



## AROME

### ASSISTED OPTIMISED, ECO-FRIENDLY MARITIME ROUTING

The AROME project will offer large merchant vessels a software tool for real-time route optimisation while keeping to their schedule and minimising fuel consumption.

The routing optimisation offered will take account of 3 factors:

- The ship's own characteristics (load conditions, squat effect, pitch and roll, etc.),
- 'Sub-surface' factors (such as geostrophic currents),
- 'Above-surface' factors (sea effects, swell, winds, etc.).

Subsurface and above-surface factors will be determined and anticipated via satellite measurements (altimetry, wind, sea effect, etc.) or by directly measuring using drifting buoys developed by Thalos, where they are present in the area (sea effect), or using a combination of the two.

By combining this different information in real time, a unique model of the optimal route can be created using a proprietary mathematical algorithm. Data will be automatically exchanged between the ship and the calculation server on land via OceanBox (the embedded communications management solution developed by Thalos) and the resulting routes visualised on a dedicated GIS (Geographical Information System).

The project will include full-scale tests on two merchant ships following different routes to validate and consolidate the modelling.

#### Partner

COM\_PROJECTS\_CATEGORIE\_PARTNER\_ENTREPRISES

Thalos, Ploemeur [Project Developer]

#### Funder

Financé sans aides publiques

#### Labelisation

07/07/2017

#### Overall budget

565 K€