

COST-ESF Workshop on Coastal Model Validation

*From Wednesday November 18th at noon
to Friday November 20th at noon (2009)*

Brest, Ifremer centre

***A workshop to initiate activities related to:
Developing methodologies/frameworks for
marine model Quality Assurance,
including data requirements***

Timeliness

- Endeavour of coastal operational oceanography
- Monitoring with models (Marine Strategy Framework directive):
 - to interpolate scarce data over EEZs
 - to quantify 3D fields
 - to test scenarios
 - Together with confidence rate

Specific issues to coastal models

- a higher dynamic
 - calls for finer resolutions in time and space
 - accounts for more non linearities
- more processes to be coupled
 - circulation hydrodynamics
 - sea state
 - wind
 - Precipitation
 - sediment transport
 - biology up to a given level in the trophic chain
 - often a hierarchy of processes is considered, forcing each other rather than actually coupled together
- less data at hand
 - low density
 - sometimes proxies only

Objectives

- develop a coherent and structured model evaluation ***procedure***
- build consensus within the European scientific and operational community about its ***application***
- assess the ***need for coastal data*** for validation purposes

Some definitions

- **Coast:** shelf seas or equivalent resolution
 - < mesoscale, processes of radius ~ 10 km or less
- **Model:** circulation, waves, sediment transport, biogeochemistry, first steps of food chain
- **Validation:**
 - codes, logical & numerical check, validity domain
 - local implementation & tuning requiring specific datasets
 - routine quality-control of model outputs & selected hotspot checks

Guidelines examples

- *model description*
- *data base description*
- *scientific assessment*
- *user oriented assessment*
- *model verification*
- ***comparison with experimental data***

Methodology

- Gather 42 experts
 - 12 European countries
 - Multi-disciplinary
- Retain them for 4 half-days
 - Presentations
 - Discussions
 - Parallel working groups
 - Synthesis

Outcomes

- Immediate: drafts of projects for setting these guidelines
- Ultimate: a step forward for the whole community for the recognition of our tools

