

Sony 5G Vision

Use Case & Key Enablers

- for 3GPP RAN Workshop on 5G -

5G - Key to a **BE MOVED** Experience

SONY

Sony's mission is to continue delivery of a **MOVING** experience to our customers

5G is expected to be the cornerstone to achieve our mission



Subconscious Lifelog



Immersive Reality



Kinetic Networking



Universal Connection

Unlimited Connectivity

Enhanced Usability

Extreme Quality

RWS-150068

5G Use Case: Subconscious Lifelog



Key Requirements

- Extend battery life : Up to 2 week charge-less operation
- Ultra small form factor : Complexity reduction beyond Rel-13 MTC
- Ubiquitous connectivity : Equivalent connectivity as LTE

Key Enablers

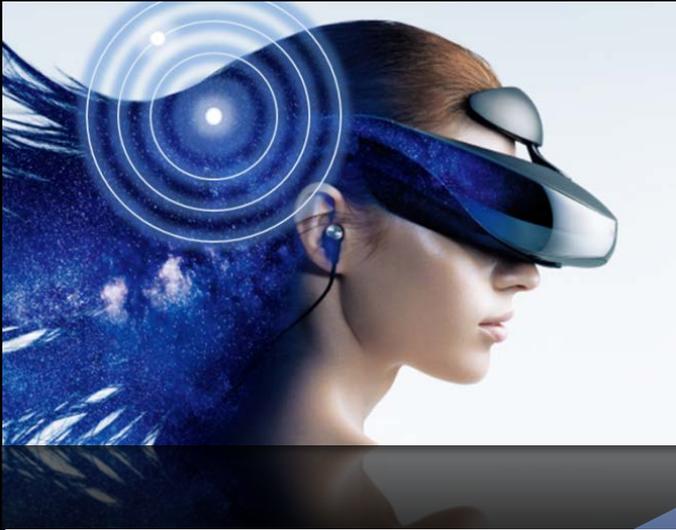
Extended DRX/Connectionless

Super Narrowband (< 1.4MHz) Operation

LTE In-Band Operation (~ 6GHz Band)

Enable the logging of life activity **Without User's Stress**

5G Use Case: Immersive Reality



Key Requirements

- High user bitrate : At least 120Mbps/user (8K with HEVC)
- Very low latency : Below 1ms end-to-end latency

Key Enablers

- Super Wideband (6GHz~100GHz Band)
- Scalable OFDM-based incl. NOMA
- Enhanced Massive MIMO
- Short TTI Operation (100us order)
- Mobile Edge Computing

Data rate estimates with HEVC	60fps	120fps
4K (3840 x 2160)	40Mbps	48Mbps
8K (7680 x 4320)	100Mbps	120Mbps

Creation of Sense of Being through ultra high bit rate and low latency

Extreme Quality

5G Use Case: Kinetic Networking



Key Requirements

- Flexible network configuration to meet varying user demand

Key Enablers

Dynamic and Moving Cell Deployment

Dynamic Role Configuration

Dynamic Network Configuration for optimized experience delivery

5G Use Case: Universal Connection



Key Requirements

- Harmonized utilization of lightly-licensed and license-exempt spectrum
- Seamless roaming especially important for wearable devices

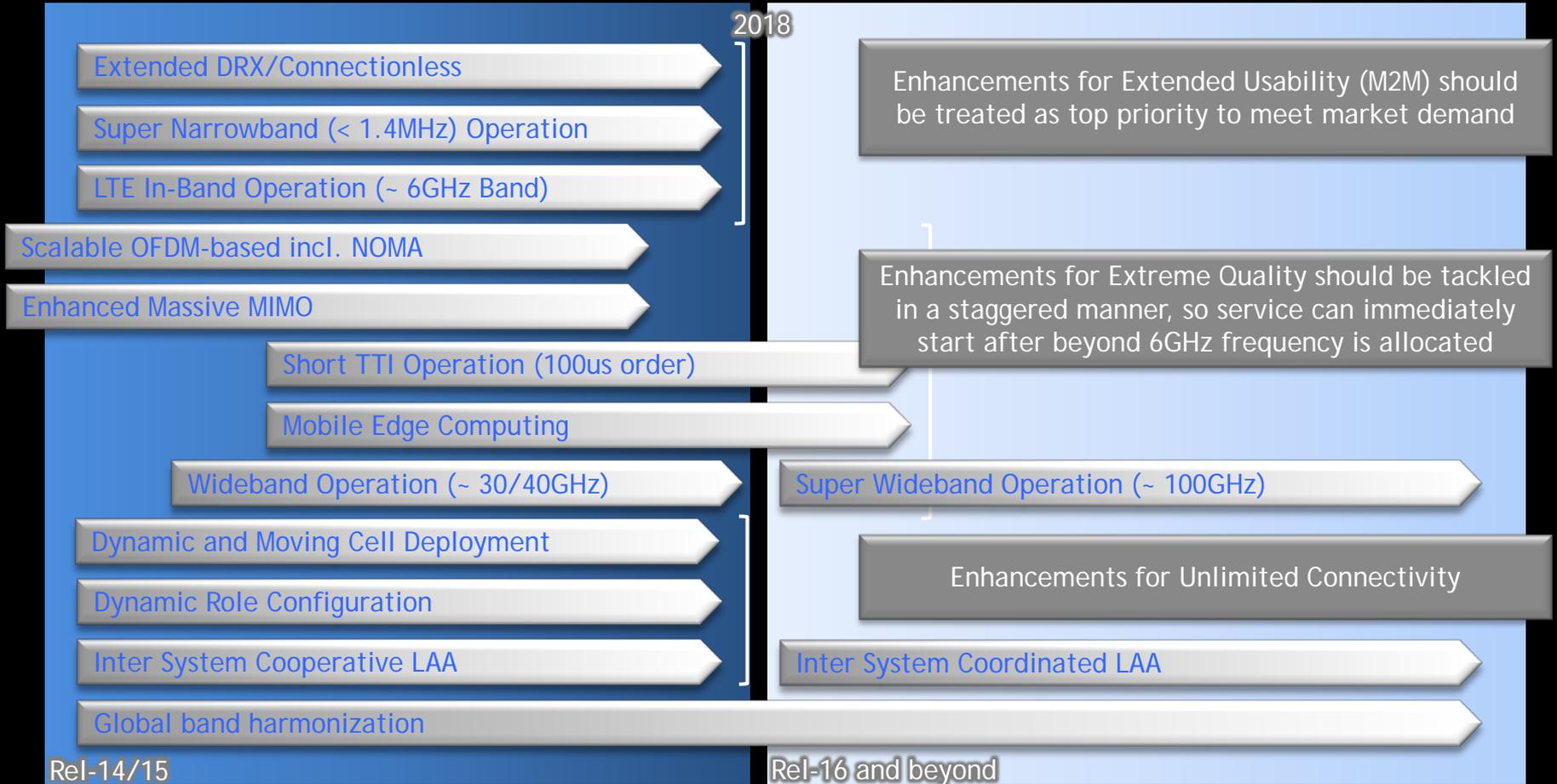
Key Enablers

Inter System Cooperative/Coordinated LAA

Global band harmonization

Efficient Band Utilization and Planning for universal experience delivery

5G Evolution Proposed Timeline



5G - Key to a **BE MOVED** Experience

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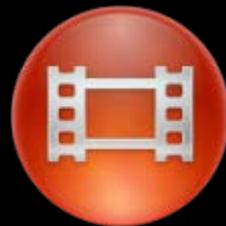


We look forward to working together to make **5G**
a like no other wireless technology!!

RWS-150068



Thank You!



Listen. Create. Watch. Play.

