SESAME

A GEOLOGICAL AND GOEPHYSICAL MODEL

The objectives of Sesame are -

- To understand the sedimentary processes of a deltaic margin during the last 5 major glacioeustatic cycles and the origins of submarine canyons,
- To achieve ultra-high resolution recording (as a result of high sedimentation rates) of climate variability, and to understand its impact on sedimentary recording,
- To exploit access to a unique interplay of data to understand the origin of seismic reflections and to develop processing and inversion methods for the acoustic characterisation of marine sediments.

Spin-offs and future developments

The results obtained represent the first validation of the concept of stratigraphy: they provide quantitative elements for understanding the formation of submarine canyons; they demonstrate the existence of significant eustatic variations on a millennial timescale and reveal their stratigraphic signature. Lastly, using one of the first high resolution 3D seismic blocks ever realised, the results offer a new vision of the evolution of pockmarks, structures which are found in great profusion on the margins of oil-rich areas and which are associated with changes in sea level.

Partners

Research centers

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