



# EU Drone Days

**Launch of the  
European Drone Strategy 2.0**

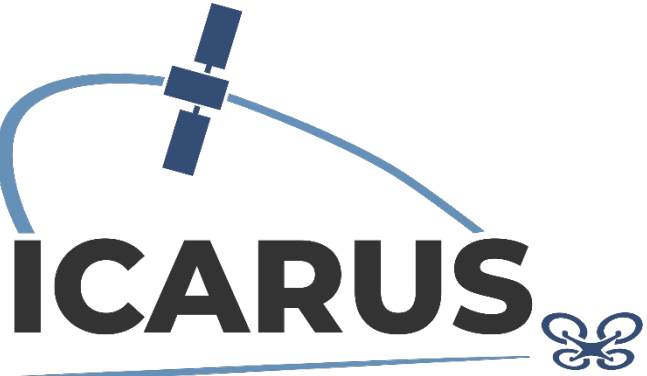
**SESAR U-space Showcase**

**Brussels, 29-30 November 2022**



**#EUDroneDays**

# The partners



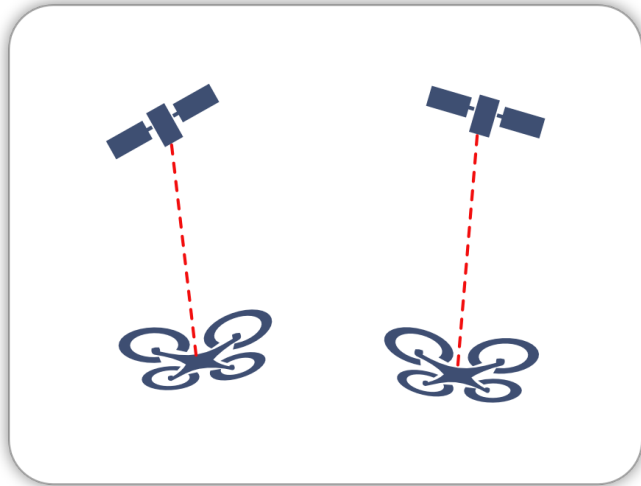
Project coordinator	 AN ASI / TELESPAZIO COMPANY
Aviation organisations	 EUROCONTROL
Industry	 una società LEONARDO e THALES
Innovative SMEs	 
Academia	 
Consulting partners	 



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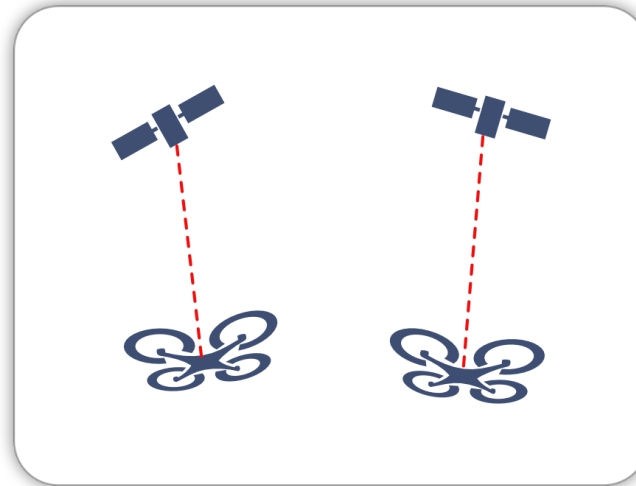
# ICARUS Objectives



## Objective #1

### UAS-UAS: Common reference at VLL

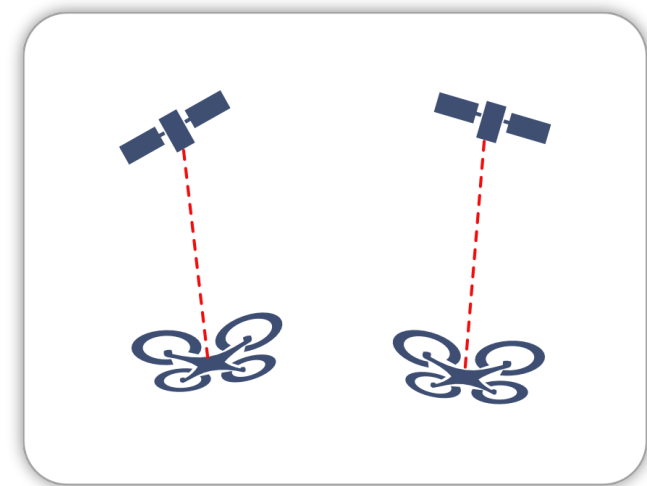
Define the technical requirements for high accuracy GNSS-based altitude measurement for drones, allowing a reliable and accurate common vertical reference (UAS-UAS)



## Objective #2

### UAS-Ground: Obstacle awareness

Investigate the vertical accuracy and resolutions achievable by the actual DTM/DSM services for ground obstacle and terrain profile, with respect to the geodetic WGS-84 datum



## Objective #3

### UAS-Manned: Common reference

Design a tailored U-space service for altitude translation between geometric to barometric altitude for UAS and manned aircraft

# Results

- We have defined, prototyped and validated the ICARUS concept
- The ISO 3629-12 UAS traffic management (UTM) — Part 12: Requirements for UTM service providers document, published in July 2022 (the same month ICARUS ended) includes the three key U-space services introduced by ICARUS:
  - **RGIS**: Real-time Geospatial Information Service (RGIS)
  - **VCS**: Vertical Conversion Service (VCS)
  - **VALS**: Vertical Alert Service (VALS)

# Contact details



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