

# ***Electronic Communications Regulation in France***

**Global Forum**

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**Commissioner-ARCEP**

# Implementation of the framework and hot topics in France

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- I.** The French Telecommunications market
- II.** Broadband regulation
- III.** Fixed markets regulation
- IV.** FTTx
- V.** Fixed-mobile convergence
- VI.** Spectrum issues

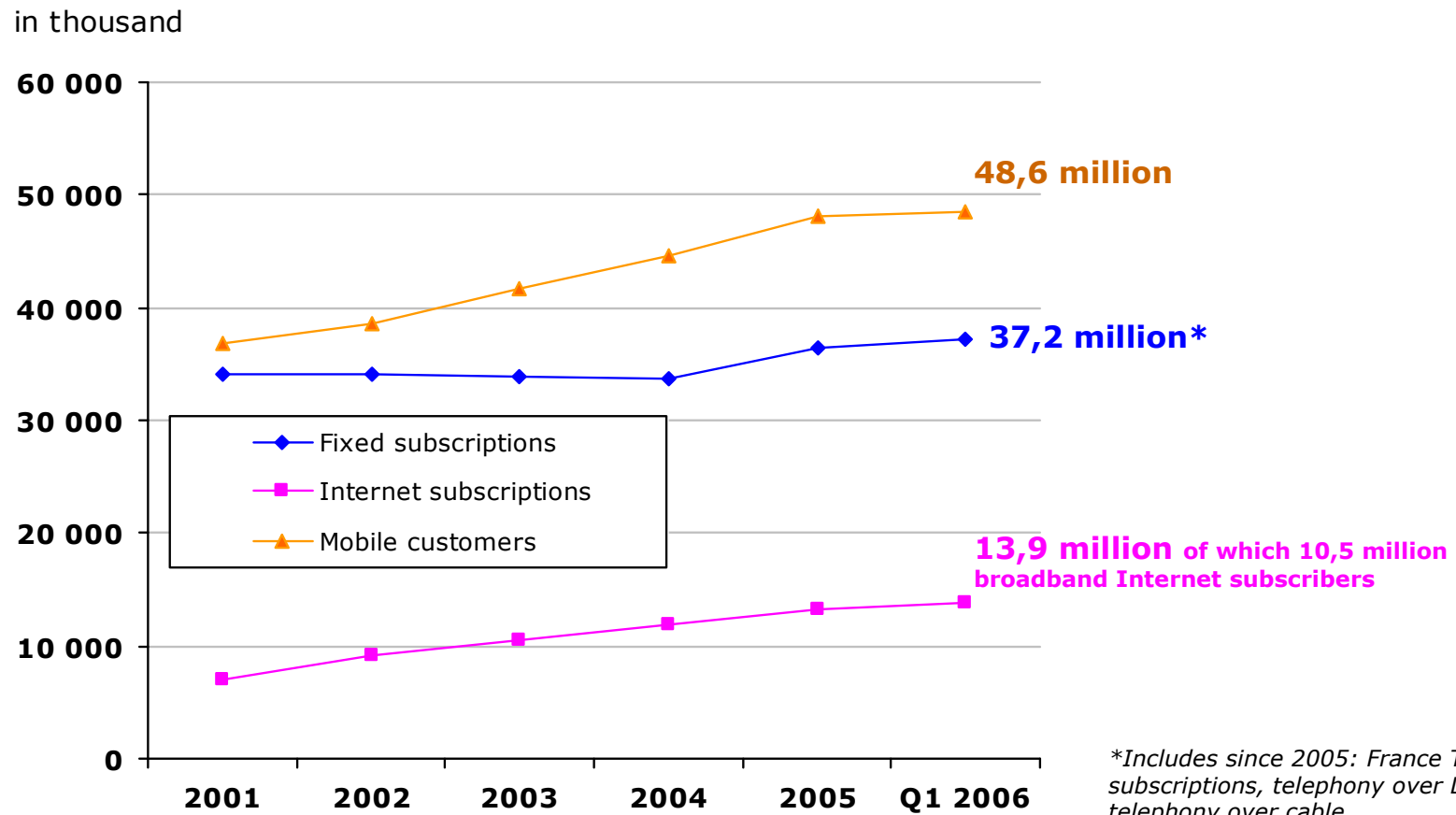
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## The French market : number of subscribers

### Number of subscribers by services



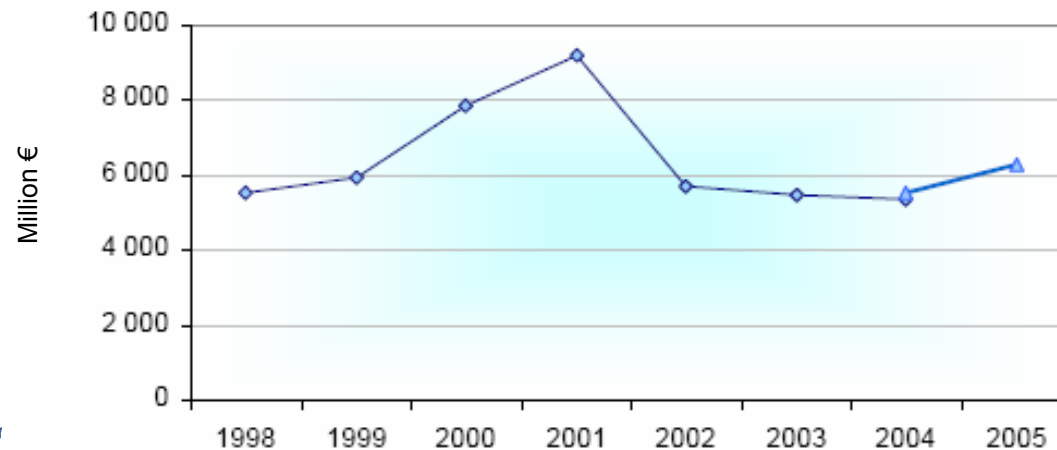
## Investments 1/2

### Global trend

#### Investments during accounting period

Millions €	1998	1999	2000	2001	2002	2003	2004	2005
<b>Investments</b> (former regulatory framework)	<b>5 538</b>	<b>5 909</b>	<b>7 832</b>	<b>9 182</b>	<b>5 699</b>	<b>5 437</b>	<b>5 343</b>	
Variations (%)		6.7%	32.5%	17.2%	-37.9%	-4.6%	-1.7%	
<b>Investments</b> (new regulatory framework)							<b>5 495</b>	<b>6 307</b>
Variations (%)								14.8%

#### Telecommunication investments variations



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## Overview of the French broadband market

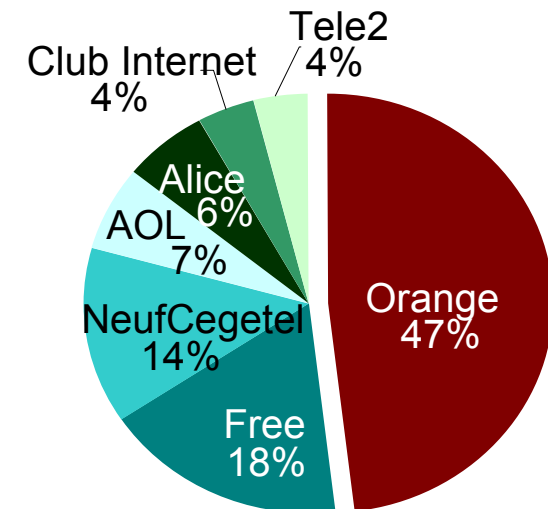
### Broadband subscribers

**As of Sept 30 2006, there are 11,7 million broadband subscribers:**

- 11,1 million DSL residential subscribers, more than 90% of the total broadband market
- 630 000 cable modem subscribers
- The market grew by 116% in 2003, by 84% in 2004 and by 44% in 2005
- Revenue has reached 2,4 billion euros in 2005

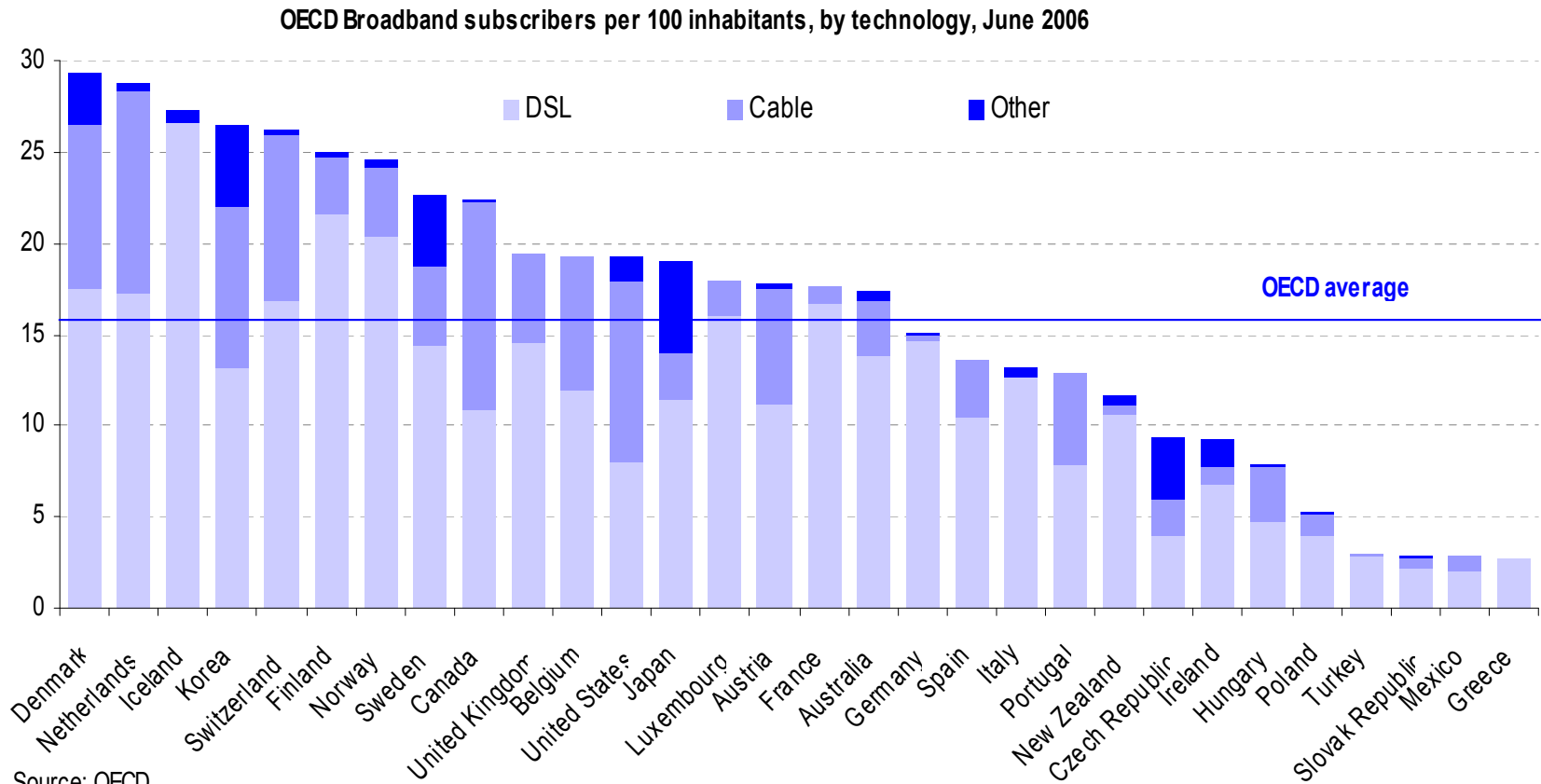
### A strong competitive dynamic

- 7 residential ISPs: FT/Orange (-ex Wanadoo), Free, Neuf-Cegetel, AOL, Club Internet, Tele 2, Telecom Italia France (Alice)
- Prices have significantly decreased. Broadband residential offers are offered as low as 15 € per month (bundled with CPS) for an 8 Mbit/s speed, and triple play for 30€ for a 25 Mbit/s speed
- Speed is increasing: 8 Mbit/s with ADSL, up to 20 Mbit/s with ADSL2+, offered by some French ISPs
- New services have been developed : TV over DSL, VoIP ("triple play")
- Professional offers: data, VPN...
- **The retail broadband market is not regulated in France**



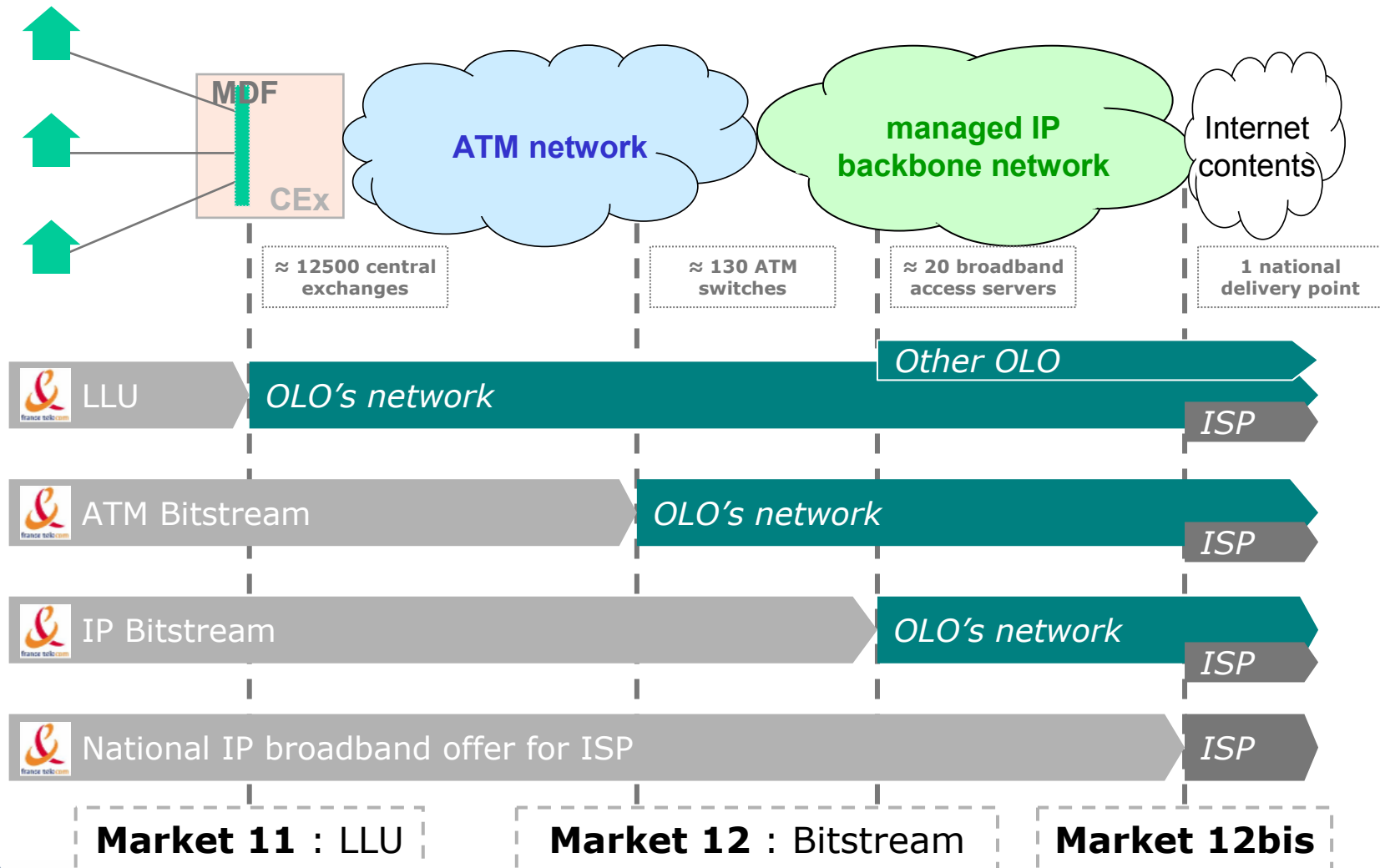
Main DSL market players with market shares (January 2006)

## Overview of the broadband access in OECD countries





## Broadband wholesale offers in France



## Local Loop Unbundling and Bitstream Access

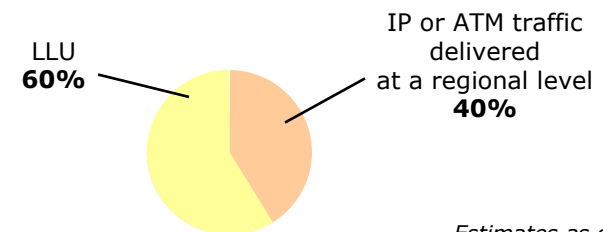
### Local loop Unbundling

- **LLU is of utmost importance for the development of competition in France**
  - As of June 30 2006, LLU accounted for 32% of all DSL lines (3.35 million lines, of which 1.24 million full LLU)
  - LLU is the only way for competitors to provide “triple play” services
  - New entrants made important investment to extend their networks
- **Recent tariffs evolutions**
  - Tariffs for collocation fees decreased
  - Tariffs for full LLU have been reduced from 10,50 € to 9,50 €, as of July 1, 2005, and 9,29€ as of January 19<sup>th</sup> 2006
- **Market analysis has confirmed current obligations**
  - Transparency (reference offer), non discrimination, accounting separation, access, cost orientation and cost accounting obligations

### Bitstream Access (regional wholesale offers)

- **Bitstream access is gaining ground in France**
  - A way to provide competitive broadband services in areas not covered by LLU
  - Bitstream will allow competitive carriers to provide VoIP service
  - Market analyses imposed a cost orientation obligations on bitstream, as far as it does not lead to squeeze

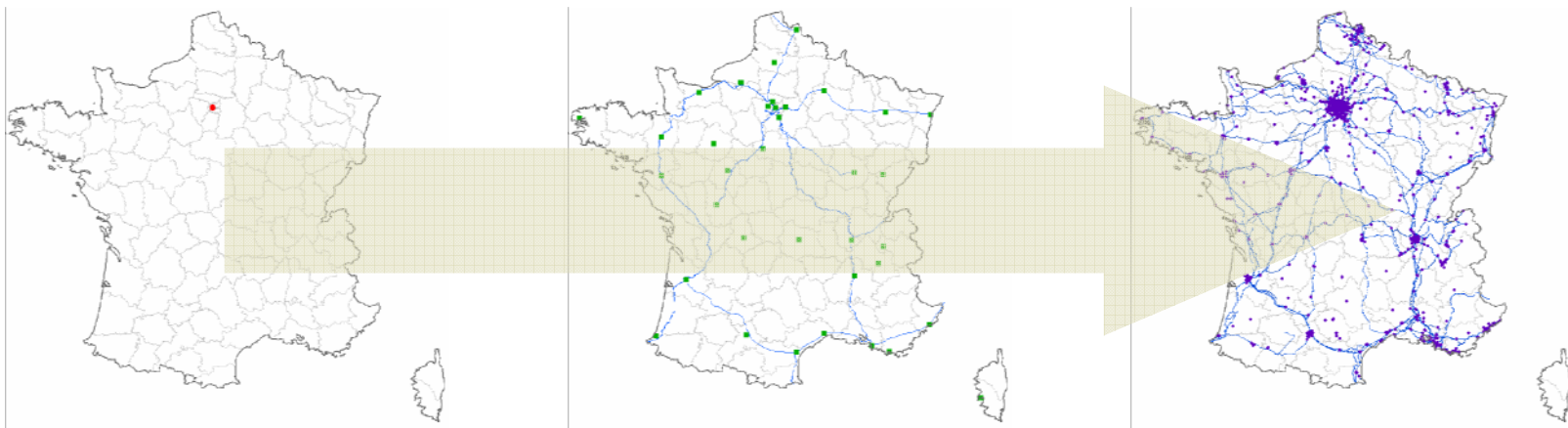
Competitive carriers usage of wholesale offers :



Estimates as of January 1, 2006

## Three wholesale broadband offers : geographical architecture

- Increased capillarity for the OLOs
  - more investments in facilities, networks...
  - more independency (technical / economical) towards France Télécom



### National offer

- 1 delivery point
- no need for a network

### Bitstream offer

- regional delivery (20 to 130 points)
- need for a national network

### Local Loop Unbundling

- need to bring optical fiber till the central exchanges
- need for a national and regional capillar networks

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## VoIP situation in France

### Market

- Communications over IP grew reaching 17% of the fixed line traffic in Q2 2006 and over 4,8 millions subscribers (15% fixed subscriptions)

### Residential Market

#### Services of voice over broadband accesses are growing in the residential market

- Most traditional ISPs are providing double or triple play offers including a fixed telephone service based on ISP, some including international calls in their basic offer

### International

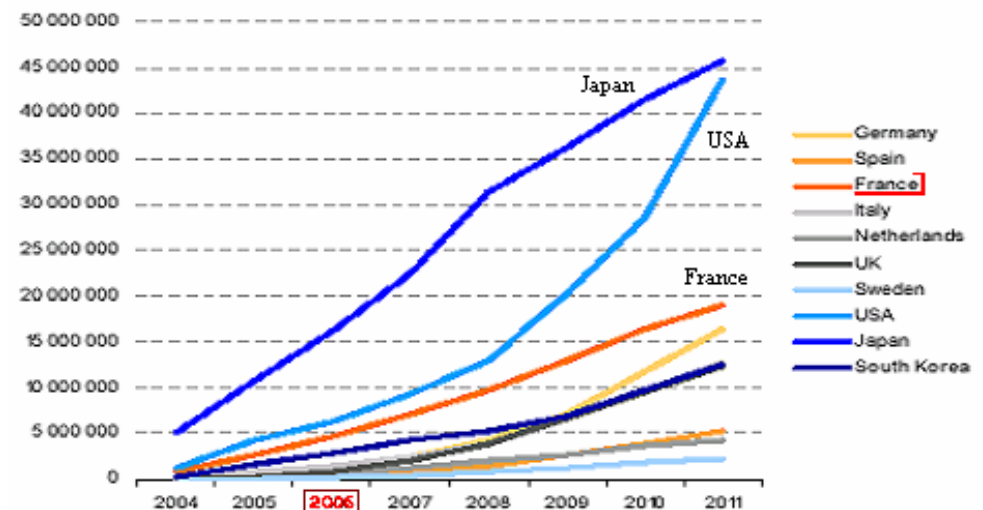
- France ranks 3<sup>rd</sup>, just behind USA (2<sup>nd</sup>) and Japan (1<sup>st</sup>) in terms of VoIP subscribers

(source IDATE)

### Regulation

- No asymmetric regulation
- Symetric regulation : obligations similar to any electronic communication providers if actors can be qualified as such

VoIP penetration (number of subscribers)



Source : IDATE

## ***Deregulation of the retail markets***

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- **Towards a total deregulation of the retail fixed telephony markets by september 2008**
  
- **Retail market evolutions**
  - WLR offer effective at wholesale level
  - Increase of competition pressure on retail markets thanks in particular to increase of VoB telephony
  
- **ARCEP has proposed a retail market deregulation in several phases:**
  - alleviating France Telecom's obligations on residential market by 2006
    - Withdrawal of all the obligations except for non discrimination, and cost accounting obligations
    - this alleviating does not apply to bundles between communication and access
  - going further to progressively extend the deregulation to the global fixed telephony retail market
  - Conditions : efficiency of WLR  
efficiency of accounting separation

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## *Fiber is a technological cut off*

Technology	Downstream rate	Upstream rate
ADSL2+ at main distribution frame	8 - 16 Mb/s	< 1 Mb/s
Cable: tree structure	5 - 30 Mb/s	< 5 Mb/s
Wimax : shared bandwidth	10 - 20 Mb/s	10 - 20 Mb/s
VDSL2 floor distributor	20 - 40 Mb/s	5 - 20 Mb/s
FTTB (fiber to the building then VDSL2)	40 - 70 Mb/s	15 - 35 Mb/s
<b>FTTH (fiber to the home)</b>	<b>&gt; 100 Mb/s</b>	<b>&gt; 100 Mb/s</b>



## Which economic equation ?

### Costs

- Very high, even in densely populated areas
- Concentrated on **civil engineering works and wiring inside buildings**
  - local peculiarities
  - operational difficulties
- Sharing, especially using existing infrastructures (sewer system in Paris, cable ducts) changes the economic equation considerably

### Incomes

- Speeds are not really justified for residential customers at present
- Uncertainty regarding additional income (HDTV, VOD, access to premium contents, ....)

### Risks



**Partial deployments (high density areas)**



**Inefficient investments**



**Re-monopolisation**

## Which investment model?

**Passive investment** (civil engineering works, fibre):

- Long return on investment
- Sharable

**Active assets** (main distribution frame, terminals):

- Rapid return on investment
- Operators' core business

### Two investment models

#### Integrated operator

- **Currently preferred by incumbents**

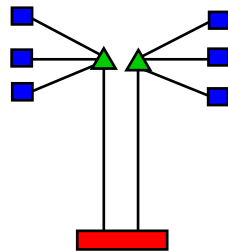
#### Shared liabilities

- **Municipalities and/or utilities using liabilities**
- **Operators implementing active assets**

## Which technical architecture?

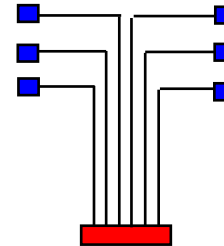
### Two main architectures

PON (tree)



- More commonly used by incumbent operators (Japan, USA)
- Less easily shared (bitstream)
- Less upgradable (terminals)

Point to point (star)



- More commonly used in public projects
- Can be unbundled and upgraded
- Requires more ductwork

## ***What public action is needed (1/2)?***

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### **Lower entry barriers for all players**



**To civil engineering works**



**To wiring inside buildings**



### **Encourage open architectures**



**Public networks**



### **Guarantee equitable sharing of value**



**With respect to broadcasting and internet players**

## *Which regulation ?*

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- Perfectly understandable that those who want to invest need predictability, and a reasonable return on investment
- No “one size fits all” around the world
- No regulation holiday in a “one platform” country that would lead to a new monopoly
- But regulation is not “black or white” : European framework provides a tool-box of graduated remedies
- Find a way to keep the infrastructure open while ensuring profits on new investment, whose financing would be shared.

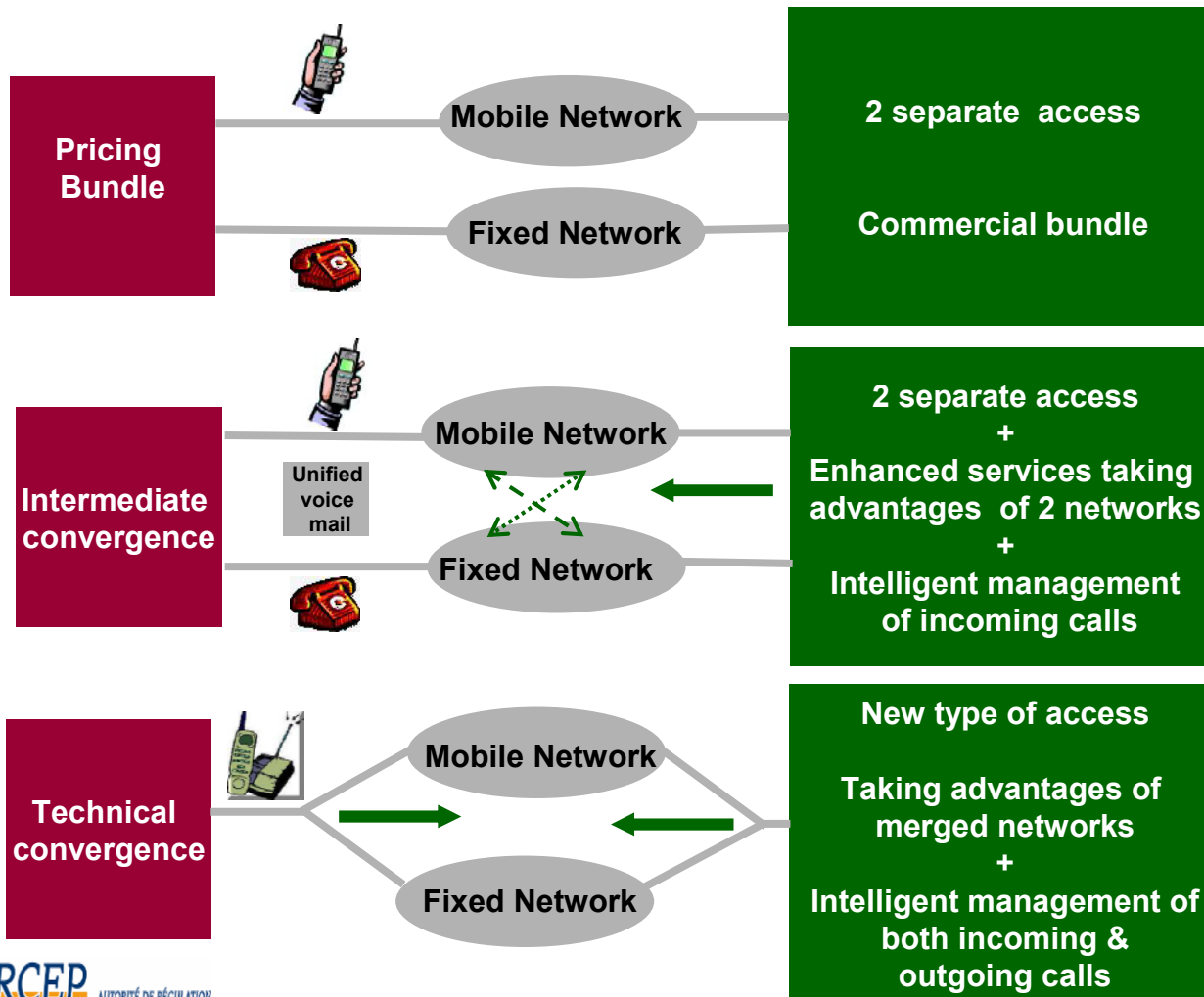
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# Fixed-Mobile convergence

## Definition



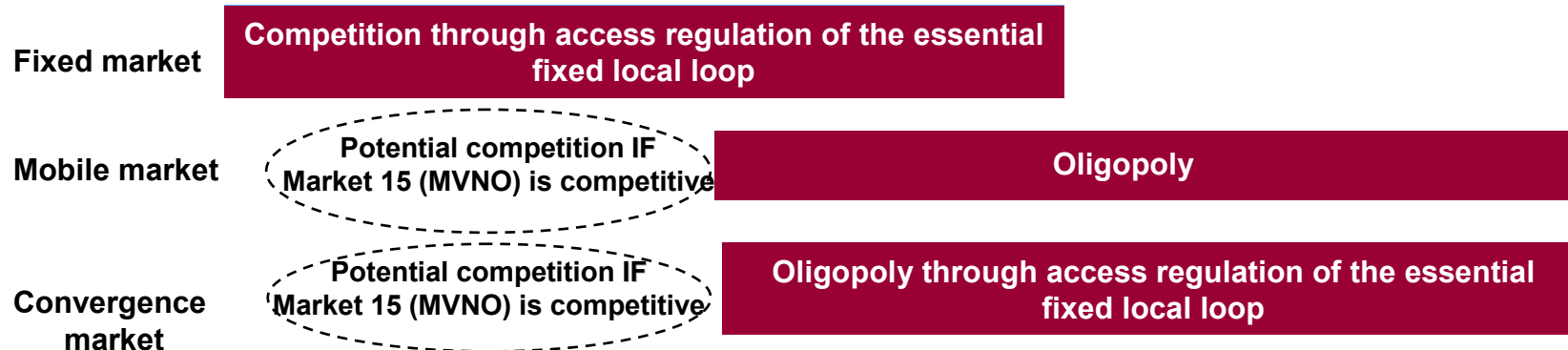
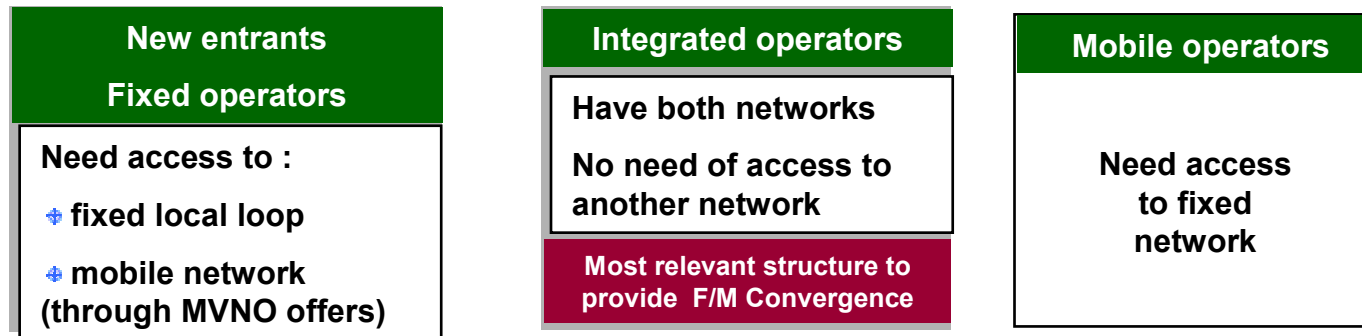
Fixed/mobile convergence corresponds to complementary offers between fixed and mobile usage

Substitutable offers not part of convergence

A Venn diagram with two overlapping circles. The left circle is labeled "Mobile Network" and the right circle is labeled "Mobile offer in home zone".

## Fixed-Mobile convergence

### Market structure in most European countries



#### IMPACT

The success of convergence offers could drastically reduce the number of market players if appropriate access to fixed and mobile networks are not satisfactorily provided.

Risks : extended dominance of the integrated operator and extension of the mobile oligopoly to F/M convergence market and then to the whole electronic communications sector



## **Fixed-Mobile convergence**

### **Conclusion**

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- **New issues arising with fixed/ mobile convergence:**
  - 2 bottlenecks instead of one
  - Horizontal integration as well as vertical
- **Convergence market will develop differently in different European countries, regulators will need :**
  - Flexibility in market definition and analysis
  - Flexibility of remedies depending on the seriousness of the bottlenecks identified
- **Which solutions ?**
  - Ensuring a minimum level of competition on an oligopolistic market : need for effective tools to access mobile networks
  - New remedies for the integrated operator : equality of access = some kind of functional separation (need a new understanding of non discrimination)

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## *Forthcoming spectrum issues*

### European review

- **Objective of the review : add flexibility for spectrum management**
- **Proposals from the European Commission :**
  - Strengthen services and technology neutrality : introduce freedom to use any technology in a spectrum band and to offer any electronic communications service
  - Open selected bands to trading rights of use
  - Widen allocation of spectrum resources without authorization
  - Impose when possible general authorisation as a principle
  - Allow Pan European services
  - Strengthen European coordination for spectrum management

### Issues

- **Flexibility is indeed required but necessity to take into account at the same time**
  - interferences and interoperability issues
  - European harmonisation's needs (like for GSM or UMTS)
  - Efficient allocation of a scarce resource
- **Analog switchover to come**
  - French bill under examination at Parliament proposes 2011
  - Questions will arise concerning use of digital dividend

## **Conclusion**

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- ***Market analysis well in place***
  - Towards deregulation from some of the markets
  - Concentration on remaining bottlenecks and on wholesale markets
  
- ***New challenges to come***
  - fixed-mobile convergence
  - NGN roll-out, especially NGN access
  
- ***Review launched this year by the Commission needs to address those issues***
  - Deregulation : no “black and white” markets, which tools are necessary to monitor the transition from regulation to deregulation?
  - Integrated operators and market by market approach : how to regulate cross market issues?
  - How to tackle joint dominance?
  - Integrated operators and equality of access : how to guarantee real equality of access ? from accounting to functional separation?
  - NGN and the debate on regulatory holidays

***Thank you for your attention***