



WRC-19 / Agenda Item 1.13

Glyn Carter
Senior Spectrum Advisor, GSMA
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- Successful identification of suitable IMT spectrum at WRC-19 will be vital to realise full potential of 5G
- 26 GHz band – ‘pioneer band’ for 5G in Europe, and also gaining support in other regions
- 40 GHz band – potential globally harmonised frequency range to enable different countries / regions to use parts that are suitable for them
- Bands above 45 GHz should also be considered
- Spectrum needs to be identified without over-restrictive technical conditions
- Europe needs to consider views of other parts of Region 1 and other regions



26 GHz band

- 24.25 - 27.5 GHz selected as 'pioneer band' for 5G in Europe
 - also being supported in other parts of the world
- ... but over-restrictive technical conditions will jeopardise its use for 5G
 - Unwanted emissions limits in Draft ECC Decision will make some parts unusable and have severe impact on 5G in other parts
 - Other proposed conditions would constrain deployment of 5G networks
- Europe aspires to be a 5G leader, but the reality may be very different
 - Severe restrictions on 5G in the 26 GHz band
 - Lack of equipment / eco-system below 26.5 GHz
 - Other countries / regions planning to take a more pragmatic approach
- Conditions in ECC Decision are supposed to be 'least restrictive', but that is not what is proposed at present !



40 GHz band

- 37 - 43.5 GHz has potential to be globally harmonised frequency range for 5G
 - Different countries / regions can select different portions to be used
 - 40.5 - 43.5 GHz supported in Europe, but other portions favoured in other parts of the world
 - Harmonisation of equipment to drive economies of scale
- 37 - 43.5 GHz should be identified for IMT on a global basis at WRC-19
 - Possibility to create a 'win-win' situation
 - Enable economies of scale at same time as flexibility
 - Avoid countries blocking each other as has sometimes happened in the past



Read more about WRC-19 and 5G

5G Spectrum Positions

5G has the potential to support significantly faster mobile broadband speeds and support mobile devices as well as to enable the full performance of the Internet of Things.

However, for 5G to reach its full potential, mobile operators are dependent on getting more widely harmonized spectrum across three frequency ranges.

Three key ranges:
Sub-1 GHz
1-6 GHz
AND ABOVE
6 GHz

The speed, reach and quality of 5G services will depend on the support of governments and regulators for timely access to the right amount and type of spectrum, depending on the 5G use cases. This spectrum access will be a critical component in defining 5G technologies to be used.

Which bands are emerging as key to 5G?

3.5 GHz
While 5G services will be available in the 3.5 GHz band, it will be needed for 5G services and is currently being deployed in several countries. It is also being considered for 5G services in the US and other countries.

26 GHz and 28 GHz
The 26 GHz and 28 GHz bands, along with the 40 GHz band, have emerged as the most likely candidates to meet the demand for 5G services. The 26 GHz and 28 GHz bands are currently available in several countries and are being considered for 5G services in the US and other countries.

Agenda Item 1.13
Access to the 26 GHz and 40 GHz bands are part of the WRC-19 process and the work of Agenda Item 1.13 (AI 1.13). This agenda item deals with spectrum for mobile services in the 26 GHz and 40 GHz bands. In total, 11 bands are under consideration. As this agenda item is part of the WRC-19 process, the 26 GHz band has the highest priority for the work.

INTEREST GROWING ALL OVER THE WORLD

KEY

- 26 GHz band
- 3.5 GHz band
- 40 GHz band
- Other bands

Who supports what band?

- ITU-T
- ITU-R
- ITU-S
- ITU-T, ITU-R, ITU-S
- ITU-T, ITU-R
- ITU-T, ITU-S
- ITU-T, ITU-R, ITU-S

The WRC series
Considerations for the 3.5 GHz IMT range: getting ready for use
July 2017

Spectrum
The WRC series
GSMA Public Policy Position Paper
World Radiocommunication Conference 2019
Mobile Industry view on Agenda Item 1.13
July 2017
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