

Future Investments and Regulation in the Hungarian Telecom Sector

Conference organised by



The Effects of Regulation on Investments in the Telecom Industry

Steen Clausen
Managing Director

ECTA

European Competitive Telecoms Association

Agenda

- Brief Overview of Regulatory Developments/History within EU
- Industry Background
- Regulation and Investments – How to Assess and Measure
- Example: EU Broadband Market incl. policy implications
- Some Key ECTA Points of View

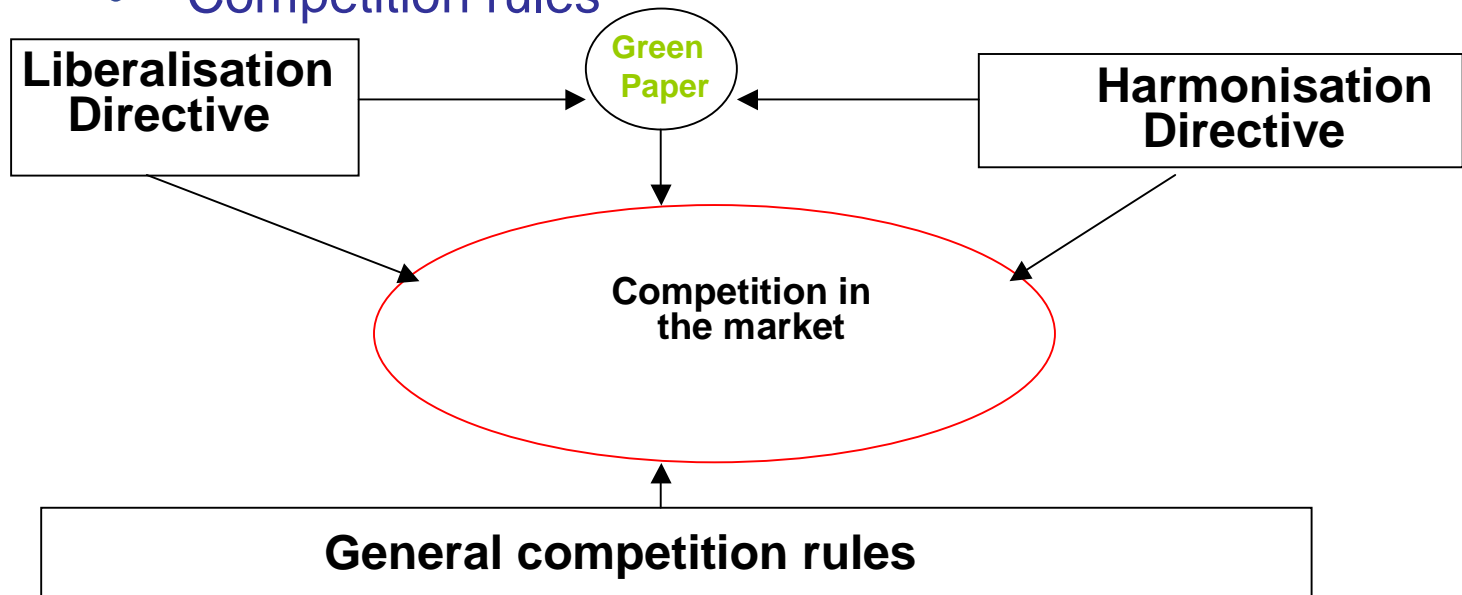
Brief History

1. European Telecommunications sector has historically been characterised by:
 - Strong public service monopoly tradition
 - Industrial policy of creating 'national champions'
2. EU policy making first phase initiated in 1984
 - Standards development
 - Common research
 - Development programmes for least developed regions of EU
 - Initial tentative steps towards common European positions in the International Telecommunications arena
3. Second phase initiated in 1987 culminating in the liberalisation of all telecommunication services and networks by January 1998

Brief History cont'd

4. In terms of opening up the market 3 major instruments have been used to liberalise telecoms in the EU:

- Progressive liberalisation of former monopoly sector
- Harmonisation measure
- Competition rules



Brief History cont'd

5. 1990 Framework Directive
 - Established principle of Open Network Provision (ONP)
 - Set timetable for legislative action
 - Identified the need for a series of harmonisation directives and recommendations
6. 1995 Green paper on liberalisation of infrastructure identified the need to adapt the ONP directives to a competitive environment and developed a specific directive on Interconnection
7. Together with the Licensing Directive these measures make up the '1998 package' of legislation, established for the opening of the EU telecoms market primo 1998

Brief History cont'd

8. The '1998 package' also included Guidelines on the Application of the EU Competition law in the telecoms sector, seeking to clarify what behaviour is likely to fall foul of competition rules (Arts 81 and 82 of Treaty)
9. Likewise, a notice on the Application of Competition rules to Access Agreements was issued
10. Transition into new Regulatory Framework on Electronic Communication Services
 - '1998 package' primarily designed to manage transition from monopoly to competition, focusing on the creation of a competitive market and the rights of New Entrants
 - Rapidly changing technologies, convergence, and the new challenges of a liberalised market caused a coherent new Framework covering the whole range of electronic communication to be agreed and applied from July 2003

Brief History cont'd

11. Therefore we have today the:

EU Regulatory Framework for the Electronic Communication Sector

consisting of 6 Directives and 1 Decision as follows:

Framework Directive

Access and Interconnection Directive

Authorisation Directive

Universal Service Directive

Privacy and Electronic Communications Directive

Competition Directive

and

Radio Spectrum Decision

Framework Review

- Today we are reviewing the 2003 Framework for the first time
- Serious implications for industry as key decisions taken by the Commission following the Review will impact the competitive landscape for years to come –
- Major considerations are:
 - Effective Access
 - Future-ready Framework
 - Reduction of number of relevant markets
 - Aspect of harmonisation of remedies (Euro regulator???)
 - Functional separation
 - Spectrum harmonization / trading

Industry Background

■ 1) Convergence – what is it?

- The phenomena of increased inter-working of complementary technologies (such as fixed and mobile)
- The use of a single network to carry a range of media such as communications and entertainment
- Difference between 1999 (when regulatory system last reviewed) and today:

1999

**Convergence
an expectation**

2006

**Convergence
a reality**

- 2) Globalisation
 - Increased penetration of broadband provides a platform for services to be sold on a regional / global basis
 - The impact of this phenomenon on the regulatory framework, especially the need to regulate at a retail level, needs to be considered carefully.
 - In general ECTA supports regulation of wholesale inputs vs. retail product/price regulation (competition driven)

Industry Background cont'd

- 3) IP Core Networks Trend
 - Clear trend among European operators towards replacing multiple networks based on legacy technologies with a single network based on an IP core
 - Many altnets have only ever invested in IP based networks
 - The challenge is to understand the implications of this for the market, the manner in which services will be delivered, and the regulatory framework
 - QoS debate, with excessive network fragmentation compromising the ability to control services end-to-end
 - Competitive services distributed over the Internet raises complex questions as to how various elements of value chain will interact with each other in the future

Industry Background cont'd

- 4) Rising Demand for Bandwidth
 - Utility of Internet is currently limited by access bandwidth bottleneck. European copper access infrastructure not designed for high bandwidths
 - How to increase bandwidth?
 - Increase the reach of fibre in the loop
 - Eventually extending fibre all the way to customer premises
 - Use alternative access infrastructure such as HSDPA based 3G services or WiMax
 - Investments are considered risky and will only be undertaken when economic and regulatory considerations are fully understood

Industry Background cont'd

- 5) Changing Industry – Challenges
 - Incumbents
 - New Competitors
 - Consolidation
 - Fragmentation

 - Cost cutting vs. operational efficiency
 - It is one thing to cut costs, and keep cutting costs, but quite another to grow and to differentiate successfully in a tough market environment – when are annual/quarterly reports going to be discussing positive developments/improvements rather than negative cut backs?

Industry Background cont'd

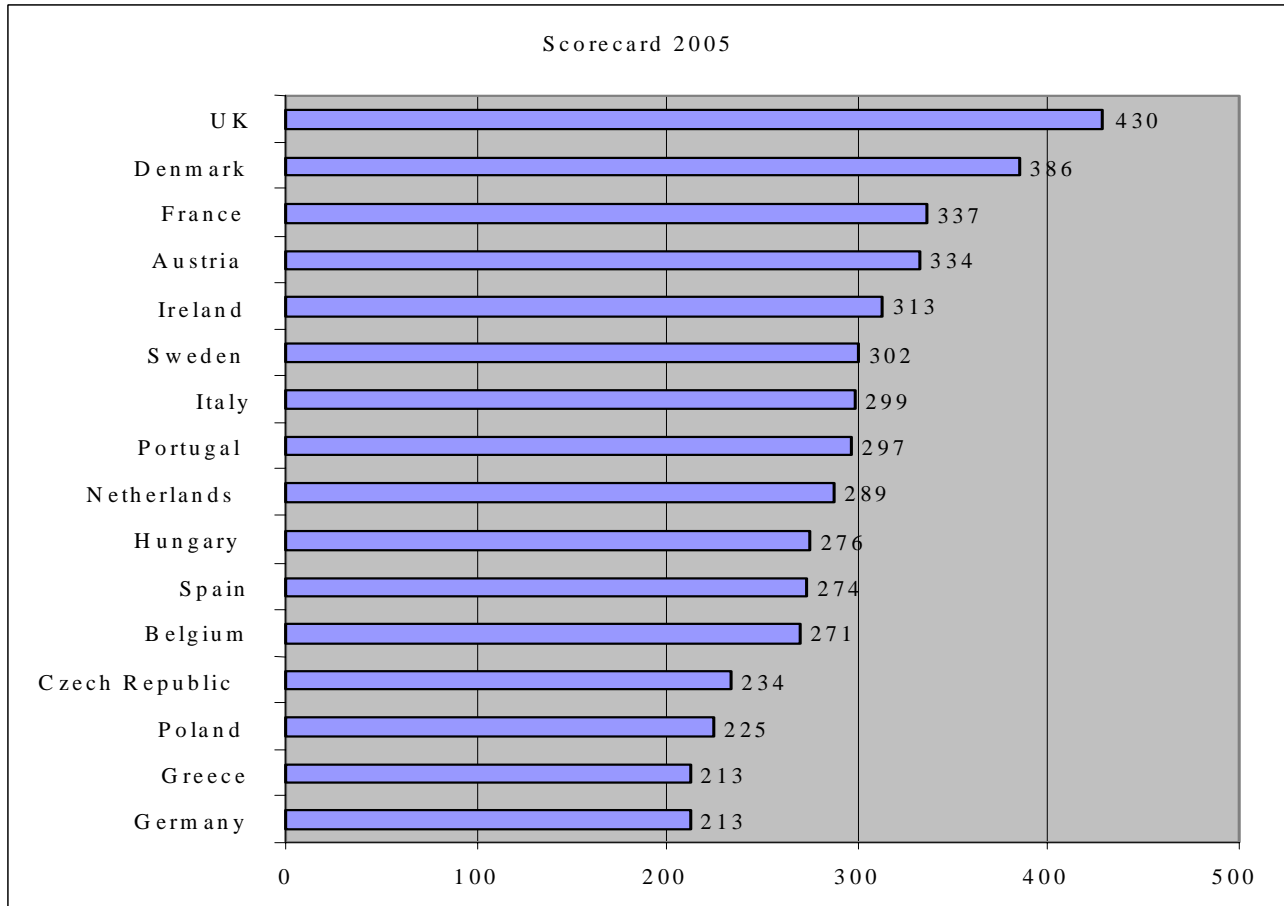
- 6) Regulatory Challenges
 - Will Globalisation trend of services necessitate regulation on a more supra-national (e.g. pan-European) basis?
 - How to design regulation to maximize incentives to invest in next-generation access networks without harming downstream competition?
 - When will convergence, particularly at the network level, be sufficiently developed that it requires a re-shaping of the markets in the recommendation of relevant markets?
 - How should regulation be designed to allow investments in alternative access infrastructure where it is feasible to do so?
 - How can regulation ensure the efficient and effective allocation of spectrum on a harmonised basis?
 - Is deregulation taking place where competitive conditions allow this to happen

- How to Assess and Measure?

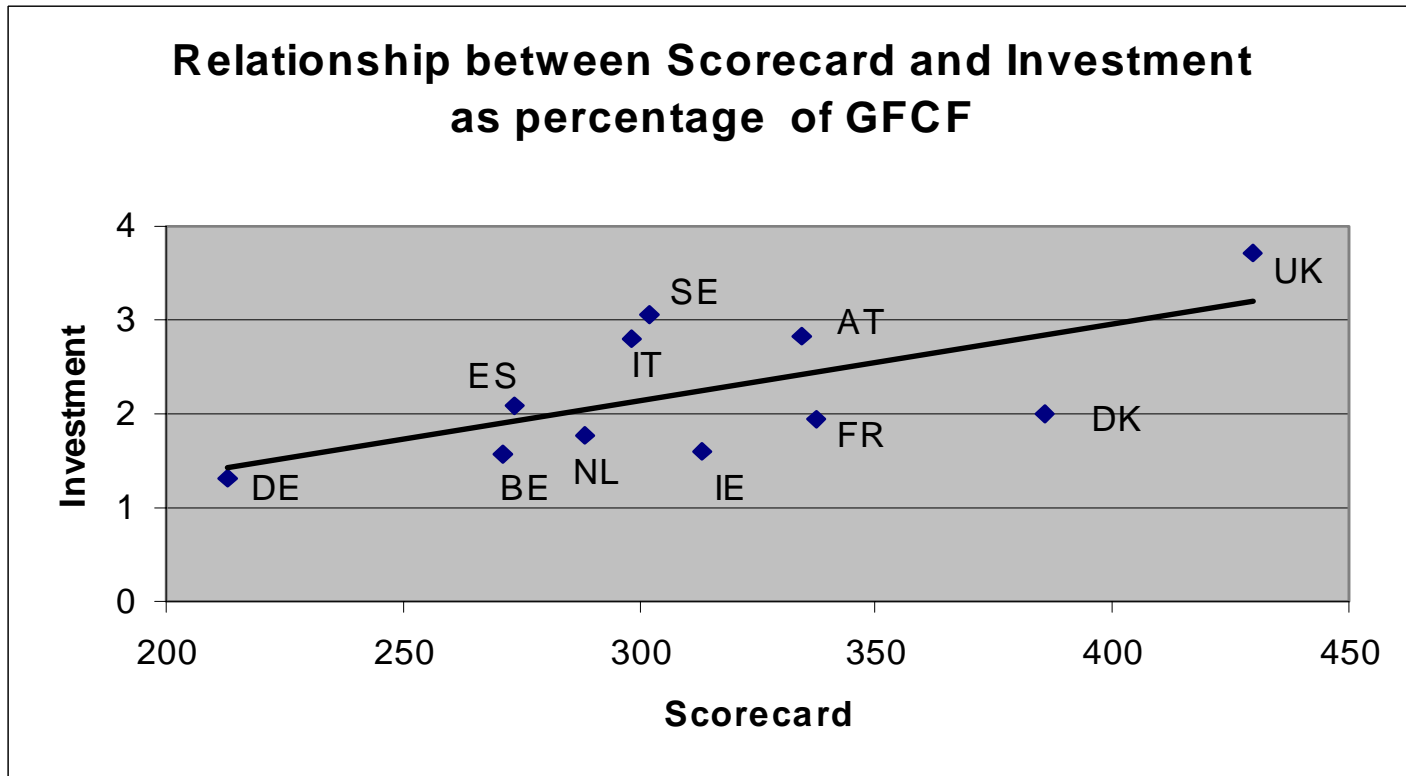
Investment Drivers

Primary Drivers	Level of expected return Risk and uncertainty associated expected return		
Secondary Drivers	Economy Wide	Industry Specific	Company Specific
	GDP/capita	Regulation by NRA	Cost of capital
	Demo/geo-graphic characteristics	Competition	Credit rating/debt level
	Economic cycle	Technological progress	Mergers and acquisitions
	General regulation (not sector specific)	Demand for eCommunication services	Company performance

ECTA Regulatory Scorecard



Regulatory Effectiveness and Investments



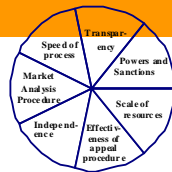
Measures of Investment in Electronic Communication 2003

L.A.1.1	Country	Investment as percentage of GDP 2003	Investment per capita 2003 (USD)	Investment as percentage of GFCF
	Austria	0.61%	191	2.83
	Belgium	0.27%	78	1.57
	Czech Republic	1.40%	124	5.27
	Denmark	0.40%	158	2.01
	France	0.25%	70	1.93
	Germany	0.23%	68	1.32
	Greece	0.73%	115	2.85
	Hungary	0.76%	62	3.38
	Ireland	0.38%	144	1.61
	Italy	0.54%	135	2.8
	Netherlands	0.36%	112	1.77
	Poland	0.65%	36	3.54
	Portugal	0.61%	85	2.68
	Spain	0.54%	110	2.1
	Sweden	0.48%	162	3.05
	UK	0.61%	184	3.72

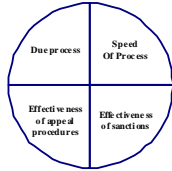
Source: OECD 2005

Report on the effectiveness of national regulatory frameworks and investment impact
2005

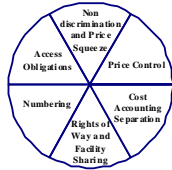
	(1) Regulator: General	(2) Regulator: Dispute Settlement	(3) Access Regulation	(4) Access Products
Austria				
Belgium				
Czech Republic				
Denmark				
France				
Germany				
Greece				
Hungary				
Ireland				
Italy				
Netherlands				
Poland				
Portugal				
Spain				
Sweden				
UK				



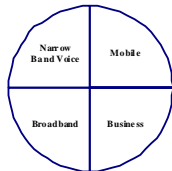
(1)
Regulator:
General



(2)
Regulator:
Dispute
Settlement



(3)
Access
Regulation



(4)
Access
Products

Colours:



Please refer to
<http://www.ectaportal.com/en/upload/File/Regulatory%20Scorecards/Scorecard280406/Scorecard%202005.zip> for further details

Degree of Competition, Regulation and Investments – Example: EU Broadband Market

- Consider competition as another way of looking at regulation
- What is the relationship between competition and market growth?
- Cadman & Dineen calculate in their February 2006 Report: **Broadband Markets in the EU: The importance of dynamic Competition to Market Growth** that
 - **For every 1% decrease in market concentration there is a 2.86% increase in broadband take-up**
 - **For every 1% decrease in market concentration there is a 1.66% increase in broadband take-up**
- Applying the elasticity coefficient found to the decrease in market concentration required for EU21 countries to reach low level found in Sweden **an additional 20 M subscribers could be achieved if all countries had the same intensity of competition**

What are the Policy Implications?

- Remove barriers to efficient market entry
- Promote efficient entry of new competitors
- Reduce barriers to switching
- Safeguard against anti-competitive behaviour

Key ECTA Points of View 1/3

- Competition key to delivering investment and consumer/economic benefits
- Competition **across the value chain** will deliver best results
 - facilities-based to extent economically viable
 - secondary markets in services to stimulate demand/innovation
- Firm ex ante regulation targeted on dominance remains necessary to achieve competitive outcome

Ladder of Investment 2/3

- Ladder of investment refers to provision of access at multiple levels of the value chain (e.g. LLU, bitstream, resale)
- ECTA supports ladder of investment principle – both for broadband and, where appropriate, other services e.g. leased lines, mobile
- Objectives of the ladder should be to:
 - Allow incremental investment and migration up ladder where economically feasible e.g. in urban areas
 - Enable nationwide coverage to compete against national incumbents and provide rural customers and businesses with choice
- Economics of nationwide business provision should be considered as well as consumer e.g. critical mass may justify consumer investment in some areas, but not business
- Removal of ‘rungs’ should be based on objective competitive criteria and not arbitrary targets/deadlines

Next Generation Networks 3/3

- NGNs refer to upgrades in access or core networks to carry variety of services over IP
- Key issue is to ensure that **upgrades do not undermine development of competition**. Main threats are through:
 - Redesign of networks changing connection points
 - Difficulties in migrating from old to new
 - Regulatory holidays for ‘emerging markets’ – particularly as regards access network upgrades e.g. vDSL, fibre
- On network design:
 - **development** including migration plans should be in conjunction **with industry/regulator**
 - Use opportunity to **design-in equivalence** of treatment for competitors