

# Vertical separation as a tool for competition regulation

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# Research questions for COST605

## WGI:

- Can vertical separation promote competition at telecom markets?
- How will business models for providing communication services on new infrastructures be?

## WG2

- Has the liberalisation and privatization of TDC been a success?

## WG3

- The future of international roaming regulation?

## Two approaches towards public utility regulation:

*Vertical separation:* the network and service activities of incumbent utilities are unbundled and separated into independent enterprises.

*Regulated access:* the incumbent utility continues as a vertically integrated enterprise, but access to its infrastructure is facilitated by public regulation.

Evaluate these two methods by comparing experiences from telecom (regulated access) and electricity (vertical separation)

# Types of Vertical Separation

Ownership Unbundling	Represents full unbundling. Upstream and downstream activities are separated in two or more entirely separate firms
Legal unbundling	Upstream and downstream activities are carried out by separate companies, but the upstream firm and one or more downstream firms may be owned by a single entity.
Accounting separation	Is the mildest form of vertical separation. Upstream and downstream activities may take place within the same company, but separate accounts must be prepared for each activity in order to make the conditions for use of upstream services and facilities transparent to the regulator so cross-subsidisation can be avoided.

# Regulated Access

- Access to Services
  - Enables interaction between different infrastructures
  - Example: mobile termination
- Access to infrastructure
  - Enables operators to provide services without having an infrastructure
  - Example: MVNOs
- Access to unbundled network elements
  - Enables operators operators to provide services without having a complete infrastructure
  - Example: LLU

## The Telecom Model

- Unclear boundaries between infrastructure and services
  - Might change with NGNs
- Infrastructure competition not impossible
- Rapid technological development
- Dramatic cost reductions in certain network elements
- Many different diverse services

# Remedies in EU New regulatory Framework

- Transparency
- Non-discrimination
  - Provide equivalent conditions to 3rd party
- Accounting separation
- Access obligation
  - SMP must meet reasonable requests for access to, and use of, specific network elements and associated facilities
- Price control and cost accounting
- Retail obligations - provide good quality services
  - "Regulatory controls on retail services can only be imposed where relevant wholesale or related measures would fail to achieve the objective of ensuring effective competition."

# The Electricity Model

- Clear distinction between power generation and transmission
- Competition in local transmission network not possible
- Stable technology development
- Cost depend on prices on oil and other coal.
- Few uniform services
- Environmental concern crucial in energy policy



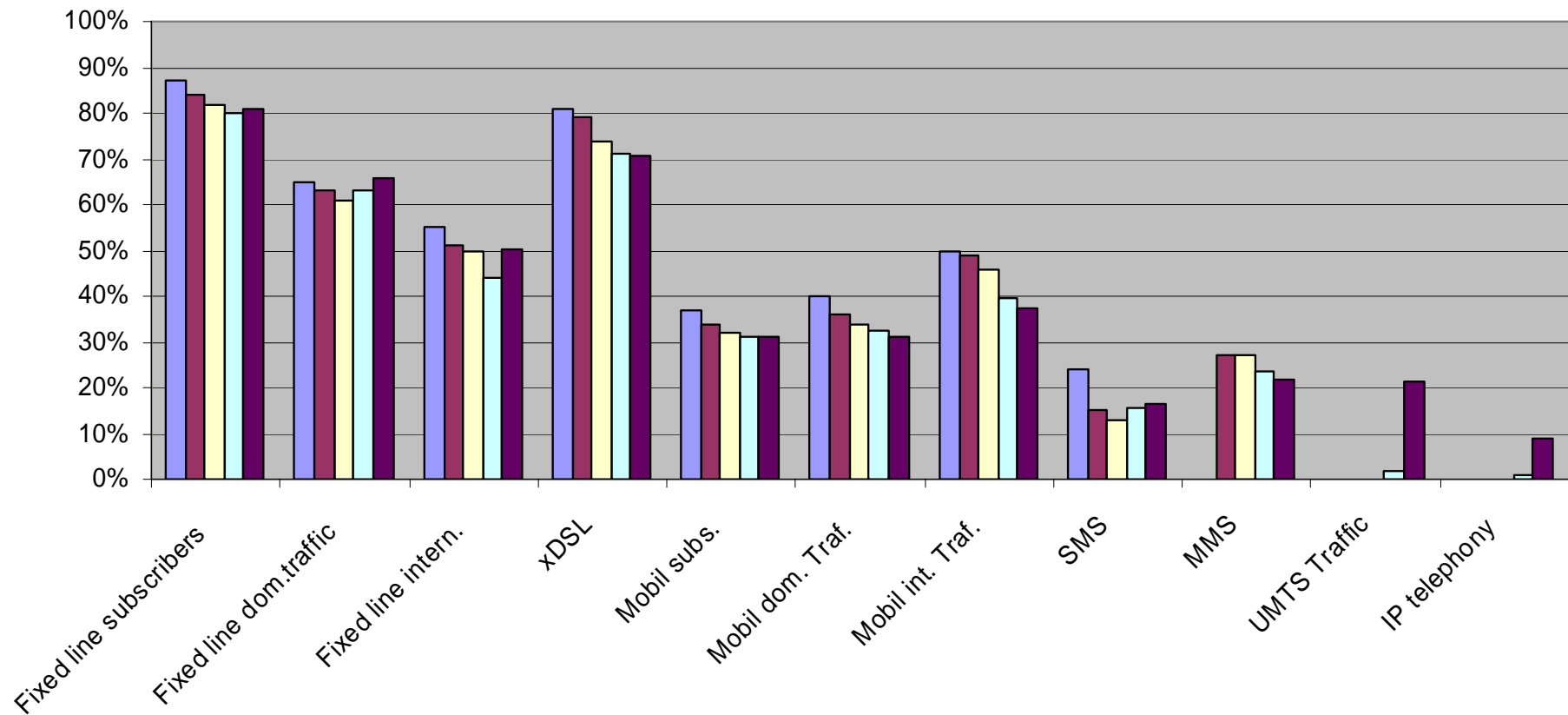
# Principles in Electricity Reform (Denmark as an example)

- Vertical separation of generation and transmission system operations in independent companies. To begin with, unbundling was legal, preserving common ownership of the operation of generation and transmission systems. Later, transmission systems' operations were taken over by a new state company.
- Vertical separation of retail supply and distribution networks – also preserving legal common ownership.
- Regulated third-party access applying one-stop shopping principles. The opening of the market was gradual - by January 2003 all customers got third-party access.
- Incentive regulation was introduced for the transmission and distribution networks.
- Authorisation procedure for new capacity, allowing all interested parties to have their projects evaluated on equal terms.

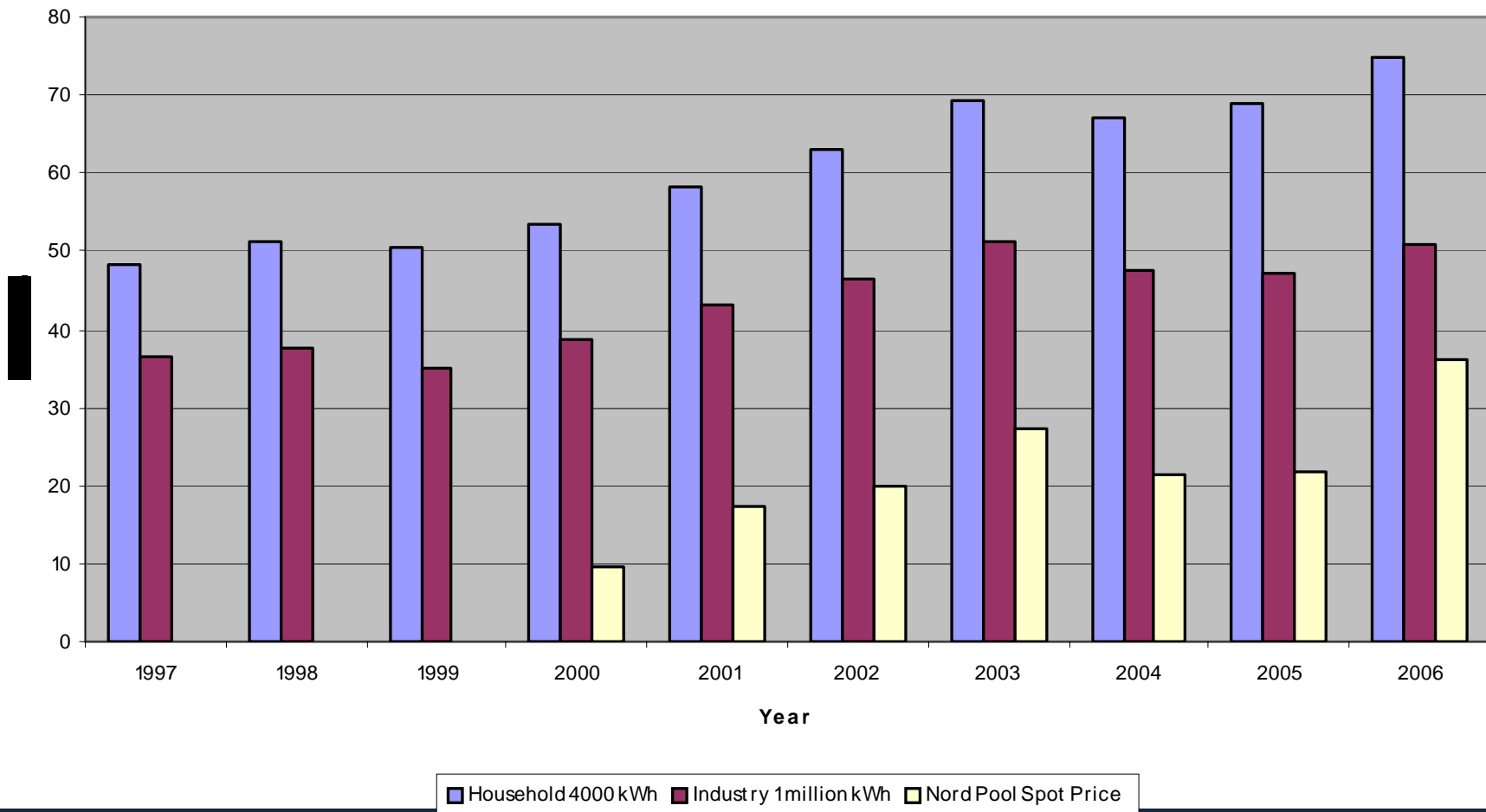
## Assessment – Success Criteria

1. The level of competition
2. Development in prices (reflecting static efficiency)
3. Development in new services (reflecting dynamic efficiency)

# TDC's market shares, 2002-2006



# Consumer price for households and manufacturing industry and Nord Pool's spot price



## Conclusions

- Telecom reform has been a success. The success in electricity more dubious
- Differences in Techno-economics a crucial explanatory factor for regulation and market performance
- Some convergence in regulation between the two industries
- The telecom model is no guarantee for success if copied to other sectors.

# Recent and present projects

## Recent

- MAGNET
- BREAD
- E-Service
- Technology impacts on regulation
- Women in IT
- Internet and the media

## Present

- MAGNET Beyond
- CAMMP
- DVB-H pilot
- Customer-employee encounter
- Business models for customer value

# Principles and prospects

- Strong research base for education
- Contributing to expanding research capacity in mobile communications (CTiF)
- Active partner in improving local, national and regional research capacity
- Emphasis on mobile / wireless and Internet
- Focus on interdisciplinarity
- International cooperation and cooperation with industry