

## **THE ROLL-OUT OF THE FIBRE NETWORK IN FRANCE : A SHORT UPDATE**

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### **France: Europe’s most competitive fibre to the home (“FTTH”) market**

France Telecom, the French incumbent, has three major competitors (Neuf Cegetel, Free, and Numericable) and a growing number of municipal and regional government fibre network projects. France Telecom was the first European incumbent to announce an FTTH strategy.

France Telecom predicts that over the next five years, starting from 2008, the internet access market in France will splinter based on the density of the area. The densest part of the country, covering roughly forty percent of the country’s population, will have access to FTTH. Customers can access this technology through one of four competing providers. The next thirty percent of the population will have access to next generation high speed networks as well. However, fiber optics will not be economically feasible at this density; these customers can have access to the internet through high speed cable. The final thirty percent of the population will have access to the internet at far lower speeds. Access will be based on ADSL and will probably only be provided by one service provider.

According to IDATE, a consultancy, it will cost French operators between €10.4 billion and €11.3 billion to provide FTTH coverage for forty percent of France’s population. Throughout Europe, most tier one telecommunication operators prefer to use GPON networks while tier two and tier three operators prefer to use EP2P networks. Incumbents probably favour GPON technology because it is more difficult to unbundle. Tier two and three operators prefer to use EP2P because it is easier to unbundle than GPON. It is for this

reason that EP2P networks are favoured among regulators.

The investments required of an operator rolling out an FTTH network correspond essentially to the cost of building a new local loop that extends to the subscriber premises. Civil engineering is by far the largest cost item when constructing a new local loop in an urban zone. If an operator were forced to undertake its own civil engineering, and so open trenches across the city, deployment costs would run in the tens of billions of euros across France.

Civil engineering costs represent the majority of costs in fibre roll out. In most OECD member states, these costs can account for anywhere between sixty to eighty percent of the total cost of rolling out the FTTH network.

IDATE calculates that FTTH network operators can achieve profitability within seven to eight years in the urban areas of most European countries. This calculation assumes that the operators share costs on passive infrastructure such as trenches and ducts.

IDATE argues that as of right now there is no compelling business case for an FTTH roll out in small towns and villages comprised of detached houses unless the operators receive public funding.

France Telecom’s civil engineering infrastructure is the main nationwide infrastructure, and in many cases the only one available at the local level for deploying a new fibre optic local loop. All operators need to be able to access this

essential infrastructure to invest in ultra-fast broadband.

Moreover, the deployment of a new local loop that runs to subscribers' homes also means equipping private properties. Given the nuisance this would cause in the common areas of buildings, it is unlikely that operators will be given permission to install fibre in a building that has already been equipped another operator – in addition to it being an economically unsound solution. The building's residents must, however, be able to benefit from competition.

As a result, to prevent the creation of local monopolies in each building, operators need to share the terminating sections of their fibre optic network, in other words, the first operator to install fibre in a building will give other operators access to it under conditions that enable effective competition, allowing them to market a competing offer to the residents.

Accessing France Telecom's civil engineering infrastructure and private buildings are currently the chief obstacles to FTTH rollouts, and concern all operators.

As a result, the Ministry of the Economy, Finance and Industry proposed legislative measures that outline the principle of sharing the terminal section of fibre optic networks, and endow the French telecommunications regulatory authority ("ARCEP") with regulatory powers in that area, notably for setting the technical and pricing terms for a system of infrastructure sharing.

Furthermore, ARCEP, with the assistance of the French fair trade council ("Conseil de la Concurrence"), conducted various market analyses and provided regulatory recommendations to ensure sane competition on Markets 4 and 5.

### Latest regulations in France

A first cycle of market analysis led ARCEP to implement a broadband regulation mechanism in effect until May 2008.

In late 2007, the Authority initiated a second cycle of analysis of both the broadband and ultra-fast broadband markets for 2008 to 2011.

The principal change in this area is the implementation of regulation concerning France Telecom civil engineering infrastructure which, for alternative operators, constitutes infrastructure that is essential to the deployment of a fibre optic local loop so that they can supply end users with ultra-fast broadband services.

In its public consultation held in December 2007, the Authority thus proposed that an analysis be devoted to the wholesale physical network infrastructure access market and the wholesale broadband market, Markets 4 and 5, respectively pursuant to the new European Commission Recommendation of 17 December 2007.

Further to such second cycle of analysis, the Parliament and ARCEP took major steps in defining a regulatory framework that aims at achieving FTTH roll-out in France.

This includes, among others, obligations on all operators to meet reasonable requests for access to in-building fibre (at an access point to be defined), an ambivalent position on fibre unbundling beyond the private property portion, a formalised civil infrastructure access obligation on France Telecom, and a decision not to mandate wholesale broadband access over fibre.

(a) On July 25, 2008, ARCEP adopted (following the receipt of a European Commission comments letter dated 18 July

2008) the analysis of Market 4 and Market 5 of the second edition of the European Commission's Recommendation on Relevant Markets Susceptible to Ex-Ante Regulation.

ARCEP's decision (n°08-0835) on Market 4 (wholesale (physical) network infrastructure access at a fixed location) defines the relevant market as including:

- metallic loops/sub-loops (excluding cable TV unsuitable for unbundling), and
- dark fibre (in the access network), but also
- civil works infrastructure (in the access network).

The market definition also specifically includes the infrastructure constituting the wired local access network of electronic communications network operators and the civil infrastructure and fibre infrastructure of local authorities within the perimeter of the local wired access network.

Pursuant to this decision, this market is defined as national and France Telecom ("FT") is considered as having significant market power on the wholesale market for access to these infrastructures.

The existing obligations on FT for metallic local loop/sub-loop unbundling are broadly maintained and the existing FT fibre backhaul offer in the context of metallic loop unbundling is confirmed and hence becomes the subject of a firm regulatory obligation.

Fibre unbundling is not made an obligation pursuant to the ARCEP Market 4 decision.

Article 11 of the Market 4 decision introduces a new civil infrastructure access obligation for France Telecom, which covers the infrastructure relevant to the local access network, including ducts and chambers used to connect both residential

and business customers, a process for « *de-saturation* » of the local access infrastructure (i.e. to ensure that construction occurs where there are capacity constraints), and procedures for access to information and updating of such information relating to civil infrastructure access.

Articles 12 to 14 of the Market 4 decision provide that France Telecom:

- shall undertake to provide such access on a non-discriminatory basis compared to its self-supply (including procedures and internal transfer pricing),
- a reference offer for local infrastructure access must be published (the conditions of which are detailed in Annex 1.B of such decision),
- FT is subject to a cost-orientation obligation (including a specification that the fees must reflect *the space occupied or immobilised by such access*, which can be subject to a more detailed ARCEP decision subsequently).

Further obligations, including, without limitation, accounting separation and quality of service, are detailed in the Market 4 decision.

It is important to note that Market 4 decision specifies that it "*will consider extending fibre access obligations if the regulatory measures are insufficient to guarantee competition*". Along the same line, in its letter dated July 18, 2008, the European Commission (prior to the adoption of the law n° 2008/776) "*encourages ARCEP to consider imposing other remedies in relation to market 4, in case the adopted law would not be sufficient to ensure effective competition in combination with duct access*".

ARCEP's decision (n°08-0836) on Market 5 (wholesale broadband access) defines the relevant market as including wholesale bitstream provided:

- over metallic twisted-pair loops/sub-loops, and
- over fibre access

Such market definition excludes:

- wholesale bitstream provided over Cable-TV (further to comments contained in the European Commission's letter dated July 18, 2008),
- powerline,
- WiFi, and
- WiMax.

Pursuant to this decision, this market is defined as national and France Telecom is considered as having significant market power on the market for wholesale broadband access.

The existing obligations on France Telecom for wholesale broadband access at regional level over metallic local loop/sub-loops are maintained and extended to include Ethernet bitstream where France Telecom has installed Digital Subscriber Line Access Multiplexers (“DSLAM”) capable of Ethernet. However, an explicit decision is made not to require multicast over Ethernet.

Bitstream over fibre is not required. Indeed, it would neither be necessary nor proportionate, considering (i) that fibre in the access network is not inherited from the monopoly period, (ii) that the Market 4 decision imposes civil infrastructure access (access to the infrastructure inherited from the monopoly period) and (iii) that the law 2008-776 puts forward « *fibre mutualisation* », i.e. a symmetric obligation on all providers to grant access

(the geographic extent of which remains undefined).

ARCEP specifically indicated that this approach may be amended in the event such provisions would prove insufficient to allow effective competition. Such amendment would lead to add more obligations for France Telecom.

(b) On August 4, 2008, the “Loi de modernisation de l'économie” n°2008-776, a wide-ranging law, articles 109 to 120 of which address the telecommunications sector was adopted (the “Law”).

Article 109 VI of the Law creates an obligation for all persons or entities which have established a fibre-optic line that enables the provision of very high-bandwidth electronic communications to an end-user on a private property, to grant reasonable requests to access to that fibre-optic line coming from operators wishing to provide electronic communications services to that end-user.

This Article is likely to generate disputes among operators as (i) it does not specify the physical location of the access point, but it indicates that the access point is to be situated “*outside the limits of the private property*” (unless otherwise agreed by ARCEP) and “*must enable the effective connection of third-party operators, under conditions that are reasonable from an economic, technical and accessibility perspective*”, (ii) there is no obligation that the access point is the same whatever the identity of the provider, and (iii) nothing is stated about fees that will be applied for these fibre access connections, although fees will necessarily apply.

We anticipate major disagreements between operators in the months to come regarding the physical location of the access point, on the grounds that they made different choices especially with regards to their network architectures.

According to such Article 109 VI, disputes related to the conditions for such fibre access are subject to ARCEP's dispute-resolution powers pursuant to Article L. 36-8 of the French Code of Post and Electronic Communications (“CPCE”) and enhances the existing Article L. 36-6 of the CPCE in a manner which enables ARCEP to make an ex-ante determination of the technical and financial conditions of the new symmetric fibre access obligation.

Moreover, it appears necessary that ARCEP provides an ex-ante definition of the technical and financial conditions in application of its new powers.

Furthermore, Article 110 of the Law amends the existing regulation to emphasise, in a technologically-neutral manner, that operators designated as having significant market power on the local sub-loop are required to make available an access offer for this segment of the network, at reasonable tariffs. This technical and tariff offer must cover all elements to ensure that subscribers can benefit from high and very high speed services.

One will note that Article 110 does not provide a rationale for such obligation or limit it to a certain technology. As a result all interpretations are allowed.

Article 109 II of the Law forbids landlords to refuse the installation and maintenance of fibre-optic lines for very high-bandwidth electronic communications. Such obligation however does not apply whenever the landlord has *a serious and legitimate reason* to object. Such *serious and legitimate reason* has been defined as “*the pre-existence of fibre-optic lines that enable meeting the specific needs of the requesting party*”.

Under such circumstances, the landlord may require that the connections are

achieved by using the existing lines. Further stipulations address circumstances in which a decision was already taken by the landlord, a maximum of six months earlier, to proceed to the installation of fibre-optic lines.

This stipulation puts the decision as to whether there is a single or there are multiple access infrastructure options on private property firmly in the hands of landlords, in conjunction with the decisions of entities (including network operators) that install the infrastructure on private property (e.g. decisions on the number of fibre strands, the fibre specifications, etc.). The addition of the word 'specific' (underlined above, which occurred upon review by the Senate and the discussion of this matter is reflected in the Senate debate) indicates that landlords must take account of requirements for Service Level Agreements (SLAs) for business-grade connections, for example in business-only or mixed residential/business premises.

The same article stipulates that, when the fibre-optic lines (on private property) are installed by an operator of a public electronic communications network, the costs for this installation will be borne by this operator.

### Conclusion

The European Parliament is currently considering the creation of a Body of European Regulators in Telecom (“BERT”) with a view to ensuring the effective and consistent implementation of a regulatory framework on electronic communications. BERT shall be composed of the 27 national regulatory authorities, as an alternative to the European Electronic Communications Market Authority (“EECMA”) advocated by the European Commission.

Such creation is controversial among the national regulators most of which deem it largely useless.

It is also controversial among telecom operators who fear that the European regulator would overrule the assurance given to the operators by the national regulators. This concern, coupled with a concern over the powers of national regulators, has led to a fear among

investors that they might not see a return on their investments.

In fact, the chairman of the ARCEP even warned telecommunications firms to act with caution when rolling out fibre networks given that the EU has yet to clarify what regulations it will impose.

Such uncertainty at the European level is likely to reflect badly on the French market and slow the fibre roll out in France.

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