

# Universal Service of broadband and mobile services – Regulatory Aspects

Morten Falch

CMI, CIT, Aalborg University Copenhagen

# USO

The Directive includes four specific elements in the scope of universal service:

- access at a fixed location for making and receiving local, national and international telephone calls and fax communications, and data communications at data rates that are sufficient to permit functional internet access;
- availability of at least one comprehensive directory and directory enquiry service comprising all fixed and mobile subscribers who wish to be included;
- availability of public payphones; and
- specific measures ensuring access and affordability of publicly available telephone services to users with disabilities or special needs, and those on low incomes.

## Points raised in the 2nd periodic review Sept. 2008

- What level of “majority” take-up would be needed before a USO can be invoked?
- Definition groups of consumers and geographic zones
- Appropriate approach to ensure access to and usability of ecommunications for vulnerable persons (such as disabled and older users)
- Is there still a need to keep the provisions of directories and public pay telephones within the USO?
- What would be the likely costs of universal service obligations and who should pay for them?

## The need to review the definition of **Universal Service**

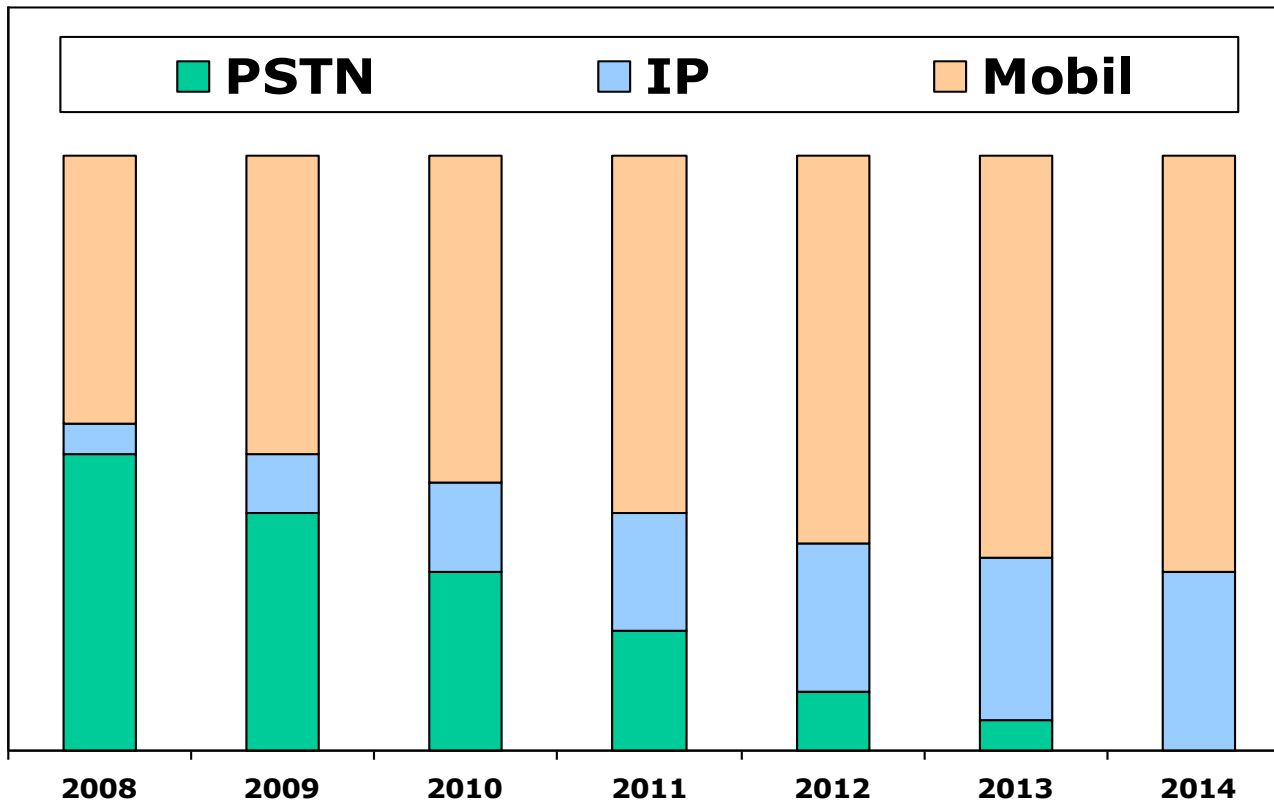
- **New services:**
  - New services such as mobile and broadband becoming at least as important as PSTN
- **New infrastructures:**
  - NGN leads to a separation of services and infrastructure

# The importance of broadband

- Internet is used to provide citizen services such as
  - Directory services
  - Public information
  - Banking
  - Salary statements
  - Taxation
- Without Internet the citizens do not have access to these services

# The importance of Mobile vs. PSTN

(source: TDC)



# NGN: Separation of infrastructure and services

- Formerly, silos of vertically integrated networks and services: telephony on PSTN and TV on cable
- Presently, horizontal convergence and vertical divergence
- TCP/IP is the most important example
- NGN:
  - Includes a wide range of network technologies
  - Is offered by several different types of actors
  - Is basis for different modes of organisation and business models

# Is USO becoming obsolete? What are the alternatives?

- In Europe there are two different approaches
  - Universal service obligation
    - Implemented for PSTN and telephony at the time of liberalisation
    - Considered extended to mobile and broadband
  - Lisbon process
    - Focus on the broader context
    - Focus on supply and demand for broadband access and services



## USO – key points

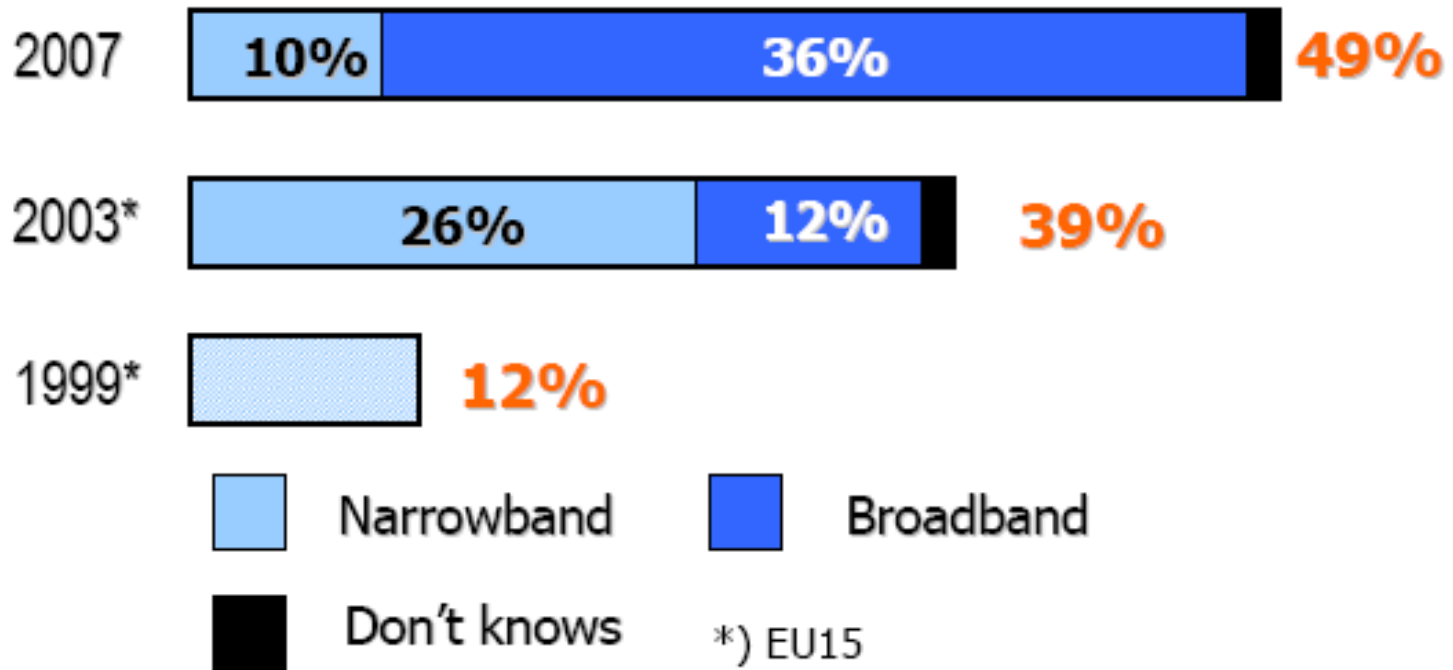
- Accessibility (Universal coverage)
- Affordability
- The first one has been the most important

## USO for mobile services?

- USO exist already
- Coverage: demanded in spectrum licenses
- Affordability: Achieved through competition
  - ‘the competitive provision of mobile communications has resulted in consumers already having affordable access to mobile communications’ (COM(2005) 203, p. 7)

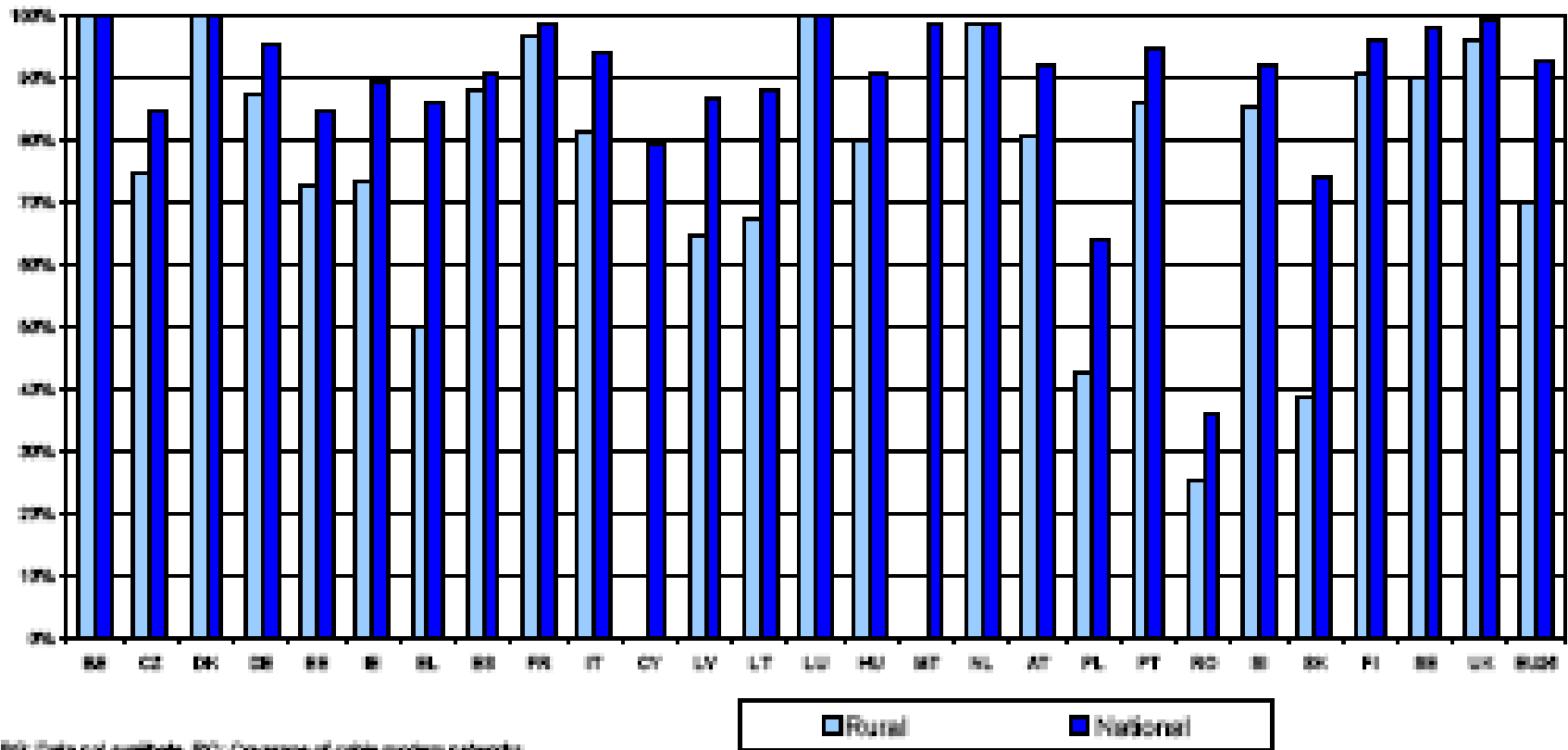
# USO for broadband?





# Broadband coverage (ADSL)

DSL rural and national coverage, December 2007



BE: Data not available. RO: Coverage of cable modem networks



## Can the market do the job?

- Depends on the technologies
- Different network technologies imply very different cost structures.
- Will wired broadband access be crucial?

# Lisbon process

- Promoting economic development in general in Europe
- Broadband access and use is a crucial element in the strategy
- Therefore, much focus on broadband

# EU: Available instruments

- Communication from the Commission on ‘Bridging the Broadband Gap’ (COM(2006) 129 final) termed ‘available instruments’:
  - Implementation of the regulatory framework for electronic communications
  - Public funding
  - State aid and competition policy
  - EU funding: Structural Funds and Rural Development Fund
  - Demand aggregation and procurement
  - Fostering the creation of modern public services



# Categories of policy initiatives

- Strengthening and harmonisation of internal use in public organisations
- Developing public communication networks and services relating to citizens and businesses
- Facilitation of the development of communication networks and services
- Regulation proper, setting the 'rules of the game'
- Support for demand
- Support for supply

# Rules for state aid

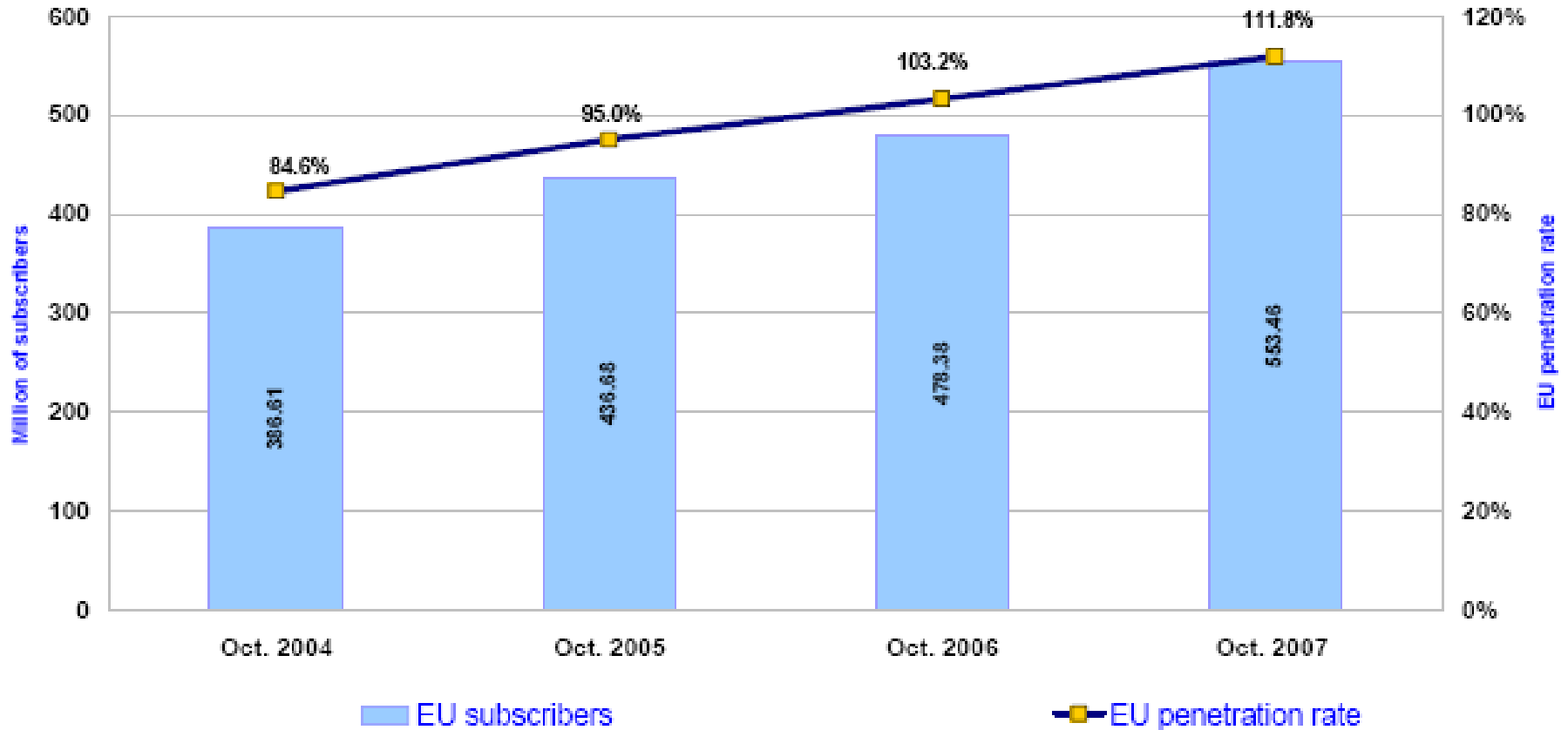
- EU Commission reviews national projects for state funding of broadband infrastructure
  - Infrastructure support must be given only to bridge the digital divide
  - Support should, therefore, be limited to areas where it is not commercially viable for private sector operators to establish adequate facilities
- EU Commission distinguishes in this context between white, grey and black areas
  - White areas are sparsely populated rural zones, where no broadband access except via satellite or leased lines is available. In such areas, state aid is in general allowed
  - Grey areas are areas where broadband is already provided. Here, permission for state aid demands a more detailed assessment
  - Black areas are those where at least two competing infrastructures exist, and where there will be a high risk for market distortion if state funding is allowed - in such areas state aid is generally not allowed

# Alternative funding mechanisms

- Public funding programmes and investments, e.g. municipalities
- Investments by private companies other than telecoms operators
- Funding through non-profit organisations
- Public Private Partnerships (PPP)

# Conclusion

- Two approaches:
  - USO
  - Broader policy measures
- Two issues regarding USO
  - Inclusion of broadband and mobile in present definition
  - NGN and the USO concept
- From universal telephone service to broadband access
- From USO policy to broader measures
- Alternative funding mechanisms – depending on effectiveness of the market



## Implications for the scope of universal service

- Radical implications for the scope of universal service: From a set of services and their underlying dedicated networks towards focusing on the access issue
- Two ways to promote universal access:
  - Inclusion of broadband access into the universal service scope
  - Reliance on the many other policy measures?
- Competition may be the most important remedy as different access paths exist
- Policy goal in e.g. Denmark is to have 100% coverage