



**SATELLITE  
APPLICATIONS  
FOR THE ALPS**

# Satellite Applications for mountain search and rescue

**Lessons learned working with alpine search and rescue  
organisations**

Eurisy presentation, ICAR congress 18.10.2018

**eurisy**  
ACTING COLLECTIVELY TO  
BRIDGE SPACE AND SOCIETY

# SATELLITE APPLICATIONS FOR THE ALPS

## About Eurisy

- **Facilitator:** We design and manage events as platforms that help participants teach, learn, and innovate together across sectors.
- **Catalyser:** We add value to various innovation projects by involving users, championing their point of view, and by facilitating the dialogue between them and space stakeholders.
- **Match-maker:** end-user communities and technology experts. Understanding patterns and links, and creating them for mutual benefit of those involved, is second nature.
- **Adviser:** we document factors of success and failure in the adoption of innovation. Then we inform decision-makers on how to smooth the path.

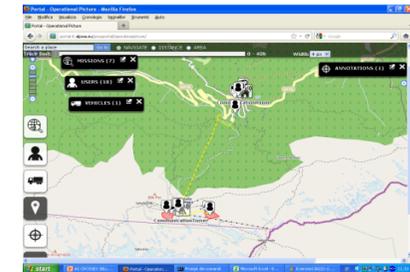


# SATELLITE APPLICATIONS FOR THE ALPS

## Satellite applications for search and rescue

### Satellite navigation

To obtain caller's location and improve team coordination.



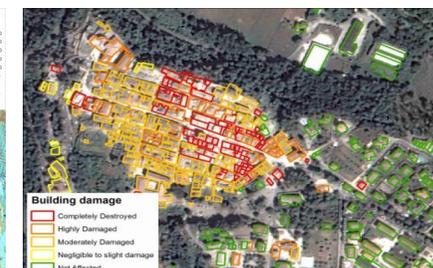
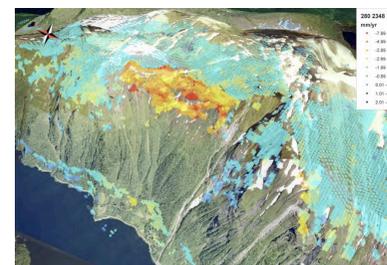
### Satellite communication

To provide connectivity in remote areas for emergency calls and coordination.



### Earth observation

To map risk, provide post-disaster imagery and improve maps.



**If these technologies are already available  
why are they not yet used in  
every  
emergency response operation?**

## Satellite Applications for search and rescue Eurisy Alps project

### GOALS

- **Map** the current use of satellite systems
- **Document** and report challenges
- **Share** success stories between different Alpine regions
- **Build** a community of experienced and interested users
- **Connect** service providers, space agencies and stakeholders to the right users

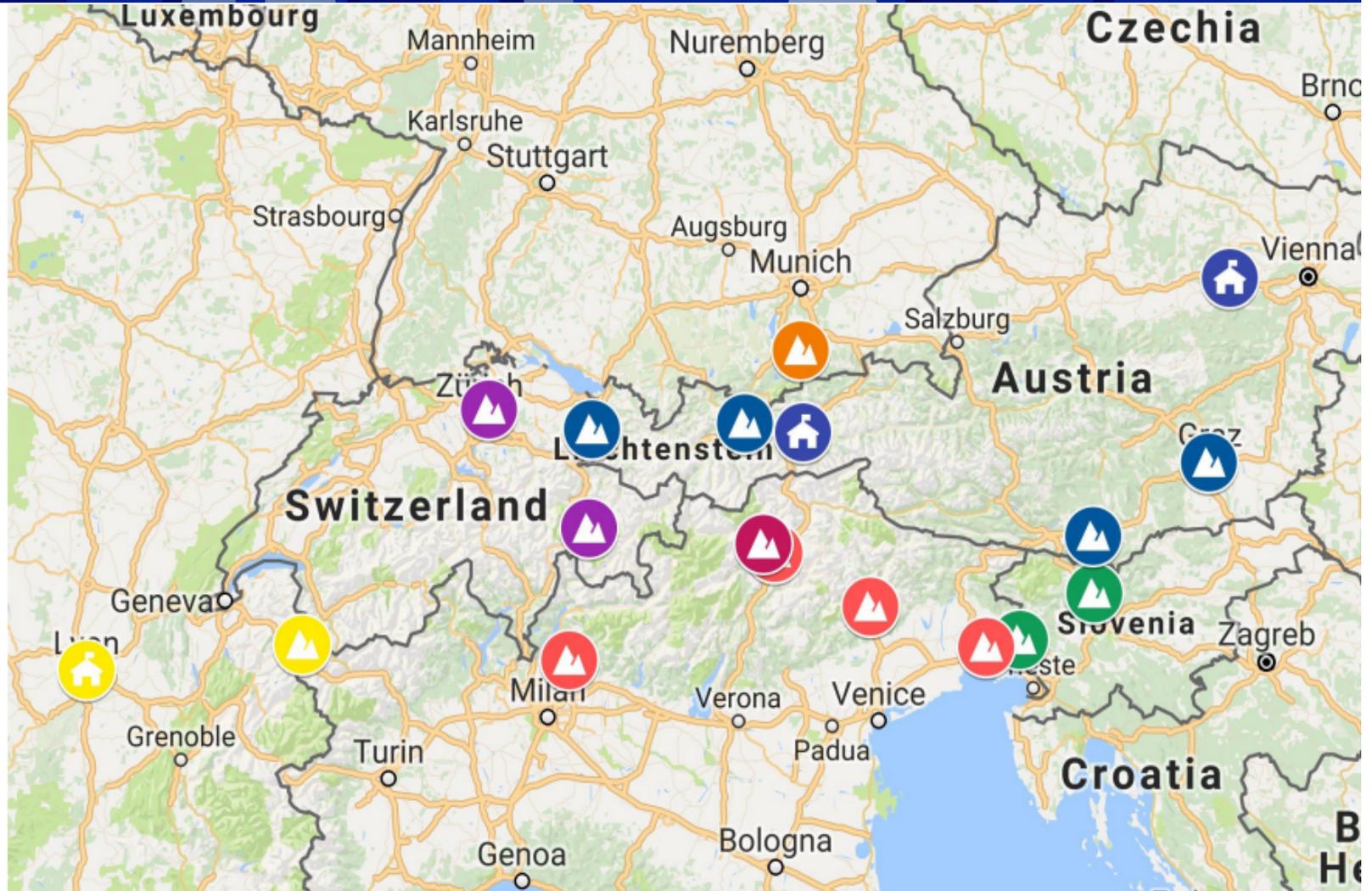
### ACTIVITIES

- **Interviewed users** in Austria, France, Germany, Italy, Slovenia and Switzerland
- **Document needs and success stories** from different regions and organisations
- **Organised a conference** for search and rescue in the Alps at the International Mountain Summit
- **Report on findings** of initial survey and conference discussions
- **Extend** projects to other European regions

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## Search and Rescue Organisations

-  Mountain Rescue Service Slovenia
-  Slovenian Administration for Civil Protection and Disaster Relief
-  Bergwacht Bayern
-  Bergrettung Carantia
-  Bergrettung Tirol
-  Bergrettung Styria
-  Bergrettung Vorarlberg
-  Tyrol Regional Operations Centre
-  NOTRUF Lower Austria
-  CNSAS
-  Civil Protection of the FVG Region
-  CNSAS Belluno
-  CNSAS South Tyrol
-  BRD Südtirol
-  Alpine Rescue Grisons
-  Swiss REGA and Alpine Rettung Schweiz
-  La Chamoniarde
-  SDIS 73





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## Challenges

- poor collaboration and exchange of information between organisations
- need for all staff to be trained
- lack of experts in-house at local/regional levels
- different organisations rely on different applications → Incompatibility of existing IT systems
- budget constraints limiting adoption of new services and sustained use after project funding ends
- lack of expertise in-house to procure and evaluate services they are not familiar with

## Opportunities

- shared standards for geo-information and location data
- common Alpine protocols and standards for training and use of services coordinated nationally and for the Alps
- compatible coordination platforms that can exchange information seamlessly
- aggregating regional demand to reach a critical mass
- evaluating the extent to which new technologies can partly replace existing ones for which budgets are already ear-marked
- involving space experts to accompany the process



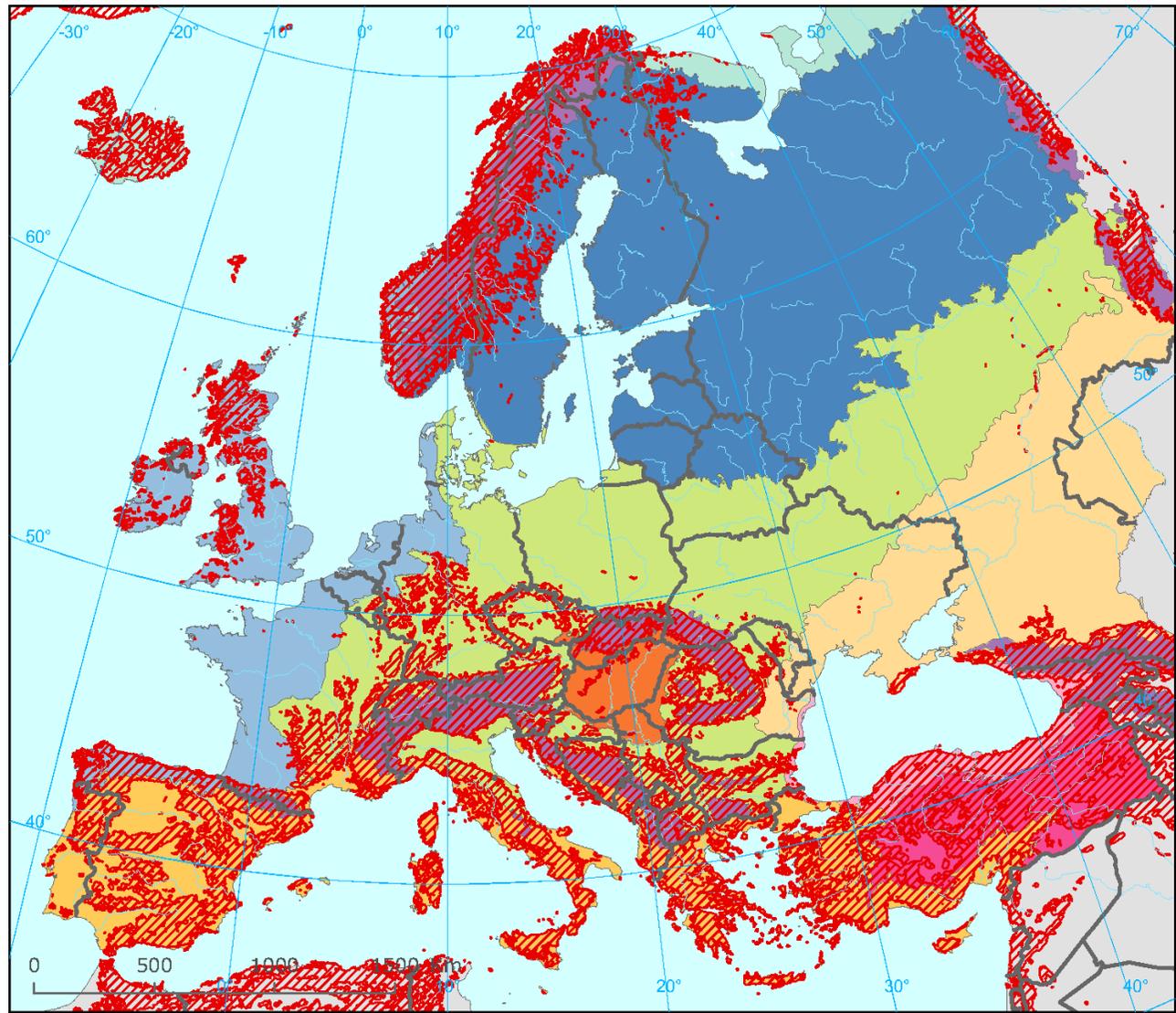
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## Eurisy recommendations:

- Make location sharing when calling the emergency number a European standard.
- Establish common data standards to allow team coordination systems to exchange information.
- Support a community of end users in the uptake and implementation of compatible solutions.

Find the conference report and project summary on our website [here](#)

# SATELLITE APPLICATIONS FOR THE ALPS



**Biogeographic regions with overlay of mountain area**

- Mountains

Biogeographic region

- Alpine
- Anatolian
- Arctic
- Atlantic
- Black Sea
- Boreal
- Continental
- Macaronesia
- Mediterranean
- Pannonian
- Steppic
- Outside data coverage



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**Want to learn more of how space can benefit search and rescue, or think we could work together?**

**Get in touch!**

**Contact**

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