



CELTIC-NEXT

Σ eureka
clusters

Proposers Brokerage Day

30th January 2026, Vienna



ALP CONN

FH JOANNEUM
Luftfahrt / Aviation

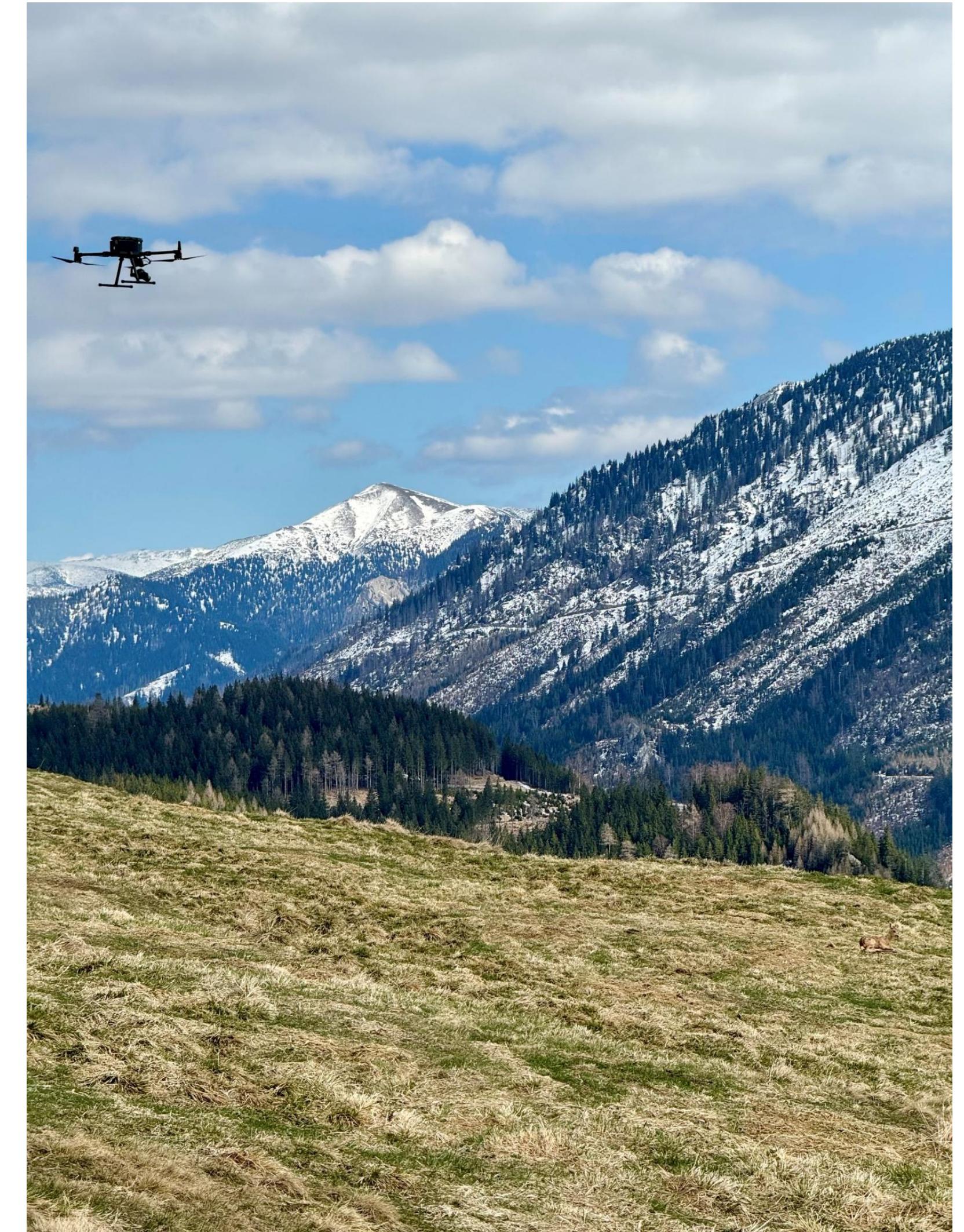
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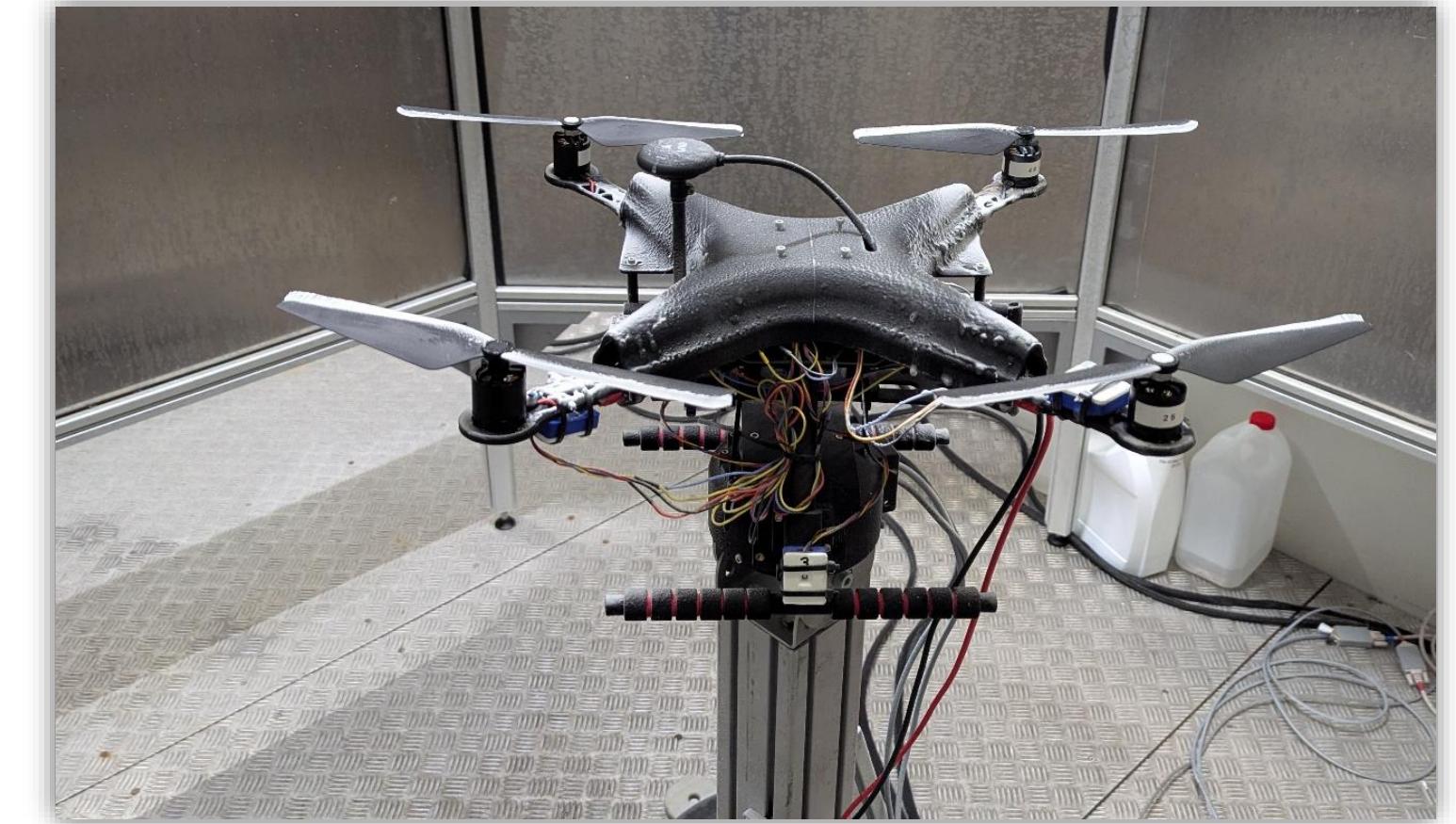
Making remote alpine regions accessible...

AI-enabled situational awareness through resilient connectivity for disaster management in alpine regions

What ALP CONN enables

- ***Local high-speed network***
Stable and independent network technologies in alpine regions (avoiding dependencies on e.g. US corporations)
- ***Live data acquisition***
Collection of large amounts of data using drone-compatible sensors
- ***Real-time processing of large amounts of data***
- ***AI-based situational awareness***
Creating situational awareness through the use of artificial intelligence





Professional drone operator



*UAV Transfer Centre bridging
research, industry and public
authorities*



Extensive regulatory expertise



*Strong AI expertise, particularly
in data analysis and situational
awareness*



*UAV test flight areas
including*

- remote and challenging
environments*
- Alpine regions*



*Applied sciences
education and research
in aviation*

Proposal Introduction (1)

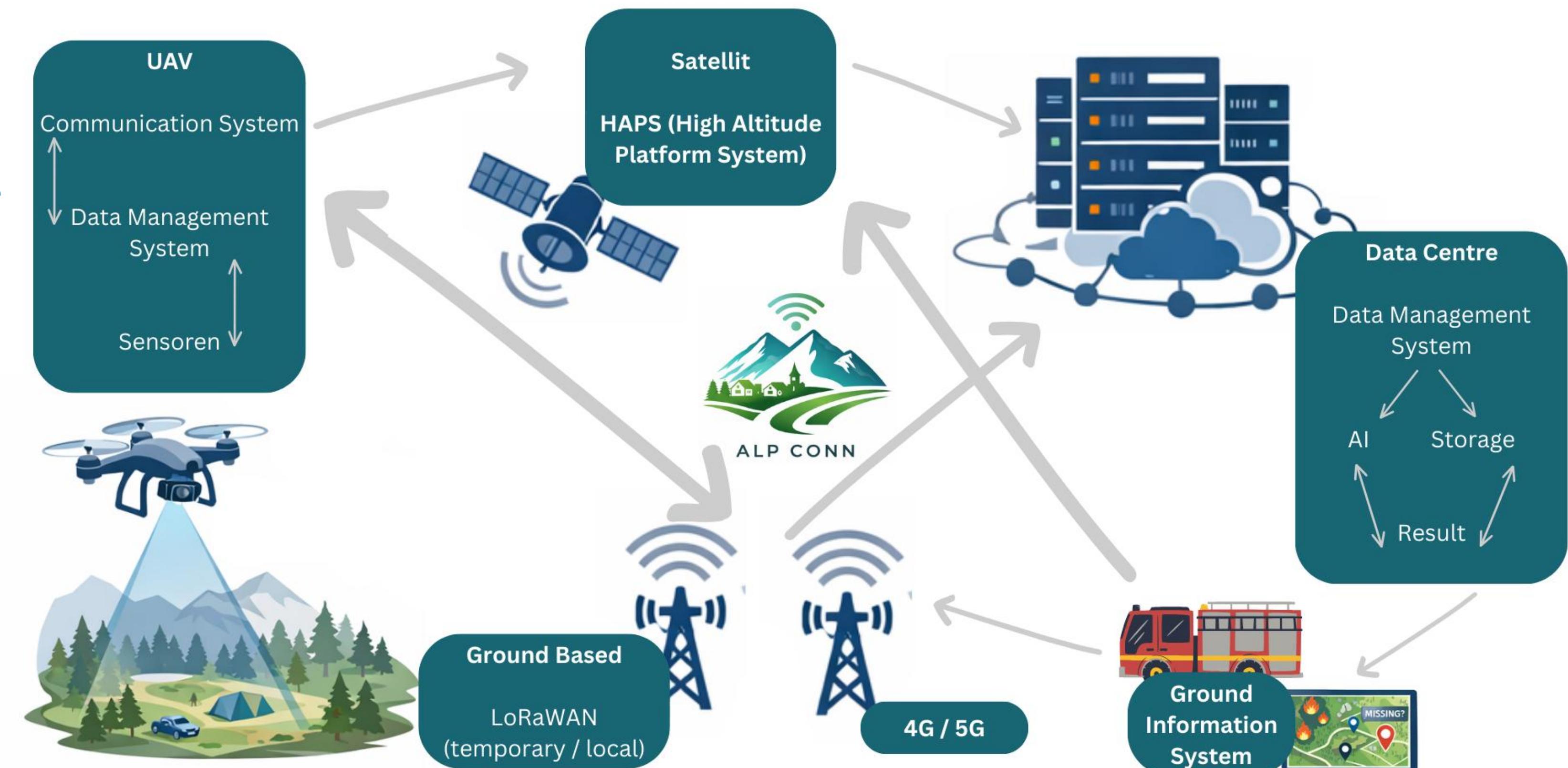
Vision: AI-enabled near real-time situational awareness from UAV data in remote and hard-to-access areas.

Motivation:

- Disaster response in alpine regions requires fast and reliable situational awareness
- Connectivity is limited or unstable in remote and mountainous terrain
- UAV data is often processed after the mission, causing critical delays
- Time loss reduces the effectiveness of emergency and response measures

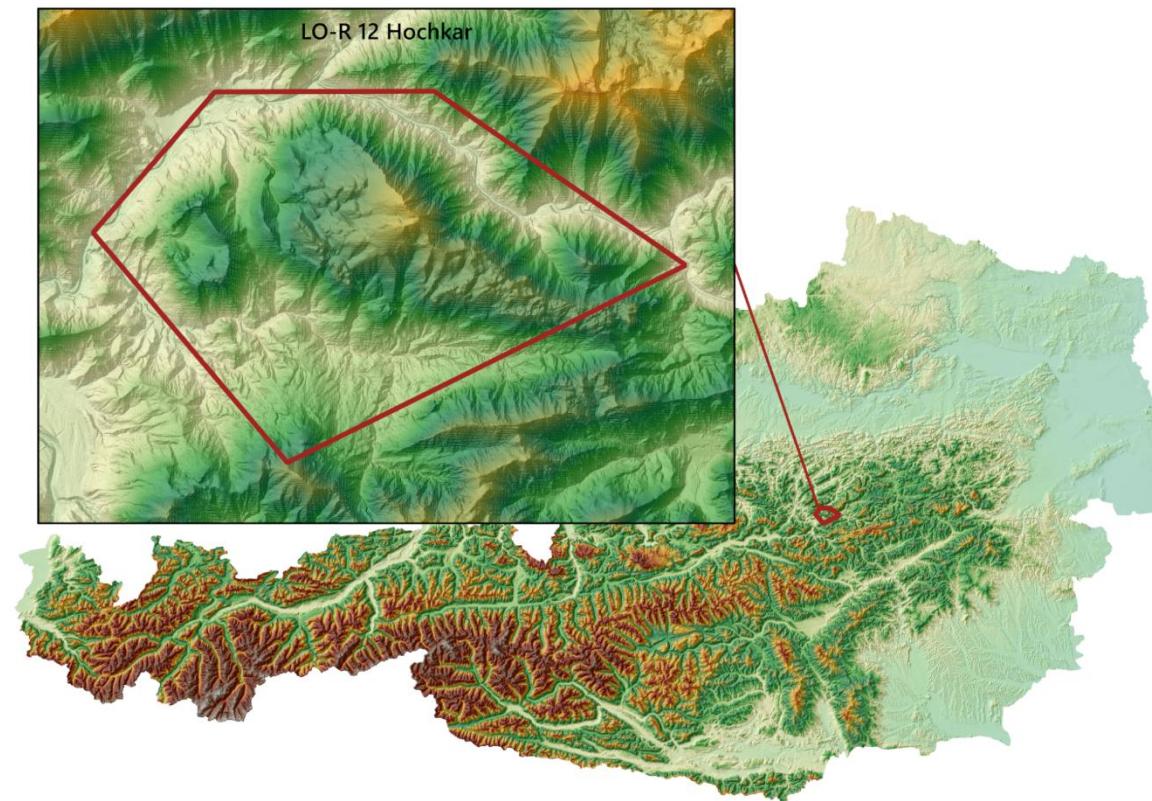
Content:

- UAV-based data acquisition in alpine disaster scenarios
- Adaptive and resilient communication concepts for remote regions
- AI-supported data prioritisation and processing during missions
- Near real-time situational awareness despite constrained and heterogeneous connectivity

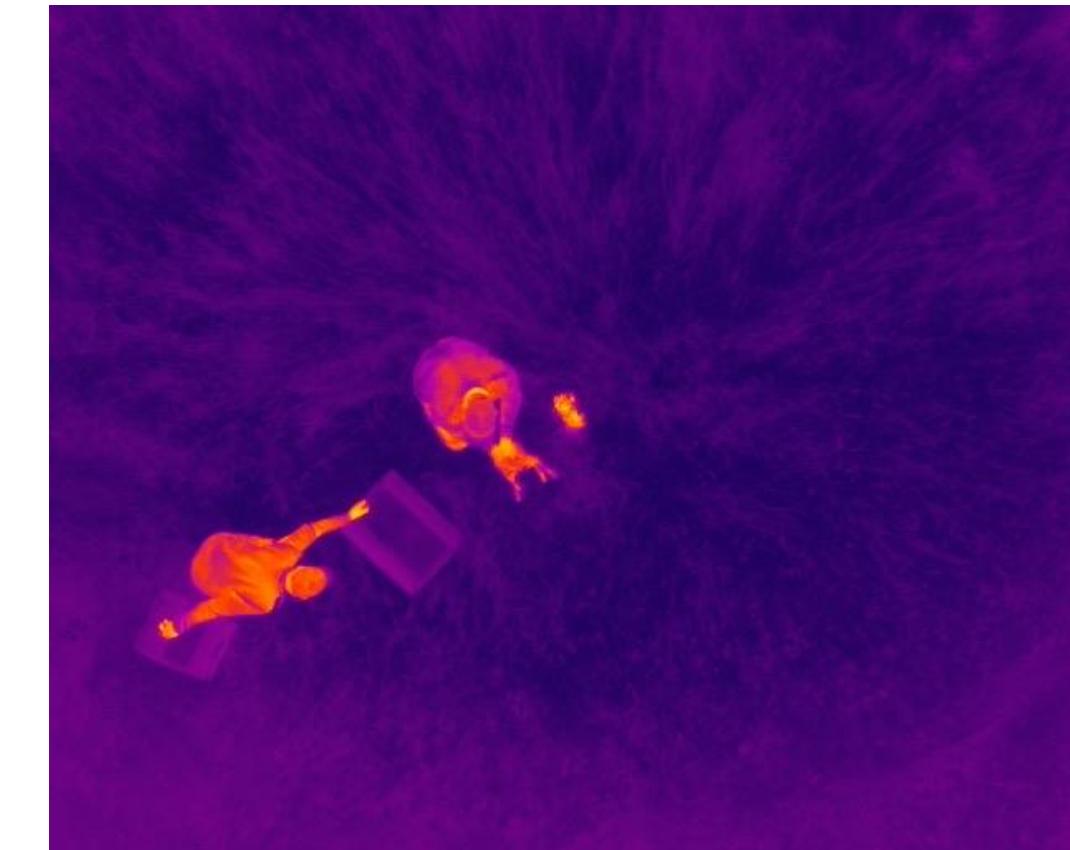


Proposal Introduction (2)

Examples:



Environment and terrain assessment



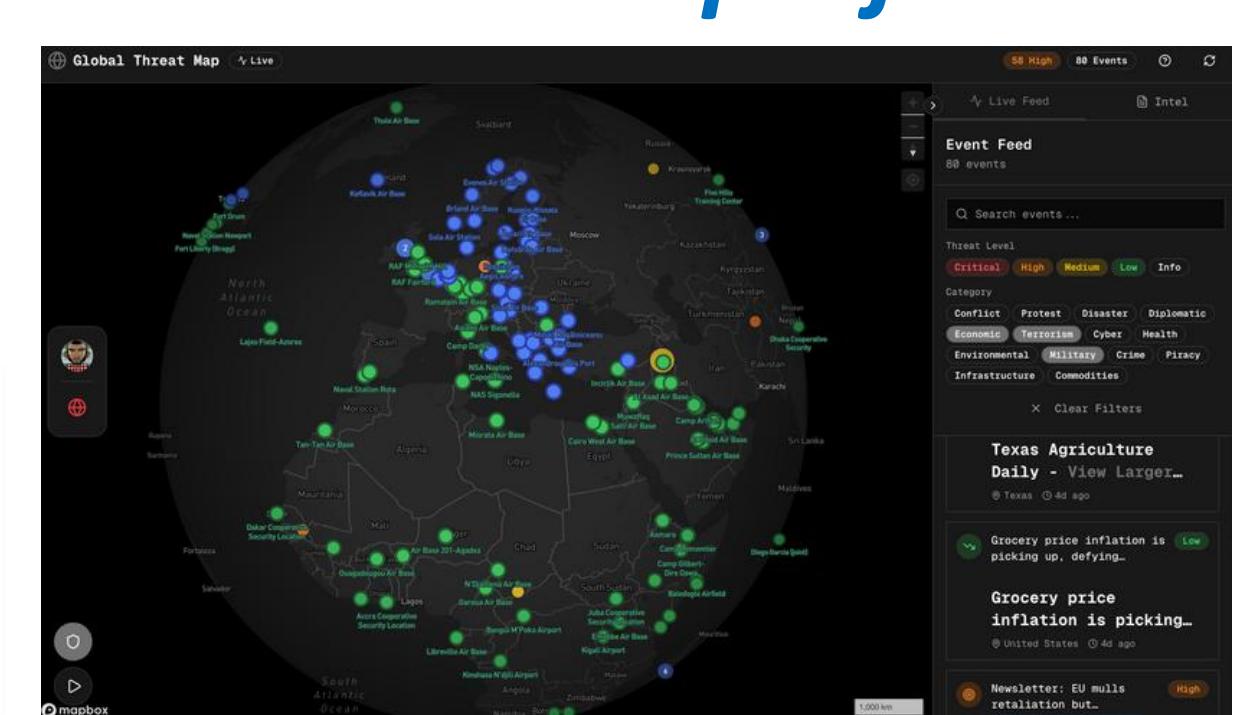
Object and activity recognition



Wildfire (e.g. fire fronts, hotspots, movement patterns)

Impacts:

- *Faster decision-making in time-critical situations*
- *Increased operational safety and efficiency for responders and operators*
- *Scalable and transferable solutions across sectors such as disaster response, forestry, agriculture and environmental monitoring*



<https://github.com/unicodeveloper/globalthreatmap>

Partners



Existing Consortium / Involved countries



Partners we are looking for

- Mobile network operators and providers
- Environmental and weather monitoring experts
- UAV manufacturers
- Sensor manufacturers (optical, thermal, LiDAR, multi-sensor systems)
- Emergency services / first responder organisations

Contact Info

For more information and for interest to participate please contact:

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Presentation is available via:



Join the Consortium Building Sessions



**5. February
from 10:00-11:00 CET**

Connection details:

Via

www.celticnext.eu/new-ideas

