



Broadband investments and State Aid

CBA meeting 15 May 2019

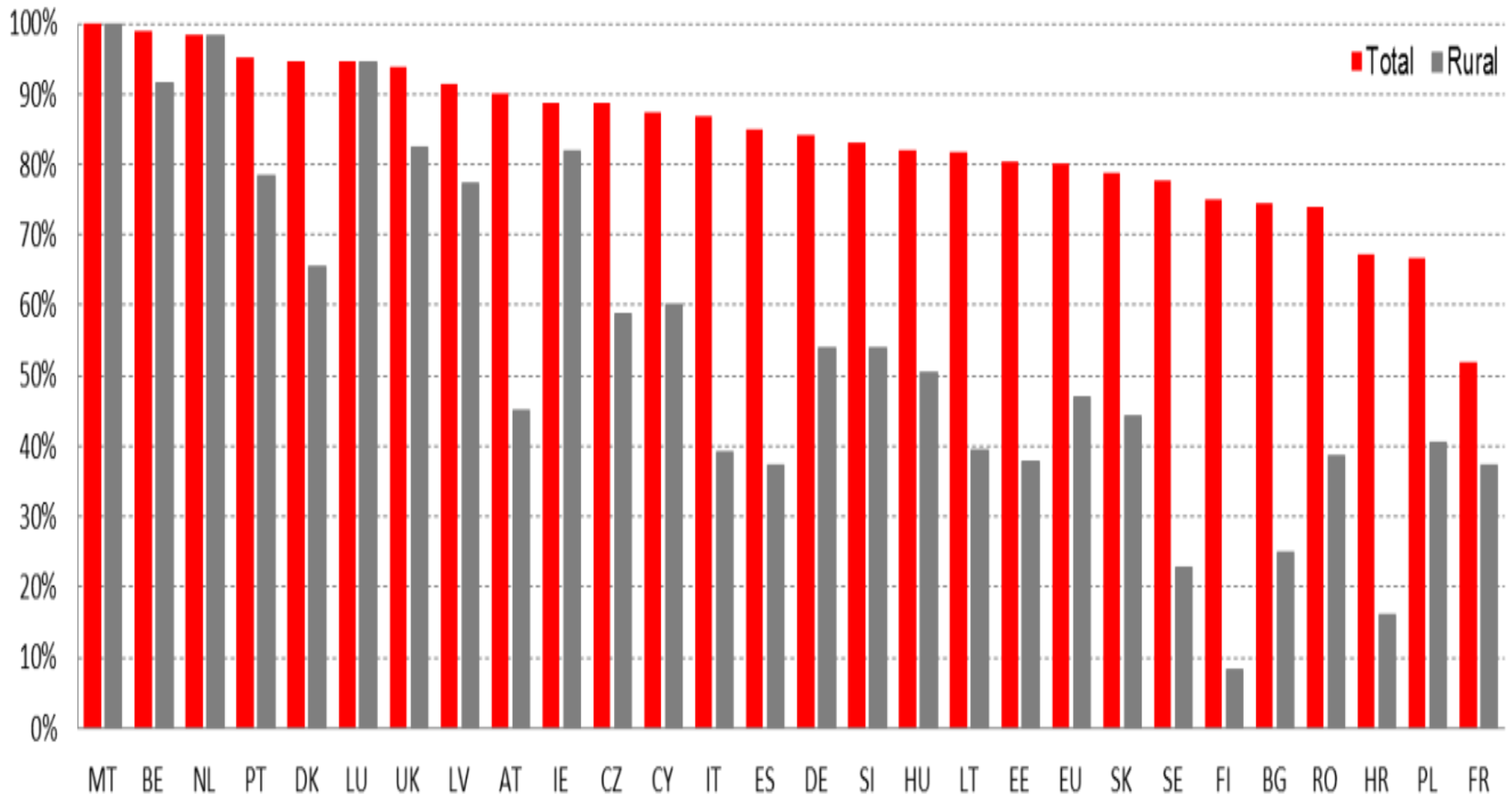


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Outline

- (1) Why State intervention in the broadband sector?
- (2) Why State aid control ?
- (3) State aid control in the broadband sector
 - Conditions for "no-aid"
 - GBER, Guidelines
- (4) Broadband Guidelines: balancing exercise
 - step change
 - crowding out
- (5) Current topics
 - Very High Capacity Networks (VHCN)
 - The Bavarian pilot project

Next Generation Access (FTTP, VDSL and Docsis 3.0 cable) coverage, June 2017



Source: IHS and Point Topic

(2) Purpose of State aid control

Efficient use of tax payer money

- No over-compensation
- Limit State intervention to areas of “market failure”
- Ensure incentive effect

Minimise distortions of competition

- Protect private investment ("crowding-out");
- Technological neutrality

Competition policy objectives

- Foster competition in areas of “natural monopoly” (open networks)
- Avoid picking-the-winner of the aid beneficiary (tender).

(3) State aid control in the broadband sector

No aid if:

No economic activity:

- closed public networks (e.g. *NN24/2007 Public sector network Prague, N46/2007 Welsh Public Sector Network, N407/2009 Xarxa Oberta*)
- *Administrative or regulatory measures (e.g. N383/09 Germany Broadband in the rural areas of Saxony)*

Market Economy Investor Principle (*C53/06 Citynet Amsterdam, Trento*)

Service of General Economic Interest (SGEI) and Altmark
(*NGA: N331/2008 Hauts de Seine, basic: N381/2004 Pyrénées-Atlantiques*)

(3) General Block Exemption Regulation (GBER)

- *Only "white" target areas*
- *Full and effective unbundling*
- *Total project < € 70 million*
- *Apply BB Guidelines by analogy*
- *"Confirmation letter"*
- *Ex post control*

(4) – The Broadband Guidelines

Definition of NGA

- **Fibre, advanced Cable, Advanced Fixed Wireless Access**

Compatibility assessment: ‘white’, ‘grey’ and ‘black’ areas

- **In white areas, aid promotes territorial cohesion and economic development objectives**
- **In grey areas: Monopolistic bottlenecks: need for a detailed assessment (step change)**
- **In black areas, in principle no need for State intervention: risk of crowding out existing investors**

Ultra-fast networks (>100 Mbps) in black NGA areas

- **Step change**
- **Wholesale-only**
- **Significant enhanced technological characteristics**
- **No excessive distortion of recent investments**

(4) Broadband Guidelines: the balancing exercise

- **Step change:**

- (i) significant new investments
- (ii) significant new capabilities: availability, capacity, speed, competition (e.g. existing network does not provide adequate services/prices)

- **Avoid “crowding out”**

- Remedy an identified market failure : unsatisfied demand, insufficient private investment
- Applies to any State aid intervention: in white/grey/black areas

- **Pro-competitive (*proportionality*) conditions**

- Mapping & public consultation, tender, wholesale access, technological neutrality, existing infrastructure, transparency

(5) Current topics: Very High Capacity Networks

- **Case-practice to date:**
 - basic grey interventions (basic to basic)
 - change from basic to NGA (below to above 30 Mbps)
 - Grey backhaul networks
 - NGA grey interventions (NGA to NGA / VH CN)
- Challenges of the **VH CN definition**
 - grey/black NGA areas do not become "white VH CN" – notification required
 - Demonstrate unsatisfied demand
- ***Commission Staff Working Document - Gigabit Communication***

Commission targets for Europe

- **Digital Agenda (2010):** targets for 2020
 - 30 Mbps download for all households ('NGA')
- **Gigabit Communication (2016):** targets for 2025
 - 5G coverage
 - 1 Gbps symmetric for "socio-economic drivers"
 - 100 Mbps download for all households, upgradeable to 1Gbps

for applications, such as:

- ❖ e-health
- ❖ precision farming
- ❖ industry 4.0
- ❖ virtual reality



Future Demand Estimation

Future demand estimation by 2025:

(Staff *Table 1: Application categories with their capacity and quality requirements 2025*)

Application category	Downstream (Mbit/s)	Upstream (Mbit/s)	Packet loss	Latency
Basic Internet	≈20	≈16	0	0
Homeoffice/VPN	≈250	≈250	+	+
Cloud Computing	≈250	≈250	+	++
Media and Entertainment HD/3D	≈150	≈30	++	+
Media and Entertainment Ultra-HD, 4k-TV, 3D, ...	≈300	≈60	++	+
Communication	≈8	≈8	++	+
Videocommunication (HD)	≈25	≈25	++	++
Gaming	≈300	≈150	++	++
E-Health	≈50	≈50	++	+
E-Home/E-Facility	≈50	≈50	0	0
Mobile Services / Wifi-Offloading	≈15	≈12	0	0

- 0 = No specific importance
- +
- ++ = Very high importance

Source: WIK-IDATE-Deloitte; Regulatory, in particular access, regimes for network investment models in Europe, SMART 2015/0002

The Bavarian gigabit pilot project

➤ **First case under Gigabit Communication**

- for Gigabit Communication objectives
- in "grey NGA areas" (one existing infrastructure of 30 Mbps download)

➤ **Existing NGA-infrastructures** in the target areas:

- **copper** network (VDSL, partly vectoring) *or*
- **cable** network (Docsis 3.0)

Question: How to define the step change / market failure?

- Definition will set investment incentives for the whole sector by dividing between "**old**" and "**new**" technologies

'Principles' proposed in the Bavarian pilot

- Established step change criteria + Gigabit Communication targets
 - Case-by-case assessment
- **Doubling** of download *and* upload speeds
 - **Target network** is FTTH/B and therefore **VHCN**
 - **Overbuilding of existing networks** (definition of **target areas**)
 - No overbuilding of FTTH/B and Docsis 3.1 for companies
 - No overbuilding of infrastructure with 100 Mbps download or more (FTTH/B, Docsis, vectoring providing 100Mbps) for households

Results and outlook

➤ **Gigabit Communication objectives**

- deployment of VHCN
- more households will have 100 Mbps, more companies 1 Gbps symmetric

➤ **In-built incentives for private upgrading**

- Copper-upgrade by vectoring / super-vectoring (for households)
- Cable-upgrade by Docsis 3.1 (for companies)

Outlook:

- Gigabit-cases in other MSs expected

More Information

For info or further questions on this seminar and the activities of the JASPERS Networking Platform, please contact the JASPERS Networking and Competence Centre at the following email:

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