



INDIA SPECTRUM MANAGEMENT CONFERENCE 2024

CRITICAL COMMUNICATIONS

7 NOVEMBER 2024

Kevin Graham-TCCA Chief Executive Officer

Critical communications for all professional users



For all in critical communications



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

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

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

Resource & industrial – oil & gas, mining ...



Core Critical Industry Communications requirements.

- Coverage
- Availability
- Resilience
- Performance & interoperability
- Security
- Scalability
- Functionality & device suitability

Connection is *literally* the lifeline

Critical communications for all professional users





About us



We support open and standardised mobile critical communications technologies and complementary applications.



A GLOBAL INITIATIVE

3GPP Market Representation Partner.
Catalysing competitive multivendor markets worldwide through open standards.



Our members include users, operators, industry and other stakeholders globally all sharing knowledge and experience.



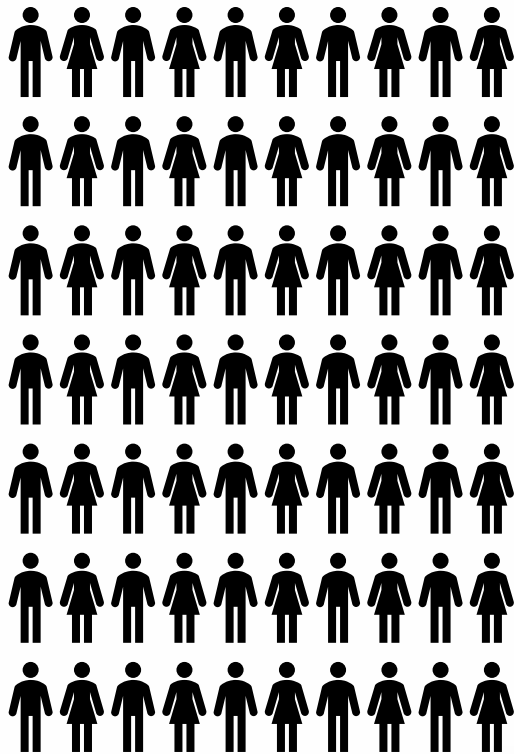
Collaborative working across the critical communications ecosystem to develop and drive the most effective solutions for all.

Critical communications for all professional users



Need to co-operate – locally, regionally & globally

>7 billion
Consumer
devices



<< 0.1 billion critical
communications user
devices

T

Power of partnerships and collaboration:





Our Focus

CI User
requirements to
solutions

Regulatory &
Spectrum policy

Broadband security

Broadband testing
and certification

TETRA IOP process
and technology
development

Future technologies
and applications

Promoting and growing critical communications community

Critical communications for all professional users

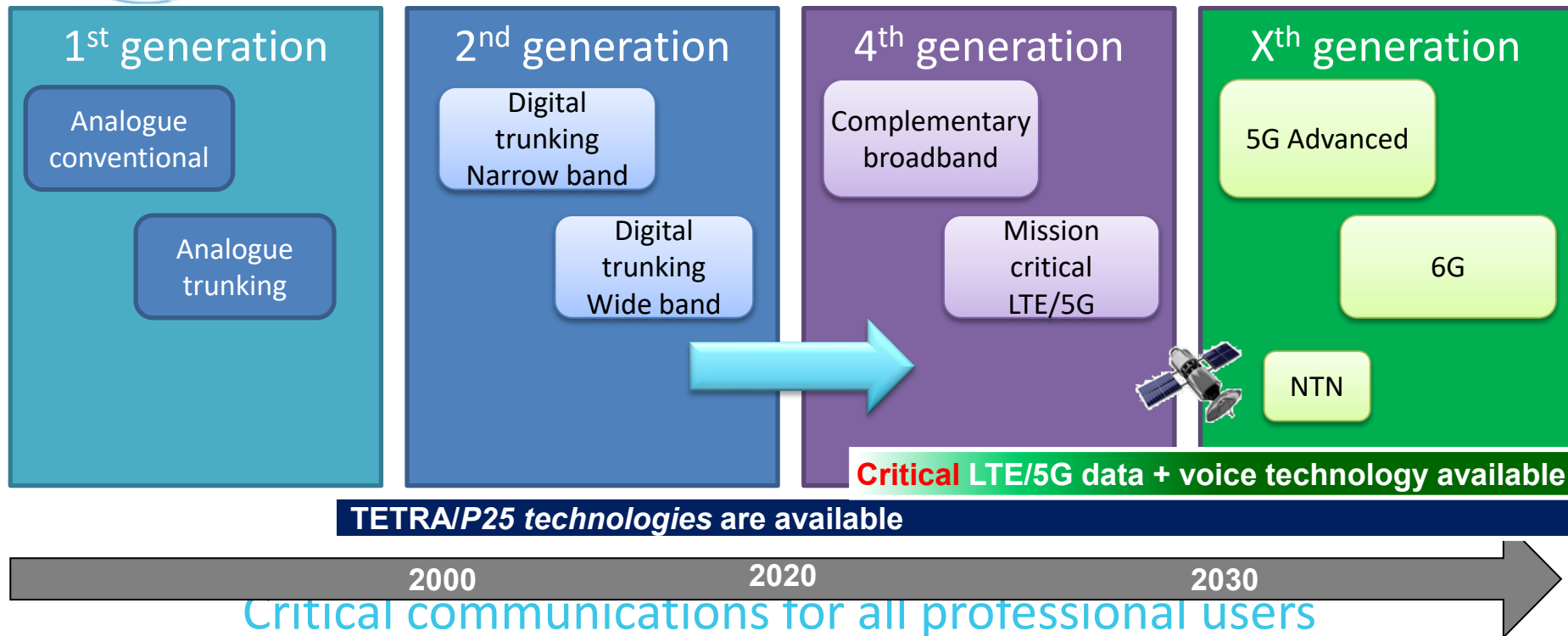


Continuous technology evolution



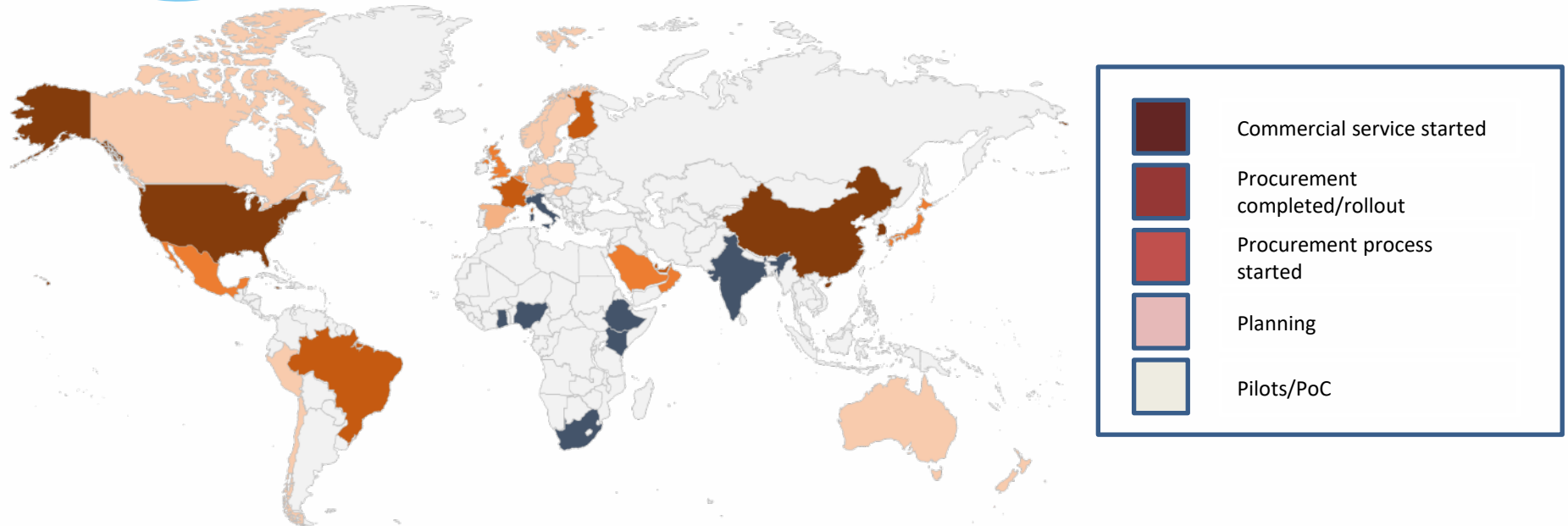


Critical communication evolution- *a standards journey*



T

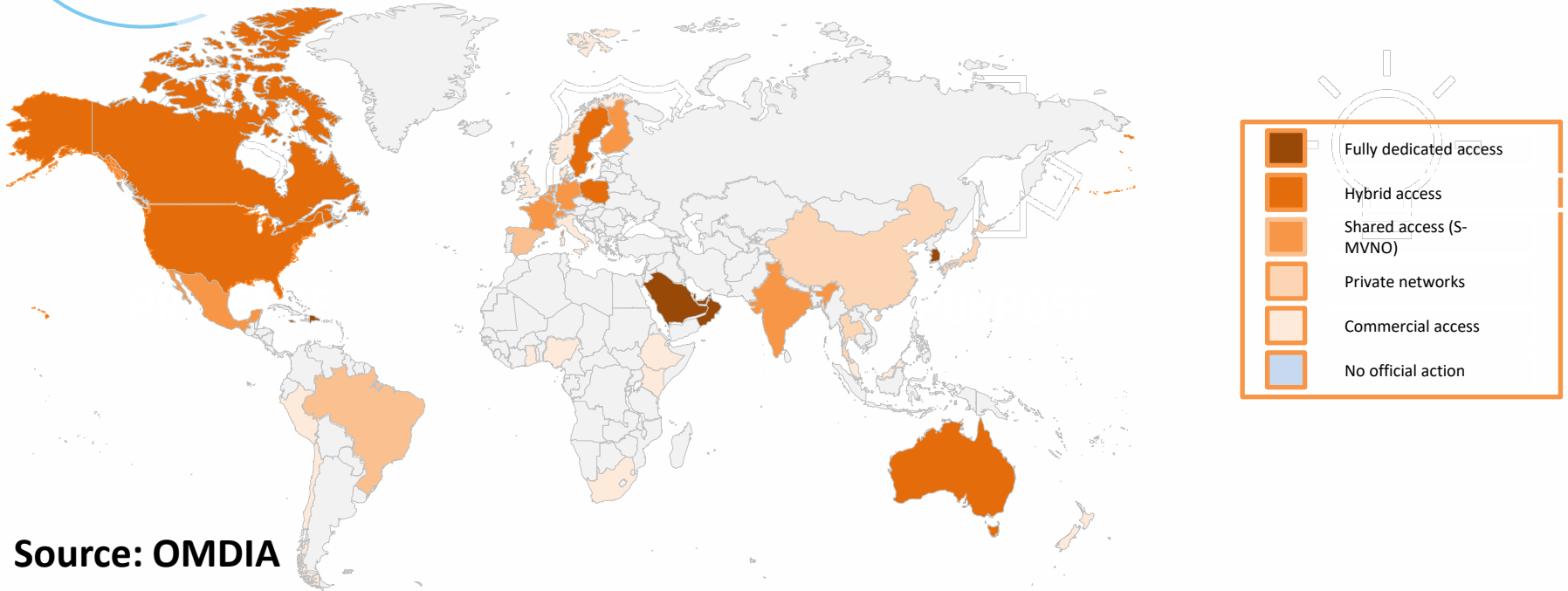
MCX Adoption Progress



Source: OMDIA

T

MCX Adoption-Network Deployment Model Trends



Source: OMDIA



MC PS/Gov't Broadband active projects





Critical Comms Broadband Work Group(CCBG)

Standards



Spectrum



Band 68
380 MHz
400 MHz
High Power UE
D2D sidelink
6G

Guidance

What role will 5G play for Critical Communications users?
MC Broadband Device Procurement
MC Broadband Applications
QPP in commercial networks (**published**)
MC Device API (**published**)
Service Overview TETRA IWF (**published**)
Control Room integration guideline (**near publishing**)



Spectrum Matters- Focus Globally & Support Regionally

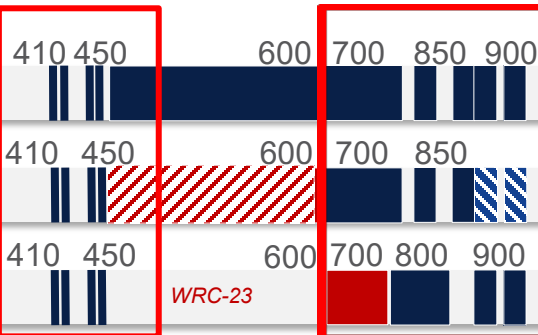


Spectrum used for current mission critical communications

Unit: MHz

< 1 GHz

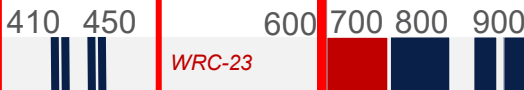
Asia-Pacific



Americas

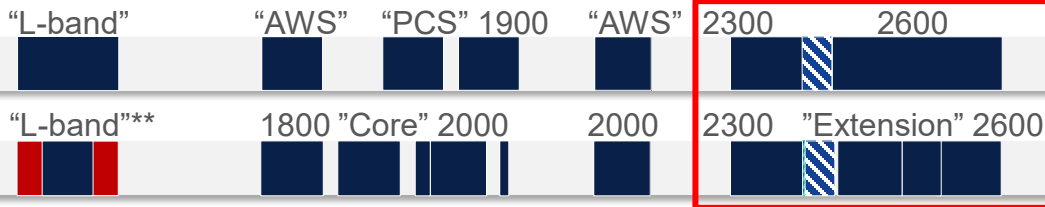


Europe, Middle East and Africa(*)



1 - 3 GHz

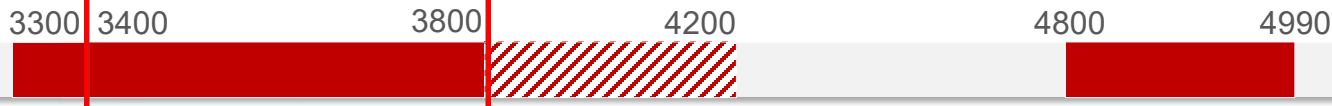
Americas



Africa, Asia-Pacific, Europe, Middle East



3 - 5 GHz



(*) 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 WRC-15)

▨ No IMT identification

Spectrum for current and future mission critical communications

Unit: MHz

< 1 GHz

Asia-Pacific



Americas

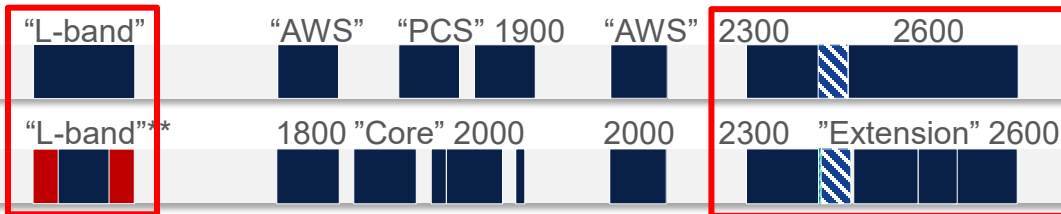


Europe, Middle East and Africa(*)



1 - 3 GHz

Americas



Africa, Asia-Pacific, Europe, Middle East

3 - 5 GHz



(*) 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)

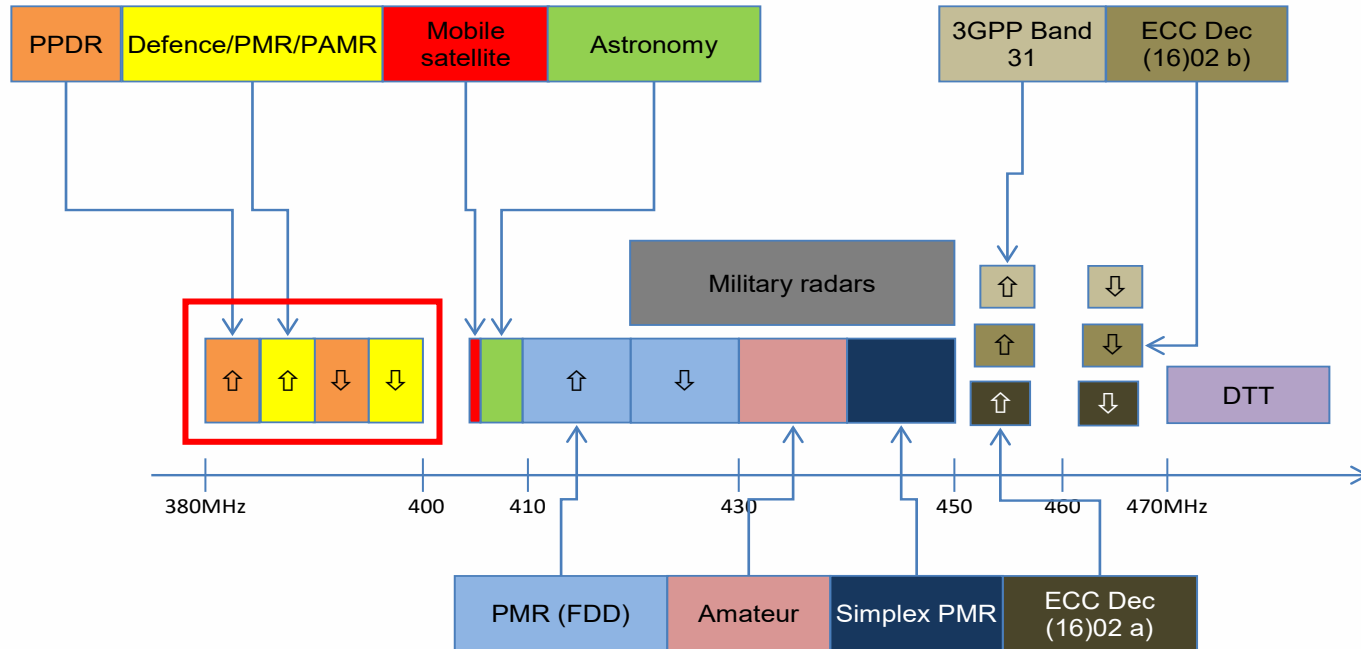
▨ Implemented / discussed at national / regional level

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

▨ No IMT identification

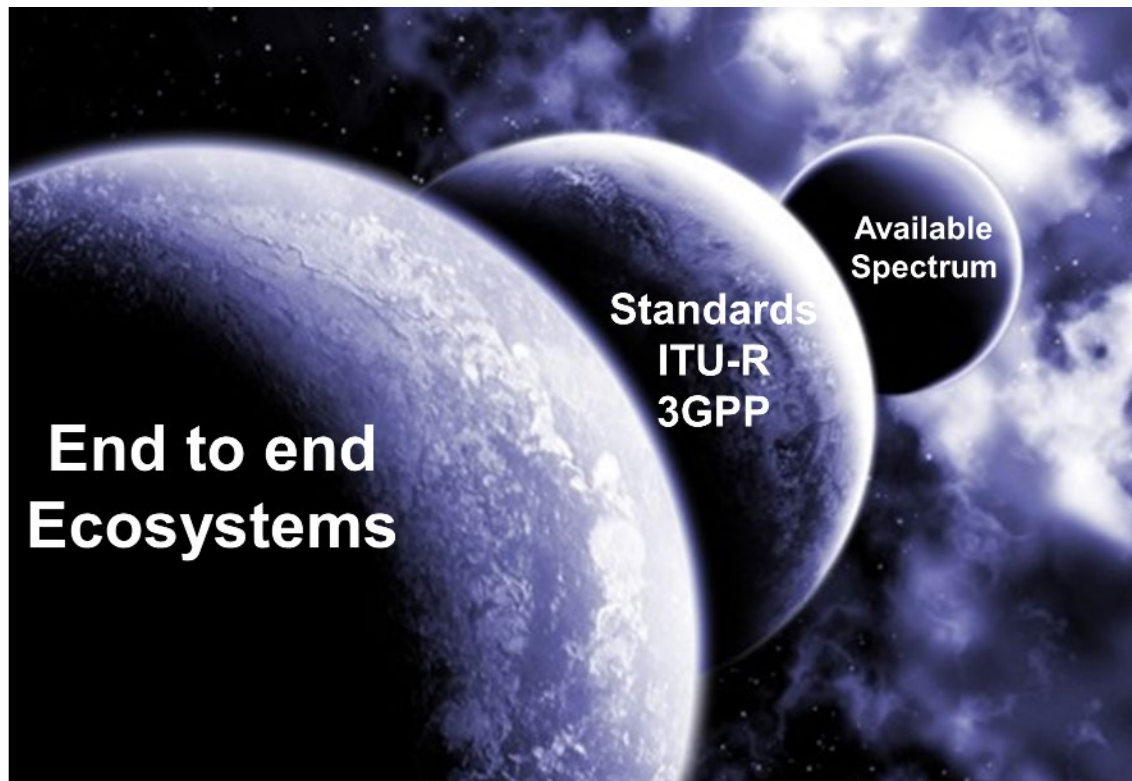
T

Three FDD frequency ranges 380-400 MHz, 410-430 MHz and 450-470 MHz





Mission Critical broadband market opportunities



A city skyline, likely San Francisco, is visible through a semi-circular cutout in a teal background. Overlaid on the city is a white network diagram consisting of dots connected by lines, suggesting a global or interconnected network.

GCF MCS Certification launched 6/2024

Device and Mission Critical application client conformance to
3GPP Release 14 MCPTT can now be certified

3GPP Release 15 with MCData and MCVideo to follow soon

Progress towards server2server cert. & field interoperability



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



SAVE THE DATE

17-19 JUNE 2025

BRUSSELS EXPO, BRUSSELS, BELGIUM

WWW.CRITICAL-COMMUNICATIONS-WORLD.COM

Questions? Thank You



Kevin Graham

Chief Executive Officer –TCCA

Email: kevin.graham@tcca.com

Mobile: +61(0)408 571 556 &  WhatsApp

TCCA

www.tcca.info

Find TCCA also on



www.linkedin.com/company/tcca-critical-communications/



www.facebook.com/tccacritcomms



@TCCAcritcomms



www.youtube.com/user/tandcca

Critical communications for all professional users