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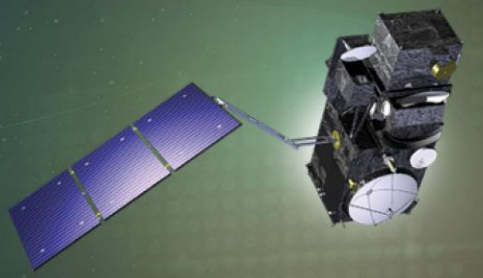


7th Sentinel-3 Validation Team Meeting 2022

18-20 October 2022 | ESA-ESRIN | Frascati (Rm), Italy

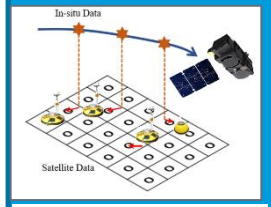
Sentinel 3 SLSTR validation using in-situ data collected by the MONIZEE system (Portugal).

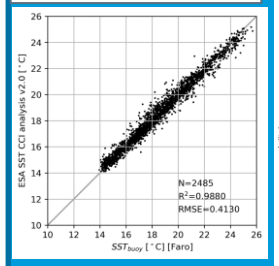
Luísa Lamas, Inês Martins, Rita Esteves, Paulo Nunes
Instituto Hidrográfico, Portugal

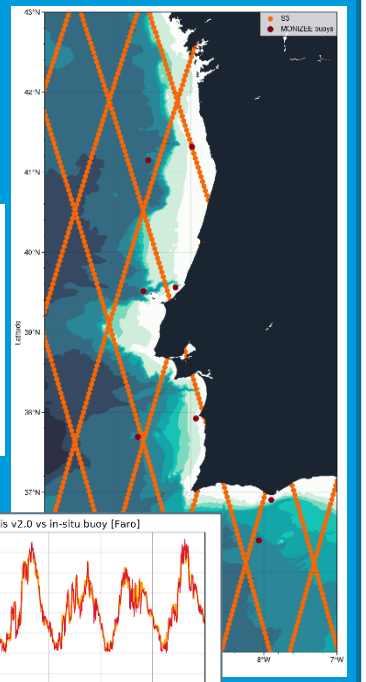
hidrográfico marinha·portugal

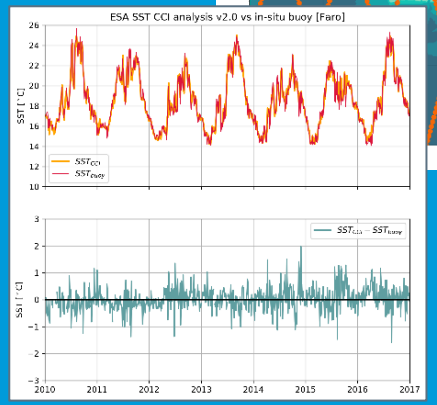
IH's recent work in Satellite Oceanography

Validation

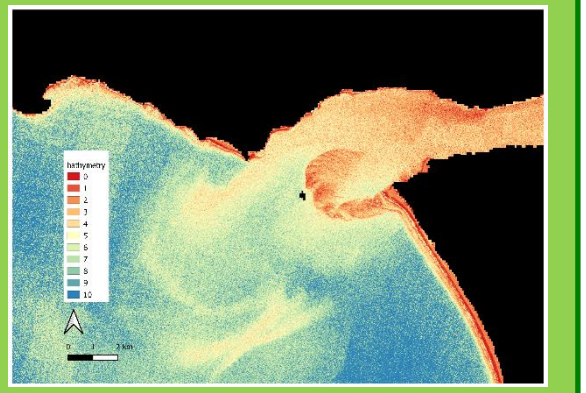


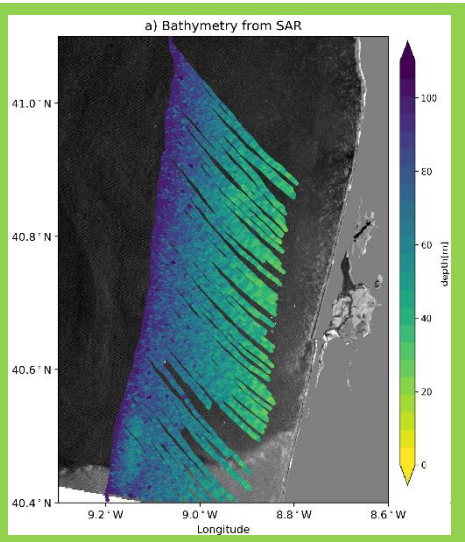




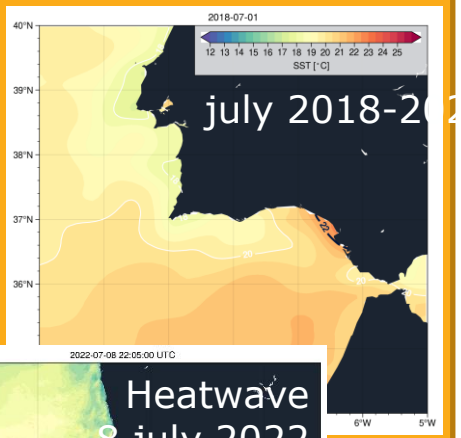


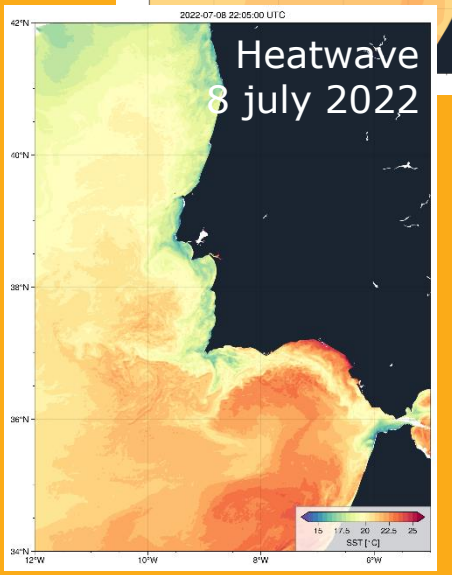
Bathymetry



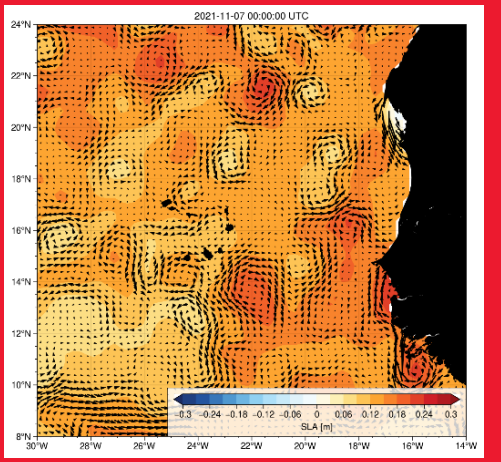


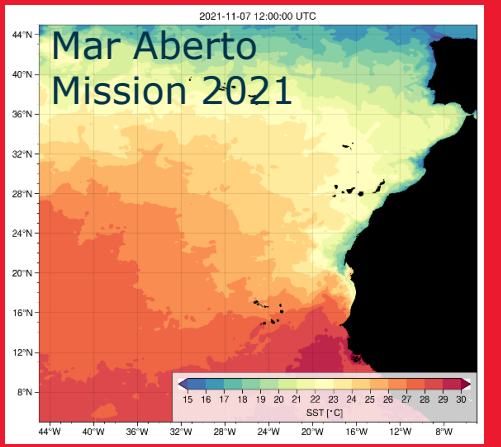
R&D





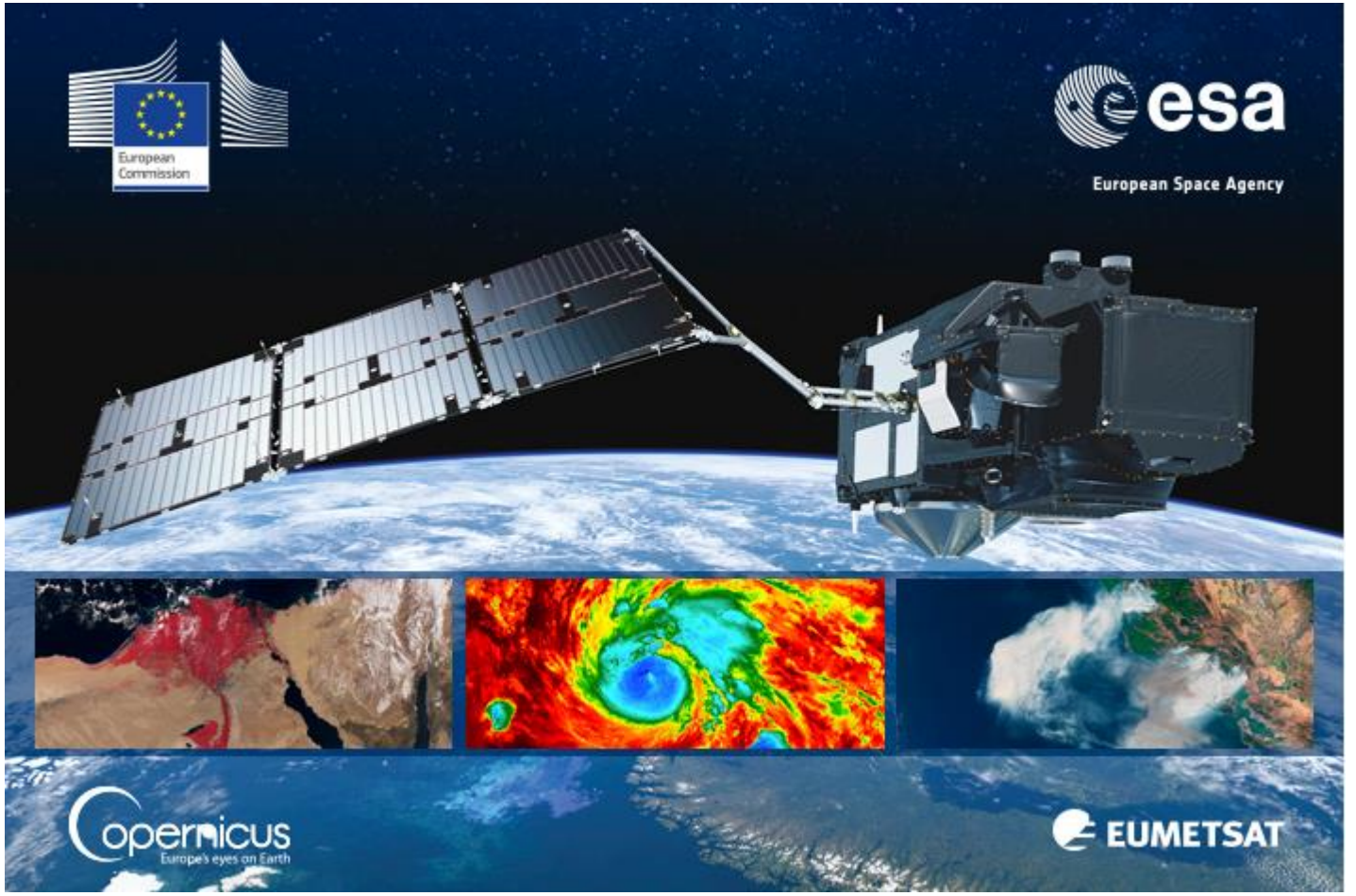
Operational Support



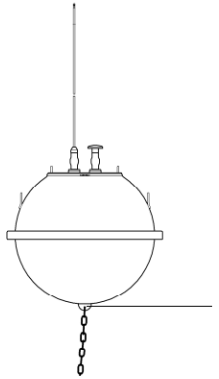


IH as Sentinel-3 Validation Team Member

- Project accepted March 2022
- IH S3VT project: "Sentinel 3 SLSTR validation using in-situ data collected by the MONIZEE system (Portugal)"
- Assessment and validation of Sentinel-3 data SST products, through monitoring data, field experiments and campaigns.



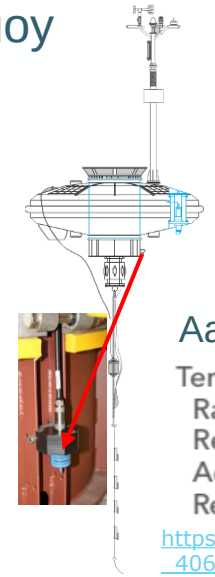
MONIZEE BUOY NETWORK



Datawell buoy

temperature	Value
Range	−5 °C-+46 °C
Resolution	0.05 °C
Accuracy	0.2 °C

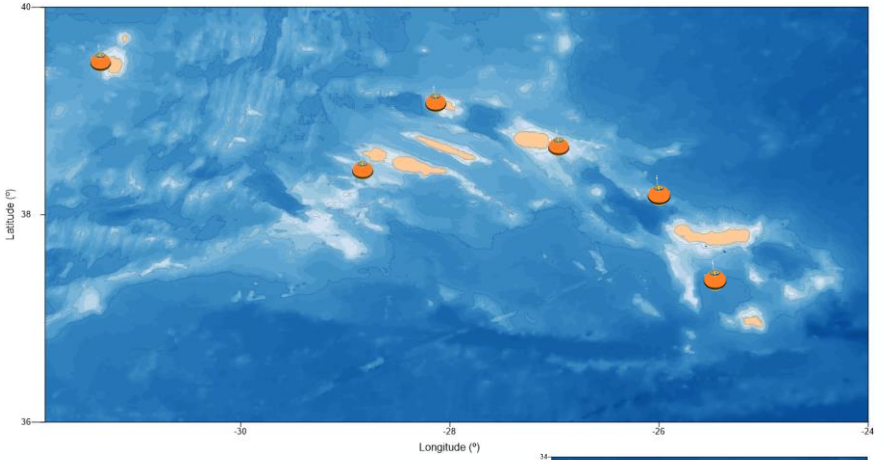
Fugro Oceanor buoy

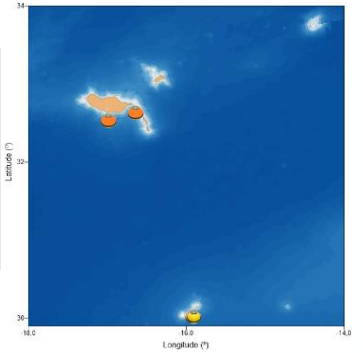


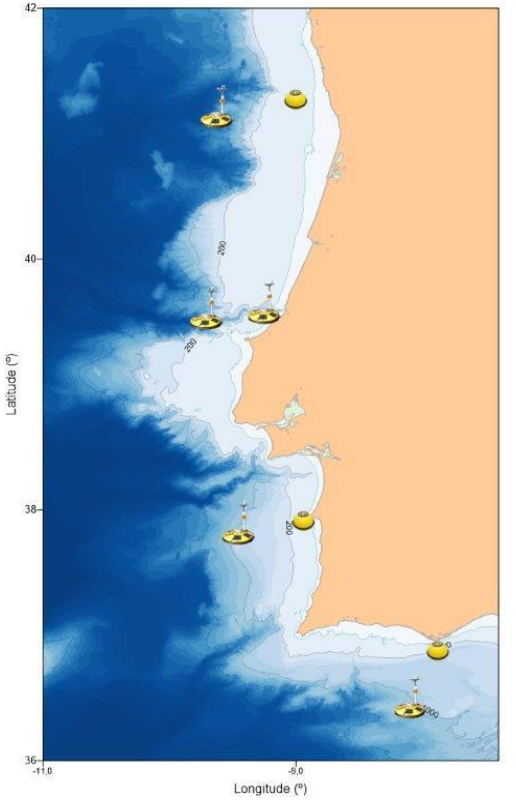
Aanderaa water temperature sensor

Temperature:
Range: -4 - 36°C (24.8 - 96.8°F)(1)
Resolution: 0.001°C (0.0018°F)
Accuracy: ±0.03°C (0.054°F)
Response Time (63%): <2 seconds

https://www.aanderaa.com/media/pdfs/d363_aanderaa_temperature_sensor_4060_4060r.pdf



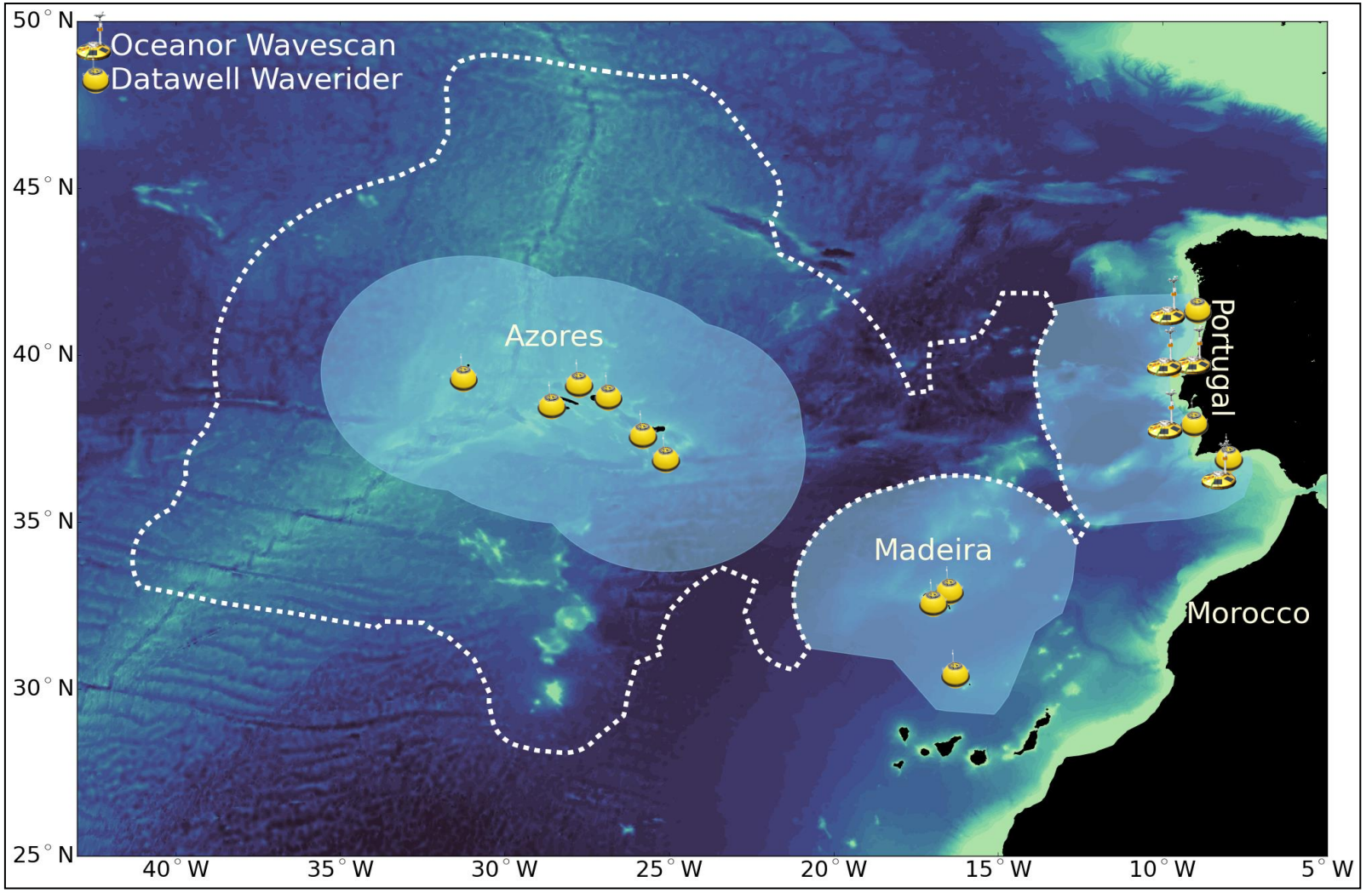




Boia Ondógrafo
Boia ondógrafo administrada por entidades locais cujos dados são geridos pelo IH
Boia Multiparamétrica

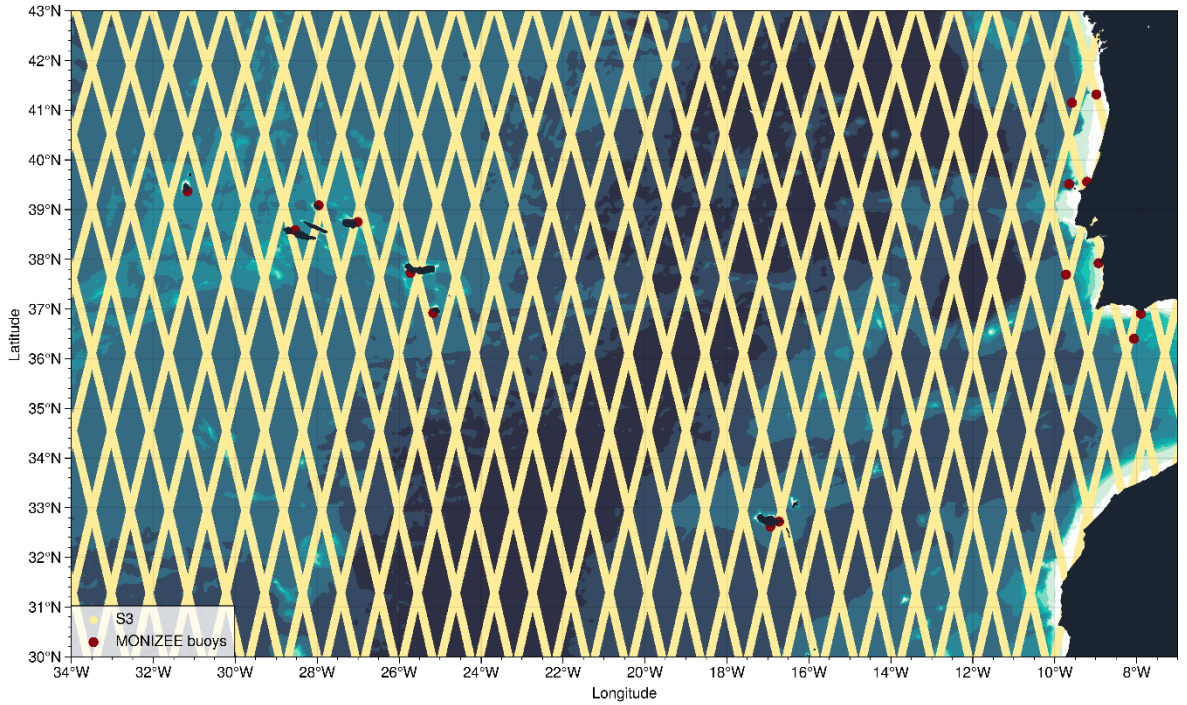
MOTIVATION

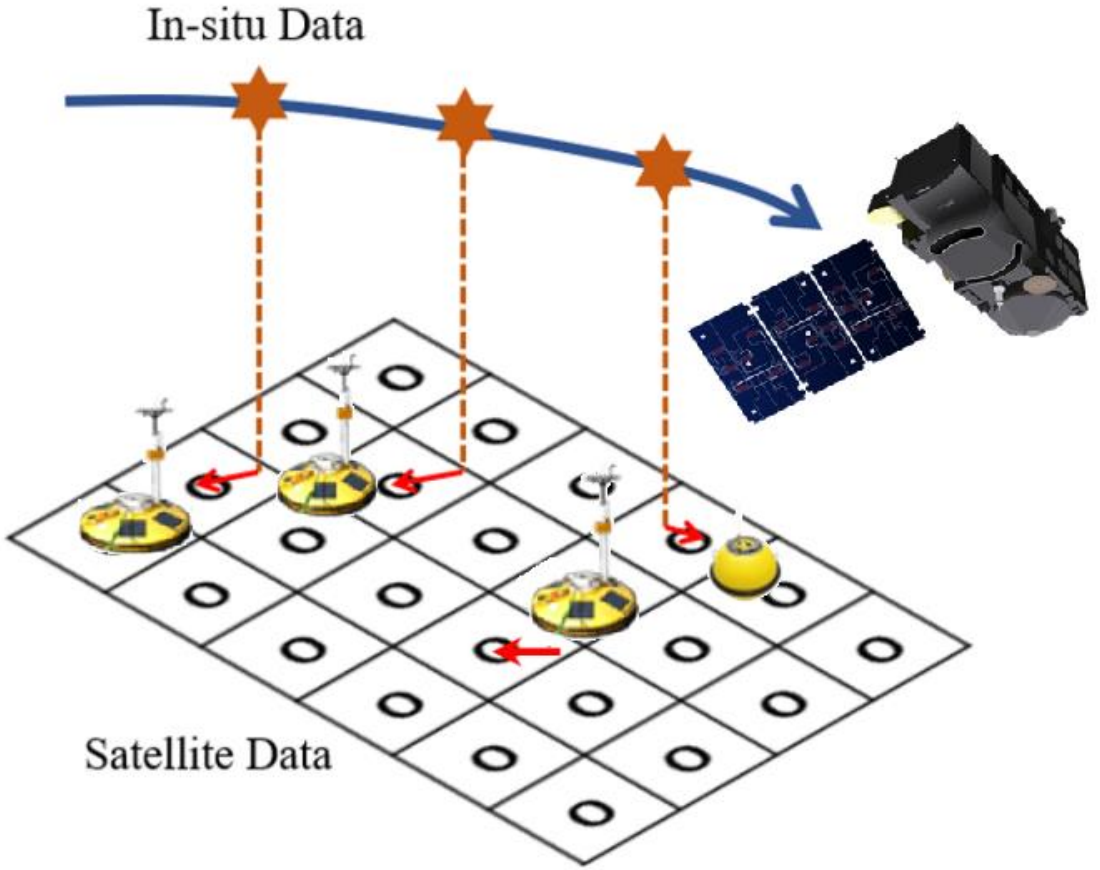
- IH manages the largest national database of ocean data
- Real-time monitoring of key ocean parameters



METHODOLOGY

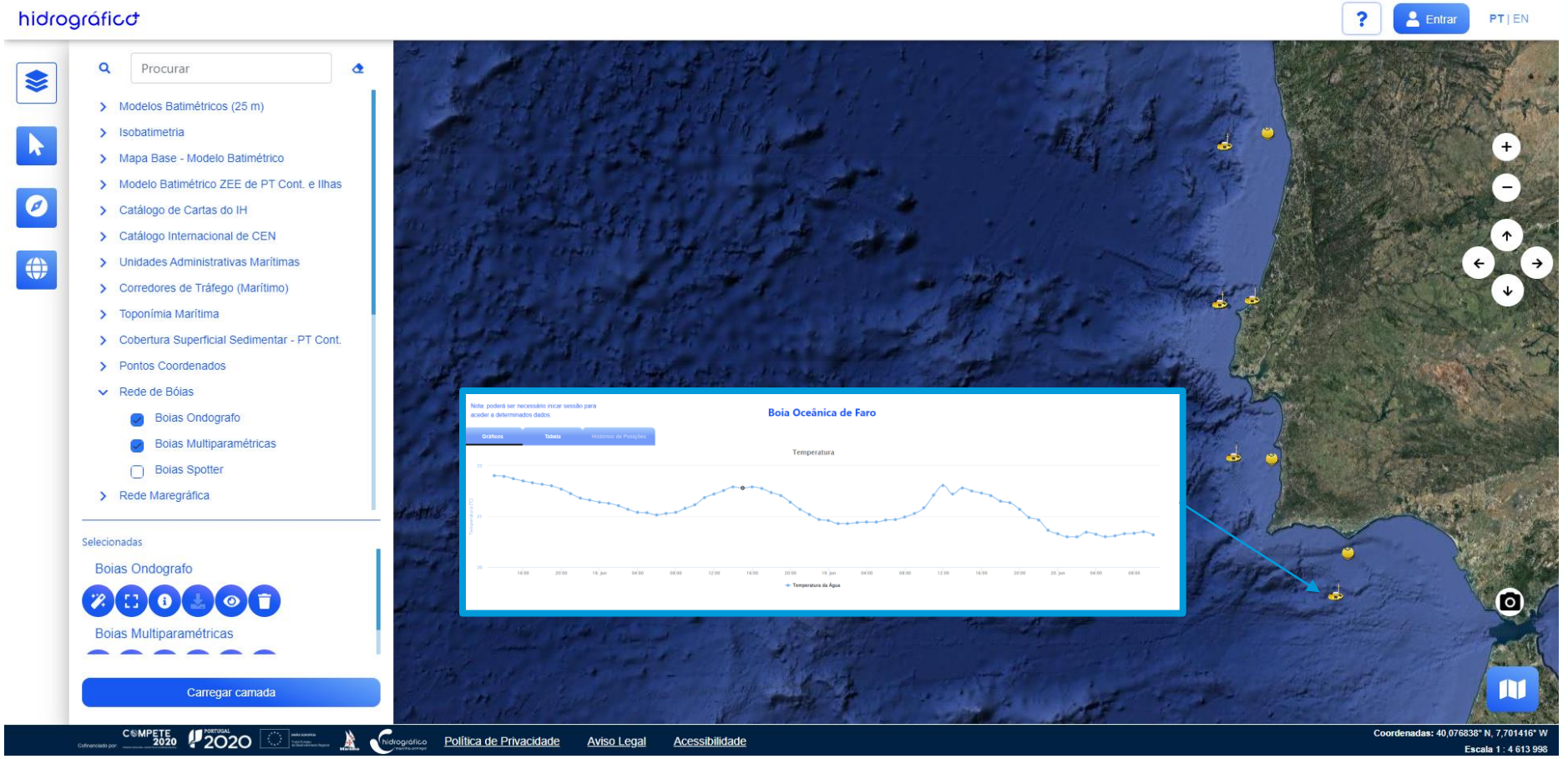
- Match-up strategy definition



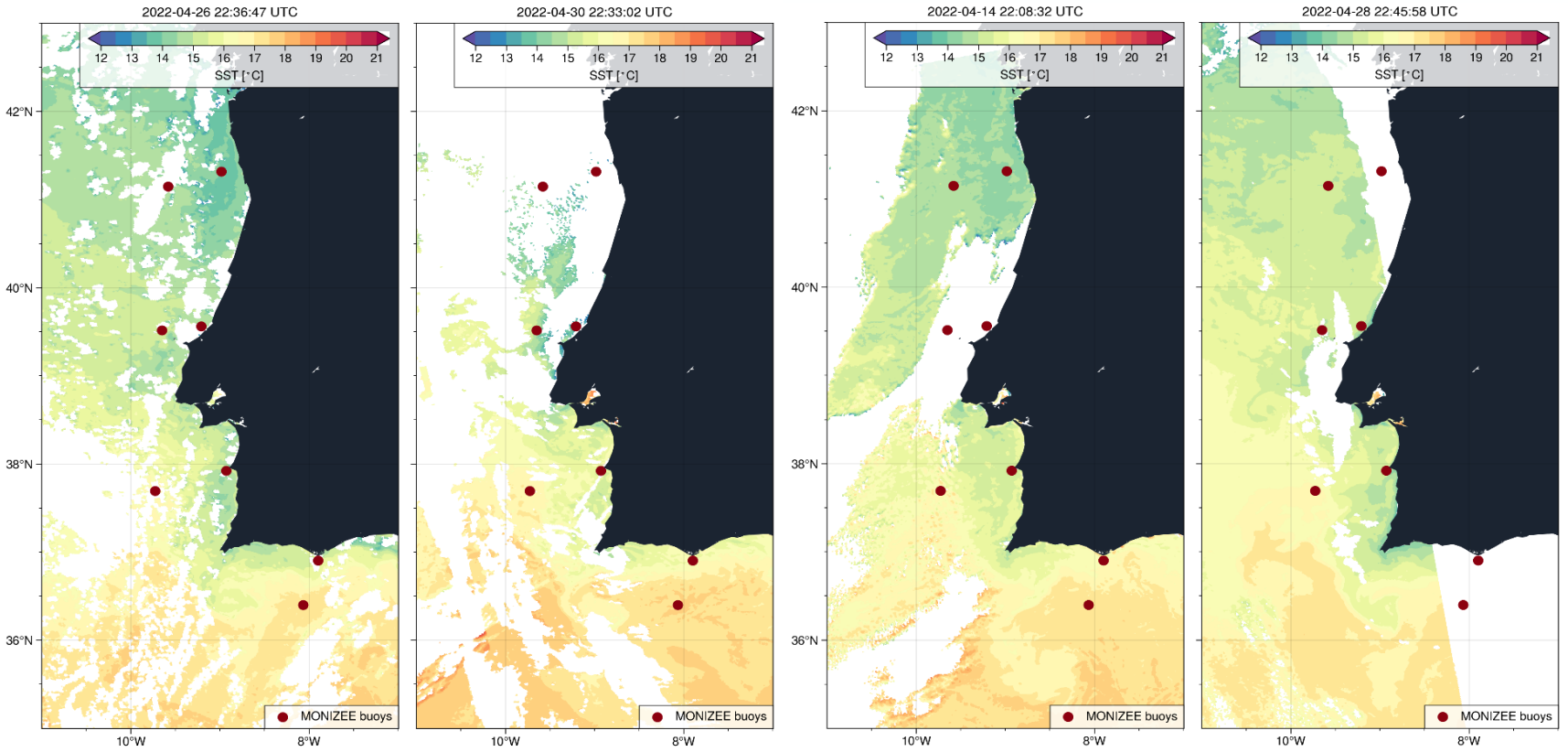


Hidrografico+ : Marine Data Infrastructure

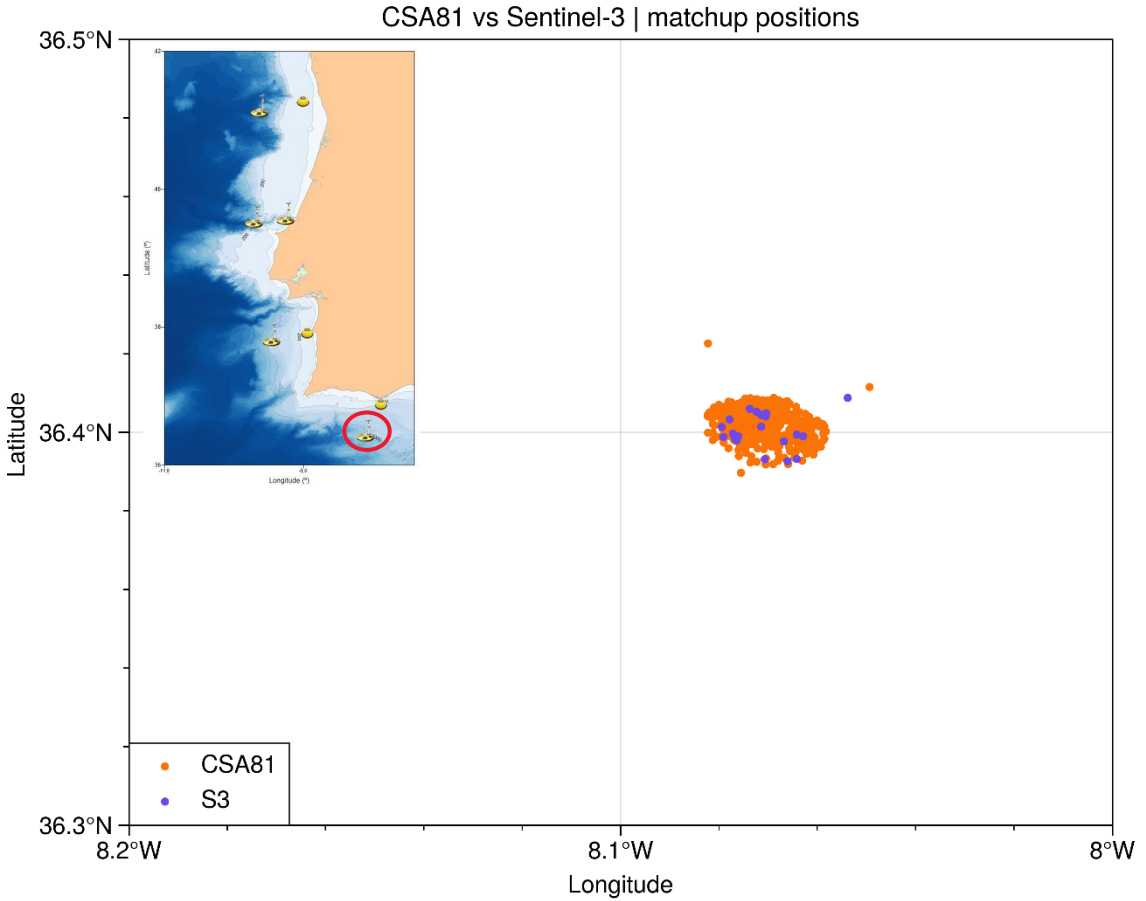
geomar.hidrografico.pt

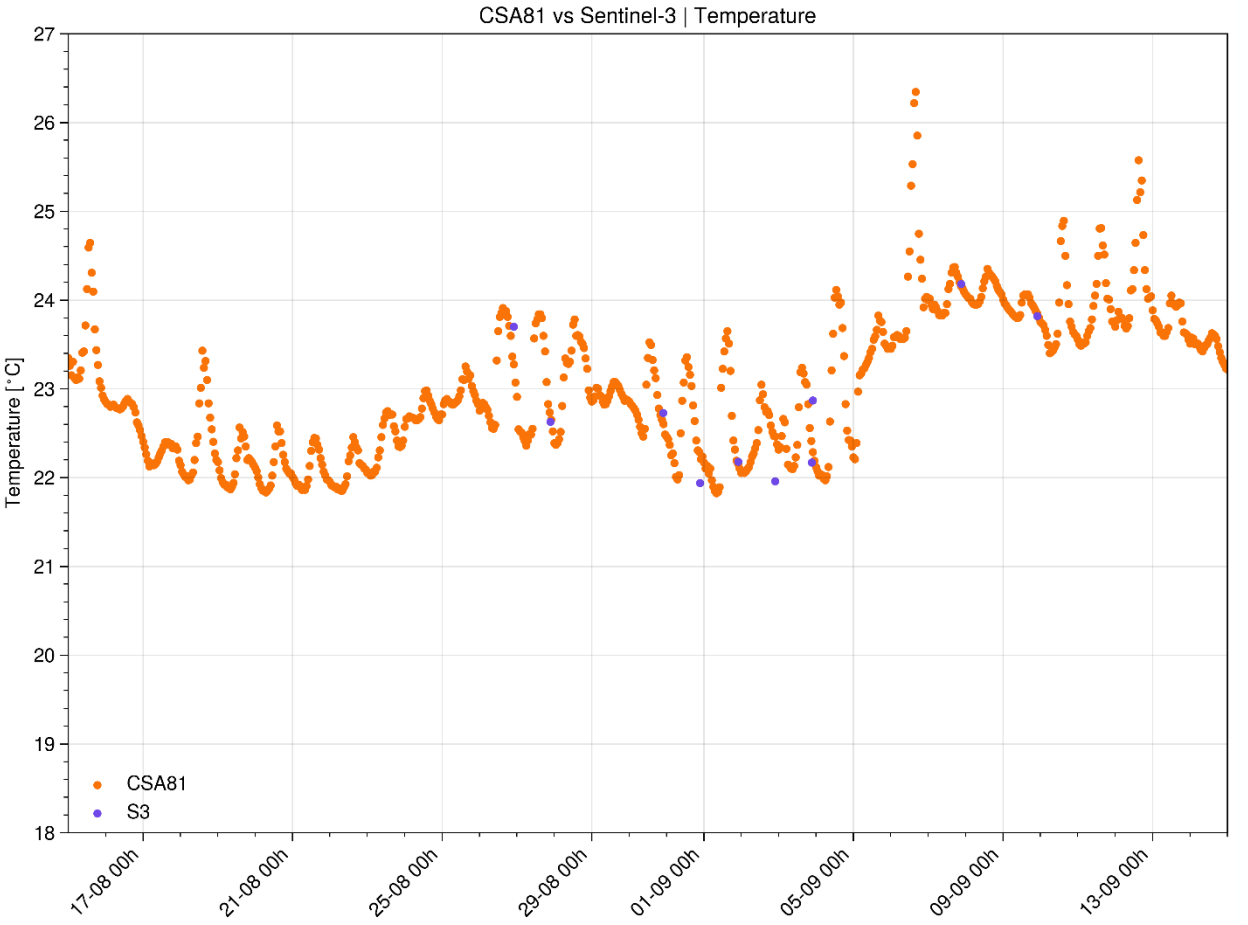


Validation Service: Coverage | S3 NRT images superimposed with buoys location

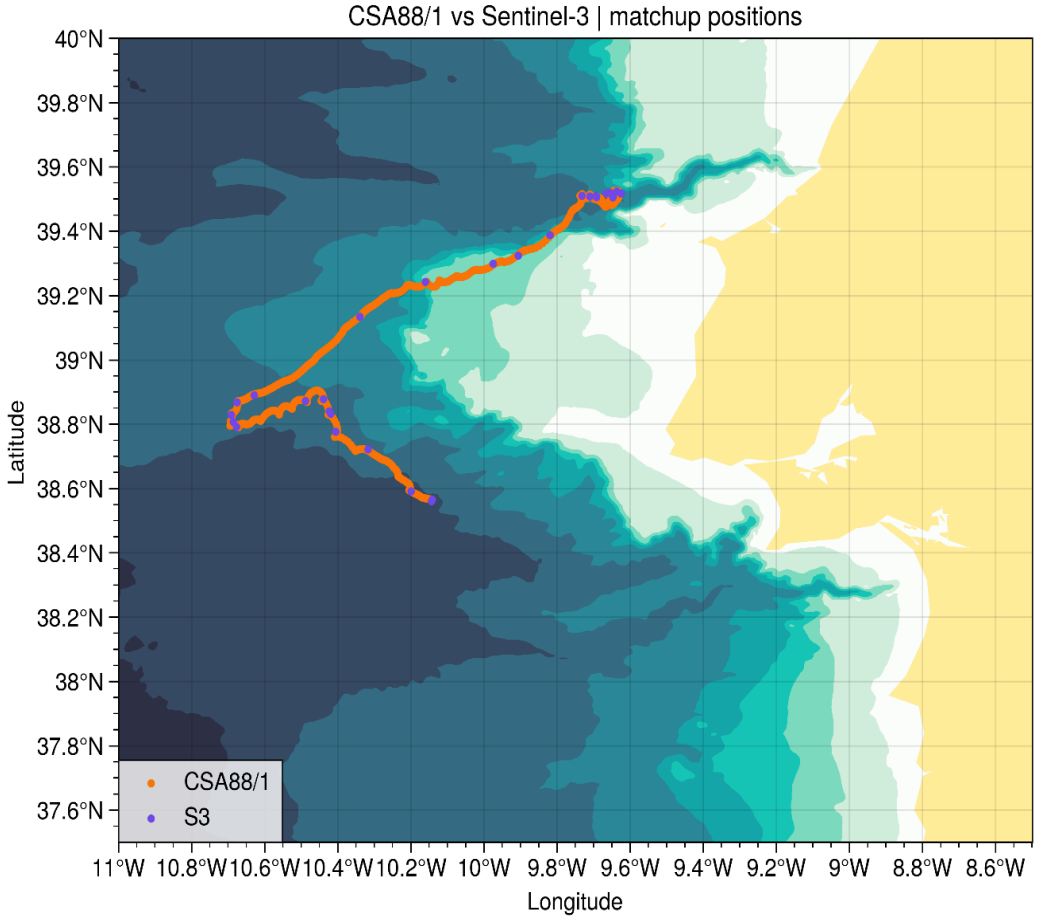


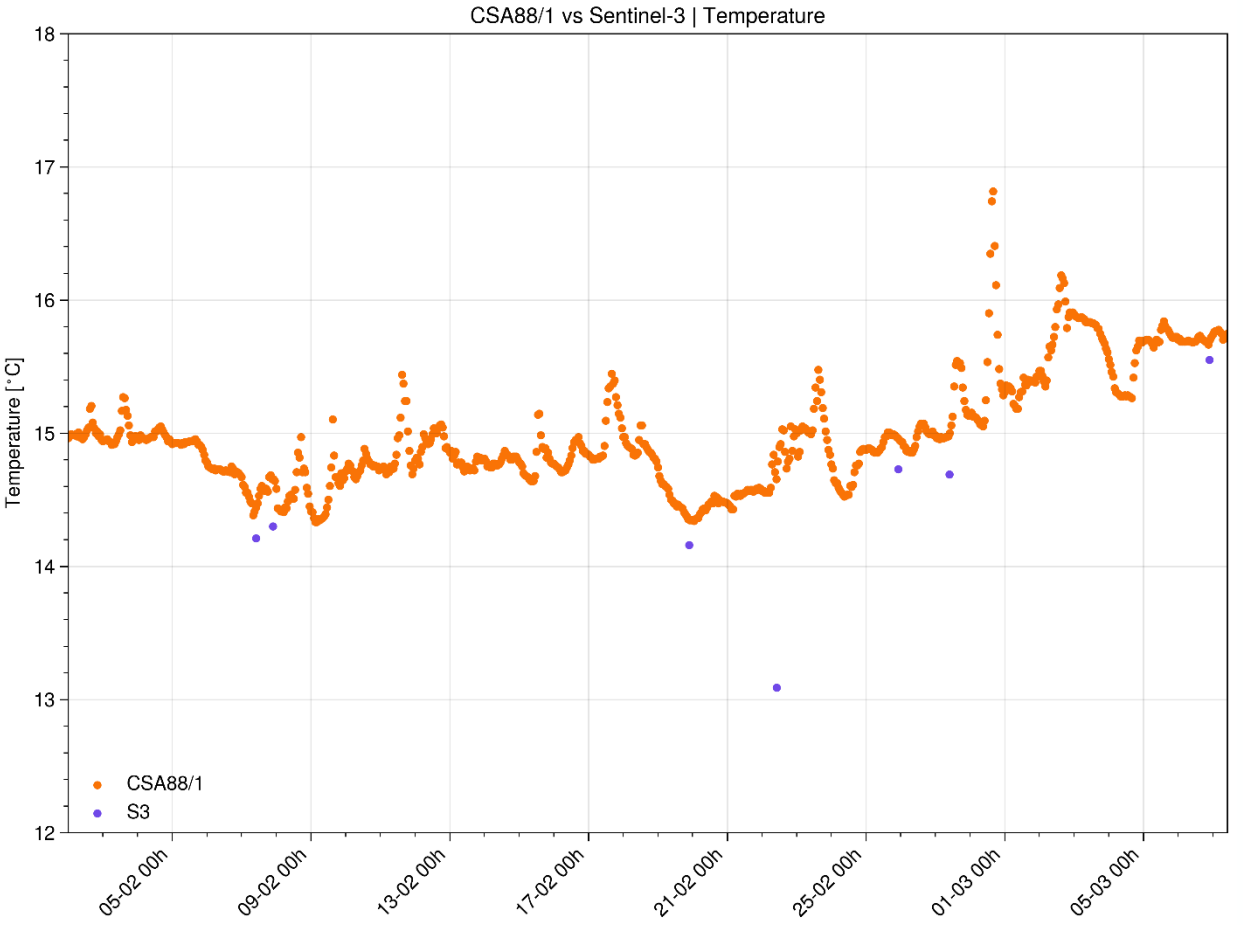
Some examples: Faro offshore buoy data timeseries



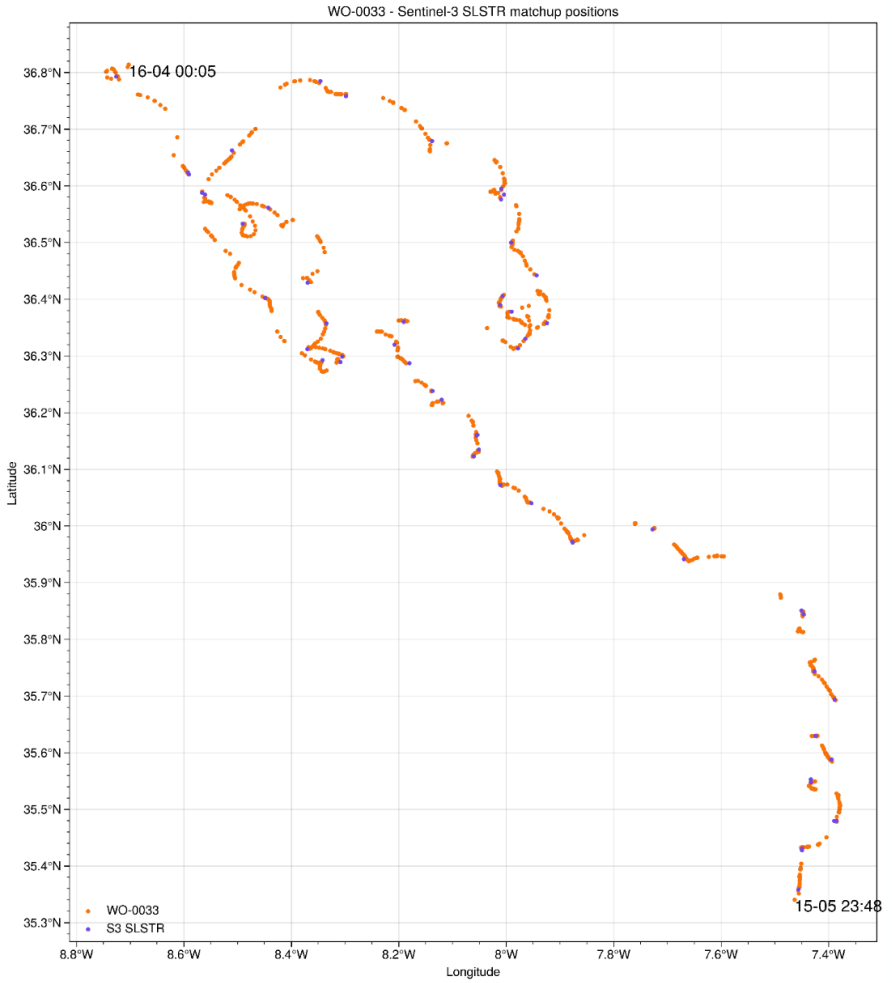


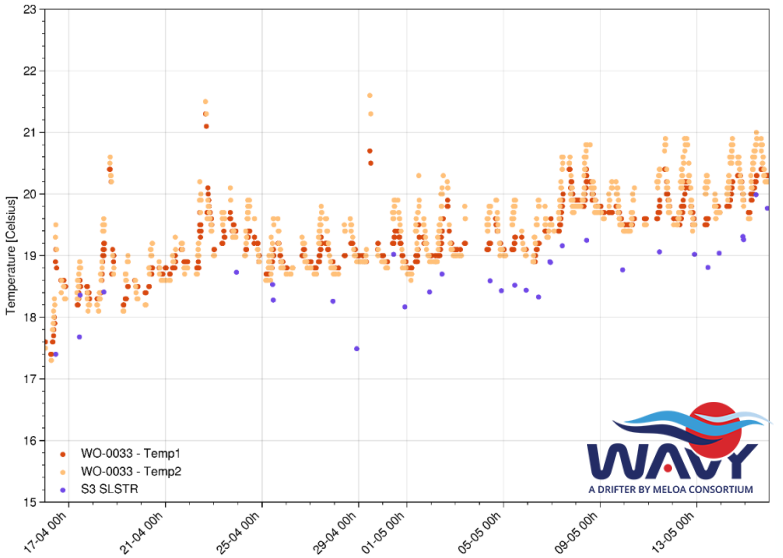
Some examples: Buoy drift can be used as an opportunity…





Some examples: Validation of drifters thermistors | H2020 MELOA Project





EXPECTED OUTCOMES

- IH S3VT project: "Sentinel 3 SLSTR validation using in-situ data collected by the MONIZEE system (Portugal)"
- IH, as a S3VT member, is expected to contribute to the independent validation of Sentinel 3 SST data products.
- Statistical comparison between in-situ and S3 SST data
- Historical assessment of the accuracy and precision of SLSTR Level-2 WST product for the coastal and oceanic waters off Portugal.
- Implementation of a systematic comparison service between S3 SST and in-situ data obtained by the MONIZEE buoy system, on the Portuguese EEZ.

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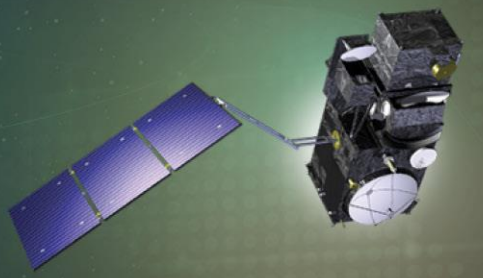

Thank you

Questions?

hidrográfico marinha • portugal