

# Sea Observatory and operational modelling system for the south-eastern Brazilian shelf

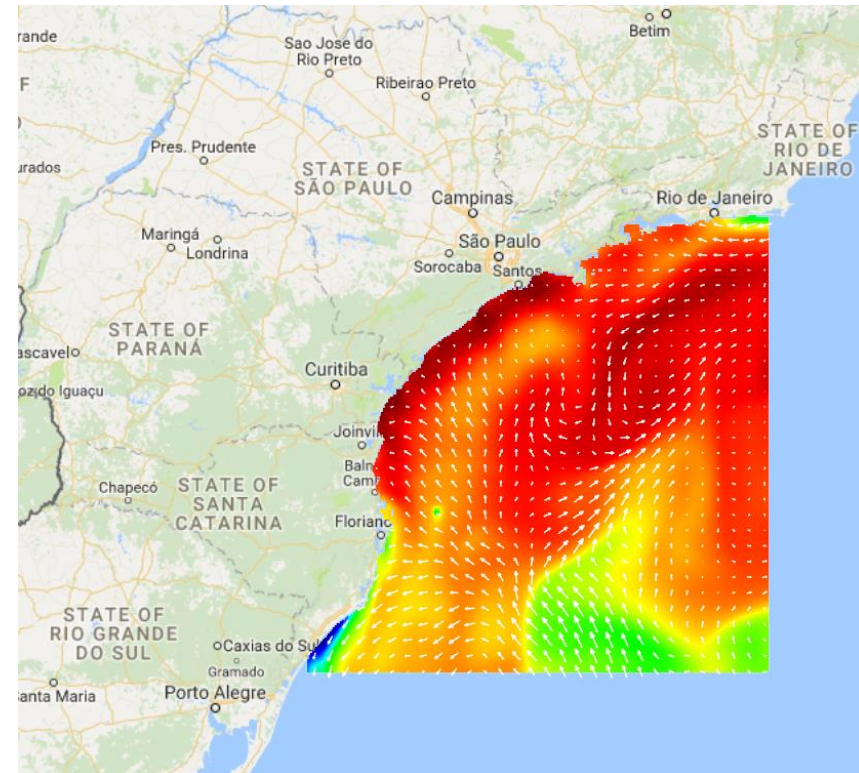
Development and promotion of demonstrations of CMEMS downstream services (Lot 11)



# Context

Initiative for the development of a web-based observatory (Sea Observatory) focus on the south-eastern Brazilian shelf, where are located:

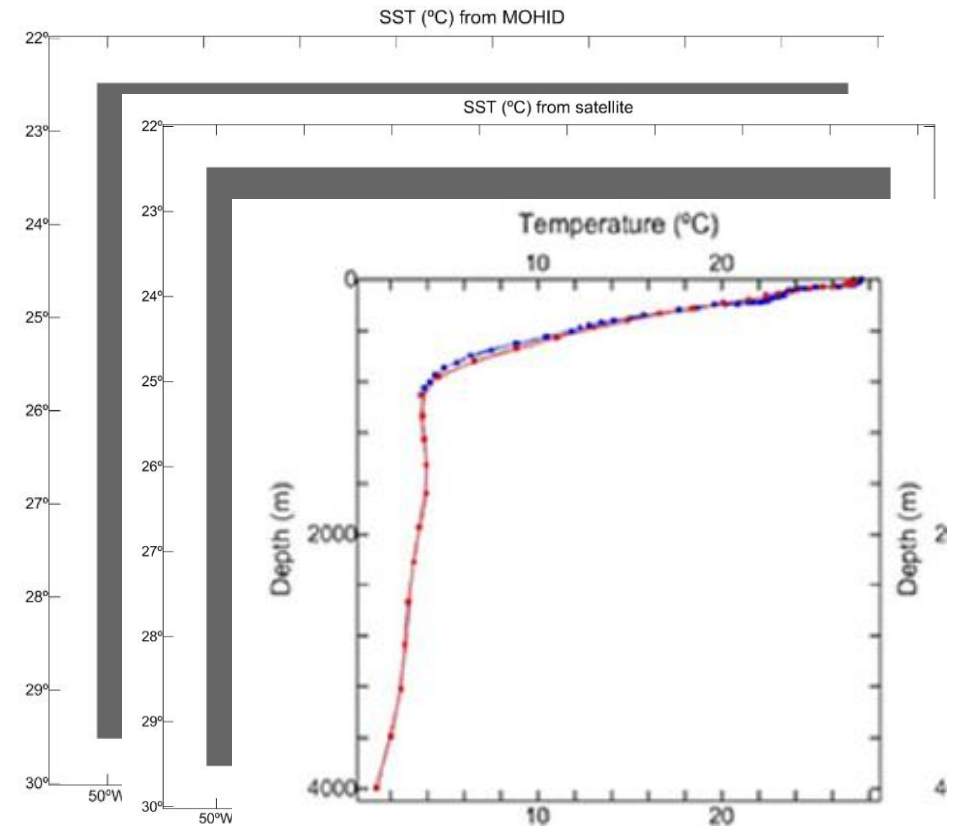
- some of the most important ports and largest coastal cities in Brazil;
- important productions of shellfish;
- the pre-salt oil and gas exploration field;
- tourism activities as a significant part of local economy.



# Sea Observatory

Integrate information from different sources in a single web GIS platform:

- modelling results;
- satellite data;
- in-situ measurements.



# Sea Observatory

The users will have free access to the Sea Observatory, which will permit to:

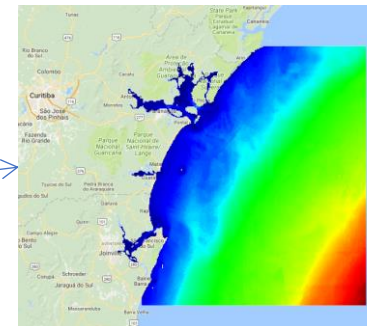
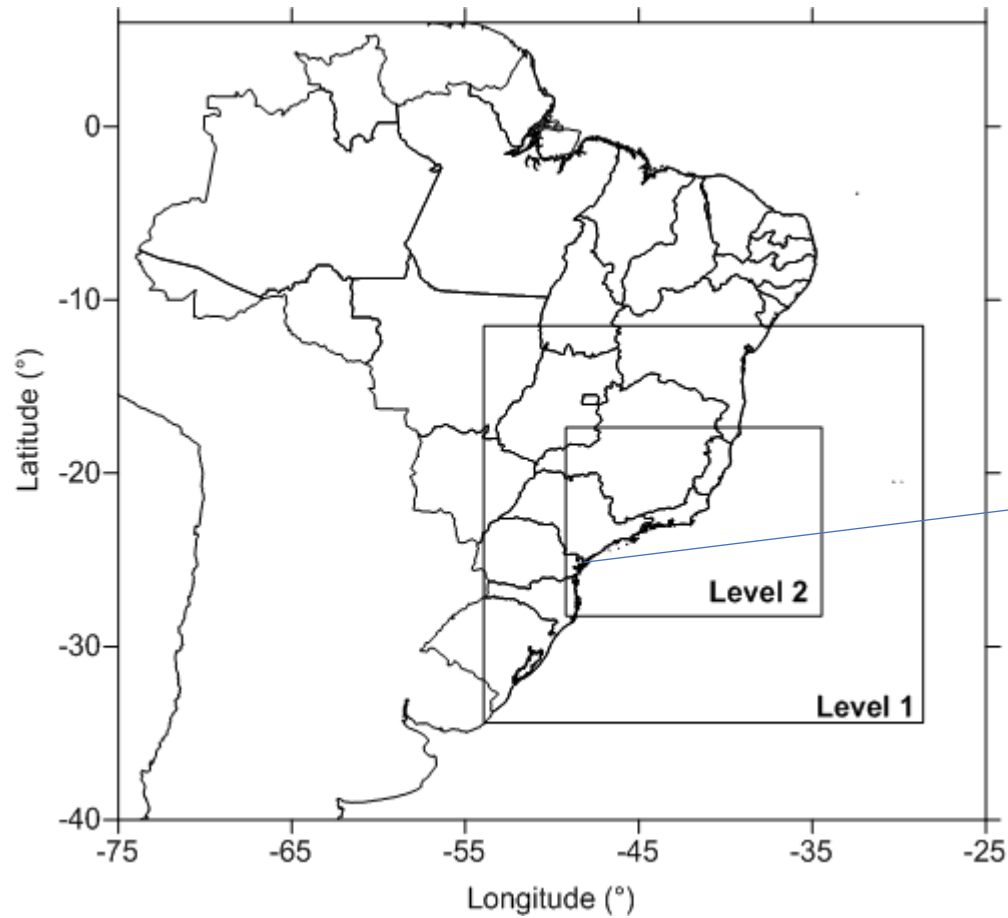
- overlap different types of information in map format;
- assess the modelling results against in-situ;
- visualize real-time ship traffic;
- perform on-demand spill simulations.

# Operational Modelling System

Aiming at providing forecast results of oceanic parameters for the south-eastern Brazilian shelf at regional and local scales:

- based on the MOHID modelling system;
- including nested models for local coastal systems with high resolution.

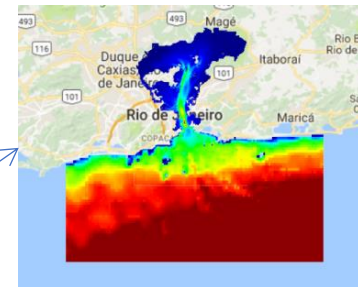
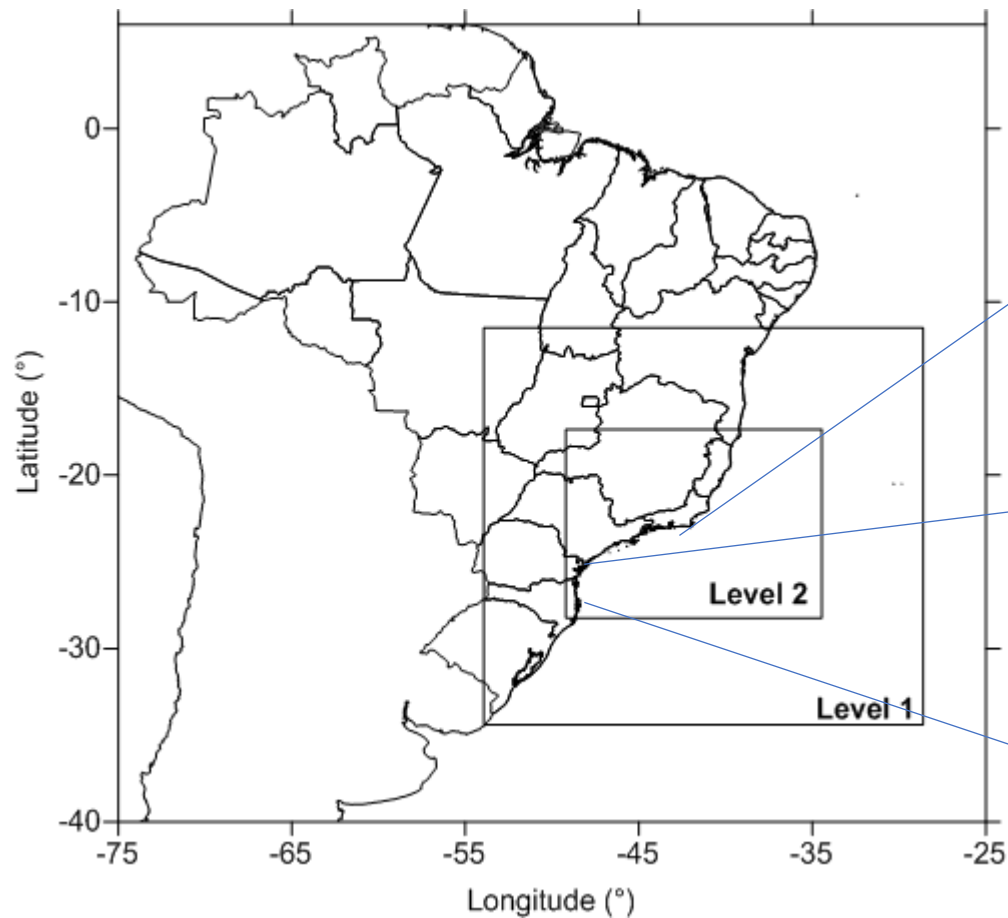
# Operational Modelling System



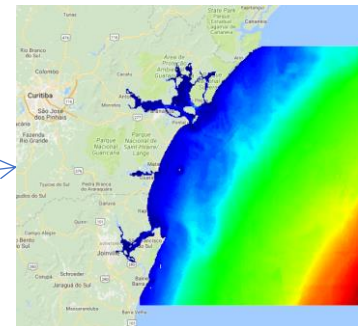
Paranaguá Estuarine System  
(Paraná)

Babitonga Bay  
(Santa Catarina)

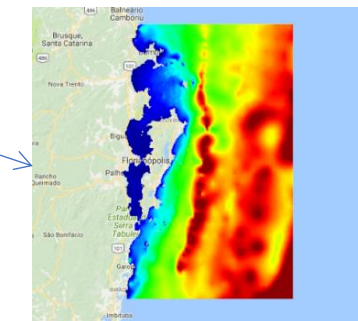
# Operational Modelling System



Guanabara Bay  
(Rio de Janeiro)



Paranaguá Estuarine System  
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Babitonga Bay  
(Santa Catarina)

Florianópolis  
(Santa Catarina)