

# Convergence: a Challenge for Regulation

N. Curien, ARCEP, France



EETT's 4rth Conference  
« Convergence of Broadband  
Telecommunications and Media »  
Athens, 20-21 May, 2009

# Convergence: a 3xWin Game

- Convergence may be seen as a three-player game between network industry, content industry... and users.
- All players may be the winners :
  - Telcos potentially benefit from increased traffic on their networks;
  - Content editors potentially benefit from a larger audience brought by Telcos' platforms of distribution;
  - Users potentially benefit from richer content made available on more platforms, with new functionalities (interactivity, catch-up, delinearization...).

# The Map of Convergence in France

- Population = 66 M    Households = 26 M
- Stock of fixed subscriptions = 40,7 M
- Stock of mobile users = 58,2 M (88%)
- Fixed broadband (T4 08):
  - ADSL = 17 M + Cable = 1M = 18 M
  - VoIP = 14,4 M (35% of fixed subscribers)
  - 3 x Play = 6,2 M (20% of ADSL).
- Mobile broadband (T1 09):
  - Multimedia users (2G+ + 3G) = 19 M (33% of mobile users).
  - 3G users = 11,4 M (20% of mobile users).

# Main policy issues

- Designing *ex ante* an appropriate structure of the industry.
- Bringing a viable solution to the issue of Net Neutrality
- Giving proper incentives to investment in fixed NGAs (fibre).
- Allocating spectrum for 3G & 4G mobile broadband.
- Encouraging the provision of legal content and adapting copyright legislation to the digital era.

# Structure of the Industry

- Emergence of vertically integrated firms providing both content and access:
  - Telcos invest in contents (Orange).
  - Content editors are also active in access provision (Vivendi = Canal + and SFR).
- Maintaining vertical separation between content and access segments in order to:
  - prevent exclusivities of distribution damagable to the consumers (some premium content only available on a particular platform of access);
  - avoid anti-competitive behavior through lever effects (using a dominant position on one segment to alter competition in the other segment).

# Internet Neutrality

- Undue and discriminatory restrictions of traffic should of course be prohibited.
- However, non-discrimination does not mean non-differentiation:
  - access providers should be able to manage quality of service on their networks (vs. best effort)...
  - and to modulate their pricing with respect to various capacity requests from different service providers.
- The roll-out of ultrabroadband NGAs together with the development of Web 2.0 (user generated contents) makes this issue crucial.

# Regulating Fixed NGAs

- Fibre regulation is context specific, *i.e.* depending on national characteristics in the market of broadband over copper.
- In France, the actual success achieved in the regulation of ADSL (a competitive oligopoly of telcos has emerged) allows the regulator to:
  - encourage all operators (telcos + cable operator) to invest in their own fibre access infrastructure (PON or P2P)...
  - except for the terminal part of the network where sharing the first mover's infrastructure should be the rule (through co-investment or mandatory provision of access).
- Regulation is both asymmetric (access to ducts of the incumbent FT) and symmetric (sharing rules).
- After a first experimentation process the regulatory framework for high density areas is now being issued. Further experimentation is carried out to examine the case of less dense areas (sharing cabinet outside of the building).

# Spectrum Management

- Mobile broadband needs spectrum:
  - High frequencies (> 1GHz) for capacity;
  - Low frequencies (> 1GHz) for coverage and indoor penetration.
- 2G GSM: 1800 MHz + 900 MHz = 97% population covered.
- 3G UMTS : 2100 MHz + refarming of 900 MHz + delivering a 4rth licence (end of 2009).
- 4G LTE : 2600 MHz + 800 MHz (digital dividend), 2009-2010.

# The Value of Content

- In the digital era, both cost  $C$  and utility  $U$  of content tend to be fixed with respect to quantity  $Q$ .
- The standard equation  $C'(Q) = U'(Q) = p$  (price per unit) is no longer effective (it leads to  $p = 0$  !).
- Relevant equation now is:  $C(\text{Access}) = U(\text{Access}) = A$  (price of access to content).
- Value is displaced from usage to access, which should be reflected in the price structure (subscription rather than payment per unit).
- Accordingly, copyright should be adapted, right-owners (content creation) receiving payment from a taxation of access (e.g. global licence).
- Enforcing pre-digital copyright through a specific legislation as Hadopi can only be understood as a transitory regime (before adaptation) and should be complemented by incentives given to the development of attractive legal content provision.

# Concluding Remarks

- To deal with convergence regulation becomes more and more:
  - transversal : fixed-mobile-broadband;
  - adaptative : evolutive over time and fitted to national context;
- Sectorial and competition regulations, as well as public policy, should induce a design and mechanisms that lead the industry of content and the EC industry to:
  - make effective the additional value of convergence;
  - come to a fair sharing of that value;
  - ensure equitable return to cultural creation;
  - bring surplus to the consumer.