these offers include a monetary incentive to choose the longer contractual commitment, a duration that the carrier can extend for reasons that do not always appear justified: e.g. when changing the holder of the contract. The reasons for renewing a contract, and the terms applied to the use of customer loyalty points may also result in the customer being perpetually committed to their carrier, which can create an artificial impediment to switching.

Lastly, although they can be a source of efficiency and help to improve the services rendered to consumers, bundled and quadruple play solutions that combine a subscription to a fixed and a mobile service offering, under a single or several contracts, can also generate considerable barriers to switching operators.

These offers can in fact reduce the choices available to end users and their ability to choose, and so create a risk of perpetuating a lack of liquidity between the mobile market and other markets, and potentially of increasing overall switching costs in all the markets.

Editorial by Jean-Ludovic Silicani
ARCEP weekly newsletter of 19 November 2010

"Since autumn 2009, electronic communications markets, both fixed and mobile, have been thriving, thanks to the introduction of a host of new offers: convergent offers that combine fixed and mobile services – notably "Ideo" from Bouygues Telecom, "Open" from Orange and possibly new offers from MVNOs in the near future – ultra-fast broadband offers from Numéricâble and FTTH providers, and new boxes, such as the "Evolution" rolled out by SFR this week, and the one planned by Free for later this year. This effervescence is proof of the dynamic state competition and innovation in these markets. The regulator can only feel pleased by this momentum, contributing as it does to enabling it.

We nevertheless need to ensure that these new offers remain clear, transparent and easy to use, and that they do not result in a more rigid market that penalises consumers.

With this in mind, ARCEP will soon be submitting its proposals for improving consumer offers to public consultation, in accordance with the objectives assigned to it by the French Postal and electronic communications code."

c. Quality and availability of services

For several years now, ARCEP has been engaged in a global action plan devoted to the availability and the quality of the services marketed by operators, and which aims to improve consumer information on the quality of the services[3]. Consumers need to have access to the tools that will allow them to assess the quality of

3 - A chapter is devoted to the quality of the fixed and mobile service. See page 157.

the services and their availability, before and after they subscribe to an offer.

To this end, improvements need to be made in identifying and publishing internet quality of service indicators, in harmonising the QoS indicators for fixed and mobile services, along with improvements to the comparability of quality of service indicators.

d. Value-added services (VAS)

The VAS market has given rise to new practices that are causing growing discontent among consumers. This dissatisfaction concerns transparency, the clarity of the tariffs, the legitimate use of these numbers, but also the development of certain fraudulent practices to which consumers may fall prey.

The price charged for VAS currently depends on a large number of factors that are hard for consumers to identify. This analysis echoes the one performed by the Committee for information technologies, CGTI (*Conseil Général des Technologies de l'Information)*[4] in its report entitled, "*Value-added services: retail pricing and professional code of conduct*"[5] published in October 2008.

The co-regulation approach, which ARCEP always encourages, has resulted in progress being made recently in the area of value-added services. The introduction of a system for reporting spam SMS thanks to the "33 700" number is a good example. The approach has not led to a strong enforcement of a code of conduct by the Government. A system for monitoring VAS providers' conduct is nevertheless crucial to ensuring the legitimacy of the use of the services, to battle against fraud and to restore consumers' trust in the VAS value chain.

e. Providing disabled persons with access to electronic communications

France lags behind when it comes to ensuring that people with disabilities have access to electronic communications[6] – even though it concerns 5.5 million people in the country, or one out of every five families. The provisions contained in the Universal Service Directive, amended by the adoption of the new Telecoms Package nevertheless specifies that people with disabilities must enjoy equivalent access to services and a choice equivalent to the one available to other end users.

Some of the measures taken by stakeholders are aimed at achieving just that, such as the charter co-signed by the French mobile operators association, AFOM (*Association française des opérateurs mobiles*), ARCEP and the Inter-ministerial delegation of people with disabilities, DIPH (Délégation interministérielle aux personnes handicapées)[7]. Although these measures mark a positive development, carriers need to step up their efforts, in a spirit of co-regulation, to ensure that the disabled have both equivalent access and the same choices as those available to other users.

2.2. ARCEP's diagnosis of postal communications

a. Procedures for processing user complaints

Postal-service providers must have established procedures that allow their customers to submit complaints[8]. French law provides that, from 1 January 2011, ARCEP processes user complaints submitted to postal providers which could not be satisfactorily settled by the latter.

4 - Now the Committee for industry, energy and technologies, CGIET (Conseil général de industrie, de énergie et des technologies).
5 - "Les services à valeur ajoutée: tarification de détail et déontologie" .
6 - European Commission MEAC report, "Measuring the Progress of eAccessibility in Europe", November 2008.
7 - This charter formalises commitments that carriers made in 2005 – e.g. to offer services and devices adapted to people with disabilities – and establishes a graphic charter indicating the services and devices best tailored to each type of disability.
8 - For more information, see page 120.

Réclamations postales : l'ARCEP, en dernier recours[9]

Since 1 January 2011, postal-service customers can submit to ARCEP complaints which the procedures put in place by authorised postal providers have failed to resolve satisfactorily. This option is available to all private individuals or legal entities using a postal service provided by an authorised operator, either as senders or addressees, and may concern a complaint which has been not been dealt with, or dealt with wrongly or unsatisfactorily, by the postal-service provider concerned.

Before submitting their complaint to ARCEP, users must have exhausted all avenues of appeal offered by the postal providers, including La Poste's Ombudsman for complaints concerning La Poste.

One-month period

Following investigation of the case, ARCEP's Executive Board issues an opinion which is notified to the complainant and to the postal provider by registered letter with advice of delivery. There is a one-month complaint-processing period, except for particularly complex cases or those requiring special investigation.

The system adopted may change and develop, depending on feedback gleaned from experience and, in particular, on the number of submissions and any problems encountered. In any event, ARCEP will take stock after one year and introduce regular reviews in conjunction with consumer associations which will, of course, be involved in any improvements to the system.

b.Compliance with universal service and postal-activity obligations

Improvements are necessary to provide universal postal services that are affordable and of a specific standard – two obligations the operator responsible for the universal service has to meet under the *CPCE* (Postal and Electronic Communications Code). A set of provisions that benefit consumers has also been put in place.

Mini Max is an affordable universal-service option for sending items. Given the expansion of interpersonal mail exchanges, especially through Internet websites for buyers/sellers of second-hand books and DVDs in particular, there is substantial demand for this service. However, a recent study showed that post-office customers were not sufficiently aware of this product[10] and were frequently pointed towards more expensive options, like Colissimo, that did not necessarily match their needs. Furthermore, at one kilogramme and two centimetres thick respectively, Mini Max weight and size conditions seem fairly restrictive and could be broadened.

c. The role of the postmark

Many legislative and regulatory texts use the postmark as a way of defining a time frame within which individuals or legal entities must exercise their rights or fulfil their obligations. However, to date, there is no text defining the information the postmark should contain. Alternative operators have reported fears on the part of their customers about the validity of their markings.

d. The principle of registered-letter product equality

The words "*by registered letter with advice of delivery*" are found in many texts, in particular as a way of organizing legal and administrative procedure which requires the formality of a "*registered letter with advice of delivery*", with implicit reference to the corresponding La Poste product. As a result, users may be led to think that this reference applies solely to the "LRAR" registered letter/advice of delivery service which is a registered La Poste brand.

9 - *Details of submission procedures can be found on ARCEP's website: http://www.arcep.fr/uploads/tx_gspublication/dispositif-reclamation-postal-janv2011.pdf*

10 - *Findings of the study on the Mini Max service published in the " 60 millions de consommateurs " magazine, issue No. 448, April 2010 (study conducted by the Institut national de la consommation and cofinanced by ARCEP).*

To ensure fair competition, it is therefore necessary to issue a reminder that the registered-item service offered by authorised postal operators, in application of article L. 3 of the CPCE, is equally valid before the law.

Moreover, some companies such as express couriers offer services with characteristics similar to those of registered items, with the same guarantees as the registered-letter service provided by authorised postal operators.

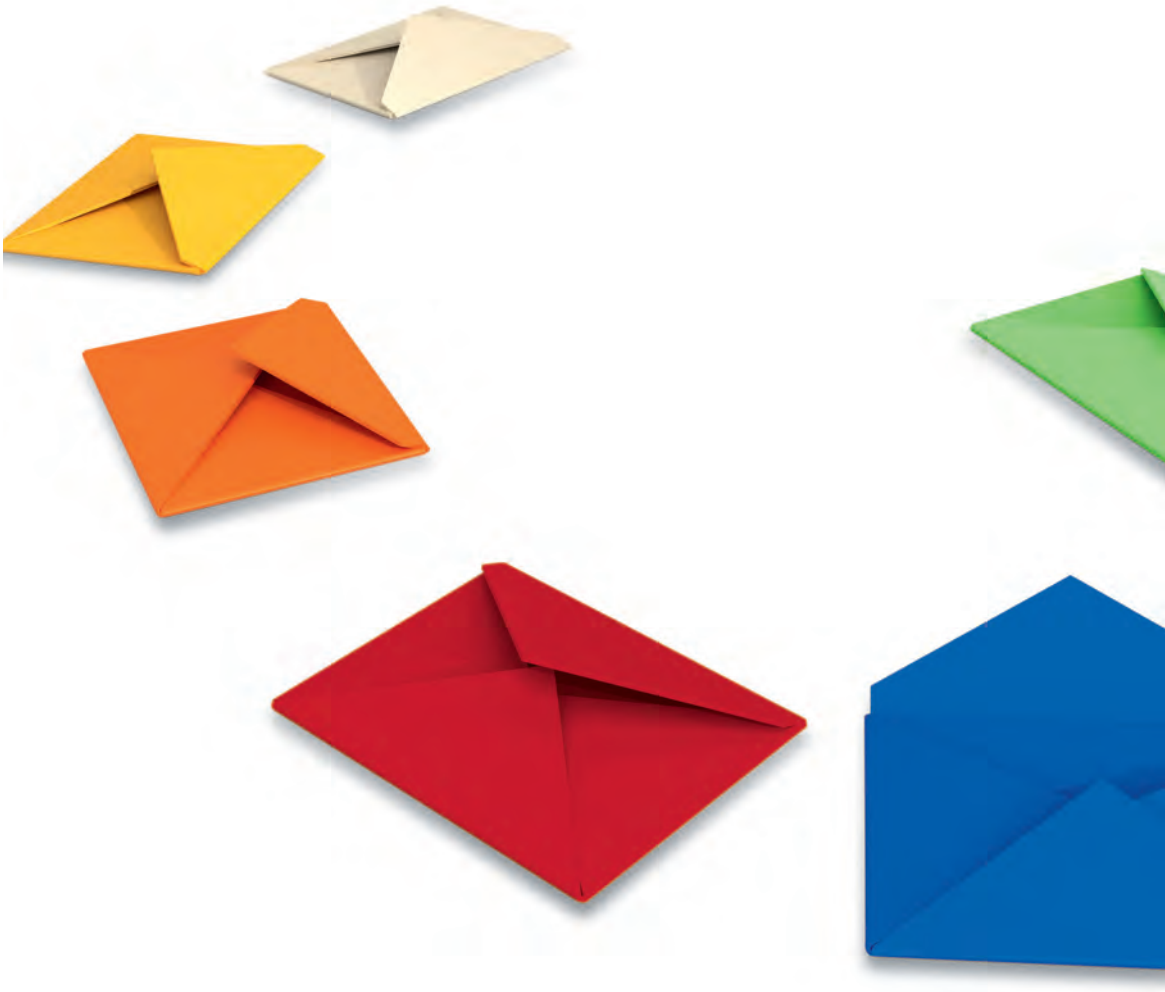
2.3. Summary table of ARCEP's proposals

The following table sets out some, but not all, of ARCEP's proposals. The document with all 30 proposals can be downloaded from: http://www.arcep.fr/uploads/tx_gspublication/propositions-consommateurs-180211.pdf

Proposals concerning electronic communications

	Transparency of offers	Market liquidity	Quality and availability of services	Value-added services	
Effective immediately. Reminder, interpretation or application of provisions that are in effect	Proposal No. 1 defines transparent information and the form in which operators must communicate it to consumers	n/a	n/a	Proposal No. 18 provides a reminder that phone calls to numbers starting with 01 to 05 and with 09 cannot be excluded from high-volume fixed or mobile offerings	n/a
Ongoing or new efforts with public or private sector players	Proposal No. 2 aims to instigate work on the supply of information relating to services provided as part of an internet access offer	Proposal No. 11 aims to instigate efforts on topics such as the impact of setting a maximum contractual term of twelve or even six months on mobile services.	Proposal No. 14 aims to instigate work on measuring and monitoring internet quality of service	Proposal No. 22 invites the sector's stakeholders to consider a code of conduct that would define the rules for the legitimate use of VAS	Proposal No. 23 invites the sector's stakeholders to participate in a working group on equivalence of choice and access to electronic communication services for all users, to formalise common commitments
Recommendations submitted to public authorities (Parliament, Government and administrations)	Proposal No. 4 aims to impose an obligation on operators to request official confirmation from their customers, either via hard copy or electronic file, when they subscribe over the Web or by phone to an offer that will affect their contractual obligation	Proposal No. 10 aims to specify the terms governing the cancellation of bundled offers and limiting the minimum contractual obligation to 12 months when they are sold under a single contract	n/a	Proposal No. 20 asks operators to integrate into their flat rate the portion of the price of the call that corresponds to the airtime consumed by calls to numbers starting in particular with 080 and 081	n/a

Proposals concerning postal communications				
	Complaint processing procedures	Compliance with universal service obligations	Remarks on postal items	Principle of equality for registered items
IMMEDIATELY APPLICABLE Issue reminders about , interprete or apply the provisions in effect	Proposal No. 24 recalls procedures for introducing measures for processing user complaints .	Proposal No. 26 reiterates, inter alia, that postal-service users must have affordable universal service options of a specific standard	n/a	n/a
WORK Continue or instigate work with public or private players	n/a	Proposal No. 27 states that ARCEP will continue its efforts to improve transparency about the characteristics and quality of UPS services so that users can access precise, clear, objectively presented and comprehensive information and make fully informed choices	Proposal No. 29 aims to ascertain how provisions concerning the postmark are applied, in the liberalised postal market context	Proposal No. 30 announces that ARCEP is to conduct an information campaign among all the public and private stakeholders to remind them that registered letters are not subject to any monopoly.



Postal regulation in 2010

At a hearing before the National Assembly's Economic Affairs Committee on 8 September 2010, Jean-Ludovic Silicani, President of ARCEP, announced the main postal areas currently being worked on. "*Together with La Poste, ARCEP is preparing the total opening of the postal market with effect from 1 January of next year: the Regulator will have to be equipped with the tools provided for by law. In 2011, ARCEP and La Poste will be studying ways of improving the "price cap" technique which we d3veloped jointly to give La Poste a clearer economic picture covering several years that lets it set tariffs as part of a basket comprising the various components of the universal service. Moreover, Parliament mandated us to evaluate the additional cost generated by La Poste's local-service network and by all user complaints*". Thus, 2010 was a very busy year for postal sector regulation.

1. 1 January 2011: total opening up to competition

On 1 January 2011, the delivery of letters weighing less then 50 grams was opened up to competition. Consequently, since that date, the letter market in France has been totally liberalised. However, so far, no competitors have succeeded in breaking into this market which is still the exclusive preserve of La Poste. This liberalisation, which complies with the Law governing the opening up of the postal market of 9 February 2010, also brought fresh powers for ARCEP in connection with processing complaints, national infrastructure development and evaluating network costs.

1.1. Total liberalisation of letters

Competition had existed on part of the market for many years. Consumers were already taking delivery of their parcels from La Poste's competitors (such as Adrexo) or through pick-up point systems like Kiala, and were having their early-morning newspapers delivered through non-postal channels that now process nearly one billion items a year (compared with the 1.6 billion items delivered by La Poste).

The same applied to the "express" letters and parcels delivered by companies such as DHL, Fedex and Chronopost with their very fast transmission times, especially at international level. On the other hand, the vast majority of letters still came under the postal monopoly, which ended on 1 January 2011.

Market opening had already begun for mail items sent abroad. Even before total mail-market liberalisation, businesses were calling for tenders and making La Poste compete with the subsidiaries of foreign Posts established in France.

One independent company, IMX, was set up in France to specialise in this segment where there is genuine competition. However, international mail represents only a fraction of mail volumes. Since 2006, ARCEP has authorised other companies to enter the domestic

market for mail weighing over 50 grams as this category did not come under the monopoly. However, it accounts for less than 16% of volumes, and no significant competition has emerged in France to date.


Dossier
Tri et acheminement
Quel avenir pour le secteur postal ?
Comme une lettre à la poste
REPORTAGE
Le Hub Courrier de La Poste à Roissy : un lieu hors norme

Should competition develops to the point of capturing significant market share in future, legislation provides for contributions by competitors to financing the universal service, as is already the case in the telecommunications sector. However, this seems to be a distant prospect, and the big question mark for postal operators is currently the market's structural decline.

- higher parcel traffic generated by the e-commerce boom enables La Poste to offset the fall in traditional remote-retailing volumes (a total of 261 million parcels conveyed by La Poste in 2010, compared with 254 million in 2009 and 271 million in 2008) and benefits its competitors;
- however, this increase does not offset the decline in traditional letters or in press items which has gathered pace with the development of non-postal channels;
- lastly, there are considerable fluctuations in advertising mail, depending on the economic situation (decrease held to 0.8% in 2010 after a sharp drop of 6.6% in 2009).

Dwindling postal traffic and operator adjustment to this development, rather than the advent of new market players, will remain the major issue on the French postal market in the foreseeable future

ARCEP dedicated issue 1/2011 of its quarterly "Les Cahiers de l'ARCEP" to the postal market with the aim of informing postal sector players, elected representatives and the general public about the stakes involved in this opening up to competition[1].

1.2. New powers for ARCEP

a) Processing of complaints

The Law of 9 February 2010 put the finishing touches to postal market liberalisation and introduced fresh guarantees for postal service users. In particular, in application of Article L. 5-7-1 of the Postal and Electronic Communications Code (CPCE) which came into effect on 1 January 2011, users can now submit to ARCEP complaints not satisfactorily addressed by postal service providers' own procedures: *"L'Autorité de régulation des communications électroniques et des postes (ARCEP) shall process the complaints of postal service users which could not be satisfied within the framework of the procedures established by authorised postal service providers."*

• ARCEP is ready to respond to applications from users

ARCEP drew up an organisational draft which was submitted to consumer-protection associations and postal providers on 10 October 2010, then discussed in the ARCEP Consumer Committee on 6 December. In addition, La Poste's Ombudsman,

1 - Available on ARCEP's website: http://www.arcep.fr/uploads/tx_gspublication/Cahiers_ARCEP_05_HD.pdf

Pierre Ségura, was given a hearing by ARCEP's Executive Board on 6 January 2011. ARCEP revised its rules of procedure on 16 December 2010 to enable it to process user applications as from the 1 January 2011 deadline.

Information about all these new provisions can be found in a special ARCEP website item, and postal providers will draw users' attention to their existence.

• Practical application of the procedures

Any private individuals or legal entities using a letter- or parcel-post service performed by an authorised provider, whether as senders or addressees, can put their case to ARCEP. The new provisions do not, however, cover La Poste's financial services and express transport.

Before submitting their case to ARCEP, users must have exhausted all avenues of appeal offered by the postal service providers. In the case of La Poste, they must have submitted their complaint to the La Poste Ombudsman.

To be admissible, applications must be submitted to ARCEP within two months of notification to the complainants of the reply of the postal provider's final appeals body or, if no reply is received, after two months have elapsed since submission of the complaint to the postal provider's final appeals body.

Applications and their attachments must be sent to ARCEP by registered letter, with a request for an acknowledgement of receipt:

b) Development of national infrastructure

La Poste's primary contribution to the development of national infrastructure is the universal postal service which makes it possible to send and receive mail anywhere on the national territory, at the same standard rates.

The Law of 9 February 2010[2] assigns La Poste the specific mission of "postal presence", the outlines and financing of which have been progressively defined. La Poste carries out this mission, which complements the universal postal service, through its network of contact points. This same Law supplemented these provisions and defined La Poste's network which must comprise a minimum of 17,000 contact points. ARCEP was mandated to evaluate the annual cost of this network for La Poste.

Excerpts from Article 3 of the Law of 9 February 2010

Article 6 of this same Law was amended as follows: 1° Four phrases, worded as follows, were inserted after the first phrase of I, subparagraph ii: "This network shall comprise a minimum of 17,000 contact points distributed over France's national territory, taking account of its specific characteristics, in particular in the overseas départements and territories.

• Network of contact points

This network of 17,000 contact points employs 58,000 staff (33,000 of whom are counter staff). At 4.2 billion euros[3], they constitute a costly expenditure item :

- business is very much focused on the major urban offices: 1,700 offices, i.e. 10% of the total number, account for 58% of turnover, and half of them for 90% of turnover;
- rural contact-point presence is very pronounced: 60% of these contact points – i.e. 10,000 of the 17,000 – are located in communes with fewer than 2,000 inhabitants[4]. Around 7,000 already operate in the form of partnerships with the communes (communal postal agencies) or with local shopkeepers (postal relay points);
- the 17,000 offices provide all La Poste Group services (letters, parcels, financial services), though letters represent just 18% of its turnover.

2 - Law No. 2010-123 of 9 February 2010 on the public corporation La Poste and on postal activities, published in the JO on 10 February 2010.
3 - 2009 data derived from La Poste's presentation to ARCEP on 7 June 2010.
4 - This roughly corresponds to the INSEE (National Institute of Statistics and Economic Studies) definition of "rural" areas.

Maximum of 5 kilometres in each département!

The 2005 Law on Postal Regulation clarified the national-infrastructure development mission by imposing two quantifiable obligations: La Poste must maintain outlets that complement those required under an accessible universal postal service, to ensure that the general public is less than 5 kilometres away from the nearest contact point, compared with the 10 kilometres specified solely for the universal postal service. The Law largely exempts La Poste from local taxes in return for retaining contact points in rural areas. This tax allowance amounted to some155 million euros in 2010. These obligations were clarified in the 2010 Law which stipulates a minimum of 17,000 contact points.
.

• Calculating the estimated cost of the additional network provided for by law

La Poste estimated the net cost of the network at 380 million euros in 2007, 350 million in 2008 and 320 million in 2009. This tapering off mirrors the growing number of communal agencies and relay points in local shops (500 offices converted every year).

The "net cost" of the additional network is calculated by comparing the current network's revenue and costs with those of a less dense "universal service" network.

The decree on the calculation methods has not yet been published, but ARCEP and La Poste have already begun work, basing themselves on the existing situation and focusing on the following three aspects:

- understanding and modelling the actual operational situation of small contact points: opening hours, resources deployed;
- estimating the costs and turnover for a postal network confined just to universal service requirements;
- determining the impact on structural costs of reducing the number of contact points (which account for almost 40% of total costs), while abiding by European regulations which allow an appropriate percentage of structural costs to be charged to this mission.

On the basis of the instructions in the decree on calculating methods, ARCEP will produce an evaluation system for finalising[5] the level of compensation due to La Poste for 2011.

2. Market statistics for 2010

2.1. Items of correspondence delivered in France

Items of correspondence – letters weighing less than 2 kilograms – account for eight out of ten items delivered in France, i.e. 14.8 billion items in 2010.

Volumes for this category fell 3.4% in 2010, slightly less than in 2009 (-5%). Revenue from delivery of such items stood at 7.6 billion euros in 2010, decreasing in parallel with volumes (down 3.1%).

a) Addressed advertising and items of correspondence, excluding addressed advertising

In 2010, the addressed advertising market held steady compared with 2009, after being hard hit by reduced traffic the previous year when volumes shrank 6.6% and revenue 9.5%. Volumes stood at 4.4 billion items, generating revenue of 1.5 billion euros.

The correspondence-item market, excluding addressed advertising, did not show the same stability. At 10.4 billion items in 2010, volumes were down 4.4% compared with 2009.

Revenue (6.1 billion euros in 2010) slipped 3.5% but was down less than in 2009 (-4.8%), returning to 2008 levels.

5 - In practice, the Law on Finance will adjust the rate of exemption from local taxes to give La Poste a tax saving equivalent to the cost that can be compensated for.

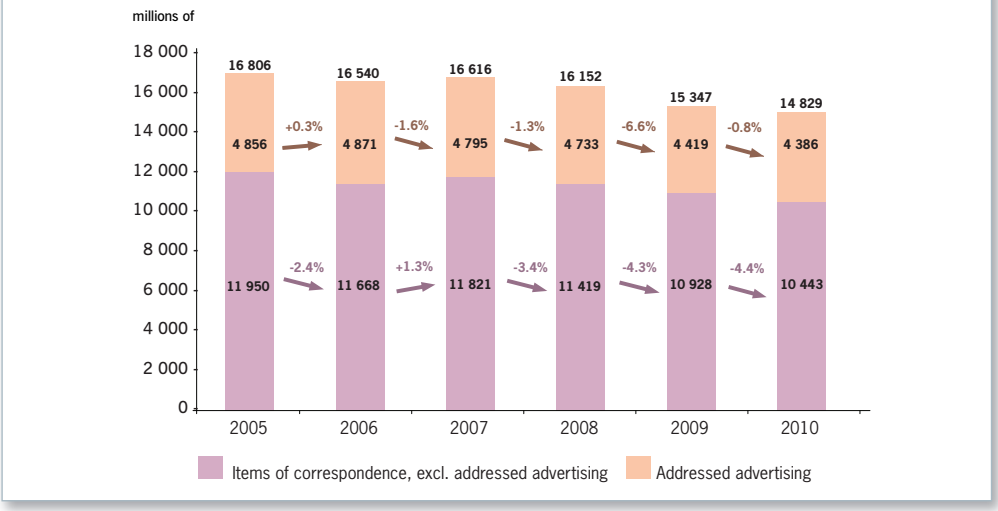
Revenu (EUR million excl. tax)						
	2006	2007	2008	2009	2010	Change 2010-2009
Addressed advertising	1 647	1 657	1 646	1 491	1 472	-1.2%
Items of correspondence, excl. addressed advertising	6 788	6 924	6 666	6 346	6 123	-3.5%
Total items of	8 435	8 581	8 313	7 837	7 595	-3.1%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

Volume (millions of)						
	2006	2007	2008	2009	2010	Change 2010-2009
Addressed advertising	4 871	4 795	4 733	4 419	4 386	-0.8%
Items of correspondence, excl. addressed advertising	11 668	11 821	11 419	10 928	10 443	-4.4%
Total items of	16 540	16 616	16 152	15 347	14 829	-3.4%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

Volume of items of correspondence delivered in France



b) Reserved area and competitive area

Accounting for 83% of correspondence-item flows and 75% of revenue, items of correspondence weighing less than 50 grams (i.e. the reserved area until 31 December 2010) also waned, with volumes (12.2 billion items) falling more (-4.2%) than revenue (5.7 billion euros) which shrank 2.3%. Higher tariffs for items of correspondence in the reserved area with effect from 1 July 2010 helped to stem this category's revenue contraction.

The non-reserved area (items of correspondence weighing more than 50 grams) remained stable in terms of volume, at 2.6 billion addressed items in France. In contrast, revenue from these items plummeted 5.3% year on year. These very different developments in volumes and revenue are partly due to lower average weights for this type of mail. The market share of alternative operators in this segment remains negligible.

Revenu (EUR million excl. tax)						
	2006	2007	2008	2009	2010	Change 2010-2009
Reserved area	6 201	6 269	6 170	5 859	5 721	-2.3%
Competitive area	2 234	2 312	2 143	1 978	1 874	-5.3%
Total items of correspondence	8 435	8 581	8 313	7 837	7 595	-3.1%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

Volume (millions of)						
	2006	2007	2008	2009	2010	Change 2010-2009
Reserved area	13 804	13 789	13 470	12 780	12 243	-4.2%
Competitive area	2 736	2 827	2 681	2 566	2 586	0.8%
Total items of correspondence	16 540	16 616	16 152	15 347	14 829	-3.4%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

2.2. L'export

Fewer items of correspondence were exported too, dwindling from 436 million items in 2009 to 404 million in 2010 (down 7.3%). On the other hand, at 399 million euros in 2010, revenue for this segment was up 6% on 2009, thanks to higher average weights for addressed advertising and higher tariffs for items of correspondence, excluding addressed advertising. Nearly eight out of ten exported items went to the European Union and 20% to the rest of the world. On this market, La Poste holds approximately half the traffic and three quarters of the revenue.

Revenu (EUR million excl. tax)						
	2006	2007	2008	2009	2010	Change 2010-2009
Total envois de correspondance	419	398	392	376	399	6%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

Volume (millions of)						
	2006	2007	2008	2009	2010	Change 2010-2009
Total envois de correspondance	475	462	468	436	404	-7%

Source: ARCEP, Observatoire postal - Enquêtes annuelles jusqu'en 2009, enquête avancée pour 2010, Provisional results for 2010.

3. Financing and quality of the universal postal service

The universal service is vital for a smooth-running economy and society. It is wide open to competition from other com- munication channels, and some sectors – such as remote retailing, the Press and administrative and judicial procedures – are extremely dependent on it. ARCEP's mission focuses mainly on tariff and quality of service issues.

3.1. Regulating postal tariffs

a) La Poste's tariff framework: the 2009-2011 price cap

ARCEP has set a framework for postal tariff movements between 2009 and 2011 which gives La Poste room for manoeuvre that is slightly above inflation (CPI[6]+ 0.3%) so it can maintain its financial equilibrium in a challenging economic environment.

6 - The Consumer Price Index (CPI) measures the average change in prices for goods and services consumed by private households, weighted by their share of the households' average consumption.

In practice, it was noted that the margins for the first two years (2009-2010) were not fully utilized, as was the case for the first price-cap period (2006-2008). During these first two years, postal tariffs rose by 2.7%, i.e. an average of 1.33% per year, and La Poste has a tariff margin of over 2% at its disposal for 2011.

Given the accelerating decline in postal volumes and the prospect of significant change in the scope of the universal service, ARCEP and La Poste have start working on future procedures for setting postal tariffs.

b) Postal tariff regulation landmarks in 2010

The postal tariff situation varies considerably from country to country: in the United States or the United Kingdom, where tariff-setting is highly competitive, substantial price increases are being envisaged.

The American Postal Regulatory Commission, however, rejected requests for a 6% increase which the United States Postal Service (USPS) said it needed to replenish its pension funds. The Commission considered that consumers should not have to finance unwarranted transfers within the public sector. The Netherlands is also planning a significant tariff hike, while Germany is holding its letter tariff at the level set in the early 2000s.

Against this backdrop, ARCEP adopted three significant Opinions on postal tariffs:

• Domestic mail

Opinion No. 2010-0469 of 20 April 2010 noted an important consequence of the 2009-2011 tariff framework: the tariffs paid by SMEs (machine-franked items) have been uncoupled from those of private customers (prepaid with postage stamps7).

Previously, the tariff for machine-franked items was the same as that for items of correspondence prepaid with postage stamps, minus a 1% discount, which meant that changes in face-value tariffs for these two item categories were linked.

Both ARCEP and La Poste wanted this uncoupling of tariffs for SME mail (which – at 15.7 billion items – in itself accounts for approximately 32% of total correspondence-item volumes) and tariffs for private customers, the idea being for small businesses to progressively benefit from tariff conditions that better reflect the actual economic situation and costs.

In practice, the tariff increase for postage-stamped letters weighing less than 20 grams amounted to EUR 0.02 (up from EUR 0.56 to EUR 0.58), i.e. an increase of 3.6%, while the price of a machine-franked letters rose to EUR 0.57.

On average, domestic postal tariffs increased 1.74% in 2010, 1.78% for the reserved area, and 1.66% for the competitive area of the universal service. Tariffs for the single-piece range climbed significantly by an average of 2.9%, while transactional mail prices remained stable.

• International mail

La Poste substantially raised its tariffs for outward international mail from mainland France – by 4.9% for the postage-stamped service used by the general public, and by 2.8% for "business" mail, making a total increase of 3.9%, following the increases in 2008 (2.51%) and 2009 (2.94 %).

In particular, the "priority letter" tariff for items weighing less than 20 grams sent to the European Union and Switzerland (zone 1) climbed from EUR 0.70 to EUR 0.75 (up 7.1%).

Similar increases (EUR 0.05) had been implemented in 2006, 2008 and 2009. For businesses using machine franking, the "priority letter" tariff went up from EUR 0.69 to EUR 0.72, an increase of 3.9 %.

Priority letters for zone 1 represent 53% of total outward mail turnover (scope of the Opinion), and 20 % of the first weight step.

7 - Postage-stamped items are prepaid with stamps or labels purchased at tobacconists', post office counters or from self-service franking machines. Such items are mostly sent by private individuals.

Price of a priority mail item					
	2005	2007	2008	2009	2010
Tariff in EUR for a priority item under 20 grams for zone 1 (Europe)	55	60	65	70	Private individual: 72 cents Businesses: 72 cents

ARCEP Opinion No. 2010-0593 of 1 June 2010 pointed out that the consecutive increases in tariffs for "zone 1" since 2005 had achieved a satisfactory economic balance for outward mail for this area and had even created a higher margin than for universal service operations taken overall. This balance was the product of contrasting situations, with the postage-stamped item segment in balance while the business segment generated a higher margin.

In connection with tariffs for postage-stamped items weighing less than 50 grams sent to "zone 1", ARCEP noted that the price paid by French consumers is overtaking that paid for the equivalent service in Germany, the United Kingdom, Italy or Spain. La Poste cites eliminating the current deficit as the reason for the planned increase.

• Commercial discounts

Opinion No. 2010-1352 of 14 December 2010 ratifies the renewal of a provision about which ARCEP had approached the Competition Authority for its views in 2007.

The Opinion noted that La Poste justifies discount levels with analyses based on a concept of incremental costs which is different from the "assignable" costs calculated within the framework of statutory accounting.

The incremental costs calculated by La Poste include all variable costs, as well as part of fixed common costs. In accordance with an analysis generally accepted by competition authorities[8], La Poste considers that any risk of supplanting is excluded when the marginal price is higher than the incremental cost. Seen from this angle, all marginal prices for the last bracket are well above incremental costs.

ARCEP is open to the idea of introducing a cost benchmark of this kind as part of changes to statutory accounting and has invited La Poste to suggest a new documented and auditable methodology for preparing statutory accounts when drawing up those for 2010.

However, it commented that in the absence of a new competitor operating at national level on the delivery market[9], it was not possible to compare postal tariffs comprising discounts with the costs of a rival operator, and hence to assess the compatibility of these tariffs with the development of competition.

The Opinion specified that La Poste's marginal tariffs, after application of the highest discount, would need to be compared with the average costs incurred by an efficient market entrant operating on a reasonable percentage of the national territory, holding a significant share of the market and able to provide enough of a tariff differential to make its services attractive to the large mailers of transactional items that any new entrant is most likely to target.

Moreover, ARCEP reminded La Poste to guard against distorting mailing-house market competition between its subsidiaries and independent companies because, in order to calculate the turnover of customers eligible for commercial discounts, La Poste collects exhaustive information about mail generation behaviour that must not be passed on to La Poste subsidiaries operating in the mailing-house sector .

8 - For instance, Competition Council Decision No. 04-D-79 on the practices used by the Régie départementale des passages d'eau de la Vendée (RDPEV), which cites in particular the European Commission's Decision of 20 March 2001 (COMP/35.141 – Deutsche Post AG) on practices in the postal sector.

9 - Market fully opened up to competition from 1 January 2011.

3.2. Guaranteeing quality of service

a) Table of quality of service performance indicators

The 2010 table of quality of service performance indicators published by La Poste contains information about transmission times, the accessibility of La Poste's contact points and La Poste's processing of complaints. At ARCEP's request, La Poste has been publishing this information every year since 2006.

ARCEP attaches great importance to transparency about universal service quality because information about these quality standards enables users to make informed product choices, as well as giving La Poste an incentive to provide services in line with consumer expectations.

The relevance of the indicators used and any desirable changes are regularly discussed with consumer representatives within the framework of the Postal Consumers Committee.

Thus, the information published in the table of universal service performance indicators is being constantly adapted to reflect user needs. Indicators are adopted only if they can be reliably measured at reasonable cost.

The list of indicators published in this table is expanded from year to year and now covers the majority of key user information requirements.

Mail transmission times

Transmission times	2005	2006	2007	2008	2009	2010
% of single-piece priority letters delivered in D+1	79.1	81.2	82.5	83.9	84.7	83.4
% of single-piece priority letters delivered in D+2	95.4	96.2	96.3	96.8	96.8	96
% of imported cross-border mail delivered in D+3	95	95.9	95.5	97	95.7	92.7
% of exported cross-border mail delivered in D+3	93	94	94.8	95.4	94.4	90.4
% of imported cross-border mail delivered in D+5	99.1	99.3	99.1	99.5	99.3	98.7
% of exported cross-border mail delivered in D+5	98.5	98.7	98.8	99	98.7	99.6

Priority-letter transmission times steadily improved until 2009, reaching 85%.

However, transmission-time quality deteriorated again for the first time in 2010, and the standard is still lower than that of most other major European postal services – a difference that may be partly explained by geographical factors.

However, it should be noted that this level of quality does not provide consumers with relevant information. Users can only be sure of service performance (for instance, that the letters they are sending will actually be delivered in D+1) when the success rate is 100%. The further the standard of quality deviates from systematic achievement of the objective, the more uncertain quality of service becomes.

The national annual percentage of D+1 is an average that "sums up" different local situations.

ARCEP believes that a minimum quality of service benchmark with a 90% success rate is required to provide customers with relevant information.

Transmission times and reliability of the Colissimo service

Transmission times	2005	2006	2007	2008	2009	2010
% of Colissimo Counter items delivered in D+2	83.8	84.1	85.8	85	87.7	84.8
% of Colissimo Counter items delivered in D+3	92.2	95.5	95.9	96.3	96.6	95.2
% of Colissimo Counter items delivered in D+4		98.5	98.6	98.7	98.9	98.3
% of Colissimo Counter items delivered in D+7				99.8	99.9	99.8

After improving in 2009, the percentage of Colissimo items forwarded in D+2 fell again in 2010. La Poste pledges to give senders a Colissimo France item voucher if it fails to meet this deadline, as an incentive for providing better quality.

Transmission times and reliability of the registered letters service

Transmission times	2008	2009	2010
% of registered letters delivered in D+2	90.9	88.7	85.8
% of registered letters delivered in D+7	99.6	99.7	99.6

The percentage of registered letters delivered in D+2 declined even further in 2010, to 85.8%. Though registration is a priority-letter option, transmission times are longer than those for priority letters.

In 2010, roughly one registered letter in 500 had not been delivered seven working days after posting, a slight deterioration compared with 2009.

Distribution of letter boxes in terms of latest posting times (LPTs)

			2007	2008	2009	2010
Letter boxes with an LPT:	before 13.00	Number	120 837	119 788	119 913	119 950
		Percentage	82.01	79.95	80.37	80.85
	before 16.00	Number	143 635	142 267	141 795	141 152
		Percentage	97.48	94.96	95.03	95.14

ARCEP attaches considerable importance to monitoring latest posting times which directly impact on quality of service as perceived by consumers.
Collection-box numbers and clearing times have remained much the same for the past three years, with the great majority of boxes being cleared before 13.00.

Complaint-handling statistics

Mail	2005	2006	2007	2008	2009	2010
Number of complaints	533 123	591 252	417 237	446 751	627 812	862 538
Complaints as a % of total flow	0.003	0.003	0.002	0.002	0.003	0.004
Replies within 21 days	87	90	97	97.7	95.3	99
Replies within 30 days	93	94	98,7	99	98	99.4
Complaints giving rise to compensation	7.6	7.7	9	10.4	14.6	13.7

In 2010, approximately 0.004% of overall mail flows gave rise to the lodging of a complaint. This mail-flow total breaks down into very different flows comprising addressed advertising, bills, postcards and even registered letters.

The number of complaints is on the increase, perhaps because La Poste has opened up new channels for lodging complaints free of charge (Internet, surcharge-free phone number "3631", prepaid letter).

It is interesting to note that most complaints are processed within 21 days and that 13.7% of them give rise to compensation.

b) Quality objectives for registered items deemed inadequate by ARCEP

The Minister for Posts referred La Poste's draft quality of service objectives for 2010 to ARCEP which noted that these objectives (set mid year) were unlikely to

impact positively on the quality of the service provided to users.

ARCEP drew the Minister's attention to the fact that the range of proposed objectives now included an objective concerning transmission times for registered letters, given their vital economic and social importance.

ARCEP questioned the relevance of setting a transmission-time objective based on a percentage of registered items delivered in two days (D+2). The very name "registered letter" and the fact that, in La Poste's catalogue of commercial services, the registered-letter tariff is set with reference to the letters tariff leads users to justifiably classify registered letters as priority items (delivered in D+1). Moreover, the suggested standard of 88% provides only limited assurance of delivery within two days.

c) Cooperation with La Poste on improving the quality of registered items

In 2010, ARCEP and La Poste worked on the quality of registered items, basing themselves on an audit of La Poste's quality measurement systems conducted by the consultants Ernst & Young. This audit revealed that the registered letter had not benefited from the efforts La Poste had put into modernising other mail categories. Registered letters are still sorted manually, while the great majority of other products conveyed by La Poste are now machine sorted.

The work in progress will result in better measurement of quality of service for registered items. From 2011, losses and inconsistent transmission times will be measured in conformity with European Standard EN 14137. This measurement system could not be introduced in 2010 because items were not recorded on entering the postal network.

This will be rectified from 2011, thanks to the introduction of:

- systematic barcode-scanning of registered letters in post offices from the first quarter of 2011;
- systematic barcode-scanning of corporate registered letters posted without a dispatch note from the end of 2011.

Ideally, the new measurement system should make it possible to measure D+1 and D+2 transmission times, thus superseding the tool currently used for the statistics published in the performance table and providing consumers with better information about the quality of registered items.

3.3. Learning more about customer requirements

The advent of the Digital Society has changed mail use patterns:

- institutional flows to households (B to C) now dominate the mail market, at the expense of flows between private individuals (C to C);
- advertising flows account for a growing share of items of correspondence, at the expense of personal or transactional communications (bills, bank statements, etc.);
- parcel-service business is booming while correspondence traffic is on the wane.

In this context, ARCEP and the Ministry responsible for Posts (DGCIS) commissioned the London Economics firm of consultants to carry out a study bringing out the changing needs of households and ascertaining the service characteristics to which they give priority.

The study revealed that, despite changing usage and methods of interpersonal communication, postal services are still genuinely important for consumers, whether private or professional. Over 55% of companies believe that postal-service malfunction is harmful for their business. Consumers are still attached to priority letters, even though most of them need next-day delivery only now and then, and they do not really expect a D+1 service for letters sent outside their home region. Only 20% say they always need their letters to arrive the next day.

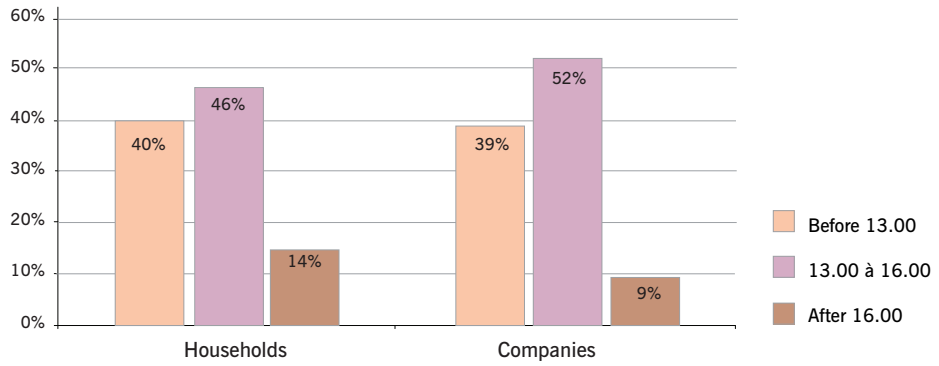
The study also drew some important conclusions for non-priority (economy) letters, noting that this service is not used by nearly three quarters of households which use only the priority letter service, partly because of its shorter transmission time, but also to a considerable extent because they are largely unaware of the economy letter's existence, even

though this service would match user requirements in most cases.

Furthermore, the study identified a glaring discrepancy between transmission times as perceived by customers and those measured by La Poste. According to the statistics published by La Poste, 83.6% of priority letters were delivered in D+1 in 2010, whereas only 18% of the private individuals and 36% of the companies surveyed thought that their priority letters were delivered in D+1.

This discrepancy may be due to LPTs being set too early to satisfy user requirements.

Chart: Latest posting times – Percentage of households and companies



On the whole, the priority factors for consumers are (in decreasing order of importance): waiting times at post offices, regular deliveries and the condition of items. Delivery times for registered letters feature among the most important aspects.

3.4. Studying the financing of universal service obligations

When evaluating the net cost of the universal postal service, account must also be taken of the service's intangible benefits. However, to date, no study has managed to establish whether any such benefits exist for the postal service or to say how these benefits could be further capitalized on.

That is why ARCEP commissioned Wik Consult with a study entitled "*Definition, classification and methodology for evaluating intangible benefits relating to the universal postal service*" which was carried out in the second half of 2009.

The study constructed an analytical grid which ARCEP could use to estimate the net cost of the universal postal service.

It shows that there are indeed intangible benefits relating to the universal service but that these vary quite considerably. Given the present tentative status of the methodology, benefit evaluation could prove very costly.

The main findings about factors to be taken into account or ignored in calculating the intangible benefits of universal service obligations are summarised in the following tables.

Factors to be taken into account in calculating US cost	Factors to be ignored in calculating US cost
1	**3**
Intangible benefits of the USO	**Other commercial benefits**
• Enhancement of corporate reputation and brand value • Corporate visibility through sales outlets, letter boxes, etc. • Better bargaining position • Privileged access to the philately market • VAT exemption • Exemptions from customs and excise regulations • Exemption from transport licence • Economies of scale	• La Poste's dominant market position • Detailed knowledge of the market • Profit from interest earned on prepaid postage • Ownership of PO boxes • Definition of the postcode system • Parking exemptions • Tax allowances • Privileged access to terminal dues of foreign postal operators
2	**4**
Tangible benefits of the USO	**Elements which, in theory, proffer no advantage**
• US/non-US demand complementarities • Press subsidies	• Low transaction costs due to uniform tariffs • Life-cycle effects • Addressee database • Ubiquity

4. Launch of the European Regulators Group for Post

The European Regulators Group for Post (ERGP) was created by a European Commission Decision dated 10 August 2010.

The ERGP groups the heads of 27 national regulatory authorities. The European Commission, EFTA's Surveillance Authority, EEA member states and countries which are candidates for membership of the EU participate as observers.

The Group is assisted by a secretariat that provides the necessary administrative support for its work.

The aim of the ERGP is to advise the European Commission and facilitate coordination among member countries' regulatory authorities.

ARCEP Commissioner Joëlle Toledano was elected ERGP Chair for 2011. Tim Brown, Chief Executive at Postcomm, the British regulator, and Göran Marby, Director General of Sweden's regulator PTS, were elected Vice-Chairs.

The 2011-2012 work programme will focus on:
- l'allocation des coûts, en particulier des coûts communs de distribution ;
- allocating costs, in particular the common costs of delivery;
- calculating the net cost of the Universal Service Obligation and, more specifically, the impact of the VAT exemption from which universal service operators may benefit;
- end-user satisfaction and monitoring of market outcomes;
- cross-border services;
- conditions under which large mailers and competitors can access the incumbent operator's postal-service infrastructure.

The ERGP will contribute to achieving the European countries' common goal, which is an innovative postal delivery sector for the benefit of all European Union citizens. This aim can only be achieved if the European Union's regulatory framework is applied in a sound and coherent manner, following both the letter and spirit of the Postal Directives.

From left to right : Sten Selander (Sweden), Joëlle Toledano (France) et Tim Brown (United Kingdom).

Interview with Joëlle Toledano, ARCEP Executive Board member and Chair of the European Regulator Group for Post[10]

How is the European Regulators Group for Post organised?

The ERGP was set up by a European Commission decision of August 2010. At its first plenary meeting, on 1 December 2010, the Chair and Vice-Chairs – the Swedish and British regulators – were elected and the broad lines of the Group's work programme defined, with the Commission providing the secretariat. In 2011/2012, we will be working on five topics:
- the allocation of postal operator costs;
- the cost of the universal service and, in particular, the issue of differing VAT rates which could benefit the operators responsible for the universal service;
- user satisfaction and monitoring how postal markets operate;
- cross-border tariffs: the Commission is keen to understand whether parcel price levels are justified;
- access to the postal market for new entrants, mailing houses and consolidators.

Let's start with cross-border tariffs. Why is there a different price for sending an item from Paris to Albi or from Paris to Riga, when we all live in the European Union?

There's no reason for tariffs to be the same, unless there were to be a postal monopoly for the whole of Europe regulating tariff equalization. It's by no means certain that would be in users' best interests!

But the European Commission has imposed standard roaming tariffs throughout the Union for telecoms…

Postal operators bill each other for services provided on each other's behalf. Fifty years ago, they billed each other on the basis of very low terminal dues, which were much lower than their actual costs, while telecom operators had very high distribution charges. Market liberalisation and the search for greater efficiency resulted in higher terminal dues and lower distribution charges. Even today, the ratio between inner-European tariffs and national tariffs is much lower for mail than for mobile telephony.

10 - The Joëlle Toledano interview can be found (in French) in Cahiers de l'ARCEP issue No2, April 2010.

The situation for trans-European parcel tariffs is different from the situation for letters.

At first sight, parcel prices seem too high. And this is a problem for the European Commission in view of the objective of setting up a single e-commerce market. Within the limits of its restricted powers in this area, the ERGP will help the Commission to understand why parcel tariffs are high – in other words, whether they are economically justifiable or whether they are inappropriate. However, in this matter, leadership lies very clearly with the Commission.

Does the ERGP have more definite powers as regards cost allocation?

This issue is part of our core competencies and missions. Regulatory texts stipulate that tariffs are to be cost based. As postal operators by their very nature supply multiple products, understanding costs is clearly crucial. Our think tank must aim for a better understanding of cost allocation rules as part of an economic cost driver.

You also mentioned the universal service and differing VAT rates …

The cost of the universal service is another focal issue, especially for the ten or so countries where the market was fully liberalised from 1 January 2011. It is a matter of assessing the additional costs generated for the universal service operator by its US constraints – in the knowledge, however, that, in a certain number of countries, the VAT systems result in skewed competition that benefits the universal service operator. At present, there is no method for creating a level playing field for these two factors, should the need arise. That is part of our work.

Wouldn't it be simpler for each Member State to have a standard VAT rate for the incumbent operator and market entrants?

VAT is a fiscal matter. Several years ago, the Commission submitted a draft directive on standardising VAT but failed to obtain the necessary majority for this kind of decision. Since then, CJEC case law has specified the grounds to be given for justifying VAT exemption.

In a certain number of countries (but not necessarily all of them), we will now be trying to see to what extent the benefits accruing to postal operators responsible for the universal service from difference in VAT rates can be evaluated, and this presupposes making progress on methodology.

And network access?

This question covers two types of issues: on the one hand, access for competitors to essential information (changes of address, postcodes, P. O. boxes, etc) held by incumbent operators.

On the other hand, access for mailing houses and consolidators to incumbent operator services to which big generators of items – which are likely to use these intermediaries – themselves have direct access.

Are mailing houses and consolidators disadvantaged or at an advantage in respect of these big generators of items? National legislation differs throughout Europe, so developing mutual understanding on this matter is essential.

One has the feeling that the ERGP's main task will be to create common analytical tools!

The aim is indeed to develop and share joint methodological tools and harmonise analytical methods – in a nutshell, to speak the same language when discussing an issue so that our respective countries can then regulate making the best possible use of these same tools when applied to regulatory situations and frameworks that may differ.

In conclusion, is it possible to be a postal regulator without being an economist?

I'm an economist myself, so I talk like one, but the Post is an intensely emotional topic in all countries, so there is no chance of its being reduced solely to an economic issue, nor do we want that to happen.

On the other hand, economics permits objectivity about a certain number of things and, in that respect, I think the fact that regulators are initiating and introducing economic analysis mechanisms will improve the quality of the political debate.

PART THREE

Ensuring a smooth-running market

Electronic communications market figures

Contrary to the situation in other countries in Europe, the sector's revenue increased in France in 2010. This increase is especially noteworthy since telecommunications prices have been tending to drop by 2% to 3% over the past few years.

The electronic communications sector is in a constant state of technological development, and 2010 was also a time of major organisational shifts: the arrival of a fourth mobile carrier, Free Mobile, and the consolidation of a new ISP in the fixed broadband and ultra-fast broadband market, Bouygues Telecom.

Upcoming coverage challenges, for both fixed and mobile networks, are forcing carriers to invest more in new generation networks.

Their investments came to a total €6.4 billion in 2010, which is 8.3% more than in 2009. This increased spending can be attributed in large part to three carriers' acquisition of spectrum: Free Mobile, SFR and France Telecom. But their recent announcements on planned investments in optical fibre rollouts bode well for 2011. Also noteworthy is the involvement of a sizeable number of local authorities in more sparsely populated areas, which should help accelerate ultra-fast broadband coverage across the country.

1. Principal market data

1.1. Market back on a growth trajectory

As with the economy as a whole, growth in the electronic communications market had been weakening over the past two years: increasing by a mere 0.5% again in 2010, compared to around +3.5% in 2008 and 2007. Revenue generated by the electronic communications market stood at €41.2 billion in 2010. The market's growth is being

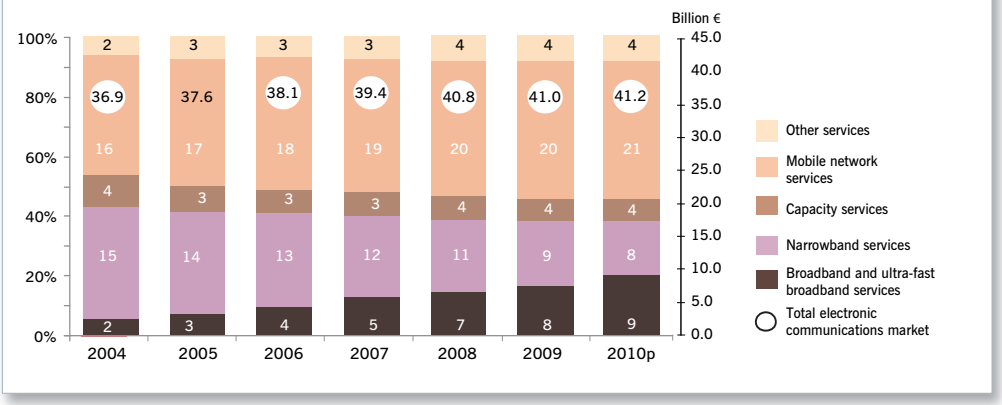
Operators' retail market revenue (billion €)

	2006	2007	2008	2009	2010p	Growth 2010-2009
Fixed network services	20.1	20.5	20.7	20.6	20.3	-1.5%
Broadband and ultra-fast broadband services	3.9	5.4	6.5	7.8	8.5	8.9%
Narrowband services	12.7	11.6	10.5	9.1	8.2	-9.7%
Capacity services	3.4	3.4	3.5	3.7	3.6	-3.5%
Mobile network services	18.1	19.0	20.1	20.4	20.9	2.6%
Total electronic communications market	38.1	39.4	40.8	41.0	41.2	0.5%
Other services	2.9	3.3	3.6	3.6	3.9	7.2%
Operators' total end-market revenue	41.0	42.7	44.4	44.6	45.1	1.1%

Source: ARCEP, Observatoire postal - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Note: "other services" revenue is not derived from the electronic communications market, per se. It includes revenue generated by the sale and rental of terminals and equipment, including the rental of IP boxes, hosting and call centre management revenue, and revenue derived from print directories, advertising and the sale of databases. Contributions from declared operators provide only a partial view of these market segments

Evolution of electronic communications operators' revenue, and breakdown by segment



Source: ARCEP.

spurred by data and by fixed and mobile broadband services.

The revenue generated by mobile services increased by 2.6% (€20.9 billion) thanks to an increase in data services, i.e. internet, which now account for 21.5% of this income – or three points more than in 2009.

Income earned on fixed broadband and ultra-fast broadband continues to rise (+8.9% in 2010) and these services now out-earn narrowband services (i.e. fixed line telephony) whose decline continues (-9.7% over the previous year).

The number of fixed lines shrank again in 2010, down to 35.2 million. Six out of ten fixed lines deliver a broadband or ultra-fast broadband connection to the Web, or 21.3 million subscriptions (+1.5 million in 2010).

As to mobile services, although the year got off to a rocky start in terms of new customer sign-ups, the number of SIM cards in service (including data only and MtoM cards) stood at 65 million in December 2010, which marks an increase of 3.5 million over 2009.

Equipment (million)

	2006	2007	2008	2009	2010p	Evolution 2010-2009
Number of fixed lines	34.1	34.5	35.1	35.4	35.2	-0.7%
Number of mobile customers	51.7	55.3	58.0	61.5	65.0	5.7%
Number of broadband and ultra-fast broadband fixed network subscriptions	12.7	15.8	17.8	19.9	21.3	7.4%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Traffic originating on fixed networks has been increasing by a little over two billion minutes a year for the past two years, spurred by the growing number of VoIP subscribers whose average monthly consumption is two hours more than PSTN customers. After a slight dip in 2009 (-0.6%), mobile calling traffic was back up 2010 (+2.3%), and this even though text messaging is increasingly ubiquitous. Boosted by the growing number of "unlimited" offers, the number of SMS sent has tripled in two years, to reach 103.2 billion in 2010.

Traffic volume (billion minutes)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Originating on fixed networks	105.7	106.0	109.3	111.4	113.7	2.3%
Originating on mobile networks	94.0	99.5	101.8	101.1	103.0	1.8%
Number of person-to-person SMS/MMS (billion)	15.3	19.5	35.1	63.3	103.1	63.0%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

1.2. Employment and investment

Electronic communications operators' personnel numbers remained relatively unchanged in 2010, at just under 124,000 people. The steady decrease that we had been seeing for more than 10 years had already begun to lessen in 2009, compared to the previous years.

Operators' investments rose by 8.3% in 2010, in particular thanks to a spike in spending on broadband and ultra-fast broadband networks, both fixed and mobile, of around 40%.

Operators spent just under a billion euros on fibre rollouts, which has helped to offset the slight decline in investments in the wireline business.

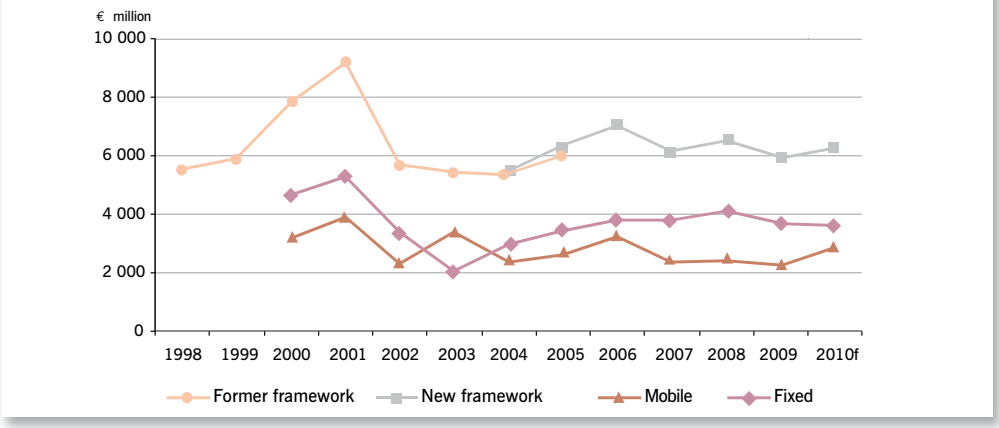
They also increased their spending on mobile networks by a considerable 25%, and particularly on UMTS networks which, at €1.5 billion account for more than half of these expenditures.

Emplois et investissements						
	2006	2007	2008	2009	2010p	Evolution 2010-2009
Nombre d'emplois directs (en milliers)	133,1	129,9	126,1	124,0	123,7	-0,2%
Investissements (en milliards d'euros)	7,0	6,1	6,5	5,9	6,4	8,3%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Note: these figures include only operators declared with ARCEP, and not the entire electronic communications economic sector. Excluded are distributors/retailers, service providers (consultants, market research firms, call centres…) and equipment manufacturers. Enterprises declared with ARCEP and which are involved only marginally in the electronic communication sector are not included in sector employment figures.
- Investment figures refer to the gross investments made by operators declared with ARCEP in their electronic communications business during the fiscal year in question.
- Starting in 2004, the framework governing electronic communications was expanded to include all internet service providers and data carriers.

Electronic communications investment levels



Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

1.3. Fixed broadband network services

a) The retail market

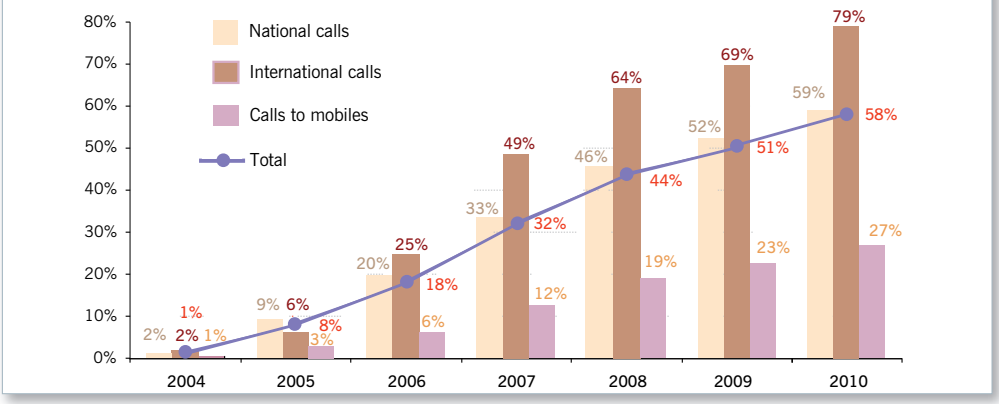
The electronic communications market's primary growth engine, broadband access services continued to grow in 2010, generating €700 million more than 2009 – with total broadband market revenue coming to €8.5 billion. The income generated by internet subscriptions and bundled solutions (IP boxes) accounts for the vast majority of this, i.e. €7.2 billion.

Voice over broadband calling traffic increased by 16.3% in 2010 to reach 64.8 billion minutes, or close to 60% of the outbound traffic on fixed networks. The proportion of IP traffic to overseas destinations came to 80% in 2010.

The number of new broadband internet subscriptions dropped to 1.5 million, compared to two million during the previous two years and three million annually between 2005 and 2007.

In December 2010, the number of broadband subscriptions stood at 21.3 million, of which 18.9 million are part of a double play bundle with a telephone service, and 10.7 million part of a bundle that includes a television service (+20.7%).

Percentage of IP traffic originating on a fixed line, by call destinati



Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Retail market revenue (€ billion)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Broadband access	3.3	4.6	5.6	6.7	7.2	8.9%
VoIP calls (flat rate overage)	0.2	0.4	0.6	0.7	0.8	10.5%
Other revenue	0.4	0.4	0.5	0.5	0.5	6.3%
All broadband services combined (bn€)	3.9	5.4	6.7	7.8	8.5	8.9%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Subscriptions (million)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Internet access	12.7	15.8	17.8	19.9	21.3	7.4%
Voice over broadband	6.7	10.9	14.4	17.1	18.9	10.5%
TV over ADSL	2.6	4.5	6.2	8.8	10.7	20.7%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Calling traffic (billion minutes)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Voice over broadband calls	18.7	33.2	47.5	55.7	64.8	16.3%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

b) The wholesale market

Full unbundling continues to be successful, with a more than 20% increase in the number of unbundled lines. In December 2010, 73% of the wholesale connections sold to alternative carriers were fully unbundled lines. Shared access, on the other hand, has been on a steady decline since 2008. The number of bitstream connections held more or less steady in 2010 (1.2 million lines), but the bitstream market as a whole has been on a downwards slide for three years running.

Unbundling (million)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Number of shared access lines	1.826	1.613	1.393	1;309	1.194	-8.8%
Number of fully unbundled lines	2.160	3.625	4.939	6.414	7.794	21.5%
Total LLU lines as of 31/12	3.986	5.238	6.332	7.723	8.988	16.4%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Bitstream (ATM and regional IP) and national IP (million)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Total number of lines	2.090	2.233	2.196	1.892	1.706	-9.9%
Of which bitstream	0.188	0.942	1.186	1.245	1.219	-2.1%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

1.4. Fixed line calling over the PSTN

Shrinking steadily for the past ten years, the revenue generated by services delivered over narrowband fixed networks (chiefly fixed calling) lost close to 10% in 2010, facing stiff competition from voice over broadband (VoBB) services.

The decrease in the number of PSTN subscriptions accelerated in 2010 (-2.6 million), and traffic was down by a little over 12% compared to 2009.

Revenue from value-added services (VAS) continues to decline as well, albeit at a slightly lesser pace (-10.6%), after two years of posting a sharp decline of more than 17% – due in large part to the introduction of legislative measures imposed by the "Chatel Act"[1] and the Law on modernising the economy, LME (*loi de modernisation de l'économie)*.

Retail market revenue (billion €)

	2006	2007	2008	2009	2010p	Growth 2010-2009
PSTN subscriptions	5.6	5.5	5.2	4.7	4.4	-7.7%
Public payphones, cards and narrowband Internet	5.7	4.7	4.1	3.4	3.0	-12.2%
Value-added and directory services	1.4	1.4	1.2	0.9	0.8	-10.6%
Total	12.7	11.6	10.5	9.1	8.2	-9.7%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Subscriptions (million)

	2006	2007	2008	2009	2010p	Growth 2010-2009
"Classic" telephone subscriptions »	31.6	28,7	26,3	24,1	21,5	-10,9%
Carrier selection	6,9	4,9	3,3	2,8	2,1	-24,4%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Calling volume (billion minutes)

	2006	2007	2008	2009	2010p	Growth 2010-2009
Calls on the PSTN	87.1	72.8	61.9	55.7	48.9	-12.2%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

1 - Law No. 2008-3 of 3 January 2008 for the development of competition for the benefit of consumers, commonly known as the Chatel Act, published in the JO of 4 January 2008, guarantees the waiting time for electronic communications services (after-sales service, technical support and all other services concerning the processing of complaints concerning the execution of a service contract).
Law No. 2008-776 of 4 August 2008 on modernising the economy (LME) published in the JO of 5 August 2008, orders a change in the price charged by hotlines, as of 1 January 2009, since a phone number whose purpose is to receive calls from customers with a view to obtaining the proper execution of a contract signed with a provider, or to process a complaint, cannot be surcharged. Moreover, certain surcharged numbers are included in the price of calls originating on mobile lines ("toll-free" 0800 and 0805 numbers as of 1 April 2009 and 081BPQ numbers as of 1 January 2010).

1.5. Capacity services for business customers

The revenue generated by the capacity services market came to €3.6 billion, of which a little more than a third was earned by leased line solutions. X25 and Frame Relay technologies have by and large been replaced by IP and Ethernet services which now account for virtually the entirety of data transport revenue.

Retail market revenue (billion €)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Leased lines	1.5	1.4	1.5	1.5	1.4	-6.8%
Data transport	1.9	2.0	2.1	2.2	2.2	-1.2%
Capacity services revenue	3.4	3.4	3.5	3.7	3.6	-3.5%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

1.6. Mobile services

The number of mobile service customers continues to rise at a steady pace: by 5% to 6% annually since 2008 (+3.5 million SIM cards during the year), to reach 65 million in December 2010. Close to half of this increase (49.3%) can nevertheless be attributed to data only cards for accessing the internet, and machine-to-machine (MtoM) cards whose use has been rising steadily for the past two years, reaching 5.4 million cards in 2010, or 8.3% of the total base.

The number of SMS sent during the year rose by 40 billion (+68.9%), up to a total 103.2 text messages sent in 2010.

Calling traffic originating on mobiles is back on an upwards trajectory, increasing by 2.3% in 2010 – after dipping slightly in 2009 (- 0.6%) – with apparently a spike in consumption late in the year. Corresponding revenue continues to decrease, however, albeit at a lesser pace than in 2009 (- 0.6% over the previous year in 2010 versus - 2.2% one year earlier).

Retail market revenue (billion €)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Voice services	14.6	15.1	15.6	15.3	15.2	-0.6%
Data services (SMS and data)	2.1	2.4	3.1	3.8	4.5	19.6%
Value-added and directory services	1.3	1.4	1.4	1.4	1.3	-7.7%
Total mobile services	18.1	19.0	20.1	20.4	20.9	2,6%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

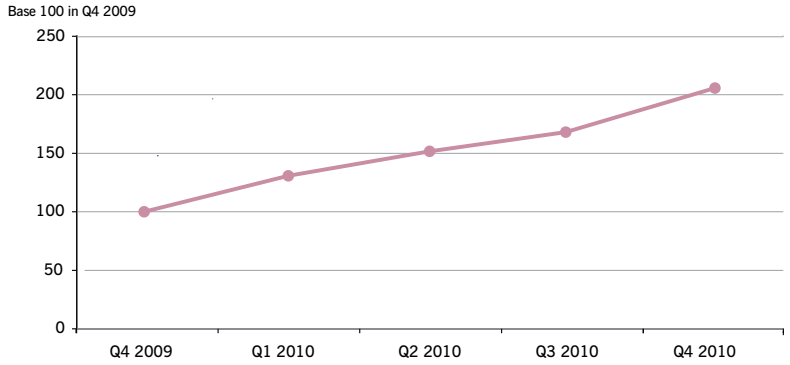
Subscriptions (million)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Mobile network customers	51.7	55.3	58.0	61.5	65.0	-5.7%
Of which active 3G subscribers		5.9	11.4	17.7	22.5	27.0%
Of which data-only cards (3G keys)		0.5	1.0	2.1	2.8	32.1%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Calling volume						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Voice calls ((billion minutes	94.0	99.5	101.8	101.1	103.5	2.3%
Number of person-to-person SMS/MMS (billion)	15.3	19.5	35.1	63.3	103.2	63.0%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Volume of data consumed by mobile customers



Source: ARCEP.

The most spectacular development in the mobile market in 2010 was the huge surge in data traffic. Customers' appetite for the mobile internet is clear, with mobile data traffic doubling in a single year, in addition to a 38.1% increase in the use of 3G dongles and a 20.8% increase in the use of multimedia services. As a result, mobile service revenue rose by even more than in 2009, due in large part to the increased revenue generated by data transport (+19.6%).

2. Usage

2.1. Number portability

In 2010, 4.8 million numbers were ported, or close to 100,000 more than in 2009.

This decrease compared to previous years can be attributed to the fact that fewer fixed line numbers are being ported.

Number retention (million)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Total numbers ported during the year	2.3	3.4	4.2	4.7	4.8	1.7%
For fixed network subscribers	1.9	2.5	2.3	2.9	2.5	-15.3%
For mobile network subscribers	0.4	0.9	1.4	1.8	2.3	29.3%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

2.2. Average consumption indicators

The average monthly invoice for a fixed line (including monthly spending on landline calling and internet access) stood at €35.8, excl. VAT, in 2010, which is 30 eurocents below the year before. This invoice corresponds to what a customer pays in a month to access the fixed network, whether or not they have an internet connection, broadband or narrowband, and whether or not they have a PSTN or IP telephony subscription, or both.

As the number of households equipped with an internet connection was rising and broadband was replacing narrowband access, the average invoice had increased slightly up until 2008.

This trend has been more than offset by the decline in PSTN subscription revenue (-7.7%), due in particular to the decrease in the number of customers with two lines (5.2 million in 2010 compared to 5.7 million in 2009) and especially in calling revenue (of around -12%).

Average consumption has risen slightly. After a decrease of 17 minutes in 2009, the average amount of traffic generated by customers who use IP telephony rose by six minutes this past year (to 5 hours and one minute a month), but still far exceeds the volume of traffic generated by customers who call over the PSTN: 2 hours and 53 minutes a month, which is 6 minutes less than in 2009.

Average monthly consumption per fixed line (€, excl. VAT, or minutes a month)

	2006	2007	2008	2009	2010f	Growth 2010-2009
Average monthly invoice: access and calls over the phone service and the Internet	35.5	36.2	36.6	36.1	35.8	-0.9%
Average monthly volume of outbound voice calls	253	252	258	260	265	+1.9%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Average monthly invoice per subscription (€, excl. VAT, a month)

	2006	2007	2008	2009	2010f	Growth 2010-2009
PSTN subscription	27.2	26.8	27.2	25.9	25;9	-0.1%
Narrowband internet access	8.8	8.1	7.9	7.2	6.8	-6.1%
Broadband or ultra-fast broadband access	26.7	29.4	30.8	32.5	32.4	-0.2%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).

Average monthly fixed line consumption per customer (In hours a month)

	2006	2007	2008	2009	2010f	Growth 2010-2009
PSTN subscription	3h37	3h15	3h02	2h59	2h58	-3.4%
VoBB calls	3h10	5h15	5h12	4h55	5h01	2.0%
Average monthly volume per narrowband customer	11h25	10h45	10h59	10h04	9h27	-6.1%

Source: ARCEP, EC Observatory - Annual surveys 1998-2009; quarterly survey for 2010 (estimated figures).

Mobile customers' average monthly invoice (excl. VAT) – not including MtoM cards and corresponding revenue – decreased by only 30 eurocents, vs. -70 eurocents in 2009, for a consumption level that remains largely unchanged (-0.8%).

Mobile customers' average monthly consumption In euros, excl. VAT, or units per month)						
	2006	2007	2008	2009	2010f	Growth 2010-2009
Average monthly invoice per customer (€, excl. VAT)	28.0	27.4	27.7	27.0	26.7	-0.9%
Average monthly volume of calls per customer (minutes)	157	156	153	148	147	-0.8%
Average monthly number of SMS sent per customer	25	30	52	92	146	58.2%

Source: ARCEP, EC Observatory - Annual surveys up to 2009; quarterly survey for 2010 (estimated figures).
Enquêtes annuelles jusqu'en 2009, enquête trimestrielle pour 2010, estimation provisoire.
Note : Calculations for average voice and SMS traffic do not include M2M cards (number of cards and corresponding revenue) or data only cards

2.3. Household and individual equipment levels

Household equipment levels at year end (%)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Fixed telephony	82.2	83.6	85.4	86.2	88.1	2.2%
Microcomputer	54.9	60.0	64.7	68.3	71	4.7%
Internet access	44.3	49.4	57.8	62.6	69.2	10.5%

Source: Médiamétrie-Gfk – "Référence des equipments multimedia"

Household equipment levels at year end (%)						
	2006	2007	2008	2009	2010p	Growth 2010-2009
Active mobile penetration rate (% of the population)	80,8	84,6	88,7	92,8	97,1	4,5%

Source: ARCEP, Mobile market quarterly observatory
Note: excluding M2M cards (number of cards and corresponding revenue) or data only cards

The rate of wireline equipment amongst residential users (88.1%) gained another two points, according to the quarterly index of household equipment published by Gfk-Médiamétrie.

On a steady decline up until 2004 due to growing competition from mobiles, fixed telephony equipment levels have been rising steadily ever since, thanks to the popularity of IP boxes. Over the past five years, micro-computer and internet access equipment has become increasingly ubiquitous: seven out of ten households are now equipped, and 97% of households with a computer have an internet connection.

2 - The active user base corresponds to the total number of flat rate services and prepaid cards a customer has used to receive or make a phone call or send an SMS over the past three months

Ensure the smooth running of the universal electronic communications services[1]

The universal electronic communications service guarantees that all consumers in the whole of France have access to a fixed telephony service at an affordable price, along with the existence of a telephone directory and a directory information service, and the deployment of public payphones. The universal service has both a geographical dimension – the right to connection from anywhere in the national territory (at a single, "balanced" tariff) – and a social dimension, thanks to a preferential tariff for the most underprivileged members of society.

The service providers responsible for the different components, which were designated in 2009 following a call for proposals, are France Telecom for the telephone and public payphone services, and *Pages Jaunes* for the directories and directory assistance services.

In the October 2009 issue of the ARCEP newsletter, "*Lettre de l'Autorité*" devoted to social support mechanisms[2], Chairman Jean-Ludovic Silicani suggested going further and rethinking these mechanisms to better share the fruits of the sector's growth: "*The concept of universal service, which is similar to the concept of public service, is built on three pillars: regional solidarity[3], economic solidarity, and accessibility – particularly for people with disabilities[4]. With the development of new services and the implementation of a state of lasting competition between operators, we are called on to rethink support mechanism beyond the current universal service system. The goal is not only to guarantee that all our fellow citizens have access to a minimum set of services, but also to enable them to take the utmost advantage of access to attractive services and the ability to choose their provider. On the matter of telephony, for instance, a growing number people are doing away with their "classic" telephone service, which is a universal service component, and opting instead either for a purely mobile solution or a fixed line bundled solution which includes access to television and the internet, in addition to telephony. To allow users, and especially the most underprivileged among us, to take advantage of these offers and to choose the technology they want to use, when it comes to fixed services, the current system aimed at bridging the divide will need* to include, at the very least, bundled solutions[5] ».

1 - *The universal postal service is addressed on page 124.*
2 - *"Lettre de l'Autorité" No. 68, October 2009. Available on the ARCEP website at: http://www.arcep.fr/uploads/tx_gspublication/lettre68.pdf*
3 - *"L'intervention des collectivités, outil de solidarité pour les territoires" (Local authority involvement, an instrument of regional solidarity), "La lettre de l'Autorité" No. 68, pp 10-11.*
4 - *"e-accessibilité: la France dans l'Europe" (e-accessibility: France within Europe), "Les centres relais téléphoniques: rendre la téléphonie accessible aux personnes sourdes et malentendantes" (Telephone relay centres: making telephony accessible to the deaf and hard of hearing), and "Lutter contre le handicap grâce au téléphone mobile" (Overcoming disabilities thanks to mobile telephony), "La lettre de l'Autorité" No. 68, pages 14-15, 16-17 and 18, respectively.*
5 - *For further details, see 154.*

1. Scope of the universal service

1.1. Universal service and public service

The universal telecommunications service is one of the three public telecommunications service components which also include the provision of mandatory electronic communications services and general interest missions. It is the only component to be financed by a sectoral fund. It corresponds to a set of basic services that are essential for allowing users taking part in social and economic life, and which are already accessible to most of the population. Through its two dimensions, i.e. geographical and social, the universal service makes it possible to ensure that the services are available nationwide and can be accessed by even the most underprivileged members of society. The supply of the telephone service and the supply of mandatory services[6] are bound by the law[7] relating public service obligations in the electronic communications sector which specifies that all of the services included in the universal service must include measures in that take account of the needs of people with disabilities.

Public electronic communications service			
	Universal service	**Mandatory services**	**Public interest mandates**
Content	Three components: fixed telephony service (tariff balancing and social tariffs), directories and directory assistance, public payphones	Leased line service, ISDN, IP packet switching service, advanced voice call services	Involvement in national defence and national security. Development of research and training
Financing	Financed by the sectoral fund to which all operators contribute	Shouldered by the operator designated to provide the "telephone service" component	Included in operators' terms and conditions

1.2. Universal service components

The three components of the universal service are available throughout the French territory (Metropolitan France, the overseas *départements* and the territorial collectivities of Mayotte and Saint-Pierre and Miquelon) and include:

Elles comprennent trois composantes.

- the telephone service: this covers the installation and connection to the fixed public network and the provision of a quality telephone service over this connection ("geographical" sub-component) and. The designated operator is required to supply telephone services (subscription and calls) at the same price nationwide. It also covers special pricing and technical provisions for low-income users and those with disabilities ("social" sub-component). The beneficiaries of this social tariff are people who receive the social integration minimum income, or RMI (*revenu minimum d'insertion*) – which in Metropolitan France has been replaced by the earned income supplement, or RSA (*revenu de solidarité active*)[8] – a specific solidarity allowance, or ASS (*allocation de solidarité spécifique*), the disabled adult allowance, or AAH (allocation aux adultes handicapés) or the allowance given to disabled ex-servicemen.
- the Universal Directory and Universal Directory

6 - Unlike universal service components, no financial compensation is given for the supply of mandatory services.

7 - Law No. 2003-1365 dated 31 December 2003 concerning public service obligations in the electronic communications sector, published in the OJ of 1 January 2004.

8 - The transitional measures in place during the implementation of the RSA scheme, which include the social tariff reduction for telephone services, were extended by Decree No. 2010-760 of 6 July 2010, with a view to extending the scheme to the overseas territories.

Information Service which covers the provision of a directory enquiry service and a printed directory[9] that is made available for free to all public telephone service subscribers, both fixed and mobile;

- and the Public Payphone Service which covers the installation and maintenance of public payphones (at least one public payphone in each municipality, and two in those with more than 1,000 inhabitants) in the public thoroughfare, and the provision of a quality and reasonably-priced telephone service over these payphones.

2. Universal service implementation and management schemes

2.1. Service providers

The designation of the operator(s) in charge of universal service is performed by the Minister responsible for electronic communications, following calls for applications (one per component or per service element) relating to the technical and tariff conditions and, if necessary, to the net cost of providing these services.

	Designation period 2005-2009			Designation period 2009-2012		
Components	Provider	Duration	Period ends	Provider	Duration	Period ends
Telephone service (nationwide)	France Télécom	4 years	3 March 2009	France Télécom	3 years	13 December 2012
Public payphones (nationwide)	France Télécom	4 years	3 March 2009	France Télécom	2 years	25 December 2011
Printed directory (nationwide)	France Télécom	4 years	29 March 2009	Pages Jaunes	2 years	27 December 2011
Directory information services (nationwide)	France Télécom	2 years	29 March 2009	Pages Jaunes	2 years	10 December 2011

2.2. Financing the universal service

The costs that can be attributed to fulfilling universal service obligations, and which correspond to the costs that the service provider would not incur were it not for these obligations, are assessed annually by the Authority and are compensated by sectoral fund.

All electronic communications operators[10] – fixed and mobile carriers and ISPs – with an annual retail turnover of more than €5 million contribute to the universal service fund in an amount that is proportionate to their annual sales.

3. The Authority's role

3.1. The Authority's role in determining the cost of the universal service

Based on the universal service provider's costs and audited revenue, ARCEP calculates the resulting net cost of the universal service for each of the components (total costs – total revenue + all intangible benefits).

This net cost factors in the intangible benefits of being the universal service provider. The Authority determines whether this cost is excessive for the operator(s) designated to provide the universal service.
Then, based on the statements of relevant income

9 - During the previous calls for proposals, the ministry considered that there was no need to designate an operator for the electronic directory, as the state of competition was such that it guaranteed the service in the marketplace.

10 - As defined by Article L. 32, Para 15 of the CPCE, "Operator" refers to "any physical or legal entity that operates an electronic communications network open to the public or which provides the public with an electronic communications service".

submitted by the operators as part of their universal service obligations, the Authority determines the contributions due from the operators concerned and informs them of the amount. The following table lists the provisional contributions for each operator for 2011, which correspond to the final contributions for 2008:

The *Caisse des Dépôts* (Deposit and consignment office) is responsible for managing the universal service fund. It ensures the financial and accounting management of the contributions from operators and the compensation paid out to these operators following the final and estimated universal service net cost assessments performed by the Authority.

Universal electronic communications service		
Contributing operator	**Contribution for 2011 (€)**	**Share of the total contribution**
France Télécom	7,678,197	33.8%
SFR	5,729,315	25.2%
Orange France	4,931,085	21.7%
Bouygues Telecom	2,303,967	10.1%
Free	367,771	1.6%
Orange Caraïbe	162,401	0.7%
SRR	125,007	0.6%
Colt Technology Services	115,103	0.5%
Completel SAS	107,929	0.5%
Other	1,197,219	5.3%

An agreement was established between ARCEP and the *Caisse des Dépôts* that defines the technical system for managing the fund. It was updated in 2010 to take into account changes to the *Caisse des Dépôts* responsibilities, with a view to ensuring the proper governance of management fees, and was approved by the Minister responsible for Industry, Energy and the Digital Economy on 23 December 2010.

3.2. Changes in the cost of the universal service

The net cost of providing the universal service has remained unchanged since 2004. The final cost for 2008 came to €22.7 million.

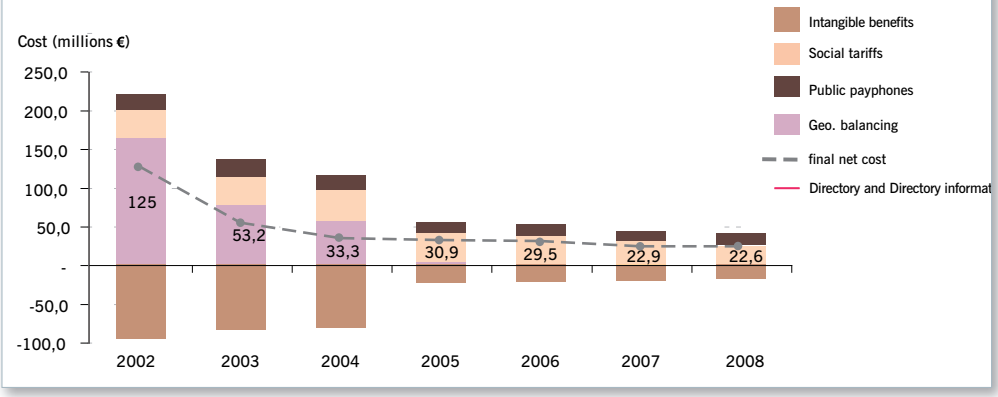
The final cost for 2009 has not yet been established, but will be in May of this year. Draft regulation prior to the assessment of the cost of universal service for 2009 was submitted to a public consultation that ran up to 17 March 2011.

The proposed regulation allows for a distribution of the intangible benefits according to the different components of the universal service. They therefore include the benefit of stronger brand recognition compared to the competition, the technical and commercial benefits resulting from the scope of the network, the advantage from a marketing standpoint of having access to all the data relating to telephone usage and, finally, the advantage of having certain customers' or groups of customers' "value" increase over time.

It is worth noting that, up until 2009, France Telecom ensured the supply of all the universal service components, so an aggregate method was used for assessing the intangible benefits attached to the status of universal service operator, and did not distinguish between the three components.

3.3. Monitoring quality of service

Final net cost of the universal service



The operators responsible for providing the universal service must comply with several quality of service obligations, and publish QoS parameter data for the universal service component(s) they have been designated to provide.

These parameters, which concern turnaround time for supplying the initial connection, for fault repairs and unsuccessful call ratios[11], can be viewed on the France Telecom website at the following URL: *http://www.orange.com/fr_FR/groupe/reseau/documentation/#.*

New quality of service obligations have been added to universal service providers' terms and conditions since 2009. In addition to annual national and regional data, operators will provide ARCEP with a detailed quarterly status report on the most extreme situations concerning connection and fault repair turnaround times[12].

Obligations with respect to publication have also been strengthened. As a result, the deadline for publication of national indicators is 31 March of year n+1 for year n, and a month after the quarter for which data is being produced has ended, which allows public authorities to react quickly to any potential decline in QoS parameters.

3.4. Universal service tariff supervision

The Authority has the power of supervision over all universal service tariffs.

For most of the tariffs applying to calls made from a fixed telephone line – i.e. over the PSTN, which corresponds to the universal service offering – ARCEP has opted for a system of multi-annual price cap supervision up until the end of 2012, rather than individual a priori supervision of universal service tariffs. Tariff supervision for France Telecom concerns universal service customers' person-to-person calls. It imposes a minimum decrease in the average price of these calls of at least 3%[13] in addition to the average decrease in France Telecom interconnection and access fees, minus inflation (or CPI[14]) and allows universal service customers to benefit from a regular decrease in France Telecom calling prices.

This decrease reflects both decreases in call termination charges, notably for fixed-to-mobile calls, imposed by the Authority and France Telecom productivity gains. France Telecom's alignment of its long distance calling prices with local calling prices on 21 October 2010, has therefore already brought down the average per-minute price of long distance calls by around 50%, both in mainland France and in the French overseas territories. For the other services – such as subscriptions, calls to

11 - Parameters listed in Annex 3 of the Universal Service Directive of 7 March 2002, and restated in the Orders of 12 December 2009 and 24 November 2009 which designate France Telecom as the universal service provider.
12 - Indicating the number of connections installed or pending more than 30 days after the request was made, and the number of faults that had yet to be repaired two weeks after having been reported.
13 - Corresponding to the carrier's forecast annual productivity gains for the period in question.
14 - CPI, or consumer price index, is an indicator that measures the annual average change in a monthly index of prices, excluding tobacco (4018 E), published by the National Institute of Economic Statistics and Studies (Institut national de la statistique et des études économiques), expressed in base 100 in 1998.

special numbers and fixed line calls to international destinations, the price of calls made from public payphones and the price of calls to the directory information service – the Authority has an a priori power to veto the universal service tariff.

4. Upcoming changes

Several regulatory developments are likely to alter the universal service system.

4.1. Will broadband access be included in the scope of universal service?

The process of transposing the directives from the new Telecoms Package could well lead to changes in the regulatory framework governing the universal service, and lead to the inclusion of broadband access. In its clauses, Directive 2009/140/EC, amending Directive 2002/22/EC, no longer contains a minimum data rate figure. The Directive now refers only to "functional Internet access […] taking due account of specific circumstances in national markets, for instance the prevailing bandwidth used by the majority of subscribers in that Member State". This new text reiterates the conclusions of the European Commission communication of September 2008[15]. As a result, if they so desire, Member States can now include broadband within the scope of universal service.

The European Commission launched a public consultation on the subject in the second quarter of 2010. The aim was to envision the "*the best approach to ensure that basic telecoms services are available for all EU citizens*". The results of this public consultation are expected for the first half of 2011. In its response, ARCEP underscored the fundamental need for a functional framework for a universal broadband service, in terms of the services used by the customer. The purpose of the universal service is to provide services without which users would be excluded from society. Whereas the telephone service is relatively easy to define, the broadband service can have multiple forms and include widely variable properties depending on the parties involved, their usage and the general state of affairs, both technological and in the marketplace.

The French government also launched a "broadband for all" ("*haut débit pour tous*") seal to encourage carriers to market broadband services that were available nationwide: four satellite offers already carry the seal. The inclusion of broadband in the universal service would have a relatively small impact on costs if a portion of national coverage is achieved using satellite.

This would nevertheless require satellite solutions to be deemed capable of supplying universal service-level high-speed access to the internet. These offers are already available across France but they impose certain restrictions on users (caps on traffic, high latency, limited bandwidth when there are too many simultaneous connections), several of which are inherent in the technology.

Some of the traffic and bandwidth restrictions could be lifted, or at least attenuated, by developments that are currently underway, such as the launch of the Ka-SAT satellite on 26 December 2010, which is dedicated to providing broadband access and was developed and launched using private sector financing.

There are nevertheless concerns that including broadband in the geographical component of the universal service could undermine the momentum of current efforts to cover dead zones. After several years of initiatives geared to increasing unbundling and connecting business parks, local authorities are now focusing their energies on covering areas that are still without service, and their efforts are gaining momentum.

The application of the regulatory frame- work governing optical fibre rollouts outside of very high-density areas, along with regulations relating to increasing bandwidth on existing networks should help to improve connection speeds across the country. These endeavours, which are supported by the regional development fund[16],

15 - Communication from the European Commission to the European Parliament and Council, the European Economic and Social Committee and the Committee of the Regions, dated 25 September 2008, in which the Commission invites NRAs "to contribute to a debate" on achieving broadband for all in the EU by exploring various schemes. These contributions will feed into a Commission Communication and possibly legislative proposals in 2011.

could be severely undermined if the universal service mechanism came to compete with the investments that have already been made, and could supplant future investments in broadband and ultra-fast broadband. If it were ultimately decided to include broadband in the geographical component of the universal service, ARCEP believes it will be important when designing the designation methods to allow for the financing of local authorities' initiatives, as provided for in the directive.

4.2. Introduction of a universal triple play bundle?

Ongoing discussions on the topic of broadband and the geographical component of the universal service must not overshadow the social component which constitutes a very effective means for decreasing the number of people who are deprived of broadband access.

The extension of the social tariff – which is currently confined to the telephone service – to triple play solutions could help to increase the social accessibility of the universal service from year to year, and at a much lower cost than would be incurred by including broadband in the universal service.

The number of beneficiaries of the social tariff has decreased substantially since 2004, going from close to 700,000 households in 2004 to fewer than 380,000 in 2009 – which represents less than 16% of potential beneficiaries for this last year.

4.3. Transposition into national law

The European Universal Service Directives will be transposed into national law in 2011 by means of an order[17]. For the universal service, this will include separating access and the telephone service for the operators designated to provide the universal service.

16 - Law No. 2009-1572 of 17 December 2009 on bridging the digital divide, commonly known as the "Pintat Act", published in the OJ of 18 December 2009.

17 - Law No. 2011-302 of 22 March 2011 bringing several amendments to European Union legislation in the areas of healthcare, labour and electronic communications, published in the OJ of 23 March 2011.

Overseeing the quality of fixed and mobile services

For several years now, ARCEP has been devoting broad efforts to the quality of service that operators provide (mobile services, fixed telephony, directory services, universal service) and to improving consumer information on the quality of these services by providing them with elements of comparison.

Every year for the past twelve years, the Authority has performed quality of service assessment surveys on second and third-generation mobile networks. QoS indicators were published by all fixed services providers with more than 100,000 residential customers for the first time in 2010: they have been subject to an obligation to publish quarterly results of indicators measuring the quality of network access and the quality of the telephone service since 30 June 2010[1].

1. Verifying mobile operators' compliance with coverage obligations

On 15 July 2010, and for the twelfth consecutive year, ARCEP published the results of its annual assessment of the quality of service provided on the second and third generation mobile networks operated by Bouygues Telecom, Orange France and SFR in mainland France. The goal of the survey is to assess the quality of voice call, SMS, MMS, WAP browsing and videophony services provided to consumers, and the connection speeds that can be reached on mobile networks. Through technical measurements taken in the field, the survey aims to provide a statistical account of the quality of the services delivered by the operators' networks. Its purpose is not to obtain subscribers' views of the end-to-end quality of these services – through a customer survey, for instance – which could vary depending on the use they make of the network or the devices and applications they employ.

1.1. Quality of the mobile telephone service continues to be high

The 2010[2], survey, which was conducted from September to December 2009, confirms that the quality of voice calls over these telephone networks continues to be as high as it has for the past several years. The service was tested in 52 towns and cities with a population of more than 10,000 – both indoors and outdoors and in a moving vehicle.

The 2010 survey also made it possible to test the quality of five-minute calls[3] – with performances revealed to be of slightly lesser quality than for calls lasting two minutes. The results of the tests in fact

1 - Decision No. 2008-1362 of 4 December 2008.
2 - Available (in French) on the ARCEP website: http://www.arcep.fr/uploads/tx_gspublication/rapport-qs-mobile-2009.pdf
3 - Investigators equipped with mobile phones and investigators equipped with landline phones call one another over the different cellular telephone networks to be tested. They verify the successful completion of the call (lack of failure), the ability to maintain the connection (i.e. connection not cut) during a set duration, which could be two minutes or five minutes, and assess the call's voice quality.

reveal success rates for setting up and holding a call for 2 minutes and 5 minutes of 97.3% and 96.6%, respectively.

The quality of the phone service when travelling was also measured on the main TGV (high-speed train) lines, in commuter trains for the main cities and on the most heavily used motorways. The quality provided on the TGV has improved, with the rate of perfect quality calls increasing by 3% to 68.4%. Quality levels are down on commuter trains, however, with the rate of perfect quality calls having decreased by 4% to 78.6%. The results for motorways are by and large the same as those obtained in 2008 (89.1%).

1.2. Connection speeds on mobile networks in France continue to rise

For the second time, file transfer tests were performed in the 12 largest metropolitan areas in France, and in 20 towns and cities with a population of between 50,000 and 400,000, using USB keys and PCMCIA cards plugged into a laptop computer, and directly via the netbooks that telecom carriers sell.

The results of these tests reveal average speeds that are more than one and a half times higher than those obtained in 2008: an average download speed of 2.2 Mbit/s and more than 5 Mbit/s for the fastest services and, for sending files, an average upload speed of 1.2 Mbit/s and more than 1.7 Mbit/s for the fastest services. These speeds were achieved using the most high-end solution that each telco markets in its retail outlets.

These bitrates are comparable to the access rates supplied by entry-level ADSL fixed network services.

1.3. The quality of SMS services still very satisfactory, but quality of MMS and WAP services has declined

The quality of SMS, MMS and WAP services was tested in the 12 largest metropolitan areas in France, and in 20 towns and cities with a population of between 50,000 and 400,000.

The results for SMS (i.e. texting) services reveal the same high level of overall quality provided by these services for several years, with a success rate of over 99%.

The quality of MMS and WAP services, on the other hand, has declined by 4% and 2%, respectively, since 2008.

And, finally, the video calling services provided by all three operators were tested for the first time in 2009, in the 12 largest cities in France, and achieved a success rate for setting up and holding a call for 2 minutes of 88.9%.

2. Measuring the quality of the fixed service

2010 also saw the first two quarterly publications[4] of QoS indicators for the fixed service. These new indicators are the result of work that ARCEP had been performing since 2008 in concert with the sector's stakeholders, and following the adoption of Decision No. 2008-1362[5].

This decision was established based on the provisions contained in CPCE Article D. 98-4 which stipulates that, *"the operator will measure the quality of service indicators defined by the Electronic communications and postal regulatory authority, under the terms provided for in Article L. 36-6. The methods to be used to make the results of these measurements available to the public will be determined by the Electronic communications and postal regulatory authority, under the same*

4 - 30 June 2010 and 13 October 2010.
5 - Decision No. 2008-1362 of 4 December 2008.

conditions". Although intended to apply to all operators providing fixed electronic communication services to residential customers, for reasons of proportionality, only operators with more than 100,000 customers for a given access configuration (PSTN, ADSL, cable, fibre, etc.) are obligated to publish their findings.

Each operator's publication of its own QoS indicators for its fixed services, on a page on their website, provides end users with simple, individual, comparable and up-to-date information, translating the operators' perception of the quality of service they provide.

Links to each of these pages are also available on the ARCEP website[6].

Six indicators relate to the quality of access to operator's network and three relate to the quality of the telephone service:

Indicators associated with access	supply time for initial connection
	fault rate per access line
	fault repair time
	operators' customer service response time
	billing accuracy complaints
	rate of complaint resolution by customer service in a single call
Indicators associated with telephone calls	unsuccessful call ratio
	call set-up time
	speech quality

These indicators relating to access, which measure the quality and efficiency of customer relations, are provided by each operator's information system and their accuracy certified by a the same independent auditor. Indicators for phone calls, which measure the technical quality of the service offering, are provided through external sample measurements using test calls.

Following the assessment resulting from the first publication of quality of service indicators, in late June 2010 ARCEP ascertained with the operators that the published indicators provide a good indication of the quality of the service supplied by each operator. These publications continue to be the focus of considerable ongoing efforts between the Authority and the operators concerned, the goal being to go beyond the indicators listed above. Consumer associations may also be consulted on possible new indicators. ARCEP is careful to ensure that the process of adding new indicators remains transparent, mindful of the need to provide consumers with clear and simple information, and so to avoid creating too large a set of indicators.

3. Monitoring the quality of the universal service

The operators responsible for providing the universal service must comply with a minimum set of quality of service parameters and obligations for the universal service component(s) they have been designated to provide: France Telecom for the telephone and public payphone service and PagesJaunes for the print directory and directory services.

Quality of service obligations, which are listed in the specifications for 2009-2012, allow public authorities to better monitor the situation: first, because these indicators provide percentile measurements and, second, because requirements with respect to their publication have been strengthened.

6 - *Available at: http://www.arcep.fr/index.php?id=10605*

If the target values that must be met have been maintained for the current period, the indicator definitions are identical to those imposed on other fixed telephony operators with more than 100,000 subscribers per type of access to the telephone service, which will make it easier for consumers to compare the different offers.

Three additional indicators have been included: response time for users' complaints, user complaint rate and response times to billing complaints. Compensation clauses are also being planned for inclusion in customers' contracts (general terms and conditions of sale), should the quality of service fail to meet its guaranteed level.

Obligations with respect to the (annual and quarterly) publication of indicators have been given a specific deadline: 31 March of year n+1 for year n, and a month after the quarter for which data is being produced has ended. This allows public authorities to react quickly to any potential decline in QoS indicators, and to request details on the reasons for non-compliance with the minimum set of obligations, or the decline in the results obtained, and on what measures will be taken to remedy the situation.

4. Expanding QoS monitoring to the internet

As part of its recent work on the issue of internet and network neutrality[7], ARCEP drafted several proposals relating to monitoring the quality of internet service, and this on both fixed and mobile networks. At this stage, ARCEP's priority is to begin work on qualifying the main parameters associated with internet access and on establishing suitable indicators.

To this end, ARCEP has invited operators and their representative associations to work together to determine the main performance parameters for "internet access": availability of services, bandwidth, latency, packet loss, jitter, etc.

An ARCEP decision could help ensure the supply of a sufficient quality of service, requiring operators to publish adapted and harmonised quality of service indicators for internet retail services from the end-user's perspective, providing consumers with a statistical view of the overall quality of service provided by each ISP.

On the matter of traffic management between ISPs, ARCEP proposed analysis criteria in the document it published on internet and network neutrality, on 30 September 2010.

The Authority will be monitoring the traffic management practices employed by the operators to ensure they comply with the criteria listed by ARCEP, and to assess the degree to which these practices diverge from the principles contained in the proposals concerning "freedom and quality of internet access" and "non-discrimination between internet traffic streams".

At the same time, ARCEP will ask the sector's stakeholders to submit their own proposals for qualifying the different traffic management methods and, if necessary, to identify best practices.

Depending on the results of the different courses of action, ARCEP may be required to complete these proposals, working in tandem with the other competent authorities.

7 - *See page 97.*

Market analyses

1. Market analyses performed by ARCEP in 2010

1.1. Fixed broadband and ultra-fast broadband markets

a) A new cycle of market analysis

ARCEP began a new cycle of analysis for broadband and ultra-fast broadband markets in 2010, which is to result in the publication of two new decisions in spring 2011.

These two markets correspond to markets 4 and 5 defined by the European Commission in its recommendation on relevant markets dated 17 December 2007: wholesale market for unbundled access to physical network infrastructure and the wholesale market for broadband and ultra-fast, or bitstream, access.

After having consulted with the sector's main stakeholders, identified and formalised the changes that these new analyses of markets 4 and 5 could incorporate, on 27 July 2010 ARCEP submitted to public consultation a document containing its assessment of the previous cycle, and summarising the outlook for these markets up to the end of the next cycle (2011 – 2014), along with its two draft analysis decisions on markets 4 and 5.

The summary of the responses to the consultation were published on 24 January 2011, and the draft decisions that were amended to take these responses into account were submitted to the Competition Authority that same day, then notified to the European Commission on 27 April 2011.

Although most of the principles contained in the previous cycle of analysis have been maintained, the draft decisions include a set of changes whose objectives are threefold:

- assist in the development of ultra-fast broadband;
- continue to expand unbundling;
- provide a framework for schemes to increase bandwidth thanks to sub-loop access.

b) Assisting the development of ultra-fast broadband

The main thrust of the draft decision concerning analysis of market 4 is to complete the existing framework to assist in the industrialisation of FTTH network rollouts.

In concrete terms this translates, first, into the need to streamline the solutions for accessing France Telecom civil engineering. France Telecom currently provides several offers for accessing its ducts, notably which distinguish residential FTTH rollouts from those aimed at enterprise customers. ARCEP wants the incumbent carrier to deliver a single solution for accessing its civil engineering, which can nevertheless be broken down into several processes tailored to operators' needs.

In its draft decision, ARCEP also aims to impose the necessary cohesion between the asymmetrical regulatory framework resulting from the remedies introduced by its market analysis decision, and the symmetrical framework governing infrastructure-sharing schemes for the last drop (or metres) of FTTH networks.

The Authority has specified the principles underpinning the engineering rules for accessing civil engineering. ARCEP considers that the chief objective of this regulation is to enable operators to deploy their networks to the concentration points and to the access points for connecting to customer premises, by sharing a finite resource as efficiently as possible. This principle will translate into changes not only to the engineering rules concerning the occupation of the space available in France Telecom ducts, but also those relating to offloading when no more space is available, thanks to a cost-sharing scheme between all of the operators.

To facilitate FTTH network rollouts in more sparsely populated areas, the draft decision also plans on extending the obligation of providing access to France Telecom poles. The Authority's analysis resulted, too, in an expansion of the scope of the relevant market to include all of the aerial components that comprise the local loop. Because France Telecom is designated as the SMP operator (i.e. enjoying significant market power) on this entire loop nationwide, it has an obligation to provide access to this infrastructure for the purposes of FTTH network rollouts, as they cannot be confined solely to those portions of the network that have only underground civil engineering.

The draft decision also provides for new services attached to existing solutions, so that they might include collocation services that are crucial for operators deploying new optical local loops. These new services should enable the collocation of operators' active equipment in France Telecom facilities, in response to reasonable requests, particularly with respect to the technical restrictions of the facilities in question.

As to the system in place for FTTH network rollouts, there are no plans to impose any particular remedies on solutions for accessing the SMP operator's non activated fibres within the timeframe of the present cycle (2011 – 2014) of analysis for market 4, aside from hypotheses for sharing the last metres of the networks. Nor are there plans in market 5 to impose an obligation to provide active fibre access solutions. The ARCEP draft decisions nevertheless take the utmost account of the provisions contained in the European Commission recommendation on new generation access (NGA) networks, published on 20 September 2010.

Under the hypothesis where regulation governing ultra-fast broadband would not be enough to ensure the development of effective competition, the Authority would amend its system to impose additional obligations on France Telecom, if necessary.

c) Continuing to expand unbundling

The draft decisions relating to markets 4 and 5 plan on adjusting certain remedies to support the expansion of copper local loop unbundling (LLU).

ARCEP has ascertained that forbidding a price squeeze for the bitstream offer is no longer enough to spur the spread of unbundling. The prospect of increased revenue and market share through the supply of triple play bundles today appears to be the determining factor when deciding to unbundle an exchange. In addition, in those parts of the country that will continue to remain without unbundling in the long term, upholding the ban on price squeezes creates an undue financial burden on the incumbent carrier. It also constricts the investments that alternative operators might make in expanding unbundling, or in deploying ultra-fast broadband networks.

The draft decision relating to market 5 therefore considers that the principle of forbidding a price squeeze is not relevant, at least in those areas where France Telecom has a monopoly over the delivery of a bitstream solution, and therefore proposes an obligation of cost-oriented pricing for bitstream offers.

To help support the expansion of LLU, ARCEP plans on implementing remedies that encourage outfitting new exchanges with optical fibre, and improving collocation conditions in France Telecom's smaller DSLAMs.

d) Providing a framework for projects to increase bandwidth through sub-loop access[1]

Because of the potential threats to competition that a "mono injection" (i.e. a single point of supply) solution represents, in its draft market analysis decision ARCEP proposes to set the terms for reconfiguring the local loop, in accordance with the obligations imposed on France Telecom with respect to unbundling, to guarantee that LLU operators will relocate to the new sub-loop supply points.

More specifically, ARCEP plans on imposing obligations on France Telecom for network overhaul operations tied to increasing bandwidth through a "mono-injection" solution.

France Telecom will also be required to provide LLU operators with collocation and optical fibre connection solutions for their active equipment installed in the new sub-loop access points, and at prices that provide enough of an incentive to allow alternative carriers to deliver unbundled access from the new location.

Moreover, France Telecom will be required to compensate LLU operators for the negative impact that this reconfiguration of the original exchange has on them, particularly with respect to compensating the partial loss of sunk costs.

In light of the obligations being planned to accompany the reconfiguration of the local loop, France Telecom needs to be in a position to offer alternative carriers collocation and optical fibre backhaul solutions when it grants a request for access to the local sub-loop, through "mono injection", particularly when it is part of a project for increasing bandwidth instigated by a local authority.

1.2. Capacity services

ARCEP Decision No. 2010-0402 relating to its analysis of the capacity services market was adopted on 8 April 2010, after having obtained the observations of the European Commission. This second cycle of analysis covers a period of three years, running up to 2013.

In its decision, the Authority maintained existing regulation in the wholesale terminal segment market, which includes:

- an obligation of cost-orientated pricing for wholesale offers supplying data rates of less than 10 Mbps, which includes offers enabling the replication of leased line solutions running at 64 Kbit/s to 2 Mbit/s;
- and forbids price squeezes on wholesale offers supplying data rates of more than 10 Mbps, which includes offers enabling the replication of ultra-fast (34 and 155 Mbit/s) leased line solutions and Ethernet connection over optical fibre at up to 100 Mbit/s.

ARCEP has also maintained the regulation governing the inter-territorial wholesale trunk circuit segment market for links running between mainland France and Reunion, mainland France and Guyana and between Martinique and Guyana, focusing on the complementary terrestrial component which is the bottleneck, in particular by imposing a cost-oriented pricing obligation on this service.

The main departure from the previous cycle that is being proposed is the lifting of regulation in the capacity services retail market, in the wholesale intra-territorial trunk circuit segment market and in the inter-territorial wholesale trunk circuit segment market between mainland France and Guadeloupe and mainland France and Martinique.

1 - See page 73.

In any event, ARCEP continues to monitor these markets and has the power to intervene, for instance by appealing to the Competition Authority to resolve competition issues as they arise.

1.3. Mobile telephony markets

a) Voice call termination market analysis

All operators that market a telephone service must allow their customers to reach any mobile number in France. To do so, operators must purchase a "call termination" service from each of the other mobile operators under terms which, in the absence of regulation, will be decided unilaterally by the operator providing the termination service. That operator therefore has a monopoly over the market for call termination on its own network, and it is this significant market power (SMP) that forms the basis of the regulation that governs mobile call termination markets.

• Background to the third cycle of analysis of wholesale mobile voice call termination markets, 2011-2013

The second cycle of regulation of wholesale mobile voice call termination in Metropolitan France was governed by the decisions of 4 October 2007[2], of 2 December 2008[3] then of 18 February 2010[4] and, for the overseas markets, by the decisions of 16 October 2007[5] and 27 July 2009[6]. In both mainland France and the overseas territories, the second regulatory cycle came to an end on 31 December 2010.

As a result, in 2010 the Authority began its third cycle of regulation of wholesale mobile voice call termination in Metropolitan France and the French overseas territories.

This third cycle kicked off with a first public consultation that ran from 23 April to 24 May 2010 – for which the Authority's analysis was accompanied by an assessment of the second cycle of regulation.

On 25 June 2010, after having considered stakeholders' responses to this first consultation, ARCEP submitted its analysis to the Competition Authority for commentary. In an opinion dated 29 July 2010, the Competition Authority declared itself "*in favour of pursuing the decrease in voice call termination rates on mobile networks*".

Next, ARCEP notified the European Commission and the other European national regulatory authorities of its draft decision on 9 September 2010, while also launching a second public consultation on that decision which ran up to 11 October 2010.

After having obtained the European Commission's comments and the responses to the second consultation, in a decision adopted on 2 November 2010[7], ARCEP declared each of the mobile carriers in France and overseas as the SMP operator in the wholesale call termination market on their own network.

To remedy the competition issues that had arisen in these markets, ARCEP considered it necessary to uphold the obligations of access provision, non-discrimination, transparency, cost accounting and account separation that had previously been imposed. On the matter of tariff supervision, all operators are now subject to an obligation to charge cost-oriented prices.

For mainland France, this decision extends the ceiling tariffs that are currently in effect over the period running from 1 January to 30 June 2011, i.e. 3 eurocents a

2 - *Decision No. 2007-0810 of 4 October 2007.*
3 - *Decision No. 2008-1176 of 2 December 2008.*
4 - *Decision No. 2010-0211 of 18 February 2010.*
5 - *Decision No. 2007-0811 of 16 October 2007.*
6 - *Decision No. 2009-0655 of 27 July 2009.*
7 - *Decision No. 2010-1149 of 2 November 2010.*

minute for Orange France and SFR and 3.4 eurocents a minute for Bouygues Telecom. It also stipulates that ARCEP will set the ceiling tariffs for the remainder of the three-year period in a future decision.

The decision further indicates that, in accordance with the European Commission recommendation[8], ceiling tariffs will be symmetrical by 1 January 2013 at the latest, and established based on the incremental costs of an efficient generic operator.

As a result, on 5 May 2011 ARCEP adopted its Decision No. 2011-0483, setting mobile voice call termination rates for operators Orange France, SFR and Bouygues Telecom for the period extending from 1 July 2011 to 31 December 2013. Based in particular on the results of the revised cost model for a generic operator in Metropolitan France, the Authority has maintained a target ceiling tariff of 0.8 c€/minute which will be in effect as of 1 January 2013.

The decision also plans on enacting the decrease in three stages, which will give carriers the opportunity to adapt gradually to this new target:

- a first decrease to 2 c€/minute, starting on 1 July 2011 and lasting six months,
- a second decrease to 1.5 c€/minute, starting on 1 January 2012 and lasting six months,
- a third decrease to 1 c€/minute, starting on 1 July 2012 and lasting six months.

ARCEP Decision No. 2010-1149 of 2 November 2010 sets the new ceiling tariffs for the overseas territories for 2011 and 2012, which continues the incremental decrease in termination rates to come in line with underlying costs:

Overseas operator	Ceiling tariffs for 1 January to 31 December 2011 (c€)	Ceiling tariffs for 1 January to 31 December 2012 (c€)
Dauphin Télécom	8.0	5.0
Digicel	4.0	2.5
Orange Caraïbe	4.0	2.5
Orange Réunion	4.5	2.8
Outremer Telecom	5.5	2.8
SRR	4.0	2.5
UTS Caraïbe	8.0	5.0

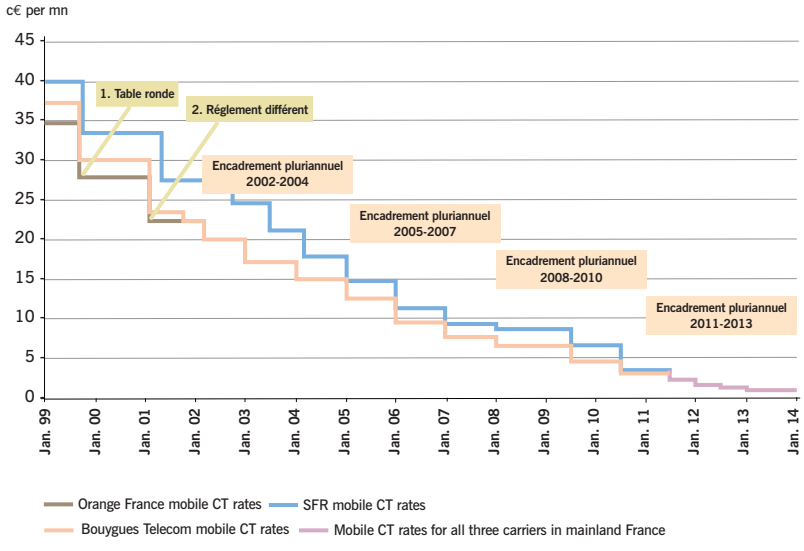
This decision also stipulates that the technical-economic models applied to operators in the overseas markets will be updated in 2011, and that ARCEP will set the ceiling tariffs for 2013 in a later decision.

Updating the technical-economic cost model for a mobile carrier in Metropolitan France

With a view to this third cycle of regulation for wholesale mobile voice call termination, in spring 2010 ARCEP began working on updating its technical-economic cost model for a mobile carrier in Metropolitan France – the goal being to improve its knowledge of the long-run incremental costs of an efficient mobile carrier, as stated in its Decision of 2 December 2008. The first stage of this work consisted of updating the model's structure, which resulted in a first public consultation that ran from 28 May to 29 June 2010. During the second stage of the process, the input data and the model's calibration were updated, which was followed by a second consultation, this time on the newly calibrated cost model, which ran from 22 December 2010 to 31 January 2011. The final model, which takes account of the responses to this consultation, was published on 23 March 2011 and notified to the European Commission.

8 - European Commission recommendation of 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU(2009/396/CE)

Evolution of the supervision of mobile voice call termination rates for operators in mainland France since 1999



Source: ARCEP.

• Updating mobile operators' cost accounting and accounts submission obligations

In preparation for the third cycle of analysis of the voice call termination market for the period running from 2011 to 2013, ARCEP began in 2009 by reviewing the specifications of the accounts submission and cost accounting obligations imposed on SMP operators in wholesale markets.

Accounting obligations are intended to provide ARCEP with detailed and reliable knowledge of these operators' costs, which will allow the Authority to implement a tariff schedule that reflects relevant costs, and to ensure that operators are complying with the obligation to be non-discriminatory.

The purpose of these review efforts were to replace the decisions in effect at the time[9] to clarify or amend certain points that had already been specified, and to strengthen the means in place for monitoring the preparatory work for these accounting procedures, to be able to increase the reliability of the output data.

After holding a public consultation, ARCEP issued its final decision on 11 February 2010[10] concerning cost accounting and accounts submission obligations for reputedly SMP operators in wholesale call termination (voice and SMS) markets, on their respective networks.

b) Analysis of SMS termination markets

As with voice calls, all mobile network operators must provide an SMS call termination service so that text messages sent from competing operators' networks can be delivered to their subscribers. In the absence of regulation, this structural bottleneck allows each mobile operator to set the terms and conditions applying to this service unilaterally.

As a result, in 2006 ARCEP established a first cycle of regulation for these markets for a three-year period, requiring that all three mobile operators in Metropolitan France provide SMS call termination access and interconnection services under transparent, non-discriminatory conditions and at cost-oriented prices[11].

9 *- Decisions No. 2007-0128 of 5 April 2007 (mainland France) No. 2007-0129 of 5 April 2007 (overseas).*
10 *- Decision No. 2010-0200 of 11 February 2010.*
11 *- Decision No. 2006-0593 of 27 July 2006.*

- **Le contexte du deuxième cycle d'analyse des marchés de gros de la terminaison d'appel SMS 2010-2013**

On 17 November 2009, ARCEP began the process of its second cycle of market analysis for wholesale SMS call termination (CT) on mobile networks in France by launching a public consultation on its analysis of these markets.

After having taken the responses to this consultation into account, on 23 April 2010 ARCEP submitted its analysis to the French Competition Authority for its opinion. It then notified its draft decision to the European Commission and to all of the other European national regulatory authorities (NRA), while also holding a second public consultation from 16 June to 16 July 2010.

After having considered the remarks from the European Commission and the responses to the second consultation, on 22 July 2010[12] ARCEP adopted its final decision which regulates wholesale SMS call termination on mobile networks in France for a period of three years.

The Authority thereby follows through on regulation that was introduced in 2006 in Metropolitan France and extends to operators that are active in the overseas départements.

ARCEP designated each of the mobile operators as having significant market power on their respective networks, and so imposed several obligations: to grant all reasonable requests for access, non-discrimination, transparency (publication of a reference offer before 1 April 2011 for operators in Metropolitan France and publication of their core tariffs for operators in overseas markets) and tariff supervision in the form of cost-oriented pricing.

The three operators in mainland France (Orange France, SFR, Bouygues Telecom) along with the dominant operator in each overseas market (SRR and Orange Caraïbe) are also subject to account separation and cost accounting obligations.

On the matter of interconnection solutions offered to mobile operators, ARCEP also specified its interpretation of cost-oriented pricing. It has set ceiling tariffs that will decrease progressively over the course of the cycle, to reach a maximum 1 eurocent, excl. VAT, per SMS by 1 July 2012 for Metropolitan France and the Réunion-Mayotte region, and by 1 January 2013 for the Antilles-Guyana region.

12 - Decision No. 2010-0892 of 22 July 2010.

Pricing tiers (c€)		1 October 2010 to 30 June 2011	1er juillet 2011 to 30 June 2012	1 July 2012
Mainland France	Orange France	2	1.5	1
	SFR	2	1.5	1
	Bouygues Telecom	2.17	1.5	1

Pricing tiers (c€)	1 October 2010 to 30 June 2011	1 July 2011 to 30 June 2012	1 July 2012
Réunion-Mayotte region	3	2	1

Pricing tiers (c€)	1 October 2010 to 31 December 2011	1 October 2012 to 31 December 2012	1 January 2013
Antilles-Guyane region	3	2	1

As to the obligations to grant all reasonable requests for access and interconnection, and to publish a reference offer within six months of the decision's publications – to which all operators in Metropolitan France are subject – in particular to allow operators to respond to requests for technical and contractual changes to the solutions offered to SMS aggregators, working groups of these stakeholders were created in autumn 2010. Discussions devoted to overseas markets could take place at a later date, over the course of 2011.

1.4. Fixed telephony

In early 2011, ARCEP began its third cycle of analysis of fixed telephony markets, with plans to adopt a decision that will apply to 2011-2014 in early summer.

The main issues in this third cycle of market analysis concern call termination and call origination at a fixed location.

On the matter of call termination, the implementation of the European Commission recommendation of 7 May 2009 will result in a completely symmetrical pricing scheme being imposed on all operators, and in tariffs coming in line with the long-run incremental costs of a generic efficient operator (pure NGN), which will likely lead to a significant decrease compared to current prices.

On the matter of call origination, the Authority has observed disparate development trajectories for the various components that make up the overall call origination service: on the one hand carrier selection and narrowband Internet access and, on the other, call origination for value-added service (VAS) numbers.

Call origination for carrier selection and narrowband Internet access are indeed on the decline, and France Telecom continues to enjoy a structural monopoly over these services. On the flipside, calling traffic to VAS numbers originating on alternative operators' local loops is increasing steadily. ARCEP has thus ascertained that call origination to VAS numbers could soon account for the majority of call origination traffic. Moreover, the two types of call origination play a role in market competition and belong to very different value chains.

As a result, the Authority believes it would be advisable to differentiate the form of tariff regulation governing the different components of call regulation, and is proposing:

- to maintain the obligation to charge cost-oriented prices for carrier selection call origination and for narrowband Internet access provided by France Telecom;
- to ban France Telecom from charging excessive prices on call origination services to VAS numbers by imposing multi-annual tariff supervision, as part of a longer-term transition towards a system of

symmetrical regulation of these services for all operators, which could be introduced in the fourth cycle (2014 – 2017).

Based on its analysis, ARCEP also plans on extending the other obligations that are currently imposed on France Telecom, in accordance with Decision No. 2008-0896.

1.5. Audiovisual broadcasting services

In its Decision No. 2009-0484 of 11 June 2009, the Authority defined the ex ante regulatory framework to apply from 2009 to 2012 in the wholesale digital terrestrial television broadcasting market.

ARCEP designated TDF as the SMP operator in this market, as a result of which it is subject to the obligation to grant reasonable requests for access, to provide access under non-discriminatory conditions and to be transparent, along with cost accounting, accounting separation and tariff supervision obligations.

These tariffs, which could not be excessive or constitute a price squeeze under the obligations set during the first cycle of regulation (2006-2009), are now subject to an obligation of cost-oriented pricing. For the other sites, TDF continues to be subject to an obligation not to charge excessive prices or create a price squeeze, as a way to maintain incentives to deploy alternative infrastructure.

Over the course of 2010, ARCEP worked to ensure that TDF was properly applying the assessment method in effect for the assets of non-replicable sites by requesting detailed accounting information for each site. To ensure that TDF was complying with the obligation to charge cost-oriented prices, ARCEP examined the allocation of capital and operating costs to each component of the reference offer, using allocation keys, and analysed their relevance.

Mindful of the technical and pricing terms contained in the reference offer, ARCEP worked to maintain an ongoing dialogue with TDF and alternative broadcasters to help increase market transparency. At the Authority's request, TDF published the annual underlying costs of a solution applicable to non-replicable sites. These data enable a better understanding of the multi-annual tariffs that TDF charges.

By the same token, TDF's forward-looking cost model, which was used to establish the reference offer for 2011, was verified by auditors during the regulatory audit performed in February 2011. During this stage of the process, the elements and sources that allowed TDF to establish its forward-looking hypotheses for service rollouts were also verified.

2. Market analyses performed in Europe in 2010

2.1. List of relevant markets to be analysed by NRAs around Europe

A European Commission recommendation[13] lists the electronic communications markets that are relevant for analysis by national regulatory authorities (NRAs) in view of potential ex-ante regulation.

An explanatory memorandum attached to the directive describes the principles that an NRA must apply when performing its analysis of the relevant markets. It specifies that a market can be regulated ex-ante if it meets all three of the following criteria:

- the presence of barriers to market entry and to the development of competition;
- lack of prospects for a shift towards effective competition;
- the inefficiency of existing competition laws.

The aim of the recommendation is to harmonise the scope of regulation in Member States, while not being prejudicial to the possible relevance of a market at the national level.

13 - European Commission Recommendation on Relevant Markets Susceptible to Ex-Ante Regulation of 17 December 2007 (2007/879/EC)

As a result, while it is mandatory for an NRA to analyse all of the markets listed, imposing regulation is not if a market does not meet all three criteria, or if there is no SMP operator in the market.

On the flipside, an NRA can also decide to regulate a market that is not listed in the European Commission recommendation, provided it satisfies all three criteria – as has been the case in France, and since 2010 in Poland[14], with the SMS call termination market – and provided the Commission does not oppose it.

The Commission's 2003 recommendation listed 18 relevant markets, while the one adopted in 2007 contains only seven markets for which national regulatory authorities must perform an analysis with a view to potential ex-ante regulation:

- **three fixed telephony markets:**
  1- access to the public telephone network;
  2- call origination;
  3- call termination;

- **three residential or enterprise broadband and ultra-fast broadband markets:**
  1- wholesale unbundled access to physical network infrastructure (including full unbundling and shared access) for the purpose of providing broadband and/or voice services at a fixed location;
  5- wholesale broadband, or bitstream, access;
  6- wholesale terminating segments of leased lines;

- **and one mobile telephony market:**
  7- voice call termination.

2.2. Status of European NRAs' market analyses in 2010

How are market analyses notified?

Article 7-3 of the Framework Directive stipulates that the measures taken by national regulatory authorities (NRA) as part of their market analyses must be notified to the European Commission and the other European Union NRAs.

National regulatory authorities perform their formal notification by publishing the relevant documents (draft decisions, public consultations, players' responses, opinion of the competition authority, etc.) on the Circa[15] website.

The Commission and the other NRAs then have one month to submit their remarks. This period can be extended by up to two more months if the Commission has "serious doubts" about the definition of the relevant market or the SMP operator designation (launch of a Phase II procedure).

At the end of these two months, the Commission can either withdraw its "serious doubts" or veto the draft decision – in which case the NRA must submit a new analysis – or the NRA can withdraw the draft measure of its own accord. After the transposition of the regulatory framework, this veto power, which is strictly confined to market analyses, will also apply to the remedies notified by NRAs.

The European Commission has received 1,095 notifications since the notification procedure was first introduced, to which it has responded with 688 "comments letters", nine "withdrawals of serious doubts" following an in-depth examination (referred to as "Phase II") and six veto decisions.

In 2010 NRAs issued a total of 135 notifications, which is slightly fewer than in 2009 during which 150 notifications were issued. The Commission launched two Phase II procedures during the year, which is the same number as in 2009 but fewer than in previous years[16].

14 - The Danish regulator has notified the European Commission of its draft analysis of this market, but has yet to adopt its final decision.
15 - Circa website: http://circa.europa.eu/
16 - Two Phase II procedures were opened in 2009, compared with 4 in 2008, 5 in 2007 and in 2006.

The in-depth examination that the Commission performed of the draft analysis of market 4 submitted by the Lithuania regulator, RRT[17], resulted in the withdrawal of the draft.

On the matter of the Phase II procedure undertaken against that draft decision notified by the Polish regulator concerning wholesale IP transit and IP peering markets[18], as two of the markets are not listed in the 2007 recommendation[19], the Commission ordered UKE to withdraw its draft measure, arguing that the Polish regulator had demonstrated neither the existence of distinct markets, nor that Telekomunikacja Polska enjoyed significant market power, hence the need for *ex ante* regulation.

The Polish regulator appealed to the Court of Justice of the European Union[20] to request the annulment of the Commission's decision. This was an unprecedented case before the court, given that no Commission veto had ever been appealed[21].

During the year gone by, the Commission focused in particular on the analyses of markets 4 and 5, and on considerations given to ultra-fast broadband network rollouts within the context of the recommendation on new generation access (NGA) networks that was adopted in 2010, as well as the compliance of the terms of analysis of mobile voice call termination markets with the Commission recommendation on the regulatory treatment of call termination rates[24].

17 - *Case LT/2010/1035 notified on 11 January 2010*
18 - *Commission Decision of 3 March 2010, C(2010)1234 final*
19 - *Case No. T-226/10, Prezes Urzędu Komunikacji Elektronicznej v. Commission, OJ 209/41 of 31.7.2010, p.41*
20 - *The Court of Justice of the European Union had earlier rejected a complaint filed by Vodafone against comments made by the Commission concerning a decision issued by CMT in Spain, on the grounds that, unlike a veto, a comments letter has no normative powers.*
21 - *Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU (2009/396/EC), JO L 124 of 20.5.2009, p. 67–74.*

OVERVIEW OF THE STATUS OF MARKET

European Commission document

The following table provides a snapshot of the status of market analyses in Europe and of the regulation in place in the different Member States.

	New recommendation							
	Access to PSTN for res & non-res.	Call orig. on fixed network	Call term. on fixed network	Unbund access	Broadb. access	Term. segments LL	Voice call trem. on mobile networks	
	Market 1	Market 2	Market 3	Market 4	Market 5	Market 6	Market 7	
Austria	3	3	3	3	3	3	3	
Belgium	1	1	1	1	1	1	2	
Bulgaria	1	1	1				1	
Cyprus	1	1	2	2	2	1	2	
Czech Republic	1	2	2	2	2	2	2	
Danmark	1	1	1	2	2	2	2	
Estonia	2	2	2	2	2	2	2	
Finland	1	2	2	3	3	1	1	
France	2	2	2	2	2	2	3	
Germany	2	2	2	2	2	1	2	
Greece	1	2	2	2	2	1	2	
Hungary	3	2	2	2	2	2	3	
Ireland	2	2	2	2	1	2	1	
Italia	2	2	2	2	2	2	1	
Latvia	1	2	2	1	2	2	2	
Lituania	1	1	3	1/W	1	1	2	
Luxemburg	1	1	1	1	1	1	1	
Malta	1	2	2	1	1	1	2	
Netherlands	2	2	3	2	2	2	2	
Poland	1	1	2	2	1	1	2	
Portugal	1	1	1	2	2	2	2	
Romania	1	1	1	1	1		1	
Slovakia	2	2	2	1/W	1	1	2	
Slovenia	2	2	2	3	3	2	3	
Spain	2	2	2	2	2	2	2	
Sweden	2	2	2	2	2	1	2	
UK	2	2	2	1	2	2	2	

Effective competition - no *ex ante* regulation

No effective competition - *ex ante* regulation

Partial competition - partial *ex ante* regulation

R — Withdrawal (totally or partially) not yet-renotified

V — Veto

1 — 1st round-competition/regulation

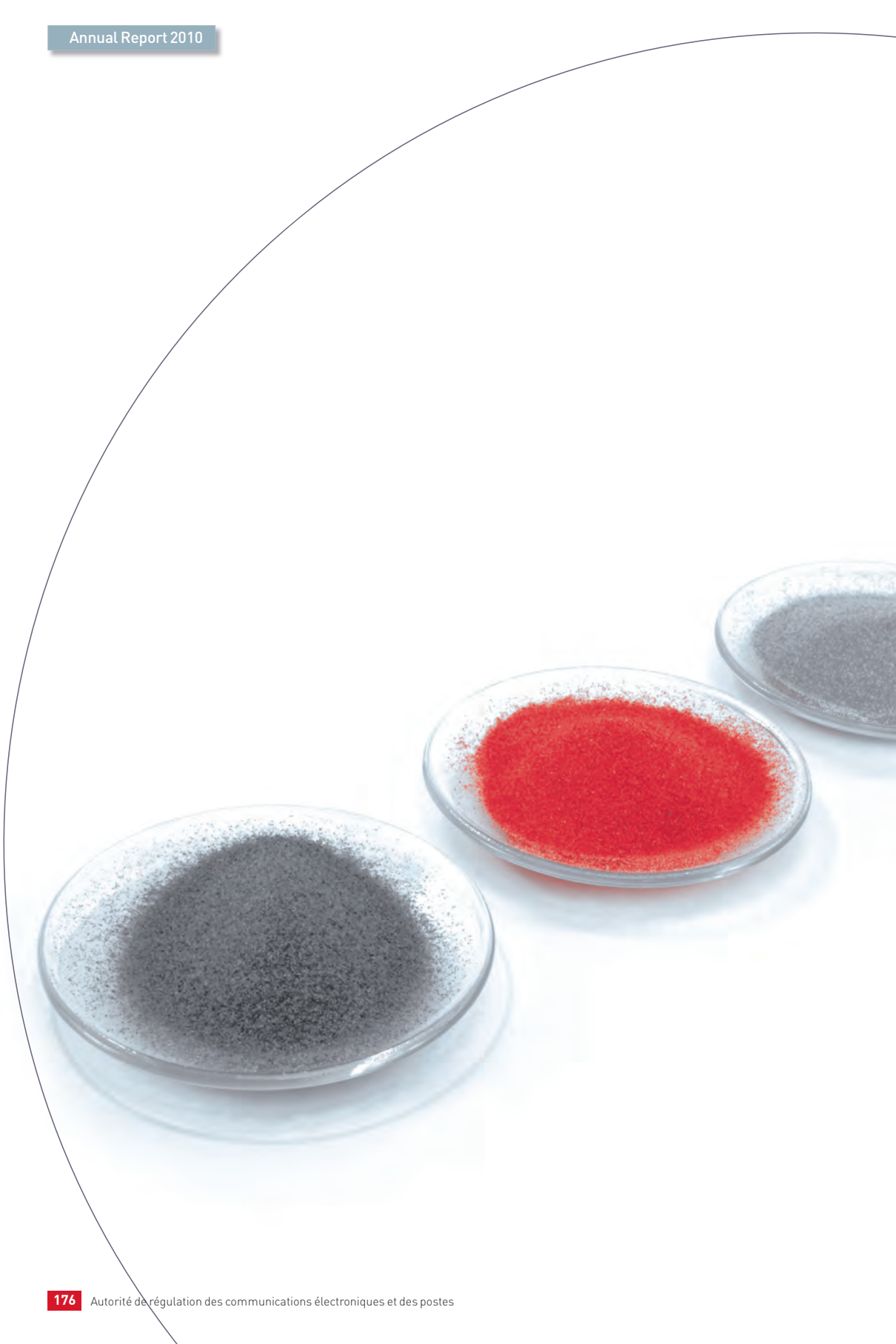
2 — 2nd round-competition/regulation

3 — 3nd round-competition/regulation

REGULATION IN EUROPE (December 2010)

Old recommendation								
Local national call for res.	Internat. call for res.	Local national call for non-res.	Internet call non-res.	Retail LL	Transit on network	Trunk segments LL	Access & call mobile network	Broadcast Transmis.
ex-Market 3	ex-Market 4	ex-Market 5	ex-Market 6	ex-Market 7	ex-Market 10	ex-Market 14	ex-Market 15	ex-Market 18
3	2	3	3	3	1	2	1	2
2	1	2	1	1	1	1	1	W
1	1	1	1		1			
1	1	1	1	1	1	1	1	1
2	2	2	1	2	1	1	1	2
1	1	1	1	2	1	1	1	1
1	1	1	1	1	1	2	1	1
2	1	1	1	1	1	1	V	2
1	1	1	1	2	1	2	W	2
2	1	2	1	2	2	1	1	2
1	1	1	1	1	2	1	1	1
2	2	2	2	2	2	2	2	1
2	2	2	2	2	1	2	1	1
2	2	2	2	2	2	2	2	1
1	1	1	1	1	1	1	1	1
2	1	2	1	1	1	1	1	2
1	1	1	1	1	1	1	1	
2	2	2	2	1	1	1	1	1
2	2	2	2	2	2	2	1	2
1	1	1	1	1	1	1	1	2
1	1	1	1	2	1	2		1
1	1	1	1		1			1
2	2	2	2	2	2	1	1	2
1	1	1	1	2	2	1	2	2
2	2	2	2	2	2	2	1	2
1	1	1	1	1	2	1	1	2
2	2	2	2	2	2	2	1	1

The left-hand side of the table lists the market analyses performed in accordance with the Recommendation on Relevant Markets of 2007, while the right-hand side lists those carried out based on the Recommendation of 2003. The number 1 indicates regulation that is still in place from the first round of market analysis (which most NRAs performed between 2003 and 2007). The number 2 indicates regulation that was implemented based on renewal of these analysis (since 2007 in most cases). A number of NRAs have already begun their third round of market analysis, which is represented by the number 3. The letter W indicates market analyses that were withdrawn by the NRA following the launch of a "Phase II" procedure. The letter V indicates market analyses that were vetoed by the Commission. In both cases, the NRAs have not yet performed an analysis that takes account of the Commission's remarks.



Managing scarce resources

1. Spectrum management

1.1. ARCEP's responsibilities

The national frequency allocation table assigns ARCEP the task of managing the spectrum used for various purposes[1] : wireless mobile communications, both consumer (GSM, UMTS…) and professional (PMR), live video feeds, radio links (for broadcasting services, mobile carriers' infrastructure networks, etc.), the wireless local loop, satellite communications, railway communications (GSM-R), amateur radio and low-power and short-range devices (wireless microphones, wireless LAN, RFID, medical implants, remote controls, short-range radar for cars, meter reading systems, etc.).

In this capacity, ARCEP has several areas of responsibility.

a) Regulation and participation in frequency planning

In the frequency bands for which it is responsible, ARCEP sets the type of equipment, network or service permitted to use those bands, along with the technical conditions of their use (transmission power, station deployment rules, etc.). These decisions are approved by the Minister responsible for electronic communications before being published in the Official journal (Journal officiel).

Along with the National Frequency Agency, ANFr (*Agence nationale des fréquences*), ARCEP is involved in drafting international regulation in this area and in managing the ongoing changes to frequency assignments defined by the national frequency allocation table.

b) Allocating spectrum to users

ARCEP is responsible for issuing licences to the users of the frequency bands for which it is responsible. The Authority awards the right to use spectrum though both general licences and individual licences. For the latter, it can elect either to issues over time as the need arises or, when judicious use of the frequency band is required, to issue licences following a call for applications – in which case the selection criteria for the applicants will be defined by the Minister responsible for electronic communications, based on a proposal from ARCEP.

c) Monitoring licences

ARCEP is responsible for collecting the fees for the management and use of these frequencies, in

1 - This is a primary approach to all of the possible uses of spectrum, with the exception of those corresponding to broadcasting, which are managed by CSA, and to the needs of State administrations (defence, civil aviation, interior, research, weather, ports and maritime navigation, space).

addition to having the task of supervising spectrum licence trading. The Authority is also responsible for ensuring that operators comply with the stipulations attached to their licences in terms of quality of service, rollout schedules, coverage areas and any commitments the licence-holder may have made in their application.

1.2. Measures taken in 2010

a) Concerning regulation and participation in frequency planning

In 2010, ARCEP was involved in the work carried out at the European level on the introduction of new technologies (LTE, WiMAX) in the 900 MHz and 1800 MHz bands that are currently being used by GSM and UMTS technologies.

The Authority also contributed to the review of the European decision concerning use of the 26 GHz band by ultra wideband anti-collision radar systems for vehicles, working to ensure proper protection for the fixed service.

Lastly, it opened up use of the VHF band (174-223 MHz) to wireless microphones to take account of the restrictions imposed on their use of the UHF band due to the development of digital terrestrial television (DTT) and to plans to assign the 790-862 MHz band to mobile services.

b) Spectrum allocation

In 2010, following a call for applications, ARCEP allocated the two blocks of 3G spectrum, of around 5 MHz each, which were still available in the 2.1 GHz band after the fourth 3G mobile operator licence was awarded in January 2010[2].

For those frequency bands for which licences are awarded as needed, ARCEP performed:

- for fixed service frequency allocations (radio): 6,647 assignments, 6,467 amendments, 4,283 cancellations and 1,860 renewals, which represented 441 decisions;
- for fixed and mobile satellite service frequency allocations: 135 assignments, 50 amendments and 51 cancellations, which represented 84 decisions;
- for professional mobile service frequency allocations: 1,356 network assignments, 1,274 amendments, 2,580 renewals and 210 cancellations, which represented 314 decisions.

c) Concerning the monitoring of licences and fee collection

In 2010, ARCEP collected roughly €1.05 billion in spectrum licensing fees on behalf of the State – of which €822 million tied to the allocation of the three blocks of 5 MHz of spectrum in the 2.1 GHz band.

ARCEP also verified that mobile operators were complying with their coverage obligations[3].

2. Numbering

2.1. ARCEP's responsibilities

In accordance with CPCE Article L. 44, ARCEP is responsible for establishing the national numbering plan, for its operational management and management rules, and for allocating to operators the numbering resources needed for their business – in addition to working to ensure these resources are used judiciously, given their scarcity.

The numbering plan corresponds not only to telephone numbers used by telephone services, but also to addressing resources for data networks, semaphore signalling points and MCC + MNC codes[4].

The Authority is also responsible for invoicing and collecting the taxes and fees due from operators[5].

The amount invoiced for the numbering tax in 2010 came to roughly €21.7 million.

2 - Further details can be found in Part 2 Chapter 2, page 91.
3 - Further details can be found in Part 2 Chapter 1, page 77.
4 - International base station identification codes and SIM cards in mobile networks.
5 - In accordance with the provisions of Articles L. 44 and R. 20-44-28 of the French Postal and electronic communications code (CPCE).

2.2. The situation in 2010

Status of numbering resources at the end of 2010	
Type of number	**Total numbers assigned**
Person-to-person communications	
Geographic numbers (starting with 01, 02, 03, 04, 05)	203,160,000
Non-geographic numbers (09)	29,580,000
Mobile numbers (06 and 07, incl. roaming)	98,050,000
Value-added services	
Special numbers (10XY)	38
Short numbers (3BPQ)	286
Six-digit numbers (118XYZ)	16
Non-geographic VAS numbers (08AB except 087B and 085B)	12,438,000
Codes	
E format prefixes	4
16XY format prefixes	30
Number retention prefixes (0Z0, 0600,0840, 0842 and 0900)	1,774

2.3. Measures taken in 2010

In 2010, the Authority made 285 decisions on numbering:

- two decisions that were general in scope: one setting the list of numbers with a common purpose and making 3008[6] the first number in this list, and the other concerning the introduction of 114 as the emergency number for the hearing impaired;
- 283 decisions on the day-to-day management of numbering resources, which were broken down into: 234 allocation decisions, 18 operator-to-operator transfer decisions, seven decisions amending previous decisions and 24 repeal decisions.

a) Commercial launch of the first 07 numbers

In May 2009, the Authority had decided[7] to open up a portion of the 07 block of numbers (from 075 to 079, or 50 million numbers in all) to mobiles as there were fewer than two million numbers still available for mainland France in the 06 block. The first 07 numbers were assigned after a series of consultations with stakeholders over the course of 2010.

b) Questions arising from the development of machine-to-machine (M2M) applications

M2M communications have been developing swiftly in the mobile market, which can be attributed to the recent rollout of mass market applications (fleet management, remote meter reading, telemetry, etc.) of which some have been imposed by legislation or regulation – e.g. eCall emergency calling system for vehicles, ecotax for heavy vehicles, etc.

In France, the use of mobile phone lines for M2M communications rose by 70% in 2009 and by 66% in 2010. As a result, by the end of 2010, over 2.5 million mobile numbers – out of a total 64.38 million –were being used for M2M services[8]. Predictions of strong growth for the M2M market in the coming years could result in the swift consumption of mobile numbers, and perhaps their saturation.

ARCEP therefore began to work in tandem with the various market players (carriers, customers, integrators) in 2010 to define a future-proof numbering policy for these services, should it prove necessary. This work has continued on through 2011.

6 - Number for the supply of free information on pricing, notably for calls to value-added numbers.
7 - Decision No. 2009-0406 of 5 May 2009 .
8 - ARCEP market observatory.

c) Introduction of "114" for the hearing impaired

ARCEP was called upon by the Inter-ministerial committee on disabilities, CIH (*Comité inter-ministériel du handicap*) to open up an emergency number as part of a Government order concerning the reception and routing of emergency calls from the hearing impaired[9].

This text provides for the national relay centre that is responsible for receiving and routing requests from people with hearing impairments be assigned a single freephone number.

As a result, after having held a public consultation on the choice of number, on 14 December 2010 ARCEP adopted a decision[10] that introduces "114" as the emergency number for the hearing impaired.

The 114 number is due to become operational in late 2011, and ARCEP is contributing the work of the steering committee in charge of its implementation.

d) Extension of certain 08AB blocks that are nearing saturation

In October 2010, the Authority held a public consultation on possible changes to the numbering plan to deal with the fact that certain blocks of numbers starting with 08 were nearing saturation: namely the 0892, 080 and 081 blocks.

As to the extension of the 0892 block, which in the numbering plan is associated with a per-minute tariff that must be below or equal to 45 eurocents par minute, responses to the consultation helped to confirm the interest that existed in reserving the 0893 block for this purpose. This block, in which no service has yet been opened, is currently associated with a ceiling tariff of 75 eurocents a minute.

On the matter of the 080 and 081 blocks, the responses from stakeholders served to validate the Authority's choices concerning the extension blocks. Parties requesting numbering resources in these blocks will be assigned 0801/0803 and 0812 numbers once currently opened blocks are no longer able to satisfy operators' needs.

9 - *Order No. 2008-346 of 14 April 2008*
10 - *This decision was submitted for approval to the Minister responsible for electronic communications*

Glossary of technical terms and abbreviations

2G, 2.5G: mobile systems predating 3G. For 2G, they include GSM, and for 2.5G, GPRS and EDGE.

3G: third-generation mobile system. The gradual introduction of packet switching technology into mobile networks allows 3G networks to provide access to a wide range of new services, particularly high-speed Internet access.

3GPP (3rd Generation Partnership Project): cooperation between regional telecommunications standardisation bodies such as ETSI (Europe), ARIB/TTC (Japan), CCSA (China), ATIS (North America) and TTA (South Korea), whose aim is to produce technical specifications for 3rd generation (3G) mobile networks. 3GPP also ensures the maintenance and development of technical specifications for GSM mobile standards, notably for GPRS and EDGE.

4G: informal term for referring to fourth generation mobile telephony. Speeds will increase to roughly 40 Mbps in 2009-2010 and to 80 Mbps and perhaps more further down the road. Several technologies that are currently being deployed can also be put in this group, including WiMAX (IEEE 802.16 standard technology), iBurst (IEEE 802.20 standard technology)... (See also: LTE).

Access network: network to which users directly connect their terminal equipment in order to access services. (See "Core network".)

Accounting rates: system establishing the pricing principles to be used in interconnection agreements between international operators so that an operator in the country of origin and an operator in the country of destination may share international call revenue when cooperating to route international traffic. For calls to a given international destination, the operator in the country of origin sets the price charged to users (the retail price), which is called the collection rate. At the same time, this operator and the operator in the country of destination negotiate a per-minute accounting rate. Revenue is shared based on this rate according to a sharing formula that determines the portion (settlement rate) accruing to the operator in the country of origin and that accruing to the operator in the country of destination. This portion usually is equal to half of the accounting rate.

ADSL (Asymmetrical Digital Subscriber Line): ADSL is part of the xDSL technology family which allow end users to access a range of electronic communication services over its copper wire line – and especially telephony and internet access. The line's throughput it supports diminishes as the user's distance from the DSLAM increases.

AFA (*Association des Fournisseurs d'Access à Internet*): French association of Internet service providers.

AFORST: French association of telecommunications network operators and service providers.

AFUT: French association of telecommunications users.

ANFr (*Agence Nationale des Fréquences*): agency responsible for managing the radio frequency spectrum, allocating frequencies to the various government departments and independent authorities that assign

them (ARCEP, CSA, the Ministry of Defence, etc.), handling interference, and conducting international spectrum negotiations.

ARPU: Average Revenue Per User.

Asymmetrical regulation: a form of regulation that imposes certain obligations only on SMP operator(s) in a given market (e.g. France Telecom in the fixed telephony market), to enable the development of lasting competition.

ATM (*Asynchronous Transfer Mode*): technique for the asynchronous transfer of digital broadband communications using short, fixed-length packets. It remains a widely-used technique but is tending to be replaced by IP technology.

Bandwidth: this denotes the transmission capacity of a transmission link. It determines the amount of information (in bps) that can be transmitted simultaneously. In computing, it is often confused with the transfer rate of a communication link, expressed in bits per second.

BAS (Broadband Access Server): equipment whose function is to manage ATM data transport for ADSL-based Internet access offerings. Each BAS in the France Telecom network aggregates ATM traffic from about ten DSLAMs. Thus, a BAS manages traffic for all ADSL lines in the coverage area of the DSLAMs to which it is connected. France Telecom calls the area covered by a BAS a plaque (coverage area). Two ATM circuits, one "upstream" and the other "downstream", are established between each connected customer and the BAS serving that customer.

Beauty contest (comparative selection): method of operator selection to award scarce resources. It is different from an auction in that it allows candidate selection to be based on multiple criteria and not just on price offered.

Bitrate: amount of data transiting a network within a given timeframe.

Bitstream: refers to wholesale offers which may be used by alternative operators to market retail residential and business offers in zones where they have no broadband equipment of their own installed (sites which are too small or too far from their collection network). From a technical standpoint, France Telecom activates the copper pair to the end user with its own broadband access equipment, then routes the Internet stream up to the nearest connection point between its collection network and the alternative operator's collection network.

BSC (Base Station Controller): GSM base station controller. Equipment that controls one or several BTS and manages radio resources.

BTS (Base Transceiver Station): GSM equipment comprising transmitters and receivers and constituting the interface between the BSC and mobile terminals.

Bulk mail: mail items produced in mass quantities by computer – at least 400 items per mailing – such as invoices, bank statements, addressed advertising and periodicals.

CAA (*Commutateur à Autonomie d'Acheminement*): local exchange (exchange to which subscribers are connected) on the France Telecom telephone network. The structure of the France Telecom network is hierarchical and the CAA is the lowest-ranking exchange in the network. Thus, there are two types of exchange: subscriber exchanges (the CAAs) at the bottom of the hierarchy to which subscribers are linked via a subscriber line unit (called a unité de raccordement d'abonné or URA), and transit exchanges (CTs) at the top of the hierarchy.

Cable networks: audiovisual distribution networks that offer electronic communication services.

Call-back: a calling process that operates as follows: the user dials a number in the country operating the call-back; since the call is not actually set up, there is no charge; an automatic device calls back the user, setting up the call on an international line; the user then dials the number of the called party; the call is billed at the tariff charged by whatever foreign operator is selected. This system thus enables users to take advantage of tariffs in the called country.

Carrier selection: option given to customers to choose among multiple carrier operators. Carrier selection

applies to all calls (local, national long distance and international long distance). It can be exercised per call or by subscription.

CCCE (*Commission consultative des communications électroniques*): the advisory committee on electronic communications to the Minister responsible for electronic communications and the Authority. Composed of 24 members, the committee is consulted on any draft measures whose purpose is to set or amend the terms relating to the declaration, establishment or operation of electronic communications networks or services, particularly in the areas of interconnection, network access and the use of radio frequencies.

CDN (Content Delivery Network): a system of servers, deployed on different nodes of a network in the vicinity of end users. By storing temporary copies of Web content (i.e. principle of a cache server), the CDN allows for easier access to the data thanks to the reduction in the time and bandwidth needed for their distribution.

Circuit: bi-directional link between two terminal units over which a connection-mode service can be provided.

Collocation: under France Telecom's standard interconnection offer, physical interconnection is possible using three different techniques:
- collocation: The operator installs its equipment at France Telecom's premises.
- interconnection link: France Telecom installs its equipment at the operator's premises.
- in-span interconnection: a solution halfway between these methods of connection, where the connection point is located, for example, in the public domain.

For purposes of local loop unbundling, collocation consists of supplying the space and technical resources necessary to host and connect the technical equipment of alternative operators.

Convergence: convergence of the broadcast and telecommunications sectors, made possible by technological advances that allow different media (cable networks, terrestrial or satellite wireless networks, computer terminals and television sets) to be used to transport and process all types of information and services involving sound, images and data; since it derives from technological disruption (the digitisation of information), convergence has both economic and regulatory implications. (See also Fixed-mobile convergence).

Core network: the core or backbone network, consisting of all transmission and switching infrastructure beginning with the local exchange.

CPCE (Code des Postes et des Communications Electroniques): French postal and electronic communications code.

CSA (Conseil Supérieur de l'Audiovisuel): French national broadcasting authority.

CUG (Closed User Group): a CUG is an independent network for shared or private use. When the network is reserved for the use of the individuals or corporate entities that established it, it is called private, and when it is reserved for the use of multiple individuals or corporate entities organised as one or more closed user groups for purposes of exchanging communications internal to the group, it is called shared. The Authority has clarified this definition by indicating that a CUG is understood to be a group based on a community of interest that is stable enough to be identifiable and which predates provision of the telecommunication service. The notion of a "closed user group" is not limited to independent networks but is used also to define, for example, a virtual private network on a public network.

Direct interconnection: also known as call termination service. For an operator, this consists of terminating a call to a France Telecom subscriber. The call is routed by the operator to the interconnection point; from that point, it is carried by France Telecom over the France Telecom network to the subscriber's customer premises equipment.

DSLAM (Digital Subscriber Line Access Multiplexer): one of the devices used to convert conventional telephone lines into ADSL lines for broadband data transmission, particularly for Internet access. The DSLAM is installed on the main distribution frame of the local operator's network. It combines several ADSL lines onto a single medium, which routes data to and from these lines.

DTT: Digital Terrestrial Television.

DVB-H (Digital video broadcasting handheld): a digital terrestrial broadcasting standard geared to enabling audiovisual content reception on a mobile handset (mobile TV).

EDGE (Enhanced Data rate for Global Evolution): EDGE is a third-generation mobile standard allowing data to be transferred at 384kbps. It evolved from the GSM and American TDMA standards.

E-SDSL (Extended symmetrical digital subscriber line): technology enabling symmetrical bitrates, but with a shorter range than classic ADSL.

Exchange: switching equipment permitting calls to be directed to their destinations by establishing a temporary connection between two circuits on a telecommunications network or by routing information organised as packets. France Telecom's network comprises a hierarchical system of switches. The higher the exchange is in the system, the greater the number of subscribers it serves.

FFT: Fédération française des télécommunications (French telecommunications federation).

Fixed-mobile convergence: also known as FMC, and which involves the convergence of the fixed and mobile telephony technologies used and services offered. FMC opens up the possibility for operators to offer all users the same services, regardless of the technology or network being used.

Flat-rate interconnection: denotes an offer for interconnecting third-party operators with the France Telecom network. Under it, the fees that third-party operators pay for the collection of local loop traffic are fixed on a per-circuit basis rather than billed per minute.

FTTB: Fibre to the building.

FTTH: Fibre to the home.

Full unbundling: or fully unbundled access to the local loop, which consists of making all of the frequency bands of the copper pair available. As a result, the end user is no longer connected to the France Telecom network, but rather to that of the new entrant operator.

GPRS (General Packet Radio Services): packet switching system (see "Switching") enabling enhanced data rates over GSM networks.

GRACO: Discussion forum between ARCEP, local authorities and operators. An advisory committee chaired by ARCEP whose members include Authority staff members, local elected officials and carriers, and whose purpose is to define the terms for the successful realisation of local authorities' regional digital development initiatives (fixed and mobile networks and services).

HDSL (High-speed DSL): bi-directional symmetrical transmission technique conceived primarily for business applications. This technology achieves bit rates of 2Mbps over distances of up to 2500m.

HLR (Home Location Register): central database of permanent subscriber information for a mobile network.

HSCSD (High-speed Circuit Switched Data): circuit-switched data system (see "Switching") allowing improved bit rates on GSM networks.

HSDPA (High speed downlink packet access): a 3G technology that can deliver downstream speeds of up to 1.8 and even 3.6 Mbps (N.B.: also referred to by some as 3.5G).

HSUPA (High speed uplink packet access): 3G technology derived from HSDPA that makes it possible to increase upstream bitrates (and not only downstream rates, as is the case with HSDPA).

IMT-2000 (International Mobile Telecommunications 2000): third-generation mobile systems supporting enhanced mobility services thanks to the introduction of new functionality. The ITU selected five terrestrial radio interfaces for third-generation mobile systems under the designation IMT-2000. UMTS was one of the five.

Indirect interconnection: also known as call-collection service, in which an alternative operator collects a call

from a France Telecom subscriber. The subscriber dials a prefix to select the operator and the call is then carried by France Telecom from the subscriber's customer premises equipment to the point of interconnection, where the call is then carried by the alternative operator.

Insured item: a service that consists of insuring a postal item for the value declared by the sender against loss, theft or damage.

Interconnection: the linking of various telecommunication networks so that any subscriber of one operator may communicate with any subscriber of any other operator.

Interconnection agreement: private contract negotiated and signed by two operators to determine, on a case-by-case basis, the terms and conditions of interconnection between them. Generally, agreements signed with an operator that has significant market power are based on that operator's standard interconnection offer. Otherwise, the conditions are determined without reference to a standard interconnection offer.

Interconnection interface: the set of technical specifications necessary for the operational implementation of interconnection based on establishing dialogue between networks. It defines physical interconnection arrangements, services and advanced functions accessible by the networks concerned, the ordering mechanism for these services, and associated billing and operating arrangements.

Internet: a group of variable-sized networks interconnected by the Internet protocol (IP) over which a wide range of services can be provided.

Interoperability: also called interworking. Service interoperability refers to the seamless functioning of various services on different networks. With respect to interconnection, the technical functionality available at the interconnection interface determines partly whether a service will interoperate between different operators.

IP (Internet Protocol): telecommunications protocol that is used by the networks that support the Internet. It allows information to be packetised for transmission and the various packets to be addressed, transferred independently of one another, and reassembled into the original message on arrival. The switching technique therefore is referred to as packet switching. For Internet use, it is associated with a data transmission control protocol called TCP (Transmission Control Protocol); it is therefore known as the TCP/IP protocol.

ISP: Internet Service Provider.

Items of correspondence: postal items addressed to households and businesses. Includes both domestic items and items sent from abroad.

LLO (Local loop operator): telecommunications company that operates subscriber lines.

Local loop unbundling: local loop unbundling, also known as unbundled access to the local network, consists of allowing new operators to use the incumbent operator's local copper-pair network to serve their subscribers directly. The new entrant of course pays the incumbent for use of the local network.

Local loop: the wired or wireless facilities between the subscriber terminal and the local exchange to which the subscriber is connected. The local loop therefore is the part of an operator's network that provides direct access to the subscriber.

Long distance carrier: telecommunications company which transports national and/or international long distance communications.

Main distribution frame (MDF): apparatus that connects subscriber copper pairs to the cables that connect to the local exchange. It allows several subscriber lines to be concentrated onto a single cable.

Managed services: solutions for accessing content/services/applications by electronic means, for which the network operator guarantees specific properties end-to-end and/or during a given period of time, thanks to the processes it implements either directly on the network it controls or through agreements with the operators in charge of routing traffic.

MSC (Mobile Services Switching Centre) and VLR (Visitor Location Register): on GSM and/or UMTS networks, the MSC is the exchange that manages incoming and outgoing circuit-switched calls. The switch is linked to a database (VLR) containing a copy of the user profile and terminal or handset location information.

MVNO (Mobile virtual network operator): unlike mobile network operators (Orange France, SFR and Bouygues Telecom in Metropolitan France), MVNOs have no frequency resources of their own. To provide end customers with mobile services, they therefore use a mobile network operator's radio network.

Narrowband Internet: also referred to as dial-up. Internet access from the France Telecom public switched telephone network, which is used for routing conventional telephone calls.

NAS (Network Access Server): equipment used by operators to provide Internet access services over the switched telephone network. An NAS converts telephone calls into IP data streams and thus provides the interface between the switched telephone network and the IP data transport network.

Network: totality of telecommunication resources employed including all switches and transmission links, whether wireline (metallic pair or cable or fibre optic cable) or wireless (terrestrial or satellite using electromagnetic waves).

Network sharing: on FTTH networks that can be shared, the network share point is the location of the connection between the optical fibres running to the different subscriber premises and those of the different operators. This connection can be either spliced or a cross-connection point. The network share point can be located more or less close to the premises that it serves. It can be a cabinet located at the entrance to the building, a street cabinet or even the OLT (optical line terminal) itself. The location of the share point depends on technical (fibre cableway capacity) and commercial (density) considerations. Trials that are currently underway make a distinction between two types of sharing:

- single fibre: with this model, the building operator pulls a single fibre from the building to the share point. Connection to the commercial network operator is through an optical jumper. This model makes it possible to optimise fibre capacity horizontally, but requires a technician for each connection to the share point;
- multi-fibre: under this model, the building operator pulls several fibres from the building to the share point. Connection to the commercial network operator is through either splicing or an optical jumper. This means that each operator owns a fibre and a dedicated port in each building. The appeal of this model is that, once the connection is installed in a building, a technician does not have to be sent out to the site and the risk of jumper error becomes nil. On the down side, this model requires a great deal of fibre, as much in the vertical as in the horizontal portion (for operators that opt for splicing) since a building can, in theory, be equipped with 400% capacity.

NRA: national regulatory authority.

NRA (*nœud de raccordement d'abonnés*): subscriber connection point. A term used by France Telecom to designate the main distribution frame (see "MDF").

Number portability: also referred to as number retention. A system that allows a customer to keep their telephone number (either fixed or mobile) when switching operators.

OLT (also known as ONT): point of convergence for the lines of FTTH network subscribers located in the same neighbourhood or the same town. It can be compared to the "NRA" (see above) in the copper local loop.

On-net and off-net calling: respectively, calls between two customers of the same mobile network and between two customers of different mobile networks.

PMR (Professional Mobile Radio): mobile radio networks for business users. In France the following distinctions are made:

- 3RP (Réseaux Radioélectriques à Resources Partagés): trunked private mobile radio network.
- 3RPC (Réseaux Radioélectriques à Resources Partagés Commerciaux): trunked public access commercial mobile radio networks using 3RP

technology;
- RPN (Radiocommunications mobiles Professionnelles Numériques): digital trunked Professional Mobile Radio networks using Tetra or Tetrapol technology.
- 2RC (Réseaux à usage partagé à relais commun): trunked private mobile radio networks for commercial purposes.
- 3R2P: 3RP networks operated for the user's private purposes.
- RPX: local trunked networks (new category of network).
- RPS (Radio Professionnelles Simplifiées): Short-range business radio.

Point-to-point: a type of fibre optic network architecture. It allows several operators to install their own, possibly different, equipment in the customer premises (dedicated fibre).

PON (Passive Optical Network): a type of fibre optic network architecture. It is a tree architecture whose active equipment is all managed by the same operator. Unlike point-to-point technology, it cannot be "unbundled".

Radio interface: system enabling a mobile terminal to communicate with the network. Standardisation of the UMTS interface was the subject of numerous discussions within ETSI during 1997. On 29 January 1998, the SMG (Special Mobile Group) committee adopted the UTRA (UMTS Terrestrial Radio Access) standard for the terrestrial interface (as opposed to the interface for satellite).

The UTRA standard is a compromise between two originally competing standards: WCDMA and TD/CDMA. UTRA was adopted by the ITU in March 1999 as a radio interface standard for IMT-2000.

READSL2 (Reach Extended Digital Subscriber Line): a technique that makes it possible to increase the range of the ADSL signal by injecting more power into certain frequency bands. Its chief purpose is to provide minimum service to subscribers located just outside the farthest reach of the normal ADSL coverage zone.

Registered item: a service that guarantees flat rate compensation for the loss, theft or damage of the postal item and which, when so requested by the sender, provides proof of deposit of the postal item and/or its delivery to the recipient.

RFID: Radio Frequency Identification technology which takes the form of chips or electronic tags that contain information on the product in which they are inserted, and which are equipped with readers that make it possible to query the tags remotely (within a range of several meters).

RIO (relevé d'identité opérateur): operator identity statement. A unique identifier which is attributed to a mobile phone line and the customer contract associated with it, enabling better identification during the number portability process.

SCS (Société de commercialisation de services): a term specific to the mobile sector, designating a mobile communications service provider, a company that sells and manages mobile subscriptions on behalf of an operator.

Shared access: or partially unbundled access to the local loop, which consists of making the "high" frequency bands of the copper pair available to third-party operators, on which they will be able to build an ADSL service, for instance. The low frequency band (the one used traditionally for telephony) continues to be managed by France Telecom, which thus continues to supply subscribers with its telephone services, without unbundling having any effect on the service.

Short messages or SMS (Short Message Service): text messages which are transmitted over the GSM mobile network signalling channels and have a maximum length of 160 characters. Transmission of these messages on the GSM network is standardised. A short-message server integrated into the mobile network provides the interface between the mobile and fixed-network environments.

Signalling: on a telecommunication network, the signalling function performs the exchange of information internal to the network for purposes of call routing. Just as road signs on a roadway network direct the movement of vehicles, signalling information directs the movement of communications on the telecommunications network. This could involve, for

example, the information necessary to recognise the caller for purposes of setting up call billing or displaying the calling number. This function can be provided directly by the network transporting the subscriber call. Thus, it is generally integrated into the switches. It can also be performed by a separate network, called the signalling network.

SIM (Subscriber Identity Module): smartcard inserted into a mobile terminal and containing the subscriber data required to authenticate a user on the network (GSM standard).

Single piece mail: mail items sent by individuals, businesses and high volume issuers, which are not subject to any special preparation. They are deposited in the collection boxes on the public thoroughfare or adjacent to sorting centres, or in La Poste points of contact.

SMP (significant market power) operator: an operator has significant market power (SMP) if, individually or jointly with others, it commands a position equivalent to a dominant position, i.e., it has considerable ability to behave without regard to its competitors, its customers and ultimately, consumers.

SMS (Short Message Service): see "Short Messages".

SNG: satellite newsgathering, refers to ground stations for temporary satellite video links.

Standard interconnection offer: also known as the interconnection catalogue. Technical and commercial interconnection offer that operators designated by the Authority as having significant market power, pursuant to Article L.3¬8 of the CPCE (the French postal and electronic communications code), are required to publish annually so that other operators may establish their own commercial offers and prices. The standard interconnection offer also sets forth the conditions governing physical interconnection between the SMP operator and other operators.

Switching: in a telecommunications network, switching allows temporary traffic connections to be established between two or more network points. This is carried out by equipment, called switches or exchanges, located at different points in the network. The basic structure of a telecommunications network therefore comprises transmission links interconnected by switches. Packet switching and circuit switching are two switching techniques used in telecommunication networks. The first is used by Internet (IP) networks for example and the second by traditional switched telephony networks.

Symmetrical regulation: a form of regulation that imposes the same obligations on all the operators in a given market in order to guarantee consumers network interoperability, a minimum quality of service, adequate information and streamlined operator switching procedures which, in turn, allow users to take the utmost advantage of market competition.

Terminal equipment: equipment allowing a user to send, process or receive information (e.g., telephone, fax, modem etc.).

Third-party billing: service by which new operators may entrust the incumbent operator with billing for the services they offer their customers via interconnection. In the case of special services, third-party billing can be used for charged services only (not for services that are free to the caller). As this market develops, third party billing becomes essential for effective competition.

Third-party collection: in the context of interconnection, a service enabling a network operator to collect traffic from the incumbent's network on behalf of an operator that has no infrastructure in the geographic area concerned. This service is used particularly by telephone operators who wish to provide their service over an extended area without deploying a network.

Traffic management: any form of technical intervention on a data stream which takes into account the nature of the traffic or the identity or quality of the stream's originator or recipient.

Transmission: in an electronic communication network, the transmission function transports information from one point in the network to another. The infrastructure supporting transmission may consist of copper or fibre optic cables or may be wireless. (See "Switching".)

Triple Play: a bundle of three services (broadband

Internet access, unmetered calling and TV) delivered over an electronic communications network.

Ultra-fast broadband (or ultra high-speed access): a term that refers to Internet access capacities that exceed those of ADSL, when referring to fixed network access, and to those of UMTS, when speaking of mobile access. For fixed access, ultra-fast broadband is delivered via optical fibre while, on mobile, the technologies are referred to collectively as 3.5G (HSDPA) or 4G (LTE).

URA (*Unité de Raccordement d'Abonné*): on the France Telecom network, this is the subscriber line unit, the part of the telephone switch where subscriber lines connect and information is digitised.

UWB (Ultra wide-band): a wireless modulation technology for transmitting large amounts of digital data over a wide spectrum of frequency bands, but with very low power to prevent interference with other signals.

VDSL (Very high speed digital subscriber line): xDSL technologies enabling better performance on local copper loop access networks, the goal being to supply higher speeds than classic ADSL.

VGAST (*vente en gros de l'abonnement téléphonique*): a wholesale line rental offer marketed by France Telecom which includes not only the subscription as such and services which are traditionally associated with the telephone subscription (caller display, incoming call signal, etc.) but also all person-to-person calls, calls to special numbers and narrowband Internet access. It is compatible with the simultaneous use of the high frequency band, notably in the case of wholesale broadband offers delivered at the regional or national level and shared access, regardless of the operator employing this high frequency band.

VPN (Virtual Private Network): a virtual private network involves the shared use of one or several public networks for the internal purposes of a closed user group, which is defined "as a group based on a community of interest that is stable enough to be identifiable and which predates the provision of the telecommunications service". It responds to a need for both internal communication (communication within the user group) and external communication (communication with public network users). It allows businesses with widely distributed sites to use the operator's network for emulated private network access that employs a numbering plan internal to the company: this emulation provides businesses with the functionality of a private automatic branch exchange (PABX) without requiring the investment .

VSAT (Very Small Aperture Terminal): satellite telecommunication service supporting two-way information exchange at low or medium speed via a small transmitter-receiver terminal that uses a narrow part of the total satellite bandwidth.

WAP (Wireless Application Protocol): standard that adapts the Internet to mobile telephone constraints, in particular by employing a suitable content format. This communication protocol is a component of the process for gradually migrating GSM mobile networks to the Internet.

WAPECS (Wireless access policy for electronic communications services): an initiative launched by European Union countries aimed at facilitating swift access to spectrum for new technologies, in a bid to promote competitiveness and innovation (by eliminating all of the obstacles impeding market momentum), and to ensure consistent licensing mechanisms, while upholding the principles of technological neutrality for services.

Wi-Fi (Wireless Fidelity): generic commercial name for IEEE 802.11b wireless local Ethernet network (WLAN) technology operating at 2.4GHz.

WiMAX (Worldwide Interoperability for Microwave Access): label certifying the interoperability of IEEE 802.16-standard equipment from different suppliers.

Wireline network: network based on metallic or fibre optic cable infrastructure.

WLAN (Wireless Local Area Network): wireless network operating over a limited area.

WLL (wireless local loop): local loop employing radio

technology rather than the copper wire used in today's networks, thereby allowing for greater flexibility in infrastructure deployment.

WRC (World Radiocommunication Conference): its purpose is to ensure international coordination in matters relating to radiocommunication. This coordination is essential because frequencies cross borders and it is simpler to have the same types of services in the same bands. Organised by the ITU, this conference is held every three or four years. The results, once incorporated into radiocommunications regulations, constitute international treaty. Each WRC conference is preceded by a meeting of the Radiocommunications Assembly and is followed by a conference preparatory meeting (CPM), where the groundwork is laid to prepare for the next conference.

ZAA (Zone à autonomie d'acheminement): local exchange area. In the France Telecom network, every category of switch is associated with a technical service area which indicates the number of subscribers served by one or more switches at a given level of the network. The ZAA (Zone à autonomie d'acheminement) corresponds to the CAA or local exchange, and the ZT (Zone de transit) corresponds to the CT or transit exchange (Commutateur de transit).

ZLT (Zone locale de tri): local sorting area. The local loop operator sends calls to the carrier designated by the calling party only when the calls are destined for called parties outside of the ZLT; it keeps and routes calls internal to the ZLT regardless of the way in which the calling party dials the call. In France, the ZLT generally corresponds geographically to a département.

ZT (Zone de transit): transit area. (See "ZAA").

Réalisation graphique : Studio Guy Bariol - guy.bariol@aliceadsl.fr

Dépôt légal : juin 2011
ISSN 1956-9572