



# The future Commission Recommendation on NGA

## Regulation of NGA in France

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Brussels, 9<sup>th</sup> October 2008

## Very high bandwidth opens a new investment cycle : which infrastructure competition on NGA ?

- No doubt very high bandwidth is the technological evolution in the medium term
  - to meet growing demand for content
  - to assist the concomitant rise in speeds
- Major players have announced fibre deployments
  - with respect to other European countries, the challenge here is to bring the fibre as close to the subscriber as possible (right to the base of the house or building)
- Investments are significant and will need to be spread over several years
  - several hundred euros per connectable home
  - at a rate of one to two million homes per year
- The concern is to ensure that this investment is borne by all operators as much as possible, on the active part of the network as much as possible
- Objectives of ARCEP are :
  - to promote investments
  - to prevent the definitive foreclosure of the market



## Alternative operators require access to civil engineering

- For an operator deploying a fiber local loop network, access to existing civil engineering changes the economic equation considerably
- All operators are not on an equal footing:
  - alternative operators can roll out only in limited cases like Paris, where sewers can be visited and pass under every building
  - France Telecom deploys optical fibre in its civil engineering ducts inherited from the former monopoly
  - Numericable is progressively replacing coaxial cable with optical fibre
- France Telecom's ducts are an essential infrastructure
- Access to France Telecom's civil engineering must be guaranteed to allow all operators to invest

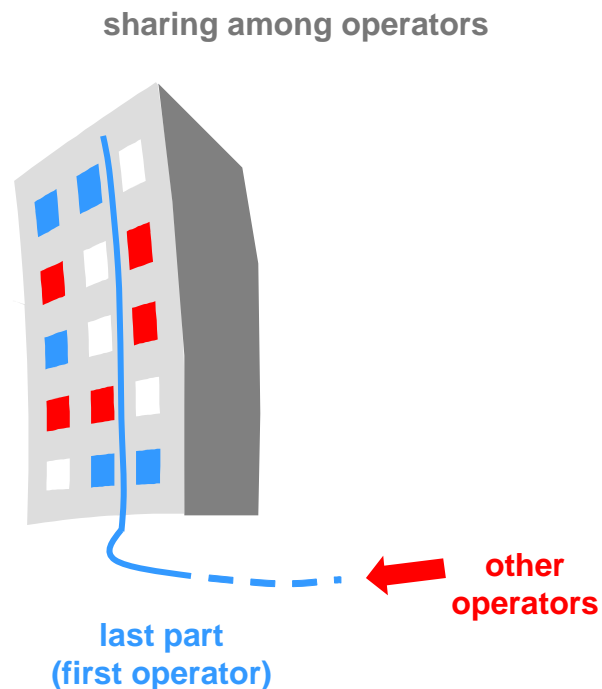


# Regulation of France Telecom's ducts is effective

- The regulation framework is that of the market analysis
  - to guarantee access to the essential infrastructure: France Telecom's civil engineering
  - the new Commission recommendation includes ducts regulation through market 4
  - asymmetrical regulation
- In its market analysis on broadband and very high broadband, which has been adopted on 24<sup>th</sup> July, ARCEP has proposed to regulate the access to France Télécom's ducts as a remedy to the SMP position of France Télécom.
- France Telecom has published its ducts reference offer on 15<sup>th</sup> September.
  - operators have been experimenting the process of this offer since the beginning of 2008
- ARCEP will make sure that all operators, including France Télécom, have access quickly to civil works under equivalent conditions. It requires:
  - an equivalent information on the availability of space for all operators ;
  - to use appropriate engineering rules that optimize the available space and the use of the ducts ;
  - to have a transparent, non discriminatory, cost oriented access to the ducts ;
  - to share part of the capital costs by coordinating work (by sharing studies for availability e.g.).

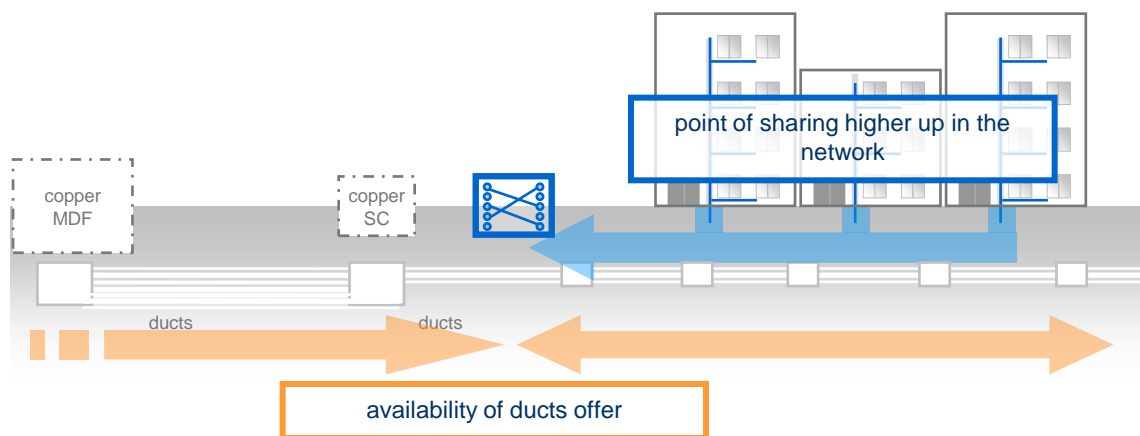
## For all players, access to buildings is the main problem

- Fibre deployment to the home means that private properties have to be equipped
- Operators are prepared to bear the cost of this installation in the centres of major cities
- However, condominium owners, landlords and building managers fear that monopolies will be created by building or neighbourhood
  - they want to limit the number of agents in common areas...
  - ...but want to be able to choose their operator, without having to move house
- So, sharing among operators is necessary
  - principle : the first operator installs the fibre in the building then gives other operators access to its network



## Means of sharing must encourage competition through infrastructures while tackling economical and operational concerns

- Sharing of in-house wiring at the level of the building and access to ducts alone will not be sufficient to guarantee sustainable competition, even in dense areas.
  - it is useless and too costly to roll out several networks toward each building
  - the natural monopoly is not limited to the fiber within the building
  - risk otherwise : irreversible situation
- Having a point of sharing higher up in the network raises a few issues :
  - in terms of technology, it has to be compatible with PON and point-to-point
  - the physical location of the point of sharing depends of the topography, of the density, of the architecture of the operator



## Legislative measures have been adopted to facilitates the roll out of fiber networks inside the buildings

- The LME (Loi de Modernisation de l'Economie) adopted this summer deals with the deployment of fiber and the sharing of the last part of the local loop among operators :
  - a "right to fiber" has been instituted, to facilitate the roll out of fiber networks inside the building
  - in return, any operator that rolls out fiber within a building has to give access to this fiber network to other operators : point of sharing is located outside the private property
  - ARCEP has the power to define clear means of sharing to and guarantee operators respect them
  - in new buildings, pre-equipment standards have evolved to include fiber
- The LME sets the rule of symmetrical regulation, in anticipation of article 12 Framework Directive
- Access does not follow the same logic as LLU :
  - = differed "co-investment" on access
  - risk sharing through IRU
  - On which footprint?

## Local Authorities have an important role to play

- In recent years, local authorities have played a key role in the digital development of their regions
  - in partnership with operators
  - through the roll out of backhaul fiber networks, which has facilitated the development of Local Loop Unbundling outside the main cities
- With NGA, there is a severe risk of digital gap even within dense areas.
- Their intervention can be just as essential on very high bandwidth, even more crucial :
  - by providing local information: site surveys and geographic information systems for public land
  - on civil engineering: by coordinating work, laying extra ducts and authorising lightweight civil engineering
  - on the last part: with social landlords, by authorising wiring on facades and encouraging pre-wiring in new buildings and major renovations
  - promoting the choice of common passive optical loop topography by operators.