HOMEROS – Harmonising Observations from Multi-hazard Environments in Research for Open Science

OSCARS
Open Science Clusters' Action for Research & Society

the HOMEROS project aims to strengthen multi-hazard assessment methodologies in seismology, geodesy, and geology. Focusing on high-risk areas in Greece with significant seismic activity, strong earthquakes, floods, and landslides, HOMEROS will compile earthquake catalogues and assess ground deformation products to provide a comprehensive evaluation of seismic hazards. Additionally, it will enhance the understanding of flood and landslide risks, vital for effective mitigation strategies.

ENVRI
Environmental Sciences

Challenge

In regions like Greece, where seismic activity, floods, and landslides pose significant threats, existing observation systems often lack standardisation when combining interoperable services from diverse resources related to essential geohazard variables, hindering effective multi-hazard assessments.

Solution

By comparing the Ionian Islands, Corinth Gulf and western Peloponnese in Greece as case studies, each representing multi-hazard environments, HOMEROS aims to identify network and data needs crucial for improving earth observation and hazard assessment capabilities. Integration with ENVRI and the EOSC will enable to utilise Open Science environments effectively.

Scientific Impact

HOMEROS will advance scientific knowledge in multi-hazard assessment. Its approach, characterised by transparent data sharing, collaborative modelling, and active community engagement, aims to catalyse significant changes in disaster preparedness, response strategies, and recovery processes.

Partners

Aristotle University of Thessaloniki, National and Kapodistrian University of Athens, University of Patras, Lund University

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