

# Functional Separation— Evolution, Revolution or Step Back?

Dr Boaz Moselle

Brussels

30 April 2010

## About LECG

LECG is a global expert services and consulting firm

Provides integrated economics and finance advice to companies, law firms, industry regulators and government agencies

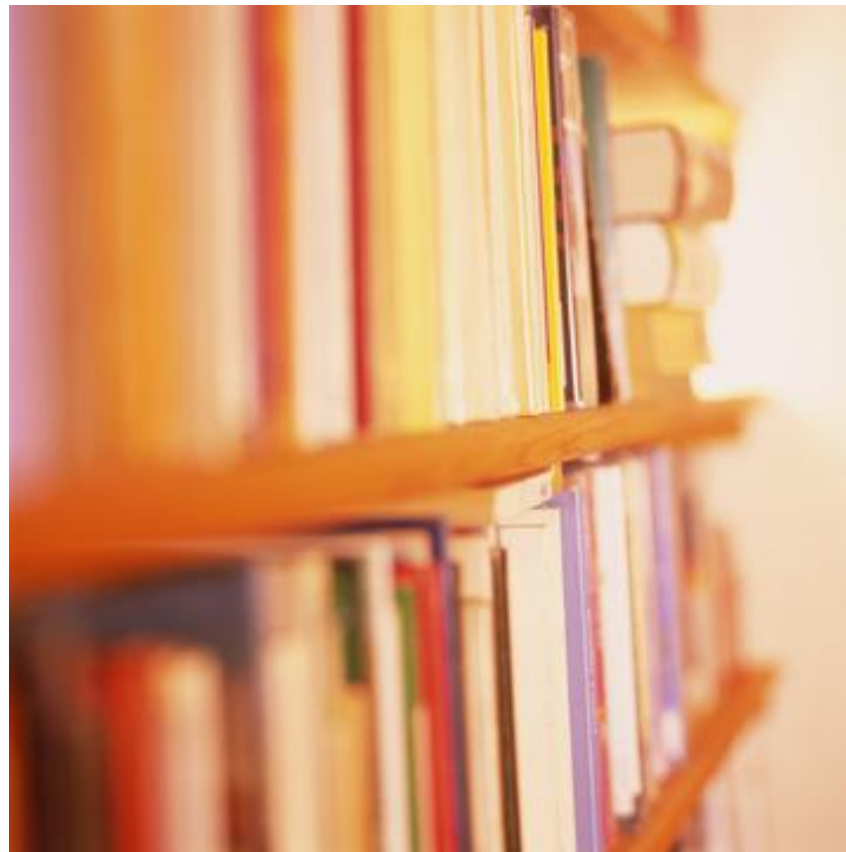
Over 1,100 professionals worldwide

Offices in London, Brussels, Madrid, Milan, Paris, and Toulouse, the Americas, Pacific Rim and Asia.

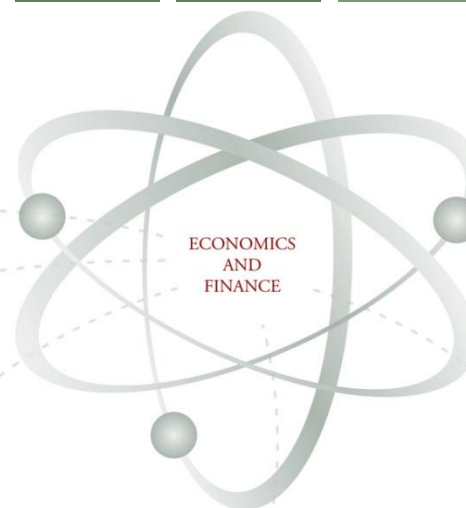
Worked on more than 18,000 matters for over 9,900 clients in more than 50 countries

Quoted on NASDAQ since 2003

Global turnover of \$263 million last year



# Our expertise



## CLAIMS AND DISPUTES

We specialise in the assessment and clear communication - through written and oral testimony presented to courts, mediators and arbitrators - of the financial aspects of complex commercial disputes, and the quantification of damages. We also act as independent experts appointed to determine a dispute, or to prepare submissions on behalf of clients to an independent expert. We conduct rigorous analysis, using tools and frameworks from economics, finance, accounting and statistics.

## INTERNATIONAL ARBITRATION

LECG's international arbitration practice offers a complete range of expert services. We identify key issues, apply current international accounting, economic and financial theories, and use empirical techniques to develop independent analyses and opinions. Our experts frequently testify on investment treaty disputes between private investors and governments (investor/state arbitrations), and in connection with commercial arbitrations, resulting in damages quantifications before international arbitration panels worldwide including the ICC, ICSID, AAA and LCIA.

## VALUATION AND INTELLECTUAL PROPERTY

We offer a broad array of expertise on valuation, intellectual property and intangible assets matters, including patents and know-how, trade marks and brands, copyright, database rights, design rights, customer lists, licensing contracts, and confidential information. Our work includes valuations, damages assessments, contract and licensing disputes and IP complications within competition policy.

## COMPETITION POLICY

LECG provides expert advice on mergers, acquisitions, joint ventures and other business practices under competition law. Our experience covers cartels, vertical and horizontal agreements, behaviour of dominant firms, sector reviews by regulators and state aid. We advise on the assessment of damages in private actions brought under competition law. We also work with competition authorities around the world as they review and often intervene in such cases.

## ECONOMIC AND FINANCIAL REGULATION

Our experts advise governments, regulators and regulated businesses on economic and financial issues and public policy in the financial services, post, communications, media, transport and energy & utilities sectors. We address issues relating to market design, price controls, liberalisation, separation, efficiency and regulatory reporting, as well as conducting regulatory due diligence for transactions.

## Three theories concerning functional separation

### Evolution

- Functional separation a natural market outcome
- We would have got there anyway

### Revolution

- Functional separation is a “magic bullet”
- Induces step change in level of competition

### Step Back

- Functional separation is an inefficient solution to yesterday's problems
- Will hinder investment, harm consumers

## The basic arguments are well known

### Pro vertical integration

- Economies of scope
- Double marginalisation
- Inefficient input substitution
- Hold-up
- Co-ordination and commitment to new products

### Pro separation

- Reduced risk of discrimination
- Large benefits from enhanced competition in telecoms
  - Price
  - Quality
  - Choice
  - Innovation

## Some arguments against separation stronger than others

- Economies of scope relatively limited?
- Double marginalisation, inefficient input substitution
  - Firms are smart, find ways to mitigate (e.g., non-linear pricing)
  - Anyway regulation removes the upstream margin (but may hinder the smart solutions?)
- Hold-up
  - Firms are smart, can mitigate with good contracts
  - Regulation reduces/removes the risk anyway
- But, *co-ordination and commitment to new products are major issues*
  - Challenge to co-ordinate investments across network, retail arms
  - Retailers under-incentivised to ensure success of new network investments?

## In any case, overall there is a clear trade-off

- Vertical integration produces real efficiencies of various kinds, that functional separation can not fully replicate
  - Gives rise to “irrecoverable efficiencies of integration”
  - Stronger incentives for investment, especially in innovative products and services
- However, functional separation also has real benefits in reducing discrimination and so promoting competition
- Policy makers have to make a difficult assessment:
  1. *How great are the “irrecoverable efficiencies” from vertical integration?*
  2. *How probable is anti-competitive discrimination under vertical integration?*
  3. *How great are the benefits of competition?*

## Cross-industry perspective

2010	Water	Electricity	Telecoms
Efficiencies from vertical integration	<b>Small (?)</b> - especially for retail-only competition	<b>Medium</b> - large efficiencies from locational decisions, but potentially recoverable	<b>Medium/High</b> - loss of co-ordination
Probability of anti-competitive discrimination	<b>High (?)</b>	<b>High</b> - at least historically (Sector Inquiry, etc)	<b>High</b> - at least historically
Benefits from competition	<b>Relatively small</b> - Scottish experience, approx. £5mio/yr	<b>Large</b> - at least historically (e.g., £10bn in UK)	<b>Very large</b> - explosion of innovation

## These assessments can change over time

### Efficiencies from vertical integration

- Changes fundamentally linked to technological progress
- Highly industry-specific

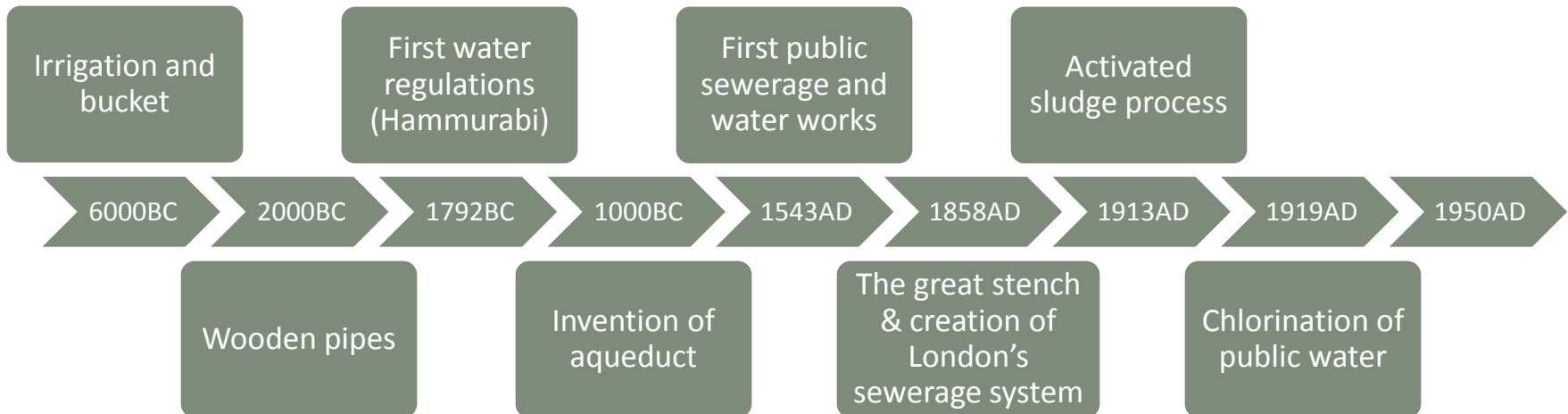
### Probability of anti-competitive discrimination

- Changes in regulatory capacity to detect, deter, punish
- Changes in access charges (low charges incentivise non-price discrimination)

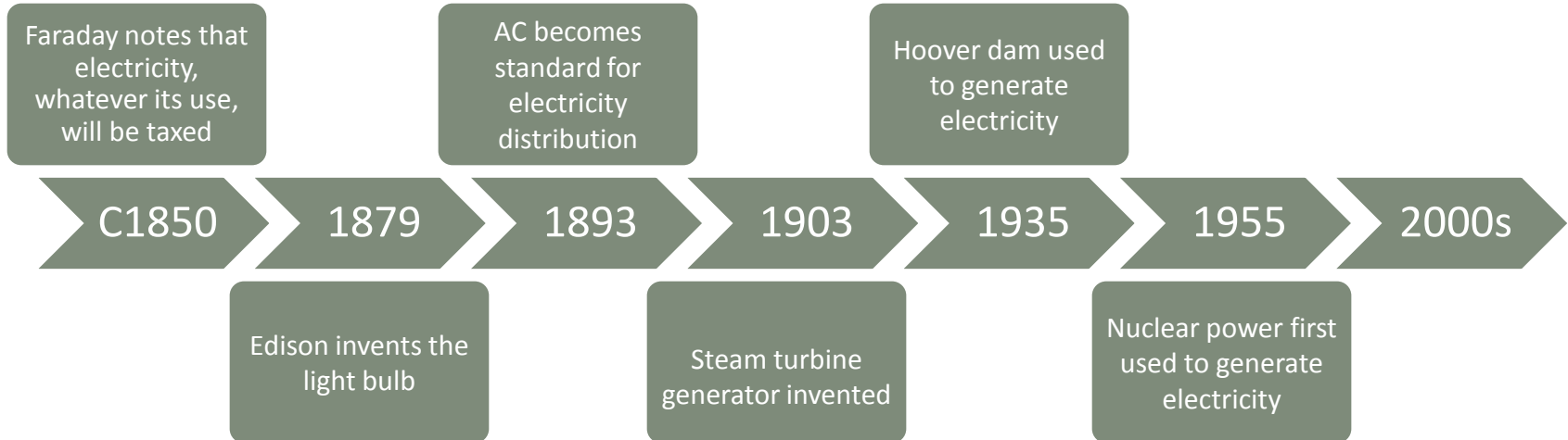
### Benefits from competition

- Changes fundamentally linked to technological progress
- Also highly industry-specific

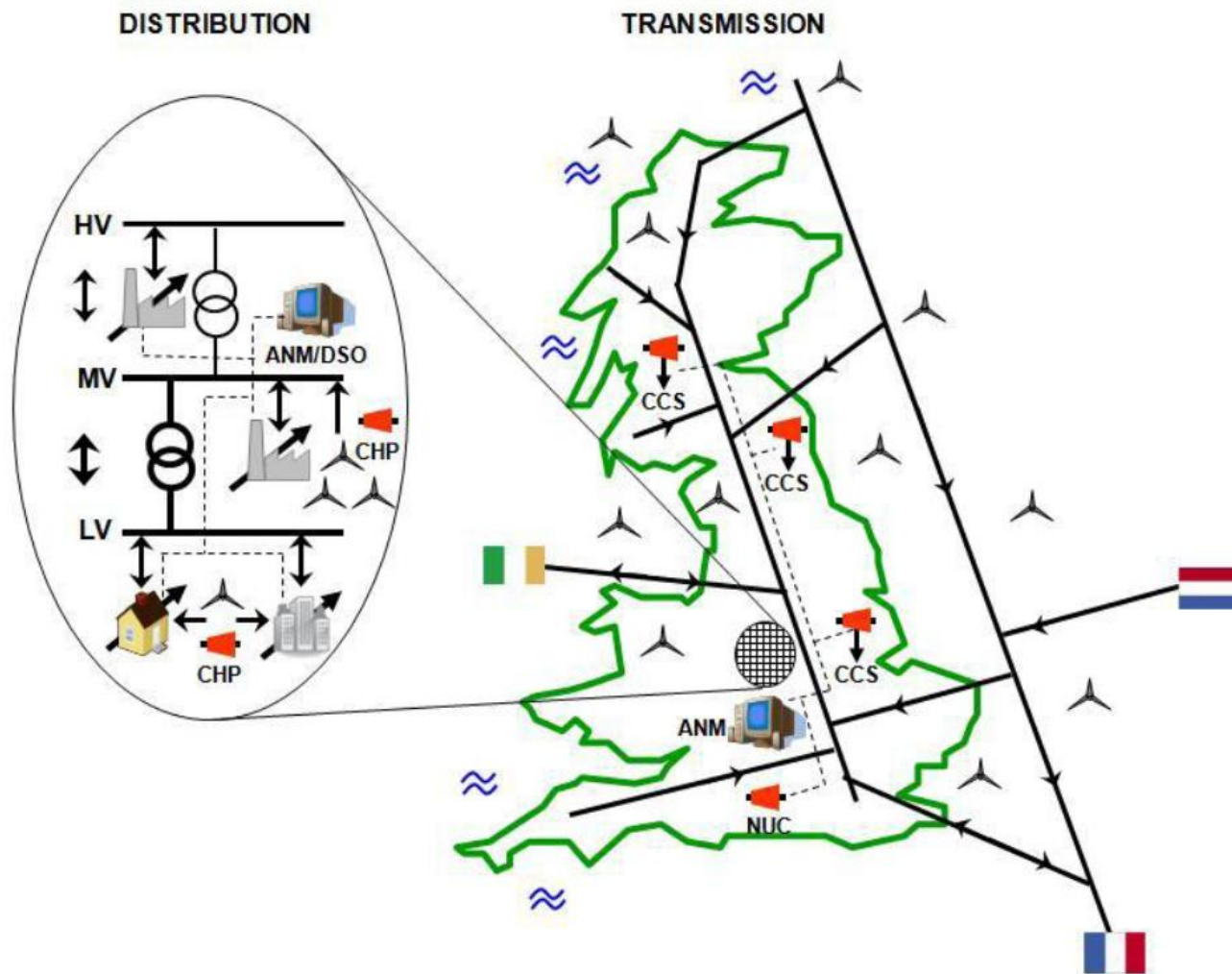
# Technological progress in water industry: relatively slow!



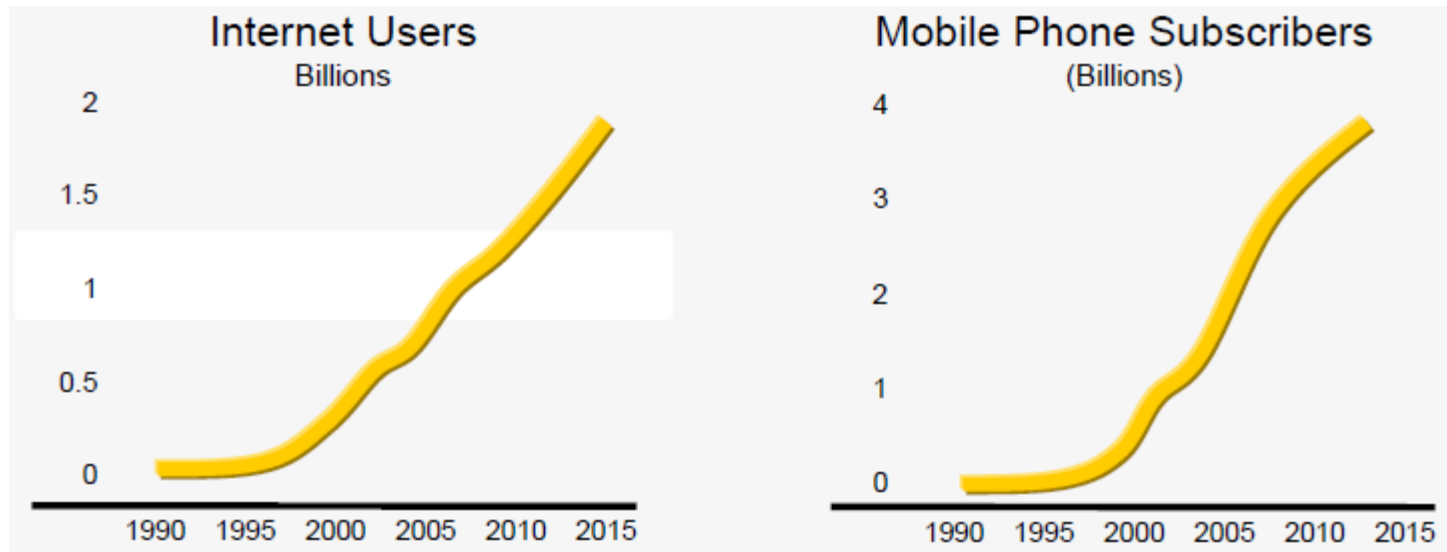
## Technological progress in electricity: historically slow...



...but radical shift to active networks (“smart grid”)?



## Rapid pace of change in telecommunications



Source: BT, 2009

- Falling prices, rising speeds in both fixed and mobile services
- New devices, new services and convergence between telecoms and broadcasting services
- Next Generation Access - roll out of fibre in access network
  - Opportunity for major increase in speed and quality of service
  - However, requires multi billion investment.

## NGA and the assessment of functional separation

### Efficiencies from vertical integration

- Co-ordinated investment decision between access and retail arms?
- Business case depends on both cost saving in access and incremental revenue in retail

### Probability of anti-competitive discrimination

- More emphasis on “active” products – wholesale broadband
- Less emphasis on passive access, but still scope for access to duct ?
- Use of retail minus for active products eg Ofcom

### Benefits from competition

- Likely to be very large, given potential impact of new technology

## Implications for functional separation

### Water

- Benefits and costs both low and stable
- Functional separation is a **“low stakes gamble”**

### Electricity

- As of 2010, benefits outweigh costs, **but**...costs are growing (new economies of scope) and benefits falling (environmental externalities limit scope for market)
- Functional separation is a **“medium stakes gamble”**

### Telecoms

- Efficiencies from vertical integration are growing
- Risk of discrimination may be falling
- Benefits and costs both high and volatile
- Functional separation is a **“high stakes gamble”**

## So for telecoms, is functional separation...

Evolution - a natural market outcome?

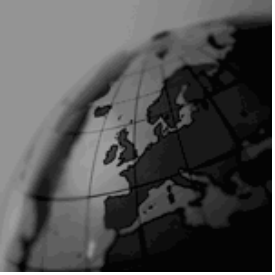
- Unlikely, given benefits from vertical integration (unless a “pseudo-market outcome”, response to regulatory pressure)

Revolution – a “magic bullet”?

- Falling risk of discrimination suggests not

Step Back - an inefficient solution to yesterday's problems?

- Possibly—time will tell
- Needs careful empirical analysis



Thank you!

Dr Boaz Moselle  
[bmoselle@lecg.com](mailto:bmoselle@lecg.com)

LECG