

PART 7

Local authorities and regional development

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Activity of local authorities

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A. Responsibilities of local authorities

Local authorities are anxious to encourage development and strengthen competition in their regions by facilitating the development of broadband. Since the adoption of the 21 June 2004 law on confidence in the digital economy, the scope of their responsibilities for electronic communication is wider than it was previously. Article L.1425-1 of the CGCT (*Code Général des Collectivités Territoriales*), the general code for local governing bodies in France, allows them to:

- establish active networks;
- perform as an operator;
- provide services to end users under certain conditions when private initiatives are inadequate.

Under this framework, local authorities must inform ARCEP of their plans before they establish and operate infrastructure or provide electronic communication services to end users. As operators, they are subject to the obligations set forth in the CPCE.

At the end of 2005, 62 broadband network projects had been initiated by local authorities, each project serving a population of more than 60 000 inhabitants. Of these, 29 already had resulted in totally or partially operational networks, 15 had been awarded (work having begun on most of them) and proceedings had been launched to establish networks in 18 cases.

Five regions were involved directly, one through a *syndicat mixte* (an association of various public entities) and the other four by providing financial support. In total, 23 *départements* were involved either directly or via a *syndicat mixte*, while four others preferred public-sector services procurement procedures. Thirty-five major urban areas submitted their projects directly while several dozen others participated through associations made up of various public entities.

The investment planned for networks established or launched in the form of delegated public services amounts to approximately € 1.1 billion and another € 100 million is planned for networks established directly by local authorities and associations comprising several public entities.

In addition, local authorities have demonstrated a high level of interest in radio technologies to densify their networks and thereby extend broadband coverage to lower-density areas. They have therefore sought to participate in the process for the award of new authorisations to deploy WiMAX wireless local loop (WiMAX WLL) networks in the 3.4-3.6GHz band. At ARCEP's request, the legal conditions under which they might apply were submitted to expert evaluation under the leadership of Daniel Labetoulle¹. In his report, the former president of the disputes division of the *Conseil d'État* highlighted certain principles:

¹ See Part VI, chapter 1-D.

- local authorities can be awarded and hold authorisations to use frequencies;
- where there are competing applications for award of a single authorisation to use frequencies, local authorities cannot be given preferential treatment neither should the award method adopted penalise them;
- ARCEP is at total liberty to define the geographic granularity of authorisations for the use of frequencies but these authorisations should not be proposed within a geographic framework that local authorities cannot access;
- no conceivable award method is *a priori* legally incompatible with the filing of an application by a local authority;
- concerning the choice of selection method, the texts in force require that multiple criteria be applied and indicate that one of the criteria may be performance under a bidding system.

Of the 175 letters ARCEP received on 17 October 2005 expressing intent to apply for WLL frequencies, 67 were filed by local authorities (18 regions, 32 *départements*, 9 major urban areas, and 8 associations). When this first phase concluded, most players confirmed their letters of intent by filing requests with the Authority on 6 January 2006 for authorisations to be awarded under the conditions set forth in the call for applications.

The initial assessment confirmed that there was a scarcity of frequencies in the 3.4-3.6GHz band in the 22 regions of Metropolitan France and in French Guiana and Mayotte.

As of 1 February 2006, which was the deadline for filing applications, 35 applicants had made their submissions, including 14 local authorities: the authorities of Corsica and 13 regional councils (Alsace, Aquitaine, Auvergne, Bourgogne, Bretagne, Centre, Franche-Comté, Normandie, Languedoc-Roussillon, Lorraine, Picardie, Poitou-Charente, Rhône-Alpes).

B. Regional coverage

1. Broadband

In 2005, local authority projects began to shape the geography of unbundling. Of 168 new France Telecom distribution frames opened to competition over the course the year, more than three-quarters resulted from the first public-initiative network projects in Alsace, Loiret, Oise, and the Atlantic Pyrenees.

Fixed networks deployed by local authorities should enable the unbundling of another 1270 distribution frames (compared with 1000 in the highest-density areas at the beginning of 2006). As of the end of December 2005, only 3000 communes (or 3.4% of the population) were in "dead zones" (where no broadband offering was available) in contrast to December 2004

when the count was slightly more than 10 000 communes (or 10.8% of the population).

Changes in broadband coverage

(December 2004/December 2005)

	% of population		# of communes		% of communes	
	12/04	12/05	12/04	12/05	12/04	12/05
Dead zone (no offering)	10.85	3.41 ^e	10 711	3 012 ^e	29.19	8.21 ^e
Underserved area (access to one offering)	41.40	40.37 ^e	22 498	27 757 ^e	61.33	75.66 ^e
Competitive area (two or more offerings)	47.75	56.22 ^e	3 478	5 918 ^e	9.48	16.13 ^e
Total	100	100	36 687	36 687	100	100

Source: Ortel/ARCEP

(e): Estimate for April 2006.

2. Mobile

The geographic scope of mobile coverage is another determinant of a region's appeal. On 13 July 2003, local authorities and operators signed a national agreement, called the "Dead Zones Programme", to extend mobile coverage. The objective was to bring service to the 3 000 communes where none of the three operators was present at the time the agreement was signed. By the end of 2007, when the programme ends, the population coverage of mobile services will be 99%.

The "Dead Zones Programme" is divided into two phases. The objective of Phase I, which has received € 44 million of public funding for passive infrastructure, is to cover approximately 1800 communes with 1250 sites. The objective of Phase II, which is financed entirely by the three operators, is to cover the remaining 1200 communes with approximately 930 sites.

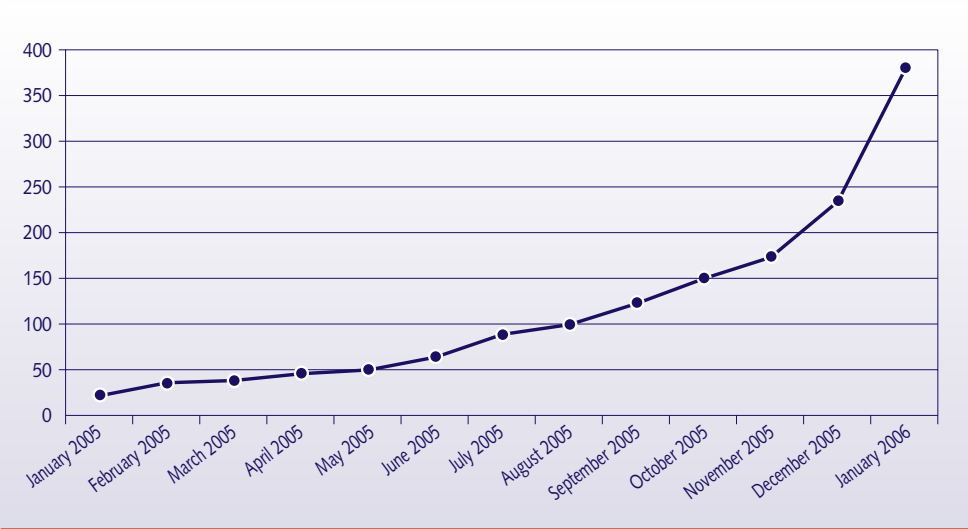
ARCEP, as a signatory to the 2003 national agreement, participates actively in the programme's technical steering committee, which met on three occasions in 2005. The committee is responsible for setting project planning timetables and identifying specific actions to facilitate the execution of the programme. ARCEP remained in close contact with the three operators over the course of the year to address specific technical aspects of the programme.

In August 2005, the three mobile operators made a commitment to the minister-delegate for Regional Development to install 300 sites by the end of 2005, including at least 50 sites in Phase II of the programme. Thanks to the sustained effort of the operators and the close cooperation of the programme's various participants (local authorities, the government, the operators and ARCEP), the goal of 300 operational sites was exceeded such that by the end of 2005, 378 "dead zone" sites were operational, including 64 sites in Phase II. The steering committee will continue its effort in 2006

and 2007 with the aim of completing the programme by the end of 2007 as envisioned by the 2003 agreement.

At the beginning of January 2006, the three mobile operators confirmed their commitment to the minister-delegate of Regional Development to pursue the “Dead Zones Programme”, and set the objective of having 1000 sites operational and providing coverage to some 1500 communes by the end of 2006.

Dead Zones Programme performance in 2005
378 Phase I and II sites operational



Sources: ARCEP

		Site activations as of the end of 2005	Objective for the end of 2006	Objective for the end of 2007
Number of	Phase I	314	1 000	1 250
	Phase II	64		933
Number of communes	Phase I	577	Approximately 1500	1 800
	Phase II			1 200

Sources: ARCEP

CRIP

(Committee for public-initiative networks)

- A. Broadband service market
- B. Service portfolios of delegated public services
- C. Equipping business districts
- D. Broadband dead zones

CRIP (*Comité des Réseaux d'Initiative Publique*) is a committee that reports to the ARCEP Executive Board. It was created by ARCEP in early 2005 to bring local elected officials and operators together to define more clearly the success criteria for projects focused on digital development in the regions. This committee also works to involve local authorities in regulatory developments.

CRIP is organised as two working groups, each with about 60 members. The first group is made up of local authorities, and the second of local authorities and operators. The groups met four times during 2005: on 14 June, 6 July, 21 September and 1 December.

In 2005, CRIP provided local authorities with assistance in handling several local issues:

- recourse to public-sector orders;
- service portfolios for delegated public services;
- equipping of business districts with telecommunication infrastructure;
- broadband dead zones;
- unbundling of small sites.

A. Broadband service markets

Local authorities have recourse to public-sector procurement contracts essentially for purposes of addressing internal needs. In rare cases, public-sector orders are also used indirectly to stimulate digital development in a region.

Broadband service purchases conducted by the regional councils in the context of the RENATER education and research network (*Réseau National de Télécommunications pour la Technologie, l'Enseignement et la Recherche*) procurement contracts for collection services was one of the areas CRIP focused on in 2005. RENATER, which was deployed in the early 1990s to unify research and education telecommunication networks and is managed by a public interest group, connects more than 600 sites to the Internet via regional collection networks. However, to call them regional collection “networks” is incorrect since this term should be reserved for regional initiatives under Article L.1425-1 of the CGCT. ARCEP uses the term to refer to regional broadband service procurement. According to ARCEP's 2004 study on the role of public procurement in competition development – a study conducted in close collaboration with the regions – regional calls for tender motivated alternative operators to develop their networks through the installation of points of presence in certain cities and towns. This allowed unbundling to develop throughout the main medium-size cities.

In 2005, the situation changed. Unbundling had reached nearly all cities and towns and with Article L.1425-1 of the CGCT local authorities now had

a more efficient lever for digital development in their regions. This is why the work undertaken by ARCEP and ARF (*Association des Régions de France*, the association of French regions) focused on the coordinated public intervention of local authorities. The search for synergies between regional service procurement contracts and subregional public-initiative networks was central to the debates.

The most typical scenario is that of a public-initiative network under regional contracting authority, as is the case in Limousin and Alsace. Public-initiative networks allow alternative operators to offer services with an attractive cost-benefit ratio. Because of them, competition in the regional broadband market has become more dynamic. This situation benefits institutions of research and higher learning even if they are not users of public-initiative networks. Apart from the benefits engendered by competition, the additional resources that concessionaires receive help improve the economic balance, serve the public interest, and provide *a posteriori* justification of public intervention.

Public-initiative networks are very often subregional. Synergies are not achieved automatically and the regions need to take different approaches in drawing up their calls for tender. In their terms of reference, the regions cannot require that operators use the public-initiative offering, but they can contribute financially to public-initiative networks through geographic allotments. This can give rise to the creation of local operators. However, geographic allotment poses some difficulties. It reduces lot sizes, which could cause the services offered by these operators to become more costly. In addition, if lot sizes are too small, national operators may be discouraged from establishing a presence.

Alternative operators are likely to use public-initiative network offerings to address regional expectations provided that the offerings meet certain conditions, especially if the operators do not yet have their own networks and the services in the portfolios of the public-initiative networks are adequate (such as DSL service offerings for schools in particular). If they are not yet customers of public-initiative networks, excessive commercial costs could discourage them from becoming so.

Therefore, the regional councils have relatively limited margin for manoeuvre. Whatever strategy they adopt, the regions need to clearly define the scope of the market they intend to address. Also, they must avoid defining lots in such a way that they could be construed to be establishing electronic communication networks, which would bring them under Article L.1425-1.

Certain regional councils intend to include public-initiative networks when they issue new calls for tender in 2006/2007. This might reinforce the consistency of public initiatives required by Article L.1425-1 of the CGCT.

B. Service portfolios of delegated public services

A service portfolio is a list of services (reference offers) that a delegatee, or subcontractor subsidised by the local authority, offers to the wholesale market in general and in some cases to the retail market for the benefit of operators that are not directly subsidised. It describes the services commercialised by the delegatee:

- nature of the service, technical ordering and provisioning interfaces, and place and mode of delivery;
- tariff for the service per year or per multiyear period along with any corresponding volume or term discounts.

The portfolios typically contain three main families of products:

- **Dark fibre, leased annually or by IRUs** (indefeasible rights of use). All delegated public service operators commercialise dark fibre. The offering has met operator demand in most cases, often even before the network is actually constructed (prior commitment to purchase or pre-commercialisation). Nearly all of the leading national operators are fibre customers of at least one public service delegatee. The transactions usually take the form of 15-year IRUs.
- **Core network bandwidth.** This service plays a more marginal role in the market, and is sometimes promoted as a temporary solution until an IRU fibre offering becomes available.
- **Subscriber lines.** This is comparable to the *Residentielle* Options 3 and 5 and the *Professionnelle* (Turbo DSL type) offerings.

Traditionally, dark fibre is commercialised and billed by the linear metre and is often degressive with the number of sections depending on length. To address regional development needs better, other tariff models may be envisaged.

Though requiring that fibre be purchased throughout a *département's* entire coverage area could pose an insurmountable barrier to entry for numerous operators, modifying the service portfolio to provide flat-rate per-site pricing that is differentiated by size of distribution frame can reduce the distance effects in a local authority's area.

C. Equipping business districts

Equipping business districts and office buildings with fibre infrastructure is one of the leading digital development and business competitiveness challenges of the coming decade. Equipping these areas must be placed in the larger context of the access technology breakthroughs that are making news today.

Admittedly, however, the situation in business districts has suffered for a long time from lack of clarity about the inventory of existing infrastructure (in use and usable), the identity of infrastructure owners and managers, and the feasibility of splitting up this infrastructure or sharing it.

Given the importance of this topic and the expectations expressed by all players, public and private, CRIP has created a specific working group. It is made up of a representative group of players who have a stake in the matter: local authorities, operators (France Telecom and alternative operators), associations of elected officials and operators, civil engineering firms, and institutional bodies (Ministry of Infrastructure). Their work has involved the preparation of two documents:

- a standard agreement for providing access to shareable infrastructure;
- a set of technical and engineering recommendations enabling developers and local authorities to install shareable infrastructure in business districts.

1. Standard agreement for providing access to infrastructure

At the end of 2005, the CRIP working group presented a first draft containing the principal clauses that should appear in an agreement to make electronic communication infrastructure available for business district development.

Responding to the lack of clarity observed in business areas, the draft agreement in particular specifies the roles and prerogatives of each party and clearly establishes the ownership regime for infrastructure installed in business districts and the extent of rights of use accorded to operators by local authorities. The agreement affirms that the infrastructure made available is the property of the local authority and the agreement conveys no actual rights to the operator. The latter owns only the cabling and equipment it installs in the ducts and cable chambers made available to it.

After this first version was presented, the working group was asked to clarify certain points, including the maintenance clause, the clause covering financial aspects (tariff principles in particular), and the content of annexes to the agreement. A final version of the document should be finalised during the first half of 2006.

2. Charter of technical recommendations

In parallel with drafting the charter of technical recommendations, the working group sought to determine the necessary baseline technical specifications for installing electronic communication infrastructure and equipment in business districts. Proposals will be made reflecting the minimum requirements of all players (costing figures, typical trench cross-sections, etc.). These elements will of course be adapted according to the nature of the business district and the studies of the terrain necessary for construction and implementation. Thus, proposals put forward for sizing the main network are likely to be modified according to the size of the business area under consideration and the level of operator interest in providing service there.

D. Broadband dead zones

1. Definition of dead zones

In France, at the end of 2005, the notions of broadband coverage and DSL coverage were understood to be essentially the same. Indeed, as a result of France Telecom's accelerated broadband deployment, approximately 80% of the operator's distribution frames are equipped. By the end of 2006, this program will bring the percentage of eligible lines to nearly 98%. For technical reasons, 2% of lines will remain permanently ineligible for DSL technology.

In light of this, CRIP members have defined a broadband dead zone as an area where neither households nor businesses will have access to lines providing the equivalent of DSL lines before the end of 2006. After 2006, DSL dead zones will be considered permanent if no new action has been taken.

In the medium term, the objective will be to provide such zones with a permanent Internet connection that simultaneously supports a telephone conversation and bit rates above 512kbps. As uses change, operators and local authorities may choose to adopt a definition more specific to the local situation. In particular, the local definition might be differentiated according to peak bit rate, average available bit rate, or network transit time.

2. Location of dead zones

In autumn 2005, France Telecom introduced a tool on its web site to assess the eligibility of a commune for DSL technology as of end 2006. While this information is useful, it does not address the needs of alternative operators for the development of an optimal action plan for the area concerned since the representation of dead zones presupposes more accurate mapping, for example at the sub-communal level. Indeed, at the local level, defining an action plan presupposes access to more precise data.

Moreover, France Telecom's privileged access to dead zone location information gives it a competitive advantage over other operators. This situation could in fact draw criticism if, after signing a partnership agreement with France Telecom, a local authority has access to privileged information that is not public and launches a public tender to cover the dead zones (under whatever legal form) and the tender ultimately is won by France Telecom.

3. Relevant legal structures

Numerous players believe that the legal mechanisms commonly used for traffic collection projects in the *départements* should not be applied to dead-zone coverage projects. They raise two objections:

- such projects involve very small communes or groups of isolated communes that have few technical or legal resources and therefore are ill-suited to the formal approach that the *départements* use;
- coverage projects in very-low-density areas are low-profit and can be more than 90%-subsidized, which makes them incompatible with delegated public service, at least in the case of concessions.

In fact, local players seem to be turning to different solutions, including the delegation of public service already mentioned (Article L.1411-12 of the CGCT) and competitive procurement for services that are open to competition.

Whatever the approach adopted, dead-zone coverage projects seem to be based on arrangements where the operator's initial installation cost is relatively low and the operating cost is high. Moreover, contracts entered into today cover only a few years, which raises doubts about the sustainability of service over the long term.

It should be noted also that changing the scale of dead-zone coverage projects, which are sponsored in part already by *départements* and regions, could lead to a revival of the legal models customarily used for projects of this size.

The relevant legal models are currently evaluated by DIACT, the inter-ministerial delegation for development and competitiveness formerly known as DATAR. In early September, DIACT launched a study of this matter with the aim of drawing up a body of reference solutions and having preliminary conclusions ready in early 2006.

4. Technologies implemented

Various technologies may be used to bring service to dead zones. In 2005, the players' preferred solution for extending broadband coverage mainly involved WiFi-based technologies on the subscriber side and satellite or wireline links for traffic collection. The service levels observed are close to those achieved on wireline networks. These projects are implemented mainly by motivated and competent local associations or by national operators offering a full range of services.

The use of power line carrier (PLC) technology to reach dead zones is questionable both technically and economically. Though advocates of this technology claim it performs better than ADSL, CRIP has observed that the various trials conducted in Europe in recent years have not led to widespread use of PLC.

CRIP's working group of local authorities does not regard satellite offerings as DSL substitutes, at least not for residential customers. The cost of equipment and the speeds available are prohibitive constraints. However, the conclusion is somewhat different for business customers, for whom cost is less of a factor.

The various players believe that in the short-term wireless technologies - and WiMAX in particular - will in all likelihood be indispensable for providing coverage of scattered customer sites in rural areas.

Finally, in the medium term, deploying DSL equipment in the incumbent operator's outdoor cabinets, called sub-distribution frames, could allow town centres and business districts distant from the distribution frame to be covered at tariffs close to those offered in dense areas.

In conclusion, it seems clear to all that a mix of DSL-alternative technologies will make it possible to cover dead zones. Over the coming years, the use of various technologies will lead to broadband coverage and DSL coverage becoming progressively less synonymous.

