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Preliminary results from the Marmara Demonstration Mission of ESONET

Louis Géli (1), Pierre Henry (2), Namik Cagatay (3), Günay Cifçi (4), Luca Gasperini (5), and Paolo Favali (6)

(1) Ifremer, Marine Geosciences, Plouzané, France (geli@ifremer.fr), (2) CEREGE, Technopôle de l'Arbois, Aix-en-Provence, France (henry@cerege.fr), (3) Istanbul Technical University, Maden Fakultesi, Istanbul, Turkey (cagatay@itu.edu.tr), (4) Institute of Marine Sciences and Technology, Dokuz Eyiul Universitesi, Izmir, Turkey (cifci@deu.edu.tr), (5) CNR, ISMAR Bologna, Bologna, Italy (luca.gasperini@ismar.cnr.it), (6) Istituto di Geofisica e Vulcanologia, INGV, Roma, Italy (paolofa@ingv.it)

We here present the results of the MARMARA Demonstration Mission, the goal of which is to contribute to the establishment of optimized permanent seafloor observatory stations for earthquake monitoring in the Marmara Sea, as part of ESONET (European Seafloor Observatory Network). The specific objectives of the present demonstration mission are:

1. To characterize the temporal and spatial relations between fluid expulsion, fluid chemistry and seismic activity in the MS,
2. To test the relevance of permanent seafloor observatories for an innovative monitoring of earthquake related hazards, appropriate to the Marmara Sea specific environment
3. To conduct a feasibility study to optimize the submarine infrastructure options (fiber optic cable, buoys with a wireless meshed network, autonomous mobile stations with wireless messenger).
4. To ensure the sustainability by involving the national and local authorities, and coordinate national (Turkish) and international efforts towards a optimized, permanent seafloor monitoring for the geohazard risk assessment and mitigation in the MS.

The status of the project is presented for each specific objective.