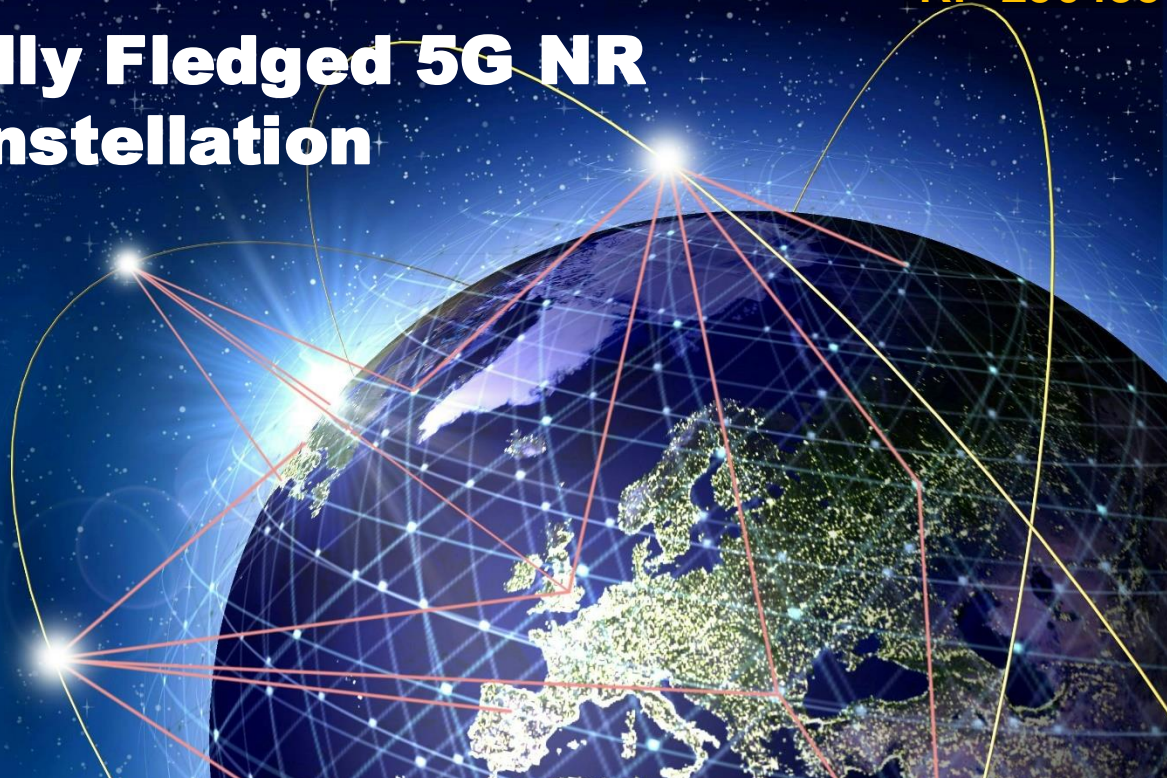


# IRIS<sup>2</sup> – The First Fully Fledged 5G NR NTN Multi-Orbit Constellation

# SpaceRISE

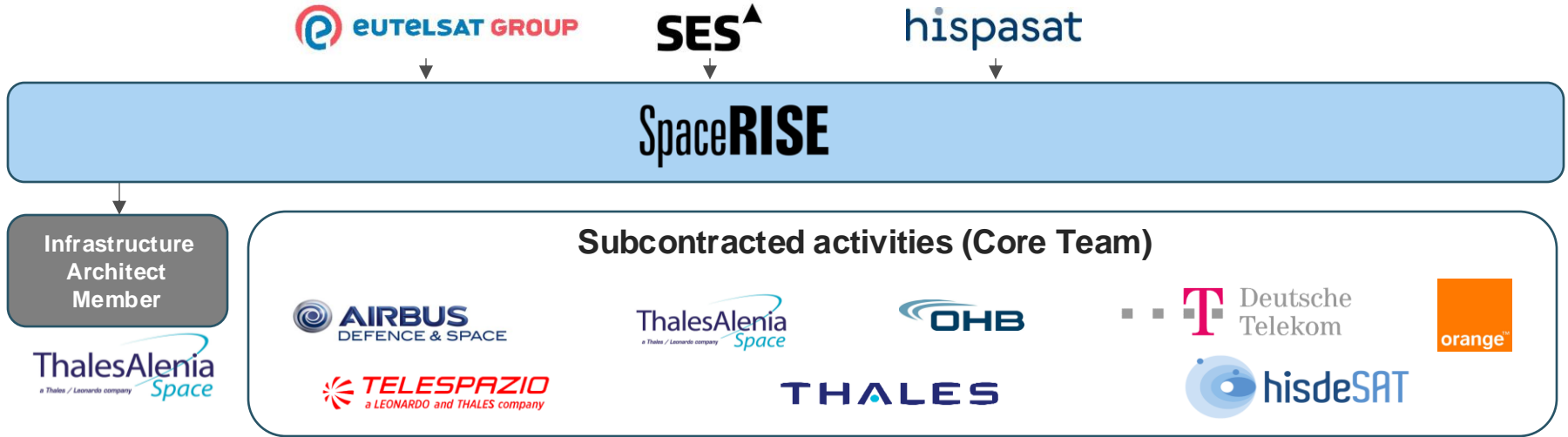
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## Introduction

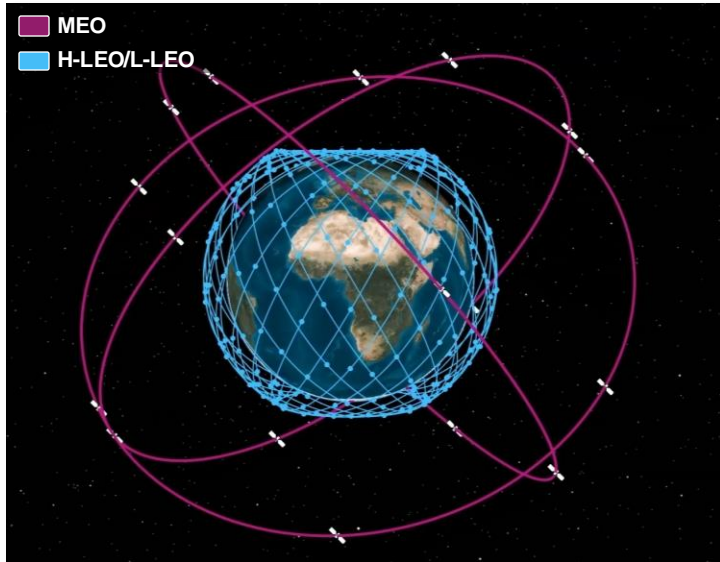
### ▲ Contract signature on 16 December 2024

- Total cost of the constellation: €10.6bn (\$11bn)



# IRIS<sup>2</sup> – Technical description

## Summary of technical features



### Space Segment

- **264** satellites in **High-LEO** (1200 km)
- **18** satellites in **MEO** (8000 km)
- **10** satellites in **Low-LEO** (<750 km)

### Connectivity

- **5G regenerative RAN** in **LEO** and **MEO**
- Support for transparent mode services
- Support for direct **UE-SAT-UE** connectivity
- Fully integrated in **5G Core Network**

### UE

- **5G NR NTN** waveform in **Ku** and **Ka** bands
- **Mobile VSAT** terminals in both bands
- **Mobile broadband** satellite services  
(e.g., residential broadband, transportation, B2B satellite trunking, etc.)

# IRIS<sup>2</sup> – Global benefits

## The relevance of adopting 5G NR NTN standards

### Technological benefits

- Integrated **Quality-of-Service** (QoS) architecture
- **Flexible resource management** (e.g., dynamic time-frequency resource allocation)
- Built-in 3GPP **security** and **authentication** mechanisms
- **Mobility** with other **3GPP core networks** (e.g., NTN/TN mobility with other broadband networks)

### Commercial benefits

- **Mature** and **open** standards ecosystem with a **clear evolution path**
- 3GPP standards enable **vendor operability** and **economies of scale**
- **Lower entry barriers** for **new SATCOM actors** (space, ground and user segments)
- Synergies with other **key verticals** (e.g., automotive, railway, airplanes, critical communications, etc.)



# Thank you

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