WRC-27

ENABLING 6G (IMT)

GSMA

The World Radiocommunication Conference 2027 (WRC-27) will provide the spectrum framework to shape the future of mobile connectivity.

Decisions taken at the conference can provide the spectrum resources needed to support economic growth, innovation and digital inclusion.

A global average of 2-2.5 GHz of mid-band spectrum is needed by 2035-2040, with higher demand countries needing 2.4-3.3 GHz to support IMT development, including 6G. Its harmonisation continues at WRC-27.

AGENDA ITEM 1.7 WILL LOOK AT CRITICAL FREQUENCY RANGES INCLUDING:

4.4-4.8 GHz

7.125-8.4 GHz

WRC-27 has the power to deliver:

HARMONISATION

Delivering **200-400 MHz** channels for 6G in new bands including **4.5 GHz** and **6-8 GHz**.

INNOVATION

Enabling worldwide access to 6G launch spectrum to deliver XR, integrated AI and seamless digital access.

RESILIENCE

Allowing capacity for secure and robust 6G networks that underpin critical infrastructure and digital sovereignty.

SPECTRUM for the benefit of billions.

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470-694/8 MHz

Agenda Items 8 & 10 ✓

Position

The GSMA supports further development of the band 470-694/8 MHz for mobile use, including the expansion of existing IMT footnote signatories in all Regions and the establishment of a new Agenda Item at WRC-31 for Region 1 countries that covers the band 470-694 MHz.

Reason

As 6G deployment accelerates in mid-bands, complementary low-band capacity will be essential to extend coverage into rural areas, enhance indoor performance, and promote digital equality. The 470-694/8 MHz range provides the propagation characteristics needed to deliver affordable, wide-area connectivity for all communities.

4.4-4.99 GHz

Agenda Items 1.7 and 8 ✓

Position

GSMA supports identification of the 4.4-4.8 GHz band for IMT at WRC-27 under Agenda Item 1.7, considering the need to protect existing services from harmful interference. We support the further development of 4.8-4.99 GHz under Agenda Item 8.

Reason

Parts of 4.4-4.8 GHz are already used for mobile today, and harmonisation of the band at WRC-27 can allow ecosystem growth provided that onerous technical limits and restrictions are not introduced.

The 4.8-4.99 GHz band is also already used by mobile in a small number of countries. The existing ecosystem for this band can be expanded globally, provided that onerous technical limits and restrictions are avoided.

6-8 GHz

Agenda Items 1.7 and 8 ✓

Position

GSMA supports the identification of IMT spectrum from within 7.125-8.4 GHz under Agenda Item 1.7. Countries should make spectrum available from within this range at different stages according to their national needs and incumbent usage. While countries may support different portions of the band, development of a harmonised range from within 7.125-8.4 GHz would benefit economies of scale and extend the upper 6 GHz range.

GSMA encourages administrations who have not yet joined the 6.425-7.125 GHz IMT footnotes to do so at WRC-27 under Agenda Item 8.

Reason

The 6-8 GHz range will be the primary global launch band for 6G, enabling harmonised device ecosystems and efficient use of existing infrastructure. It reuses today's 3.5 GHz grid, supports high-power 200-400 MHz channels per operator, and provides the consistent mid-band capacity required for next-generation applications such as XR and AI-integrated services. GSMA believes that in high-density traffic areas sharing with existing services is feasible.

15 GHz

Agenda Item 1.7 ✓

This band is being studied under agenda item 1.7 but does not align with existing infrastructure grids. With the 26 GHz, 28 GHz and 40 GHz bands already identified for IMT and expected to support 6G deployments, there is not yet a clear commercial and technical need for 15 GHz at this stage.