Tsunamis - Challenges for tsunami research in Europe

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Tsunamis are low frequency but high impact natural disasters. In 2004, the Boxing Day tsunami killed hundreds of thousands of people from many nations along the coastlines of the Indian Ocean. Tsunami run-up exceeded 35 m. Seven years later, and in spite of some of the best warning technologies and levels of preparedness in the world, the Tohoku-Oki tsunami in Japan dramatically showed the limitations of scientific knowledge on tsunami sources, coastal impacts and mitigation measures. The experience from Japan raised serious questions on how to improve the resilience of coastal communities, to upgrade the performance of coastal defences, to adopt a better risk management, and also on the strategies and priorities for the reconstruction of damaged coastal areas. Societal resilience requires the reinforcement of capabilities to manage and reduce risk at national and local scales. This communication will focus on the actual efforts of the scientific community and their main challenges on tsunami research. (This communication is a contribution of ASTARTE FP7 Grant 603839)