

Mobile Developments and Updates on WRC-27

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Mobile Developments

Spectrum and Rural Connectivity

In low- and middle-income countries, adults in rural areas are



25% less likely

to use mobile internet than their urban counterparts

Rural populations are up to



30% less likely

to engage in online activities: messaging, calls, banking, education



Low-band spectrum is essential for rural networks:



Rural users spend

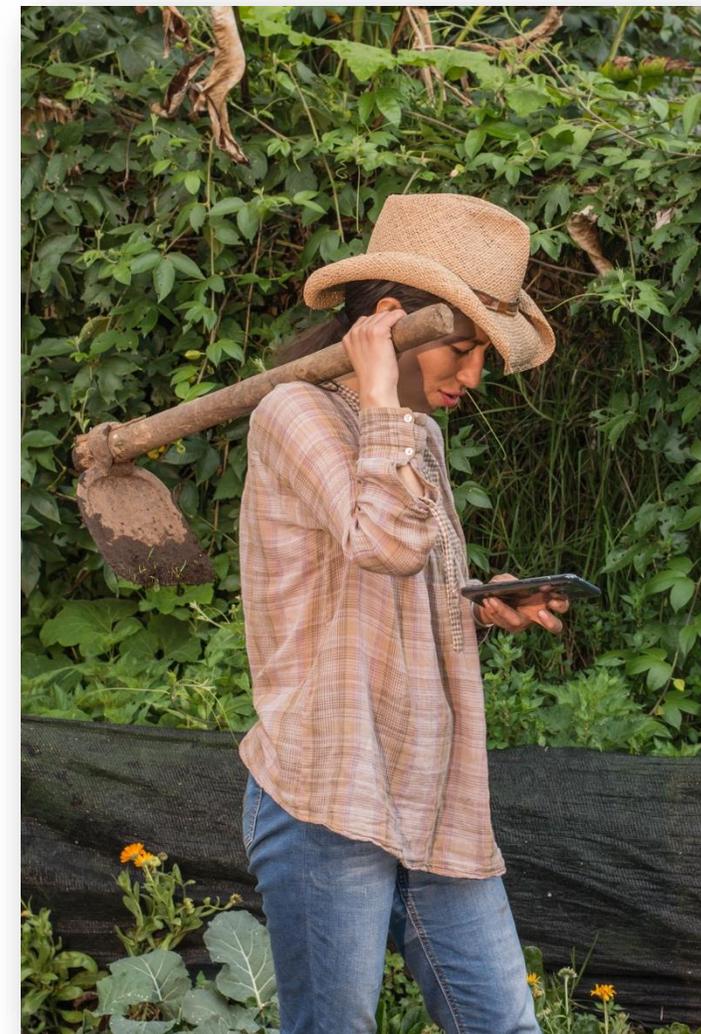
2x as much time

connected to low bands as urban users

An additional 50 MHz of sub-1 GHz spectrum is linked to

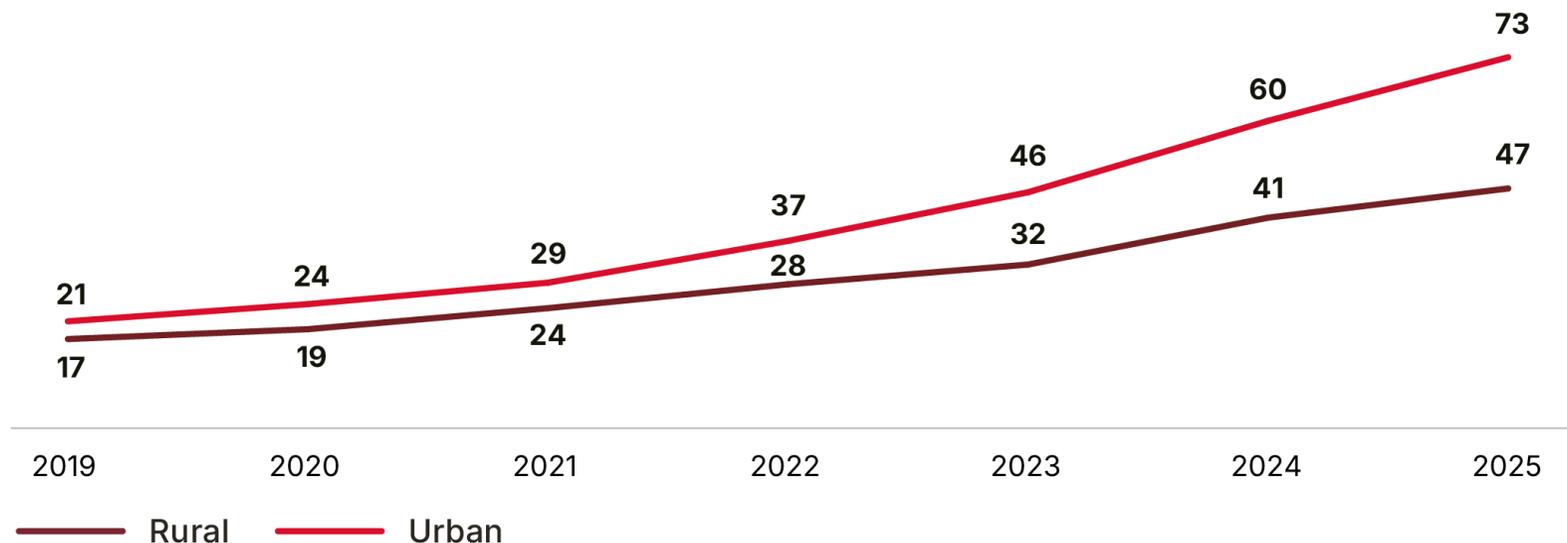
7 PERCENTAGE-POINT increase in 4G coverage

11 PERCENTAGE-POINT increase in 5G coverage



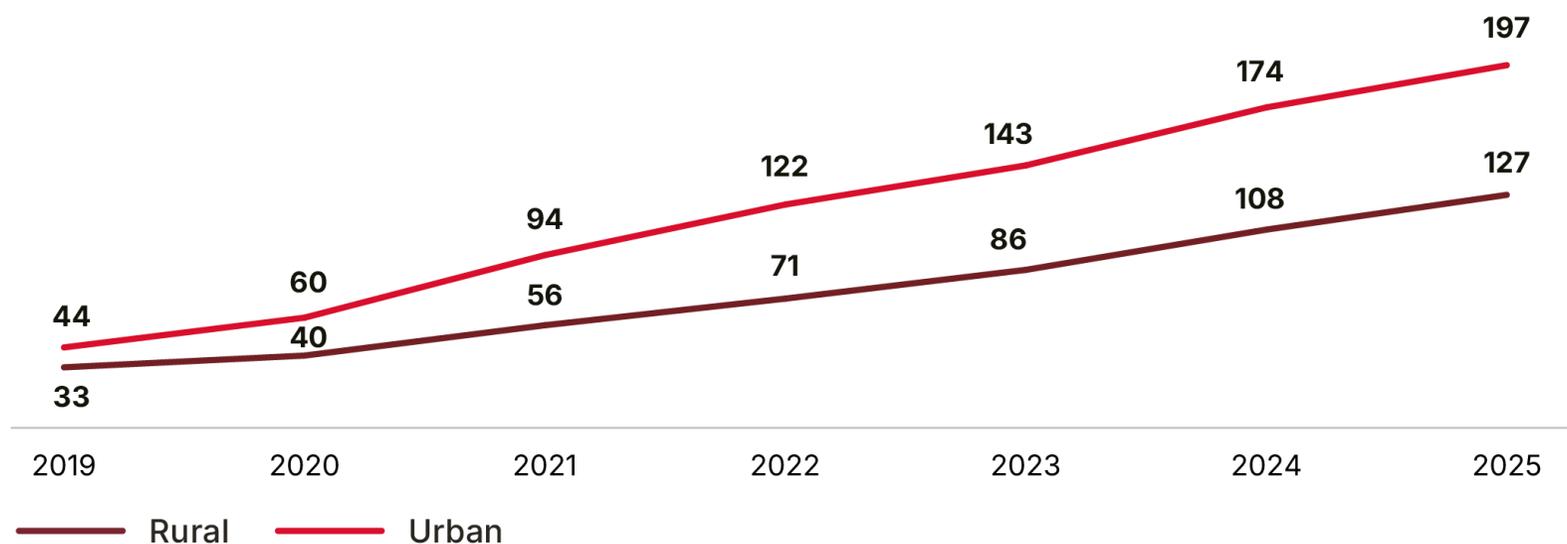
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Low- and middle-income countries



Average mobile network download speeds in rural and urban areas (Mbps)

High-income countries



The mobile experience gap between rural and urban areas has increased

The shift to 4G and 5G networks have increased mean speeds in low- and high-income countries

Source: [Spectrum and Rural Connectivity, GSMA 2026](#)

An additional 50 MHz of low bands spectrum is linked to:



Mobile networks in rural areas are more relied in lower spectrum bands given its long-distance signal propagation

Higher low-band spectrum availability can significantly boost coverage according to operators' data in over 100 counties

Band	Footnotes identifying the band for IMT		
	Region 1	Region 2	Region 3
450-470 MHz	5.286AA		
470-694/698 MHz	5.307A	5.295, 5.308A	5.296A
694/698-960 MHz	5.317A	5.317A	5.313A, 5.317A

Source: [Spectrum and Rural Connectivity, GSMA 2026](#)

VISION 2040: SPECTRUM FOR THE FUTURE OF MOBILE CONNECTIVITY

1 

Cities with over 50% of the world's urban population will be capacity-constrained by 2030 if mid-band spectrum remains at today's levels.

2 

A global average of 2–3 GHz of total mid-band spectrum will be required in urban areas by 2035–2040; higher-demand countries will need 2.5–4 GHz in this period.

3 

A harmonised spectrum roadmap that delivers the total mid-band spectrum requirements should be developed to enable operators to meet these capacity demands from 2030.

4 

Regulators should seek to assign spectrum in 3.8–4.2 GHz and upper 6 GHz to mobile by around 2030 to meet demand and consider 4.4–4.99 GHz and 7–8 GHz beyond that.

Updates on WRC-27

WRC-27

Agenda Item 1.7: possible use of the terrestrial component of IMT

Region 1	Region 2	Region 3
4 400-4 800 MHz		4 400-4 800 MHz
7 125-7 250 MHz 7 750-8 400 MHz	7 125-8 400 MHz	7 125-8 400 MHz
14.8-15.35 GHz	14.8-15.35 GHz	14.8-15.35 GHz

Sharing and Compatibility Studies

AI 1.7 - General Considerations

- Ongoing WP5D meeting (feb. 3-12)
- Aligning modelling approaches to reduce variance in sharing studies
- Early CPM inputs received with review pending while focus remains on sharing studies

7125-8400 MHz

- Major differences in assumptions and modelling producing inconsistent results
- Science services (SOS, SRS, MetSat, EESS) studies discussed in current 5D meeting (GSMA contributions included)

4.4-4.8 GHz

- Radio Altimeters characteristics under discussion, with potential implications for IMT networks also below 4.2 GHz
- Discussions on inclusion of technical and regulatory conditions from Appendix 30B

Agenda Item 1.13 (D2D) – Protection of IMT

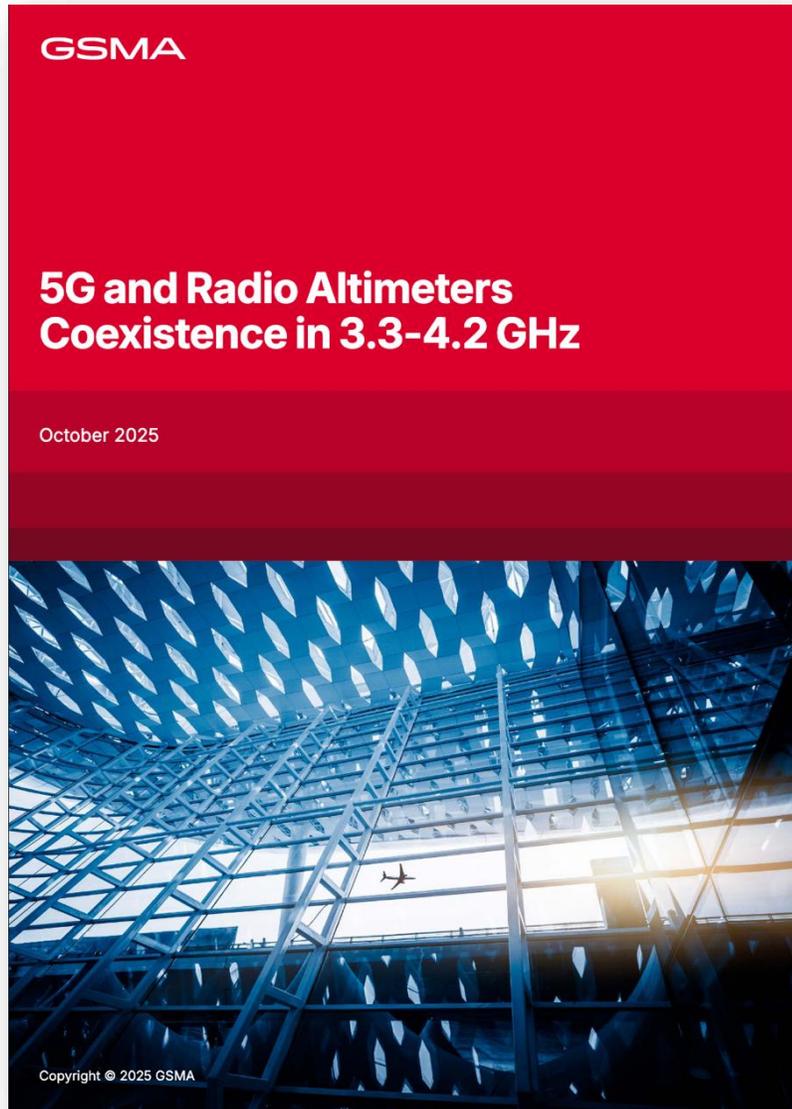
- IMT protection criteria under discussion
- Agreement reached to protect CPEs
- Aggregation factors for multiple satellites under definition

5G and Radio Altimeters Coexistence

Countries with 5G live networks above 3800 MHz

Country	Spectrum assigned (MHz) – not necessarily contiguous	
	Start	End
Japan	3400	4100
Saudi Arabia	3400	4000
Australia	3600	4000
United States of America	3450	3980
Chile	3500	3900
Uzbekistan (Republic of)	3500	3900
Vietnam	3700	3900
Canada	3450	3900

Source: [5G and Radio Altimeters Coexistence in 3.3-4.2 GHz](#), GSMA, 2025.



- Today, live 5G networks in 93 countries are using spectrum in 3.3-4.2 GHz (the 3.5 GHz range)
- More than 60% of 5G networks have used this band so far, and further deployments plans are expected
- Some countries have applied temporary IMT restrictions in the 3.5 GHz range while encouraging aviation to retrofit their aircraft and meet radio altimeter tolerance
- The majority of countries in Europe are not planning any additional restrictions for IMT (ECC Report 362 and EU Roadmap)

Source: [5G and Radio Altimeters Coexistence in 3.3-4.2 GHz](#), GSMA, 2025.

WRC-27

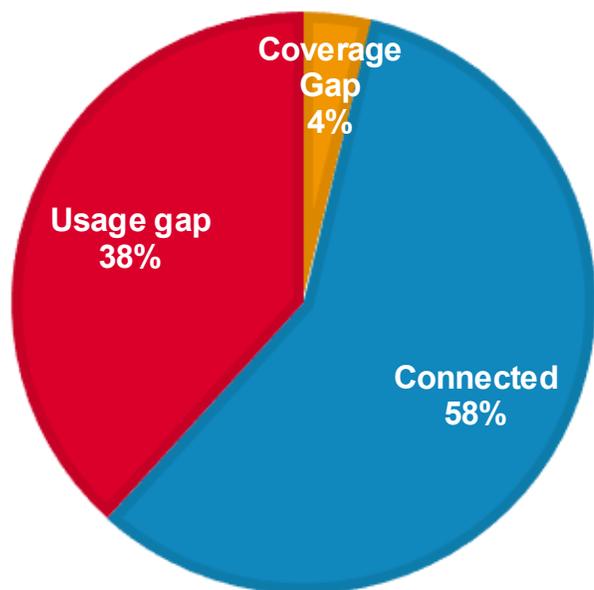
Agenda Items 1.12, 1.13, 1.14: Studies on potential new allocations to the mobile-satellite service

Direct to Device AI 1.13	New Mobile Satellite Service AI 1.12, 1.14
 <p>Mobile satellite in IMT bands between 694/698-806 MHz and 2.7 GHz</p>	 <p>1 427-1 432 MHz 1 645.5-1 646.5 MHz 1 880-1 920 MHz 2 010-2 025 MHz 2 120-2 170 MHz</p>

Usage/Coverage Gap

GLOBAL

■ Coverage Gap ■ Connected ■ Usage gap

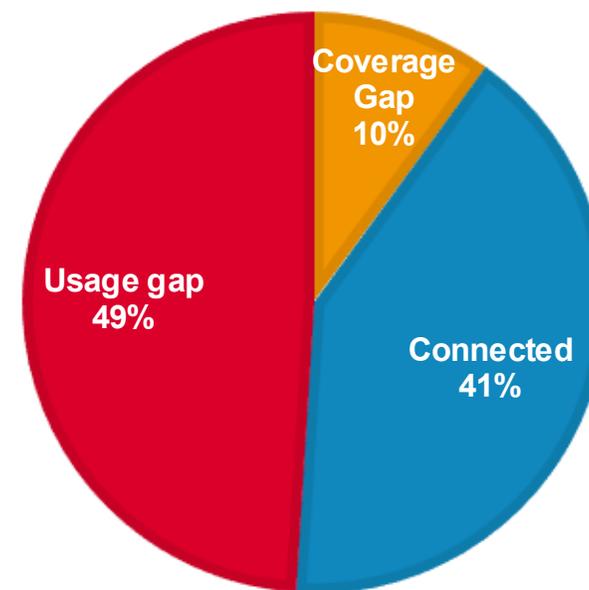


THE COVERAGE GAP...
Population who do not live within coverage of a mobile broadband network

THE USAGE GAP...
Population living within the footprint of a mobile network, but who do not use mobile internet

CARIBBEAN

■ Coverage Gap ■ Connected ■ Usage gap



D2D may contribute to reduce the **COVERAGE GAP**. But It would hardly impact the **USAGE GAP**

GSMA Positions on D2D

1. D2D using mobile spectrum should be provided through mobile network operator (MNO) licences
2. When using IMT spectrum, D2D must protect IMT networks in accordance with the Radio Regulations
3. Standard handsets may be used for D2D using IMT spectrum
4. Agreement with MNOs must be in place to use their licensed spectrum in the licensed area
5. Ahead of WRC-27, interference needs to be addressed through domestic regulations
6. Any new MSS allocations at WRC-27 must protect IMT networks – secondary basis

Source: [Spectrum for D2D PPP](#), GSMA, 2025.

MSS AIs Status



AI 1.12 LDR-MSS

- Although narrow bands are considered they lack of specific spectrum requirements
- LDR-MSS description ambiguity



AI 1.13 DC-MSS-IMT

- Methodologies to protect IMT from DC-MSS-IMT in definition by WP 5D
- CPM text development will start in the coming 4C meeting (April 2026)



AI 1.14 MSS in 2 GHz

- No Change method is already included in the draft CPM text
- Compatibility studies ongoing, unclear methodologies

WG 4C1 seeks to establish a unified method to address overlapping bands

Thank You

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