



National IT and Telecom Agency

Ministry of Science
Technology and Innovation

Regulation of Communications Networks in Denmark

May 4, 2010

**Copenhagen Institute of Technology,
Aalborg University**

Deputy Director General Finn Petersen

IT- og Telestyrelsen





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Agenda

1. NITA - Objectives and regulatory assignments
2. The Danish Approach to regulation
3. Regulation of International Roaming
4. Market Analysis Regime
5. Price regulation of access prices



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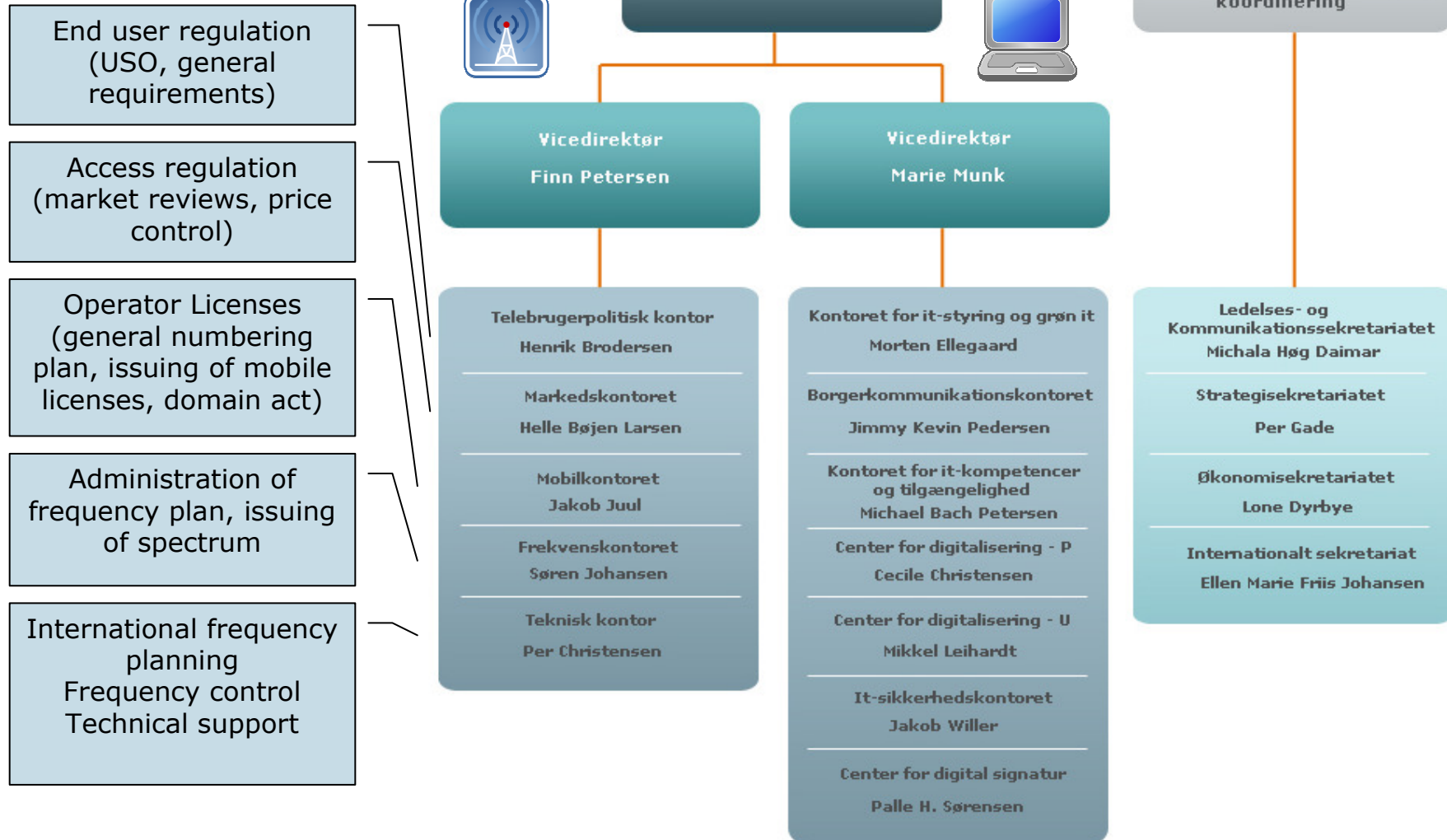
Five strategic objectives





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The Danish Approach

Policy Goal in Denmark - 1995

“Best and cheapest services in the world”



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The Danish Approach

Means to reach the goal:

- Establishment of free and real competition
- Establishment of appropriate consumer protection



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The Danish Approach

Policy Goal in Denmark – 1999

- Access to the Network Society
- Best and Cheapest
- Competition leading to innovation and growth
- Market should supply a broad variety of products meeting the increasing demand for high-speed networks and large bandwidth

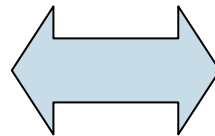


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A competition driven market

- Several pipes to the home

Service-based competition



Infrastructure-based competition

- Wholesale broadband access

- Competition between alternative platforms

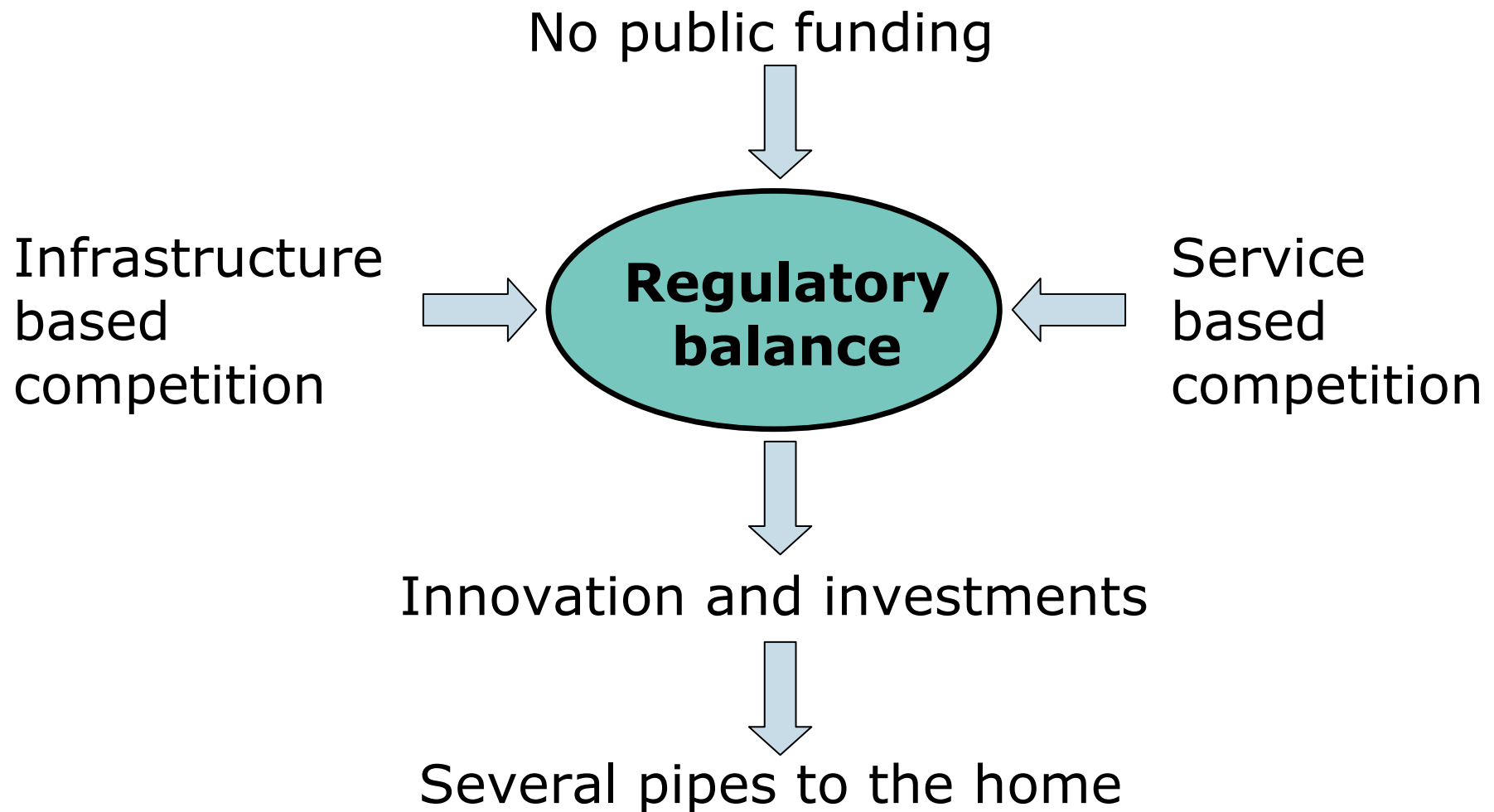
ULL – PSTN (DSL)

- "raw copper"
- shared access
- bitstream
- simple resale

- PSTN (DSL)
- CATV (cable modem)
- FWA/WiMax/WLAN
- 3G/LTE
- Optical fibre
 - Fibre/LAN
 - FTTH
- Satellite
- Digital Terrestrial Television



Political objectives





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Regulatory focus

Regulatory goal:

- Low price, high speed broadband to end-users through sustainable competition

Regulatory means:

- Eliminate bottlenecks
- Technology neutral regulation
- Let the market “pick the winner”
(not the regulator)



International Roaming

Market failures on wholesale level

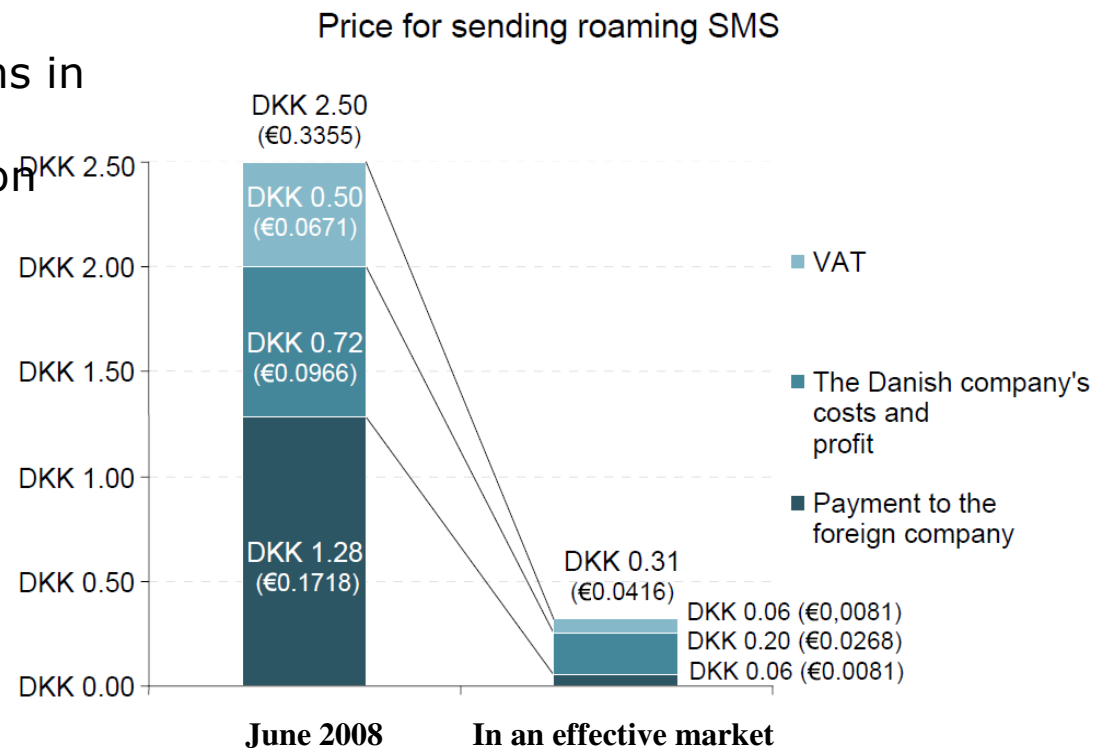
- No competition on wholesale prices due to competition problems in some markets and the fact that operators are buyers and sellers on the market.

Market failures on retail level

- Consumers do not care about roaming prices when making a contract. They have focus on handset and national prices



Roaming charges inside EU is 10 times higher than national prices





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EUROTARIFF

- International regulation from EU Commission
 - Introduced 2007 and amended in 2009
- Price caps on retail and wholesale
 - Call
 - Text
 - Data (only wholesale)
- Transparency and safeguard mechanisms
 - Automatic message about roaming charts
 - Financial limits at 50 €
 - Prevent Bill shocks – Examples of bills over 100.000 DKK



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Market analysis

- EU regulatory framework

Principles

- EU competition law principles
- Forward looking approach (ex ante)
- Many different product markets (mostly defined by the Commission)
- Tailor-made regulation (based on decisions)



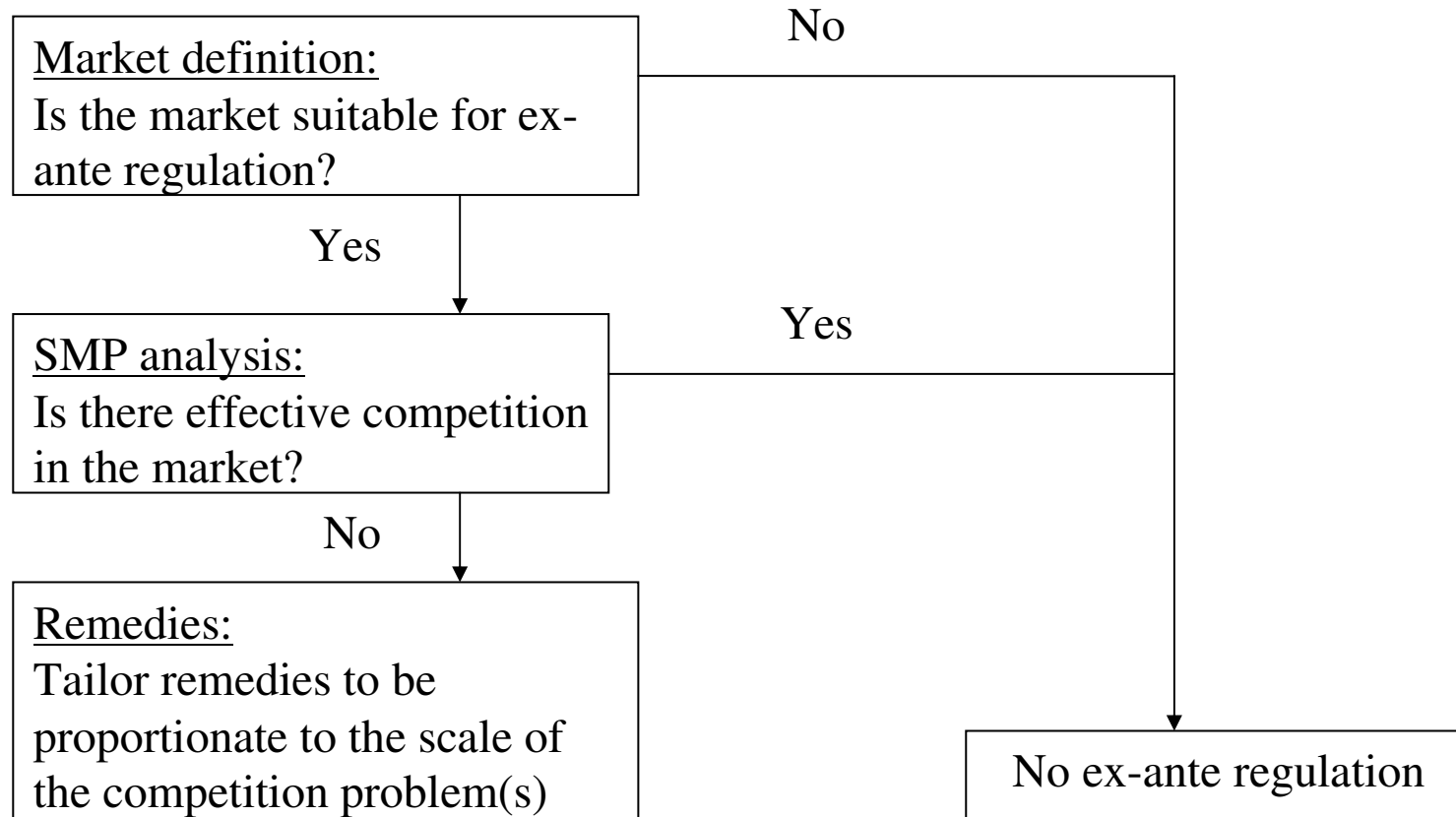
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Market analysis - Process

- Steps in assessment:
 - Market definition
 - Effective competition and SMP analysis
 - Market decision
- Public consultation
 - A broad open public consultation is held after each step in the assessment



Market analysis - Process





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Market analysis

- Market Definition

- Relevant markets are defined so that close substitutes are considered part of the same product market (ex. Voice over IP might substitute PSTN)
- The purpose of market definition is to define markets, where market power could potentially exist.
- The market definition is thus a tool for the analysis of effective competition, not a goal in it self.



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Market analysis

- Effective competition and SMP analysis

- Indicators for lack of effective competition
 - High concentration of market shares (>40%)
 - Significant barriers to entry
 - No countervailing buying power
 - Signs of monopoly pricing
 - Barriers for change of suppliers (customer lock-in)
- If there is lack of effective competition, then one (or more) SMP(s) must be designated
- The analysis will also identify the specific competition problems that exist in the market



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Market analysis - Decision

- If there are competition problems, remedies will be imposed.
- Standard SMP remedies:
 - Access to infrastructure or services
 - Non-discrimination
 - Transparency
 - Accounting Separation
 - Price control
- The remedies must be proportionate to the competition problems observed in the market analysis

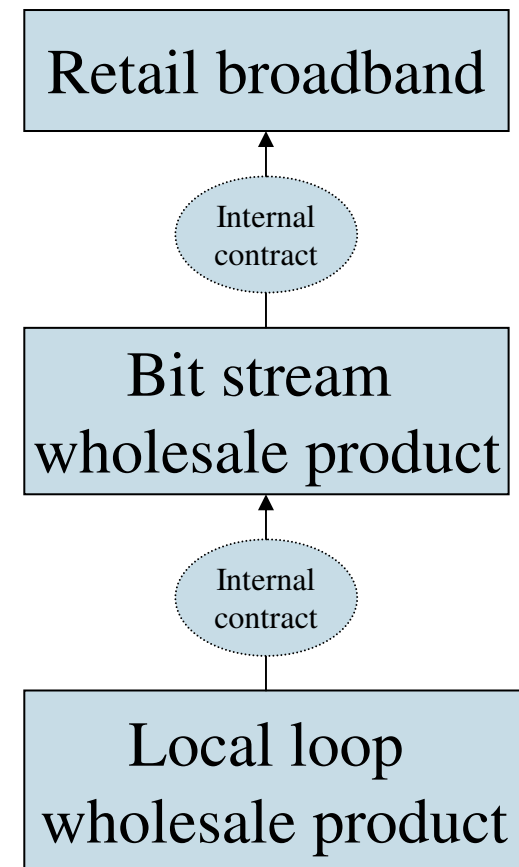


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Non discrimination

- The SMP operator must supply products to all operators on the same terms and prices.
- This also applies to:
 - Internally supplied wholesale services, and
 - Elements of the supplied services.
- Internal contracts must be provided.





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Transparency

- Obligation to inform about product changes, network modifications etc.
- Obligation to issue a reference interconnect offer.



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Accounting separation

- SMP operator must supply regulatory accounts annually to the regulator
- One separate account for every regulated wholesale product.
- As if every product is a separate entity.
- Transfer charges between products.



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Price control

Price control limits the prices for the access product, but linking the regulated price to:

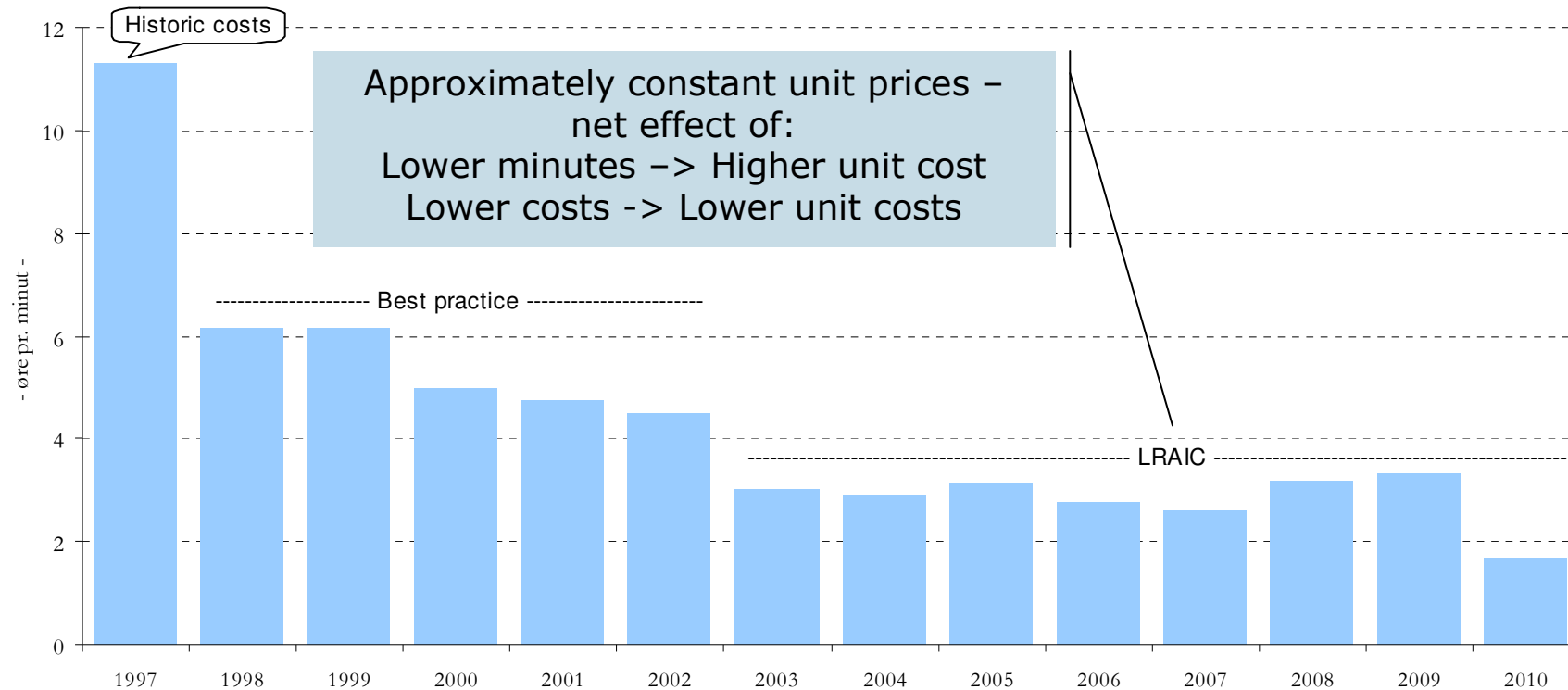
- The costs of the SMP operator ← "Historic costs"
- The retail prices ← "retail minus"
- The prices in other countries ← "best practice"
- The costs of a hypothetical, efficient operator ← LRAIC



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Interconnect prices 1997-2010

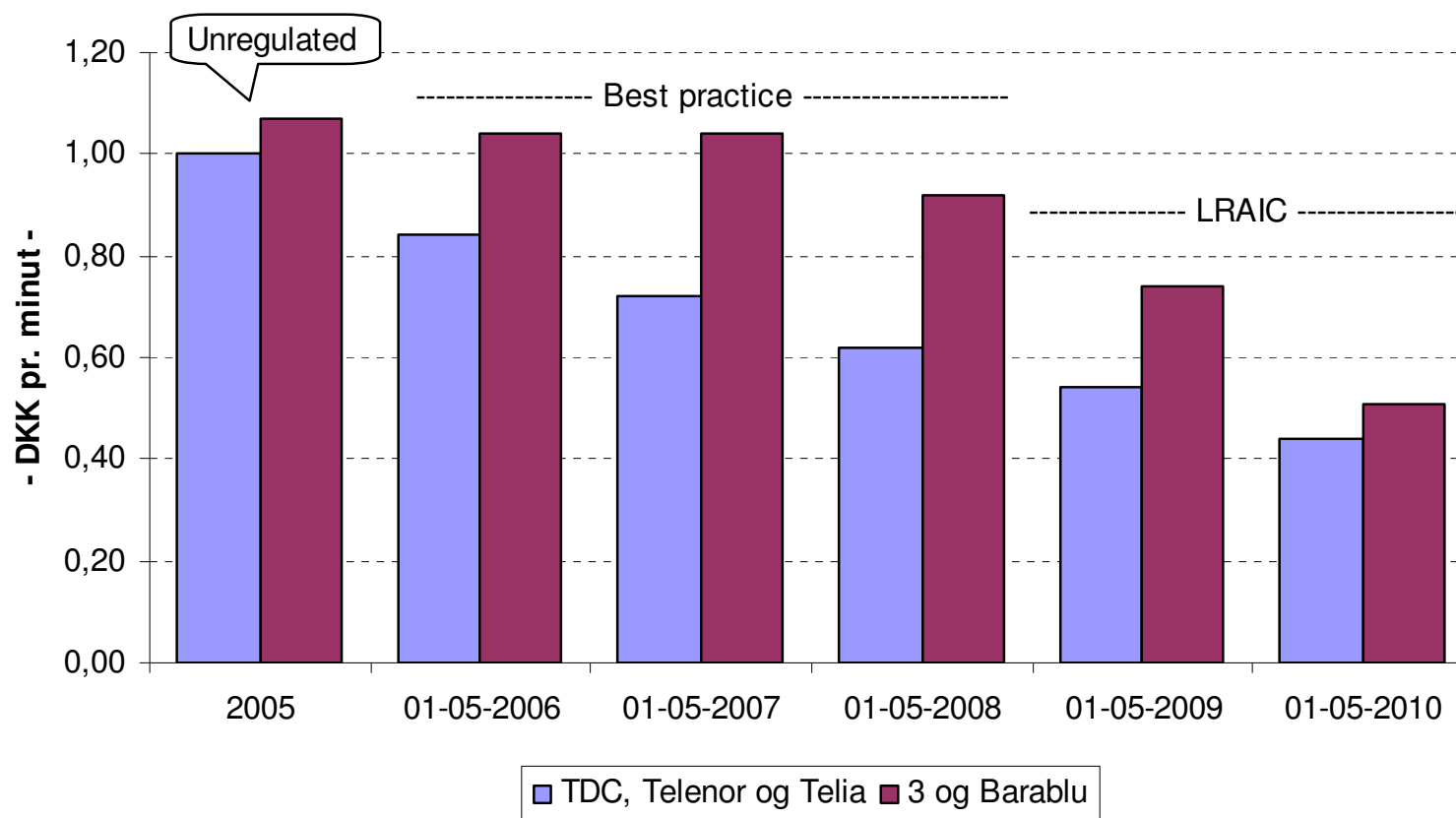




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Mobile termination prices





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Thank you for your time.