Paving the future of European operational coastal observing systems

JERICO in its context

Outline

- -The EU strategic context
- Role of Jerico
- Ferrybox in MyOcean

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EU perspectives

- Europe 2020: A European strategy for smart, sustainable and inclusive growth (COM(2010) 2020)
- Seven flagship initiatives
 - « Innovation Union »
 - A digital agenda for Europe »
 - Youth on the move »
 - « Resource efficient Europe »
 - An industrial policy for the globalisation era »
 - « An agenda for new skills and jobs »
 - « European platform against poverty »



Innovation Union

Strategic approach to innovation **Focused on the Grand Challenges**

Ostend declaration, Oct. 2010

JPI-Oceans European Ocean Observing Systems Three main characteristics:

- A world class science base
- Coherent Europe wide use of public sector intervention to stimulate private sector
- Concerted effort to remove bottlenecks which stop ideas reaching the market

Will shape next generation of programmes for R&I

EU - BUILDING AN INNOVATION UNION



MMISSION

Innovation Union commitments and Research Infrastructures

(4) « ... a European Research Area framework... to ensure...opening of Member State operated research infrastructures to the full European user community;... »

(5) « By 2015 (...) have completed or launched the construction of 60% of the priority European research infrastructures currently identified by the European Strategy Forum on Research Infrastructures-ESFRI... »



EU - Building an INNOVATION UNION



European Roadmap for Research Infrastructures

Integrating Activities (13) Short list of projects

• EUROFLEETS – Research vessels

- JERICO Coastal observatories
- SeaDataNet II Marine data centres



Role of JERICO



Operational Ocean Observations



Towards a long-term and sustained European network of coastal observatories



JERICO's Vision

to harmonise existing European (operational) coastal observatories and promote coordinated future developments and access to the RI

JERICO will increase knowledge and understanding of marine systems, strengthen the evidence base for environmental assessments, provide data and information required to improve predictions of future human and climate driven environmental change and the strategies to combat them



Ferrybox and INSPIRE Directive



Implementation in JERICO

- WP3&4 overview of practices for QC/QA
- WP5 Data management procedures
 - Task 5.2 Harmonization of Delayed Mode with SEADATANET (Ifremer ++)
 - Task 5.3 Harmonization of Real Time Mode with MyOcean and EuroGOOS (Ifremer ++)
- WP10 R&D
 - Task 10.5 Ferrybox data quality control algorithm (M6-M42)
 - <u>NERC</u>, NIVA, HZG
 - From MyOcean approach to a consensual & sustainable approach
 - Best Practices



Coordination of NAs



Coordination of DATA WPs



MyOcean Overview



Scope of responsibility



NIA

Data Assembly, production and distribution

Harmonization of formats and quality control

Members



NIA

MyOcean Insitu TAC and JERICO implementation of EuroGOOS regional approach

Ferrybox



- 1. Global
- 2. Arctic
- 3. Baltic
- 4. NWS
- 5. IBI
- 6. Med Sea
- 7. Black Sea

MyOcean In-situ TAC role

- Limited number of parameters:
 - Physical: T&S, current, sea level
 - Biogeochemical: Chlorophyll/Fluorescence, Oxygen, Nutrients (?)
- Integrate in-situ data in product and Disseminate through Compatible global and regional portals
 - Main users: MFC (data assimilation and model assessment)
 - Common format
 - Common NRT QC
 - Common Quality flags
 - Common distribution tools
 - Single access point
- Ensure a minimum level of quality on the data delivered through standardized QC/QA procedures
 - In near real time (24h to a week)
 - In delayed mode (SeaDataNet)



Ferrybox in MyOcean



• Collect

NIA

- Process QC
- Export INS-VESSEL-GLO_TS_NRT-OBS
- Manage the MyOcean ferrybox FTP Portal



Implemented and Expected

- MS Color Fantasy
- MS Trollfjord
- MS Norbjørn
- MS Bergensfjord
- MS Vesterålen
- MS Baltic Princess
- MS Finnmaid
- MS Liverpool Seaways
- MS Lysbris MS TorDania MS FunnyGirl MS Pont Aven MS Armorique
- MS Silja Serenade RV Endeavour MS Norrøna MS Transpaper MS Nuka Arctica



Handling of Ferrybox Data





functions by the global and regional components



>Acquire Data: Gather data available on international networks or though collaboration with regional partners

Quality control (RTQC): apply automatic quality controls that have been agreed at the In Situ TAC level. These procedures are defined by parameter, elaborated in coherence with international agreement, in particular SeaDataNet, and documented in MyOcean Catalogue.

> Assessment (DMQC): Assess the consistency of the data over a period of time and an area to detect data that are not coherent with their neighbors but could not be detected by automatic QC.

> Distribution: make the data available within MyOcean and to the external users

7 portals with the same FTP portal organization



MyOcean Quality Flags

Code	Meaning	Comment
	-	
0	No QC was performed	-
1	Good data	All real-time QC tests passed.
2	Probably good data	-
3	Bad data that are potentially correctable	These data are not to be used without scientific correction.
4	Bad data	Data have failed one or more of the tests.
5	Value changed	Data may be recovered after transmission error.
6	Not used	-
7	Not used	-
8	Interpolated value	Missing data may be interpolated from neighbouring data in space or time.
9	Missing value	-
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RTQC Tests

- Blocks of consecutive data
- Impossible Date/Location
- Frozen Date/Location/Speed
- Pump/Flow and Pump/Speed History
- Frozen T/S/FLU/OXY
- Global Range: Speed/T/S/FLU/OXY
- Regional Range: T/S/FLU/OXY
- Gradient and Spikes

More RTQC Tests

- Instrument Comparison
- Parameter Relationship
- Calibration Status
- Subsequential Trips



DMQC Overview

Delayed mode is delayed (by definition)

Decision: follow SeaDataNet procedures and standards



How to Get Data



Register as a MyOcean User and get access to servers



Roadmap for Jerico

- From MyOcean to a consensual and sustainable QC/QA approach
 - Additional parameters
 - Suggestion for improvements of QC/QA
 - End-to-end Quality Assurance



Hope it is a bit less blurry

