

IMT Spectrum Sessions

UHF

3.5 GHz

6 GHz

Future IMT



470-694 MHz

Agenda Item 1.5



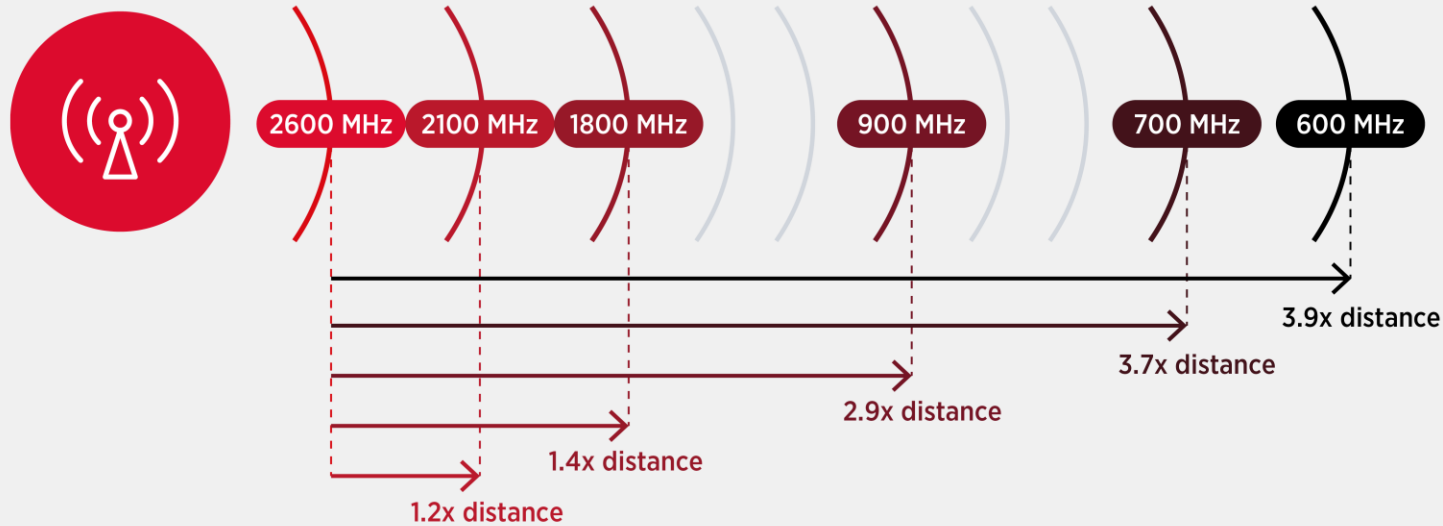
Digital Equality



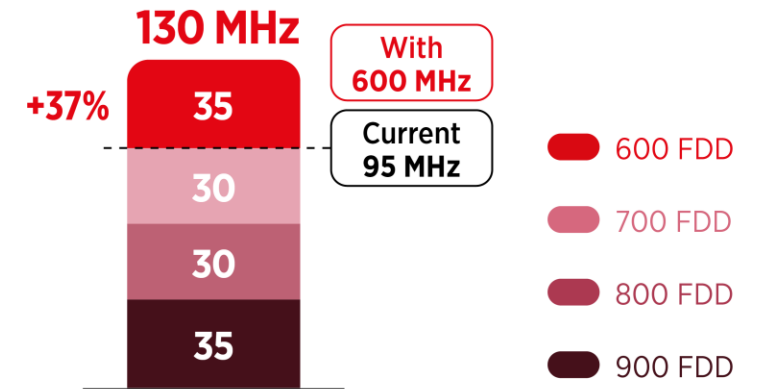
Rural Connectivity



Rural Economic Growth



Region 1 DL speed impact of 600 MHz



In LMICs, adults in rural areas are

29%

less likely than those living in urban areas to use mobile internet

Low bands can support:



Poverty reduction



Education



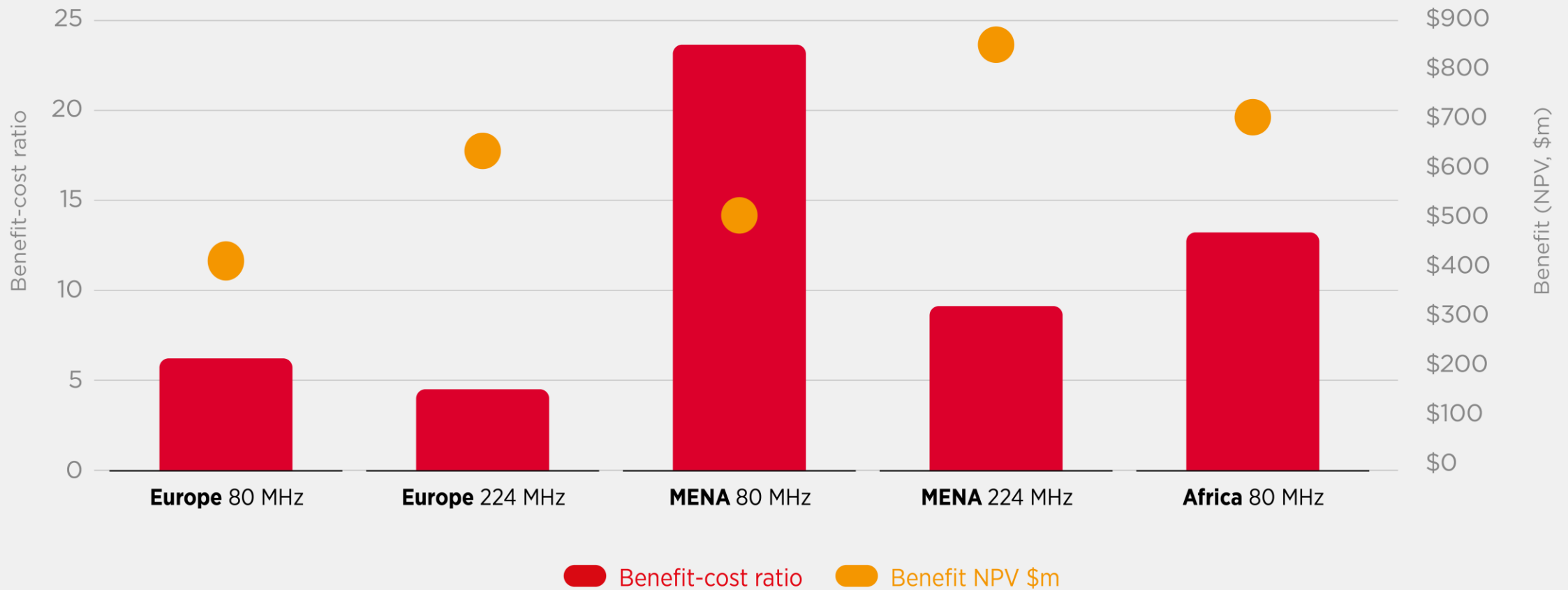
Employment



Health



Low-band mobile has more value than status quo





Position

- **The GSMA supports a primary mobile allocation in the band 470-694 MHz.**
- **This will allow those countries that wish to do so to identify the band, or parts thereof, for IMT.**

Discussion Topics

- Video content distribution is evolving. How can WRC-23 meet the changing needs of viewers in your country?
- Some countries already having little or no DTT usage while others are committed to broadcasting in UHF. What flexible solution will work for all?
- Primary and secondary mobile allocations, IMT identification and NOC are all supported in Region 1. What agreements will support joint evolution of broadcasting and mobile?



WRC-23

For the benefit of our future

Mobile is playing a crucial role in addressing climate change.

Digital connectivity is creating a unique opportunity to reduce carbon across all sectors and enable a cleaner, greener future.

Every day, mobile is helping our planet have a better tomorrow

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For the benefit of billions



WRC-23

3.3-3.8 GHz

Agenda Item 1.2, 1.3



5G launch band



Ecosystem scale



Make 5G affordable

For the benefit of billions



 Over **100** countries have 5G

 New **3.5 GHz** spectrum assignments in **80** countries

 Over **75** countries have launched 5G in **3.5 GHz**

 Over **200** network launches used **3.5 GHz**

 **3.5 GHz** is the birthplace of **5G**

Usage Gap:

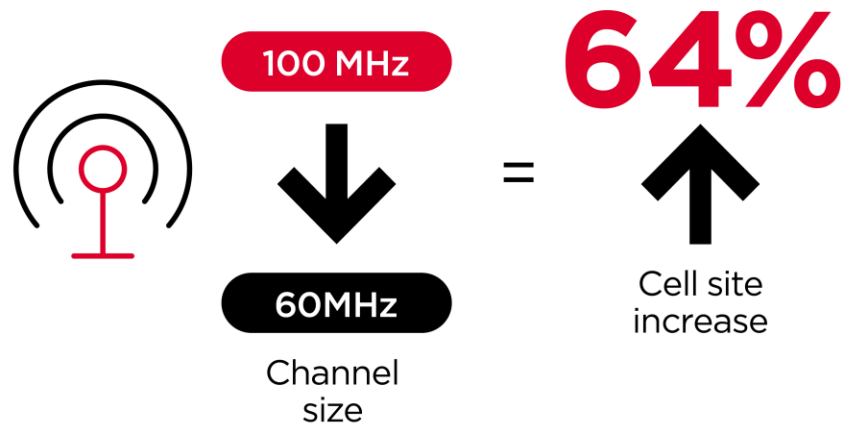
38% Of global population live within MBB coverage but are not using it

3bn people

 **95%**

of the unconnected live in LMICs


Channel size impacts density




Cell site increase

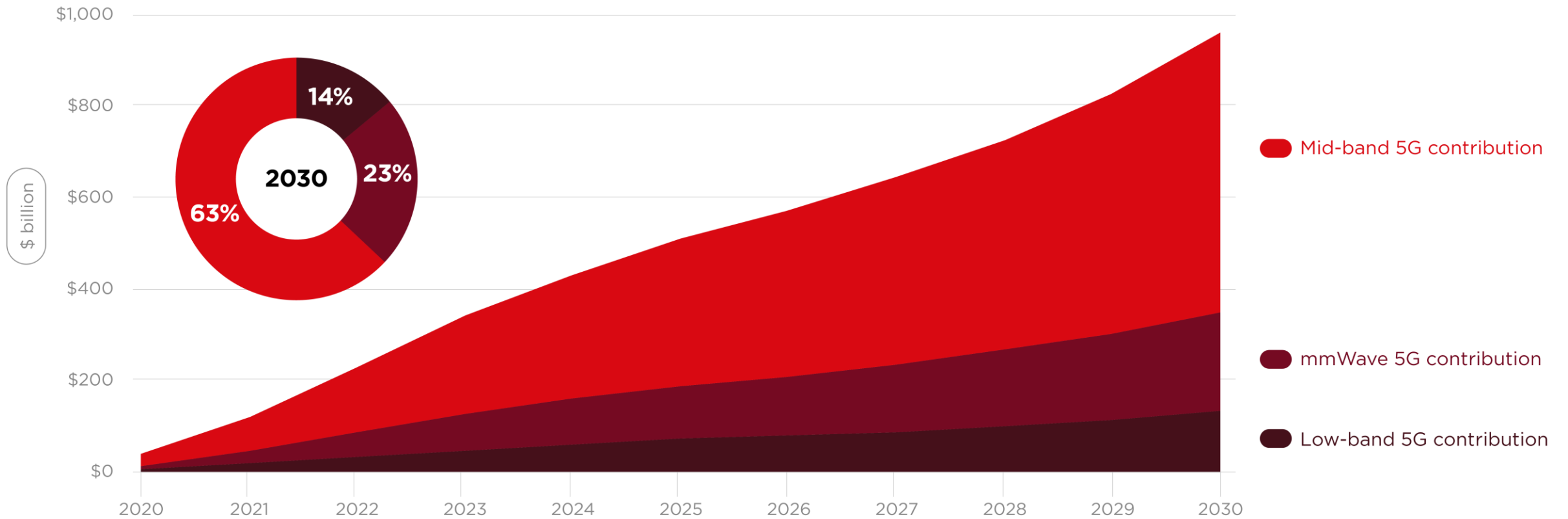
Barriers to MBB adoption

 Affordability

 A lack of literacy...

 ...and digital skills

The Socio-Economic Benefits of Mid-Band 5G





Position

- **IMT identification in 3.3-3.4 GHz will provide broad harmonisation but conditions are important**
- **Primary mobile allocation and IMT identification in 3.6-3.8 GHz will provide launch spectrum for 5G.**

Discussion Topics

- Can primary mobile allocation and IMT facilitate cross-border coordination and can existing use of the 3.5 GHz range give confidence on co-existence?
- What conditions should be in any footnote?
 - Will it be regional?
 - 9.21? Table 21-4? 9.17 / 9.18 pfd limit?
- For 3.3-3.4 GHz, will countries above 30°N be able to join? What conditions are necessary?
- IMT identification is not explicitly included in AI 1.3, but what is the disadvantage?



For the benefit of society

Mobile helps societies function harmoniously.

Connected technologies allow service providers to identify and fix problems more efficiently in any community, while greater connectivity can mean that those living within it are more engaged.

Mobile can bring societies together.

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6.425-7.125 GHz

Agenda Item 1.2



Capacity for speed




Lower network density




Lower carbon emissions



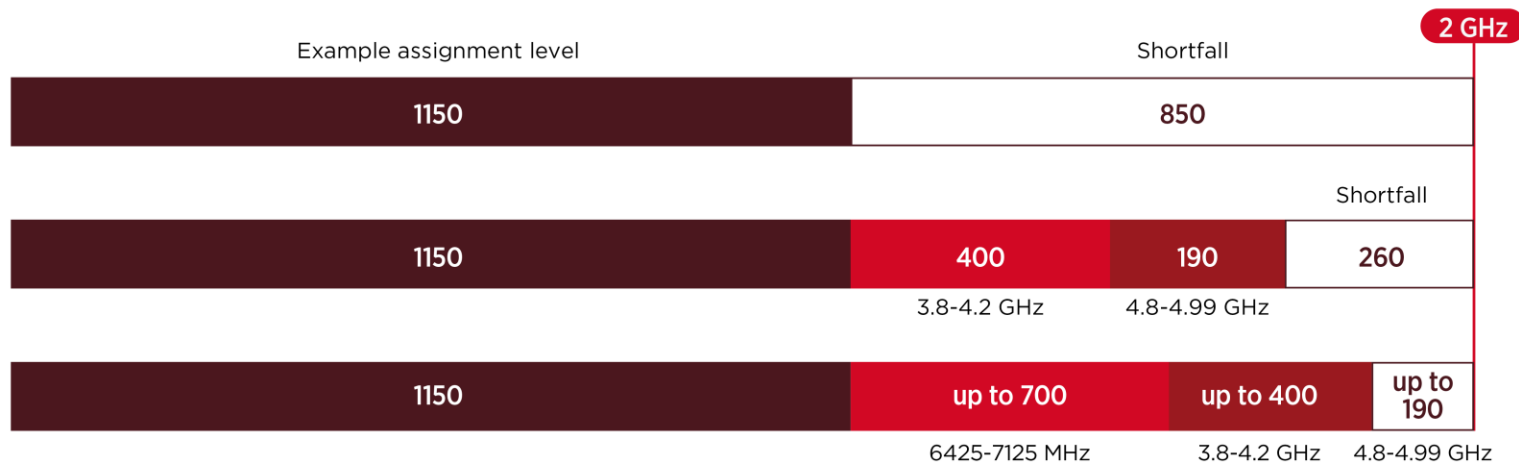
 **1.5 billion** 5G users by end of 2023

 Over **280 MNOs** in over **100** countries have launched 5G

 **255 operators** rely on **mid-bands**

 **2023** will be the **biggest year** for 5G spectrum assignments

2 GHz of mid-band spectrum is required by 2030



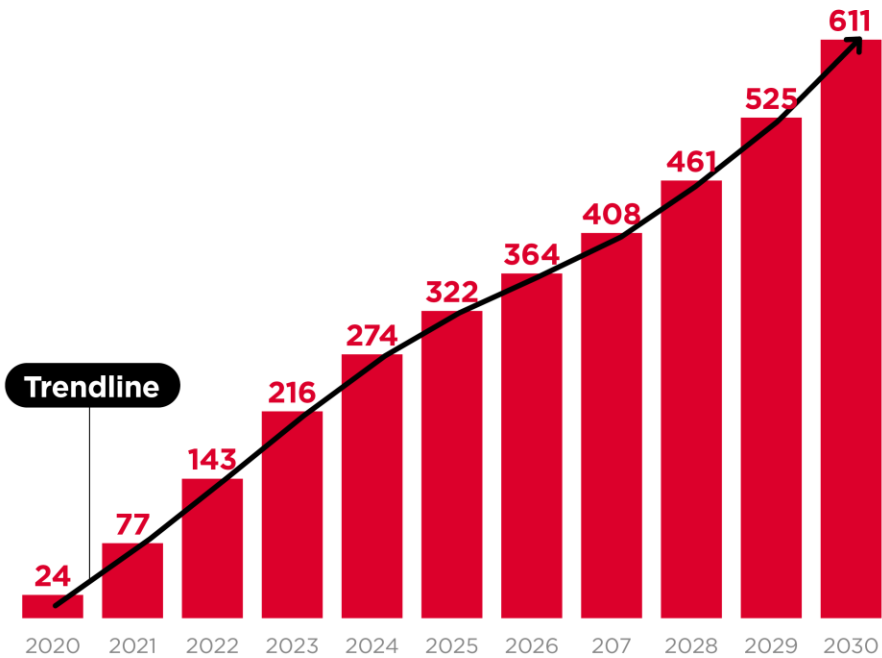
Mid-bands will drive eMBB and industrial connectivity



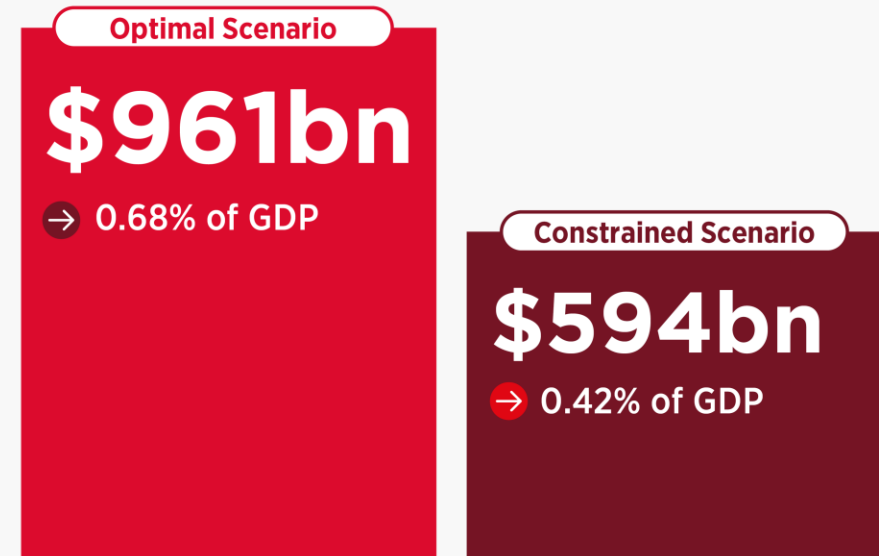
Sufficient spectrum will **lower costs** and **carbon**



The Socio-Economic Benefits of Mid-Band 5G



Constrained scenario: 40% loss to global GDP impact if mid-band is reduced





Position

- Mobile networks will need, on average, 2 GHz of mid-band spectrum per country by 2030. This is challenging to achieve without 6 GHz.
- Mobile networks are already highly densified, but 6 GHz can enable the growth of sustainable 5G capacity on existing sites.
- The GSMA recommends that 6.425-7.125 GHz is identified for IMT at WRC-23.

Discussion Topics

- What are the benefits of an IMT identification in 6 GHz?
- How can co-existence of 6 GHz IMT be ensured with other existing services?
 - Expected e.i.r.p. mask is emerging as preferred solution for FSS UL. What form will it take?
 - What conditions are required for 6 GHz IMT to be used as a macro cell band?
 - What measures are needed to ensure coexistence with the fixed services?
- Can use of upper 6 GHz for IMT and lower 6 GHz for RLAN provide a balanced approach to meet overall connectivity needs?



For the benefit of our cities

Mobile is the nervous system of a thriving modern city.

Through analysing IoT data, planners can develop greener transport options and improve traffic flow. Mobile gives citizens access to information that helps them work and play and lets our cities function more efficiently.

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Future IMT

Development

Agenda Item 10



Meaningful universal connectivity



Sustainability



Security



Future IMT networks must embrace:



Universal
meaningful
connectivity



Ultra-fast
data rates



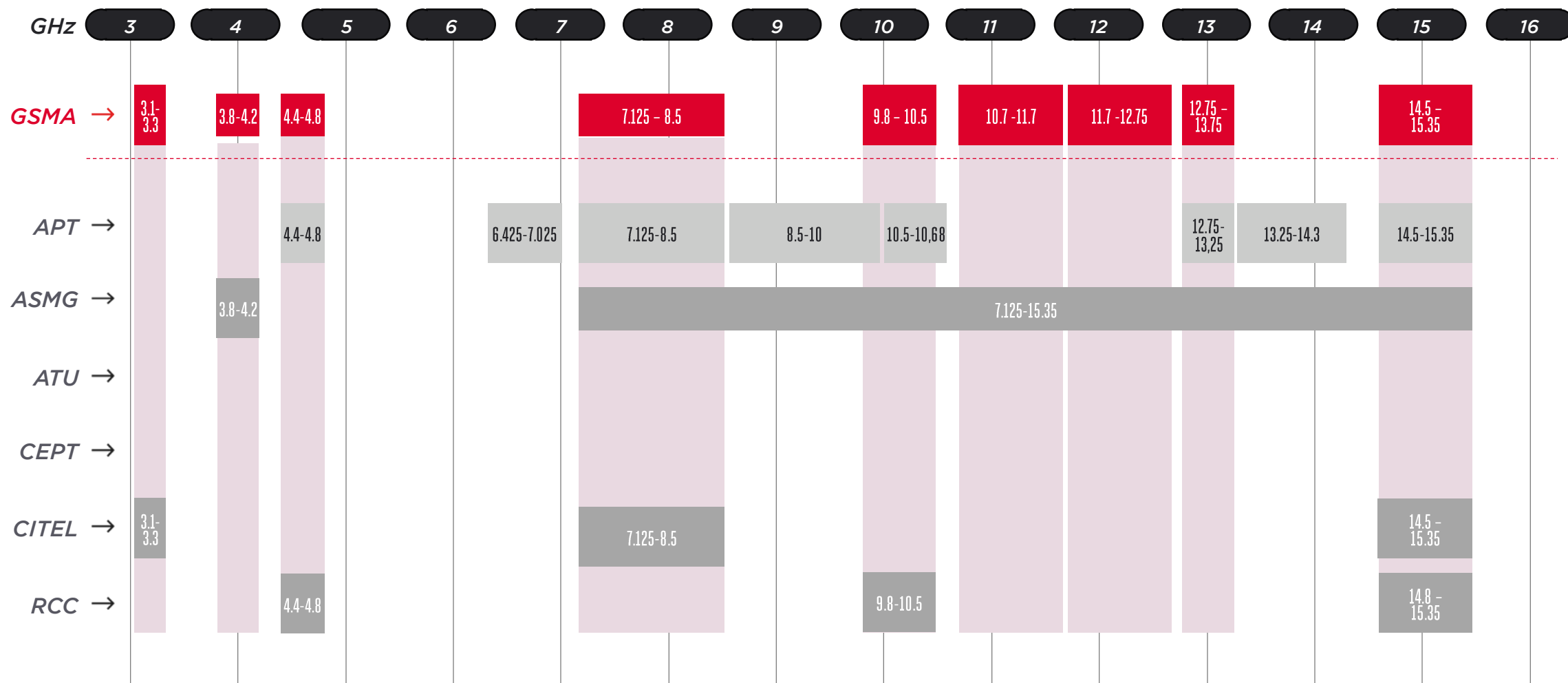
Sustainability
and UN SDGs



Energy
efficiency

By delivering ever-present intelligent communication, 6G will contribute to the creation of a more human-friendly, sustainable and efficient society.

Agenda Item 10 - Possible bands for study





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Connected industries can operate more efficiently and help us avoid emissions, while new mobile technologies embrace sustainability and reduce energy consumption.

Every day mobile is helping our planet have a better tomorrow.

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