# “Go with the flow”; impact of the Mediterranean Outflow Water on Atlantic sedimentary processes and ecosystems

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From the point of its creation at the Gibraltar Strait, the Mediterranean Outflow Water (MOW) is probably one of the best studied water masses in the Atlantic basin. Moreover, numerous studies have been devoted to its hydrography, temporal variability and its interaction with the seabed in the northern Gulf of Cadiz. The influence of the MOW on sedimentary processes and ecosystems however is not restricted to the Gulf of Cadiz.

During this presentation, an overview will be given regarding the impact of the MOW along its northward flow along the northeastern Atlantic margin. During the last decade, several national and international projects have focused on the environmental control on deep-water (coral) ecosystems along the European margin. As such, in collaboration with many European partners, the RCMG has acquired an interesting dataset along middle-slope sites influenced by the MOW. Special attention will be given on the various ways in which the presence of this water mass can affect local sedimentary processes and benthic habitats. Major strategic points along the pathway of the MOW will be the Le Danois contourite depositional system, the deep-water canyon habitats along the French continental margin and the impressive mound-drift competition in the Porcupine Seabight.

To conclude, a summary will be given of upcoming research along the northern MOW pathway, but also the enigmatic southern branch of the MOW will not be forgotten.