

Use of the SWOT mission by combining Multi-sensor and Modeling approaches for monitoring the Multi-scale Coastal hydrodynamics - SWOT 3MC

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General objectives

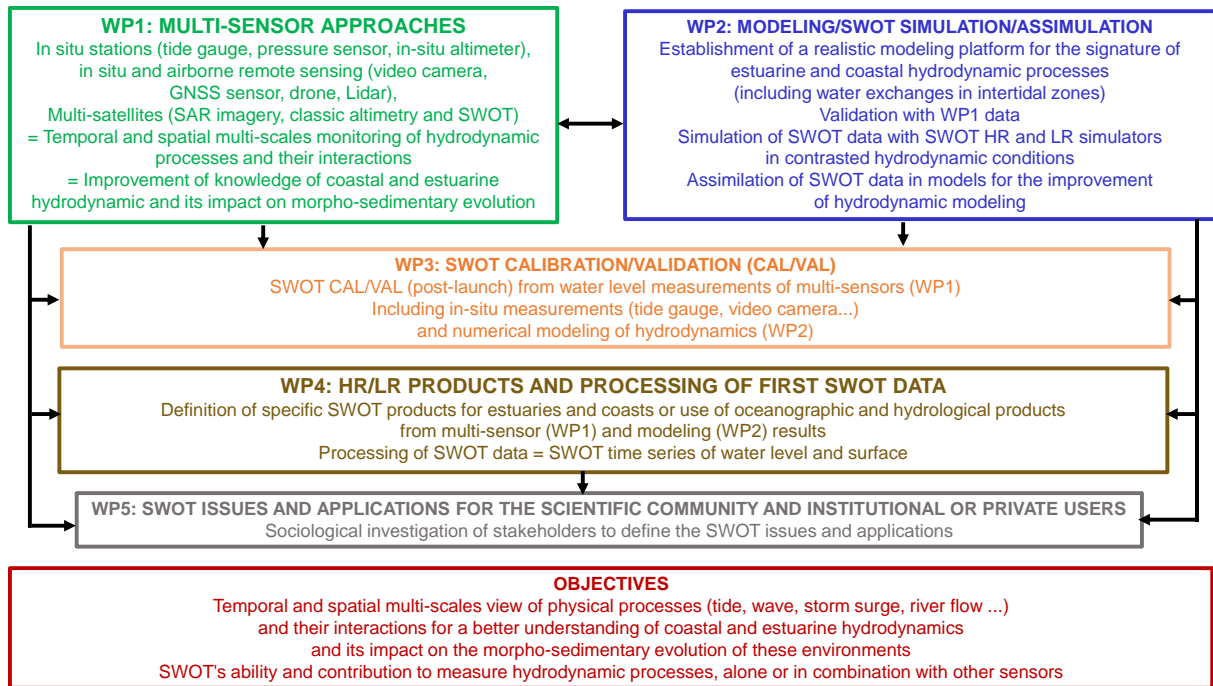
The general objective of the project is to:

(1) use the multi-sensor approaches (in-situ, video camera, drone, Lidar, satellites, etc.) and modeling with multi-resolutions to obtain a multi-scale temporal and spatial view of the physical processes of tide, swell, storm surges and flow, and their interactions for a better understanding of coastal and estuarine hydrodynamics and its impact on the morpho-sedimentary evolution of these environments;

(2) Analyze SWOT's ability and contribution for measuring these hydrodynamic processes, separately or in combination with other sensors.

Approach

The project includes 5 work packages (WPs) described on the figure 2.



Study sites

We selected 16 coastal and estuarine 16 sites in different morphological, sedimentary, climatic and hydrodynamic contexts, in order to define what is transposable or not according to the studied environments and thus propose common SWOT applications to all coastal and estuarine systems or regional specific applications according to the regional and local context (Fig. 2)

