



H2020 JERICO-NEXT PROJECT

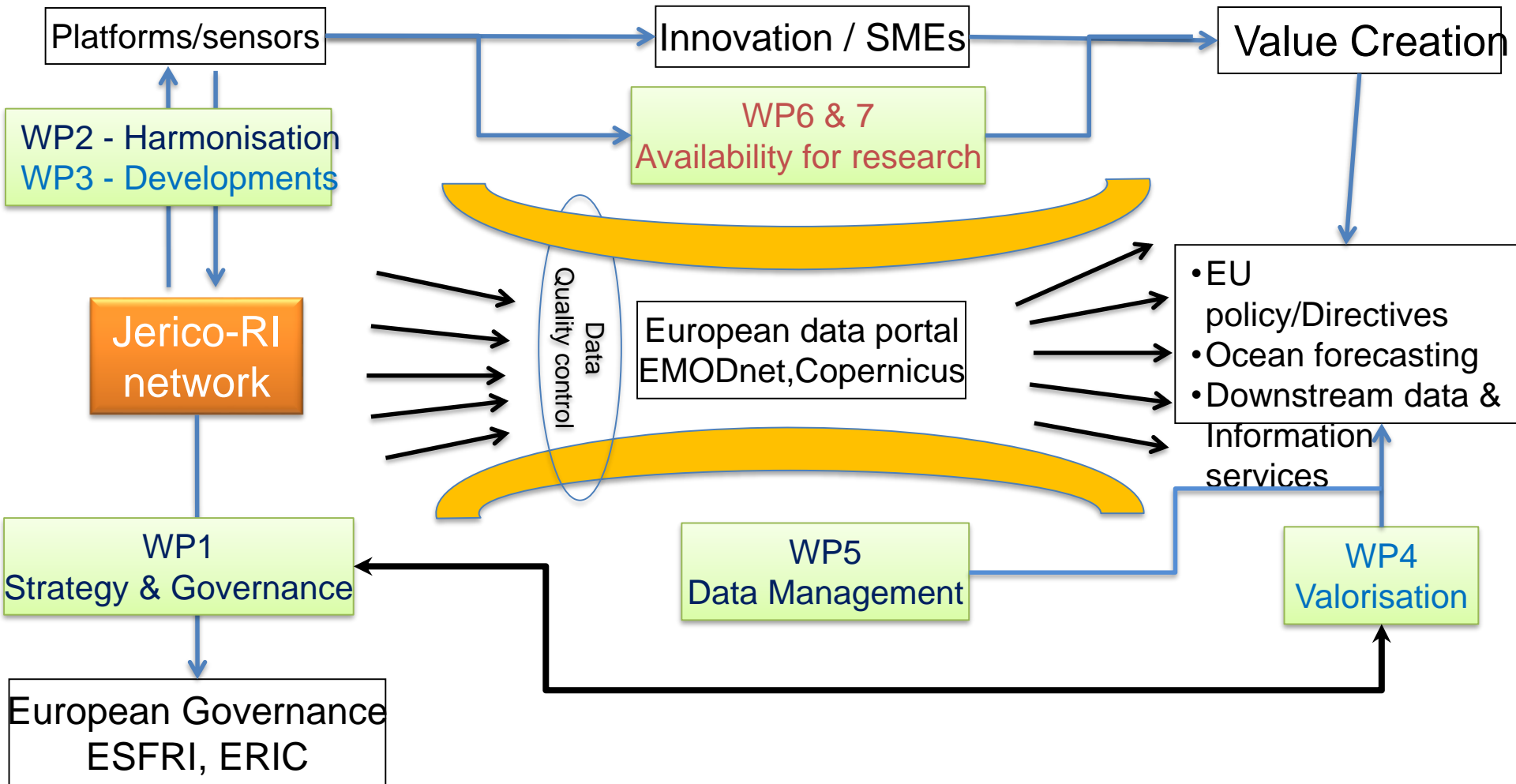
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7th Ferrybox Workshop



The JERICO-NEXT Approach



WP2

- **D2.1:** *Report on the status of HF-radar systems and cabled coastal observatories within the JERICO network and, more generally, in the European context. (M12)*
- **D2.2:** *Report on the status of sensors used for measuring nutrients, biology-related optical properties, variables of the marine carbonate system, and for coastal profiling, within the JERICO network and, more generally, in the European context. (M18)*
- **D2.3:** *Report on ongoing harmonization initiatives within the JERICO network for the following three key technology areas: Fixed Platforms, Ferryboxes and Gliders. (M30)*
- **D2.4:** *Report on Best Practice in the implementation and use of HF-radar systems and cabled coastal observatories. (M40)*
- **D2.5:** *Report on Best Practice in the utilization of sensors used for measuring nutrients, biology-related optical properties, variables of the marine carbonate system, and for coastal profiling. (M42)*
- **D2.6:** *Report on the activities relating to calibration and assessment carried out during the project. (M46)*

WP3

Task 3.5 COMBINED SENSORS FOR CARBONATE SYSTEMS (M0-M40)

NIVA, HZG, Ifremer, FLUIDION

- to further develop high precision and high frequency sensor systems for measuring the carbonate system
 - Combined spectrophotometric pH and CO₃ determination – new development - FB
 - Combined spectrophotometric pH and Alkalinity determination – optimisation – FB
 - Combined electrode and spectrophotometric technology for for high-accuracy, high-resolution pH determination – new development

WP4 JRAP #3

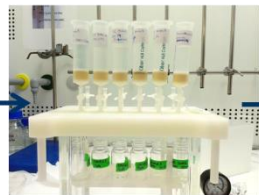
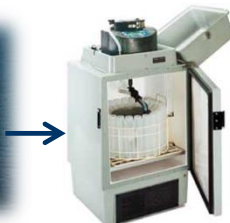
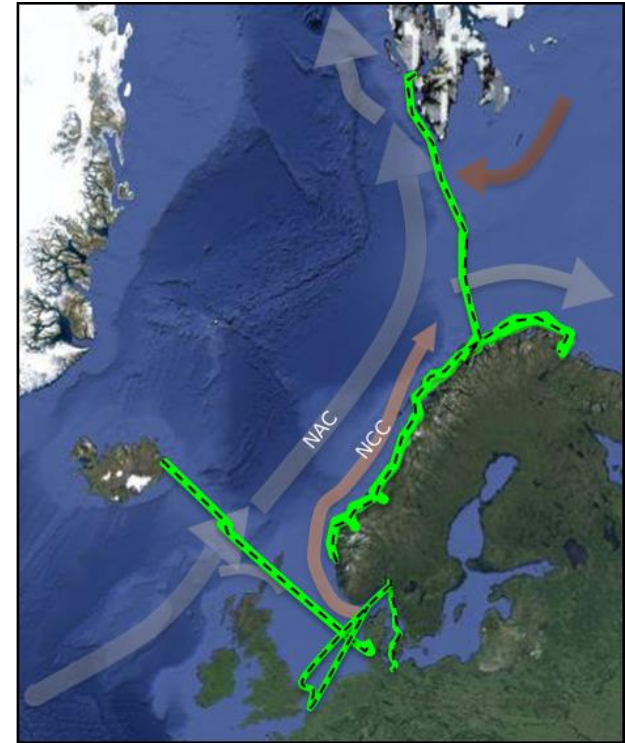
Occurrence of chemical contaminants in Northern coastal waters and biological responses

- **To demonstrate the use of JERICO-RI as a support for the implementation of MSFD on marine contamination (Descriptor 8).**
 1. To discover “new” marine contaminants and resolve their spatial distribution in the North Sea and Norwegian Sea
 2. To explore the drivers of “new” contaminant distribution in the region by analysing dependences on water physical-chemical parameters.
 3. To demonstrate the integrated use of fixed platform and passive samplers for monitoring of “legacy” hydrophobic contaminants
 4. To assess, in field, biological responses to contaminant stress

JRAP#3: Preliminary Strategy

Preliminary Strategy

1. Use of the FerryBox for collecting high resolution data of «new» contaminants in the North Sea and Norwegian Sea.



JRAP#3: Preliminary strategy

- High spatial resolution. 2 campaigns (summer/winter)
- Samples will be analyzed for: currently used pesticides, pharmaceuticals, personal care products and synthetic additives. (about 60 substances!)
- Data from FerryBox sensors (Salinity, temperature, turbidity, Chlorophyll) used for statistical exploratory analysis

WP5 Task 5.1: Data Policy and distribution



Task leader: **EuroGOOS**

Main objectives of the task:

- *Provide recommendations on a free and open data policy for JERICO-NEXT*
- *Deliver a JERICO-NEXT catalogue of metadata*
- *Define the specifications for handling European Ferrybox data*

Partners involved: *EuroGOOS, Ifremer, SOCIB, HCMR, ETT, SYKE, CNR-ISMAR, MARIS, SMHI, NIVA, HZG, VLIZ (12 partners)*

WP5 Task 5.1: Data Policy and distribution

D5.3 - Defining specifications for a European Ferrybox data management system.

A dedicated Ferrybox team will be formed and in charge for defining the specifications and define such things as:

- A common procedure and recommendation for data acquisition (sampling rate, water samples for calibration, meta-data)*
- A common format recommended (not mandatory) for data submission (ASCII or NetCDF)*
- A common format for data distribution (NetCDF)*
- Agreed QC procedures*
- A structure to host the data at regional , ROOS, and global scale*
- Produce a master copy, preferably at regional level*

Previous/ongoing FB activities should be taken into account i.e. MyO (in the past) and link the activities to ongoing relevant initiatives such as INSTAC, EMODnet, EuroGOOS Ferrybox Task Team



Task 5.5 Enhancement of Quality Control procedures for sensor based biochemical data



Task leader: SMHI

Main objectives of the task:

Establishment of procedures or best practices for the Quality Control procedures that are applied on biochemical data recorded by sensors attached to the existing platforms, both in real-time and delayed-mode. These practices should also take also into account the constraints that are imposed by the platform used for the collection of such kind of data (ferry boxes/moorings/gliders).

Partners involved: SMHI, NIVA, HZG, IFREMER, SOCIB, HCMR, SYKE, OGS

Task 5.5 Enhancement of Quality Control procedures for sensor based biochemical data



Main activities:

An open source software for QC-control, the FerryBox Toolbox, will be further developed and modified to also include data from fixed platforms.

The case studies in WP4 will be used to illustrate data flows, especially the one on pelagic biodiversity (WP4.1) and the one on carbon flows and the carbonate system (WP4.5)

Further tuning is foreseen for the QC applied on the physical parameters (temperature and salinity) regarding the QC ranges or accepted gradients specific to the coastal areas, due to the particular time/space variability. The JRAPs (WP4) will be used to illustrate data flows, especially the one on pelagic biodiversity (JRPA1) and the one on carbon flows and the carbonate system (JRAP2)

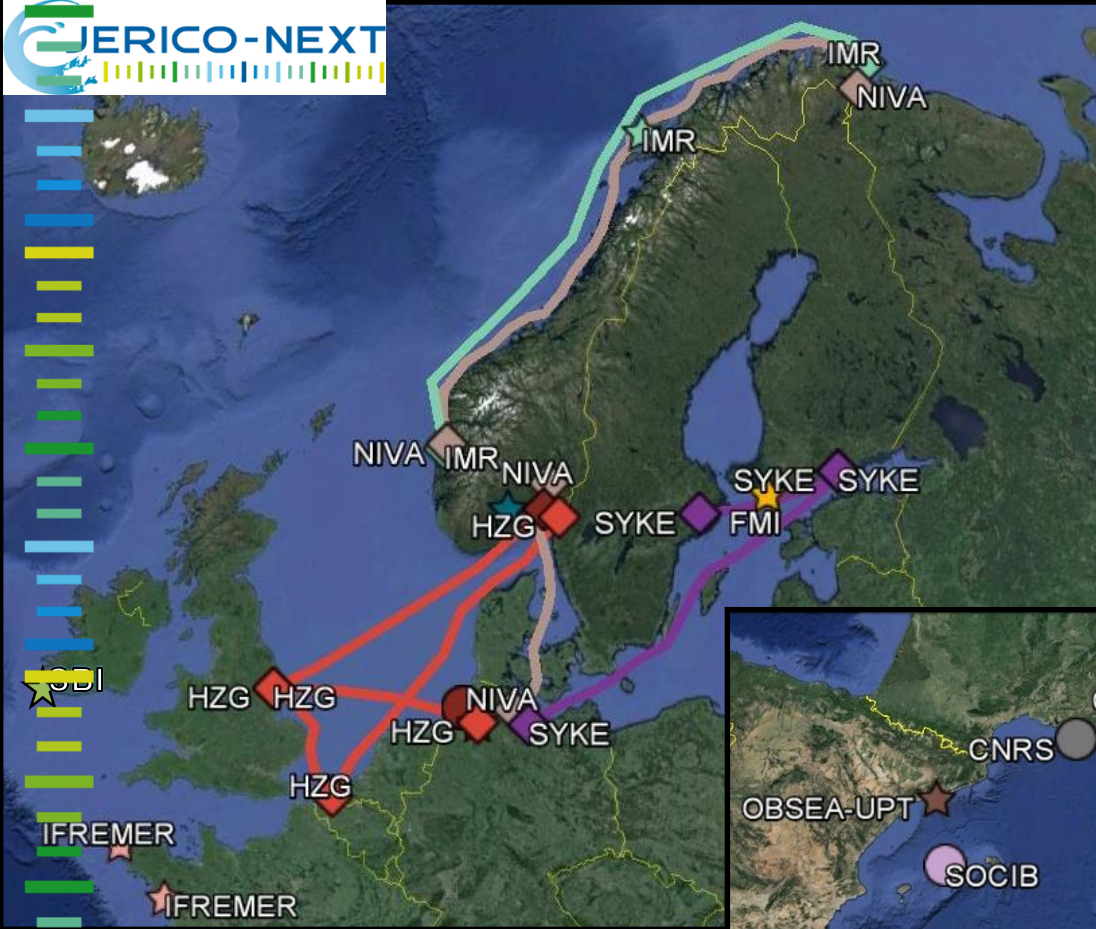
Deliverables:

D5.11 Best practices for quality control of sensor based biochemical data (M24)

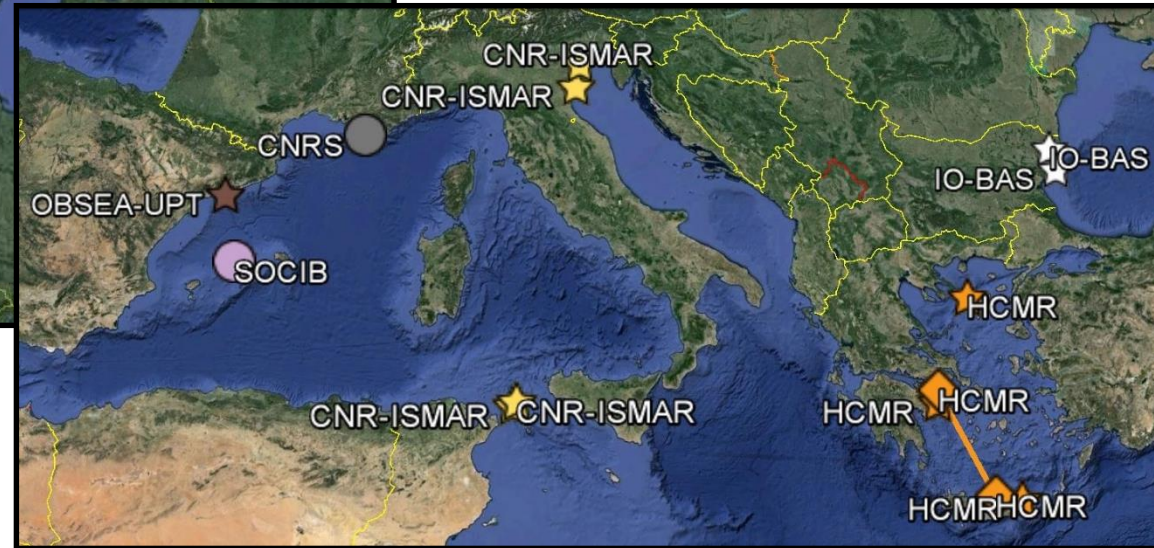
D5.12 Software for QC of biochemical data from FerryBox and fixed platforms (M40)

Chapter 1

Observing Systems



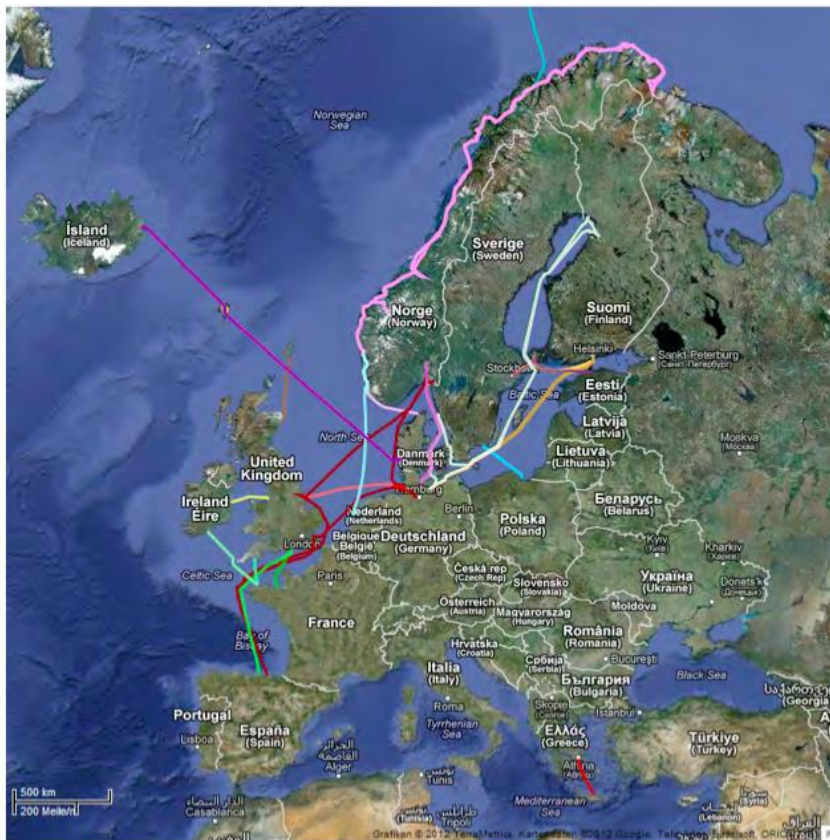
- ★ Fixed
- Glider facility
- ◇ Ferrybox
- + Fishing vessels (IMR)
(not shown)



WP7: Trans National Access



Example 1: Infrastructure IMR FERRYBOX



- Ferrybox line on a coastal Hurtigruten steamer MV Vesterålen
- 11 days for a round trip all year round
- Measurements on that route established in the frame of the coastal monitoring program for Norway starting in the 1930's
- data is used for giving advice to the government including climate change assessment

HOW TO PROCEED

The different calls shall be published on the website www.jerico-ri.eu

According to the following planning:

02 May 2016: First TNA open Call

Dead line 11 July 2016

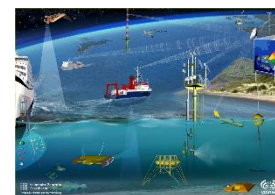
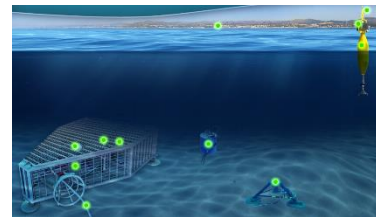
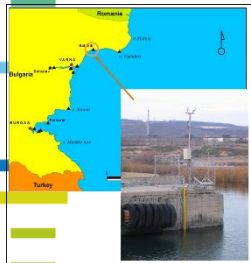
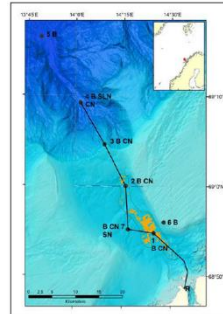
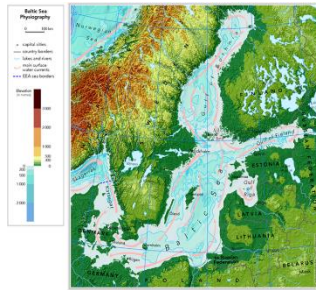
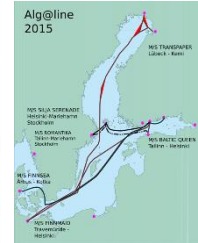
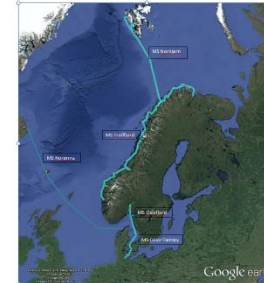
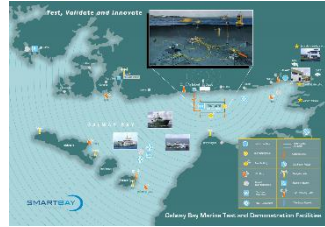
Acceptance October 2016

May 2017: Second TNA open Call

April 2018: Third TNA open Call

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JERICO NEXT TNA Observatories and facilities



Thank you for your attention !