



CELTIC-NEXT



Proposers Brokerage Day

30th January 2026, Vienna



ALP CONN

FH | JOANNEUM
Luftfahrt / Aviation

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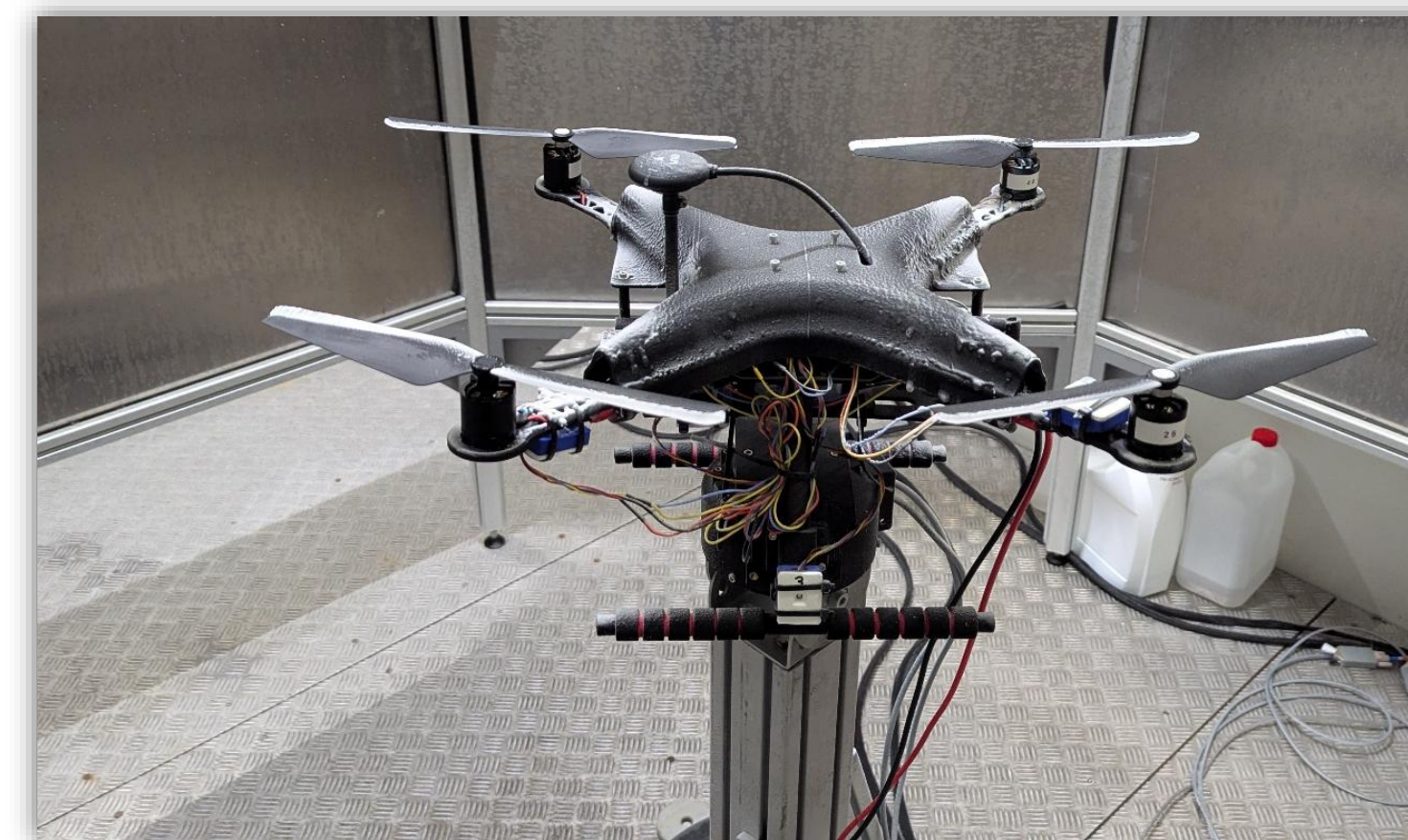
Making remote alpine regions accessible...

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)

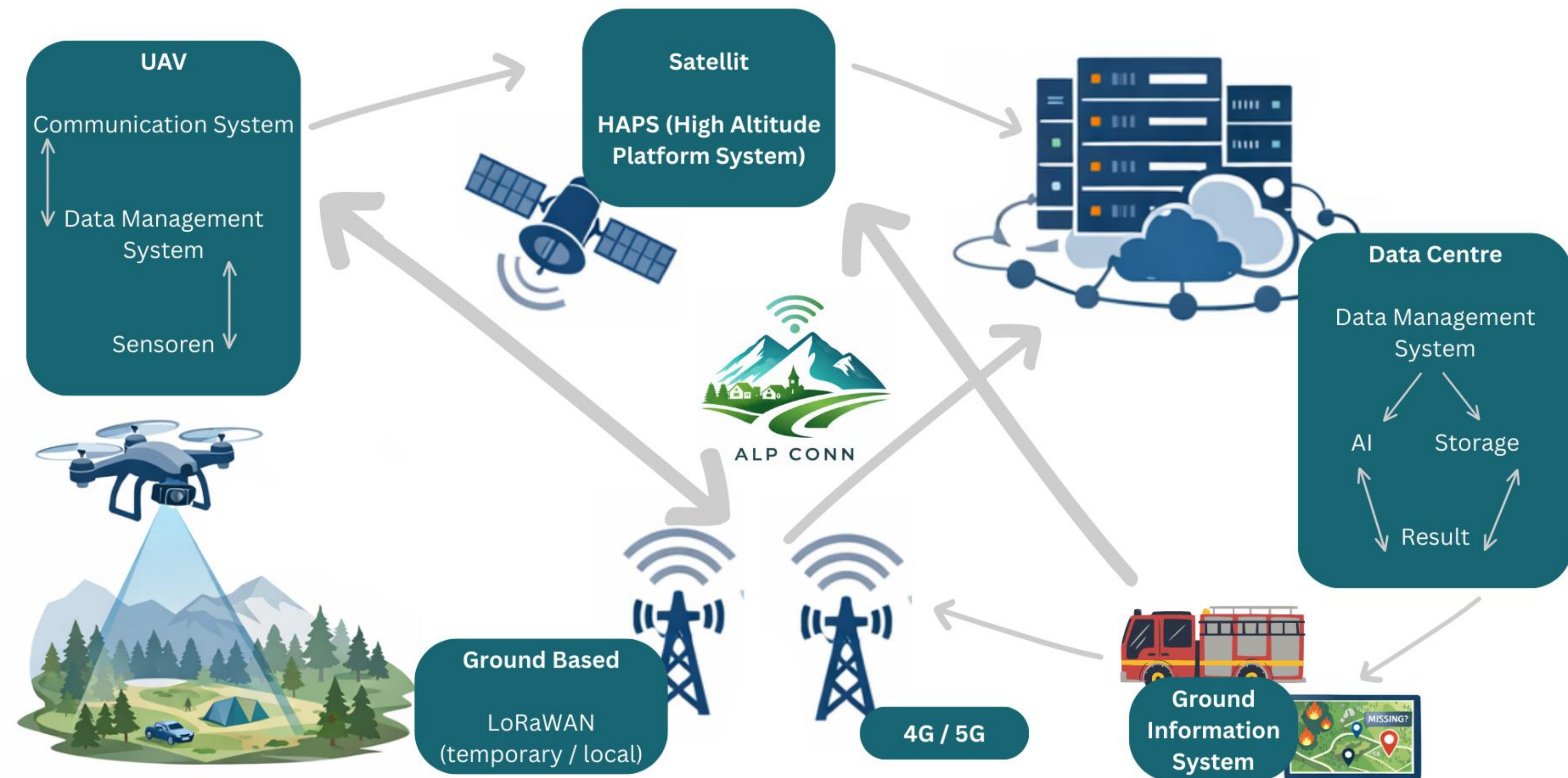
Vision: AI-enabled near real-time situational awareness from UAV data in remote and hard-to-access areas.

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

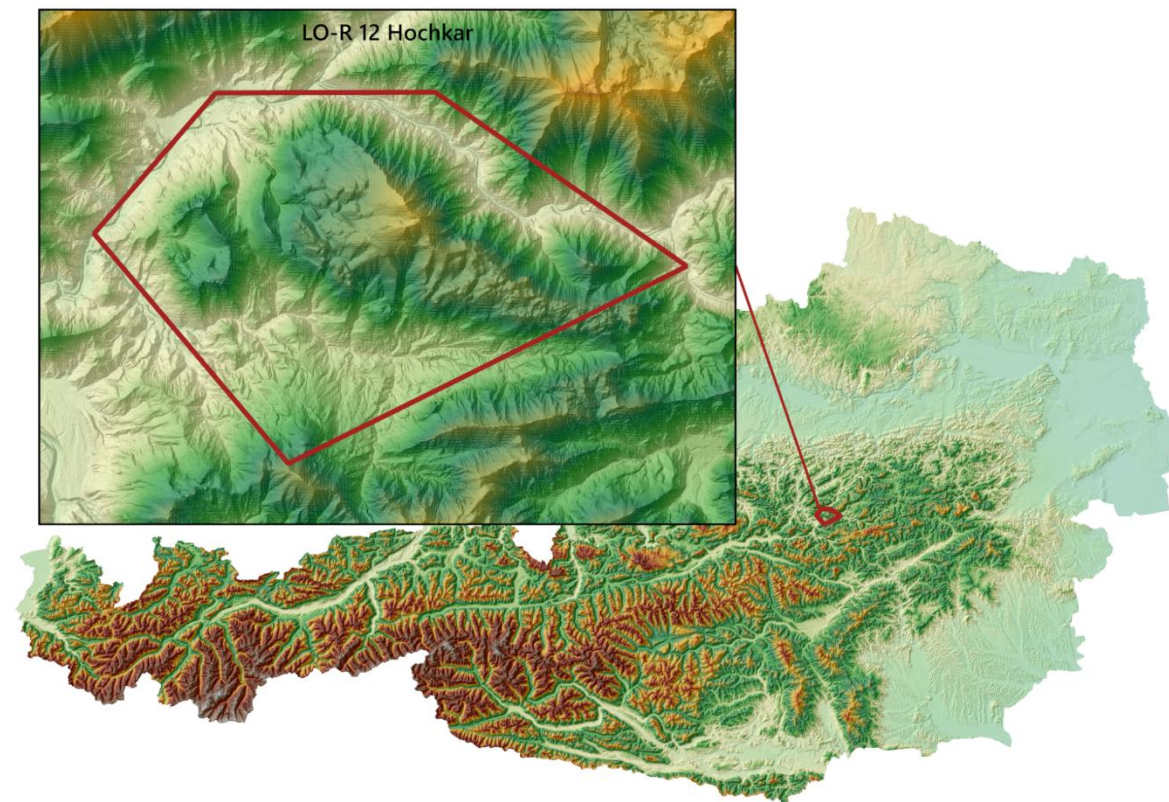
Content:

- 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

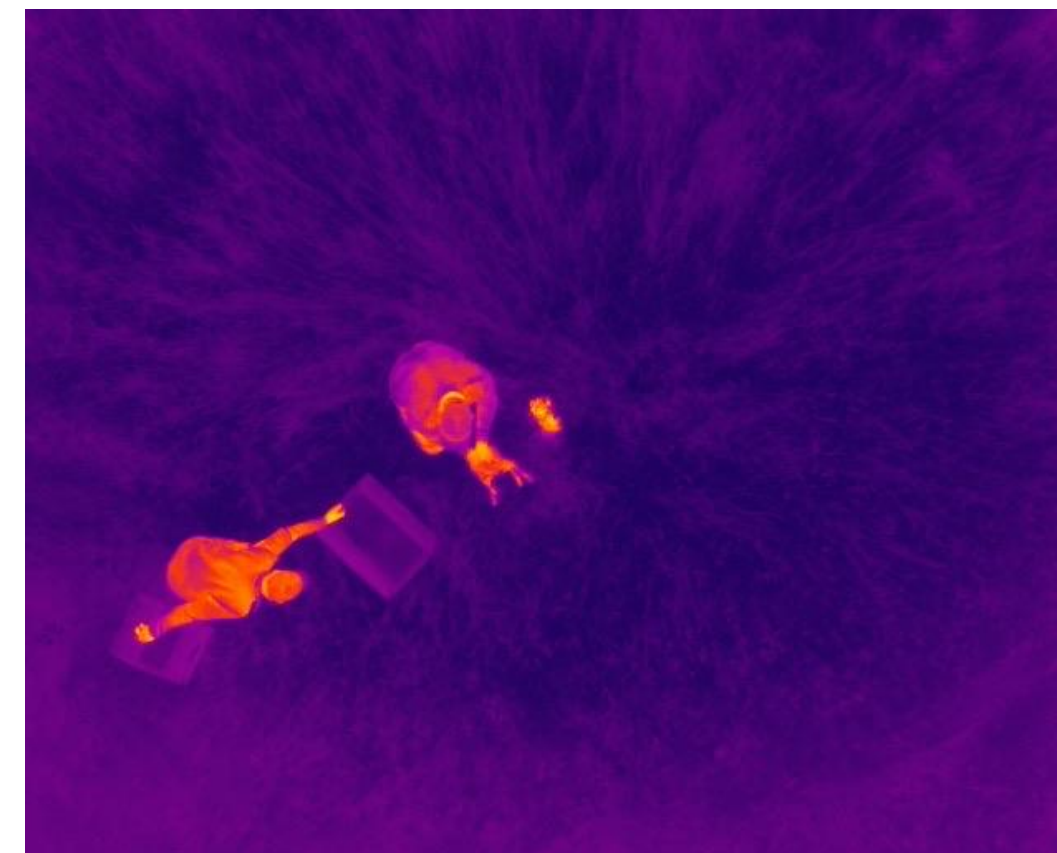


Proposal Introduction (2)

Examples:



Environment and terrain assessment



Object and activity recognition

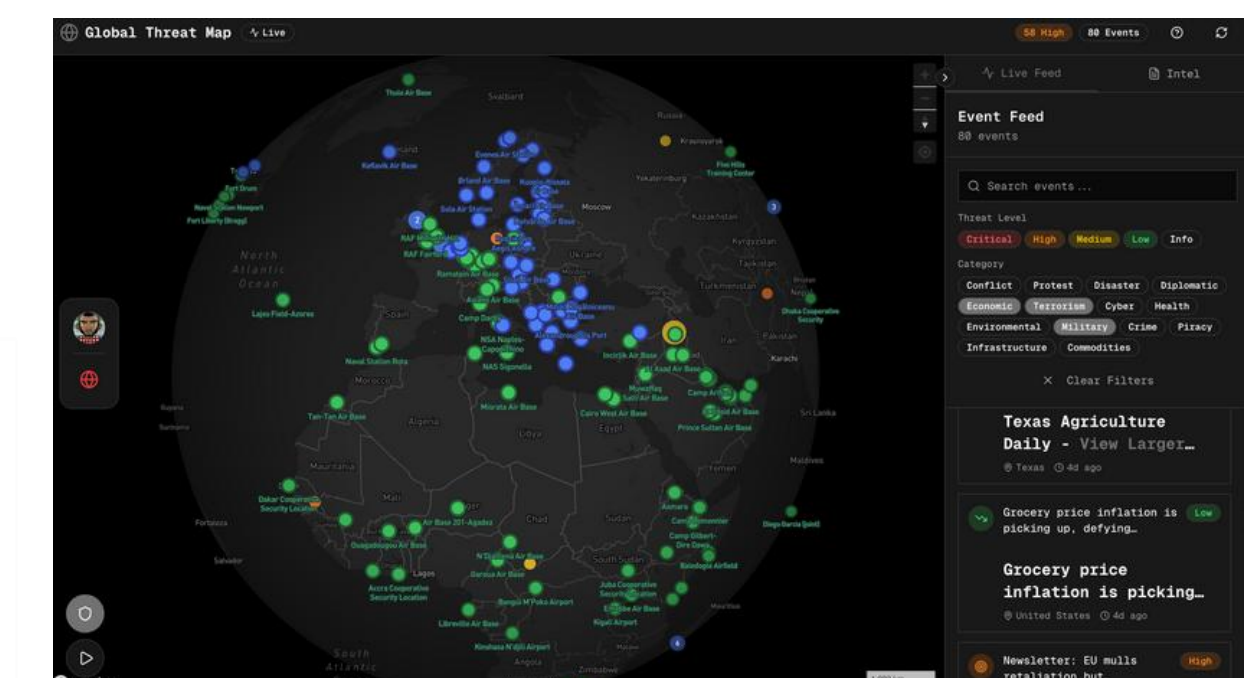


Wildfire (e.g. fire fronts, hotspots, movement patterns)

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*

Link to other projects:



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

Partners

Existing Consortium / Involved countries

FH JOANNEUM
Luftfahrt / Aviation



Lakeside Labs
SELF-ORGANIZING NETWORKED SYSTEMS



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

