



Improving Methods and Technologies for the Large-Scale Monitoring of Flooding Situations

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Flood events are among the most devastating and widespread natural hazards in the world. In addition, climate change is expected to increase the frequency and intensity of such events in many areas, leading to significant personal injury and economic damages. For this reason, many institutions, such as civil protection authorities or insurance companies, require a quick identification of the affected areas in order to be able to carry out a timely damage assessment.

The German research and development project SenSituMon addresses these issues and aims to provide fully automated, large-scale monitoring of flood situations with time-critical provisioning requirements based on Copernicus and additional in-situ data (e.g. RADOLAN precipitation data, sensor networks). The overall goal is to develop novel methods, processes and tools to efficiently and quickly generate flood masks after heavy rainfall events. Additional in-situ information will be used to make the data analysis more effective and to support a comprehensive understanding of the meteorological and hydrological situation. The SenSituMon project works with stakeholders from insurance companies, water management and agriculture, and is therefore guided by the needs of potential users and the added value of innovative concepts and technologies.

The processing environment will be the cloud infrastructure of Mundi Web Services, a cloud-based Copernicus DIAS platform that enables processing to be performed close to the Copernicus data in the Open Telekom Cloud. Attendees at this session can expect insights into the methods, architectural concepts and technologies used to prototype an efficient and cost-effective flood monitoring approach.

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