

# 8º CONGRESO INTERNACIONAL DE ESPECTRO

---

## INNOVACION HACIA UNA SOCIEDAD CONECTADA



[www.ane.gov.co](http://www.ane.gov.co)



Calle 93 # 17-45 Piso 4, Bogotá D.C  
Teléfono: (57+1) 6 00 00 30



# 5G promises to take wireless from personal use to:

*Pervasive video*

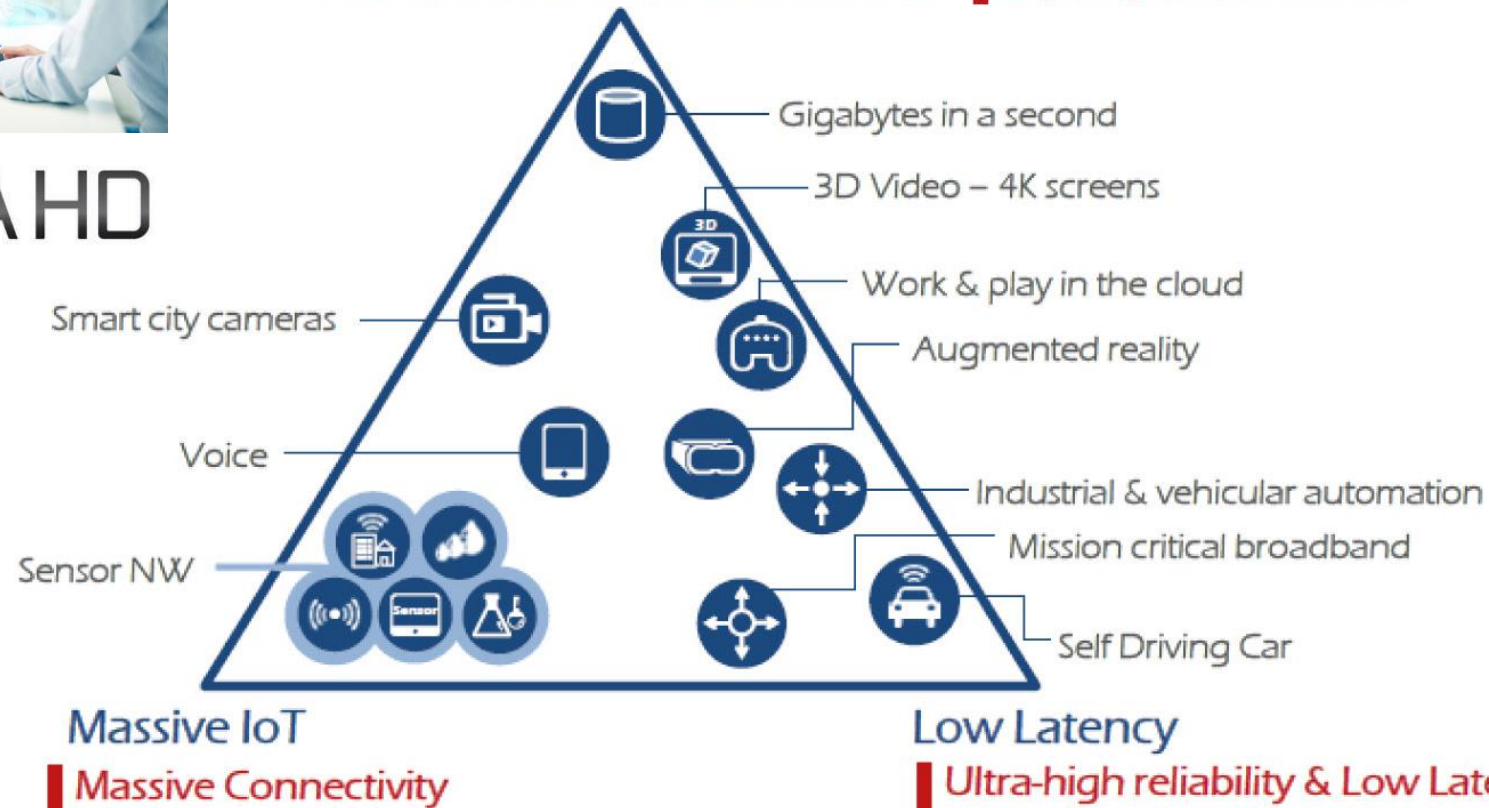


4K ULTRA HD

*Industrial robotics*



Enhanced Mobile Broadband | Capacity Enhancement



*Remote surgery*



*Autonomous cars*



Source: ITU-R IMT 2020 requirements - ETRI graphic

# Spectrum Allocation Principles

- Large Band Size to accommodate multiple competitors
- Contiguous Large block size (100 MHz + in mmWave)
- Harmonized Internationally to the greatest extent possible
- Auctioned without restriction and with flexible use
- Adjacency to like services in existing bands

# Benefits of Auctions

- Effectively assigns licenses to those entities who value them most
- Employs a price mechanism which increases efficiency
- Reduces the time from initial application to license grant
- License winners put spectrum to use timely and effectively
- The public receives a direct financial benefit.



# 5G Spectrum

- Design system to operate in **much larger channel bandwidth**
- Operate across **new scenarios** such as unlicensed, or shared licensed
- Operation in **low frequency, mid-band, and in mmWave**
- **Densification** via small cell build-out key to RAN evolution

Low Band: Clearing broadcasters and deploying wireless services in the 600 MHz band following the incentive auction - made 70 MHz of licensed spectrum available for commercial wireless use.

Mid Band: Proposing rule changes and licensing frameworks to unleash additional spectrum for 5G services in the 2.5 GHz band, the 3.5 GHz band, and the 3.7-4.2 GHz band.

High Band: Moving aggressively to make nearly 5 GHz of spectrum available for flexible wireless use in the 24 GHz, 28 GHz, 37 GHz/39 GHz, and 47 GHz bands, beginning with a 28 GHz auction in November 2018.

**8° CONGRESO  
INTERNACIONAL  
DE ESPECTRO**  
INNOVACION HACIA UNA  
SOCIEDAD CONECTADA



[www.ane.gov.co](http://www.ane.gov.co)



ANE.colombia



@ANE\_Colombia

Calle 93 # 17-45 Piso 4, Bogotá D.C  
Teléfono: (57+1) 6 00 00 30



GOBIERNO  
DE COLOMBIA



MINTIC



ANE  
Autoridad Nacional del Espectro