

Strategies for development of innovation

EETT Conference Athens 6 June 2008



Our members

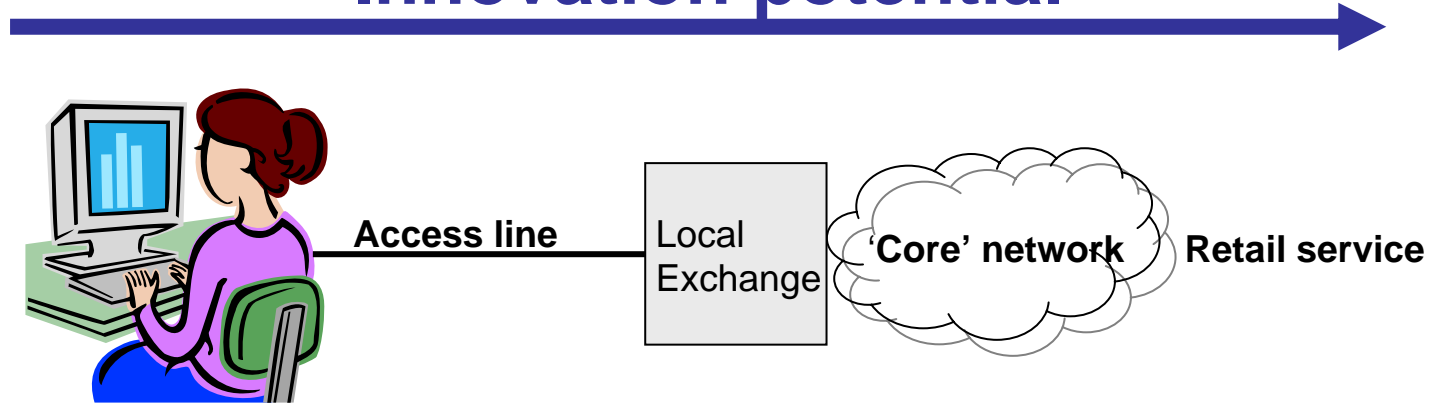
- **More than 100 companies....**
- **Investors in consumer broadband and converged services:** Tele2, Iliad, Neuf, Fastweb, Wind, Tiscali, Arcor, QSC, Easynet, Netia, Grupalia, Forthnet, Tellas etc
- **Global business service providers:** BT Global Services, Global Crossing, C&W, TDC, AT&T, Verizon Business etc
- **Challenger mobiles:** Base, DNA (Finland), P4 (Poland), Wind etc
- **Value added service providers:** 118, Telegate
- **Associations representing competitors** in France, Germany, UK, Spain, Portugal, Ireland, Austria, Bulgaria, Netherlands, Greece etc

A history of innovation

- Infrastructure periodically upgraded and replaced
 - Modern ducts and copper 1960s+
 - Fibre core and access for business since 1980s
 - Fibre replacement of copper consumer access ongoing
- Services are launched and evolve
 - Commercial 'dial-up' Internet in 1990s
 - Consumer broadband in 2000s
 - Triple play acceleration and fixed mobile convergence from mid 2000s
 - ? Broadband in 2010s

Bottlenecks to innovation

Innovation potential



Incumbent BB
Market share
Jan 2008 (Cion)



Typical no.
providers

1 or 2

2+ urban
1 rural

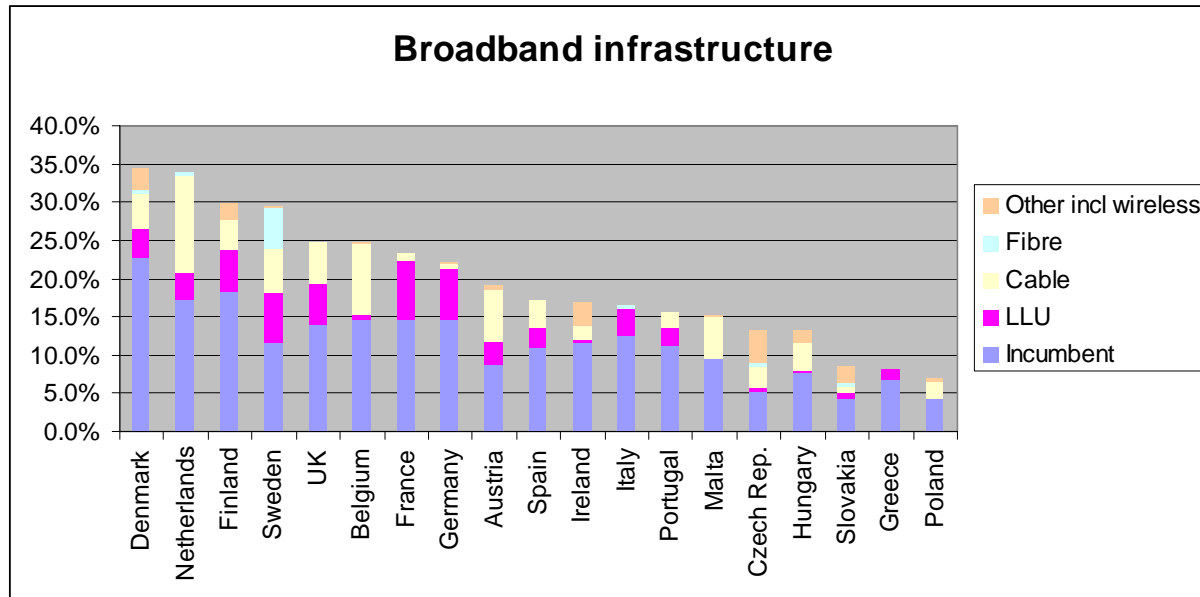
Multiple

Replication barriers

Fibre economics do not change the picture

- JP Morgan: *It is important to note that even a 40% market share operator is not able to justify the VDSL investment, without ARPU (revenues per user) or market share uplift, according to our calculations.....an (almost) nationwide fibre network may be 10 times more expensive than a second mobile network*
- Analysys for OPTA Jan 2007 and ComReg Jan 2008: *Business case for competitive VDSL in Netherlands requires >55% market share and ARPU increase of €10 per broadband customer; Dublin area requires >30-40% and ARPU increase*
- OECD on fibre to the home (FTTH) in NL: *If we assume a monopolist with a 100% market share (and no competition from hybrid-fibre networks), price per household in this model to be at EUR 57.66/month. When two networks roll out a network, without sharing costs, subscription price of EUR 70.50/month.*
- European Regulators Group (ERG): *NGA investments are likely to reinforce the importance of scale and scope economies, thereby reducing the degree of replicability, potentially leading to an enduring economic bottleneck* - ERG Opinion Oct 2007

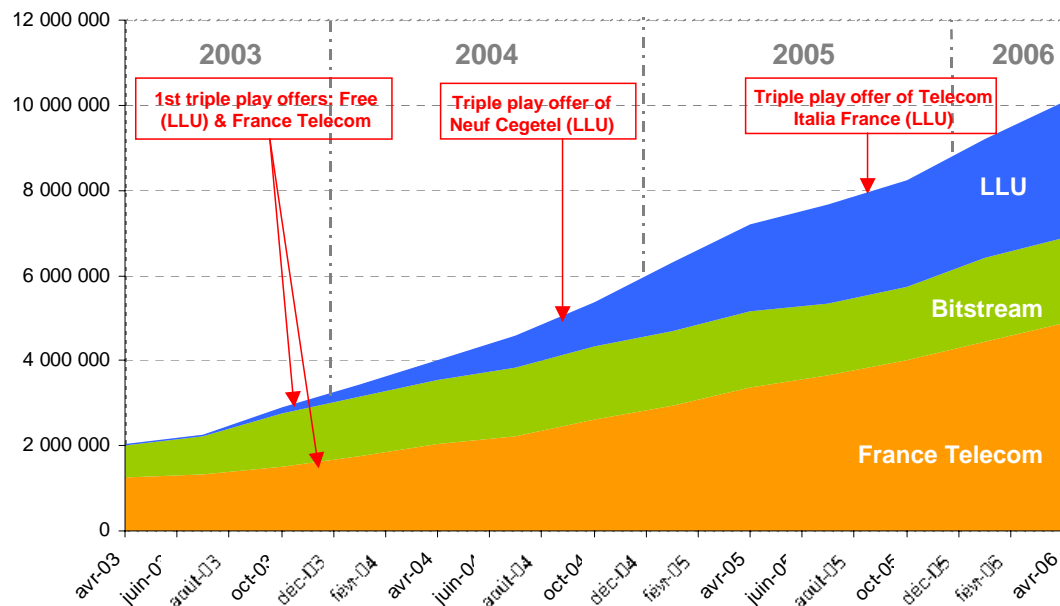
Active measures have been key... to penetration



- High performers have strong competition typically from 4+ operators through unbundling and in some cases cable

... to services: French case

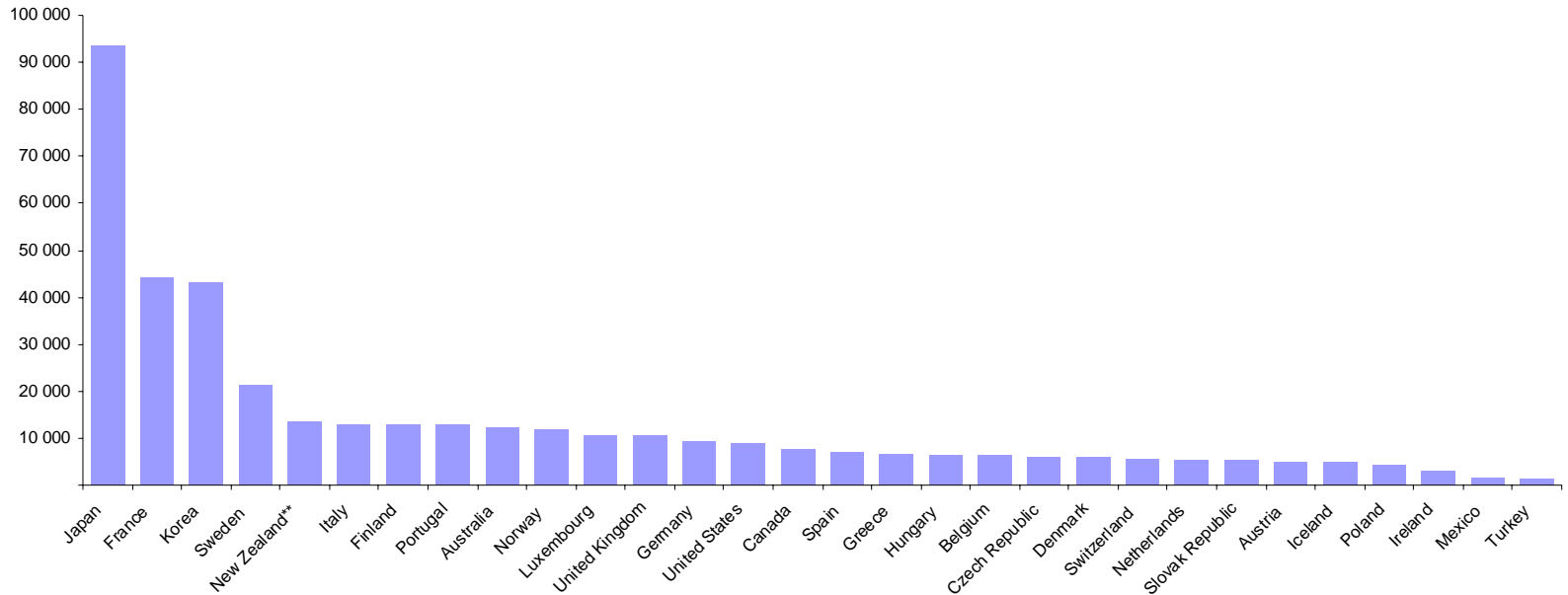
Retail DSL market



- Monopolies and concentrated markets rarely deliver innovation for consumers
- Incentive for dominant firms to sweat existing assets, avoid cannibalisation, oppose/delay liberalisation and entry, delay service provision, price excessively, and restrict bandwidth... as long as this is possible
- Once advantage lost (eg due to effective regulation), incentive to leverage to regain position

... to speeds

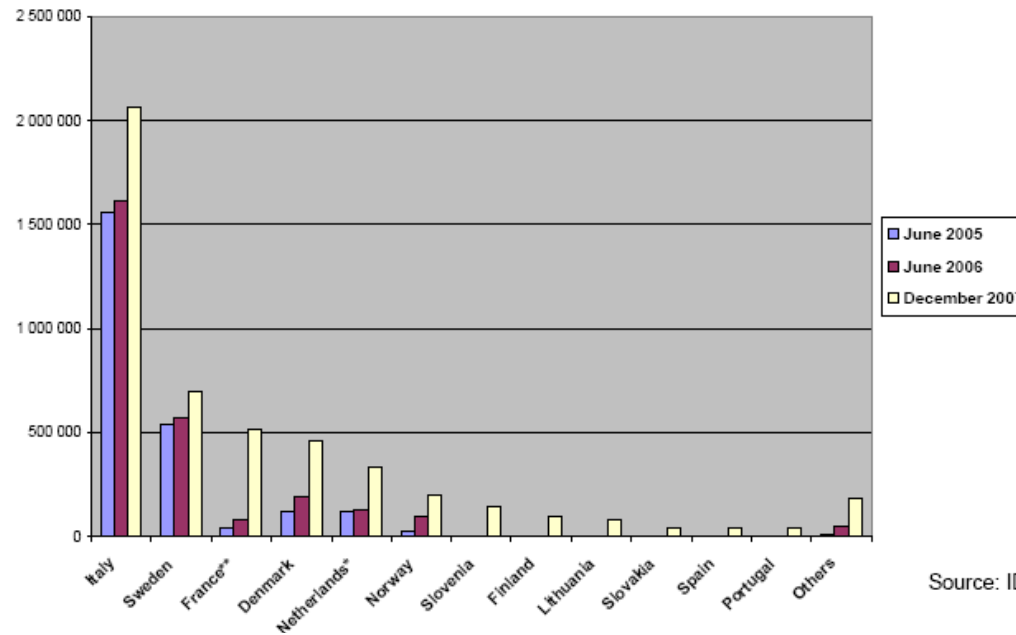
Average advertised broadband download speed, by country, Mbit/s, October 2007



- Countries with a high proportion of competitive lines from unbundling and cable (or unbundling alone) have higher speeds

... to business case for NGA

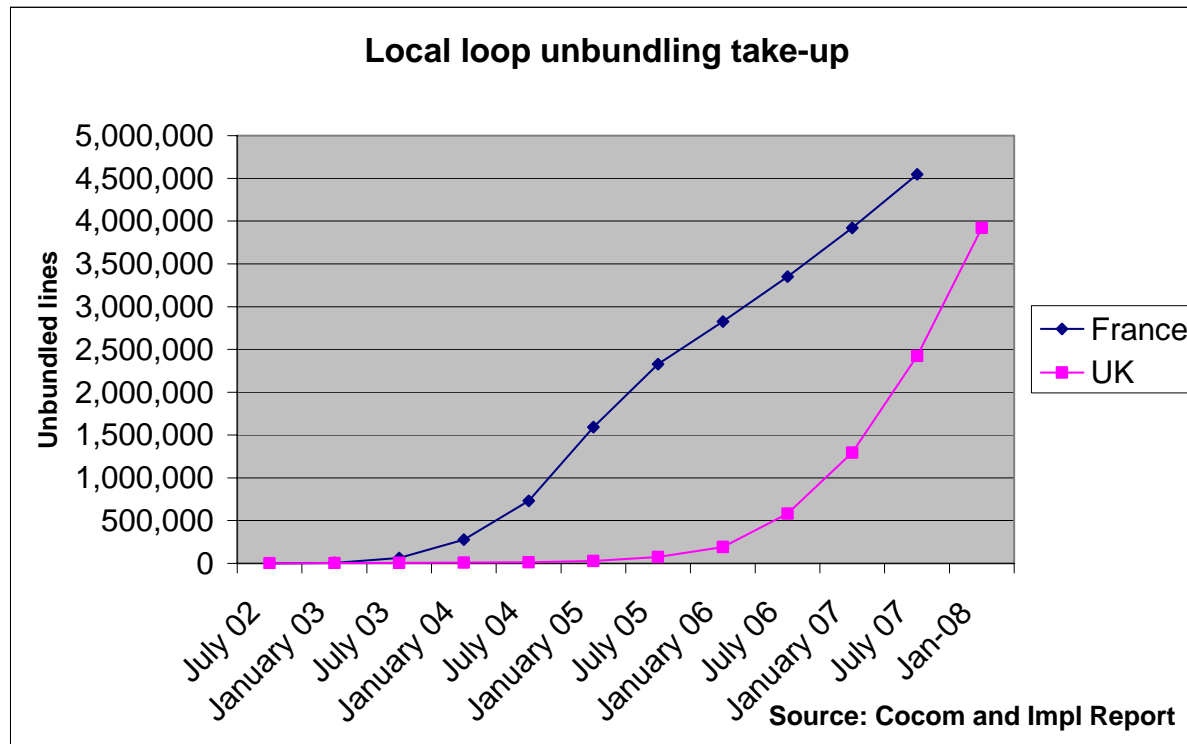
Evolution FTTH/B Homes Passed in Europe (1)



Source: IDATE

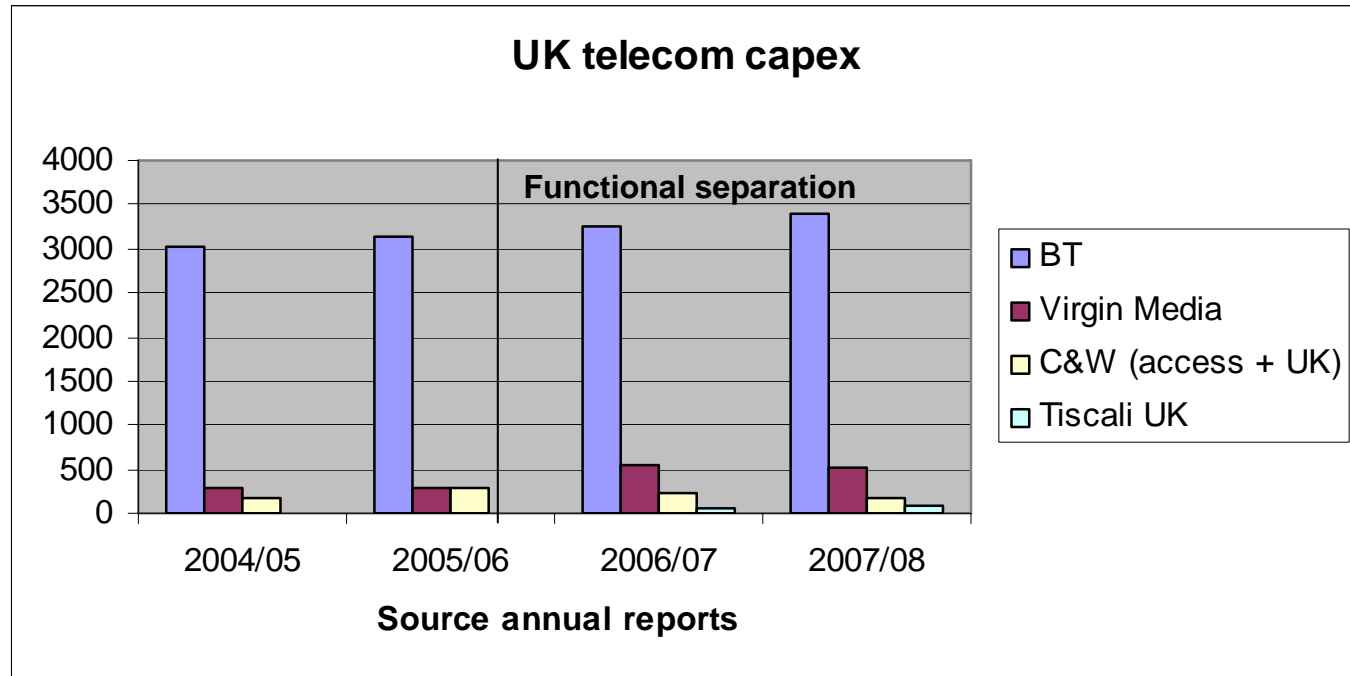
- vDSL and fibre roll-out and plans typically more advanced in competitive countries with active regulators where competition more intense and demand for bandwidth more established.
- Public initiatives, new build (fibre rather than copper), low cost (dense housing, Paris sewers) also play role
- Entrants amongst first to lay commercial FTTH (Fastweb, T2, Iliad, Neuf) and high speed cable. Incumbent response in progress

Effective enforcement is crucial



- Enforcement of competition rules can be difficult – significant lag in LLU effectiveness – still not achieved in many countries
- Achieved in France through numerous regulatory interventions and in the UK with the support of functional separation

... and drives competition/investment virtuous circle



- BT Group capex showing steady increase. BT Openreach capex year to Q3 2007 was £1.1bln, 21% of revenues at £5.3bln
- Increased cable investment by Virgin Media to upgrade access network to 50Mbit/s. £527m in 2007 up from £288m in 2005
- Substantial investment by altnets in local loop unbundling – 1000 exchanges unbundled in 18 months after separation

... and need not undermine shareholder interests

- *OECD Apr 2008: Analysis by some investment firms has indicated that there might be a premium for networks that focus solely on providing network access and are not involved in content or services. Margins on networks are consistently better than on content and services for telecommunications companies. Focusing on the network only would allow for lower operational expenditures and would increase operating and free cash flow.*

Actions to ensure a dynamic future

- *OECD Apr 2008: “Providing regulatory certainty for network operators when they roll out new networks should focus on the success of the networks and not on the success of the services provided over those networks. Regulators should keep the provision of services open and competitive and not grant a monopoly on services when providing regulatory certainty for the investment in networks.”*
- Ensure equal opportunity to innovate
- Break the cycle of monopoly → regulation → competition → leverage → monopoly
- Ensure prices reflect risk but with fair balance - consider existing differences in incumbent/entrant scale and profitability
- Consider functional separation if long-standing history of enforcement failure