



# EC-CEPT Workshop on WRC-15

## EU Spectrum Policy for Wireless Broadband (WBB)

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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.*

## **EU (spectrum) policy priorities**

- ✓ Investment in high-speed WBB networks in the Single Market
- ✓ Spectrum harmonisation and efficient use; co-existence
- ✓ Coordination of national assignments (EU-harmonised bands)
- ✓ Innovation and next generation (5G, small cells, spectrum access)
- ✓ Coherent EU position at ITU, global spectrum footprint

## **EU spectrum inventory (continuous process)**

- ✓ Assess spectrum usage and demand
- ✓ Holistic approach to service types and spectrum bands
- ✓ Identify (re-)allocation and sharing opportunities
- ✓ Report to European Parliament and Council (2014)

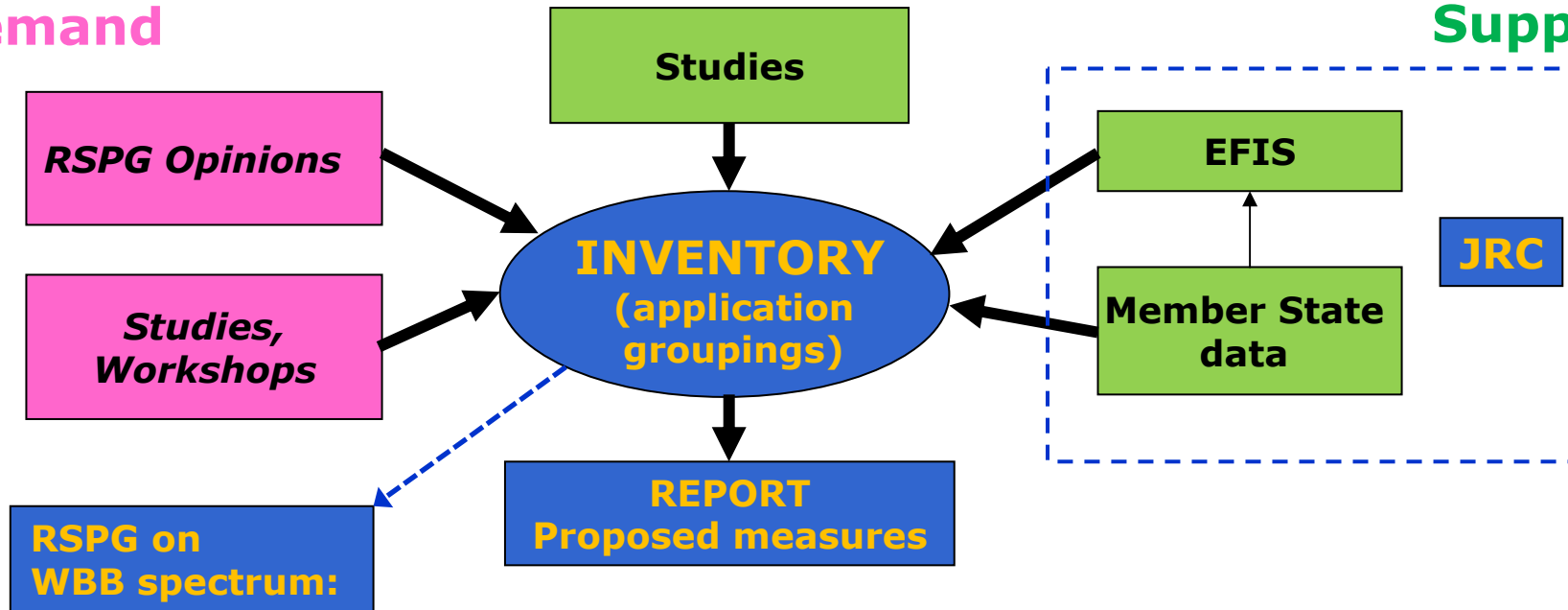
## **ITU level developments**

- ✓ WBB/IMT candidate bands
- ✓ 700 MHz band – co-primary allocation to Mobile Service as of 2015

# Inventory Progress

## Demand

## Supply

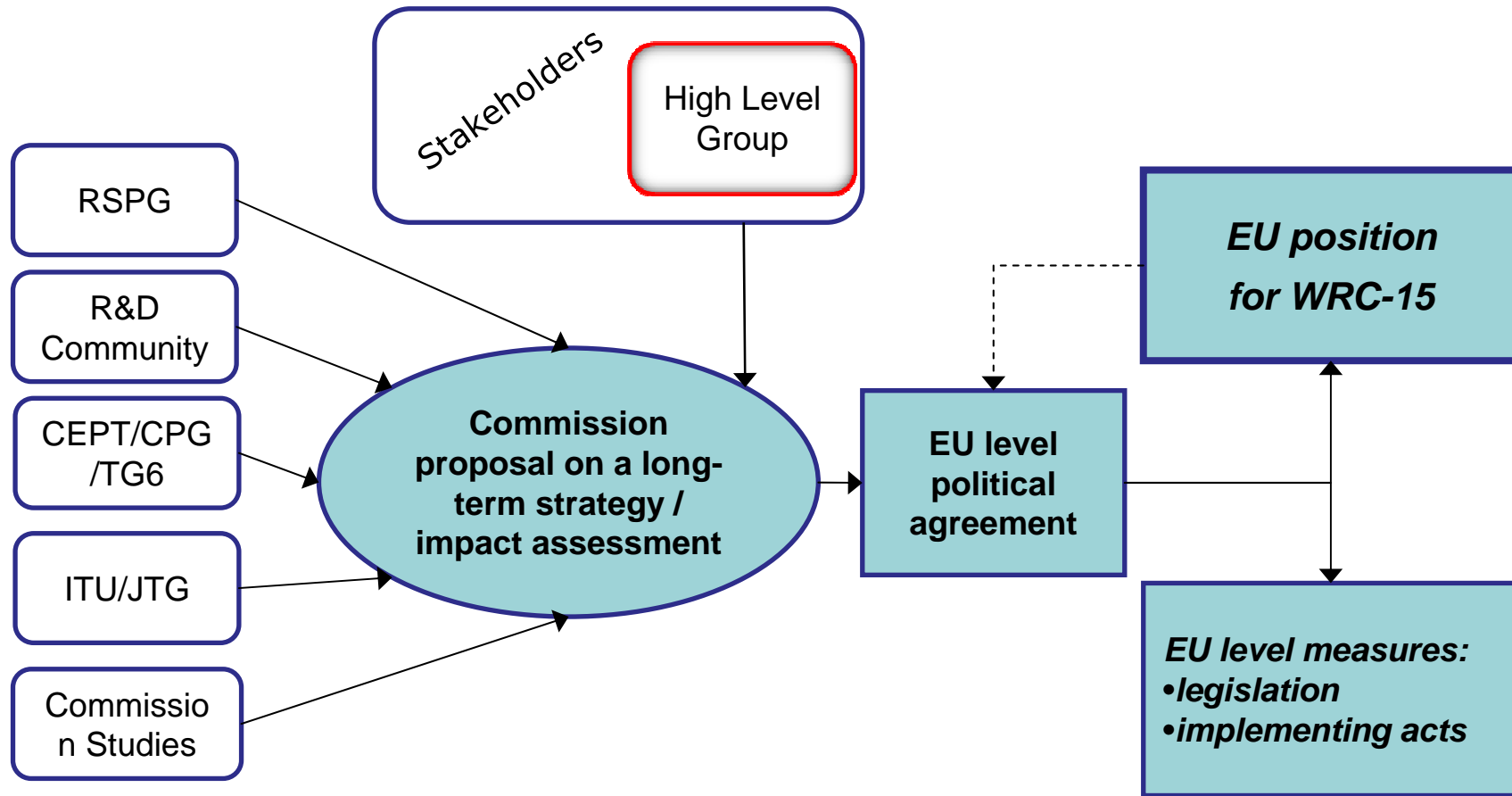


WBB access	In use/available for WBB (MHz)	Potential for WBB (near-term) (MHz)	Medium term potential (>2015) (MHz)	Possibly in very long timeframe	Total (MHz)
Terrestrial	990,00	140,00	566,00 (including '700 MHz')	224,00 ('UHF')	1920,00
Satellite	173,00	0	0,00	0	173,00
Wi-Fi	538,50	0	320,00 ('5 GHz')	0	858,50
<b>Total</b>	<b>1701,50 MHz</b>	<b>140,00 MHz</b>	<b>886,00 MHz</b>	<b>224,00 MHz</b>	<b>2951,50</b>

# Towards (and beyond) 1200 MHz

<b>Band</b>	<b>Issues</b>	<b>Opportunity</b>	<b>IMT potential WRC-15</b>	<b>EU action</b>
1.5 GHz range	<b>Incumbent use</b>	<i>up to 90 MHz sharing</i>	yes	CEPT Mandate (proposal)
2.3 GHz	<b>Incumbent use</b>	<i>100 MHz sharing</i>	n/a	CEPT mandate (proposal)
5 GHz (extensions)	<b>Incumbent use</b>	<i>up to 320 MHz sharing; large contiguous RLAN band</i>	yes (sub-bands)	CEPT mandate
2 GHz MSS bands	<b>Non-efficient use</b>	<i>60 MHz re-allocation (WBB)</i>	n/a	EU level scrutiny
700 MHz band	<b>Incumbent use, EU political agreement</b>	<i>60-80 MHz; PPDR / PMSE use; nearly-global harmonisation</i>	yes	EU policy process; UHF strategy; CEPT mandate
[3.4–3.8 GHz]	<b>Underutilisation / incumbent use</b>	<i>EU-wide take-up; promote globally</i>	yes	Update of Decision 2008/411/EC
3.8–4.2 GHz	<b>Incumbent use</b>	<i>400 MHz, sharing; large contiguous band</i>	limited	Not a current priority
Unpaired terr. 2 GHz	<b>Non-use</b>	<i>Re-allocation (PMSE, PPDR, other); sharing</i>	n/a	CEPT Mandate
> 6 GHz	<b>To be explored</b>	<i>Spectrum needs &gt;&gt; 2015 (5G)</i>	no	Inventory process

# Long-term strategy on the UHF broadcasting band (470-790 MHz)



**Consider different national schedules in Member States**

# UHF band strategy for 'Win-Win'

## Focal point of diverse political goals (DAE, RSPP)

- ✓ Attain ubiquitous broadband at 30 Mb/s by 2020
- ✓ Identify more spectrum for WBB while fostering technology upgrade
- ✓ Support innovative audiovisual media production and delivery
- ✓ Promote cultural diversity and social cohesion
- ✓ Ensure sustainable spectrum resource for PMSE, PPDR and IoT
- ✓ Foster innovative and efficient spectrum use

## Challenges to address

- ✓ Next-generation terrestrial platforms/devices and convergence
- ✓ Market transformation – business models and value chains
- ✓ Financial implications – investment, migration, compensation
- ✓ Securing consumer benefits – e.g. free-to-air, QoS of broadcast content
- ✓ Spectrum management (470-790 MHz, sub-1GHz approach)

# Possible EU priorities for WRC-15

- ❑ **IMT identification in the 1.5 GHz range subject to sharing and compatibility studies**
- ❑ **Mobile service allocation of 5 GHz extension bands (5350-5470 MHz, 5725-5850 MHz) subject to sharing and compatibility studies; no IMT identification**
- ❑ **Position on a 700 MHz band plan in the global context**
- ❑ **Approach to 470-694 MHz (WRC-?? agenda)**
  - possible mobile service allocation subject to EU long-term strategy on the UHF band; no IMT identification
- ❑ **Approach to broadband PPDR**
- ❑ **IMT identification of the 3.4-3.8 GHz band (beyond Region 1)**
- ❑ **New agenda item on supra-6 GHz spectrum for 5G-WBB beyond 2015**

**Thank you for your attention !**

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