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Alpine Space

X-RISK-CC

PROJECT NEWSLETTER

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Photo credit: Mitja Legat

In a world grappling with unpredictable climate patterns, the X-RISK-CC project, in partnership with ten allies across the Alpine Space, is charting the course for risk managers and policymakers. Together, we're tackling the intricate challenges brought about by extreme weather events in our changing climate.

X-RISK-CC WHAT'S GOING ON?

Our journey kicked off with a deep dive into the realm of extreme weather. Harnessing data from our pilot areas, we embarked on a comprehensive assessment of the likelihood of meteorological extremes. This included analyzing the significant Vaia storm in Trentino South Tyrol. Simultaneously, we scrutinized historical and current trends in climate drivers impacting the region, with a particular focus on intense precipitation in the Gorenjska Region. We expanded these assessments across the entire Alpine Space, leveraging innovative downscaling methods to enhance the precision of climate projections and better equip us for preparedness and planning.

Understanding Risks and Impacts

In Work Package 2, our focus shifted to the collection of vital data concerning hazards, vulnerability, and exposure in our pilot areas. This forms the cornerstone of our efforts to assess risks associated with extreme events. Our approach combines quantitative tools, such as a modular scheme for assessing compound and cascading hazards, with qualitative methods that delve into sequential impact chains. To extend the reach of our impact analysis across the Alpine Space, we've introduced a data-driven scheme. This innovative approach assists in modeling and predicting impact probabilities linked to weather conditions, climate drivers, and other environmental factors.

Rapid Risk Management and Collaboration

Within Work Package 3, we've successfully developed a rapid risk management appraisal approach. This method will guide upcoming workshops in each pilot area, where local experts and decision-makers will assess the strengths and limitations of risk practices during targeted extreme events. Our recent partner meeting in Munich further cemented the crucial link between the scientific analyses in Work Packages 1 and 2 and the practical needs outlined in Work Package 3. Together, we've laid the groundwork for the risk assessment manual and pilot action plans.




Highlights

from the pilot areas

AURA-EE CONTRIBUTION TO THE PROJECT

In the last 6 months, many activites were achieved on the French side of X-RISK-CC. AURA-EE conducted some interview with local and regional authorities to have a glimpse of what was the Eleanor storm “from the inside” and how did they managed to tackle this event. In general, organisations seemed to have well-managed this event. Nonetheless, due to the combination of severals events, human and financial resources were stressed. Though, after this extreme storm, some new mechanisms have been implemented such as on-call schedule. One lesson-learned is that land use planning is a key point to avoid casualties, by taking into account natural risk. The definition of this lesson learned can be found into the TAGIRN (Alpine Territories on Integrated Natural-Risk Management) consortium.

Led by Pôle Alpin des Risques Naturels (PARN), our technical partner, TAGIRN have been invited on the end of June to participate in the Technical Days of STEPRIM and TAGIRN on which a presentation of X-RISK-CC was given by Benjamin Einhorn, director of PARN. This was also the occasion to present digital decision-making tools for crisis management.

AURA-EE also participated in a world coffee event organized in Grenoble as part of the H2020 project ESM 2025. This forward-looking project aims to develop cutting-edge adaptation and mitigation models for the Earth system. Our partners engaged in discussions on enhancing climate risk assessment and response, quickly adressing how X-RISK-CC is tackling this critical issue.

As a reminder of how climate change can impact our infrastructures, Auvergne-Rhône-Alpes have known a 700m3 rockfall at the end of August, because of the combination of a heatwave and a mass precipitation on a highway and a road joining France to Italy (via Modane) that force government to shut down the road as well as the railway between Saint Jean de Maurienne and Modane.