

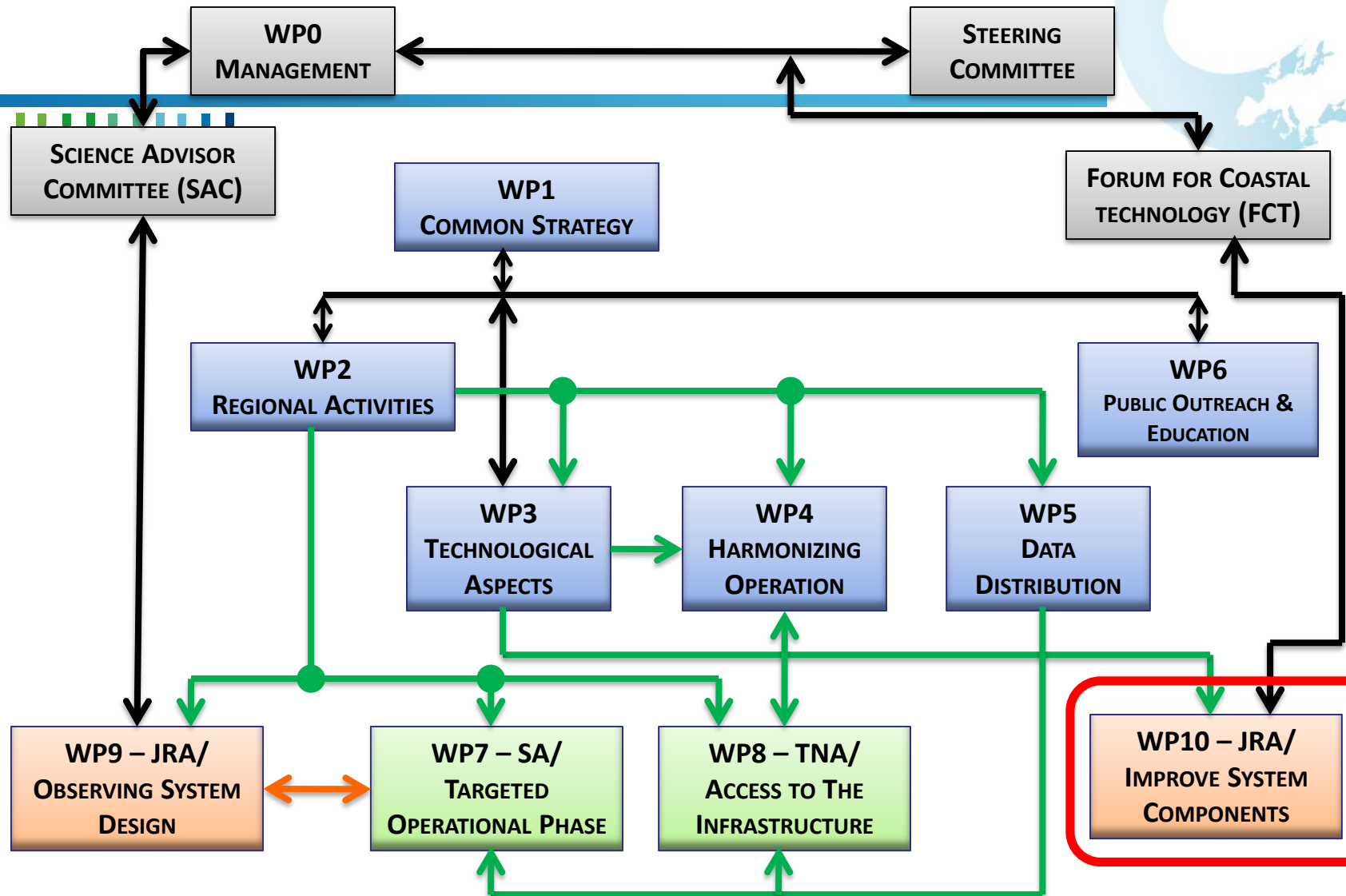


JERICO



JOINT EUROPEAN RESEARCH INFRASTRUCTURE NETWORK FOR COASTAL OBSERVATORIES

JERICO WP SCHEME



WP3 Deliverables



Joint European Research Infrastr
network for Coastal Observat

European Research Infrastructure network for
Coastal Observatories



Report on current status of Ferrybox D 3.1

Grant Agreement n° 262584
Project Acronym: JERICCO

Project Title: Towards a Joint European Research Infrastructure
network for Coastal Observatories

Coordination: P. Farcy, IFREMER,
jerico@ifremer.fr, www.jerico-fp7.eu:

Authors: David Hydes, Wilhelm Petersen, Kai Sorensen, Pierre
Jaccard, Mark Hartman

Involved Institutions: NOCS, HZG, NIVA
Version and Date: 1.6.06.08.2012



D3.4 - Report on new sensor developments

Grant Agreement n° 262584
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Project Title: Towards a Joint European Research Infrastructure
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Coordination: P. Farcy, IFREMER,
jerico@ifremer.fr, www.jerico-fp7.eu:

Authors: Michael Haller, Wilhelm Petersen, Dave Sivyer, Bengt
Karlsson, Carlos Hernandez, Joaquin Tintoré, Manolis Ntoumas,
Naomi Greenwood, Kai Sorensen, Emanuele Reggiani, Luca
Nizzetto, Martin Arundell, Mark Hartman, Jochen Woltschläger

Involved Institutions: HZG, CEFAS, AZTI, UIB, SMHI, NIVA,
NOC, NERC

Version and Date: 1.4.30/06/2014

Conclusion report on FerryBox systems D3.5

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jerico@ifremer.fr, www.jerico-fp7.eu:

Authors: M. Haller, W. Petersen, G. Bellas, K. Sorensen,
Involved Institutions: HZG, HCMR, NIVA
Version and Date: V1.1 10/04/2015

WP3: Main Significant Results (FerryBox task)



FerryBox Task:

- regular updated overview about active FerryBox lines, disseminated in www.ferrybox.org
- extensive exchange of experience and knowledge between FerryBox operators
- test of new sensors with regard to biogeochemistry and exchange of knowledge between partners
- joint activity with WP4 →
detailed and comprehensive Handbook of best practise of FerryBox operation

WP4 Main significant results

Task 4.1 Calibration

Sensor approach

Exercises

Joint European Research Infrastructure
network for Coastal Observatories



Report on Calibration Best Practices D4.2

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Coordination: P. Farcy, IFREMER, jericco@ifremer.fr, www.jericco-fp7.eu:

Authors: George Petihakis, Michael Haller, Wilhelm Petersen, Rajesh Nair, Jukka Seppälä, Florence Salvat
Involved Institutions: HCMR, HZG, OGS, SYKE, IFREMER
Version and Date: V1.3 – 27/06/2014

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Report on existing calibration facilities D4.1

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Authors: Michael Haller, Wilhelm Petersen, George Petihakis, Manolis Ntoumas,
Involved Institutions: HZG, HCMR

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Report on Biofouling Prevention Methods D4.3

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jerico@ifremer.fr, www.jerico-fp7.eu:

Authors: M. Faimali, G. Pavanello, G. Greco, I. Trentin, S.

- ✓ The cost of setting up and operating such systems can be significant
- ✓ It is the first time that costs are recorded for
 - ✓ Fixed Platforms
 - ✓ FerryBoxes
 - ✓ Gliders
 - ✓ Calibration labs

Joint European Research Infrastructure network for Coastal Observatories



D4.3.4 –Running costs of coastal observatories

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jerico@ifremer.fr, www.jerico-fp7.eu:

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Involved Institutions: CNR, NOC, Cefas, SMHI, AZTI, SOCIB IMEDEA, HCMR, PUERTOS, SYKE, OGS, Marine Institute, HZG, MUMM

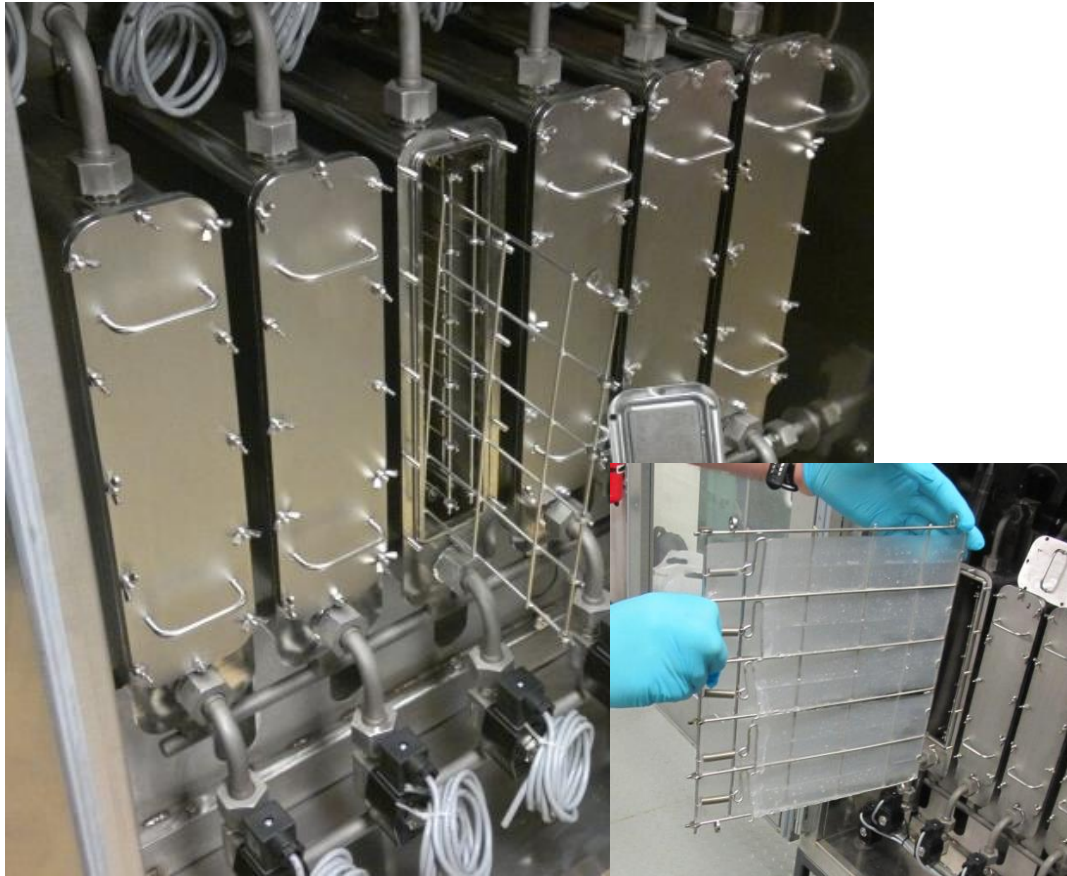
Version and Date: 1 08/10/2014

WP5 Main significant results



<i>Del. no.</i>	<i>Deliverable name</i>	<i>Status</i>
<i>D5.1</i>	<i>DM data management handbook V1</i>	<i>Delivered</i>
<i>D5.2</i>	<i>RT data management handbook V1</i>	<i>Delivered</i>
<i>D5.3</i>	<i>First data management report</i>	<i>Delivered</i>
<i>D5.4</i>	<i>Guidelines for uncertainty</i>	<i>Delivered</i>
<i>D5.5</i>	<i>Report on uncertainty for selected key parameters: temperature, salinity and chlorophyll-a</i>	<i>Delivered</i>
<i>D5.6</i>	<i>DM data management handbook V2</i>	<i>Delivered</i>
<i>D5.7</i>	<i>Second data management report</i>	<i>Delivered</i>
<i>D5.8</i>	<i>RT data management handbook V2</i>	<i>Delivered</i>

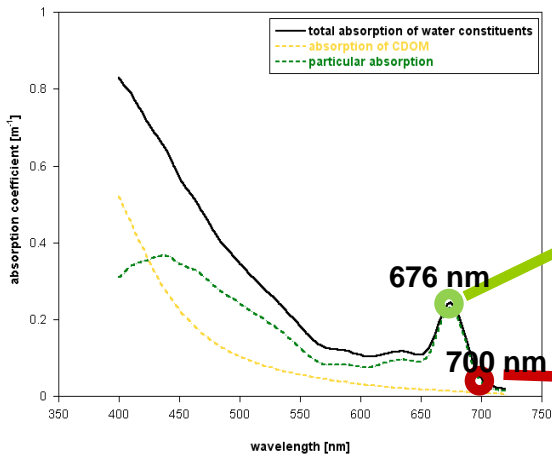
Prototype testing - «Chemical extractor» Chem. Mariner project – Test Oslo-Kiel



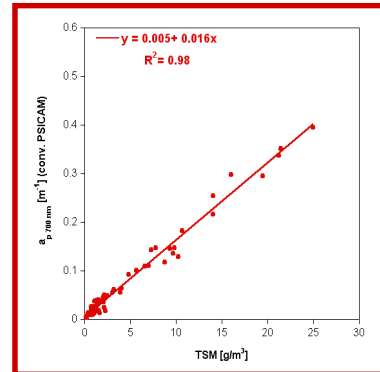
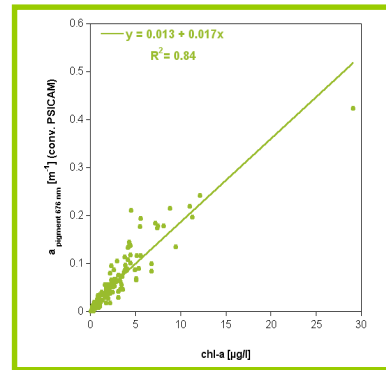
- *Polyethylene membranes and triolin*
- *Membranes brought to laboratory for analysing of PAH, PCB and some pesticider.*

Flow-Through Point Source Integrating Cavity Absorption Meter (ft-PSICAM)

determination of chlorophyll-a and TSM
+ optional spectral analysis for algal group detection



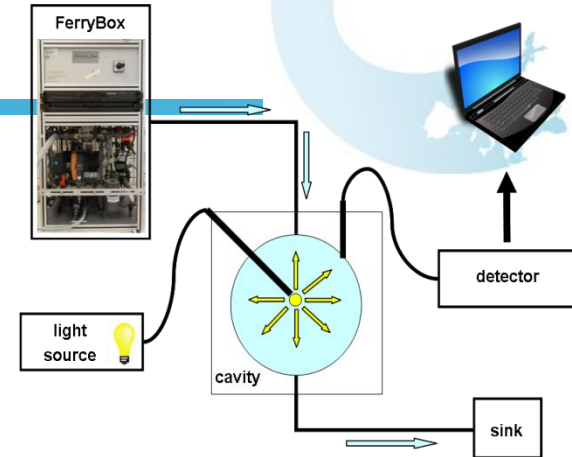
chlorophyll-a



total suspended matter (TSM)



Identification of algae groups from spectra

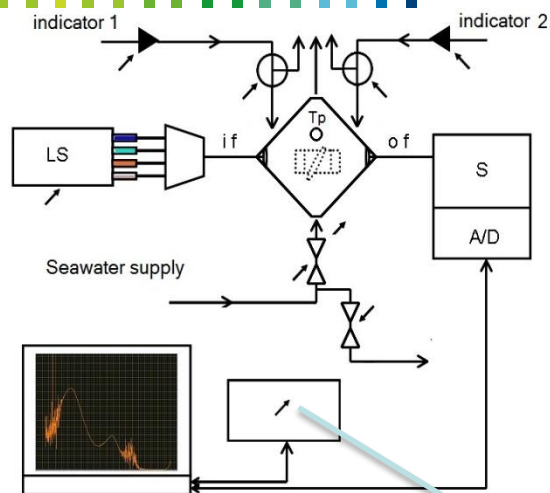


Results:

- prototype successfully tested in the field
- chlorophyll-a data more reliable compared to fluorescence data
- automatically cleaning has to be optimized
- algorithms for algae-group detection have to be developed



Combined approach pH and pCO2 into the Ferrybox

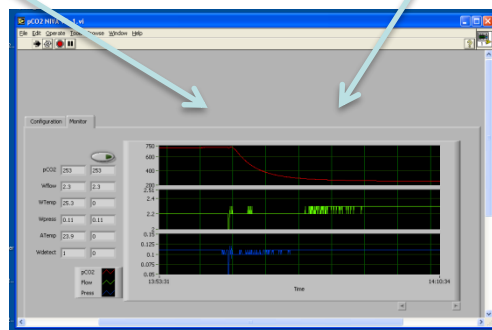


pH and carbonate

Physically implemented into the pCO2 will be tested!



pCO2



Combined in a common labview Software with data from the Ferrybox eg. SST, pressure

Task 10.5 FerryBox QA

FerryBox near-real-time data quality control** at HZG

Real-Time Mode

Post Processing

All parameters filtered/flagged by housekeeping parameters

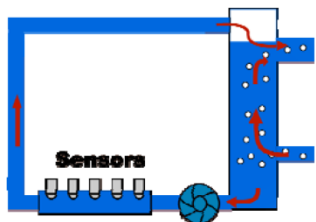
- status of the FB
- flowrate
- speed of the vessel

Single parameters flagged¹⁾ by

- range-check (reasonable regional and seasonal limits)
- frozen values
- variance (noise)
- spikes

¹⁾ MyOcean/SeaDataNet flagging scheme

All data stored aboard on FerryBox computer



HZG FerryBox Database

Transfer to HZG and import into the FerryBox database

Stored information in the Database per data point:

- date/time
- longitude/latitude
- physical value
- quality flag
- minimum
- maximum
- variance
- counts

automatic processing

Web-based visualization tools on ferrydata.hzg.de

MyOcean ftp site (NIVA)

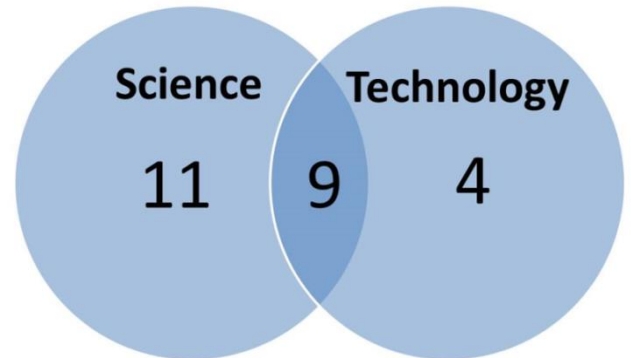
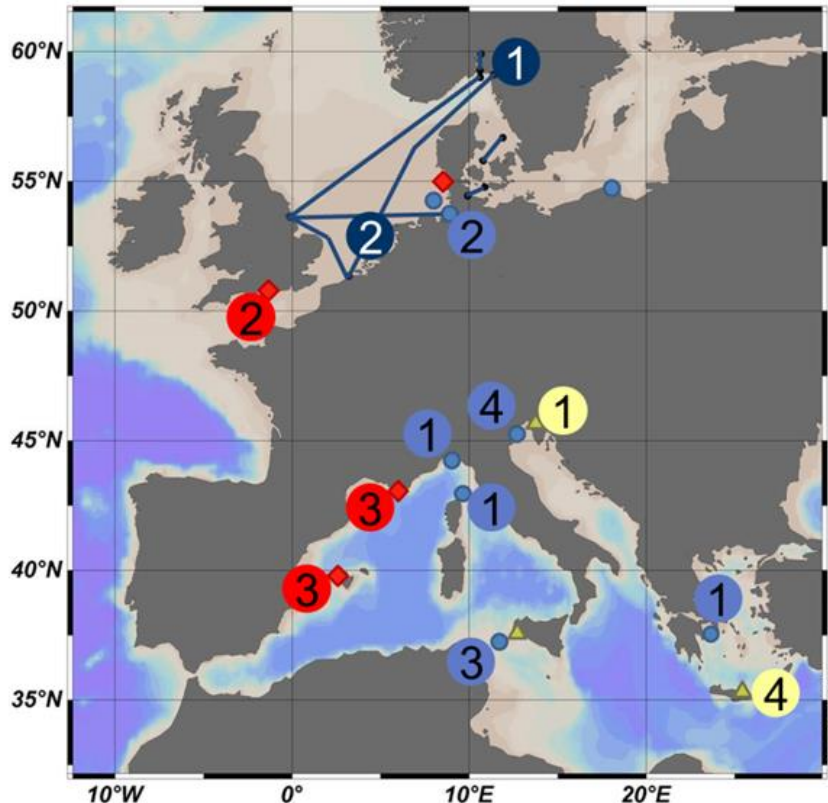
** Real time data quality control (RTQC) according to the recommendations of EuroGOOS DATA-MEQ working group

(http://www.eurogoos.org/documents/eurogoos/downloads/eg10_19_rtqcprocedures.pdf)

WP8 TNA Main significant results



Demand vs. facility, distribution per sectors and principal fields of study



- Principal Fields**
- *Biogeochemistry*
 - *Chemical Oceanography*
 - *Physical Oceanography*
 - *Satellite Oceanography*
 - *Metrology*