

# The 9th Annual European Spectrum Management Conference

**An attempt to summarise key findings  
and highlights of the conference**

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# General progress of EU spectrum policy shaping

## *Discussion context*

RSPP progress (→ new RSPP)

Connected Continent regulatory package

- Good progress on **making spectrum available** (allocation) as requested as stipulated by the RSPP
- emerging new objective:  
**secure not only *connectivity* but also *quality* of service**
- **Diverging views on need for better EU coordinating licensing** (assignment)
- **Signs of consensus:**
  - agree on **principles and objectives of licensing**
  - set EU frame of **licensing parameters**
  - allow for **agreed *local* variations of conditions**
- **Controversial: enforcement** mechanism

# A vision for the UHF band – creating a ‘win-win’ situation

*Discussion context*

WRC-15

spectrum needs for BC and BB

- Discussion of anticipated demand:
  - **models for prediction of IMT spectrum needs valid ?**
  - **evolution of DTT services ?**
- Differences in MSs’ situation: **one-fit all solution for the EU ?**
- Timing of decisions on future UHF usage: **urgency ?**
- **Discussions on band plan options for 700 MHz:**  
APT plan as basis - or alternatives ?
- **co-primary status for BC and BB in <700 MHz:**  
**no consensual views**

# Promoting the use of WiFi, Small Cells and other offloading technologies

## *Discussion context*

network evolution

responding to traffic demand, local coverage, etc.

- WiFi and small cells:
  - **promising evolution, significant trend**
  - **pragmatic but efficient solution** to local demand
- Work in progress to identify contiguous spectrum: **5GHz band**
- **Various initiatives at EU level** supporting directly or indirectly deployment of small cell
- **Discussions on future of WiFi** (also vs. LTE U)
- **Interesting and viable urban small cell network initiative:**  
win-win situation (urban authorities, consumers, network operators)

# Selecting the Auction Mechanism - CC Auctions vs. SMR Auctions

*Discussion context*

best practices for auction approaches in the EU ?

- SMRA vs CCA: **No one-fits-all choice**
- **Auction methods less important than how auction is set up:**
  - **Policy context matters: licensing objectives**
  - **Relevant parameters to be decided:** spectrum set-aside, spectrum caps, setting reserve prices, license duration, deployment obligations, etc.
- **Licensed shared access (LSA):** approach to pricing of spectrum still needs to be investigated

# Future shape of the broadcasting industry as a user of spectrum?

## *Discussion context*

broadcasting service evolution

competition between broadcasting platforms

- ***“The growth is in the Internet”***
- **Broadcasting is not only DTT ! But...**
- **DTT is alive and needs spectrum.**
- **Broadcasting distribution evolves differently in MSs:**  
dogmatic adherence to specific broadcasting distribution networks might be inadequate to meet national situations
- **What is broadcasting seen from regulation perspective ?**  
Audio visual service, telecoms service, spectrum user:  
complex set of rules, different competences
- **Debate on free-to-air (FTA) and must carry rules:**  
**An issue to be decided by *Member States* (MSs)**  
(according to existing EU regulation)

# Beyond 4G – Spectrum for 5G and the future networked society

## *Discussion context*

evolution of communication: the 5G debate  
spectrum needs for a networked society

- **New additional application dimensions: IoT, critical communication etc.**
- **Discussion on capabilities of future communication networks:**
  - **not primarily speed** → latency, resilience, scalability, capacity “envelope”, high concentration of users, mobility, energy consumption etc.
  - access network → network architecture and management
- **Identified 5G needs for spectrum:**
  - **<1 GHz**
  - **millimetre bands needed as complement**
- **Key Issues identified:**
  - **Adaptability** of air interface instead of unique “universal” solution
  - **backhauling and efficient signalling need to be addressed**
  - **Network management issues more relevant than air interface ?**
  - **5G capability of local wireless access ?** (future of WiFi / LTE U model ?)
- **Timeline: first deployment 2020 ?** A declared target, but still unknown evolution of service demand, technology delivery, commercial viability
- **Coexistence 3G, 4G with 5G** anticipated – impact on spectrum availability ?
- **Global cooperation on 5G concept, standards, spectrum**

# Public Sector Spectrum – Balancing efficiency with future requirements of vital public sector user

## *Discussion context*

public sector needs evolution vs  
potential of release of spectrum

- Spectrum needs for public service: **visible discussions on-going**
- **Increasingly difficult** to persuade the public sector to **release more spectrum for commercial use**
- **Option: sharing**
  - a more feasible possibility for many public use bands to unlock spectrum
  - **LSA** as an option : Initial research on the **value** an approaches to **pricing of spectrum** made available under the LSA regime



# Looking long-term: Is the WRC-15 agenda future-proof for Europe's needs?

## *Discussion context*

### WRC-15 and beyond: European interests

- ***“Spectrum scarcity is constant and inevitable, but seems to promote dynamic innovation”***
- **Agenda WRC-15 and beyond:**
  - **Mobile Broadband spectrum issues** dominating (A1.1-3), **but...**
  - **Other highly important issues:**  
transport, earth observation, satellite communications,...
- Discussion on pro/cons of **global harmonisation:**
  - an illusion ? (local regional differences)
  - a dangerous move? (sterilising spectrum)
  - a potential benefit in terms of scaling and interoperability ?
  - a must to achieve consensus at WRC level ?
- **Shared spectrum usage at WRC:** Call for working towards **“predictable certainty” of spectrum availability**

**10<sup>th</sup>**  
The ~~9<sup>th</sup>~~ Annual European **(2015)**  
**Spectrum Management Conference**

**Many open issues to be debated!**

**Thank you for your active participation,  
and see you again in 2015**

