



# 5G Webinar

**Basic Terminologies,  
Historical Dev.  
(1G/2G/3G/4G/5G)**

# Historical Developments

- 1G to 4G Technology (3min Video)
- <https://www.youtube.com/watch?v=Pg1wsHOhxew>

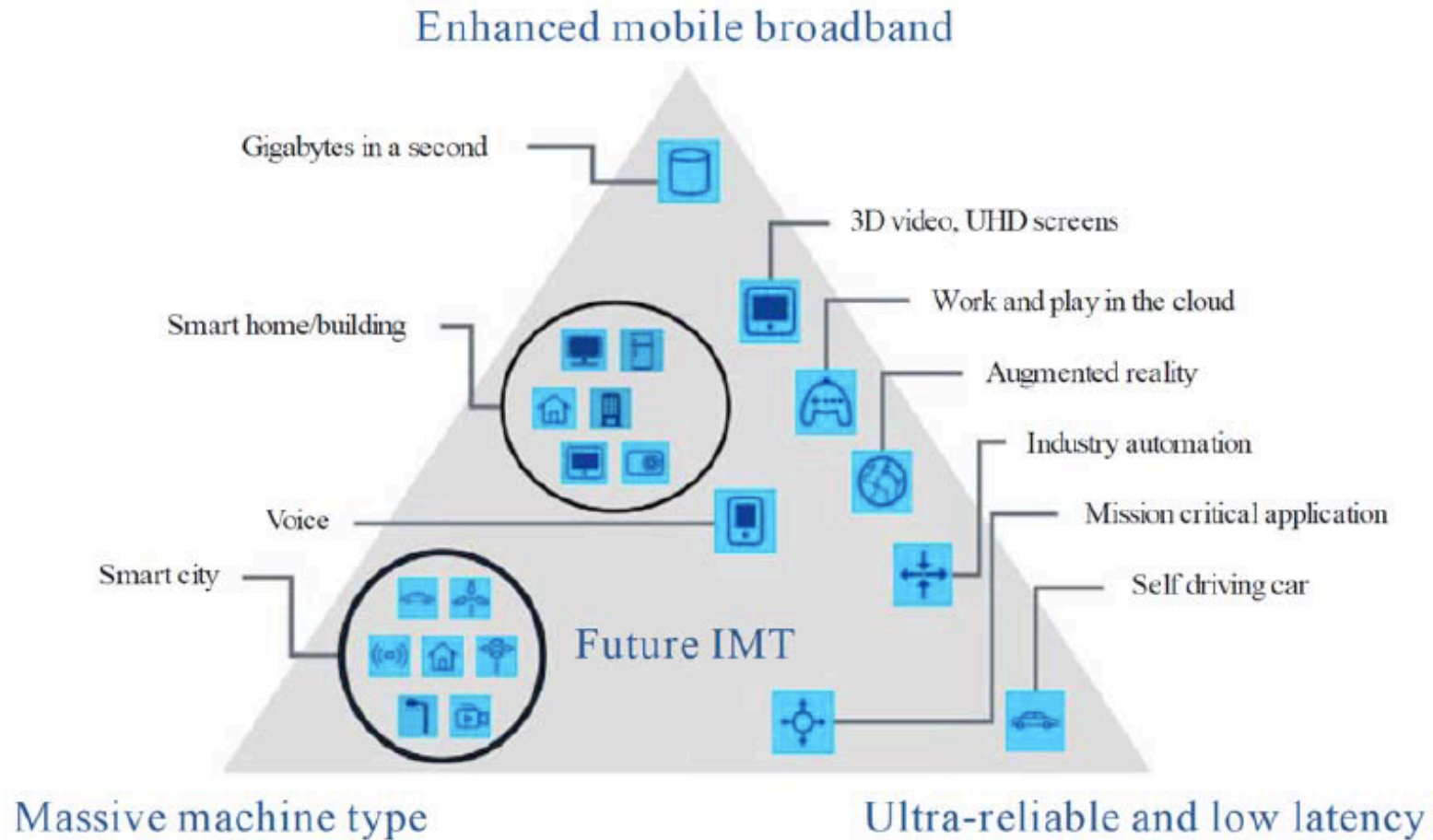


Table 3.1. IMT-2020 (5G) vs. IMT-Advanced (4G) ITU requirements

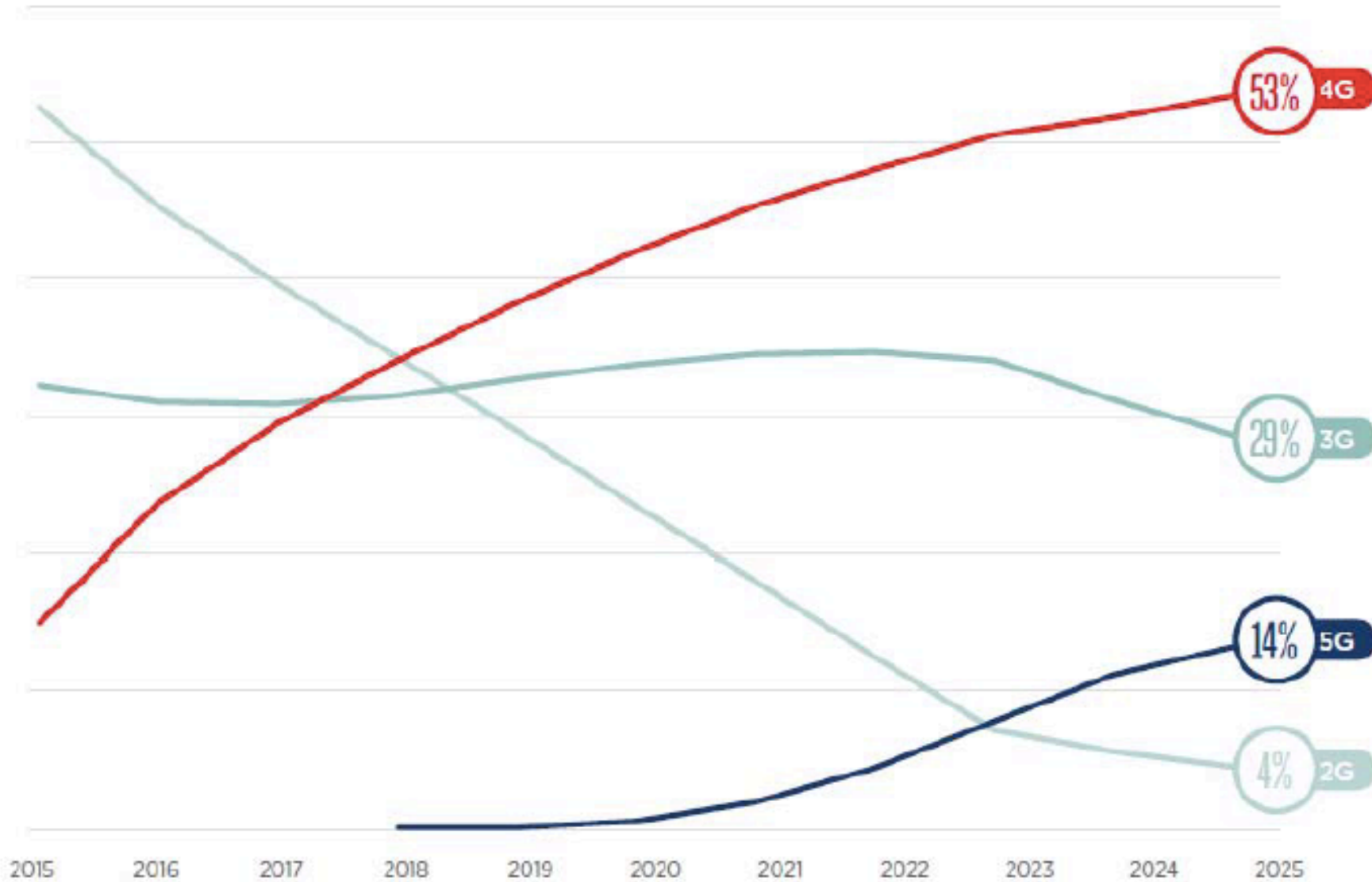
	IMT-Advanced	IMT-2020
Minimum peak bitrate	Downlink: 1 Gbit/s Uplink: 0.05 Gbit/s	Downlink: 20 Gbit/s Uplink: 10 Gbit/s
Bitrate experienced by individual mobile device	10 Mbit/s	100 Mbit/s
Peak spectral efficiency	Downlink: 15 bit/s/Hz Uplink: 6.75 bit/s/Hz	Downlink: 30 bit/s/Hz Uplink: 15 bit/s/Hz
Mobility	350 km/h	500 km/h
User plane latency	10 msec	1 msec
Connection density	100 thousand devices per square kilometer	1 million devices per square kilometer
Traffic capacity	0.1 Mbit/s/sq. m.	10 Mbit/s/sq. m. in hot spots
Frequency bandwidth	Up to 20 MHz/carrier (up to 100 MHz aggregated)	Up to 1 GHz (single or multiple frequency carriers)



# 5G –Use Cases, (ITU, Academy 2019)



# Rollout Prediction (GSMA 2018)



■ 1.25 Number of connections per mobile generation (prediction 2018 to 2025).



# Ends

- Q&A

