



5TH INDIA SPECTRUM MANAGEMENT CONFERENCE 2025

Global Trend: Mission-Critical Communications

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Critical communications for all professional users



What is critical communications?





Critical Communications requirements

For

Public Safety – police, fire & rescue, ambulance, customs, military ...

Transport – railways, subways, buses, highways, airports, ports ...

Critical Infrastructure – power, heat, water utilities ...

Resource/Energy industries – oil & gas, mining ...& other Industrials



Critical Communications requirements

COVERAGE

AVAILABILITY

RESILIENCE

PERFORMANCE

SCALABILITY



CONNECTION IS THE LIFELINE

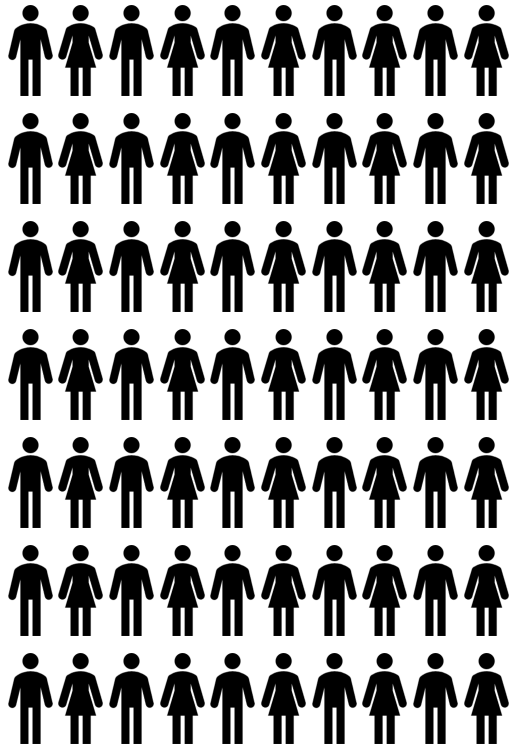
•24/7/365

Instant
service

FUNCTIONAL SUITABILITY



Need to cooperate – regionally/globally



7 billion consumers



**<0.1 billion critical
communications
users^(*)**

(*) generous estimation including all
critical communications sectors



We drive standards, spectrum and interoperability

Standards



Spectrum



Band 68

380 MHz

400 MHz

High Power UE

D2D sidelink

6G

Interoperability





Partnerships and collaboration forum importance:

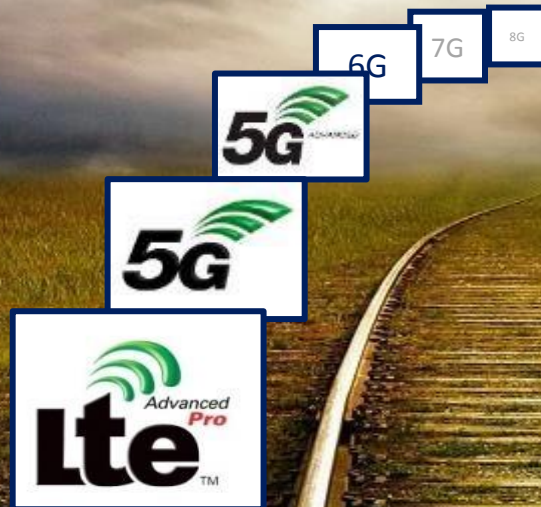


Other Members affiliations>>



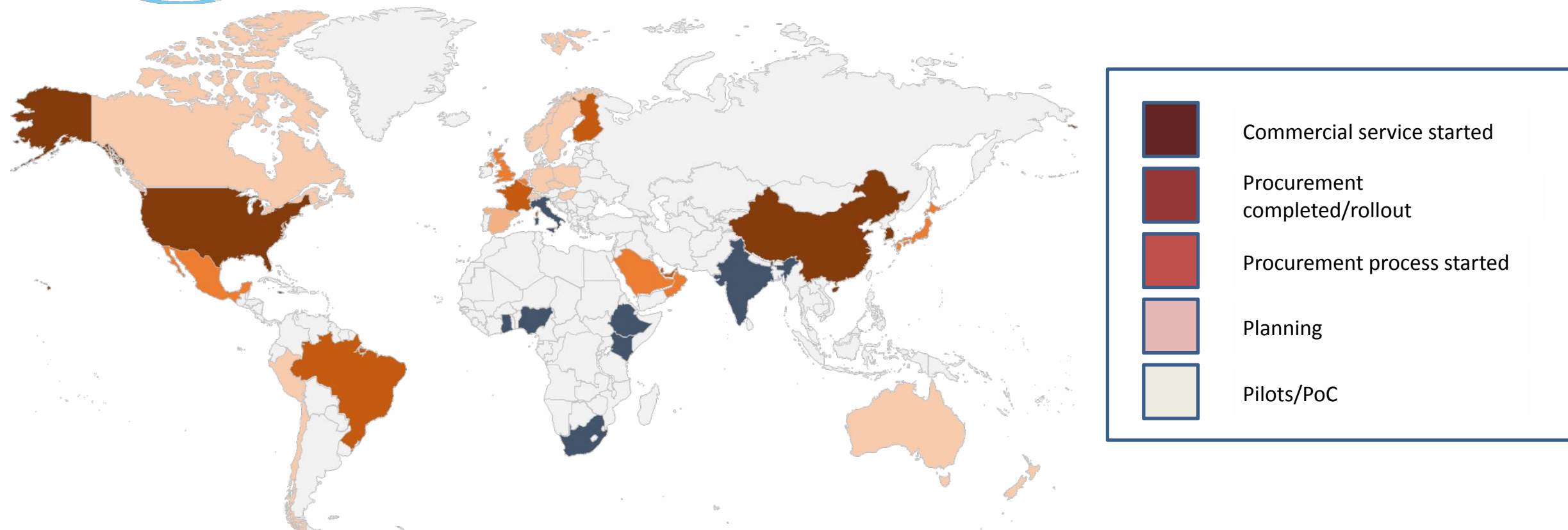


Continuous technology evolution





MCX Adoption Progress



Source: OMDIA

Operating Models for Gov. Mission Critical 4G/5G networks adopted globally



Colour Key

New Asset (Mission Critical)

Existing Asset (Commercial MNO)

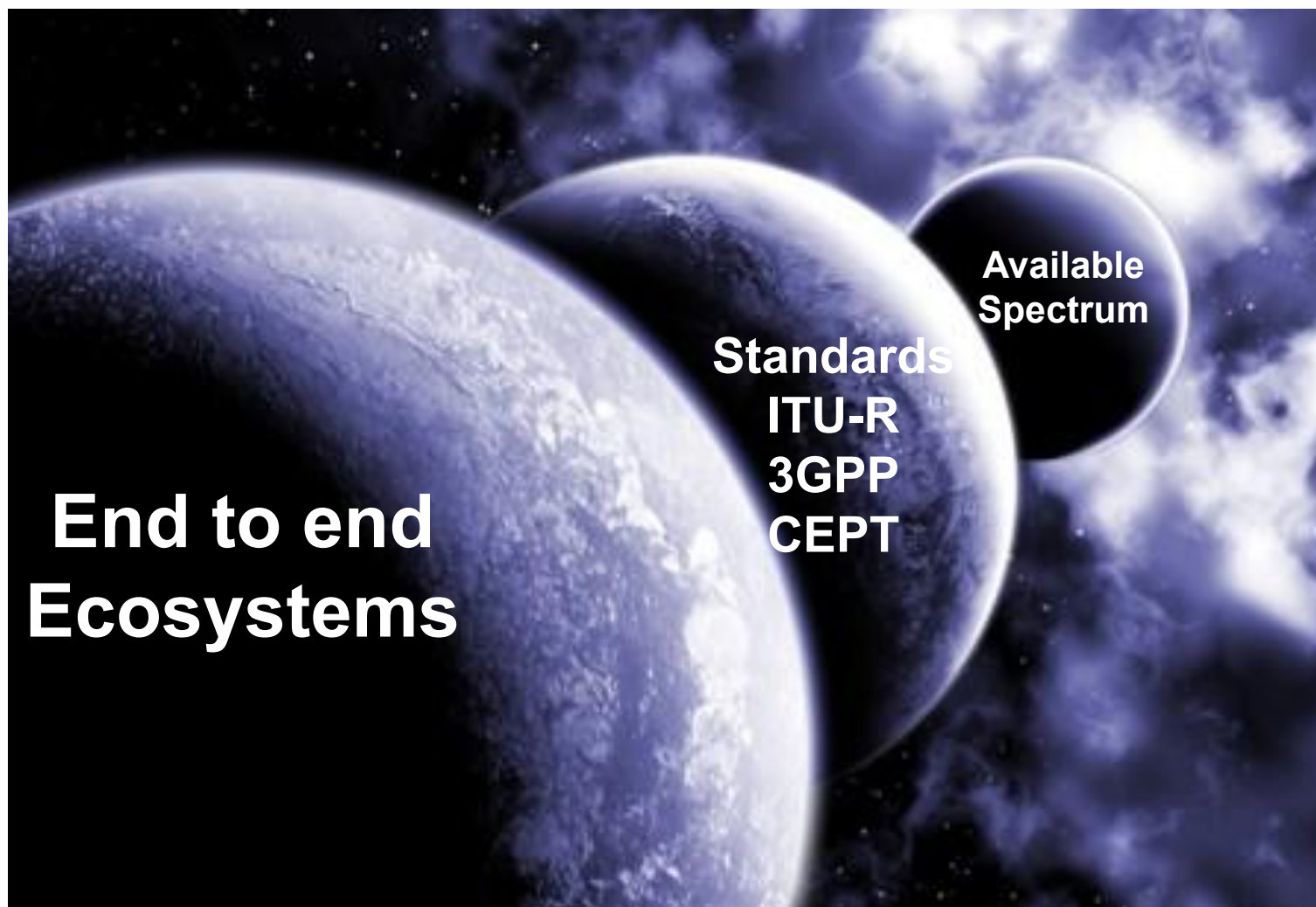
Notes

- * Optional element, may not be present in all implementations
- ** Some Countries have multiple implementation models by regions

MNO = Mobile Network Operator
MVNO = Mobile Virtual Network Operator
RAN = Radio Access Network

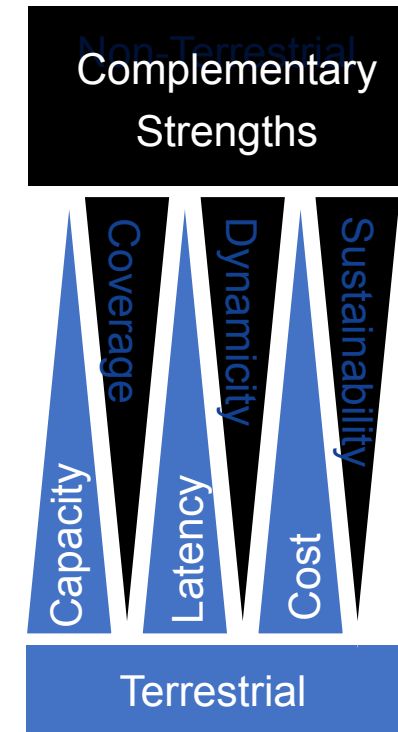
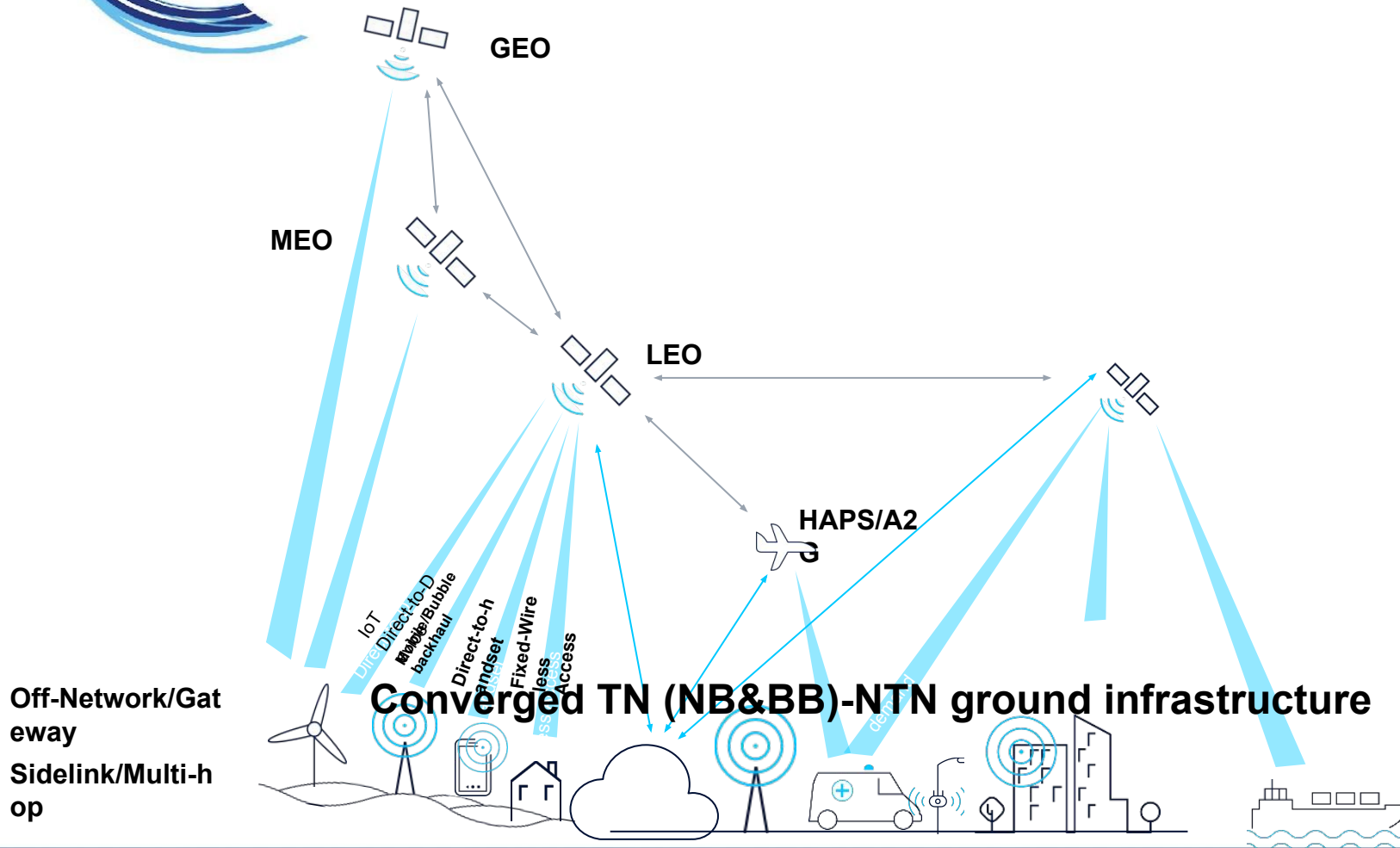


Critical communications broadband market challenges

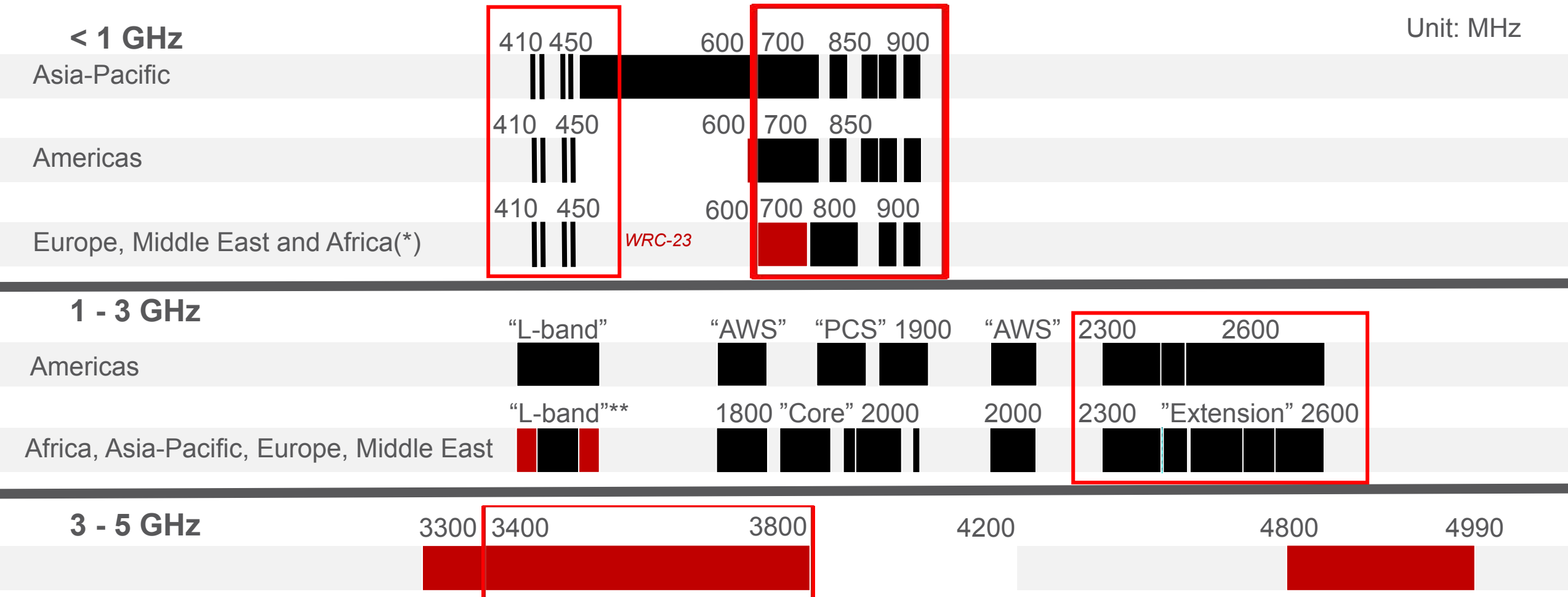




Terrestrial and Non-Terrestrial Networks Convergence



Spectrum used for current mission critical communications



(*) The band 850 MHz is used in some countries in MENA

(**) The L-band is envisaged for SDL

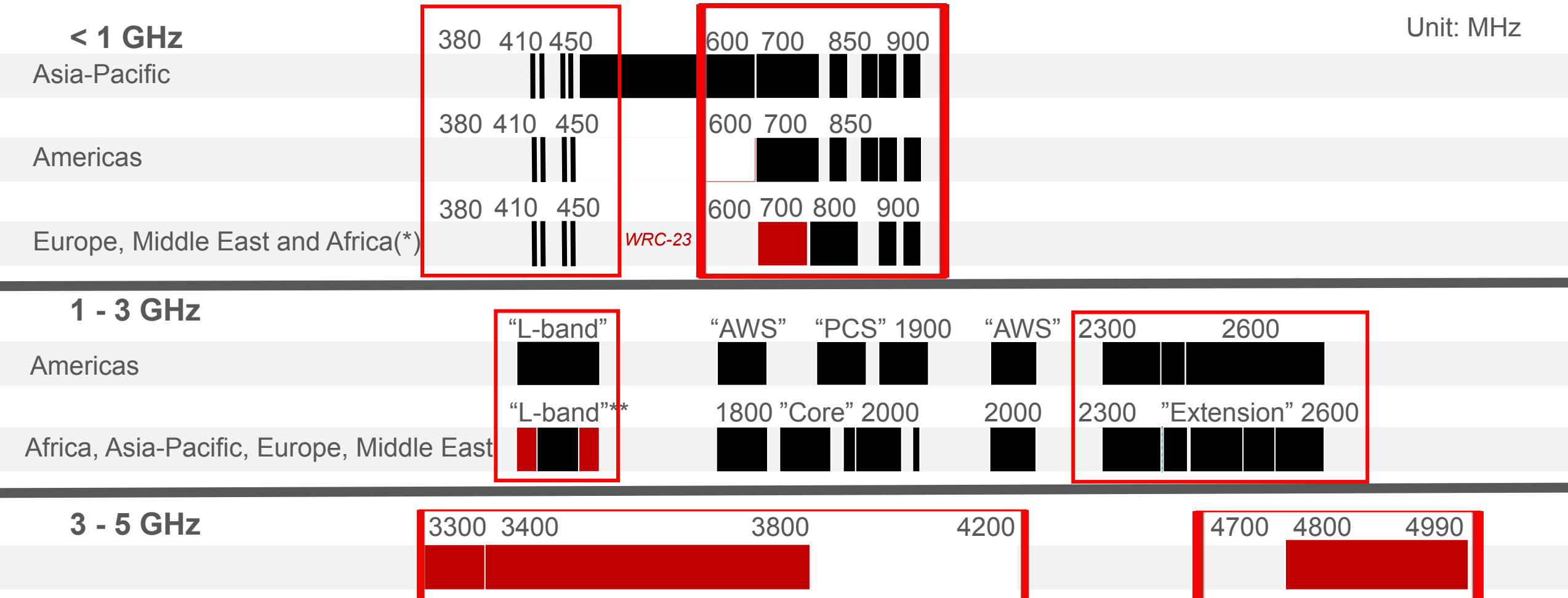
■ IMT identification in the ITU-R Radio Regulations (WRC-15)

■ Implemented / discussed at national / regional level

■ IMT identification in the ITU-R Radio Regulations (before

■ No IMT identification

Spectrum for current and future mission critical communications



(*) The band 850 MHz is used in some countries in MENA

(**) The L-band is envisaged for SDL

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Implemented / discussed at national / regional level

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Success in cooperation- Call out for all

Four streams



**Local &
International
cooperation**



**Cooperation
between network
providers,
industry and end
users**



**Cooperation
between different
sectors**



**Cooperation for
innovation &
evolution**

Support critical communication regulation, standardisation and certification



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