



# **5G ECOSYSTEM UPDATE**

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#### **VISION**



#### **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

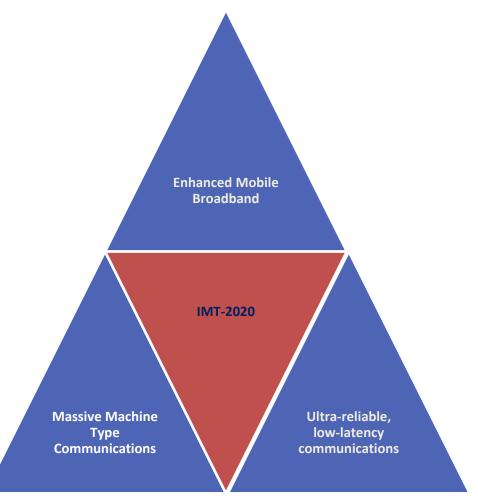
large contiguous amounts of high band (mmWave) harmonised spectrum, with suitable regulatory conditions, helps enable extreme capacity and ultra fast local area services. planning for the future with WRC-23 mid & low band agenda item

### **USE CASES**













#### **STANDARDS**





Release 15 complete (2017-2019)

Release 16 development (2018-2020)

Enhancements, Unlicensed, URLLC+ & IoT+, V2X, etc

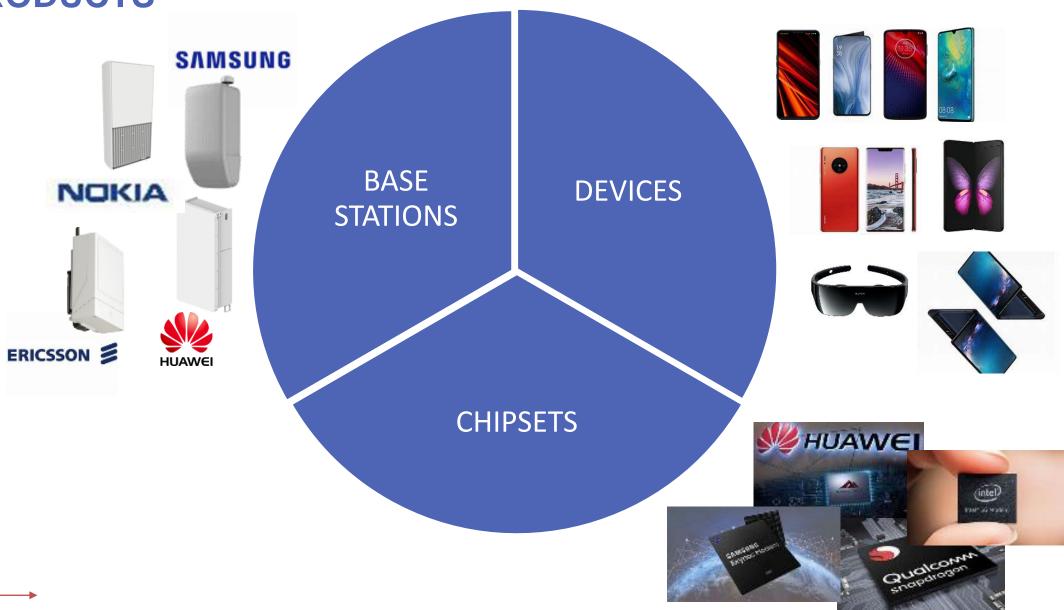
Release 17 planning (2019-2021)

Enhancements to support verticals, coverage improvements, NTN, etc

**3GPP 5G specs complete – work underway on enhancements** 

# **PRODUCTS**





#### **SPECTRUM**



eMBB, URLLC

**High band** 

Extreme capacity

e.g. 24.25-29.5, 37-43.5 GHz etc

800-1000 MHz MNO/Network contiguous 2020 onwards

eMBB, URLLC, mMTC (no deep coverage) Mid band

e.g. 2.3, 2.6, 3.3-4.2, 4.4-5 GHz etc

Both coverage & capacity 80-100 MHz MNO contiguous 2020 onwards

Wide area coverage, deep indoor (mMTC, eMBB, URLLC)

Low band

Extended coverage

e.g. 600, 700 MHz etc

Upto 20 MHz channel bandwidth 2020 onwards

Various applications and services require access to spectrum from low, mid and high bands

# The Road to 5G with GSA The Industry Voice of the Global Mobile Ecosystem Facts - Figures - Graphs - Reports - Market Monitoring - Analysis - Advocacy - Databases... Read More

#### **THANK YOU**

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5G ecosystem update



5G licensing update













