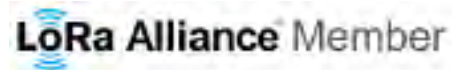


# Seamless asset tracking using standards based terrestrial and satellite connectivity

Telemaco Melia



# When you think about satellite...



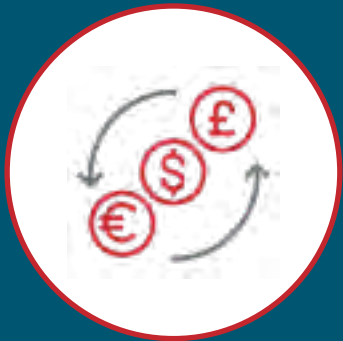
MSS



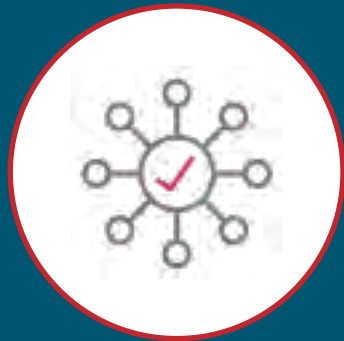
VSAT



# Commons concerns



**Expensive**

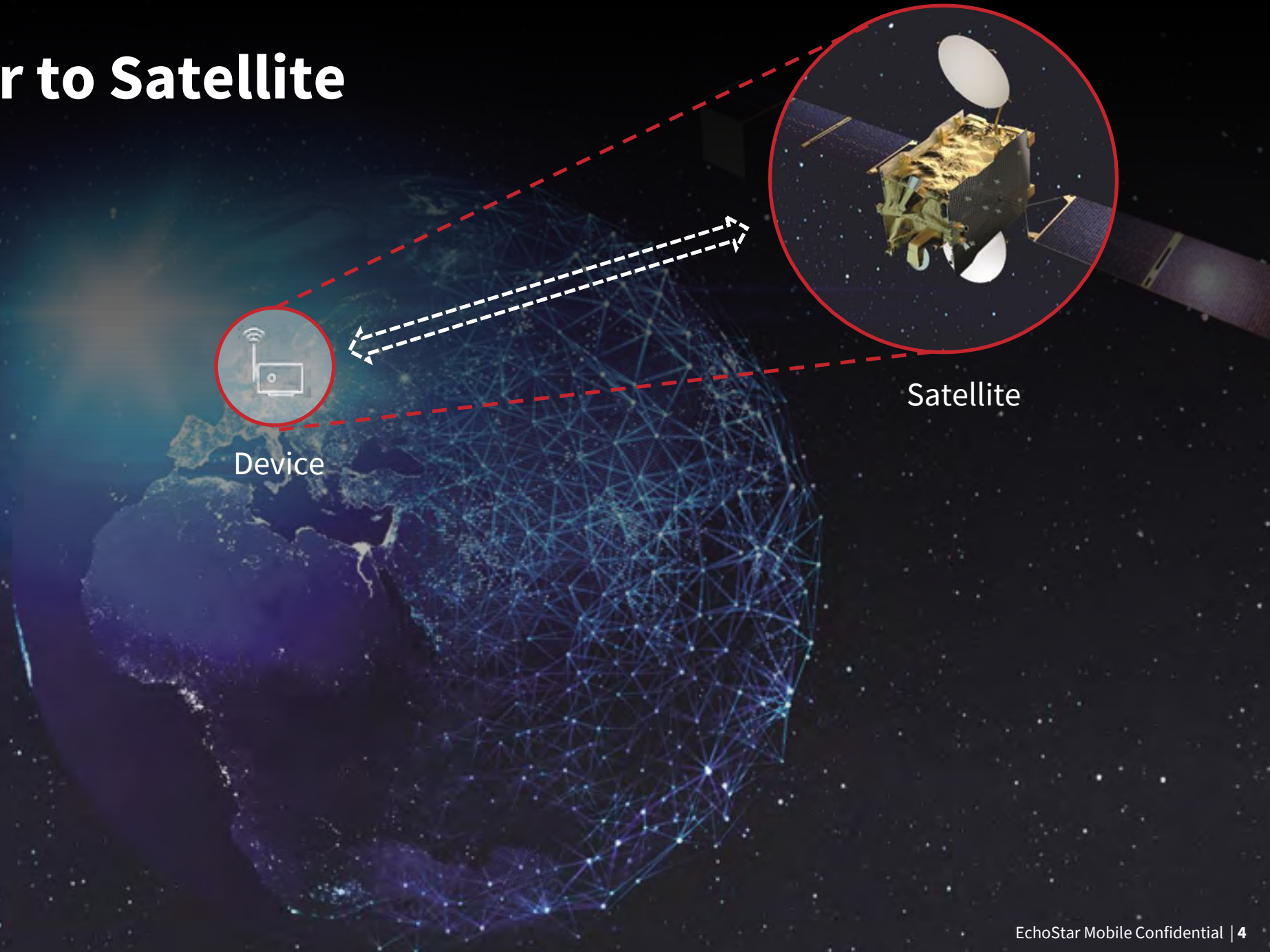
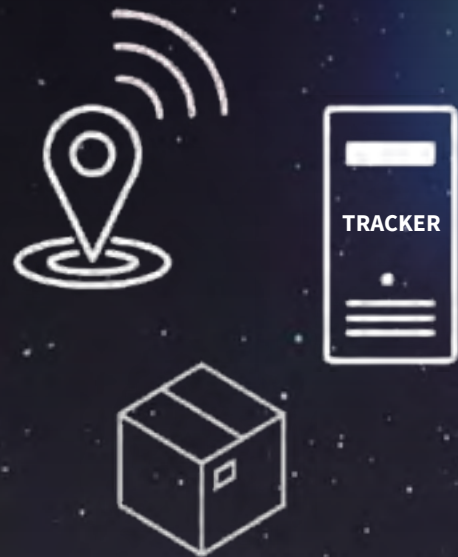


**Complex**



**Ecosystem**

# Direct Sensor to Satellite



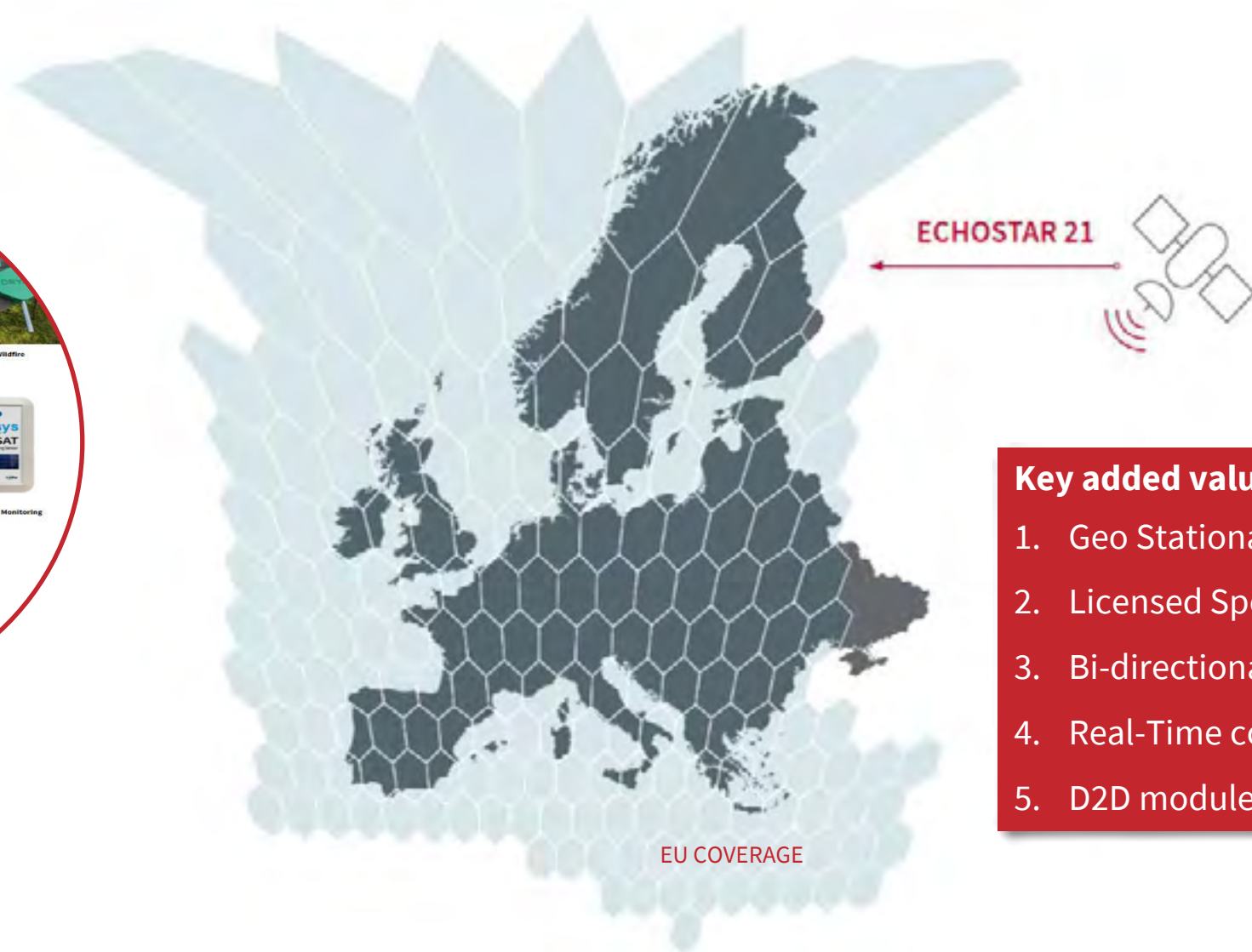


EchoStar Mobile  
operates the first  
pan-European IoT  
network for direct  
sensor to satellite  
communications  
based on LoRaWAN  
standard

In commercial  
operations from  
January 1<sup>st</sup>, 2023



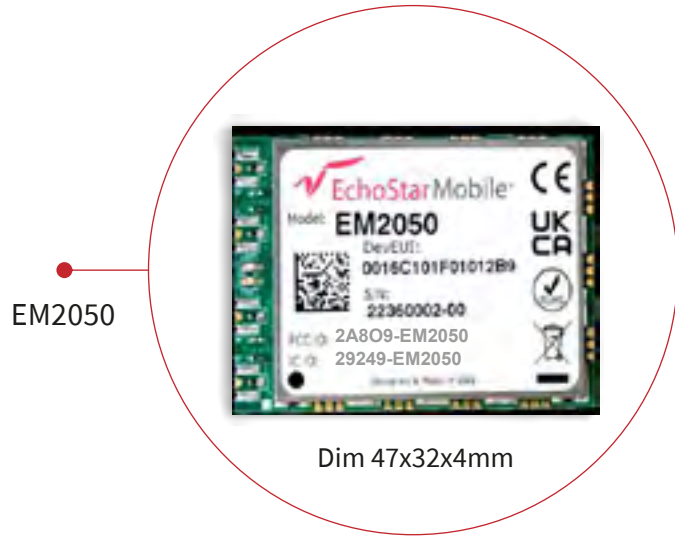
# EchoStar Mobile Commercial Service



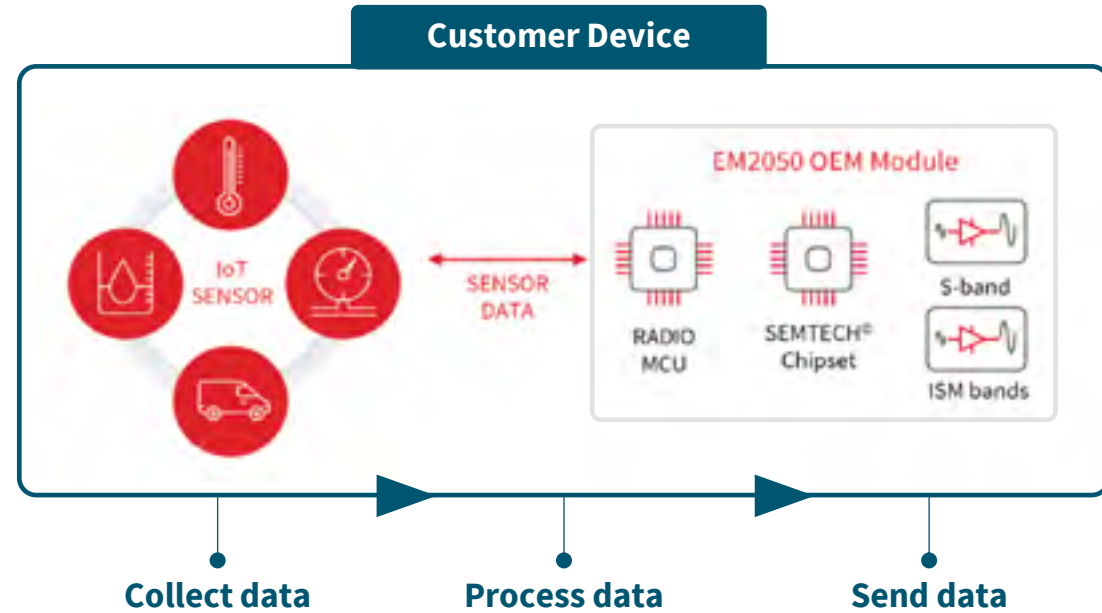
## Key added values

1. Geo Stationary Satellite
2. Licensed Spectrum
3. Bi-directional connectivity
4. Real-Time communications
5. D2D module homologation

# EM2050 Dual Mode Module: Satellite & Terrestrial



- Low power using LoRa®/LoRa®-FHSS modulation
- Real time bi-directional connectivity
- Based on latest Semtech radio chipset LR1120
- LoRa® satellite module on licensed S-Band (2GHz) @27 dBm
- LoRa® terrestrial module on ISM bands
  - EU868 @14 dBm
  - US915 @22 dBm
- Homologated for ETSI, UKCA, FCC and ISED Market





## Challenge

- Expand or augment Industrial LoRaWAN<sup>®</sup> deployments
- Choose best connectivity as situations change

## Solution

- EchoStar Mobile EM2050 LoRa<sup>®</sup> modules work in both satellite and terrestrial bands
- EM2050 switches connectivity on a as-needed-basis

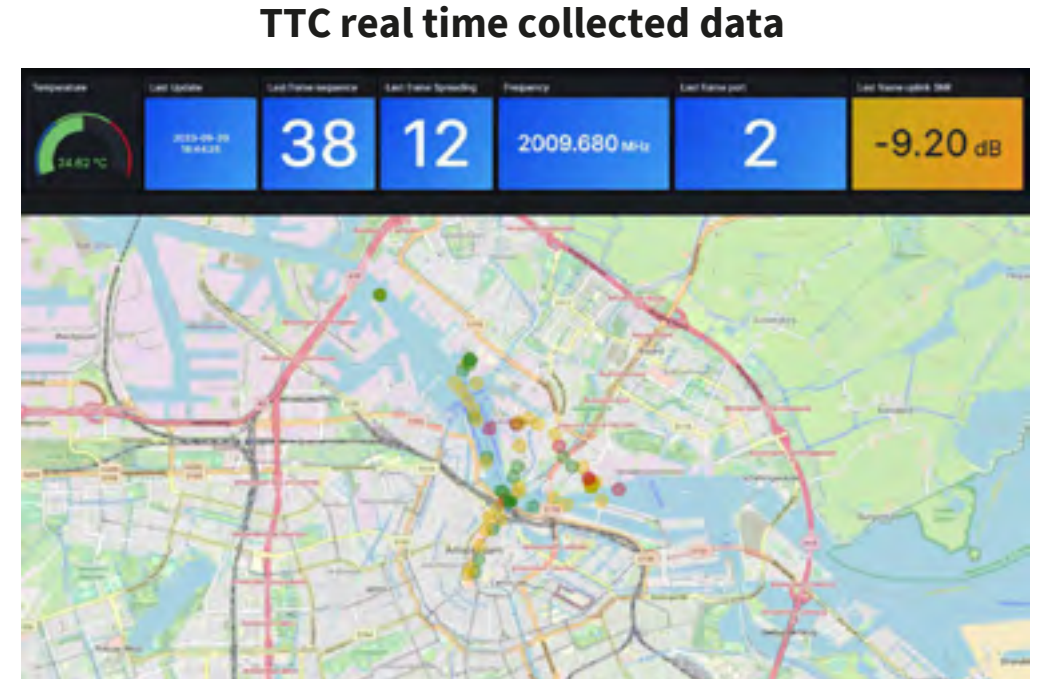




# The EchoStar Mobile Advantage



# Demo time: asset tracking made easy



**EM2050 module handles the satellite link**  
**No LoRa Gateway required**  
**Making a satellite enabled device is as simple as a terrestrial one**  
**Easy integration with legacy IoT platforms via API**





Disruptive pricing model



LoRaWAN compatible



Ideal for asset tracking

# Breaking News



EchoStar Mobile will be offering demonstration coverage of the US in Q1 2024





# Thank you

**For further information:**

Please stop by our **booth D56** or  
contact [info@echostarmobile.com](mailto:info@echostarmobile.com)

