## Mound Drilling for Science and Industry

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Morocco has a privileged position for the study of carbonate mounds, in particular those found in association with fluid migration processes. Morocco's Palaeozoic record in particular features spectacular examples. Recent exploration on the Moroccan continental margin however has revealed a wealth of modern mound provinces, exposed at the seafloor or at shallow depth beneath the surface, both on the Atlantic and the Mediterranean margins.

An important research momentum develops since 2002 on the mound provinces, associated with giant mud volcanoes off Larache, NW Morocco. These mounds and mud volcanoes form the target of two IODP proposals: 673 (Atlantic Mound Drilling II: Morocco Margin) and 689 (Mud Volcanoes as a Window into the Deep Biosphere). In preparation of these drilling campaigns, the "MeBoTech" proposal for a Support Action under the 7th Framework Programme has been recently submitted to the European Union.

The scientific rationale behind MeBoTech builds upon the preliminary results of IODP Expedition 307 on Mound Challenger off Ireland, which has highlighted the importance of early diagenetic processes in the shaping of a carbonate mound reservoir. Modern mounds may be regarded as active hydrogeological bodies and open diagenetic systems. The dynamics of these processes possibly could be analyzed by instrumenting a mound, turning it into a natural laboratory. Analyzing the feasibility of such challenge, utilizing both ROVdeployed sensors and the unique capability of the remotely controlled sea-floor drill rig "MeBo" for instrumenting a subseafloor observatory, is a prime technological objective. Such studies however can build a solid ground for an improved dialogue and win-win initiatives between the marine science community and the industrial world, which share the excitement of the study of carbonate mound reservoirs.

Key words: carbonate mounds, mud volcanoes, ocean drilling