



Extreme water levels and water quality in the Tagus estuary: the CONNECT Tagus service

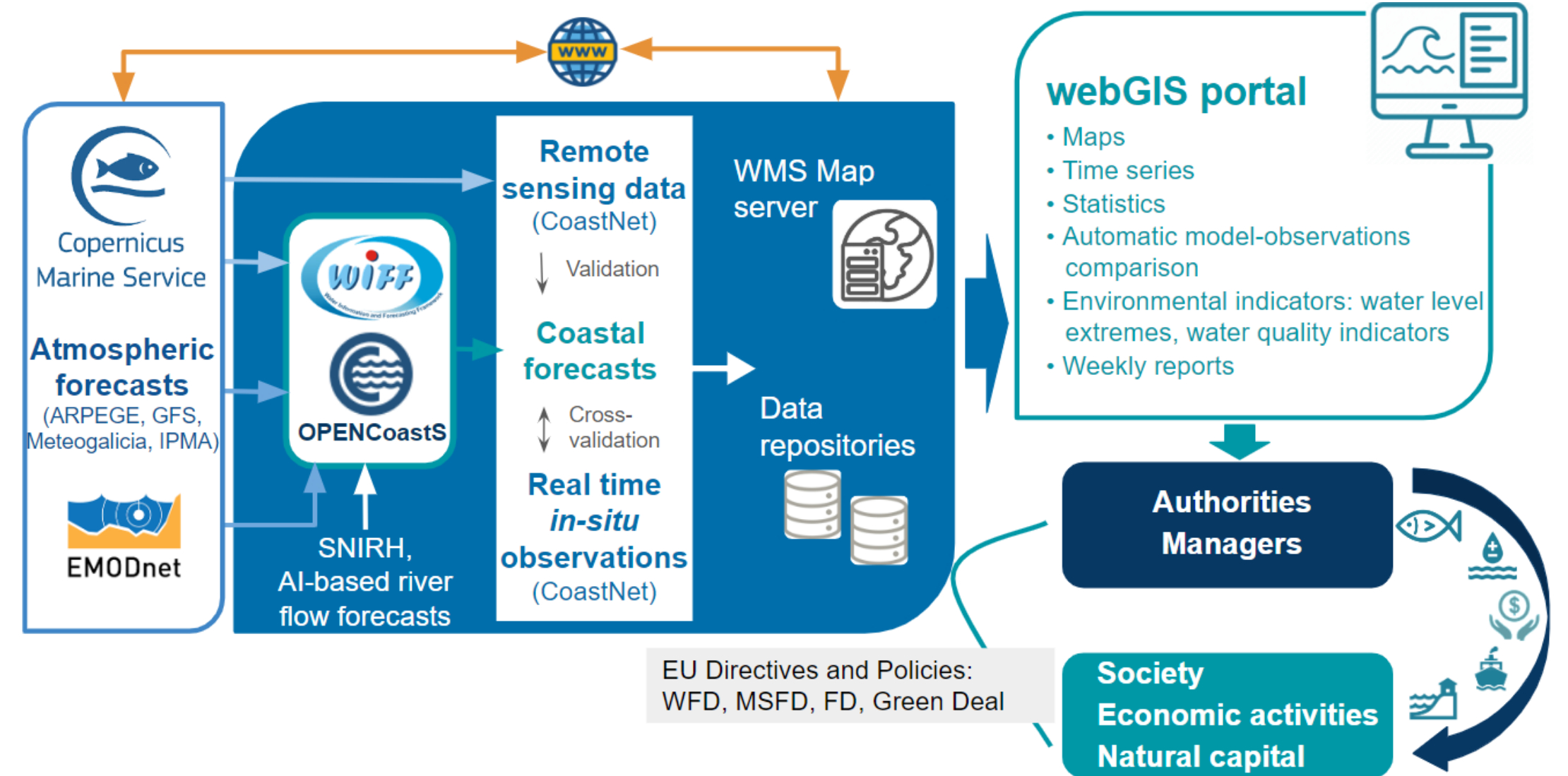
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CONNECT coastal service

The CONNECT coastal service combines model-based forecasts and observations to provide physical and biogeochemical data on Portuguese estuaries to the Copernicus Marine Service (CMEMS), supporting the implementation of European directives and policies (e.g., WFD, MSFD, Floods Directive).

Main features:

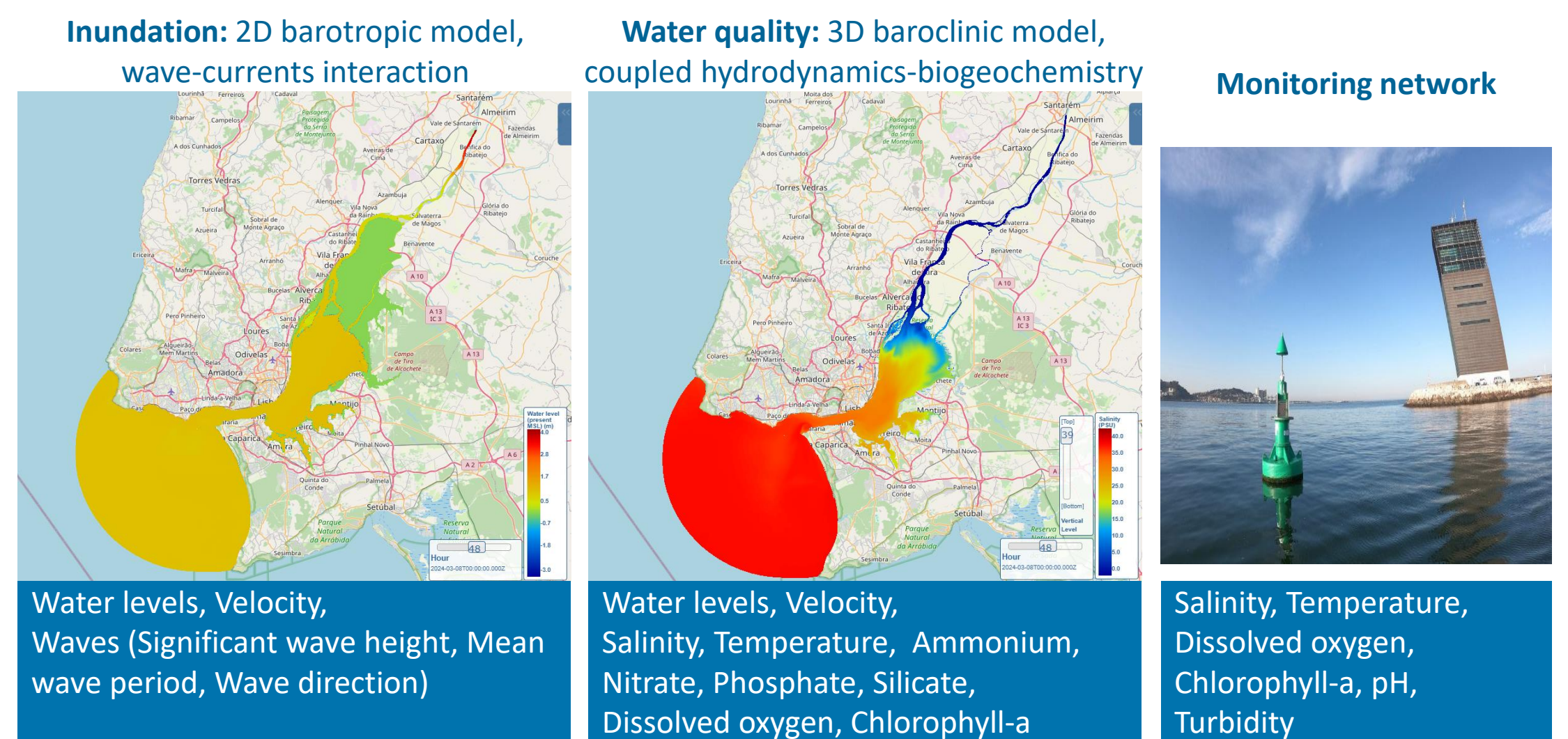
- Shelf-to-estuary operational forecasts with the SCHISM modelling system powered by the WIFF and OPENCoastS services
- Near real-time data from *in-situ* observation networks, including the CoastNet monitoring infrastructure, and Earth-observation data from CMEMS
- Indicators and weekly reports of the physical behavior and the water quality status



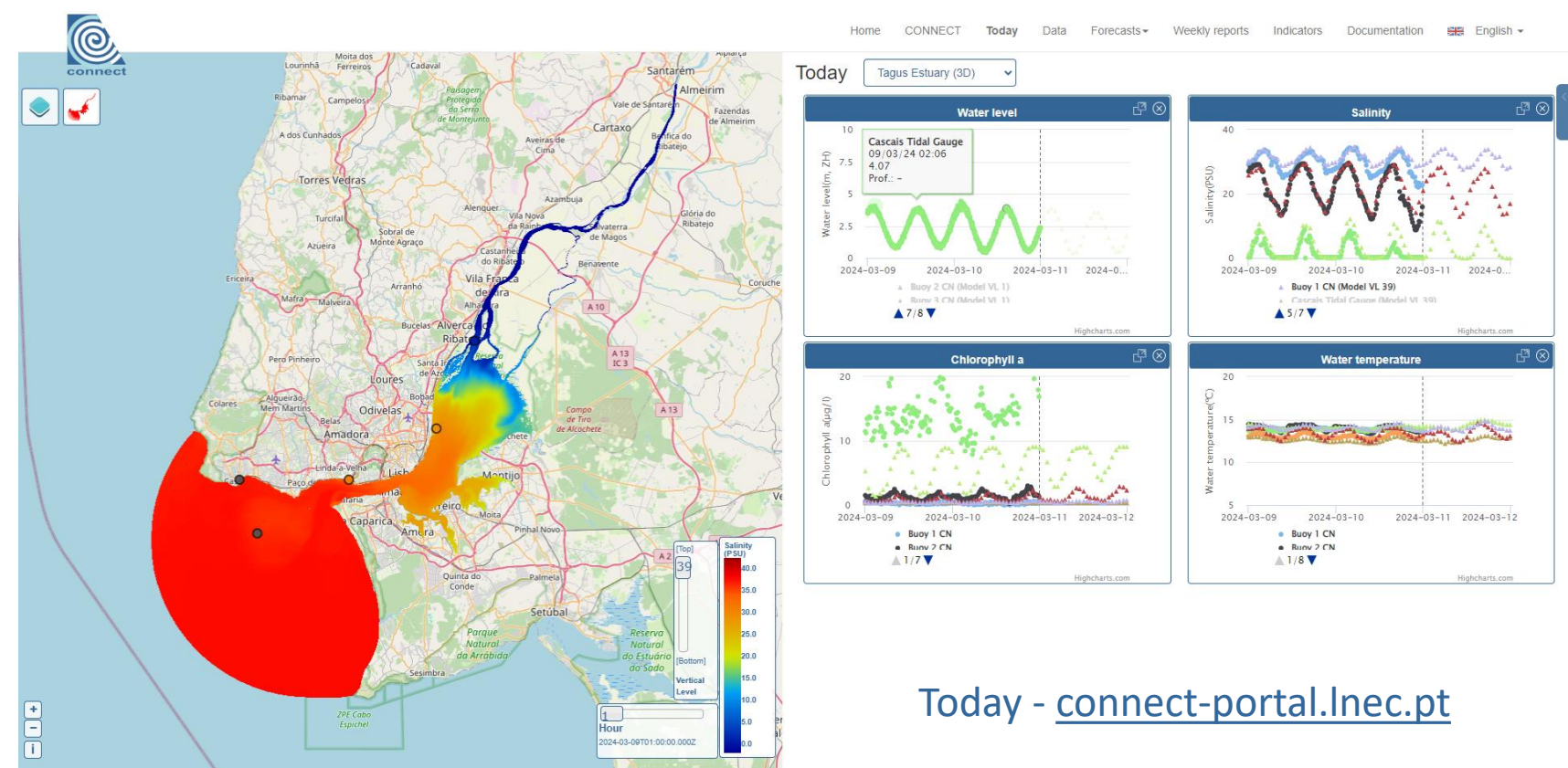
Circulation and water quality in the Tagus estuary

The Tagus Estuary holds an important natural reserve, providing several ecosystem services. The estuary supports diverse uses, which gives rise to the onset of several water quality problems. The margins are also prone to inundation from various sources, a problem exacerbated by sea level rise.

The CONNECT Tagus service provides daily physical and biogeochemical data on the Tagus estuary and adjacent coastal area, allowing to anticipate how human-induced or climate drivers influence extreme water levels and the water quality in the estuary and to support its management.



CONNECT webGIS portal



- **Today:** presents a snapshot of the current state of the coastal system and embeds the observations and forecasts of the previous 2-days and the next 2-days
- **Data:** provides access to the observations of the CoastNet monitoring network
- **Forecasts:** displays 2-days forecasts of physical and biogeochemical variables; provides access to model-observations (*in-situ* and satellite) comparisons and to model performance metrics
- **Weekly reports:** synthesizes the available information on a weekly basis
- **Indicators:** provides indicators and statistics for the circulation and water quality

