

Spectrum Roadmap for Terrestrial Services

Jitendra Singh
Head Govt. Affairs Qualcomm India & Spectrum Strategy (APAC)
Qualcomm



Collaborating with the global ecosystem to drive innovation



Shaping the digital future



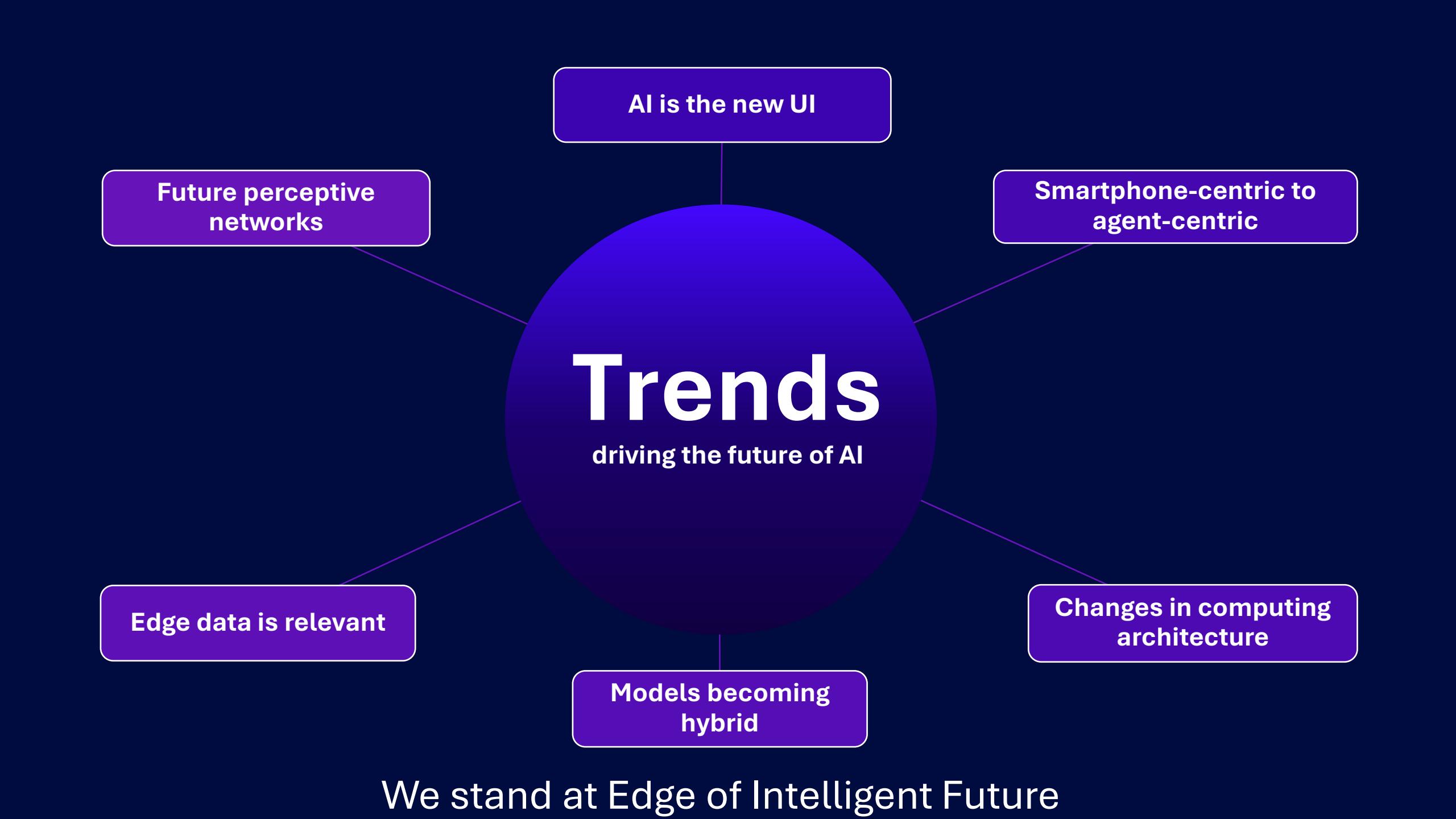
Powering the
mobile revolution



Redefining
connected processing



Enabling intelligent
computing everywhere



AI is the new UI

Future perceptive networks

Smartphone-centric to agent-centric

Edge data is relevant

Changes in computing architecture

Models becoming hybrid

We stand at Edge of Intelligent Future

Edge Connectivity and AI

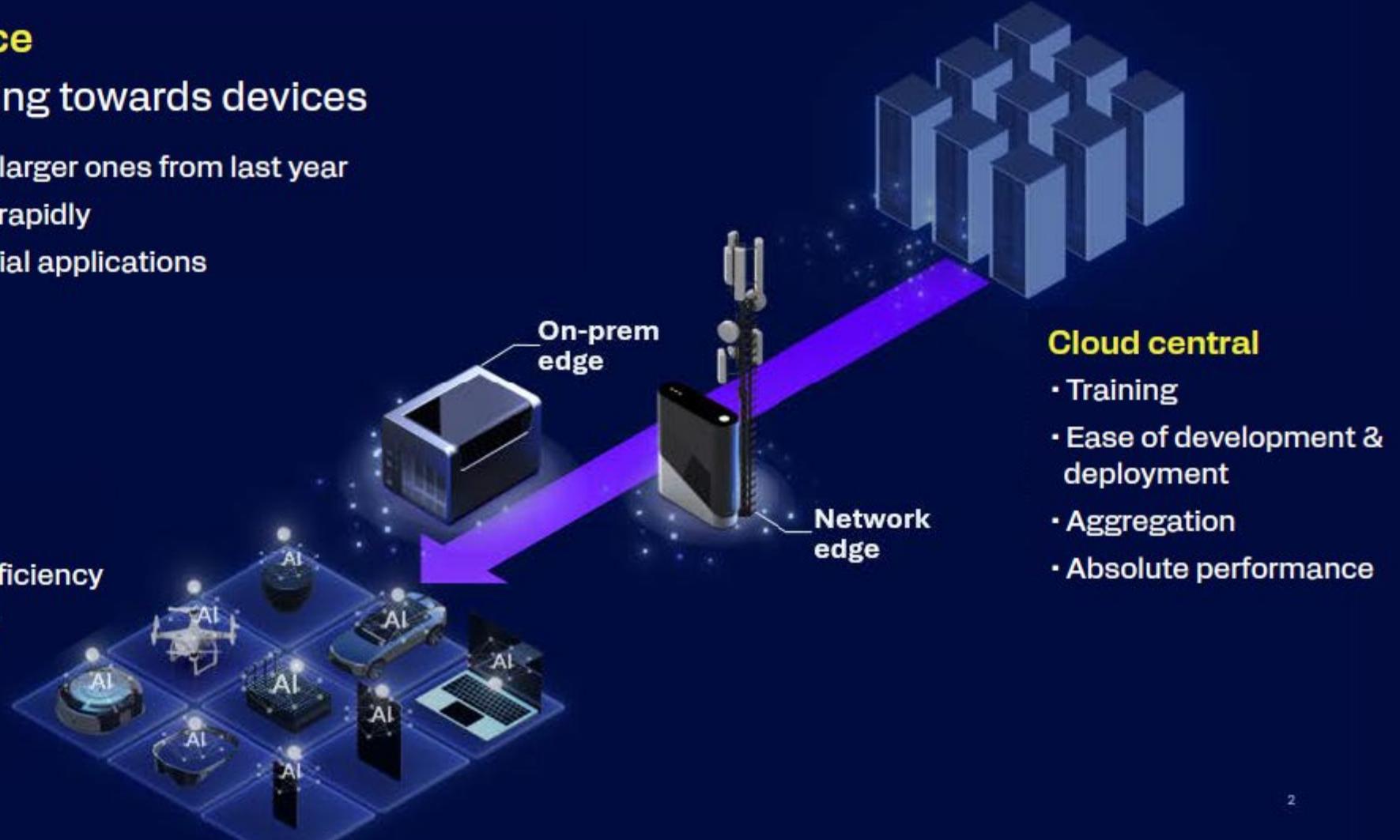
The era of AI inference

AI processing is moving towards devices

- New models outperforming larger ones from last year
- Model sizes are decreasing rapidly
- Increase focus on commercial applications
- AI is the new UI

On-device

- Inference
- Performance & efficiency
- Privacy & security
- Immediacy
- Reliability
- Personalization



6G will connect an expanded set of AI-powered devices and enable new services



Enabling tiered AI inferencing
on device, at network edge, and cloud



The smartphone remains the primary mobile hub for connectivity and compute



AI-powered consumer devices (glasses, watches, PCs) with cellular connectivity



AI-powered IoT devices, robots, and cars with cellular connectivity

ON-DEVICE AI

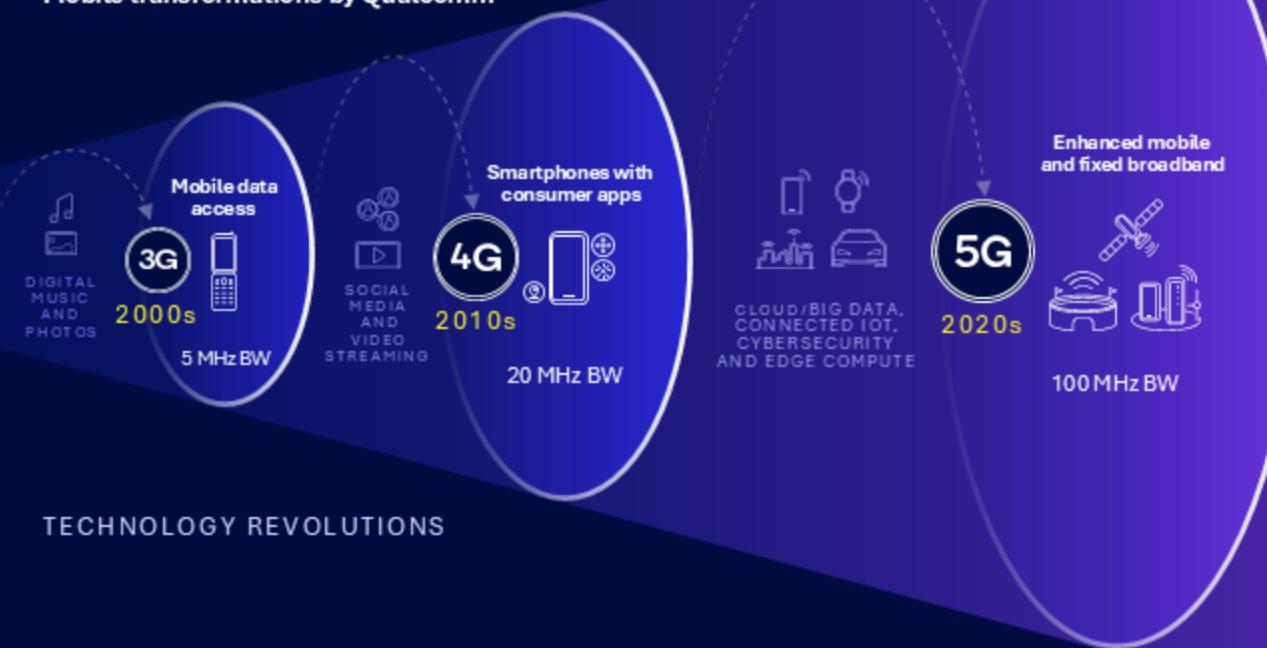


Processing and streaming contextual data
including sensor, audio and vision data



Mobile connectivity is enabling intelligence everywhere

Mobile transformations by Qualcomm



NEXT-GEN WIRELESS

Innovation platform for the next decade and beyond

New user experiences and services at scale

AI-native for efficient and resilient operations

Distributed AI and compute

Digital twins and predictive services

Smart industries with ambientIoT

Pervasive agentic AI
Personal | Healthcare | Education

Immersive communication

3D networks with connected drones

Integrated sensing and communication

Enhanced fixed wireless access

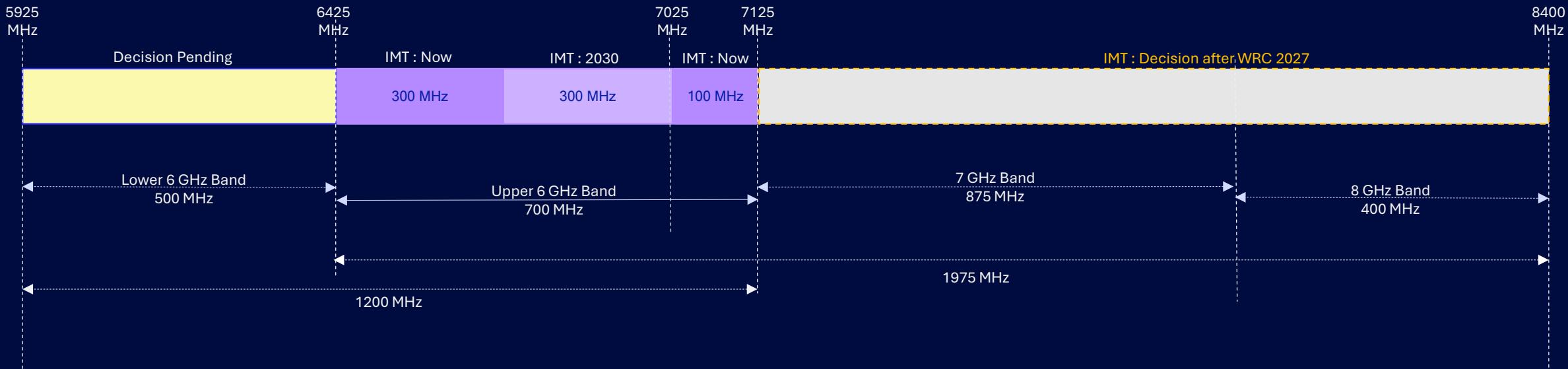
Efficient energy use
Intelligent transportation

6G Spectrum Requirements

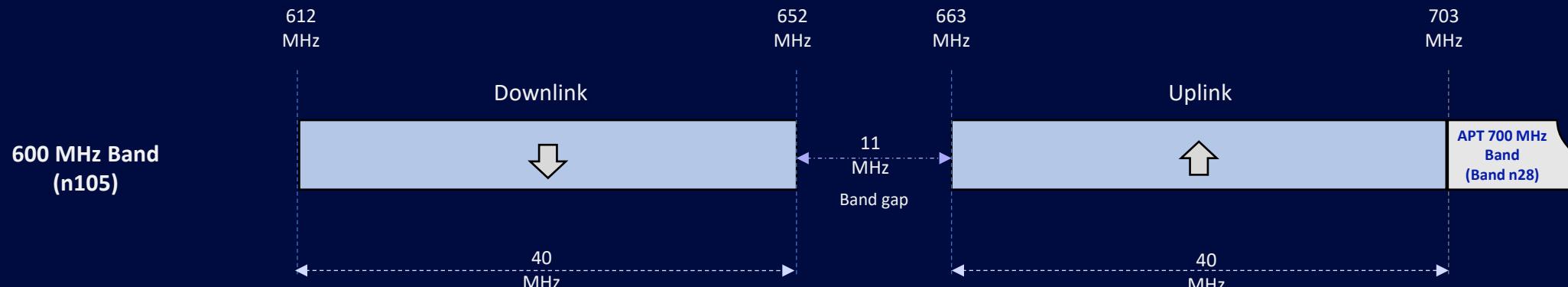
- Drivers
 - XR
 - Extensive Edge AI based use cases
 - Holographic communications
 - Integrated sensing and communication (ISAC)
- Spectrum requirements
 - GSA – 400 MHz contiguous block per operator
 - GSMA – 2 blocks of 200 MHz of contiguous blocks per operator
- New Spectrum bands for 6G
 - Greenfield spectrum must for 6G
 - Existing bands to continue with 4G/5G deployment till 6G gets stabilized
 - 600 MHz band (n105 : 663-703/612-652 MHz) is an essential complimentary 6G band
- Management of Incumbents by 2027
 - For India's 6G leadership, spectrum bands 7/8 GHz should be made available by 2027 for initial trials/pilots by 2028
 - Essential to plan migration path and rearming for incumbents using 7/8 GHz bands

India 6G Bands

- **Mid Range**



- **Sub-GHz Range**

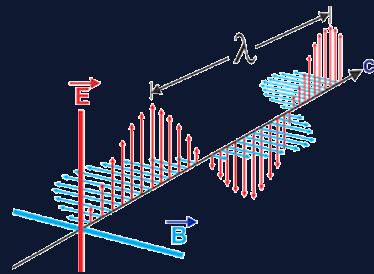


Summary : 6x6x6

• 6G

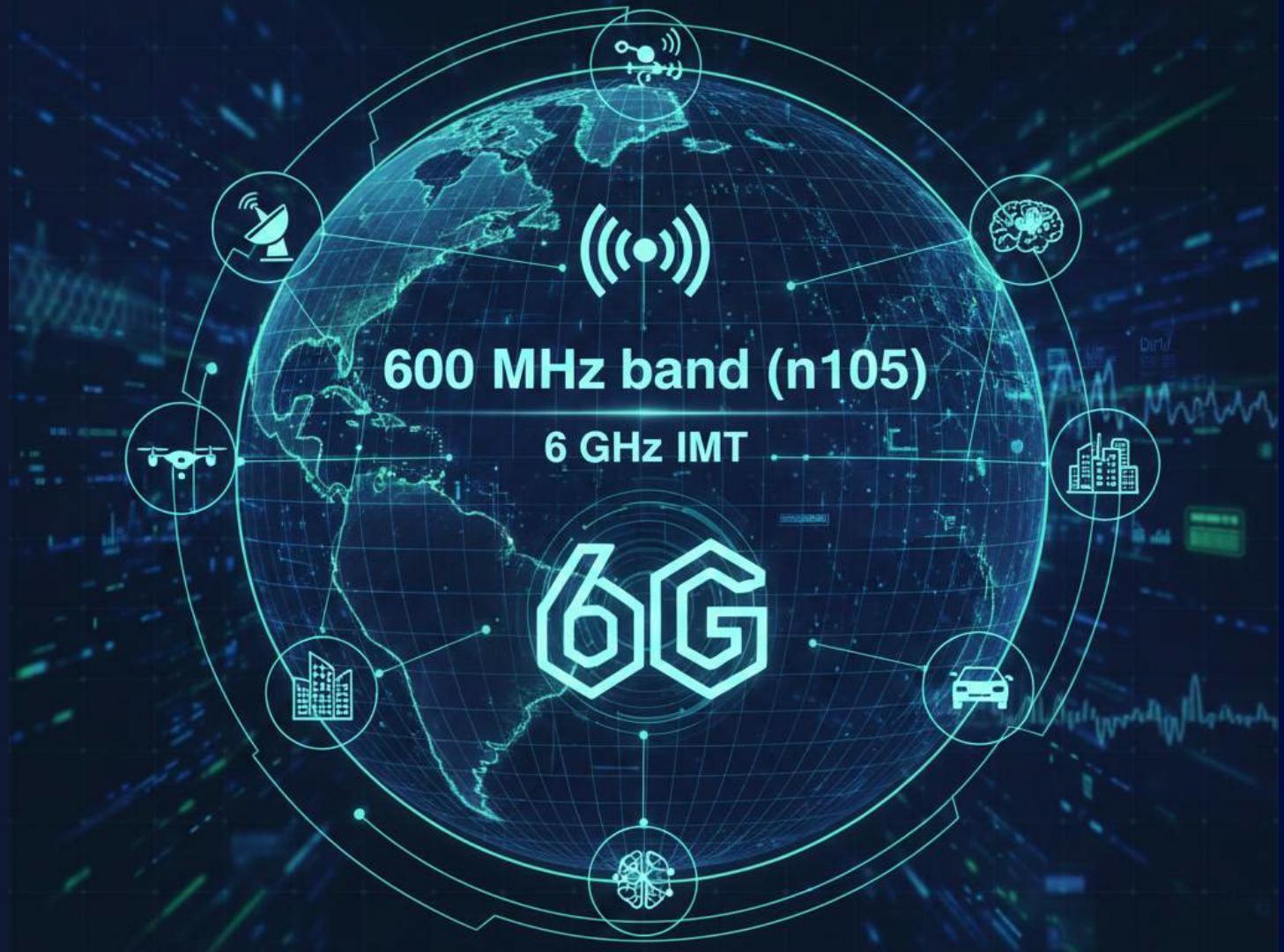


• 6-8 GHz



• 600 MHz

FUTURE OF CONNECTIVITY



ENABLING NEW FRONTIERS

Thank you



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