United Arab Emirates

هيئة تنظيم الاتصالات TRA
TELECOMMUNICATIONS REGULATORY AUTHORITY

# ASMG views on WRC-15 agenda items 1.1 and 1.2

# Agenda Item 1.1 (WRC-15)

to consider **additional spectrum allocations** to the **mobile service** on a primary basis and **identification of additional frequency bands for** International Mobile Telecommunications (**IMT**) and **related regulatory provisions**, to facilitate the development of **terrestrial mobile broadband applications**, in accordance with **Resolution 233 [COM6/8] (WRC-12)**;

| Resolution | ITU-R resp. group | ITU-R concerned Working Party |
|---|---|---|
| **Resolution 233 [COM6/8] (WRC-12)** | **JTG 4-5-6-7** | **4A, 4B, 4C, 5A, 5B, 5C, 5D, 6A, 7B, 7C, 7D, (1A, 3K, 3M)** |

Service

- Mobile

Frequency Bands for additional allocation to MOBILE for IMT

- TBD

Related regulatory provisions

- TBD

# Agenda Item 1.2 (WRC-15)

to examine the results of ITU-R studies, in accordance with Resolution **232 [COM5/10] (WRC-12)**, on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and take the appropriate measures;

| Resolution | ITU-R resp. group | ITU-R concerned Working Party |
|---|---|---|
| **Resolution 232 [COM5/10] (WRC-12)** | **JTG 4-5-6-7** | **4A, 5A, 5B, 5D, 6A, (3K, 3M)** |

Service (Region 1)

- Mobile *except aeronautical mobile*

Related Frequency Band

- 694-790 MHz

Related regulatory provisions

- TBD

# Differences in the two agenda items

| Agenda item 1.1 (WRC-15) | Agenda item 1.2 (WRC-15) |
|---|---|
| New AI; Applicable to all regions | Continuing AI; Applicable to Region 1 only |
| Resolution 233 [COM6/8] (WRC-12) | Resolution 232 [COM5/10] (WRC-12) |
| Bands to be identified | 694-790 MHz already allocated & effective after WRC-15 |
| Sharing & compatibility studies required with all other services in potential candidate bands and adjacent bands | Sharing studies required with Broadcasting. ARNS in countries (RR 5.312) and coordination under 9.21. |
| Studies already done for IMT in certain frequency bands (450-470, 2700-2900, 3400-4200 and 4500-4800 MHz) | 694 MHz (lower edge) flexible and depends on ML & BC requirements and will be decided at WRC-15 |
| Harmonized worldwide bands and frequency arrangements for IMT | Study the channelling arrangements for the mobile service in 694-790 MHz |
| Spectrum efficiency & evolving needs | BR to help ADMs requiring Mod to GE-06 |

# Views on agenda 1.1 (WRC-15)

- Identify present usage status of bands identified for IMT
- Identify the total bandwidth allocated versus the required bandwidth based on Report ITU-R M.2078, spectrum estimates
- Identify allocated and required bandwidth for the 3 frequency ranges:
  - Below 1 GHz
  - Between 1 GHz and 6 GHz
  - Above 6 GHz
- Identify regulatory and technical challenges associated with bands for which sharing studies already completed in Reports ITU-R M.2109, M.2110, M.2111, M.2112
- Identify other potential candidate bands in the 3 frequency ranges where there is a deficit
- Undertake sharing studies for these identified potential bands
- Identify regulatory provisions

# Summary of Key Motives for IMT AI 1.1

**Key Motives:**

1. Further Harmonization.
2. Responding to shortfall of Spectrum for IMT
3. Looking for higher datarates

# Summary of Key Motives for IMT in 694-790 MHz (AI 1.2)

## 12 Key Motives:

1. Takes advantage of the results of the studies carried out under Agenda item 1.17 regarding the band 790-862 MHz, by applying them to the frequency range 694-790 MHz, insofar as the radio propagation characteristics, sharing and coexistence conditions and regulatory and procedural considerations are similar in the two bands.
2. Less Popularity of Terr TV in Region 1 in comparison with cable and Sat
3. New Technologies in TV (Full HD; 3D, etc.)
4. 3G+/LTE Mobile TV and Internet TV Boom
5. Question of Spectrum Efficiency (MS Vs BS)
6. Revenue from the MS Licensing could economically facilitate Digital Switchover in lower bands

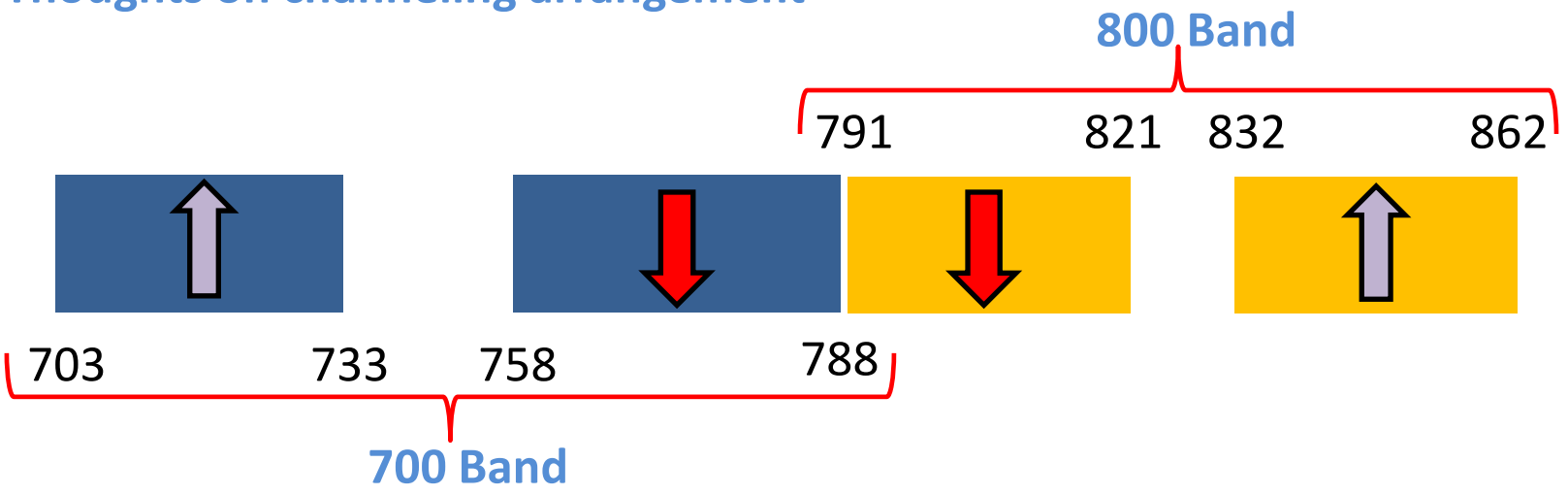
# Cont' Summary of Key Motives for IMT in 694-790 MHz (AI 1.2)

**Cont' Key Motives:**

7. The radio propagation characteristics of the band 694-790 MHz are beneficial to provide cost-effective solutions for coverage, including large areas of low population density;
8. Harmonization of allocations in the range 698-790 MHz in the three Regions would be advantageous to operators, users and designers of mobile networks, insofar as this band will constitute an example of global-level coordination of the use of spectrum by IMT systems.
9. Much mobile equipment is designed for operation in the band 694-790 MHz owing to the size of the market and the fact that for some time now there has been a growing demand for use of this band by the mobile network in Regions 2 and 3.
10. For operators in Region 1 it will facilitate and expedite the purchase of stations and equipment for the mobile network operating in this band, at prices below those of equipment operated in other bands, owing to the size and quantity of equipment designed for use in the band 698-790 MHz.
11. It will meet the spectrum requirements of MS, including IMT systems, allowing broadband to be used at the desired speed and as soon as possible.
12. Countries have the choice

# Preliminary Views on agenda 1.2 (WRC-15)

## Thoughts on channeling arrangement




- 2 x 30 MHz as FDD allocation
- Aligned (partially) with Region 3
- Offers maximum spectrum for IMT as both 800 and 700 bands can be used
- Countries can plan for Digital Dividend 1 (800 band) and / or Digital Dividend 2 (700 band)
- Countries using legacy systems in DD1 can start with DD2 and later add DD1