

Short Term Scientific Missions (STSM)

Host institution: IFREMER – French Research Institute for Exploitation of the Sea; The Unit of Marine Geosciences.

Host/contact person: Dr. Livio RUFFINE and Dr. Nabil SULTAN (Head of the Marine-Geoscience Unit)

Description of the proposed STSM activity:

The Unit of Marine Geosciences of IFREMER is a well-known research centre which works on marine gas hydrate related to slope and seafloor stability. In this frame, it conducts multidisciplinary sea expeditions combining geology, geophysics, geochemistry and geotechnics, in order to better understand the dynamics, both in space and over time, of gas-hydrate bearing sediments. These expeditions integrates *in situ* measurements, data gathering, sampling and analyses for the interpretation and prediction of the behaviour of hydrate systems.

Therefore, the Unit of Marine Geosciences may propose a broad range of STSM activities like geochemical analyses of gas-hydrate, fluid and sediment samples by GC-FID, IC, ICP-XR, MC-ICP-MS, XRD, XRF, high-pressure geotechnical and thermodynamic measurements and modelling, 2D and 3 D seismic-data processing and water-column acoustic data processing.

Estimated duration: from 2 to 6 months

Proposed contribution of the STSM to the scientific objectives of the COST Action “Migrate”:

MIGRATE aims to determine the European potential inventory of exploitable gas hydrates, current production technologies, and associated risks. All the aforementioned activities are carried out from samples/ data collected within the European water (Black Sea and Sea of Marmara). Therefore the proposed contributions will benefit the COST action “MIGRATE” as they will allow a better characterization of hydrate deposits within the European waters.