

A stylized 3D illustration of various Italian landmarks including the Leaning Tower of Pisa, St. Peter's Basilica, the Colosseum, and the Roman Forum, all rendered in bright, solid colors. Glowing blue lines representing a 5G network or data flow weave through the scene, connecting the landmarks and looping around the central text area.

GRUPPO TIM

5G overview

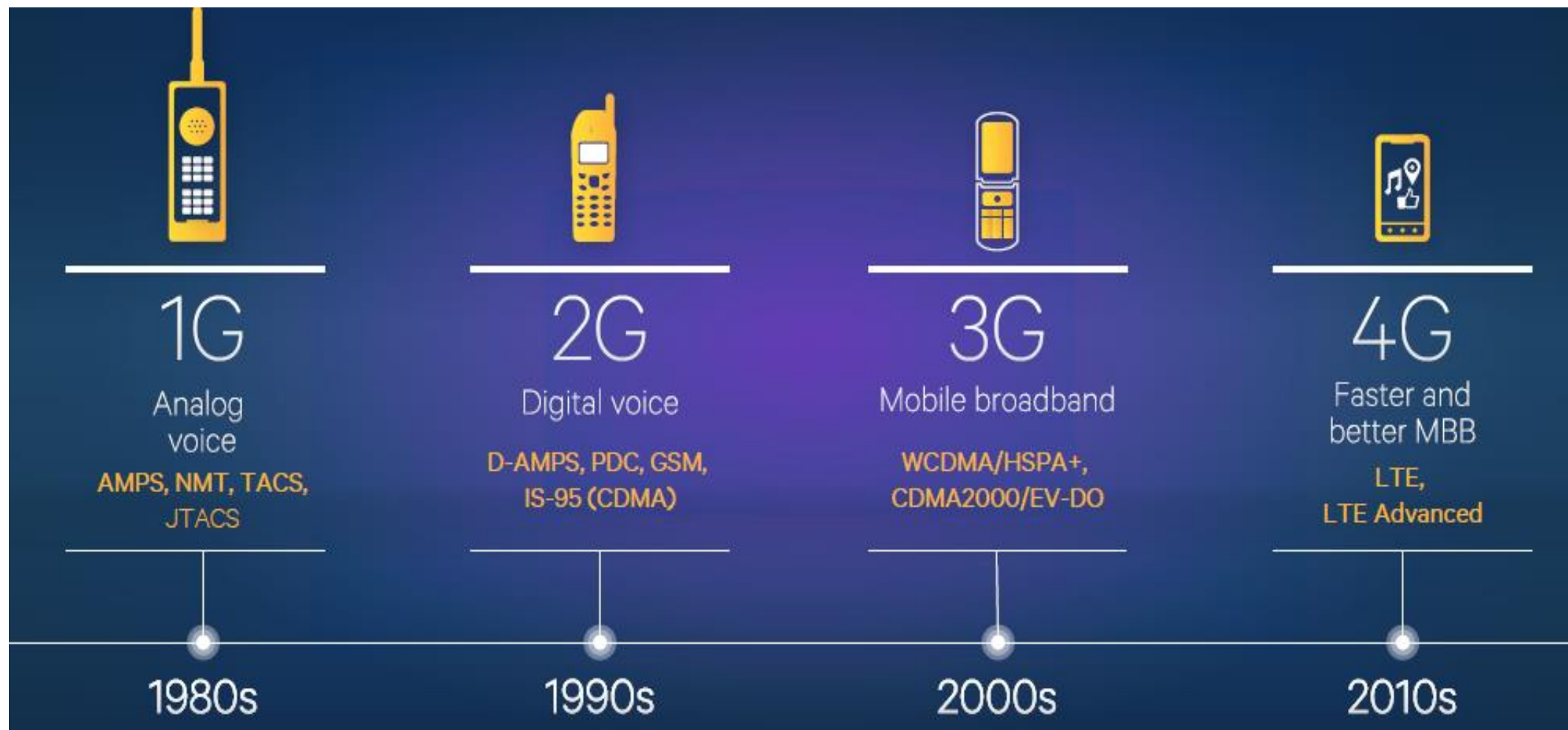
Webinar Ordine Nazionale Ingegneri

Enrico Buracchini, Senior 5G project manager

22 NOVEMBRE 2021

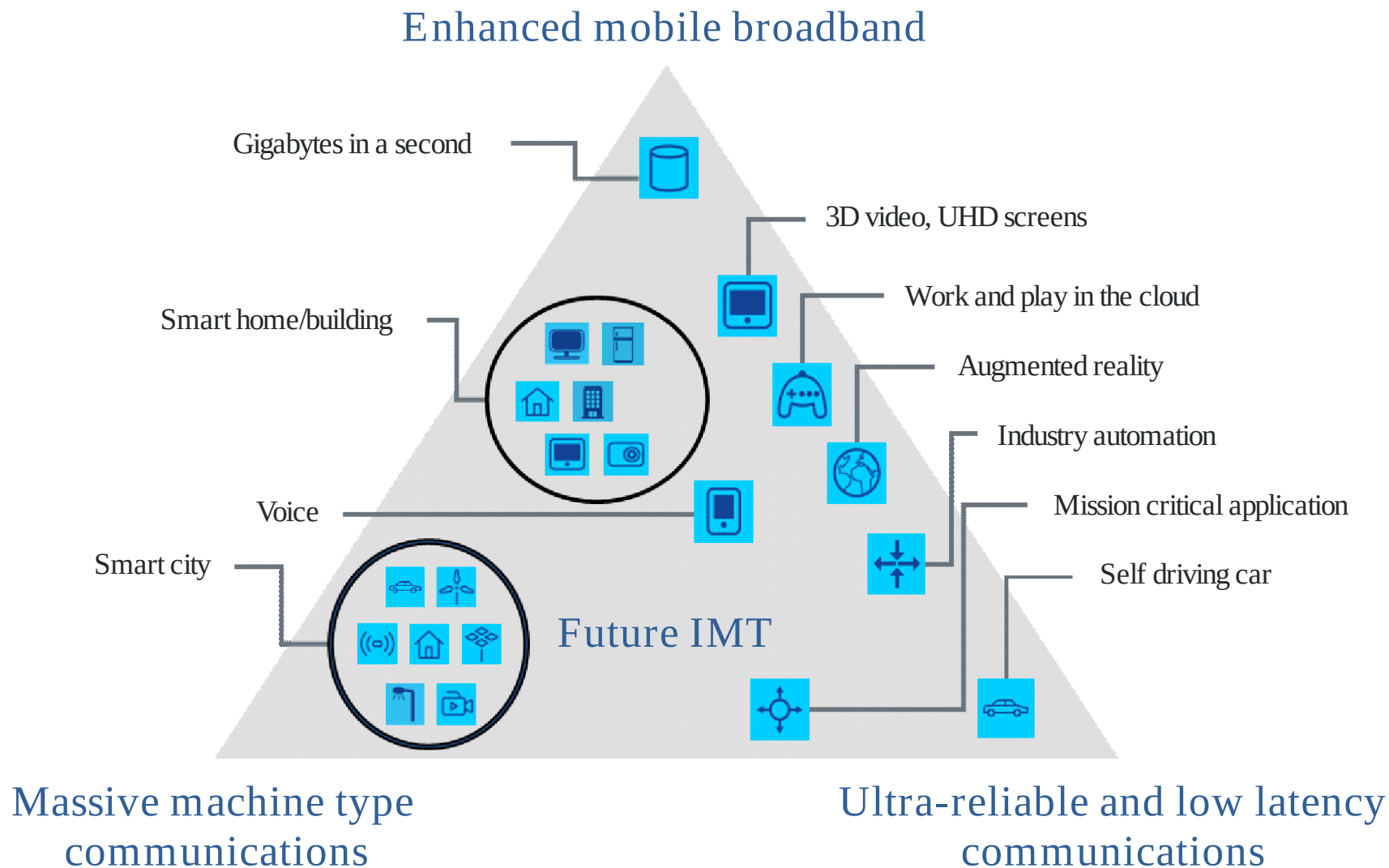


Ad oggi....siamo arrivati fin qui...



Source : Qualcomm presentation @ 5G Tokyo Bay Summit
(july 2015)

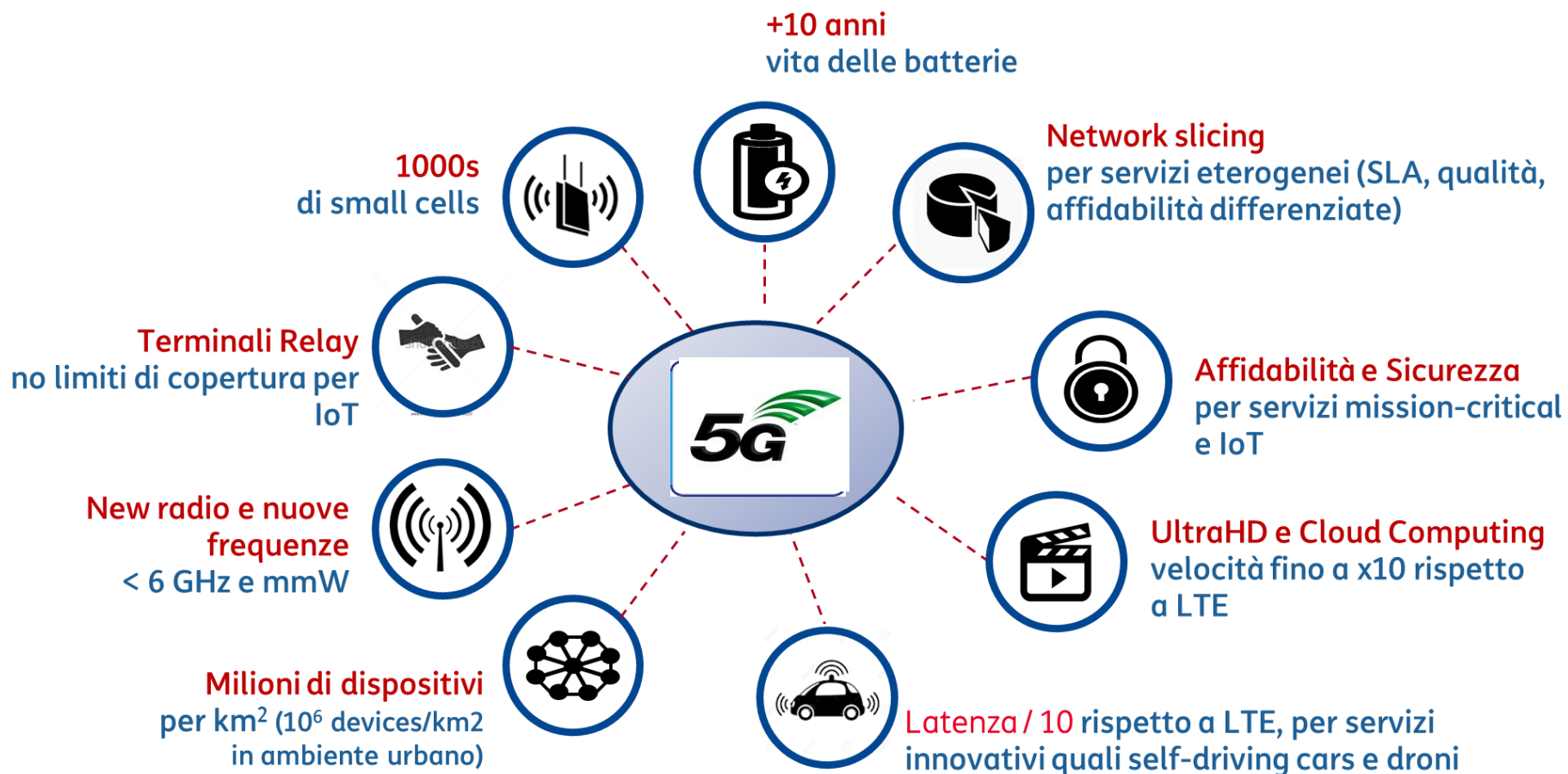
«IMT vision»: Usage Scenarios of IMT for 2020 and beyond



[Source: Racc. ITU-R M.2083, "IMT Vision"]

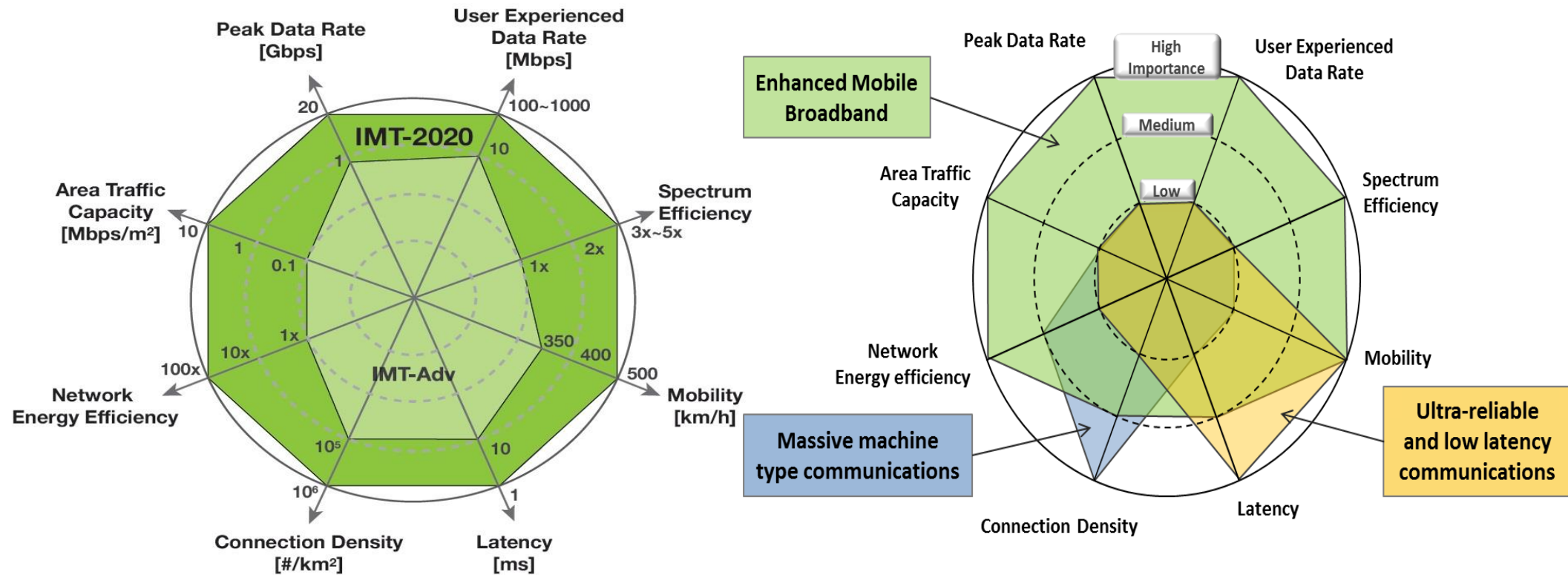
M.2083-02

5G in a nutshell.....



→ il 5G non è solo prestazioni migliori rispetto al 4G ...

«IMT2020» Vision Capabilities (ITU R 5D VISION)



Mapping KPIs to Usage Scenarios



enhanced Mobile
Broadband (eMBB)

Smart Office
Virtual Reality
+
Augmented Reality
Ultra HD 8K



Massive Machine Type
Communication (mMTC)

Smart Cities
Smart Lighting Smart Parking
Smart Wasting
Smart Metering
Smart Logistic

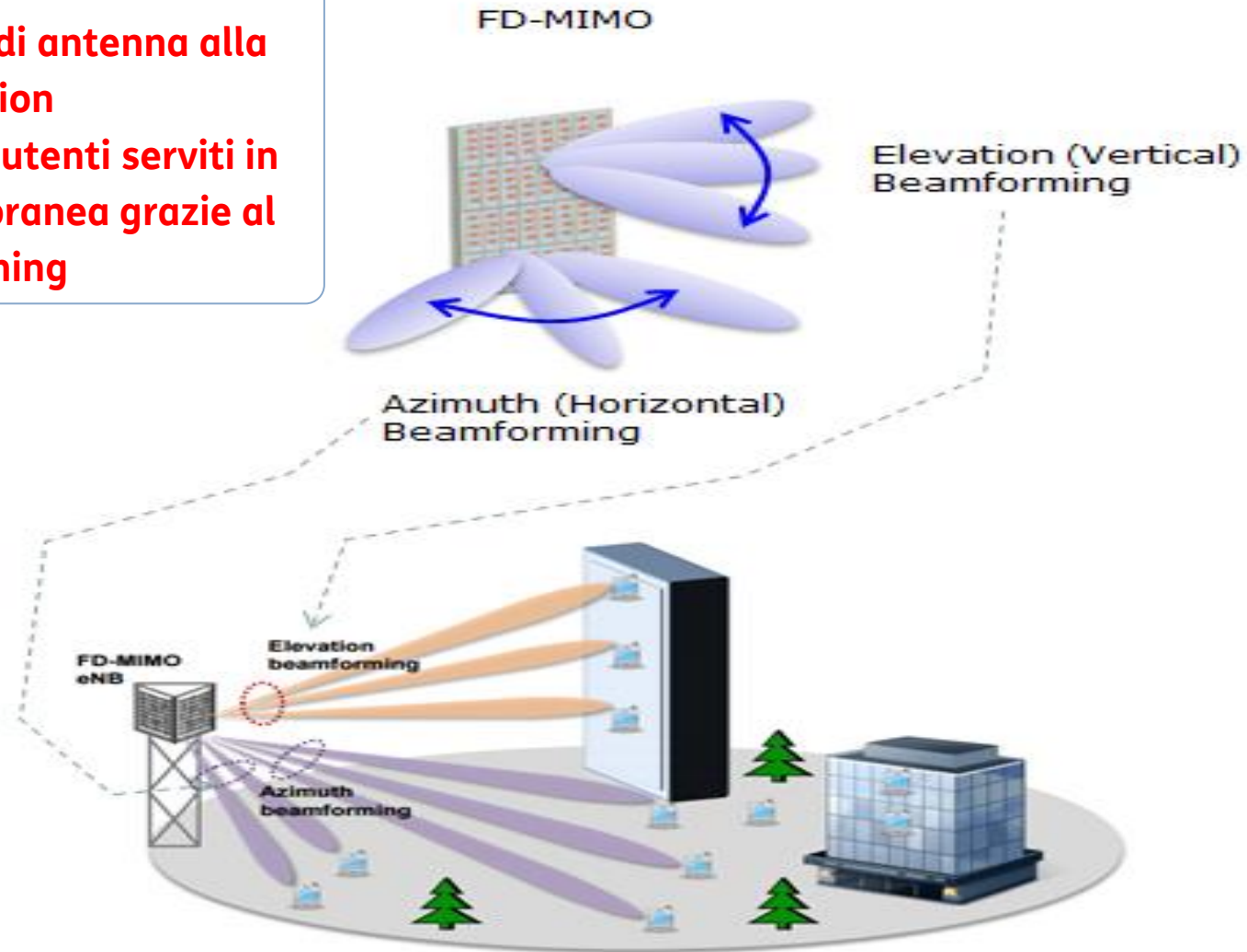


Ultra Reliable and Low
Latency (URLLC)

Smart Health
Industry 4.0
Smart Grid
+
Autonomous Driving
Tactile Internet
Public Safety

5G, antenne intelligenti, FWA

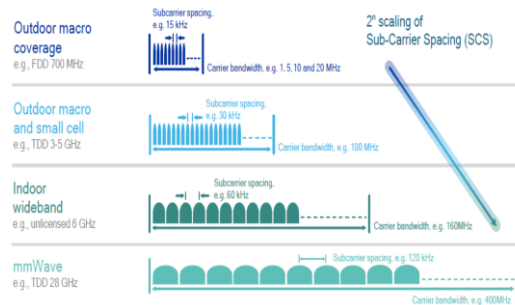
- Elevato numero di elementi di antenna alla Base Station
- Decine di utenti serviti in contemporanea grazie al beamforming



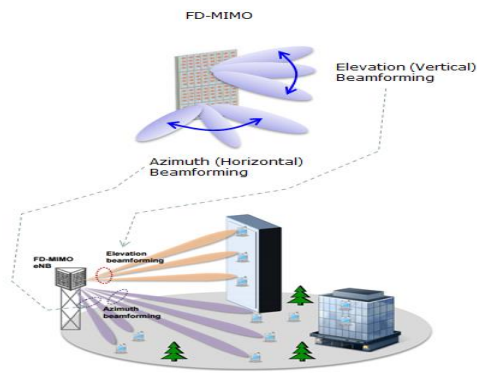
5G: Enabers tecnologici

C/V- RAN

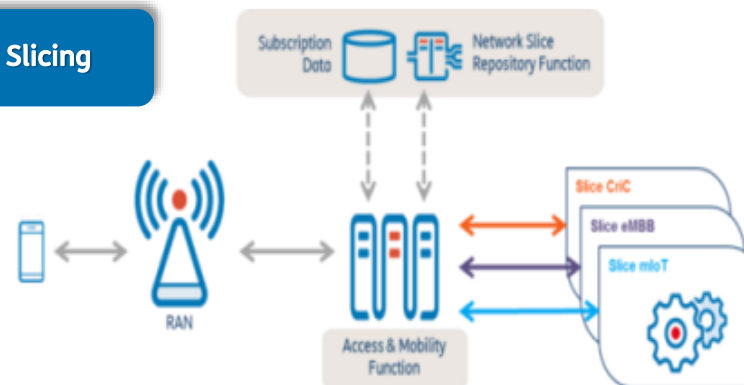
New Radio



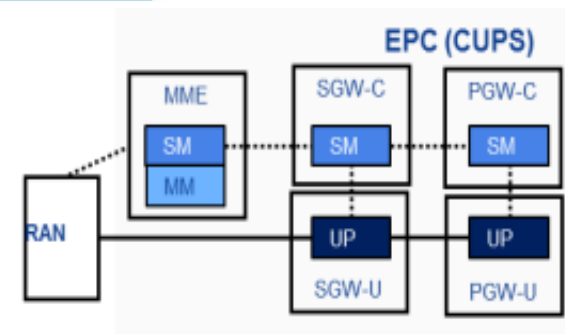
Active Antennas e Massive MIMO



Slicing



New CORE architecture



5G: Network Slicing

Network Slicing

Supporto di servizi con **requisiti eterogenei** (eMBB, IoT, Public Safety, ULLR) sulla stessa infrastruttura

Concetto trasversale e2e che include funzionalità di accesso e di CN

Realizzazione di slice come aggregato di funzioni di rete

Selezione dinamica delle slice garantita per ciascuna componente di traffico

Accesso contemporaneo a più slice

Orchestrazione necessaria per gestire una rete sliced

