interne Groupe

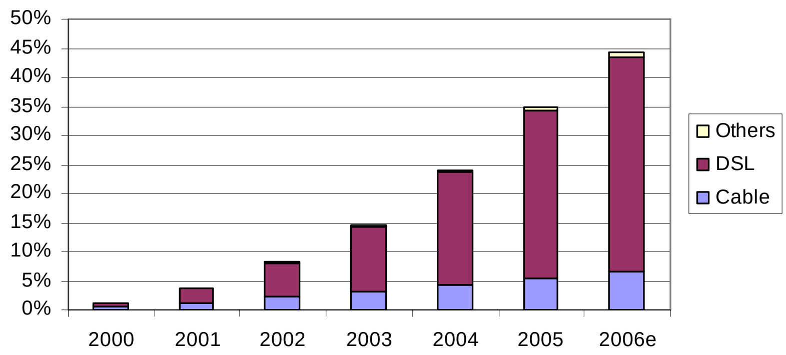
The state of broadband - Europe

Jacques Champeaux

Trans Atlantic Telecom Dialogue – October 20, 2006

orange

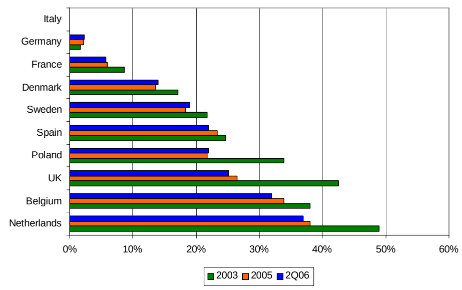
Broadband penetration soars in Europe

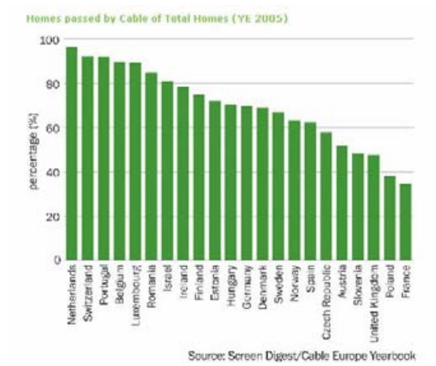


BB penetration as a pc of households, Strategy Analytics, Western Europe

Cable is below its market potential

Cable BB market share





DSL dominates cable in Europe
% cable market share is declining

Cable cover 60% + households in Europe

The broadband market is quickly moving to multiplay offers

France

from **30 Euros / month :**

BB (up to 20 Mb/S)

+ **VOIP** (unlimited fixed to fixed traffic in France/Europe**)**

+ **TV** (100 to 200 free channels)

+ **line rental**

UK

15 £ / month : BB + fixed traffic

20 £ / month : BB + fixed traffic + TV

30 £ / month : BB + fixed traffic + TV + line rental

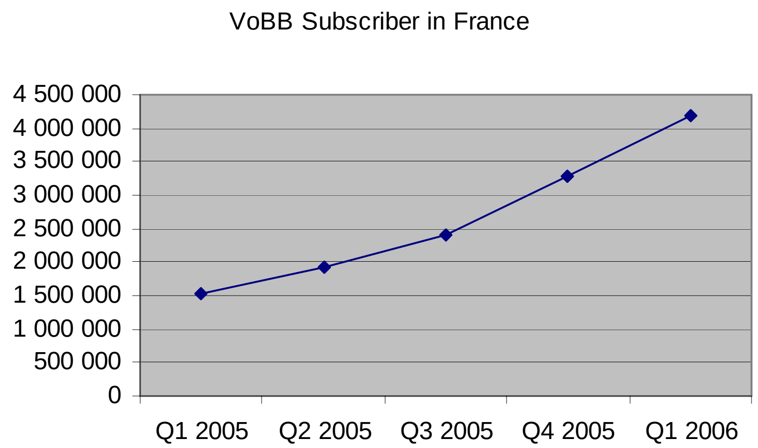
In France, TV on ADSL will be significant end 2006

Between 1,5 and 2 M households with IP TV on ADSL at the end 2006

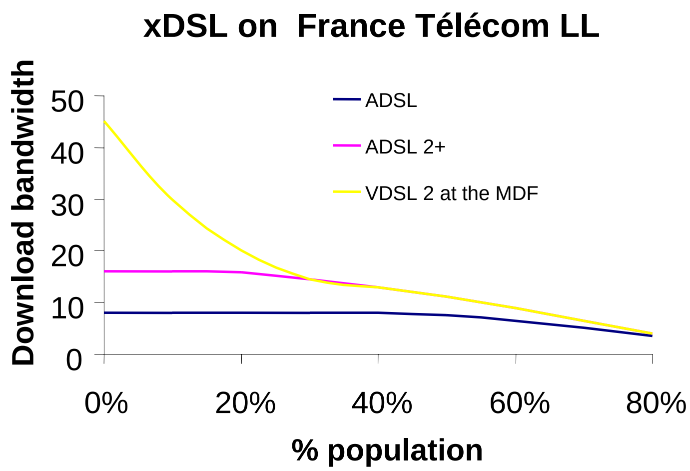
Number of subscribers tripled in one year

More than 10% of households early in 2007

VOIP is booming in France : more than 20 % households (source Arcep)



But bandwidth limits on copper local loops will restrict availability of multiplay



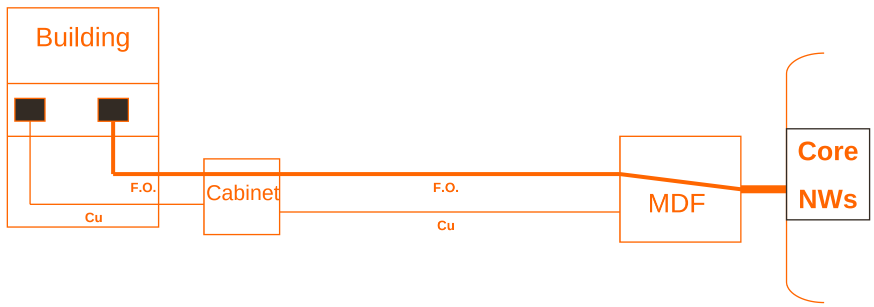
Investments and convergence are driving a (vert/horiz) consolidation of the industry

Need for bandwidth will exceed the potential of the copper loop
⇨ Investments in fibber in the loop will be needed and economically justified

Market consolidation throughout Europe :

- 3 main operators on French fixed mass market : FT+ 2 LLU based CLECs (Free, Neuf Cegetel)
- Mobile – Internet consolidation, e.g.
  France : SFR (Mobile) buys Télé 2 France
  UK : Phone House buys AOL UK, NTL buys Virgin mobile
- Fixed access – Content consolidation, e.g.
  UK : Sky buys Easynet

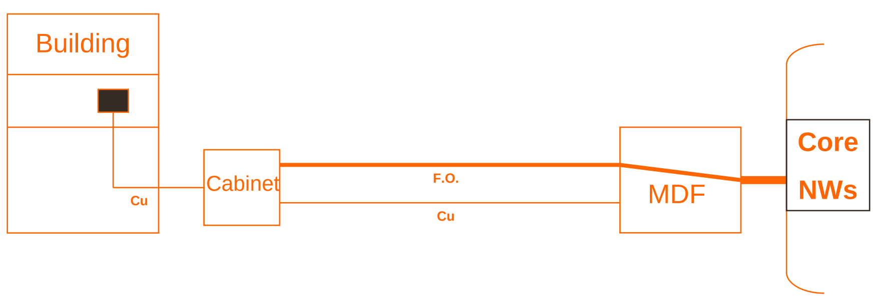
Broadband access – FTTH – French case



Overlay network vs copper

No technical impact on unbundling

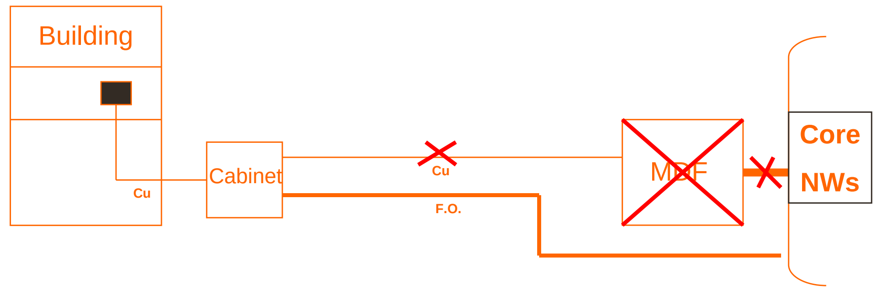
Broadband access -VDSL - German case



Overlay network for broadband

Potential interferences with unbundled pairs

Broadband access - All NGN – Dutch case



Big bang : NGN substitutes to old network for all customers

Existing unbundling nodes disappear !

The review of the ERF : the European debate around NGN

European Commission/CLECs:

- sound regulatory framework
- no opposition between regulation and investment
- technological neutrality justifies extension of copper regulation to new technologies
- mobile sector eligible to ex-ante regulation (“UNE-M”)
- forms of “structural separation”

European integrated operators:

- self-fulfilling regulation
- regulation deters investment in NGNs
- regulation should focus on legacy bottlenecks
- extension of regulation to competitively-born networks makes no sense
- separation not economically efficient

Economists are rating (poorly) the EU…

Arthur D. Little: "policy makers face a choice between protecting competition in static markets by regulation or accelerating market effects by deregulation"

HSBC: "EC has the balance wrong…This discourages the investment in infrastructure"

Indepen & OVUM: "there is a need for policy change: operators will need a regulatory framework which gives assurances that, if risky investment succeeds, the return will not be regulated away"

McKinsey: "the system has not been designed to address new infrastructure investments ….Less, not more, regulation is likely to be required to allow market forces to flourish"

Is platform competition sustainable ?

Civil works is the only true bottleneck

Alternate platforms exist

- Cable is ready
- Alternate platforms need not all be the same to be substitutes for the customer
- Triple play can be offered on single or multiple plateform

Geographical digital divide & Universal service definition

- No problem with carrier selection
- Significant divide with unbundling
- Potentially structural with new access network


Thank you!