# Die Koordinierung der Frequenzpolitik und aktuelle Rechtsfragen der Roaming-Verordnung

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** Disclaimer: the views expressed are those of the author and cannot be regarded as stating an official position of  the European Commission.*

# Part I: Spectrum Policy

# The EU Spectrum Policy Setting

- **Radio Spectrum – increasingly important in socio-economic terms**
  - ✓ **wireless applications / services pervasive through society**
  - ✓ related **markets** – typically transnational if not global
  - ✓ spectrum availability and management → **growth & competitiveness**

- **Spectrum is managed at national level (27 EU States)**
  - ✓ allocation, assignment, monitoring usage

- **EU coordination where EU interests are at stake**
  - ✓ **internal market** (economies of scale, interoperability)
  - ✓ **sector policies** (broadband, transport, health, environment, space)
  - ✓ **public services** (broadcasting, PPDR, security, defence)
  - ✓ **efficient spectrum use** to maximise benefits at EU level
  - ✓ **coordination of EU position** in **international negotiations**

# The Radio Spectrum Policy Programme (RSPP)

**Establishes strategic principles and objectives**

- Fostering the **internal market**
- Promoting **competition** and **wireless innovation**
- **Efficient use of spectrum**
- **Technology and service neutrality**
- **Least burdensome authorisation procedures**

- **Sets specific targets:**
*"Sufficient and timely available spectrum resources for EU policies"*

- **Authorisation of EU harmonised spectrum** for ECS **by end 2012** **(**~ 1000 MHz below 4 GHz)
- **At least 1200 MHz for wireless broadband by 2015** (i.e. at least 200 MHz more to be found)
- Promoting **shared use of spectrum**
- Addressing audio-visual, PMSE, PPDR, energy efficiency ('non-ECS')

# EU harmonised spectrum for ECS (exclusive use)

1025 MHz

| band | status | tech. | usage evolution | band issues | global issues | |
|---|---|---|---|---|---|---|
| 900 /1800 MHz | **dedicated to GSM voice service** → **TN,SN** | ***Radio access technology evolution driving spectrum efficiency*** | *re-licensing* | ***co-existence with legacy use*** | ***Harmonised allocation at global level ?*** | ***Aggregation of bands (channel aggregation, variable duplex, downlink-only)*** |
| 2 GHz | **dedicated to UMTS** | | | | | |
| 3.4 – 3.8 GHz | ***TN, SN*** | | *re-allocation* | ***interference with primary use*** | | |
| 2.6 GHz | ***TN, SN*** | | *"unused" spectrum;* | ***interference with adjacent bands*** | | |
| 800 MHz | ***TN, SN*** | | *dividend approach!* | ***interference adjacent , non radio use*** | | |
| 700 MHz ? | ***TN, SN !*** | | *re-allocation ?* ***converged networks ?*** | ***interference****?* | | |
| Other: 1.5 GHz, 2.3 GHz? | ***TN, SN !*** | | *reallocation ?* | *?* | | |

# Spectrum actually assigned

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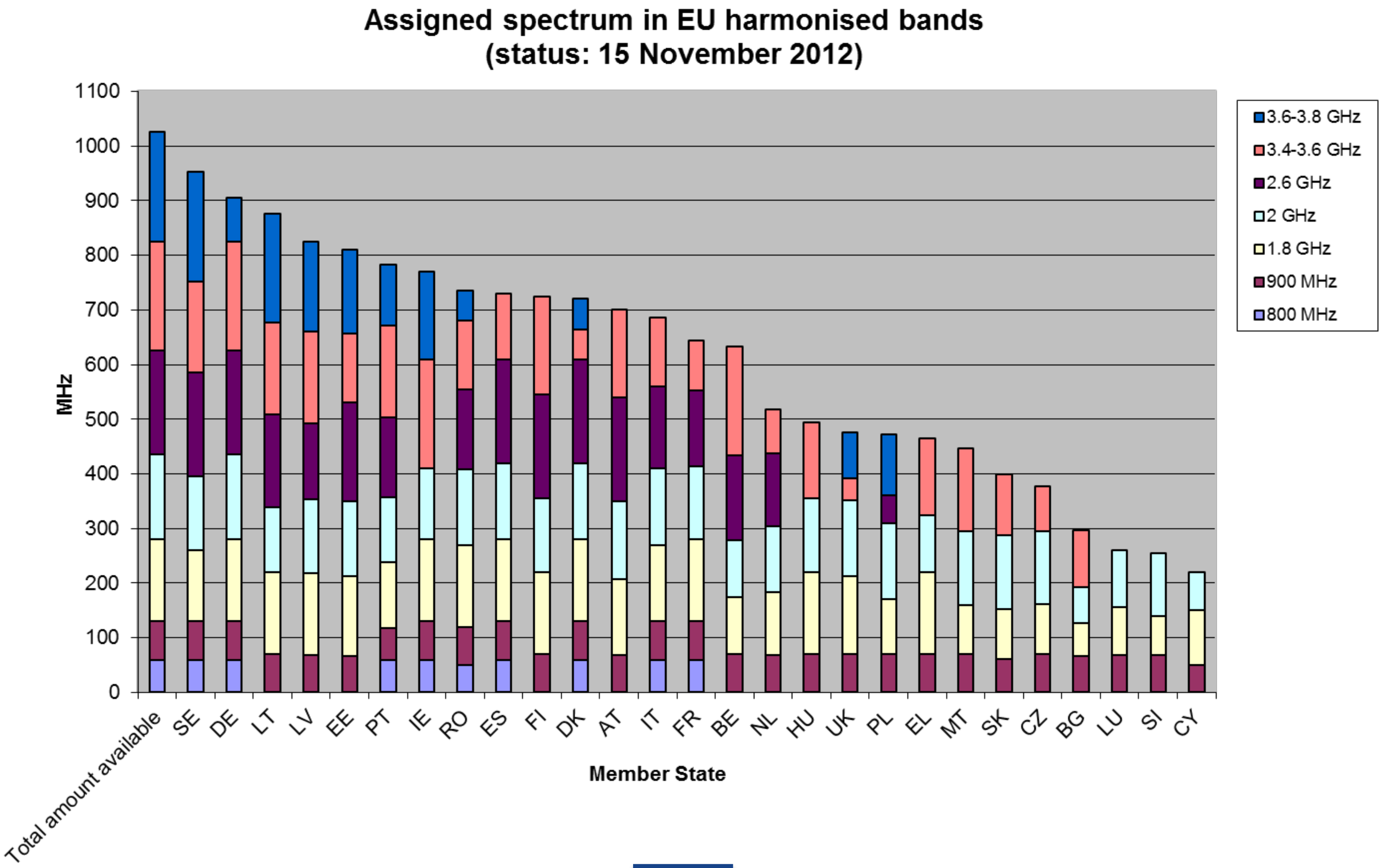

# 700 MHz

- **WRC-12 co-allocated the 700 MHz band to WBB**
  - Challenge for EU spectrum policy
  - Opportunity for both broadcasting and wireless broadband

- **Political priorities**
  - Development of the broadcasting sector
  - Spectrum demand for rapidly growing WBB traffic
  - Fostering the single market (economies of scale, roaming)
  - Opportunity for nearly global harmonisation

- **Coordinated EU action needed**
  - Coherent position on technical harmonisation by WRC-15
  - Developing a long-term strategy for the broadcasting sector taking into account technology advance, trends in consumer behavour, and the likelihood of BC-WBB convergence

# Shared Use of Spectrum

**Commission Communication "Promoting the shared use of radio spectrum resources in the internal market" COM(2012) 478final**

**The objectives of the Communication:**

*Fostering a* ***common understanding*** *of the economic, technical, and regulatory aspects of different modes of spectrum sharing*

*Setting out a* ***strategy to promote shared access to spectrum*** *in the internal market and to foster best practices*

*Sending a* ***clear signal to innovators*** *that Europe is moving toward an advanced regulatory environment for wireless innovations that can share spectrum*

*Doing more with less!*

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# The goal - a two pillar framework

**Licence-exempt (LE) sharing in bands already allocated for shared use** *

- *Wi-Fi*
- *Internet of Things*
- *M2M / Smart meter*
- *Short range devices (SRD)*
- *Wireless Innovation*

**Licensed sharing (LSA) based on sharing agreements between users and individual authorisations**

- *Regulatory guarantees*
- *Access to new "white spaces" (beyond TV UHF bands)*
- *Infrastructure synergies*

*Already established in the internal market on the basis of the Radio Spectrum Decision with e.g. the 2006 Decision on the harmonisation of radio spectrum for use by short-range devices (SRDs).

# The RSPP – Spectrum Inventory

*Permanent process supporting informed spectrum management*

**Scope:**

- **Define spectrum efficiency assessment criteria**
- **Look into the range 400 MHz – 6 GHz**
  > public and commercial use
  > wireless broadband, broadcasting, IoT
- **Demand / Supply analysis** (including technology trends)
- **Identify spectrum bands**
  > showing **weak/improvable efficiency** (potential ”spectrum dividends”)
  > leading to **harmonisation opportunities**
  > offering **sharing opportunities**
- transparent **information on spectrum usage**

Status and next steps:

- **Inventory “dry run”** (Study on supply – WIK et. al)
- **Demand**: Study launched (Analysys Mason)
- **Methodology / tool set** to be decided (2013)
- First delivery: **report to EP / Council** (2014)
- Follow-up: **launch initiatives responding to inventory results**

# Part II: Roaming

# EU Roaming Market (2011)

Retail EU roaming market revenues:

4,777 billion EUR

= ~ 4% of total mobile revenues

Breakdown by type of services

- **Voice - 71%**
  **(around ¾ are calls made, the rest calls received)**
- **Data - 17%**
- **SMS - 11%**

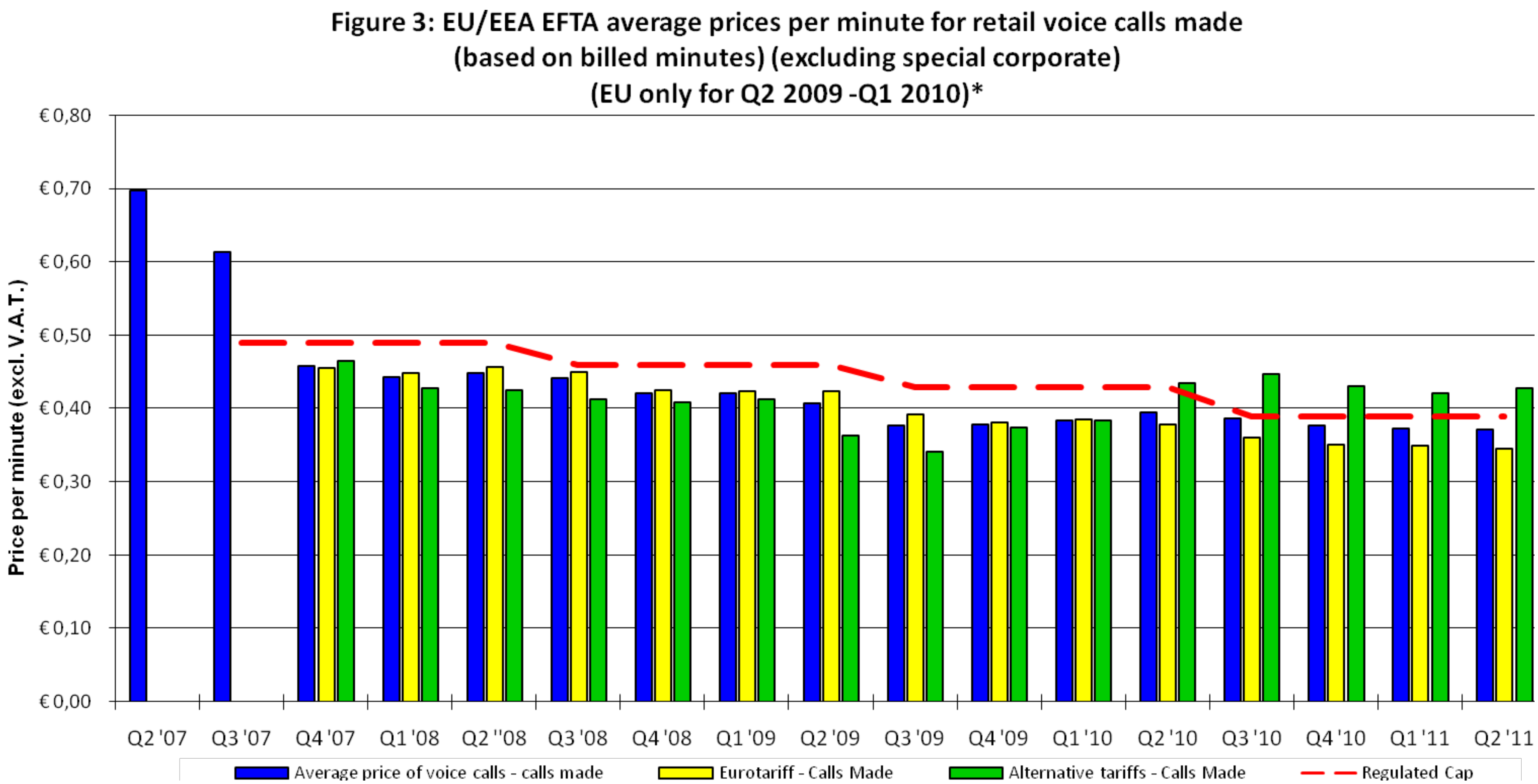
# Approach in Roaming I and II:

- **Regulation of wholesale and retail prices**
- **Transparency measures**

| Retail cap in EUR (excl. VAT) | 7/2011 | 7/2012 | 7/2013 | 7/2014 |
|---|---|---|---|---|
| Voice calls made (/min) | 0.35 | 0.29 | 0.24 | 0.19 |
| Voice calls received (/min) | 0.11 | 0.08 | 0.07 | 0.05 |
| SMS (/ SMS) | 0.11 | 0.09 | 0.08 | 0.06 |
| Data (/MB) | - | 0.70 | 0.45 | 0.20 |
| Wholesale cap in EUR (excl. VAT) | 7/2011 | 7/2012 | 7/2013 | 7/2014 |
| Voice (/min) | 0.18 | 0.14 | 0.10 | 0.05 |
| SMS (/min) | 0.04 | 0.03 | 0.02 | 0.02 |
| Data (/MB) | 0.50 | 0.25 | 0.15 | 0.05 |

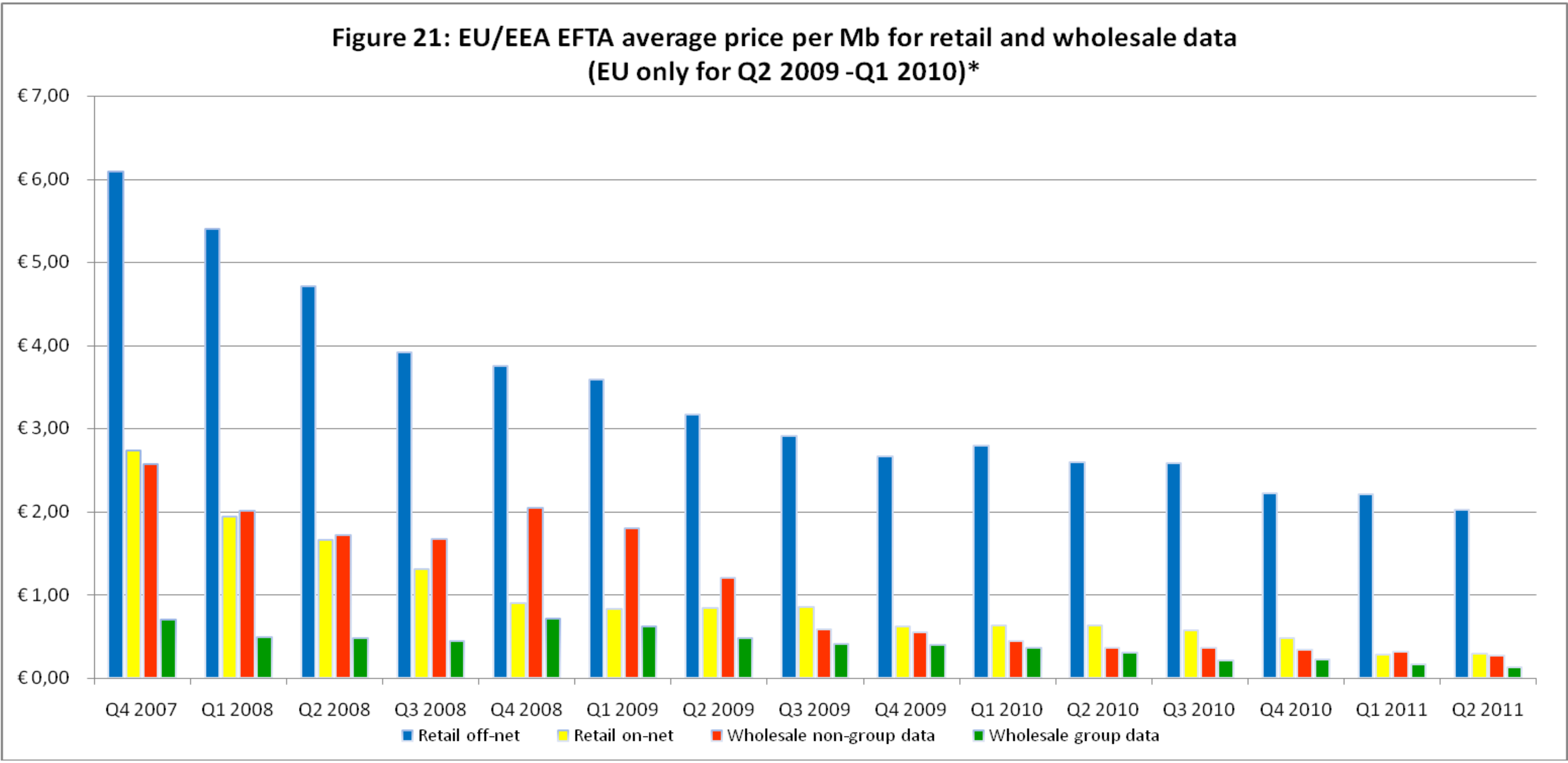
**Table: retail and wholesale caps in 2011 (2012-2014 as adopted in May 2012)**

# Roaming prices still very close to the caps




Source: BEREC

# Data prices: reduction of wholesale prices not reflected at retail level




Source: BEREC

# Main barriers to competition

- Strategic:

  bundling of roaming with domestic services

  (low consumer awareness and transparency)

- Regulatory:

  important barriers to entry

- Structural:

  lack of good susbstitute

# Roaming III: a pro-competitive approach

An extension in scope and duration (till 2022) both for legal and investment certainty

A new hybrid approach:

- **Structural elements that enhance the range of consumer choice for roaming services and which should be stable over time.**
- **Safeguard price caps until the structural solutions become effective, including data.**

# Structural measures

*The objective - to tackle the **root of the problem**, the lack of competition and consumer choice by:*

- **ensuring that the market is open to different types of providers**

**AND**

- **increasing consumers' choice and awareness by allowing them to purchase roaming also as a separate service in a user-friendly way:**
    - Alternative "home" roaming provider
    - Local Break Out for data roaming

**-> implementing act on separate sale of roaming**

# A safety net for consumers

*Structural measures will take time to be implemented*

*Need to ensure stability and predictability for operators and continued consumer protection.*

*Wholesale caps to be kept until the market exhibits sufficient competition and safeguard retail caps until 2016*

*Full review in 2015, including assessment of structural measures effectiveness*

# Thank you for your attention!

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