WP3

Integrating impact models and tools in a Multi-Hazard operational Early Warning System



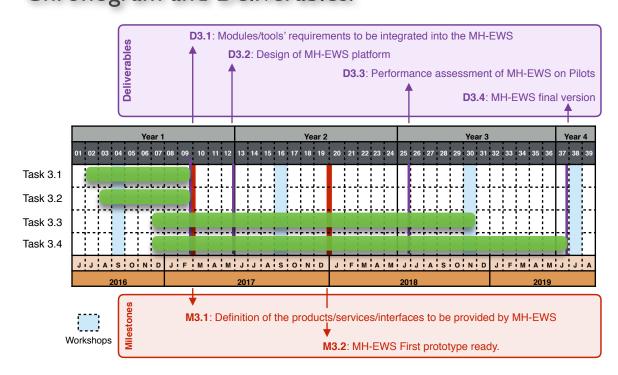
Summary

WP3 is going to integrate (internally encapsulate or connect) the models/tools from WP2 and the existing Pan-European platforms in a single Multi-Hazard Early Warning System: MH-EWS. The MH-EWS will have models to anticipate the temporal and spatial localization as well as associated impact of: Floods and Flash-floods, Debris flows and Landslides, Storm surges, Snow storms, Wind storms, Droughts, Weather-induced fires, Heatwaves and Weather-induced Health impacts. The MH-EWS will operationally generate high-resolution multi-hazard Early Warning products, which will be made available to third users through an advanced set of services.

Objectives:

- Design a flexible and scalable framework to integrate both the forecast and impact models developed within WP2, and the existing Pan-European platforms, into a common operational Multi-Hazard operational Early Warning System [MH-EWS], compiling with the guidelines provided by WP1.
- Design a set of products and services and their interfaces, to be provided by the **MH-EWS** to the different users (applications developed within WP4 and WP5 and third party users) in order to make possible hazard/site-specific applications able to both connect with legacy systems and/or build tailored solutions.
- Build the operational MH-EWS in a modular and scalable decentralized architecture using standardized technologies and protocols.
- Test and validate the **MH-EWS** in the Pilot Sites (Italy-France, Catalonia, Finland-Norway and Switzerland), case studies and SME platform applications, including providing feedback to models and tools developers to cyclical review and update them.

Chronogram and Deliverables:



Tasks:

MH-EWS Cloud-based, decentralized architecture Task 3.2: Designing MH-EWS output products, services and interfaces Task 3.1: Collecting requirements of the forecasting models and tools for integration into the MH-EWS platform Set of services **Models and tools** (OGC standard) necific requests using (WP2) Web Map Server xternal data (sensors, Models and tools that **RESTful API** On-demand can be integrated Integrate models/ Clients (WP4, Standard format XML, JSON, etc.) WP5, and third party users) Models and tools that cannot be integrated standardized services Requests of Requests Scalable virtualized subsystems MH-EWS Management adapted to the algorithm's needs Task 3.3: Designing and building the MH-EWS platform

Task 3.4: Testing and performance evaluation of the MH-EWS and modules/tools refining

Contributing Partners:



























