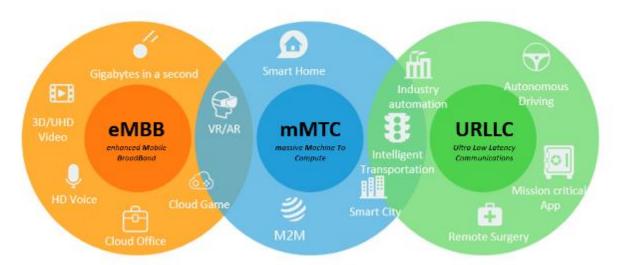




Firstly let's explore the journey to 5G





5G→6G **Standardisation &** NTN











Greener wave.

SES* TECHCOM



| | | Telit Cinterion



ThalesAlenia







5G LEVO

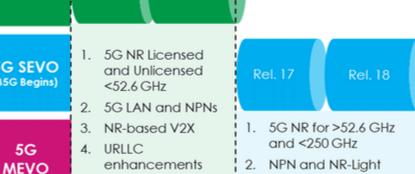
▶6G?











Extensions

3. IAB enhancements

RAN Data Collection

for AI/ML enablement

4. NTN introduction

Rel. 16

5. NPN and NR-Light

introduction

Catapult Open

INTER NODE LIN

- 1. 5G NR for >250 GHz and <500 GHz
- 2. Flying UEs, cells and relays
- Joint sensing and communication
- In-band full duplexing where beneficial

Rel. 20 Rel. 19

2. Battery-less devices and networks providing support for energy harvesting and wireless power transfer

1. 5G NR for >500 GHz and <1 THz

- Wireless Fusion with AI/ML in every plane and every layer of stack including PHY
- 4. Integration of communication, sensing, imaging, and radar
- Cognitive integrated access across heterogeneous technologies (e.g. evolutions of NR, WiFi, and LiFi)

Wireless Fusion with AI/ML in C-plane and U-plane upper lavers

Rel. 21 Rel. 23 Rel. 22

Catapult Open

Direct-Handheld Non-Terrestrial Network NTN (Emerging Context)

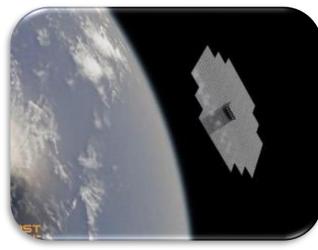








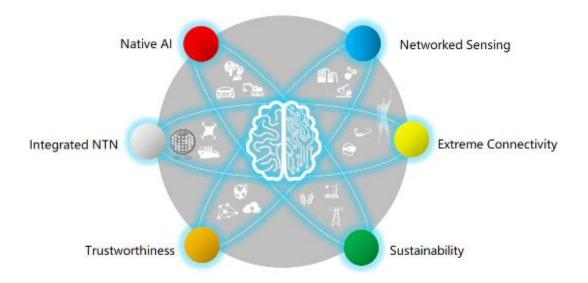








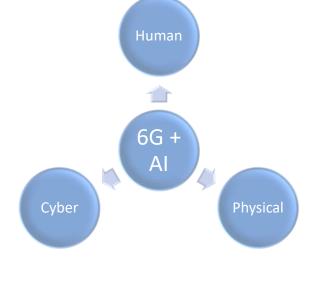
Finally let's explore 6G





6G Vision







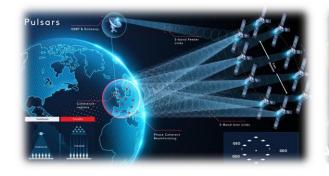


Future Satellite Concepts

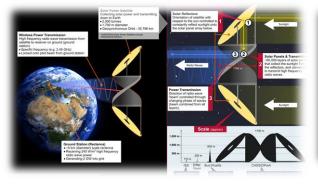


Future Satellite Concept Roadmap (as envisioned in 2024)

2025 2030 2035 2040 2045 2050









Synthetic Aperture Swarms in Geo

In-situ satellite assembly and servicing

Ultra-large structures in Geo & Lagrange

Asteroid Mineral extraction







Modular expandable satellites in LEO



Human Colonisation on Mars

