



From science to service – research priorities and progress to support the evolution of the CMEMS North West Shelf Marine Service

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The value of the Copernicus Marine Environment Monitoring Service to users is critically dependent on the continual pull through of new approaches in ocean modelling, observation and evaluation from scientific research to operational implementation.

This presentation will focus on the North West Shelf region Monitoring and Forecasting Centre, led from the Met Office, as an illustrative case of the research priorities and progress for ongoing improvement in the quality and relevance of operational products to users. The presentation will aim to address a range of specific directions for development, providing illustrations from current research and discussion of their evaluation and potential for operational application:

- 1) Moving to higher resolution eddy-resolving ocean modelling capability,
- 2) Improving the use of profile and glider information for regional ocean data assimilation,
- 3) Developing more integrated prediction systems incorporating ocean-wave coupling and physical feedbacks,
- 4) Enhancing the representation of marine biogeochemistry for the North West Shelf region
- 5) Challenges and strategies for verification and validation of eddy-resolving shelf scales with available observations