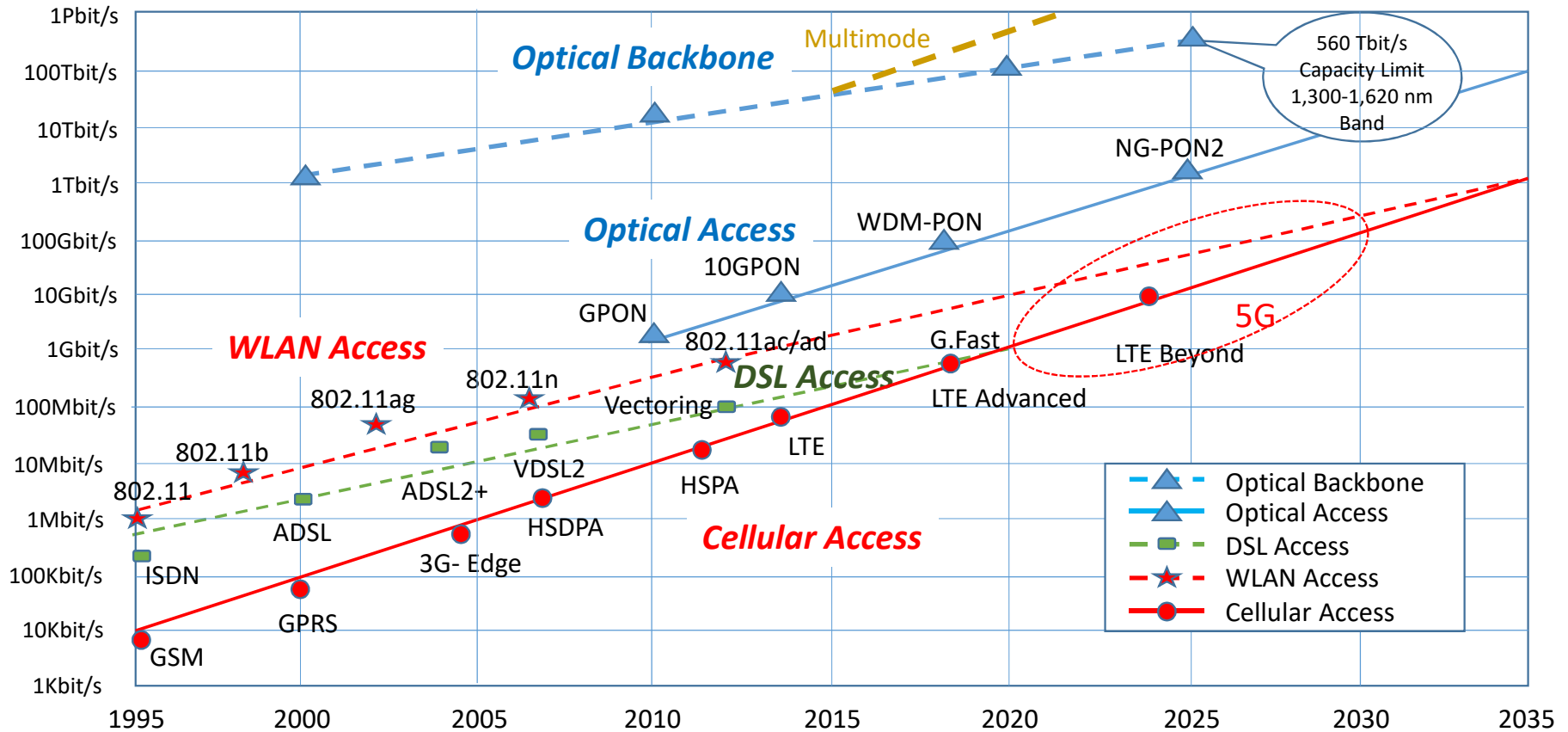




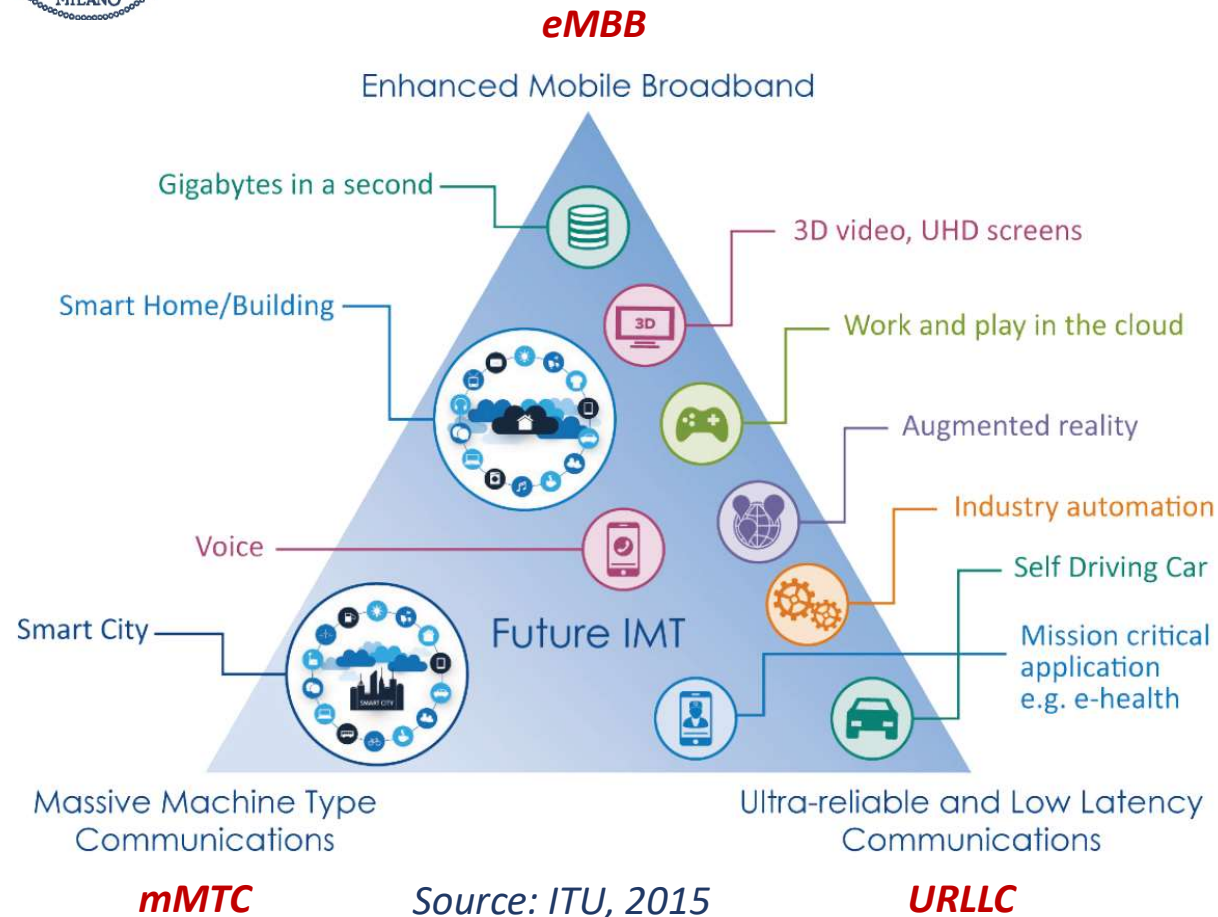
Benchmark of Wired and Wireless Technologies with Projections



Source: M. Dècina, 2014, based on data by Bell Labs, G. Fettweis, and others



5G Application Clusters

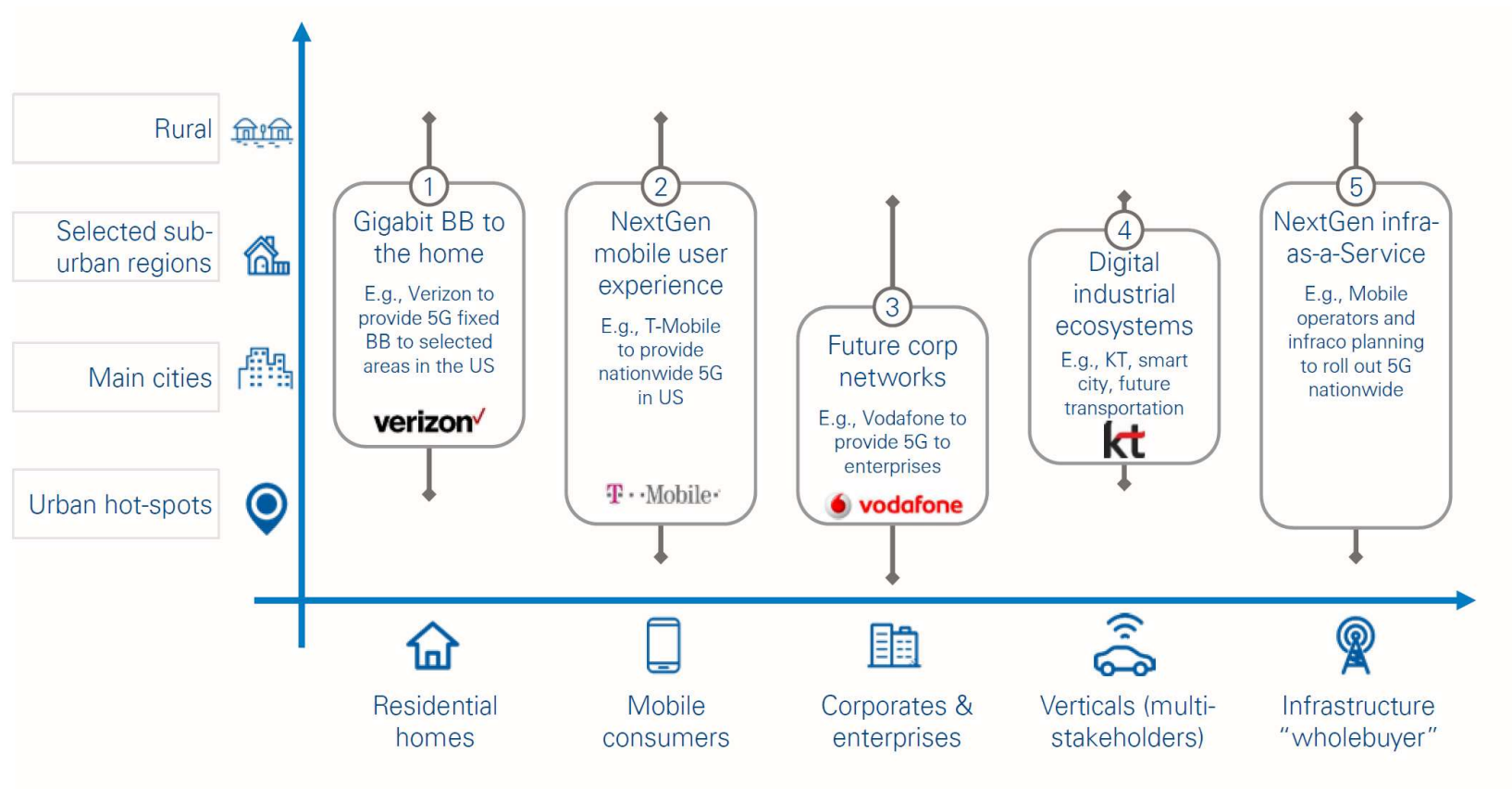


5G ARCHITECTURE KEY FEATURES

- Control & User Plane Separation
- Multi-access Edge Computing
- Massive MIMO
- Evolved vRAN (Protocol Separation)
- Full Virtualization (SDN/NFV)
- Service Based Architecture (Network Slicing)
- New Radio Spectrum (mmWave)



5G Business Deployment Models



Source: Communication of CEOs of respective operators, publicly available data

Source: Arthur D. Little, 2017