GSMA

WRC-27

India Spectrum Management Conference

New Delhi

November 2024

SPECTRUM for the benefit of billions

CONNECTED:

57% of the world's population are now **using mobile internet**

→ **4.6 billion PEOPLE**

But the rate at which people were adopting mobile internet remained **FLAT** in 2023

COVERAGE GAP:

4% **of the world's population are still not covered by mobile broadband**

AROUND **350m** PEOPLE

USAGE GAP:

39% of the **world's population live within the footprint of a mobile broadband network** but are not using it

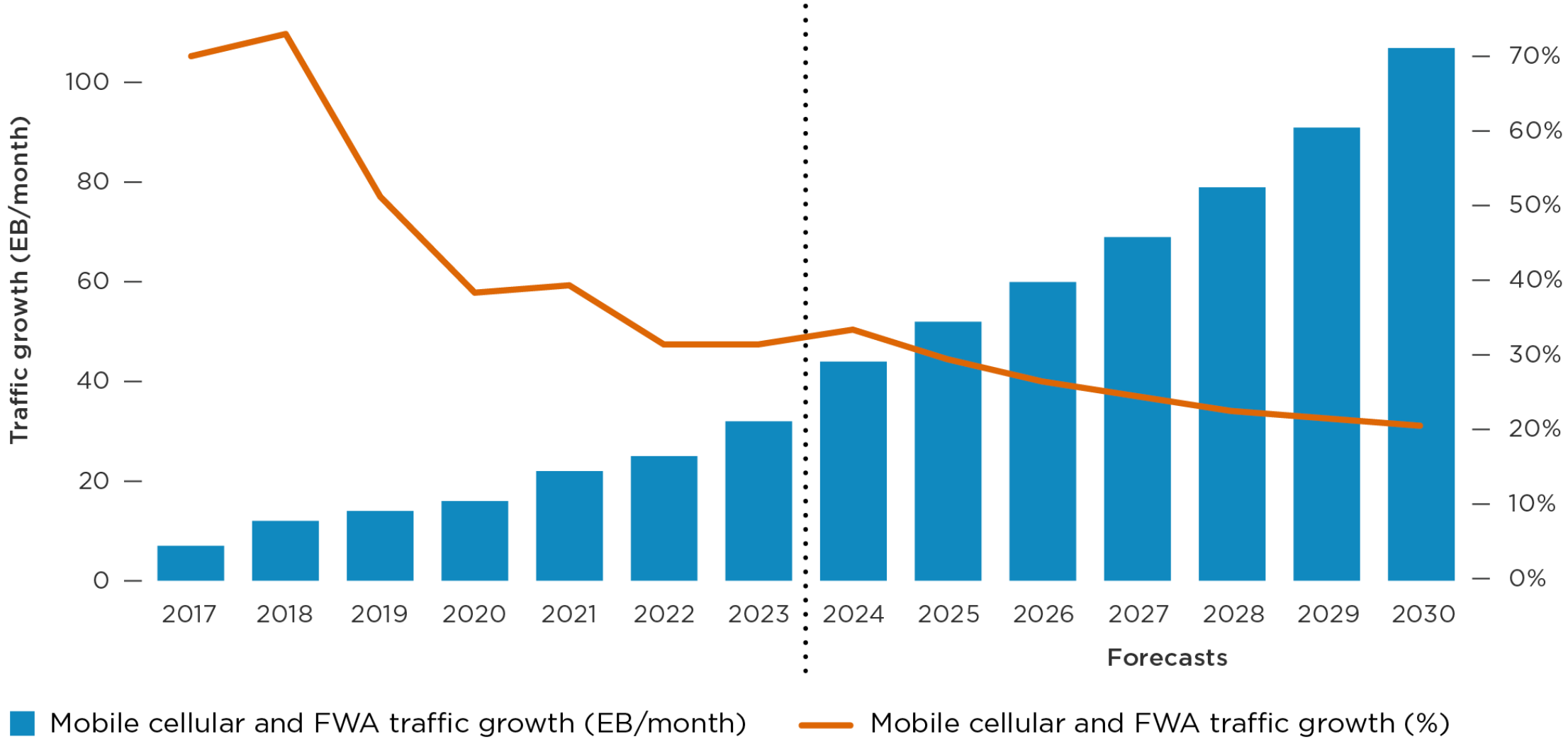
3.1bn PEOPLE → **2/3 OF WHICH DO NOT OWN A PHONE**

WRCs deliver **HARMONISATION** and **SCALE** to support affordability and lower the usage gap.

WRC-27 can **ENABLE NEW TECHNOLOGIES** which, coupled with the right regulation, can also help support coverage.

Global mobile cellular and FWA traffic year-on-year growth

EB per month



Source GSMA Intelligence and Ericsson

WRC-23

6 GHz

- IMT throughout EMEA and Eurasia
- IMT country footnotes for APAC and Americas

3.5 GHz

- Harmonisation throughout EMEA, CIS and the Americas

Low Bands

- IMT throughout the Middle East in 600 MHz
- Mobile allocations in Europe and parts of Africa

WRC-27 Agenda Items

GSMA

WRC-27 Agenda

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

AI 1.7

Direct to Device

Mobile satellite in IMT bands between **694/698 MHz** and **2.7 GHz**

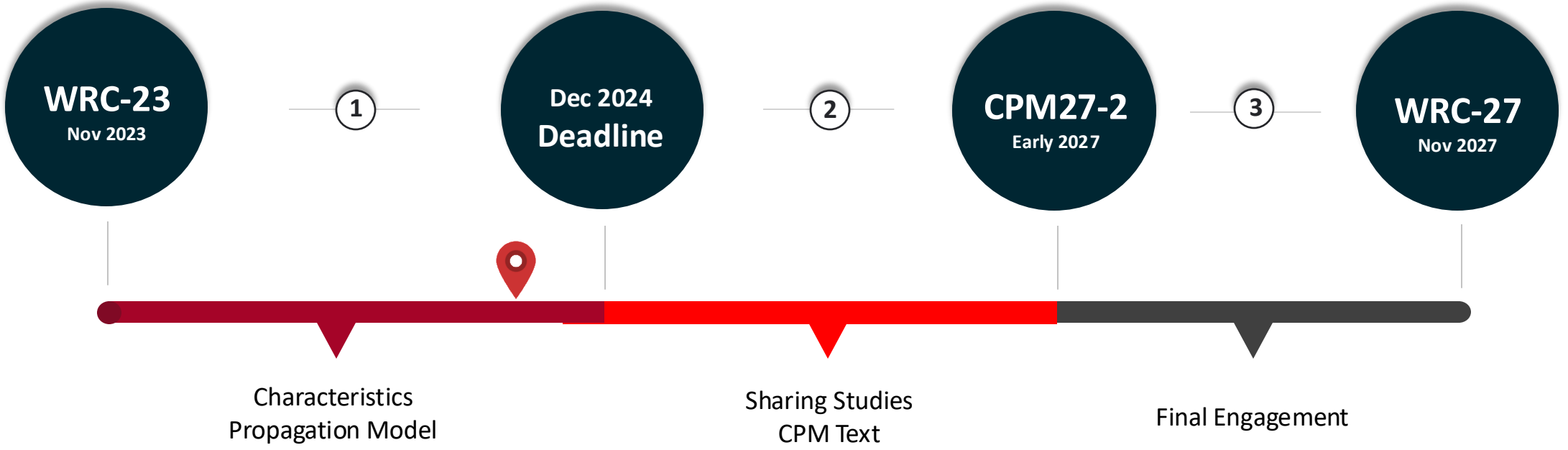
AI 1.13

New Mobile Satellite

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

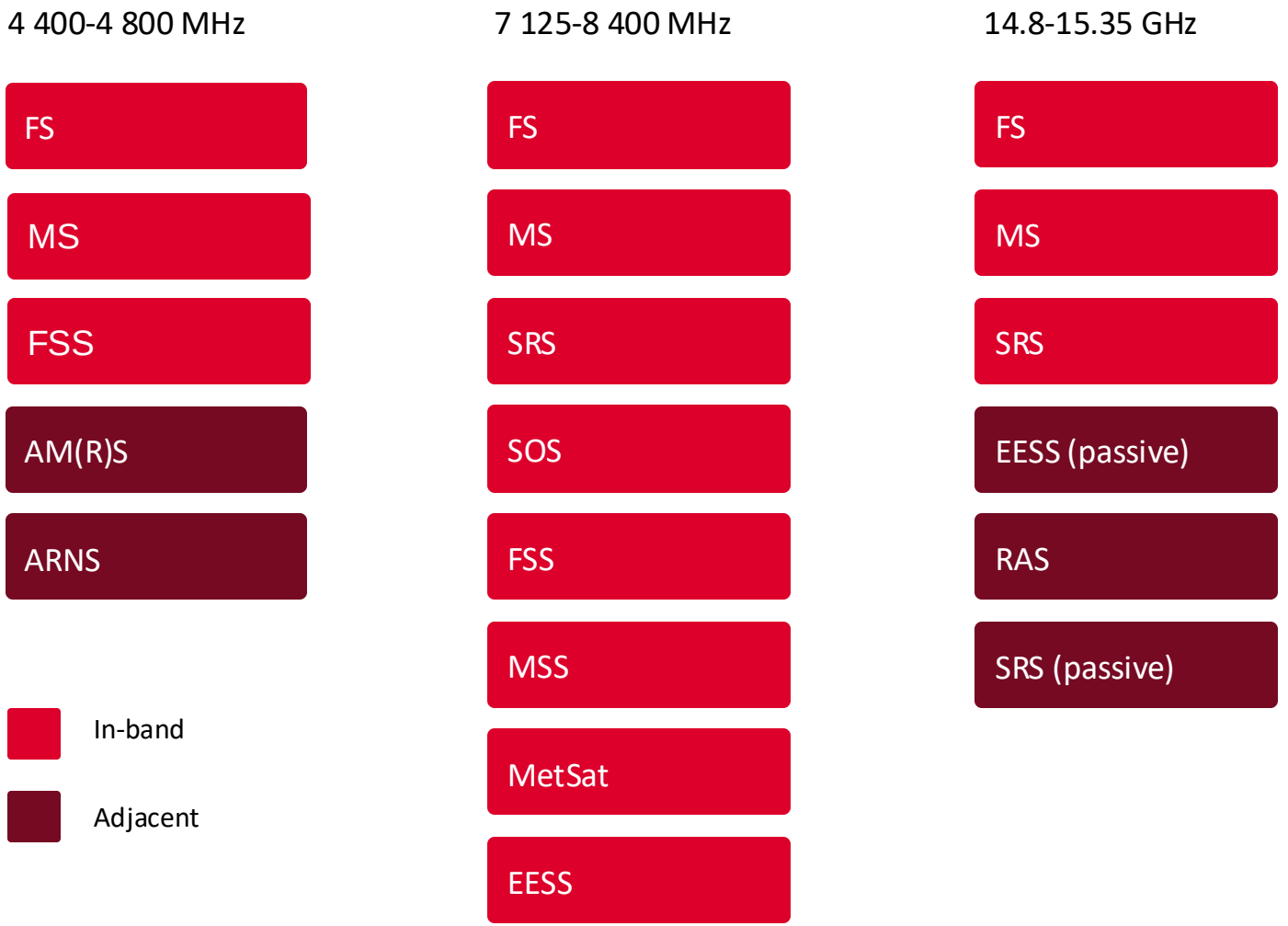
AI 1.12 **AI 1.14**

WRC Timeline



AI 1.7 Sharing Studies
IMT-2030 / 6G

- Govt Users
- Space Research
- Space Operation
- Meteorological Satellites
- Mobile Satellites
- Fixed Satellites
- Earth Exploration Satellites
- Fixed Links
- Adjacent Incumbents



Early Regulation on D2D

United States

4500km

- "Supplemental Coverage from Space (SCS) will be authorized pursuant to a secondary MSS allocation in the U.S. Table. These operations may not cause harmful interference to—and shall not claim protection from—any station operating in accordance with ITU provisions, whether in the United States or internationally."

- "We authorize SCS only where one or more terrestrial licensees … lease access to their spectrum rights to a participating satellite operator."

Australia

4000km

- "Our view is that operation of an IMT satellite direct-to-mobile service in Australia is only practical where there is an Australia-wide spectrum licence."

- "When a space station transmits to a radiocommunications receiver in a mobile phone, reception by the phone continues to be authorised by the spectrum licence"

- "A mobile phone used in an IMT satellite direct-to-mobile service can be operated within the geographic area of the spectrum licence, provided it operates in accordance with the conditions of the licence."

AI 1.13 Sharing Studies
D2D in IMT Spectrum

Uplink (MHz)	Downlink (MHz)
807-849	852-894
880-915	925-960
832-862	791-821
698-716	716-746
776-798	746-768
698-748	753-803
1 427-1 470	1 475-1 518
1 920-1 980	2 110-2 170
1 710-1 785	1 805-1 880
1 850-1 920	1 930-2 000
1 710-1 780	2 110-2 180
2 000-2 020	2 180-2 200
2 010-2 025	1 880-1 920
2 305-2 320	2 345-2 360
2 500-2 570	2 620-2 690

- MSS D2D Supplemental Coverage
- Cross border focus
- Bands to be studied (recent ITU-R WP5D/4C mtg)

SPECTRUM

for the benefit of billions