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Improving Tsunami Resilience in Europe - ASTARTE

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The North East Atlantic, Mediterranean and Adjacent Seas (called NEAM by IOC-UNESCO) is known to be exposed to tsunamis and, like other regions of the world, faces increasing levels of risk due to i) the continuous development of coastal areas with critical infrastructures and accumulated values, and ii) the year-round presence of millions of tourists.
In recent years, European researchers have greatly advanced knowledge of tsunami hazards and implementation of operational infrastructures, such as the creation of a regional system of candidate tsunami watch providers (CTWP) and national tsunami warning centers (NTWC). However, significant gaps remain and intensified efforts are needed.
The ASTARTE (Assessment STrategy And Risk for Tsunami in Europe) is a three-year long EU-funded project, started in November 2013, that aims to develop a comprehensive strategy to mitigate tsunami impact in the NEAM region. To achieve this goal, an interdisciplinary consortium has been assembled. It includes all NEAM CTWPs and expert institutions across Europe and worldwide. ASTARTE will improve i) the basic knowledge on tsunami generation and recurrence with novel empirical data and new statistical analyses for assessing long-term recurrence and hazards of large events in sensitive areas within NEAM, ii) numerical techniques for tsunami simulation focusing on real-time codes, novel statistical emulation approaches, and experiments on damage analysis, and iii) methods for the assessment of hazard, vulnerability, and risk. ASTARTE will also provide i) guidelines for tsunami Eurocodes, ii) better forecasting and warning tools for CTWPs and NTWCs, and iii) guidelines for decision makers to increase the sustainability and resilience of coastal communities.
In summary, ASTARTE will develop basic scientific and technical elements allowing for a significant enhancement of the Tsunami Warning System in the NEAM region in terms of monitoring, early warning,forecast, and resilience, with specific implementation in 9 tsunami test sites.
Overall, this will lead to the goal of the European/NEAM Horizon 2020 strategy: to foster tsunami resilient communities. www.astarte-project.eu

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