

U-ELCOME

Ensuring routine commercial drone
operations in Europe by 2026

Q&A



U-ELCOME Spanish Cluster

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Co-funded by the
European Union

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Linked in





Spanish Cluster

8 operational sites:

- Andalucía
- Aragón
- Canarias
- Catalunya
- Galicia
- Madrid
- Navarra
- Valencia



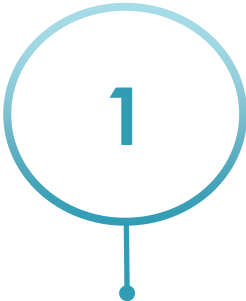
General Info



+ 25 Stakeholders
Deploying complete U-space ecosystems



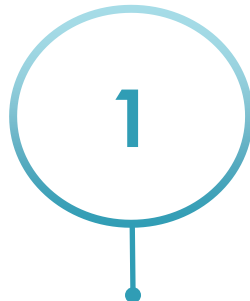
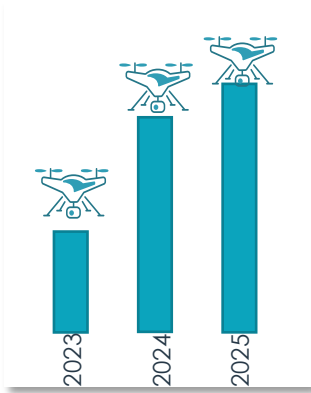
3 USSPs
Interoperable and integrated in ENAIRE U-Hub



1 CISP
Providing common information services to USSPs



+ 20 Validation campaigns
Performed during the 3-year project period



Involvement of the authorities
Through a specific digital module



General Info



Use cases per site



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Navarra Site	Supporting emergency management during fires
Canary Islands Site	Supporting the first response during rescue



Use cases per site



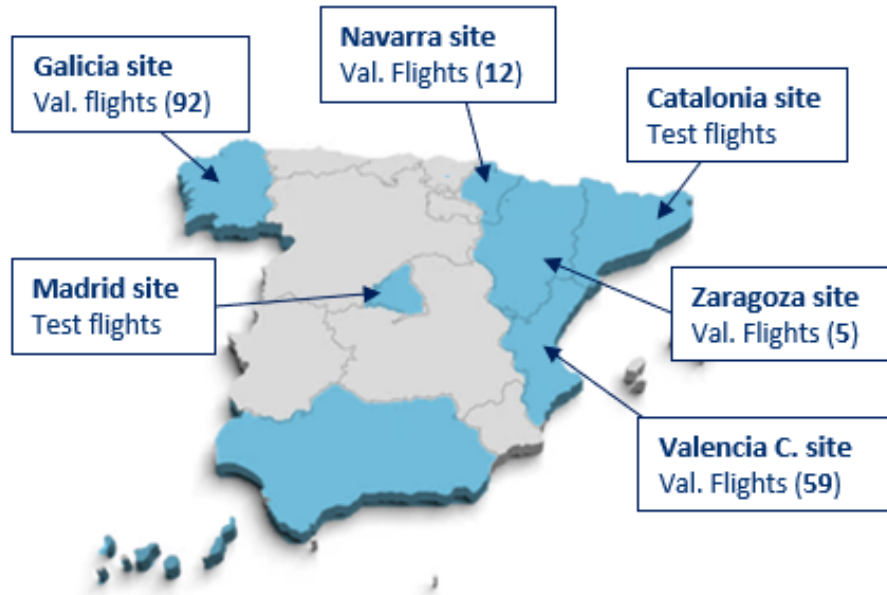
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Galicia Site	Surveillance and inspections in port environment
Valencia Site	Public safety operations in urban environment
Cataluña Site	Surveillance in airport environment

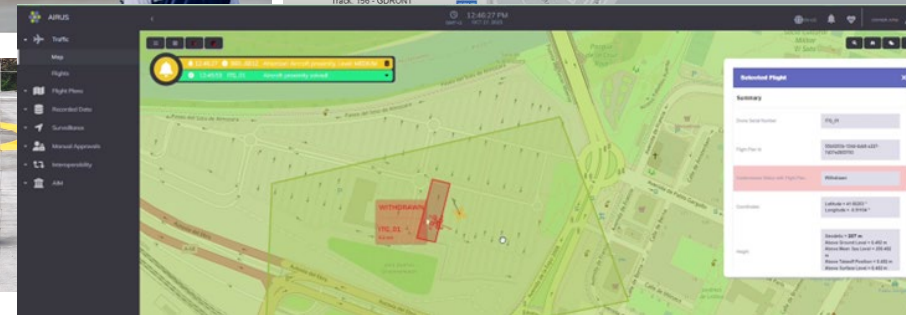
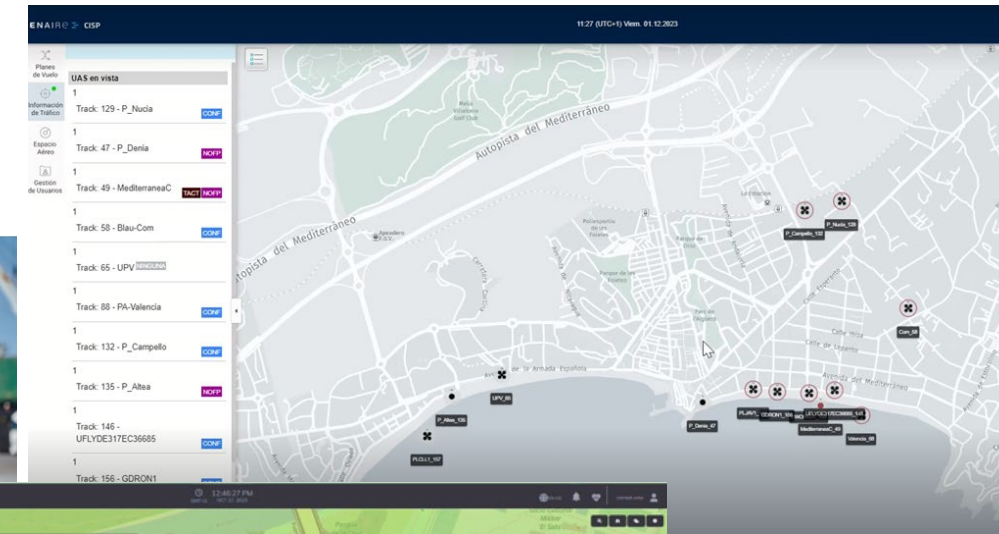
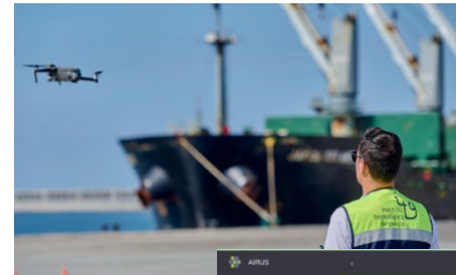
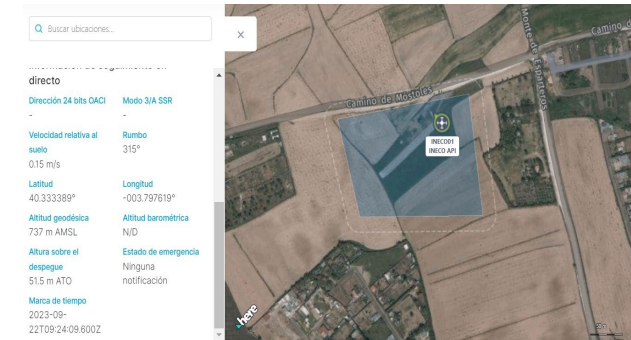


Flight campaign 2023

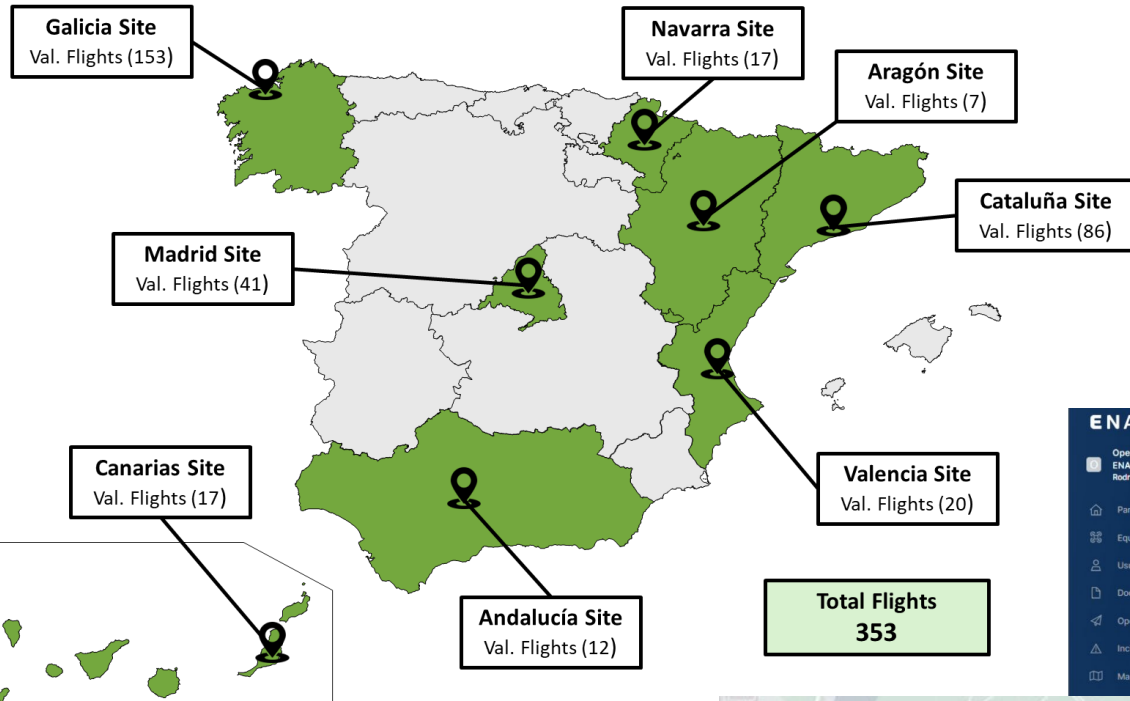


Results of the 2023 Flight Campaign

- 6 Locations (6 CCAA)
- **3 USSPs integrated through ENAIRE U-Hub**
- 1 CISP
- + 30 UAS Operators
- 168 Validation Flights



Flight campaign 2024

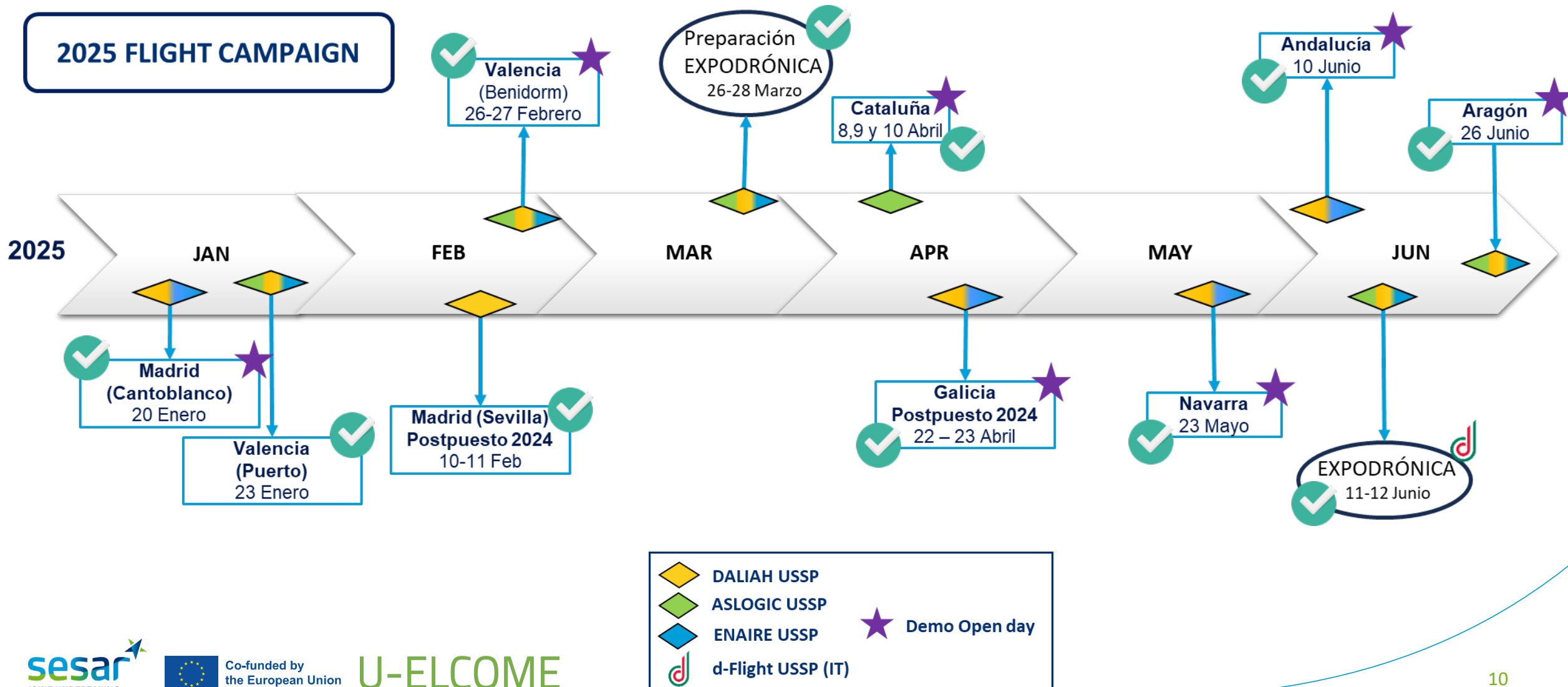


Results of the 2024 Flight Campaign

- 8 locations (8 CCAA)
- 1 CISP
- + 30 UAS Operators
- **353 Validation Flights**



Flight campaign 2025



Flight campaign 2025



Results of the 2025 Flight Campaign

- 8 locations (8 CCAA)
- 1 CISP
- + 30 UAS Operators
- **Demo Days in all 8 locations**
- 233 Validation Flights



U-space services descriptions

Descriptions of the Services Implemented

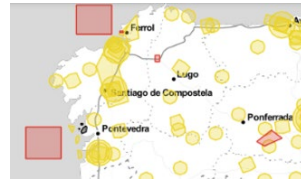
- U-space Service Providers (USSP)

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1. network identification service



2. geo-awareness service



3. traffic information service



4. UAS flight authorization service



Optional 5. Conformance Monitoring service



- Common Information Service Providers (CISP)

CIS
Mandatory
Data

1. UAS Geographical Zones



2. Static and dynamic constraints

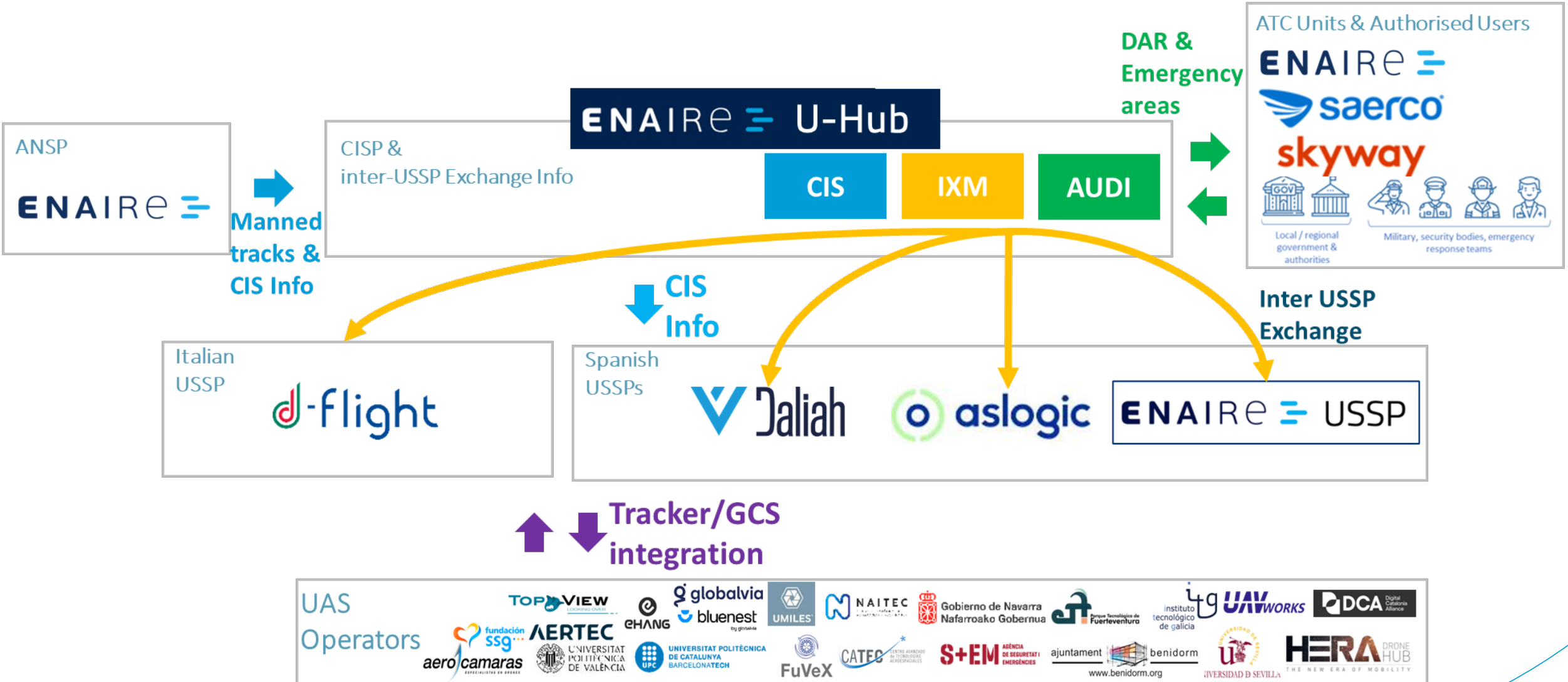


3. Operational Data Manned Aviation in controlled airspace

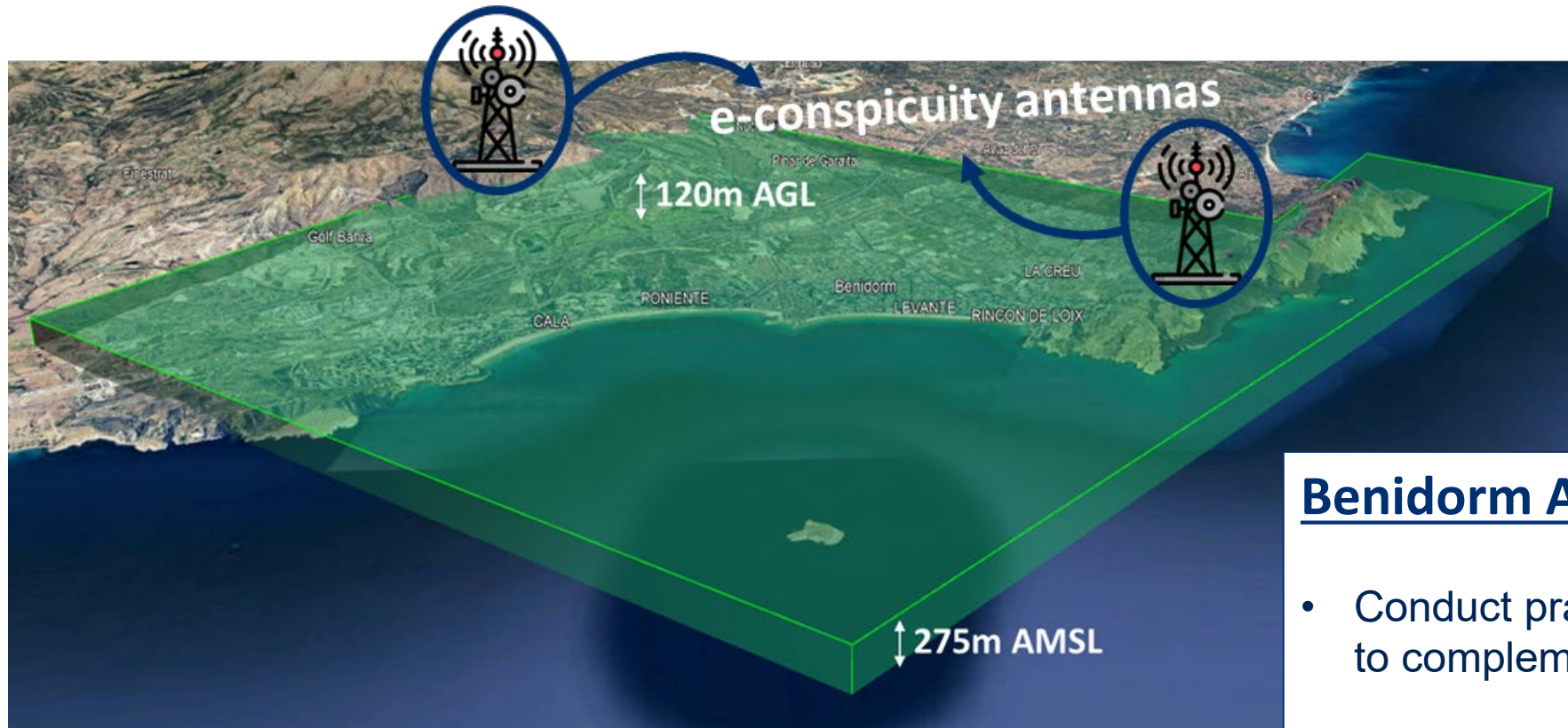


4. Dynamic Airspace Reconfiguration (DAR)

U-space architecture



Contribution to the U-space deployment



Benidorm ARA

- Conduct practical demonstrations to complement the study
- Facilitate direct interaction with local authorities (city council and local police)

Contribution to the U-space deployment



Operational U-space Simulation

- Testing of U-space platforms in a real multi-USSP environment
- Great opportunity to test procedures and platform functionalities for companies planning to become certified as USSPs
- DAR Procedure developed in ENAIRE tested with the 3 Spanish ATSP

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Demonstration of U-space Operations — U-ELCOME Spanish Cluster

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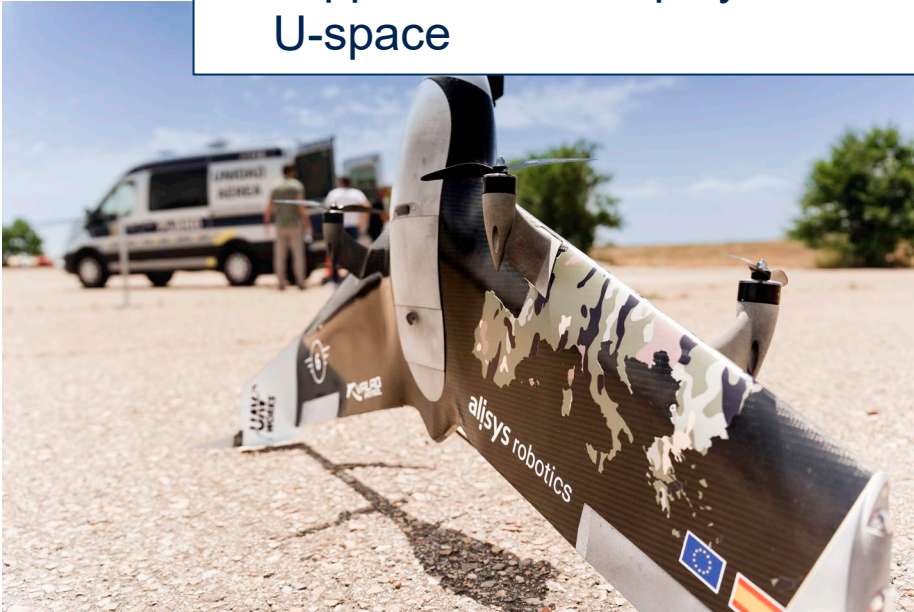
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Challenges for U-space in its next phases



Development of AMCs and GMs:

- Have new AMCs and GMs in place to support the full deployment of U-space



Involvement of the authorities:

- Define procedures to interact with U-space
- Digitalization of the coordination's procedures necessary to fly UAS and the permits provision

And what next?

DEPLOYMENT

Taking advantage of U-ELCOME lessons learnt, use cases and pave the way for OPERATIONS

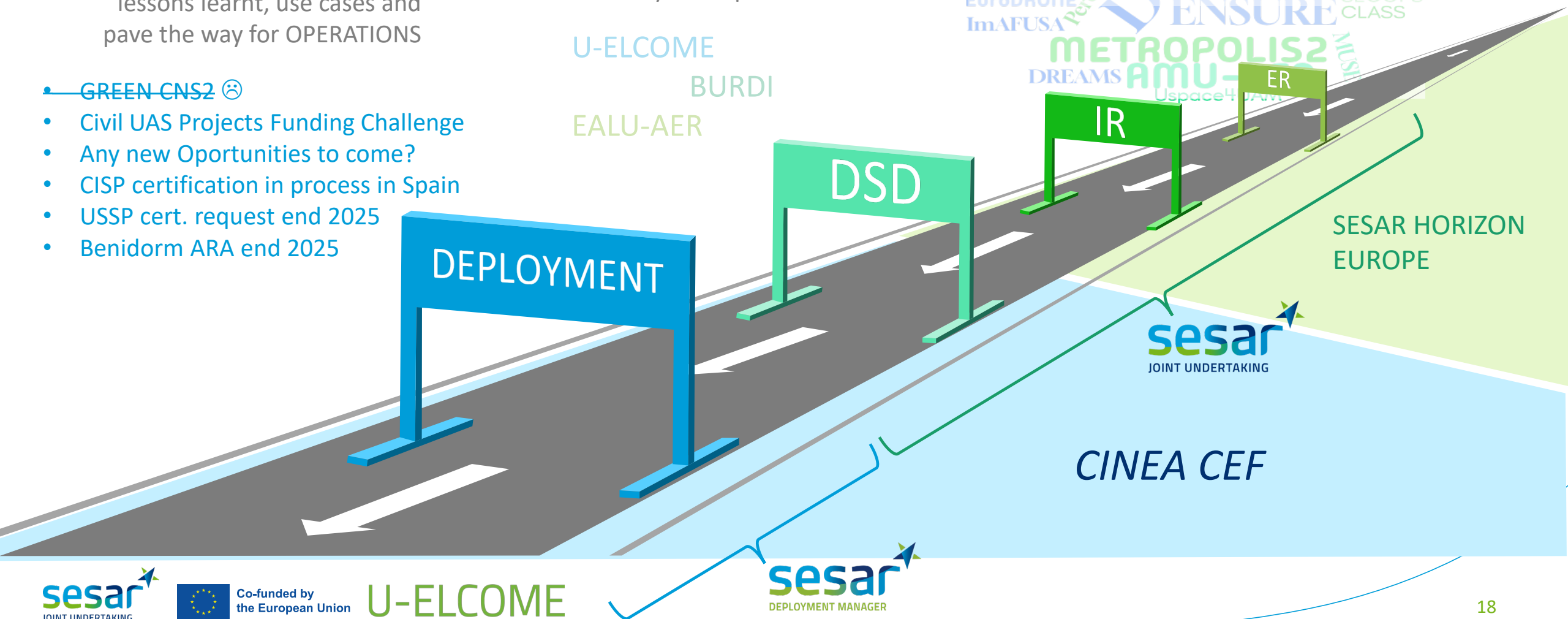
- ~~GREEN CNS2~~ ☹️
- Civil UAS Projects Funding Challenge
- Any new Opportunities to come?
- CISP certification in process in Spain
- USSP cert. request end 2025
- Benidorm ARA end 2025

DSD

Objective: TRL-8 Maturing SESAR solutions ready for implementation

IR & ER

Proposing new solutions and CONOPS, have set the basis of U-space



U-ELCOME

Q&A



Thank you!

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Supporting drone strategy 2.0: results from U-space digital sky demonstrators



Lunch