5G ECOSYSTEM UPDATE

Sverker Magnusson
GSA CEPT
VISION

wirelessly connect almost all 7 billion people globally to new and exciting services through 100 billion devices and things, by 2030

HOW

spectrum from the low-band, mid-band and high-band frequency ranges helps realise the Vision

WRC-19 GOAL

large contiguous amounts of high band (mmWave) harmonised spectrum, with suitable regulatory conditions, helps enable extreme capacity and ultra fast local area services. planning for the future with WRC-23 mid & low band agenda item
USE CASES

- Enhanced Mobile Broadband
- IMT-2020
- Massive Machine Type Communications
- Ultra-reliable, low-latency communications
STANDARDS

3GPP 5G specs complete – work underway on enhancements

Release 15 complete (2017-2018)

Release 16 development (2018-2020)
Enhancements, Unlicensed, URLLC+ & IoT+, V2X, etc

Release 17 planning (2019-2021)
Enhancements to support verticals, coverage improvements, NTN, etc
Various applications and services require access to spectrum from low, mid and high bands.

- **High band**
  - eMBB, URLLC
  - Extreme capacity
  - e.g. 24.25-29.5, 37-43.5 GHz etc
  - 800-1000 MHz MNO/Network contiguous 2020 onwards

- **Mid band**
  - eMBB, URLLC, mMTC (no deep coverage)
  - Both coverage & capacity
  - e.g. 2.3, 2.6, 3.3–4.2, 4.4-5 GHz etc
  - 80-100 MHz MNO contiguous 2020 onwards

- **Low band**
  - Wide area coverage, deep indoor (mMTC, eMBB, URLLC)
  - Extended coverage
  - e.g. 600, 700 MHz etc
  - Upto 20 MHz channel bandwidth 2020 onwards
THANK YOU

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- 5G ecosystem update
- 5G licensing update

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