



ASSIST

Alpine Safety, Security & Informational Services and Technologies

IMPROVING RISK MANAGEMENT IN ALPINE REGIONS

ASSIST aims at improving the capabilities of risk warning and crisis management systems in Alpine regions. The main objective is to deliver a pre-operational information service which shall be based on existing systems and products and make use of satellite-based navigation and earth observation (EO) data. The underlying idea is to develop and implement a flexible and distributed system for the production and exchange of relevant static and dynamic data required for risk prediction and management of disasters.

The backbones of the overall concept are the so-called "Service Nodes". These nodes will be autonomously operated by organisations which are responsible for risk and/or crisis management. The Service Nodes are capable of:

- requesting and receiving raw input data (satellite-borne, air-borne, terrestrial);
- processing the input data into products suitable for risk prevention and crisis management;
- distributing the products within the "User Network" (fixed and mobile regional risk management centres and - in case of crisis - up to the mobile staffs in field);
- exchanging products with other Service Nodes operated by different organisations (e.g. police, hospitals, ambulance services, air rescue, fire fighters, etc.).

REQUIREMENTS BASED ON SCENARIO ANALYSIS

In the beginning of the project, users have identified risks and scenarios - possible processes to be supported by an ASSIST system. The most promising subset has been selected, for which users have established their requirements. These requirements were translated into a set of technical system requirements and a preliminary top-level architecture has been established.

Based on the specified requirements, a functional demonstrator has been designed and implemented. Its validation started in February 2007 with a long-term test to prove the functionality for product import and exchange. The final validation was done in a test campaign under participation of all partners including users in June 2007.

MAIN LESSONS LEARNED

- The ASSIST concept and its demonstrator have shown the benefits of an integrated data handling and visualisation of a variety of different data types relevant to crisis prediction and management;
- A set of newly developed processing algorithms for high resolution EO data (landslide hazards maps, avalanche maps, snow coverage maps) have shown the benefits of these data for risk management purposes;
- The mobile components of the ASSIST demonstrator have shown the benefits of state-of-the-art technology for information exchange with in-field personnel in actual crisis situations;
- Although the ASSIST project has successfully reached all its objectives and provided a proof-of-concept for the benefits of harmonized exchange of EO and terrestrial data for crisis management, several tasks remain to be further elaborated:
 - Data ownership, data rights and information security issues have to be addressed for an information exchange across organisations.
 - On the technological side, additional sources of information are likely to be integrated based on a flexible concept (e.g. GPS-based slope measurement systems).



Source: VCS

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LIST OF PARTNERS

- VCS Aktiengesellschaft, Germany
- JOANNEUM RESEARCH Forschungsgesellschaft mbH, Austria
- Gamma Remote Sensing Research and Consulting AG, Switzerland
- Eidgenössisches Institut für Schnee- und Lawinenforschung (SLF), Switzerland
- ASI-Tirol - Alpines Sicherheits- und Informationszentrum, Austria
- Telematika e.K., Germany
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PROJECT INFORMATION

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