

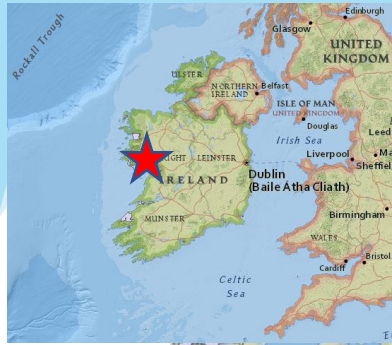


Monitoring water quality in support of oyster aquaculture and biodiversity restoration

A case of Galway Bay, Ireland



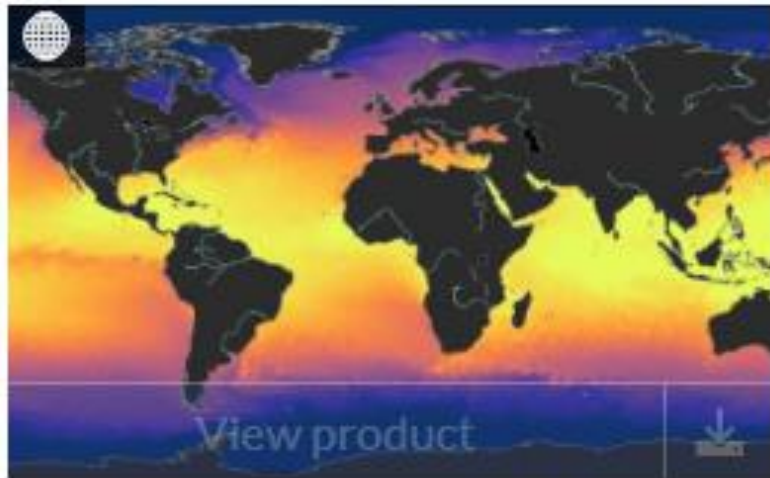
Galway Bay



The service supports:

- sustainable aquaculture
- biodiversity restoration
- informs policy and supports its implementation

Galway Bay - coastal scale model



Global Ocean Physics Analysis and Forecast

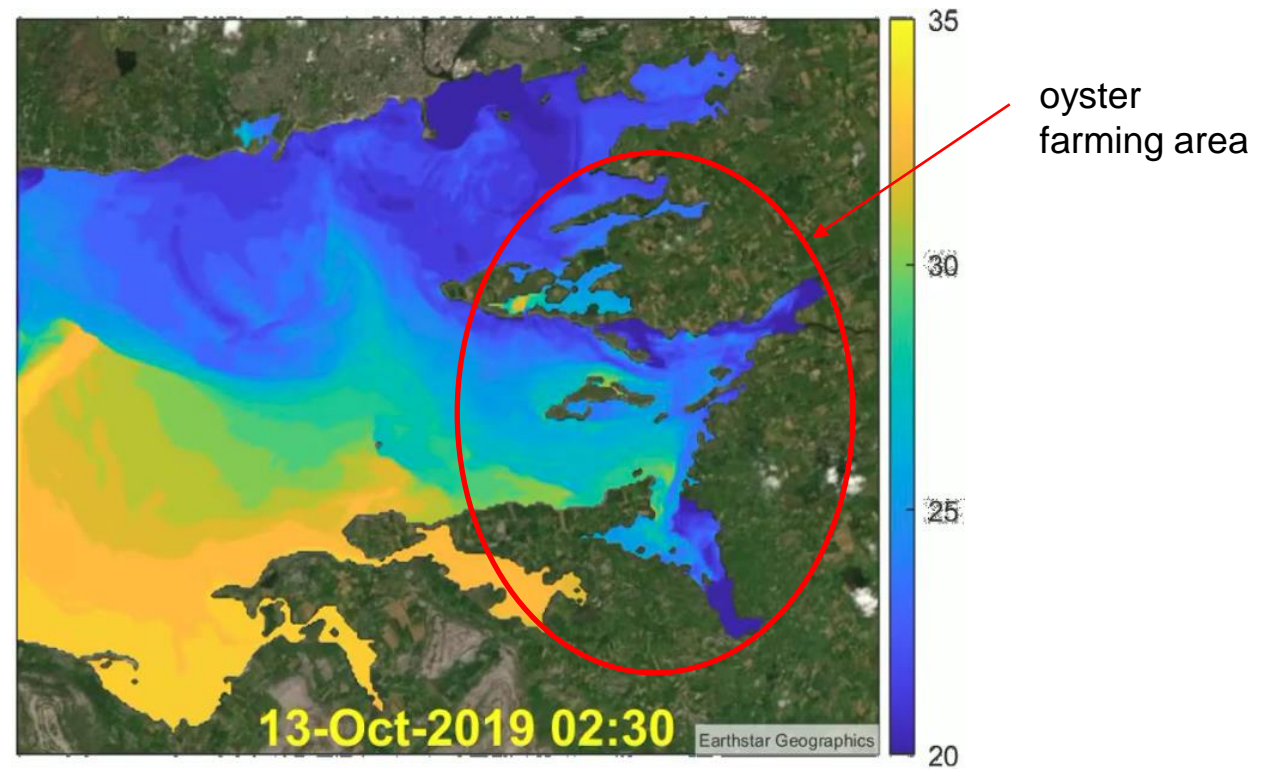
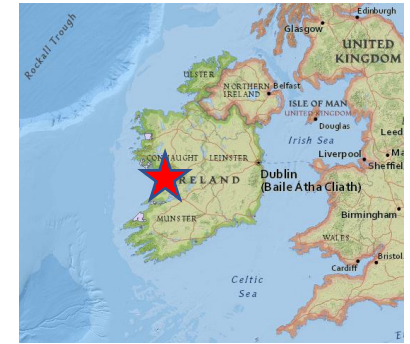


Fig. Low salinity event in Galway Bay, which poses threat to the health of oysters

BIODIVER-COAST service application



FCST

Climate view

15:30
GMT

Parameter configuration

Parameter
Temperature

Level
Surface

Metric
Mean

Date

Frequency
Multi-year

Multi-year
All years

Show

WFD_station 2

Variable	Thu 30/05	Fri 31/05	Sat 01/06
----------	-----------	-----------	-----------

Surface +



15.06
°C

14.99
°C

15.36
°C

Floor +

08:00 h

09:00 h

11:00 h

Surface +



0.653
m/s

0.589
m/s

0.553
m/s

Floor +

09:00 h

10:00 h

23:00 h

Surface -



17.65
psu

16.86
psu

16.18
psu

Floor -

21:00 h

10:00 h

12:00 h

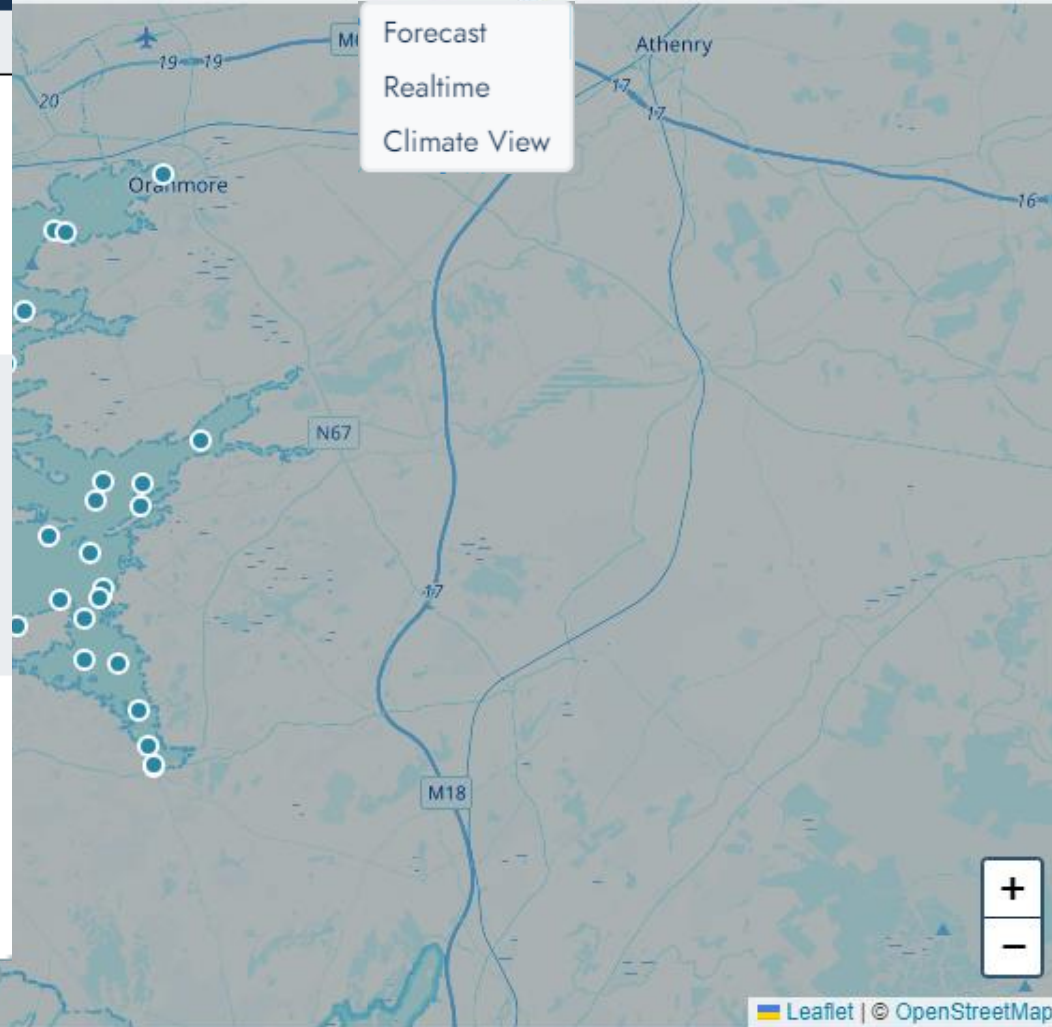
Location
Galway

View
Bay

Module
Forecast

tomasz.dabrowski@marine.ie

- Forecast
- Realtime
- Climate View



Integration with European Digital Twin Ocean

- A faster service
- Extended to new geographical locations, e.g. nationwide

Users and added value

- Cuan Beo (an environmental NGO)
- Oyster farmers
- Environmental Protection Agency (WFD monitoring, OSPAR)



Acknowledgements

The Galway Bay model was developed as part of H2020 project **FORCOAST**



The government of Ireland funds the ongoing operation of the Galway Bay forecasting model by the Marine Institute



**An Roinn Talmhaíochta,
Bia agus Mara**
Department of Agriculture,
Food and the Marine

The presented service was developed as part of BIODIVER-COAST project, funded under the **Copernicus Marine Service User Engagement Programme, UE 22050-COP-INNO USER**

