



Developing a Robust and Ubiquitous 5G-NTN Eco-System for Connected Vehicles

Presented by:

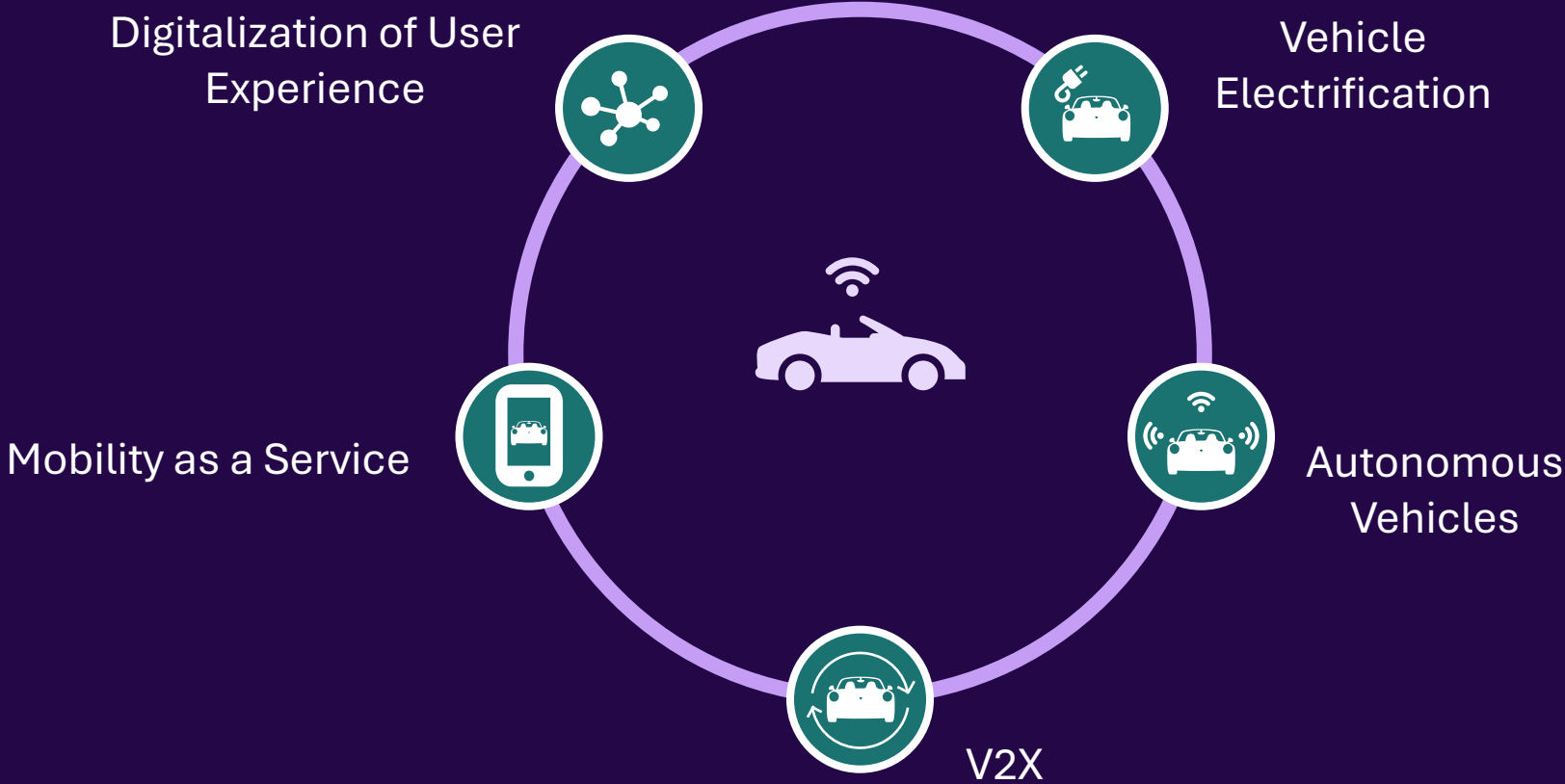
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5 Key Trends in Connected Vehicles

These trends are driving the need for reliable, seamless & ubiquitous connectivity



NTN is crucial to fill terrestrial coverage gaps

OEMs looking for standards-based solutions



D2D

- **Consumer hand-held devices** (smartphones)
- Uses either **MNO spectrum** or **MSS frequencies**
- Suitable for **Narrowband** services



D2T

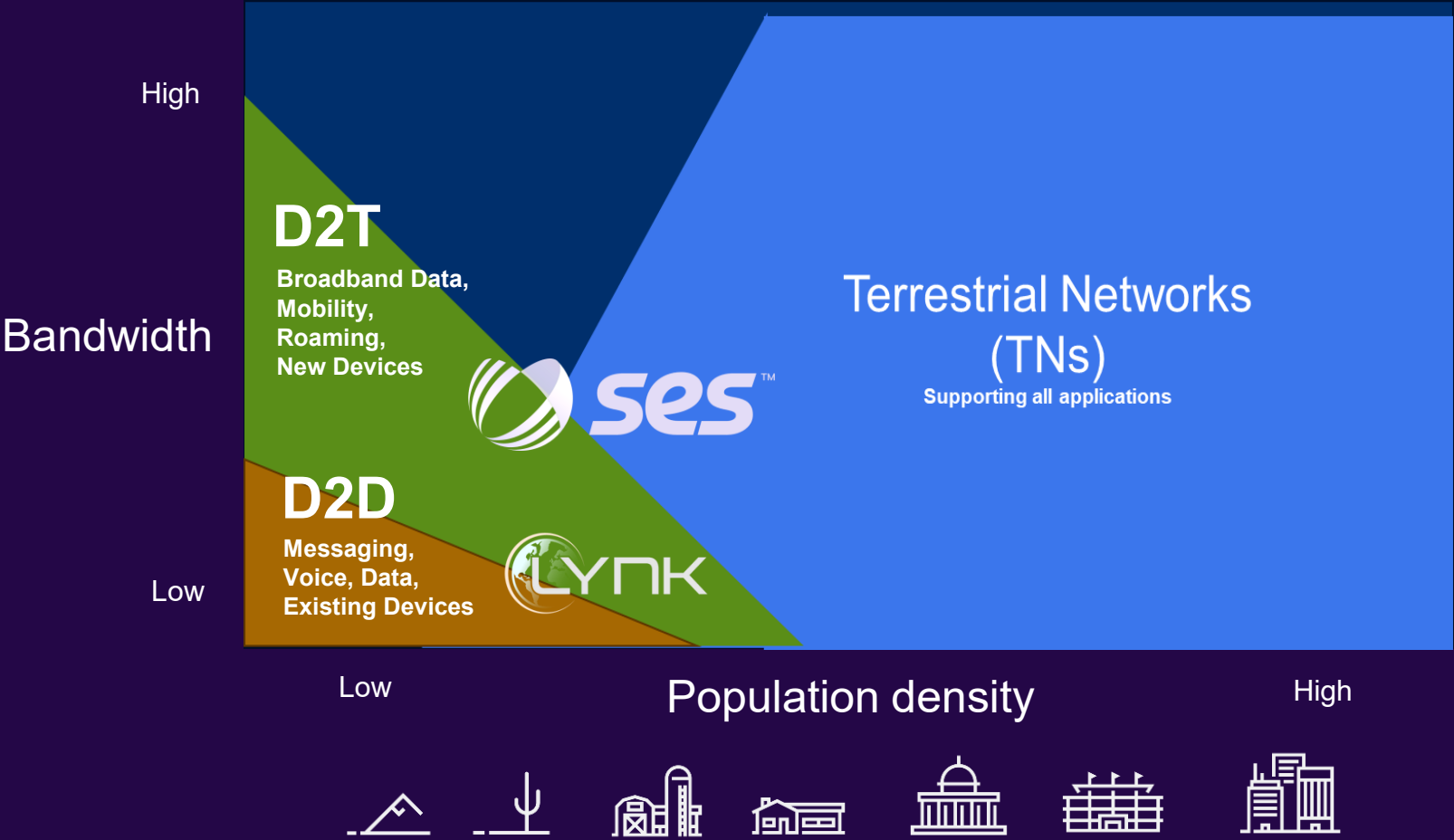
- **Universal Terminals**
- Uses **Ku-Band** or **Ka-Band** spectrum – **wide frequency range and available globally**
- **High performance broadband**



Near term focus on narrowband D2D solutions will evolve over time to accommodate broadband D2T

SES - Hybrid D2D/D2T Solution

Designed to complement terrestrial networks



SES and Lynk, Enhancing the D2D Value Proposition



80+ Patents



Flexible, Low-Cost Satellites



Unmodified Terminals



Early Market Traction



Global Backhaul



Ground Stations



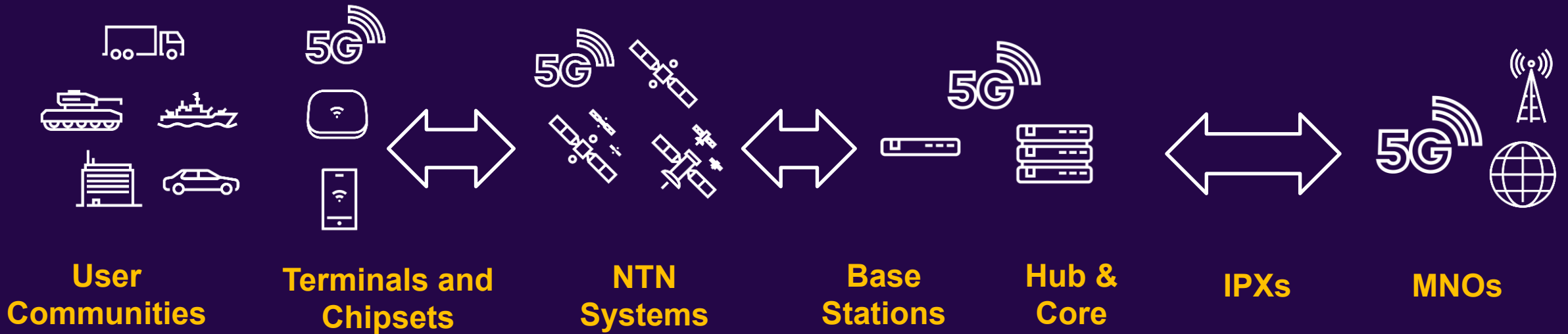
**5G-NTN
Broadband
Network**



**MNO
Relationships**

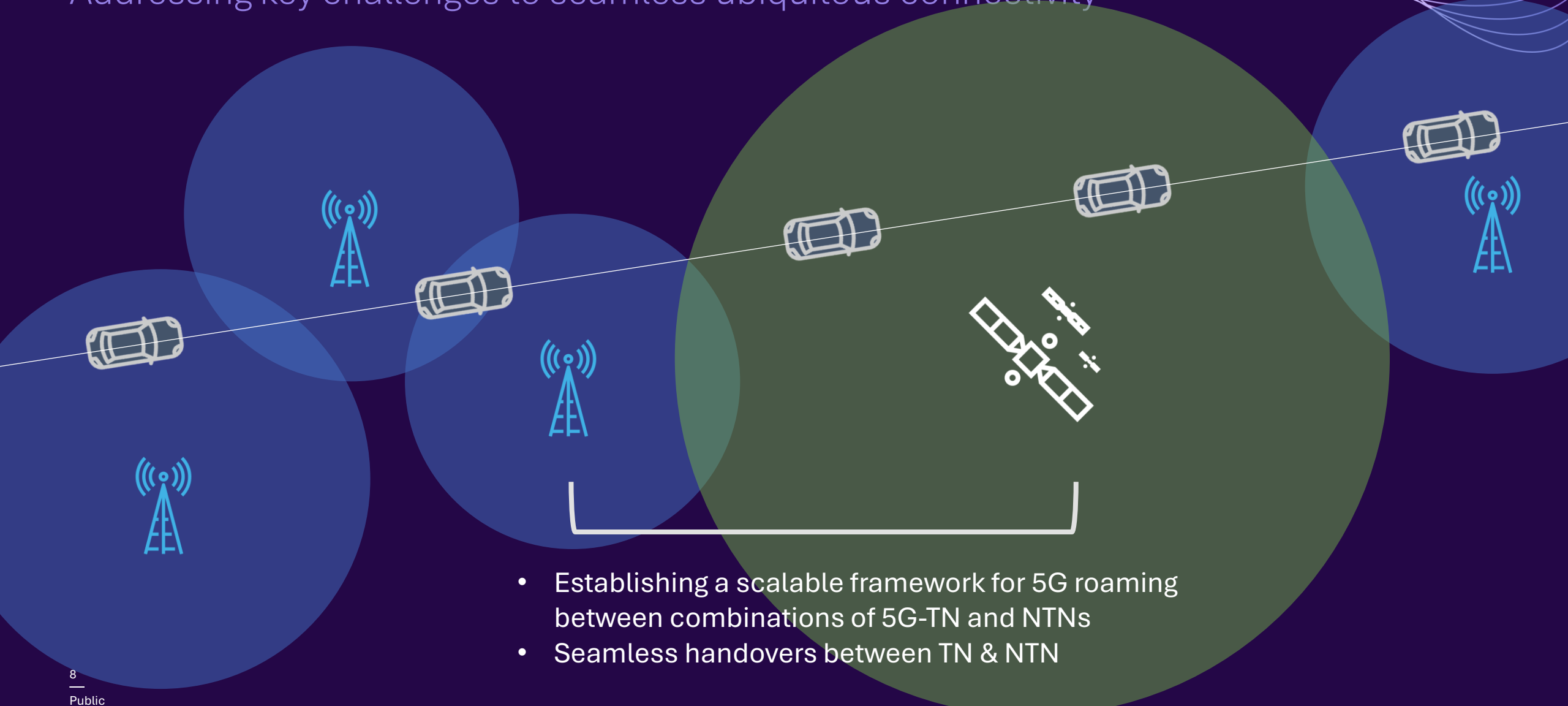
5G-NTN Eco-System Development

Seamless and ubiquitous 5G-NTN requires a holistic eco-system framework



TN/NTN Technology Verification with SoftBank Corp.

Addressing key challenges to seamless ubiquitous connectivity



- Establishing a scalable framework for 5G roaming between combinations of 5G-TN and NTN
- Seamless handovers between TN & NTN

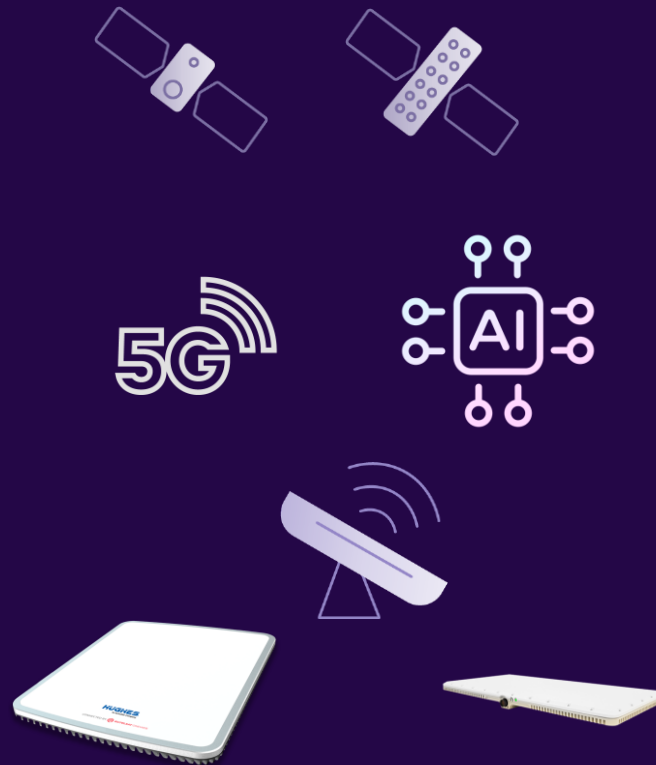
Multi-Pronged Leadership for Accelerated 5G NTN

Driving key components of 5G NTN eco-system

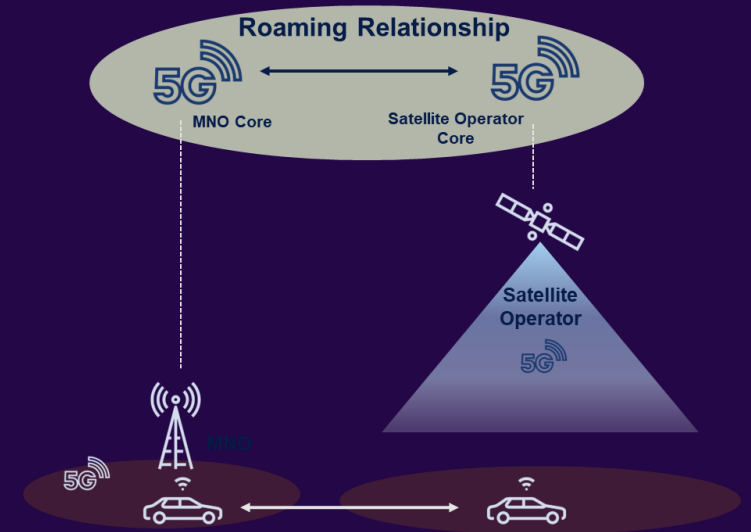
Standards



Technology



Commercial & Operational Framework



Thank you