

Telecommunications Markets and Regulation in the European Union: Recent Developments and Implications for Japan

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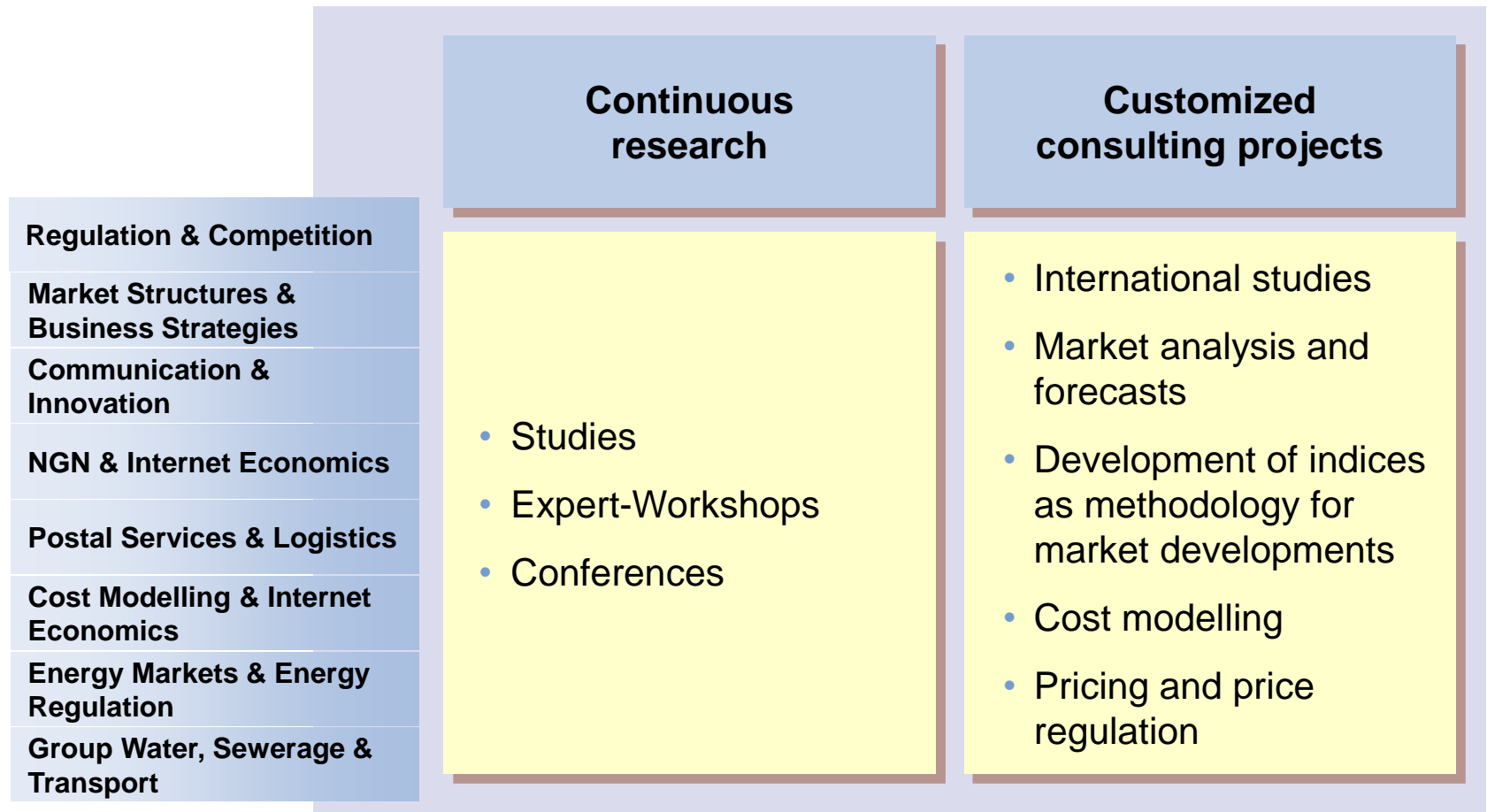
WIK-Consult GmbH

Presentation to KDDI Research

01 July 2010

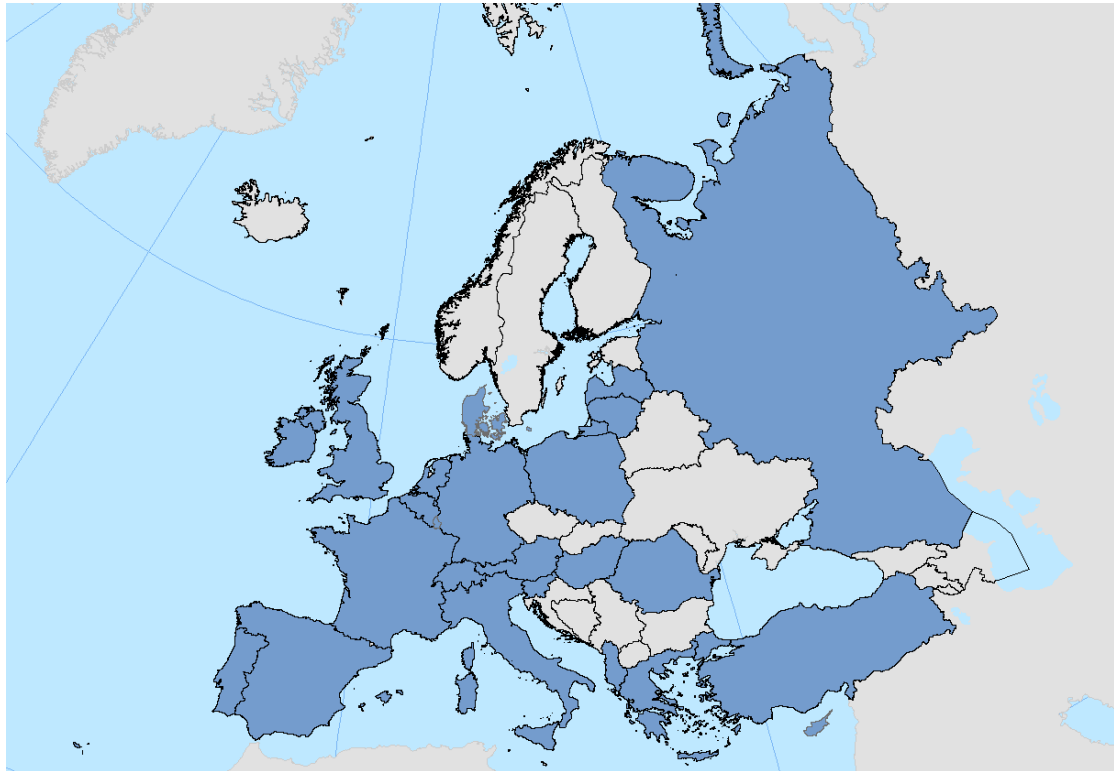
Introduction

WIK's Business Areas



WIK Consult's Footprint

WIK is a small firm with a truly global presence. Our clients are international organizations, governments, regulatory authorities, industry organizations and companies in more than 35 countries on six continents.



I. The European Context

- A. 2002 Framework^カ
- B. The Relationship between NRAs and NCAs^ネ
- C. Application and recent court decisions^ネ

II. Managing the Transition to NGN/NGA

- A. 2009 Telecoms Package^カ
- B. The European Commission's NGA Consultation^カ
- C. IP- and NGN-based Interconnection^ネ
- D. Termination Rates^ネ

III. Ensuring Ubiquitous Networks

- A. National Broadband Strategies and Broadband for All^カ
- B. State Aid Rules^カ

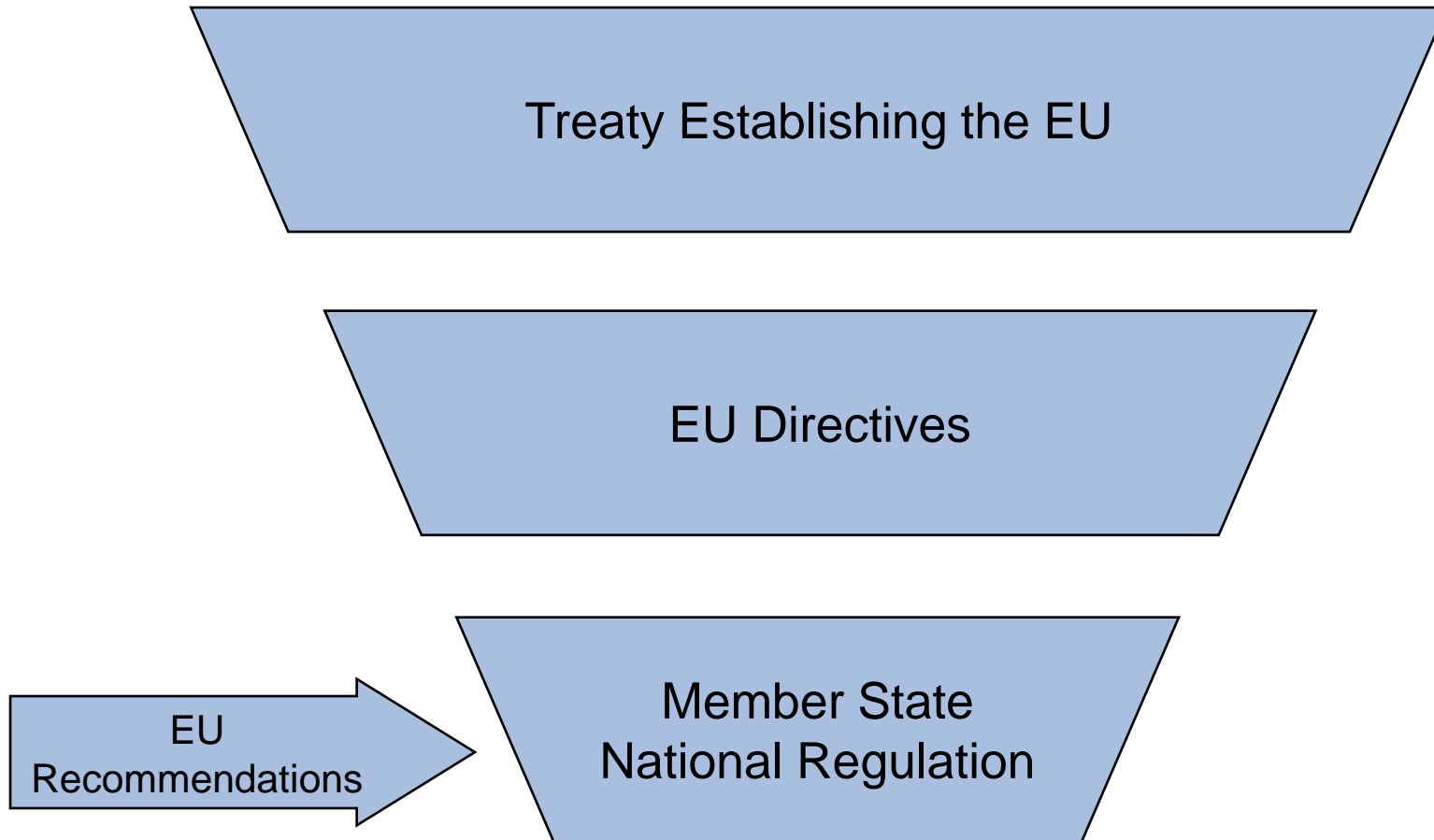
IV. Concluding Remarks^ネ

カ = Carter

ネ = Neumann

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 - 1. Overview
 - 2. Market definition
 - 3. Definition of SMP
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Overview: Structure of European Regulation



Overview: Electronic Communications Directives

- A series of five *Directives* implemented by the European Parliament and the Council in 2002.
- Had to be *transposed* into national law and put into effect by July 2003.
- Establishes a common process, but recognizes legitimate differences in national markets.

Framework

- Provides the overall structure for EU regulatory regime.
- Sets out the policy objectives and regulatory principles that NRAs must follow.
- Requires that market analyses be carried out before regulation is imposed.
- Includes:
 - Market definition.
 - SMP.
 - Remedies.

Universal Service

- Ensures access at a reasonable price to key facilities, such as access to the PSTN.
- A range of additional requirements to benefit consumers:
 - Network reliability.
 - Access to emergency services.
 - Contracts, performance measurements.

Authorisation

- Limits effects of licensing as a barrier to entry.
- Establishes maximum information that can be required and NRA response time to license request.
- Establishes maximum obligations:
 - If numbers are requested
 - If spectrum is requested
 - If neither are requested.

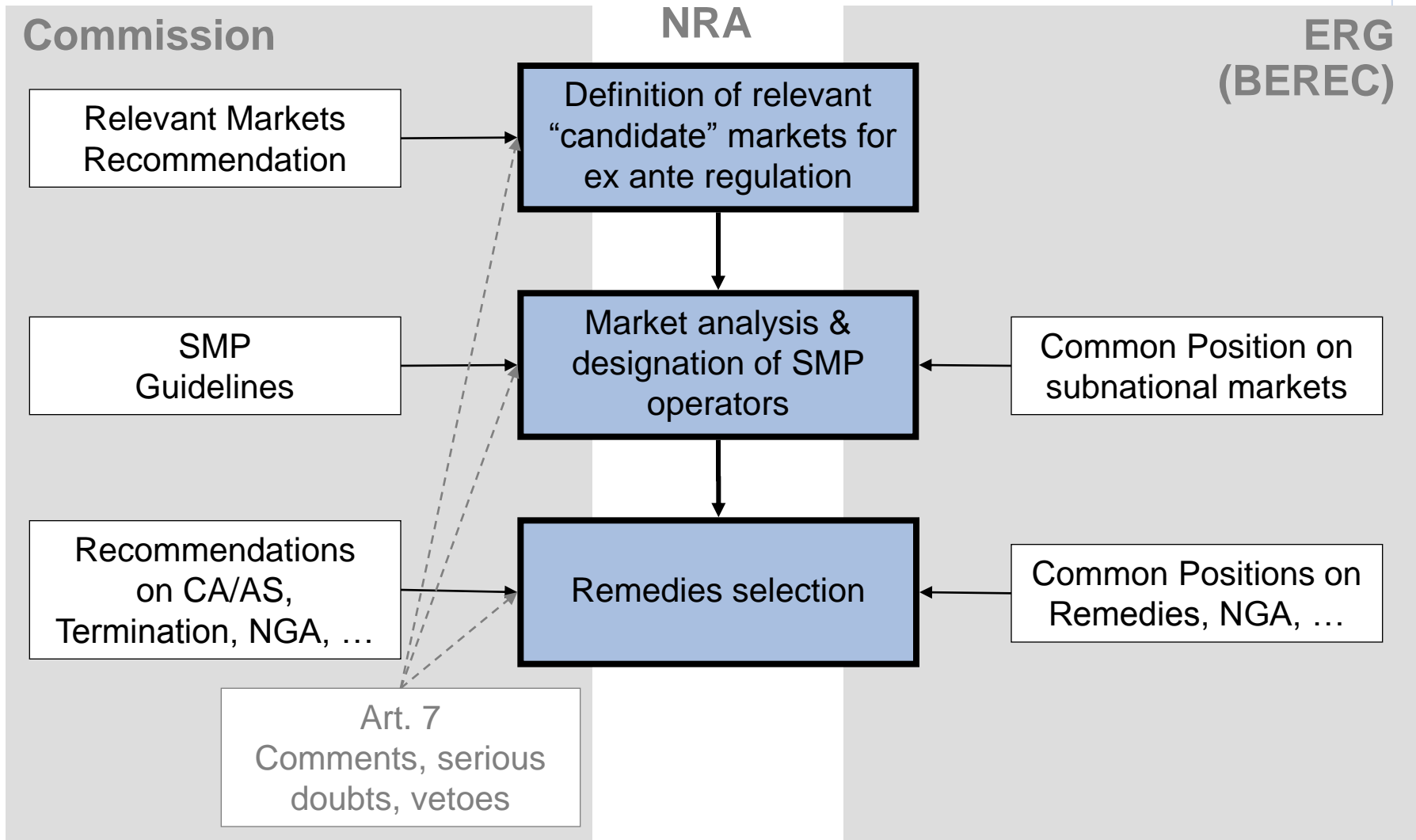
Access & Interconnection

- Sets out the terms on which providers may access one another's networks and services with a view to providing publicly available electronic communications services.

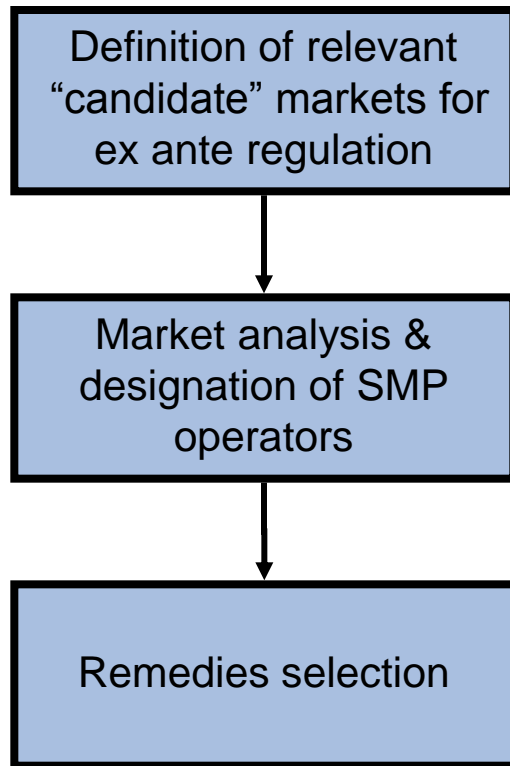
E-Privacy

- Data retention and other Issues
- Requires erasure or anonymisation of traffic data processed when no longer needed.
- Retention is allowed for billing purposes.
- Data may be retained upon user's consent for marketing and value added services.
- Subscribers have the right Opt-out of calling-line identification.
- Spam, Cookies, etc.

Regulatory process

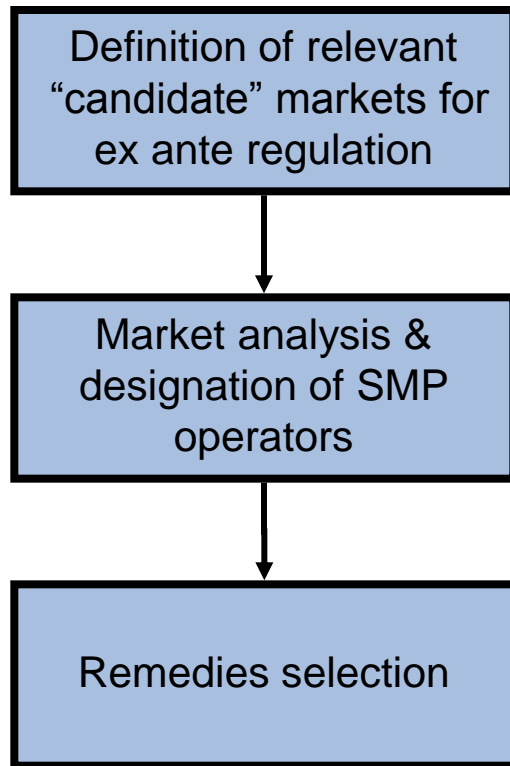


Basic Mechanisms: Market Definition



- The European Commission identifies markets *susceptible to ex ante regulation*.
- National Regulatory Authorities (NRAs) must analyse the markets identified by the Commission.
- NRAs define the corresponding markets, optionally refining them to fit national circumstances.
- NRAs could define additional markets by applying the Three Criteria Test:
 - Enduring barriers to market entry.
 - No dynamic tendency to correct.
 - Problems cannot be fixed by application of competition law.

Basic Mechanisms: Significant Market Power



- For each market thus identified, NRAs identify any firms that possess *Significant Market Power (SMP)* within those markets (unilateral or [rarely] joint dominance).
- SMP is roughly equivalent to market dominance.
- Independent of incumbency
 - could be relevant – case of regional market definition for NGA.
 - e.g. small altnets for termination.

Markets “Susceptible to *ex ante* Regulation”

February 2003

Retail level

1. Access to the public telephone network at a fixed location for residential customers.
2. Access to the public telephone network at a fixed location for non-residential customers.
3. Publicly available local and/or national telephone services provided at a fixed location for residential customers.
4. Publicly available international telephone services provided at a fixed location for residential customers.
5. Publicly available local and/or national telephone services provided at a fixed location for non-residential customers.
6. Publicly available international telephone services provided at a fixed location for non-residential customers.
7. The minimum set of leased lines (which comprises the specified types of leased lines up to and including 2Mbps)

Wholesale level

8. Call origination on the public telephone network provided at a fixed location.
9. Call termination on individual public telephone networks provided at a fixed location.
10. Transit services in the fixed public telephone network.
11. Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services.
12. Wholesale broadband access.
13. Wholesale terminating segments of leased lines.
14. Wholesale trunk segments of leased lines.
15. Access and call origination on public mobile telephone networks.
16. Voice call termination on individual mobile networks.
17. The wholesale national market for international roaming on public mobile networks.
18. Broadcasting transmission services, to deliver broadcast content to end users.

Markets “Susceptible to *ex ante* Regulation”

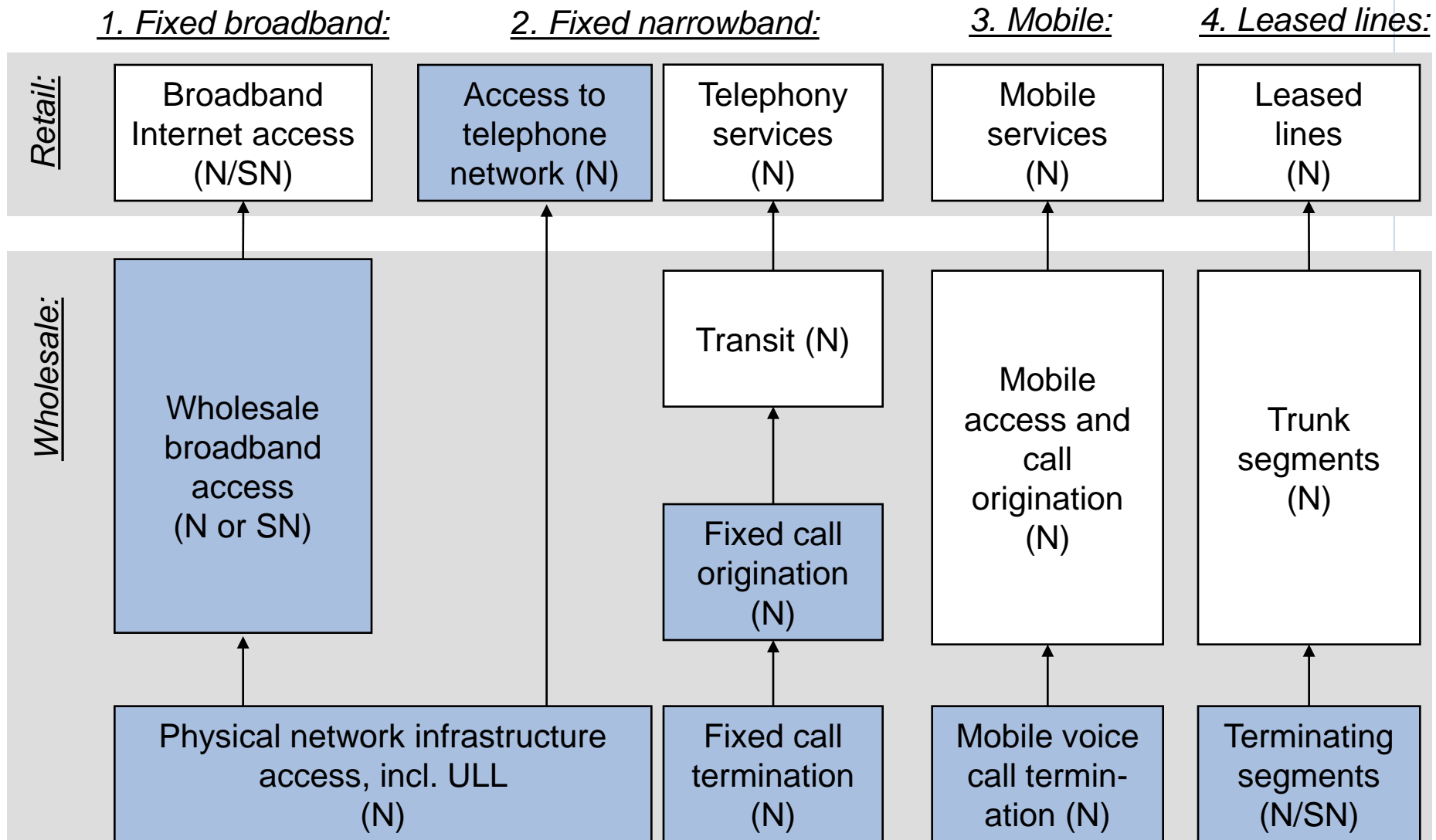
December 2007

1. Access to the public telephone network at a fixed location for residential and non-residential customers.
2. Call origination on the public telephone network provided at a fixed location.
3. Call termination on individual public telephone networks provided at a fixed location.
4. Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location (copper or fibre).
5. Wholesale broadband access.
6. Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity.
7. Voice call termination on individual mobile networks.

Reasons reduction in the number of markets:

- Great competition
- Link between retail markets and wholesale regulation
- Risk of overregulation highest where infrastructure can be duplicated
- Avoid creating disincentives to invest
- Competition law can deal with certain access problems
- *ex ante* regulation is reserved for compelling bottlenecks

Regulated and unregulated markets

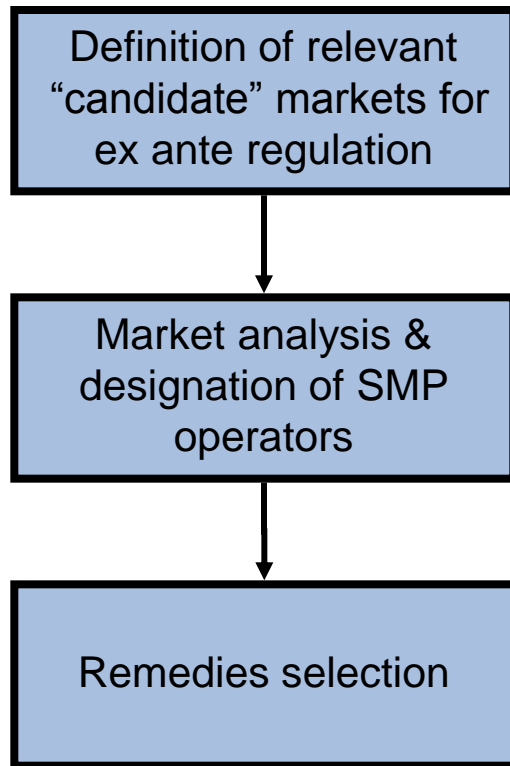


N: National market; SN: subnational market

■ Regulated

□ Unregulated

Basic Mechanisms: Remedies



- NRAs impose *ex ante* remedies from a list of possible options where one or more firms are found to have SMP.
- NRAs may not impose such remedies (and must eliminate any that may already be present) absent SMP.
- Remedies must be *proportionate* (i.e. no more intrusive than necessary to address the likely competitive harm).
- Remedies include:
 - Unbundling
 - Interconnection
 - Pricing
 - Non-discrimination
 - Accounting Separation
 - Functional Separation (exceptional cases)

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IV. Concluding Remarks

Relationship between NRAs and NCAs – The EU Commission

1. General remarks (1)

- Dualism of general competition rules and sector-specific regulation
- Dualism may not last indefinitely: Transitional character of sector-specific regulation?
- Phase-out of sector-specific regulation and transition to ex-post control (regulation)
- Competition rules are not capable of achieving specifically defined social and political objectives
- Competition rules of the Treaty generally also apply to regulated sectors and to areas covered by sector-specific regulation

Relationship between NRAs and NCAs – The EU Commission

1. General remarks (2)

- Competition rules apply horizontally and are totally sector independent
 - Commission formulates sector specific guidelines or notices from time to time
- Competition rules are directly applicable and directly effective
 - Art. 82 not only applied by the Commission but also useable by NRAs or NCAs

The Interplay between:

Sector-specific Regulation

Competition Law

NRAs and NCAs pursue complimentary agendas.

- NRAs and DG Info Soc
- Ex ante rules
- NRAs use ex ante data
- Sector-specific regulation can only limit the risk of abuse, but not prevent abuse
- Some wholesale markets still represent important bottlenecks
 - Local loop access
 - Technology neutral broadband access
 - Termination markets
- Three criteria test prefers ex post remedies.

Telecoms market

- NCAs and DG Comp
- Ex post rules
- NCAs use ex post data, but both might use the same test
- Ex post control is necessary to ultimately determine the dominant firms' conduct.
- NCAs particularly active as to link between prices at wholesale and retail level
 - Sector-specific regulation at wholesale level
 - Margin squeeze
- Ex post control is necessary to ultimately determine the incumbents' conduct not to contradict competition law

Relationship between NRAs and NCAs – The EU Commission

2. Scope of competition rules

- Prohibition of agreements which prevent, restrict or distort competition
- Prohibition of any abuse of a dominant market position
- Right of the Commission to issue appropriate regulations or directives
- Application of competition rules to services of general economic interest
- Compatible and incompatible state aids
- Controlling and measures against incompatible state aid

Relationship between NRAs and NCAs – The EU Commission

3. DG Competition priorities in enforcement

- Broadband
- Mobile
- Priority cases of the Information, Communication and Media Directorate
- Commission and NCAs active as to link between prices at wholesale and retail level
 - Sector-specific regulation at wholesale level
 - Margin squeeze

Relationship between NRAs and NCAs in Germany

NRA: Bundesnetzagentur

- Telecoms regulator
- Legal framework
 - Telecommunications law defines interaction between NCA and NRA in certain regulatory matters

NCA: Bundeskartellamt

- Anti-trust administration
- Legal framework
 - Competition law valid also for regulated sectors and areas
- Telecommunications law defines interaction between NCA and NRA in certain regulatory matters

Monopolkommission

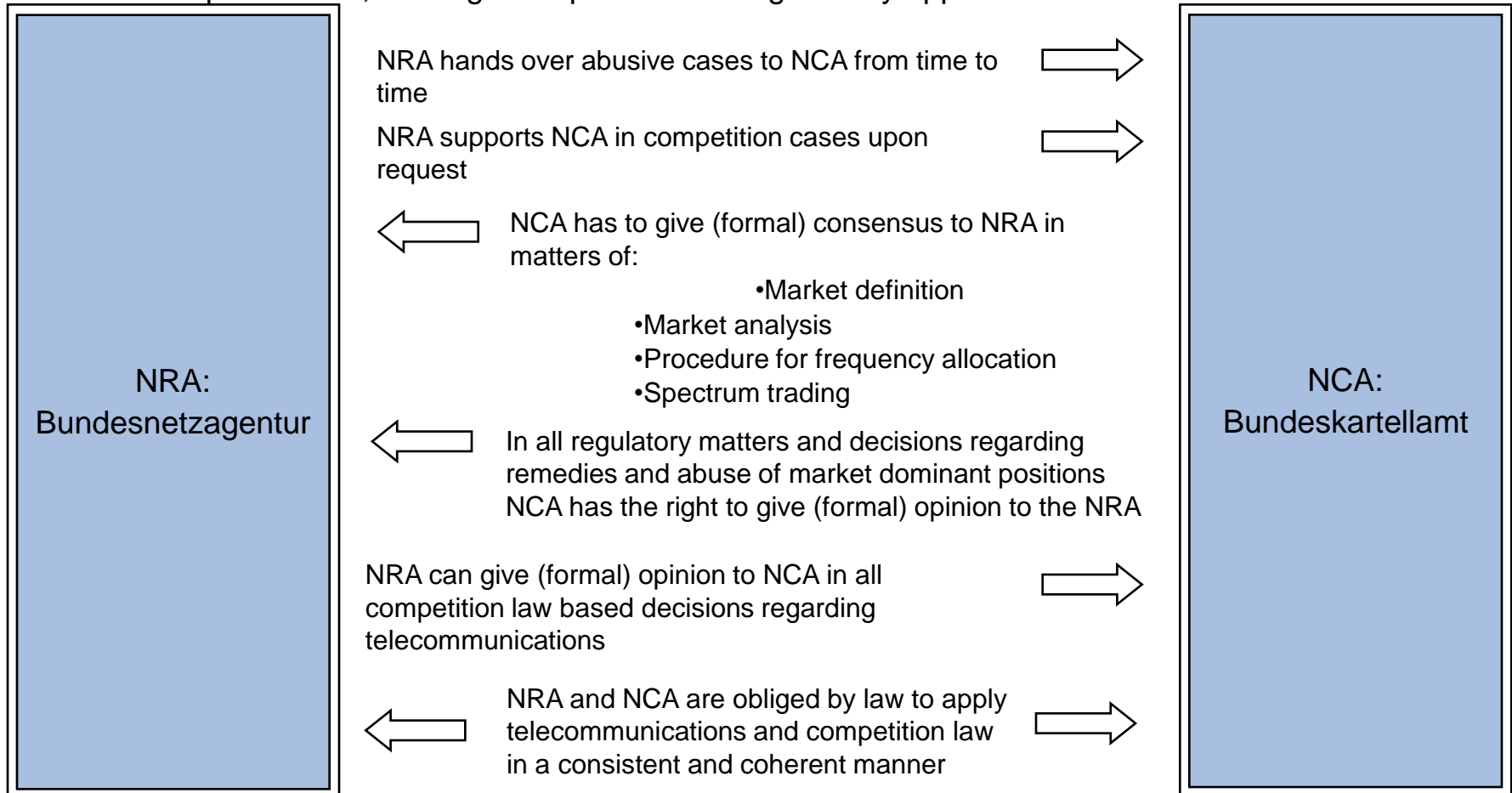
- Monopolies Commission
- Advisory panel in competition policy matters
- Formally involved in certain merger cases to give formal opinions
- Mandate to evaluate development of competition in telecommunications and the regulatory decisions of NRA every two years

Bundesministerium für Wirtschaft und Technologie

- Ministry of Economics and Technology
- Can give (general) guidelines to NRA
- In case of guidance in particular cases need for publication
- Prepares legislation

Relationship between Bundeskartellamt and Bundesnetzagentur

Agreement among the two authorities that NCA will not become active in regulated markets to apply competition law, although competition law is generally applicable to telecommunications.



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Regulation of NGA Networks

The Debate on Regulatory Holidays

The debate on regulatory holidays led to serious trouble between the German government and the EU-Commission.

- In September 2005, DT announced to spend €3 billion for the roll-out of fibre infrastructure in 50 German cities. This undertaking was connected to the postulation of regulatory holidays for the new VDSL network.
- The German government responded with an amendment of the German Telecommunications Act, removed the new builds from regulated access – a regulatory holiday.
- Due to serious concerns about its accordance with Community Law, the European Commission opened an infringement procedure against Germany.
- On 3 December 2009, the European Court of Justice (ECJ) overruled the German government as it had failed to comply with its obligations under the Framework by affording regulatory holidays.

Relationship between NRAs and NCAs – The EU Commission

4. Relevant cases (1)

- Deutsche Telecom → Wanadoo → Telefonica
 - Three price abuses sanctioned by the Commission under Art. 82
 - Substantial fine
 - Already in 2003, clear Commission message
 - Conduct which infringes EC competition law
 - But also undermines telecoms liberalization

Relationship between NRAs and NCAs – The EU Commission

4. Relevant cases (2)

- Deutsche Telekom (May 2003) – margin squeeze
 - CFI decision of 10 April 2008
 - (in 2004 and 2005, settlement on fees for shared lines avoided another prohibition decision)
- Wanadoo (July 2003) – predatory pricing
 - CFI rejects appeal on 30 January 2007
 - France Telecom appeals CFI judgment
- Telefonica (July 2007) – margin squeeze
 - Telefonica and Spain appeal Commission decision

Relationship between NRAs and NCAs – The EU Commission

4. Relevant cases (3)

- Recent criticism relating to the Commission's administrative practice included:
 - Ex-ante and ex-post meant double regulation
 - Incumbents should not be held responsible for competition law infringements when (parts of) their pricing is subject to NRAs' control
 - Margin squeeze cases should not be brought under antitrust law: either prove predatory prices (retail) or excessive prices (wholesale)
 - As efficient competitor test incorrect

Relationship between NRAs and NCAs – The EU Commission

4. Relevant cases (4)

- CFI and ex-post and ex-ante
 - CFI judgment addresses recent criticism, i.e. ex-ante and ex-post amounted to "double regulation"
 - Dominant companies have no "carte blanche" under competition law only because they are subject to sector-specific regulation
 - National authorities' decisions based on telecoms law do not affect the Commission's power to find competition law infringements
- CFI and the margin squeeze test
 - CFI confirms that margin squeezes can be sanctioned
 - CFI confirms that the Commission's margin squeeze test is correct

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Managing the Transition to NGN/NGA

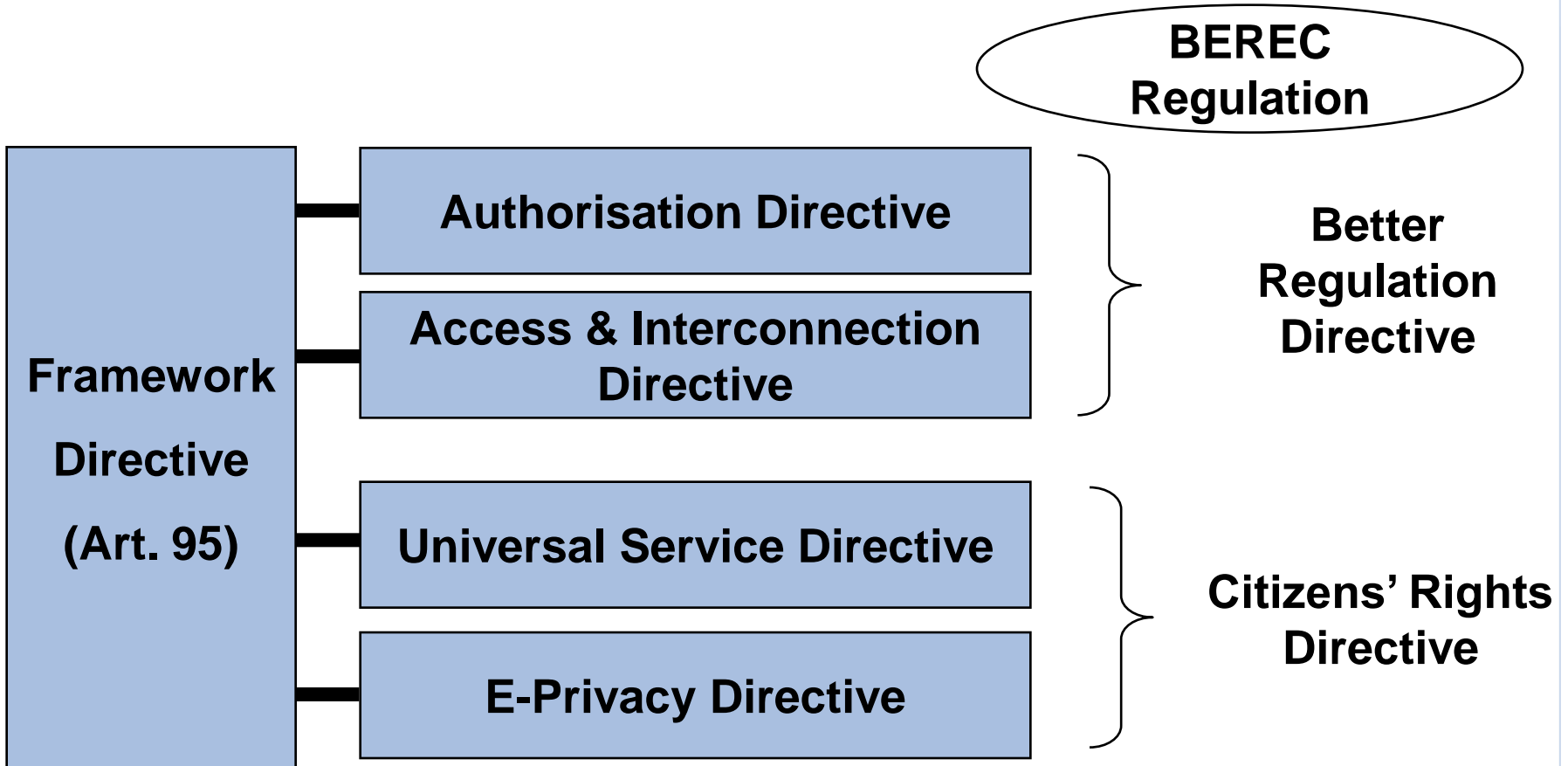
The rollout of NGA infrastructure implies large challenges for existing regulatory regimes.

- Regulators have to stimulate investments in NGA networks AND maintain and foster effective competition at the same time. This particularly affects:
 - The determination of access prices
 - The handling of regulatory uncertainty
- Changes in the network topology of NGA networks challenge the existing regime of wholesale regulation in Europe.
- Nevertheless, 3 aspects have to be taken into consideration:
 1. The impact of regulation on the profitability of certain business models and thus on the amortisation of infrastructure investments;
 2. The regulatory handling of emerging markets and NGNs; and
 3. The consistency of wholesale charges.
 4. Competition drives investment

The “2006” Review of the EU Framework

- The Regulatory Framework is to be reviewed every three years.
- The Commission dithered, and submitted recommendations in November 2007, about a year late.
- Initial Commission proposals were fairly modest.
- Package submitted in 2007 included:
 - Effective “veto” over remedies.
 - Creation of a new body that could override the NRAs.
- The veto power was obviously contentious.
- The proposal to create a new regulatory body.
 - Unacceptable to Member States.
 - Seen as a power grab.
 - Would in any case most likely not have worked as the Commission intended.
- European Parliament and the Council could not enact a compromise set of measures before Parliamentary elections in June 2009.
- The incoming Parliament took up the Package last fall.
- This process was not completed until November 2009 when the European Parliament and Council of Ministers reached an agreement.
- The 27 Member States must now transpose the new rules into national laws by 2011.

EU Framework Review



Source: Olivier. F. Pascal, European Commission, DG Information Society

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European Commission NGA Draft Recommendation

1. Status

- 2 public consultations on Draft Recommendation in 2008 and 2009
- Latest (3.) draft: 28. April 2010
- Adoption of final version expected for second half of 2010
- BEREC has formulated (and published) opinion on Draft Recommendation in May
- Currently in negotiation with Communication Committee of Council

NGA Recommendation

2. Legal relevance

- Commission Recommendation on regulated access to Next Generation Access Networks (NGA)
- Based on (revised) Framework Directive
- Intervention with regard to consistency of regulatory approaches taken by NRAs to avoiding distortions of the single market
- NRAs have to take utmost account of the provisions of the Recommendation

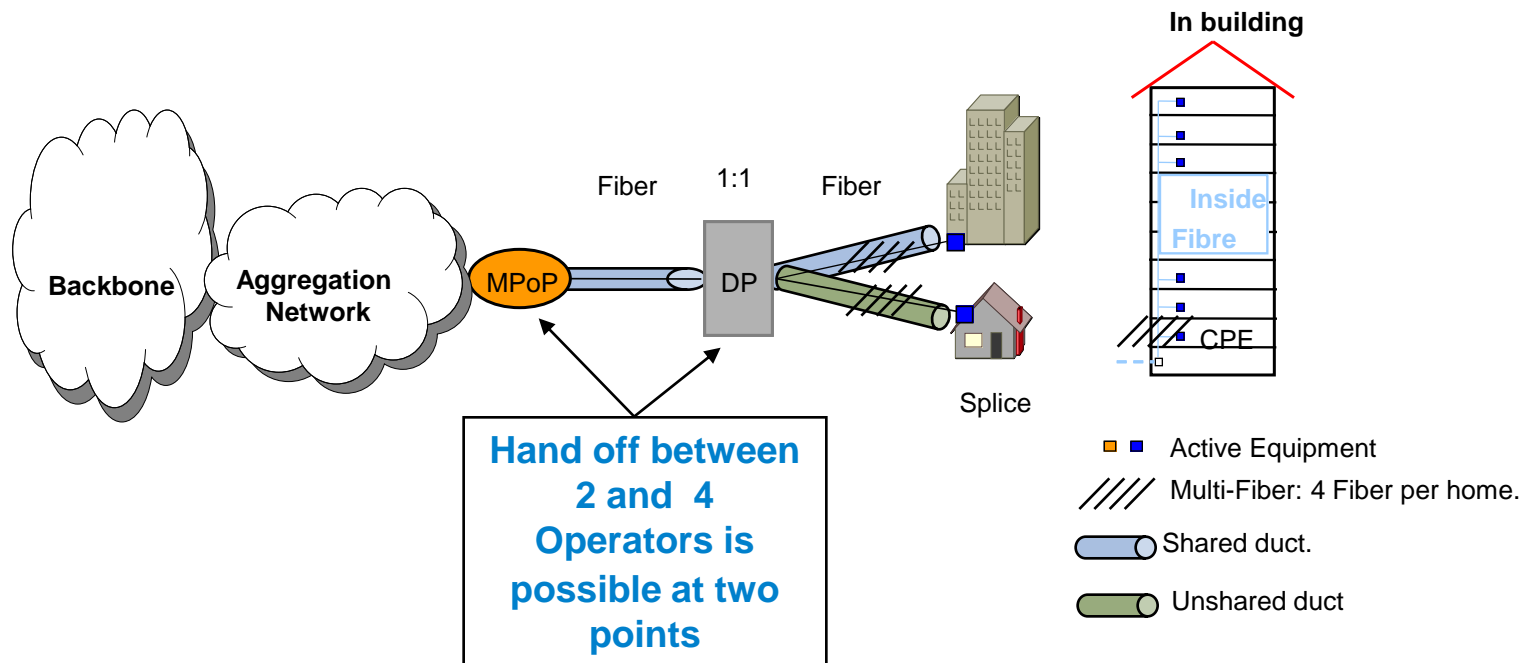
- Remedies imposed on SMP operators regarding
 - Market 4: Wholesale network infrastructure access
 - Market 5: Wholesale broadband access
- Regulatory certainty to promoting efficient investments

4. Access remedies to wholesale physical network infrastructure (1)

- Access to civil engineering infrastructure
 - Duct and dark fibre
 - Principle of equivalence
 - Cost-based access
 - Reference offer
 - Information systems
- Access to the terminating segment in the case of FTTH
 - Cost efficient distribution point
 - Multifibre access model
 - Cost-based access

Multi-Fibre

- Multi-Fibre connections upto four fibres per home. Investment is shared among the potential partners.
- FTTH Point to Point (P2P)



4. Access remedies to wholesale physical network infrastructure (2)

- Unbundled access to the fibre loop in the case of FTTH
 - Should be generally mandated
 - Appropriate measures assuring co-location and backhaul
- Access provided at the most appropriated point in the network, normally MPoP (P2P)
- PON: Distribution Point deeper in the network

4. Access remedies to wholesale physical network infrastructure (3)

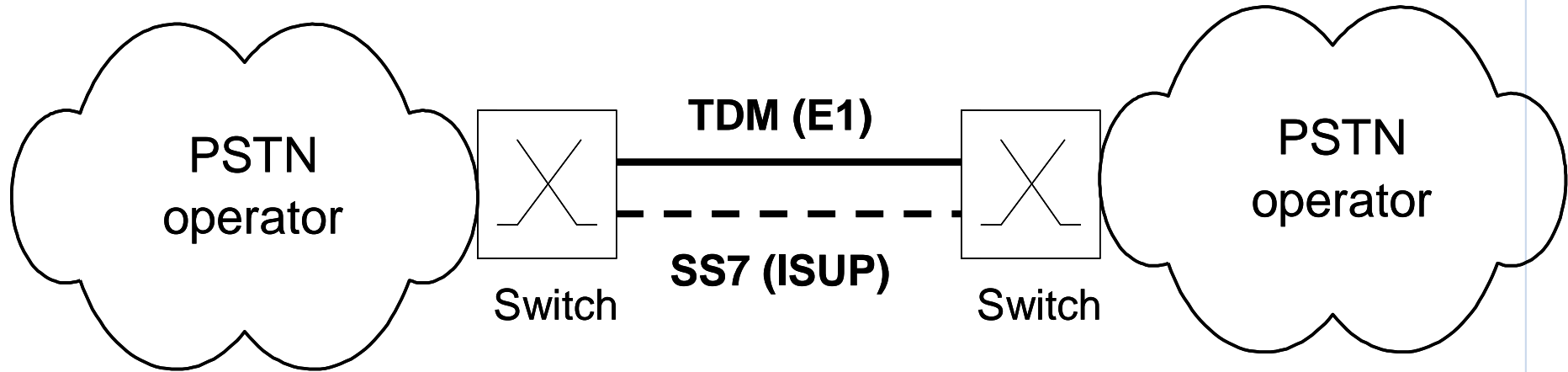
- Cost-based access prices
 - Properly reflecting NGA investment risk
 - LRAIC
 - Lower access prices
 - combined with upfront payments
 - volume discounts
 - commitment contracts
 - Co-investment arrangements possible
- Access obligations in the case of FTTN
 - Unbundled access to the copper sub-loop
 - Cost-based
 - Co-location and backhaul

5. Remedies regarding wholesale broadband access

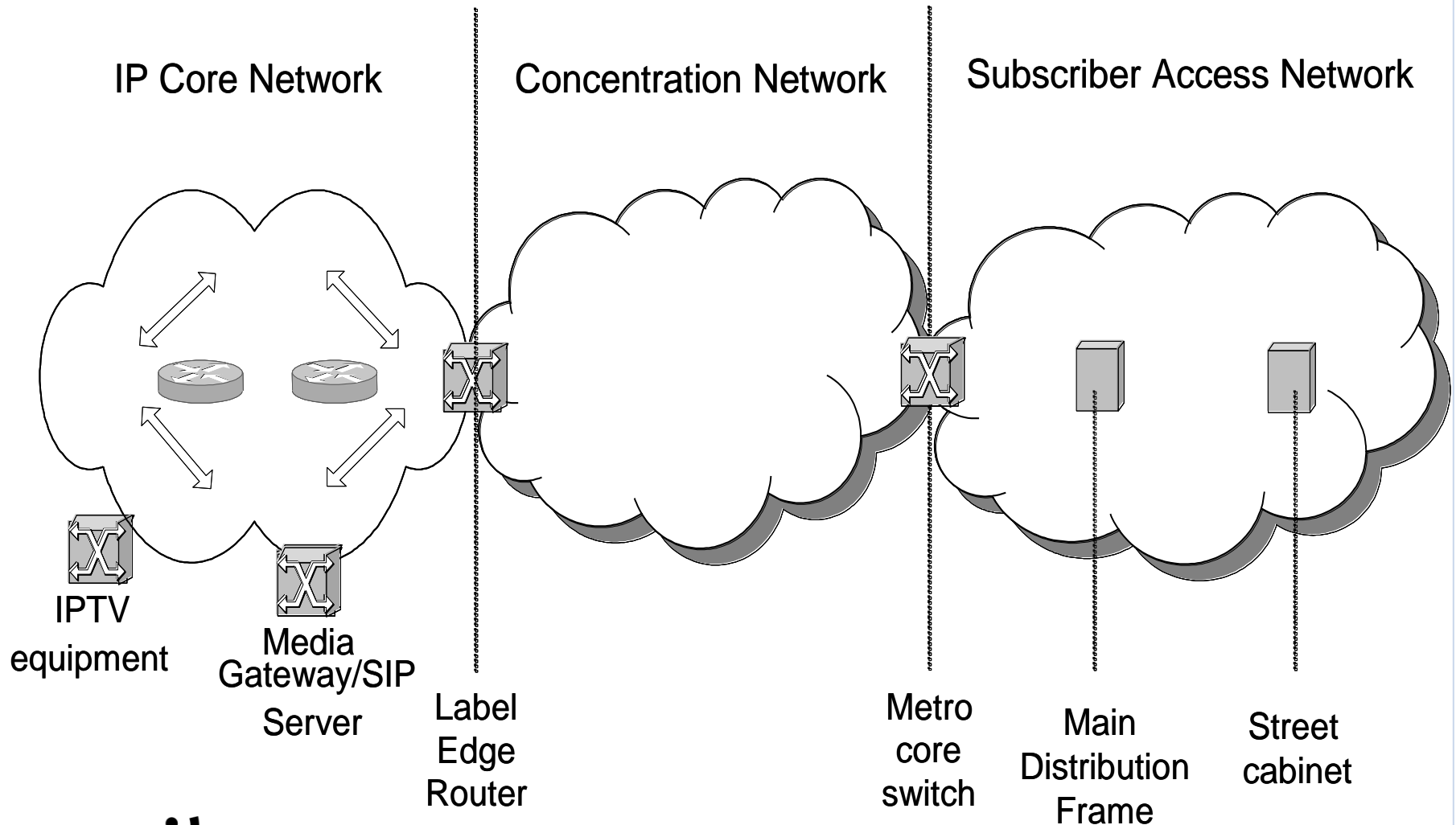
- Existing remedies maintained or amended for existing services and their chain substitutes
- Access over VDSL chain substitute to existing access over copper – only loops
- Different wholesale products regarding bandwidth, quality, business grade
- Eventually regional market definition

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PSTN interconnection

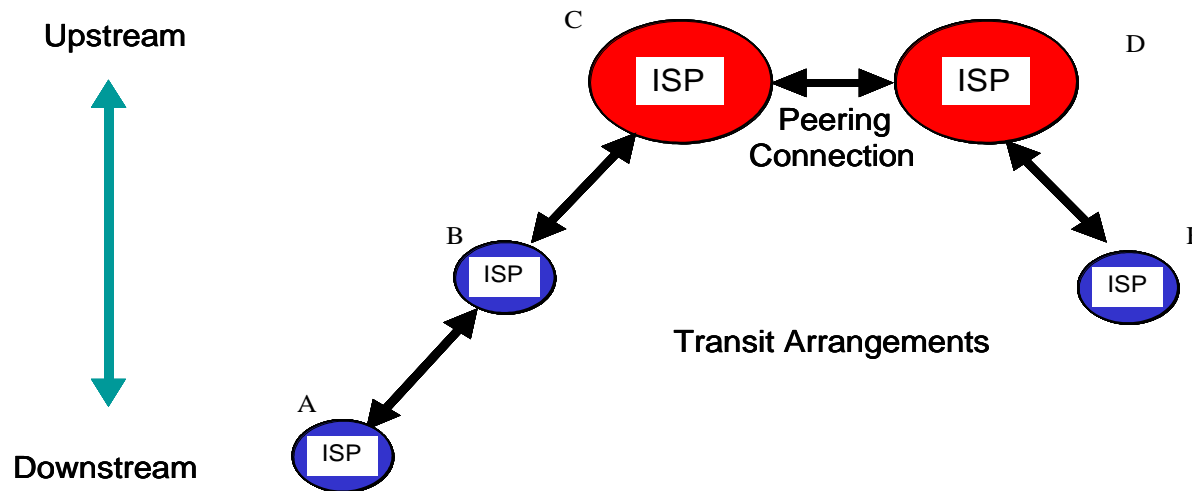


NGN Core, NGN Access



Evolution of Interconnection Models and Agreements

Two peers and their respective transit customers



<u>Parties</u>	<u>Interconnection Arrangement</u>	<u>Typical Nature of Agreement</u>	<u>Typical Commercial Arrangements</u>
A – B	Transit	Bilateral	Payment reflects capacity, and may reflect volume of traffic or near-peak traffic level.
B – C	Transit	Bilateral	
E – D	Transit	Bilateral	
C – D	Peering	Bilateral	Often done without payment

Economic theory and Interconnection Models

- Retail arrangements
 - Calling Party Pays (CPP)
 - Traditional arrangement based on presumed cost causality and presumed internalization of call externalities
 - Receiving (Mobile) Party Pays (RPP/MPP)
 - Shared utilities from calls, receiver sovereignty
 - True RPP systems are rare today.
 - Flat rates: Calls included in monthly fees (bandwidth)
 - Banded flat rates (buckets of minutes): “banded” flat rate
- Bulk of revenues comes from voice telephony; however, voice represents a sharply declining percentage of traffic

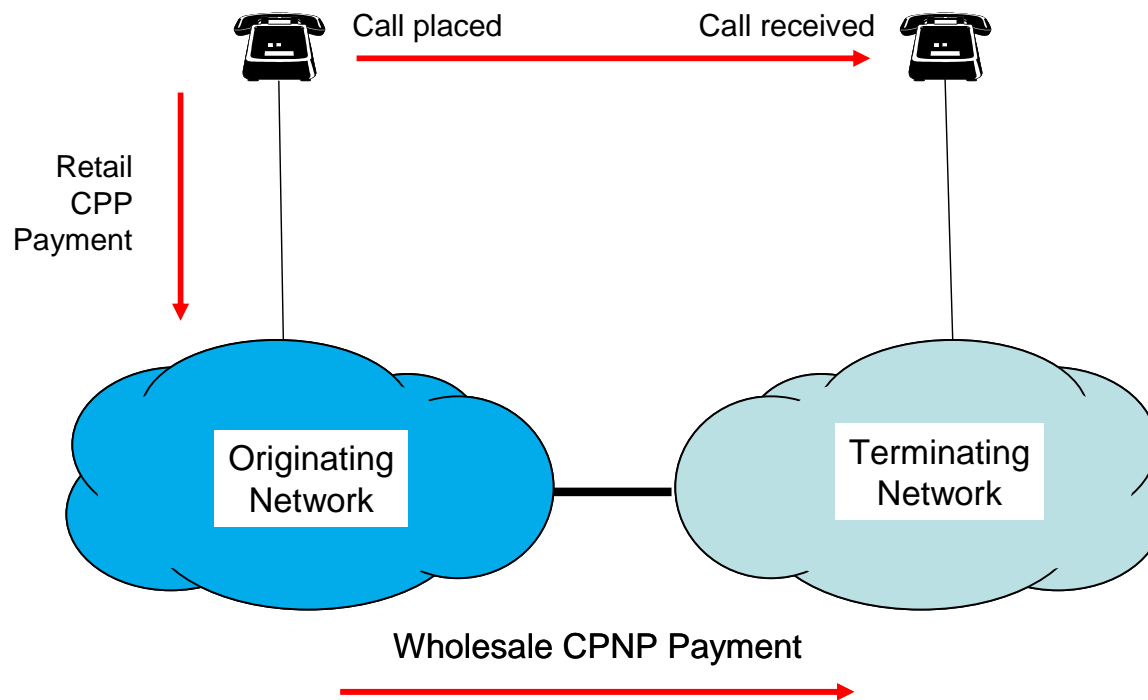
Regulatory challenges going forward

- The migration to NGN raises challenges to costing and pricing due to:
 - The ability of any transmission medium to carry any form of traffic.
 - The evolution of the telecommunications network from a voice-only network to a multi-service network where voice likely represents only a small fraction of the traffic.
 - The emergence of service providers who do not even have a network.
 - The changing cost structure of the network.
 - The understandable desire of existing operators to maintain their revenue streams.

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Termination Rates (TRs)

- Termination rates represent *wholesale* payments between network operators under the Calling Party's Network Pays (CPNP) arrangements.



Mobile Termination Rates in the EU

- Regulatory pressure has driven MTRs in Europe steadily downward since 2001.
- There is pressure today for *much* lower MTRs from many quarters:
 - European Commission: new Regulation of fixed and mobile termination rates implies a dramatic reduction
 - ERG (BEREC): strong interest in Bill and Keep (i.e. a termination rate of zero)
- These changes implicitly rest on assumptions about the likely impact on consumers. What effects are likely on retail price, usage, and penetration?

Termination Rate Recommendation

1. Status and legal relevance

- Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, adopted 7.5.2009
- Based on Framework Directive
- NRAs have to take utmost account of the provisions of the Recommendations
- NRAs have started to implement by setting up new cost models to calculate FTR and MTR on the basis of pure LRIC

Termination Rate Recommendation

2. Scope

- Starting point: Divergences in the regulatory treatment of FTR and MTR create fundamental competitive distortions
- Reduction of level of MTR
- Less or no asymmetries of rates
- More harmonization in the application of cost-accounting principles
- More symmetry between FTR and MTR

Termination Rate Recommendation

3. General principles (1)

- TR according to forward-looking long-run incremental cost (LRIC)
- Interconnection as separate increment and "final" service: calculation of avoidable cost of termination
- = pure LRIC approach: all common and joint cost to be covered by other services
- Only traffic-related costs are avoidable
- Cost of efficient operator to be determined
- Economic depreciation
- Uniform, symmetrical TR

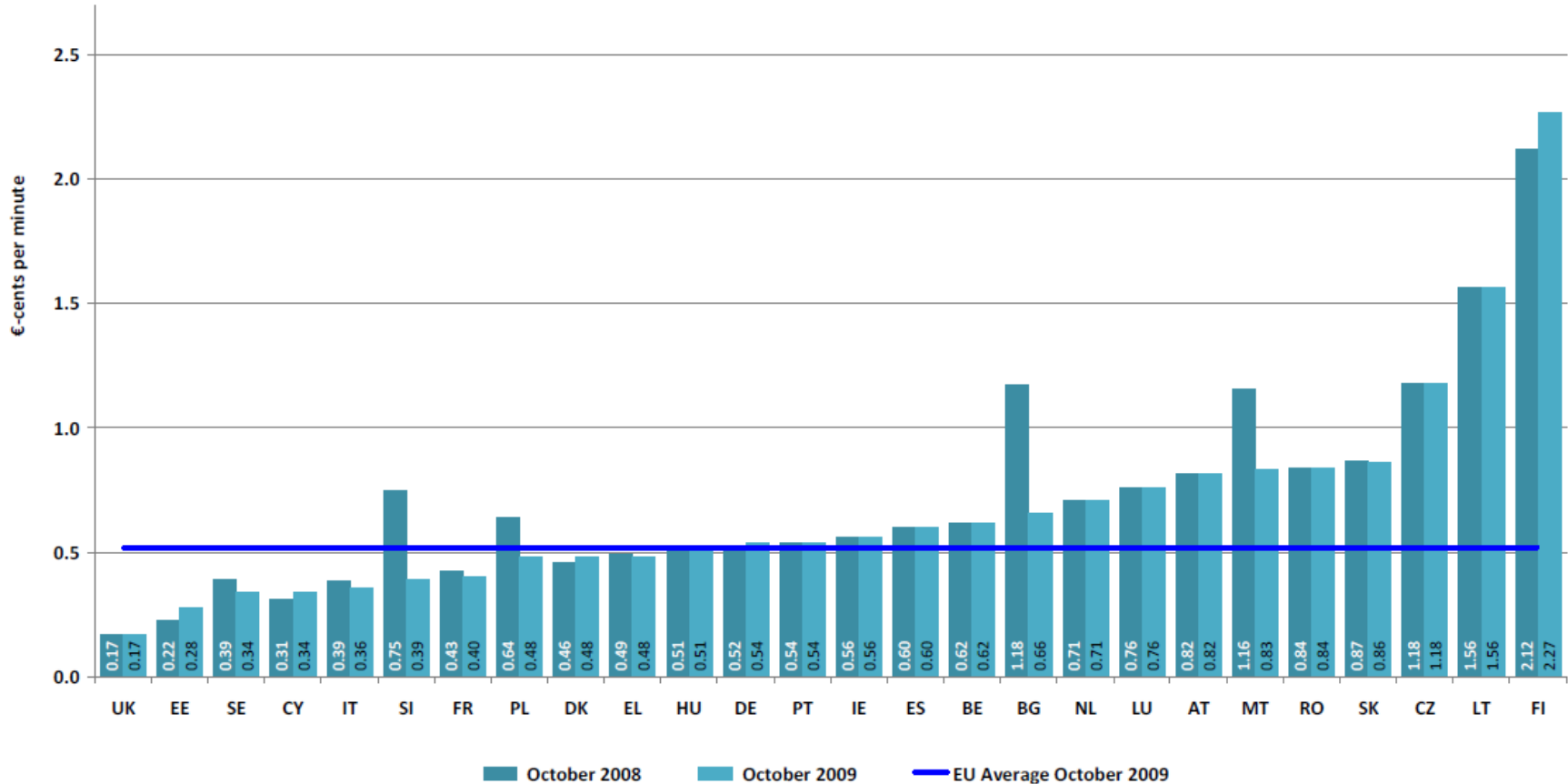
Termination Rate Recommendation

3. General principles (2)

- Asymmetries only for narrowly defined justification
- Phasing out of remaining asymmetries within 4 years
- Migration to pure LRIC based FTR and MTR not later than 31.12.2012
- Bottom-up cost modelling as preferred approach to calculate relevant cost

Interconnection charges for terminating calls on Incumbent's Fixed Network (at 1/10/2009) (peak time)

Local level - EU average: €0.0052



Termination Rate Recommendation

4. FTR

- Demarcation point between traffic-related and non-traffic-related costs may become variable in an NGA-context
- Broadband NGN as efficient network technology

Termination Rate Recommendation

5. MTR

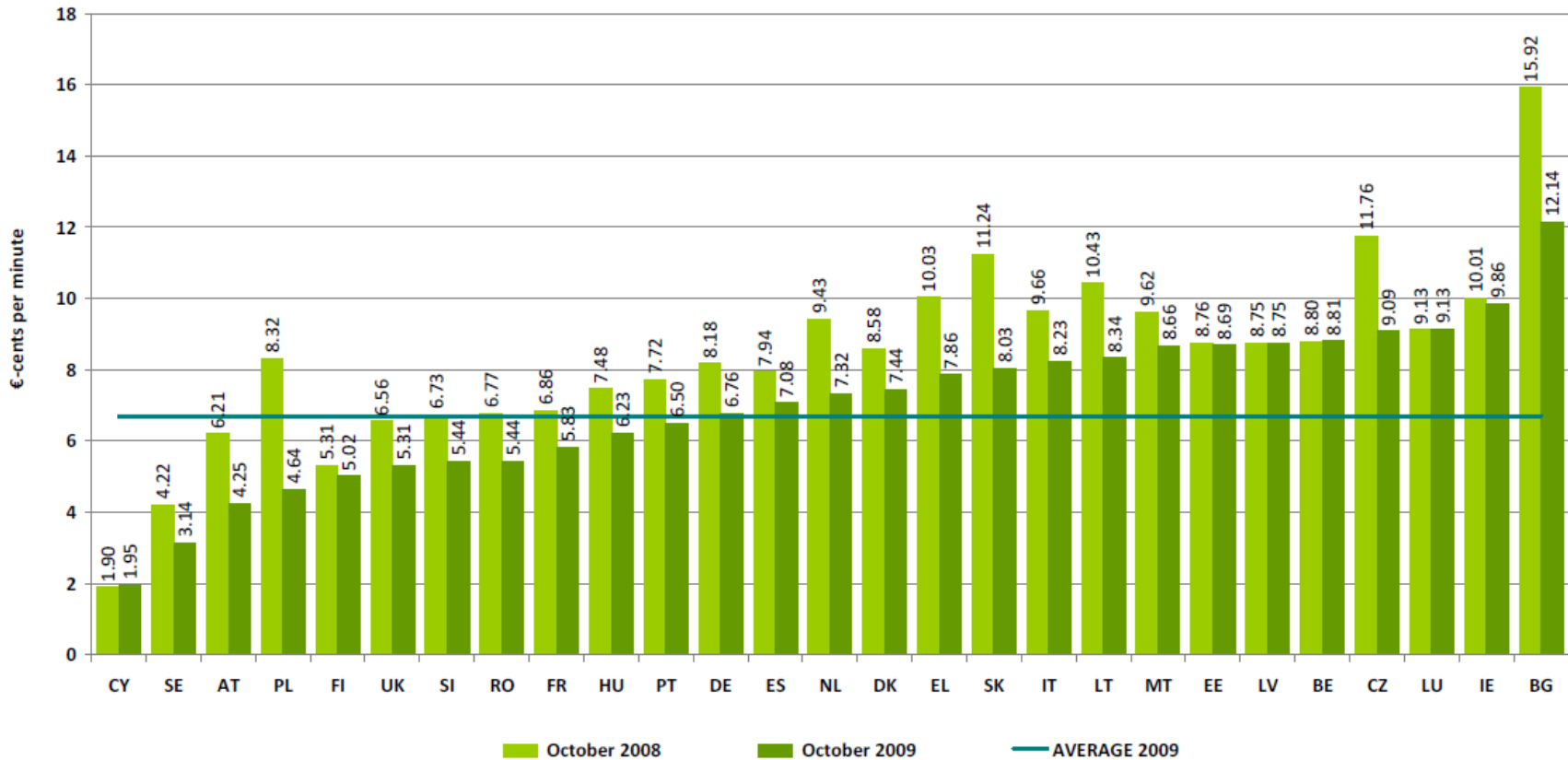
- Bottom-up model based on a combination of 2G and 3G
- Core part of the network: NGN-based
- Only capacity-driven part of spectrum cost to be considered
- Minimum efficient scale for cost calculation: 20% market share
- Asymmetries require adequate justification
- First model calculation for pure LRIC
 - Belgium: 1.07 c
 - UK: 0.6 c
 - Netherlands: 1.2 c

Appropriate termination rates

- Mobile termination rates vary from one European Member State to another, but the European average of € 0.067 per minute is likely well in excess of real average incremental cost.
 - Large differences between on-net and off-net pricing suggest that operators view their costs as being less than the termination fee.
 - Service-based revenue per MoU in the U.S. is about € 0.03 per minute. Cost is presumably less than price.
 - Cyprus prices termination at some € 0.02 per minute.
 - A WIK study found average incremental cost in Australia to be between € 0.03 and € 0.04 per minute, depending on share.

Interconnection charges for call termination on mobile networks (national average on the basis of subscribers)

EU average October 2009: €0.067



- There are two key expectations that have been implicit in moves by the European Commission and the European Regulators' Group to lower MTRs or to eliminate them altogether:
 - Lower MTRs will tend to lead to lower mobile retail unit prices for consumers overall; and
 - The resulting lower consumer mobile retail unit prices will tend to result in greater consumption of mobile services (greater call initiation) in terms of minutes of use per month per subscription.
- A recent WIK study shows that lower MTRs tend to result in a lower retail price, with a highly significant coefficient of +0.71, and lower MTRs tend to result in greater consumption of mobile services (greater call initiation) in terms of minutes of use per month per subscription. Long term elasticity (in the range of -0.52 to -0.61) is much greater than short term elasticity (-0.097).

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National Broadband Programs

Country Overview

Country	Name of the National Broadband Program	Characteristic Features	Investment Estimate	Addressing "Uncharted Territories"	Alternative Technologies	Minimum Bandwidth for Everyone
Australia	New NBN	≤ 100 Mbps for 90% until 2018, up to 12 Mbps for the rest	yes	yes	yes	yes
Germany	Breitbandstrategie der Bundesregierung	100 % coverage with 1 Mbps by 2010; ≥ 50 Mbps for 75% until 2014, 100 % coverage as soon as possible	no	yes	yes	yes
Finland	National Broadband Strategy	1 Mbps for 100% until 2010, 100 Mbps for 99% until 2015*	yes	yes	yes	yes
Greece	National Strategy for Fiber Access Networks	100 Mbps for 40% until 2015	yes	no	no	no
Ireland	National Broadband Scheme	100 % coverage with 10 Mbps 09/2010; Satellites, Wireless	no	yes	yes	yes
Italy	Plan in progress	100 % coverage 2-20 Mbps until 2012	yes	yes	yes	yes
Japan	Next Generation Broadband Strategy 2010	„ultra high speed“ for 90% until 2010	no	yes	yes	(yes)
New Zealand	Digital Strategy 2.0	≥ 100 Mbps for 75% until 2018	yes	(yes)	no	no
Sweden	Bredbandsstrategi för Sverige	100 Mbps for 40% until 2015, for 90% until 2020	no	yes	yes	(yes)
Singapore	Next Generation Broadband Network	100 Mbps up to Gbps for 95% until 2012	yes	no	no	yes
South Korea	Ultra Broadband Convergence Network	100 Mbps up to Gbps for 14 mill. users until 2012	yes	no	(yes)	yes
United Kingdom	Digital Britain	2 Mbps as universal service until 2012, NG Final Third Project	yes	yes	yes	yes
USA	National Broadband Plan	100 Mbps for 100 mill. users and at least 1Gbps in every American community through anchor institutions until 2020	no	yes	yes	(yes)

*within a distance of max. 2km

The EU Parliament has introduced targets for the Digital Agenda 2015:

- Every EU household should have access to broadband Internet at a competitive price by 2013
- Training in the skills needed to participate fully in the new digital society.
- 75% of mobile subscribers are 3G users by 2015.
- High-speed access and digital skills for all, including disadvantaged (the elderly, the disabled, those on low incomes and those living in rural and remote regions).
- 50% of EU households should be connected to very high-speed networks by 2015 and 100% by 2020
- 100% of all primary and secondary schools must have reliable, quality Internet connections by 2013 and very high-speed Internet connections by 2015.
- A clear legal framework laying down the rights and duties of citizens while protecting personal data.
- Parliament urged the Commission "to come forward with a proposal for an ambitious digital agenda and action plan enabling Europe to progress towards an open and prosperous digital society".



- Early 2009 the German Government established a broadband stimulus plan:
 1. provision of broadband infrastructure with a minimum 1 Mbps by the end of 2010
 2. provision of minimum speeds of 50 Mbps for 75 % of German households by end of 2014
 3. provision of access at minimum speeds of 50 Mbps for all households shortly thereafter.
- May 2009 BNetzA consultation paper in on the regulatory framework for NGN/NGA contains four goals in its approach to broadband deployment:
 1. Reduction of risks
 2. Assurance of investment and innovative power by appropriate access and pricing regimes
 3. Granting of a high level of planning certainty
 4. Realization of transparency.
- Federal Government also wants to:
 1. promote synergies in infrastructure deployment
 2. support a spectrum policy
 3. provide necessary financial support
 4. undertake regulation aimed at growth and innovation



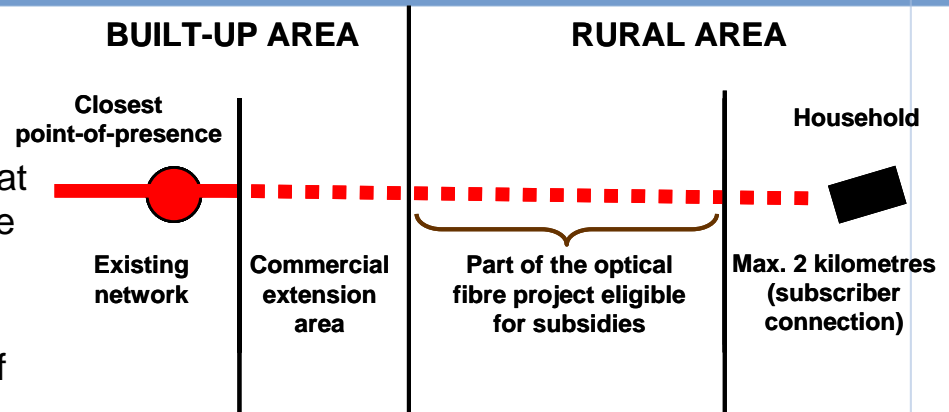
The United Kingdom

- June 2009 “Digital Britain” report, containing 20 recommendations for the future of society and economy. Recommendations for broadband access infrastructure include:
 - The removal of barriers of access to ducts and comparable “primary” infrastructures.
 - The imposition of an obligation on users of fixed lines to pay 50 pence per month to fund deployment of next generation broadband (of whatever technology, under a reverse auction mechanism) to areas where commercial deployment is not occurring.
 - Plans to put in place a universal service obligation for broadband, which ought to comprise bandwidths of up to 2 Mbps by 2012, as well as an analysis of financing options.
- “Next Generation Third Final Project”
 - Public funding to market participants to supply high-speed broadband connections for populations in the most rural and remote one-third of areas in Britain.
- “Next Generation Fund” (currently the subject of a public consultation)
 1. monthly 50 pence each in the UK fixed-line Subscribers
 2. Estimates, up to annual total of £150 million to £170 million
 3. Fund are available on tenders for each operator



National broadband project in December 2008

- Two stage approach.
 - 2010 - private and business users access to at least 1 Mbps downstream. (a universal service obligation).
 - 2015 - optical fibre or cable for 100Mbps throughout the country. (At least 99 percent of residences, offices of businesses and public administrations will have access to that network through a fixed or wireless subscriber line of no more than two kilometers in length.)
- Network expansion by telecommunications companies only to the extent that consumers have connectivity within a 2km-Radius
 - End users have to finance the connection to the broadband network itself, although there are tax allowances
 - Financial support from the state ($\leq 1 / 3$), local government and the EU ($\leq 1 / 3$), the operator provides the rest. Up to € 66 million has been designated for this task
 - Estimate of the total development cost: about € 200 million
 - Proceeds covered via auction of radio frequencies or a "levy"



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特集論文

ユニバーサルサービス論考I 2

次世代ネットワーク時代におけるEUのユニバーサルサービスと国家援助

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本論文では、日本の読者を対象として、次世代ネットワーク (NGN) を踏まえたEUのユニバーサルサービス・ポリシー、国家援助規則への政策の取り組みを説明する。ユニバーサルサービス・ポリシーは、居住地域や所得水準、その他のサービス利用上の不利な条件にかかわらず、社会に属するすべての人々が通信ネットワークへの最低限のアクセスを公平かつ妥当な料金で利用できることを目指すものである。いろいろな国々が、通信ネットワークに対するユニバーサルサービス・ポリシーを推進しているが、これは、経済全体の成長という観点における便益が、ポリシー適用による経済的効率性を上回ると見られるためである。現在、通信ネットワークがマルチサービスのNGNに移行しつつある中で、ユニバーサルサービス・ポリシーを実現する上での課題が浮上している。これまでのユニバーサルサービス・ポリシーは、従動的な音声電気通信ネットワークに適用されてきた。しかし現在、先進国は、安価的な音声電気通信ネットワークの重要性が低下していることやNGNの導入が拡大していることを踏まえ、ブロードバンドネットワークへのユニバーサルサービス・ポリシーの適用の可否とその方策について検討し始めている。EUでは現在、NGNを踏まえたユニバーサルサービスに必要な資金額や適切な政府の役割などについての問題解決に向けた取り組みを進めている。国による支援を伴う規則では、特定の企業や特定の商品によって競争をゆがめたり、競争をゆがめる恐れのある支援の仕方を見ている。国家援助の中には、特定の条件の下での、企業の固有にも含まれる。EUでは、国家援助は共通の利益を向上させることができることも、市場の失敗を補うことができるものと考えられている。他方、国家援助は民間投資を阻害しかなない懸念も持っている。

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Source: ケネス R. カーター, 次世代ネットワーク時代におけるEUのユニバーサルサービスと国家援助.

- The Treaty establishing the European Community.
- Aid granted by Member State which distorts or threatens to distort competition by favoring certain firms is incompatible with the common market.
- State aid elements:
 - is granted out of State resources;
 - confers an economic advantage to enterprises;
 - is selective and distort or threatens to distort competition; and
 - affects intra-Community trade.
- State aid includes:
 - Subsidies
 - tax rebates, or
 - preferential financing conditions and
 - State ownership (under certain circumstances).
- State aid can advance public policy interests and can remedy market failures.
- Outcomes generated by efficient markets are preferred so as not to crowd-out market initiatives.

国家援助の 카테고리

NGAエリア	NGA有無	国家援助
白	民間企業によるNGAが存在しない	法律に基づく国家援助を認める
グレー	3年以内に1の民間NGA整備	NGAネットワークが不十分な場合にのみ国家援助を認める
黒	3年以内に複数の民間NGA整備	市場の失敗が認められない限り、国家援助は認められない

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- Challenge of adapting EU Framework to NGN/NGA environment
- Deregulation is a slow process
- Industry issues:
 - Still low level of investment in FTTB/H
 - Competition between fixed and mobile
 - Termination rate pressure, traffic and revenue balance and strategic possibilities
 - Quasimonopolies in civil infrastructure
- Plans and forecasts for the next 3 years
 - Unrealistic targets?
 - Achievable?
- Reconciling the role of state vs. private action
- Overemphasis on the role of regulation (from both industry and regulators)

Experience with Functional Separation in Telecoms

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