Joint European Research Infrastructure network for Coastal Observatories

Report after the JERICO mid-term review –June 2013

Grant Agreement n° 262584

Project Acronym: JERICO

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

Coordination: P. Farcy, Ifremer

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Involved Institutions: Ifremer and JERICO partners

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1. Document description

Document information	
Document Name	Report after the mid-term review
Document ID	JERICO –WP1- Mid term review- 18-19 June
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Author	M. Pichard, P. Farcy
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History			
Revision	Date	Modification	Author
0.1	20/06/2013	first draft	M.Pichard
1.0	10/07/2013	First version	P.Farcy
1.1	16/07/2013	Add on and corrections	A.Robin
1.2	16/07/2013	Add on and corrections	G.Petihakis
1.3	29/07/2013	Add on and corrections	I. Puillat
1.4	29/07/2013	Add on and corrections	P.Farcy
1.5	30/07/13	Add on and corrections	S.Sparnocchia
1.6	04/09/2013	Add on and corrections	M.Pichard

Diffusion list				
Consortium beneficiaries	X			
Third parties	X			
Associated Partners	X			
Commission	X			

2. Organisation & overview of the mid term review agenda

The mid term review agenda is presented hereafter.

Time slot	Topic	Comments
Tuesday, 18th of June		
13:45-14:00	*Registration of participants*	-
14:00-14:15	Welcome and introduction by Patrick Farcy	-
14:15-14:30	Welcome and introduction by Agnès Robin	-
14:30-15:10	Project presentation and main objectives (P. Farcy) - Status of JERICO at M24 - Debriefing of the first interim report process and major achievements during M24 - Discussion/ questions (15')	
15:10-15:40	Financial issue (M. Pichard) - Overview of claimed expenses at M18 - Discussions/ Questions (15')	
15:40-16:00	**Coffee Break**	
16:00-16:30	WP1 - Overview of the WP1 (P. Morin) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
16:30-17:00	WP2 - Overview of the WP2 (H.Wehde) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
17:00-17:30	WP10 - Overview of the WP10 (G. Nolan) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
Wednesday, 19th of June		

08:45-09:00	*Registration of participants*	
09:00-09:30	WP3 - Overview of the WP3 (W. Petersen) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
09:30-10:00	WP4 - Overview of the WP4 (G. Petihakis) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
10:00-0 :30	WP5 - Overview of the WP5 (R.Nair) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
10:30-10:50	Coffee Break	
10:50-11:20	WP6 - Overview of the WP6 (D.Mills) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
11:20-12:00	WP7 - Status of SA delivery (Loic Petit de la Villéon) - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
12:00-12:30	WP8 - Overview of the WP8 achievements deliverables, milestones (S. Sparnocchia) ▪ Status of 1st call TNA agreements and deployments ▪ Status of 2nd call for TNA: list of received proposals etc. ▪ Third call proposal - Next steps: status of WP8 tasks, agenda of activities and roles - Discussions/ Questions (15')	
12:30-13:45	**Lunch**	

13:45-14:30	WP9 - Overview of the WP9 (S.Dobricic) - Main achievements - Summary of deliverables and milestones status - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
14:30-15:00	WP11 - Overview of the WP11 (P.Farcy) - Main achievements - Summary of deliverables and milestones status - Expected amendments to the JERICO contract - Next steps: agenda of activities and roles - Discussions/ Questions (15')	
15:00-15:30	- Summary of actions and next steps (P.Farcy) - Concluding comments Agnès Robin and J.M. Beckers	
15:30	**End of Mid Term Review**	

3. Mid-term review meeting

3.1. List of participants

Structure	Contact
IFREMER	Patrick Farcy
	Loic Petit de la Villéon
	Dominique Gueguen
	Maëlle Pichard
SYKE	Jukka Seppälä
IBWPAN	Malgorzata Robakiewicz
DMI	Weiwei Fu
NIVA	Kai Sorensen
	Dominique Durand
IMR	Henning Wehde
DELTARES	Nicky Vilars
OGS	Rajesh Nair
CNR	Stefania Sparnocchia
HCMR	George Petihakis
NERC	Richard Sanders
	David White
HZG	Wilhelm Petersen
MUMM	Stephanie Ponsar
CEFAS	David Mills
SMHI	Bengt Karlson
CSIC	Joaquin Tintore
NIOZ	Sander Wijnhoven
MI	Glenn Nolan
BL	Simon Keeble
TECNALIA-AZTI	Julien Mader
INSU/CNRS	Pascal Morin
	Antoine Gremare
IH	Sara Almeida

IO-BAS	Atanas Palazov
PUERTOS	Begoña Perez Gomez
CMCC	Srdjan Dobricic
EuroGOOS	Patrick Gorringe
UE (EC project officer and independent reviewer)	Agnès Robin
	J.M. Beckers
French Ministry of Research	Bertrand Commère

Excused:

Aldo Drago (UOM) represented by David Mills.

Livia Cassai (INGV).

Ingrid Puillat (IFREMER) on sick leave.

3.2. Minutes of the mid-term review

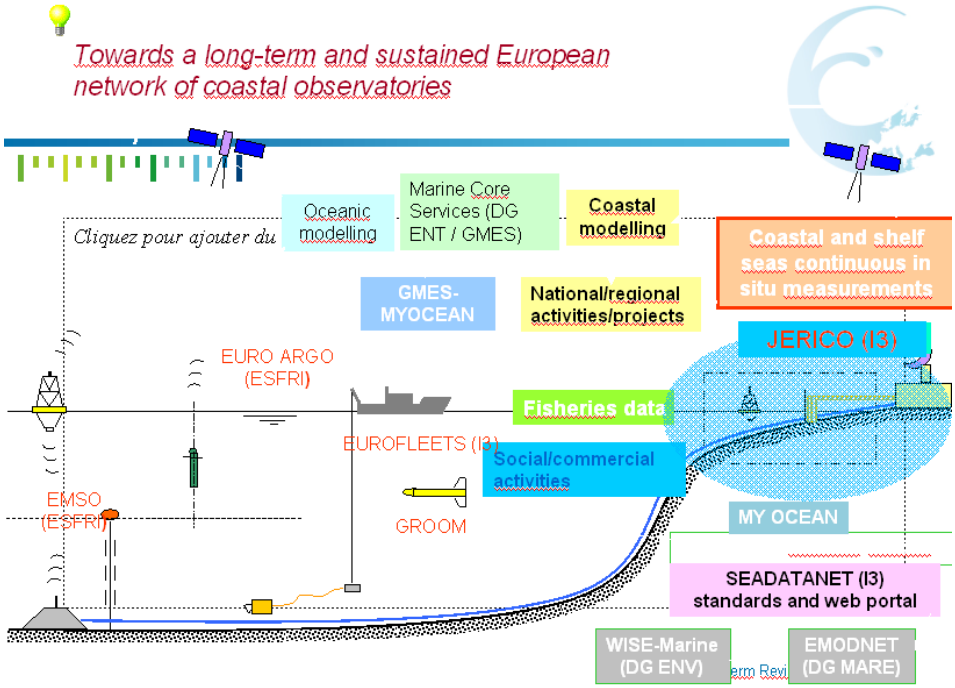
3.2.1. Project presentation and main objectives –Status of JERICO at M24 by Patrick Farcy- Ifremer

Slides are available on the following pages.

Toward a long term and sustained European network of coastal observatories: JERICO.

The project is about coastal observation. We are working on three kinds of platform:

- Glider
- FerryBox
- Fixed platforms



The main objective of JERICO is to prepare a future European network of operational coastal observatories through:

- Better coordination in structuring each community related to the three observing systems: glider, FerryBoxes and fixed platforms
- Increased harmonization of existing infrastructures
- Exchange of know-how and definition of Best Practices
- Promoting coastal oceanography through TNA
- Agreed on deployment needs and gaps
- Promote technological innovation (FCT and WP10)
- Development of a future strategy for coastal oceanography

Why JERICO?

We have to address some R&D challenges to monitor and understand the complexity and high variability of coastal areas at Pan-European level.

How can we promote the sustainability of coastal observing systems?

The JERICO vision is to make significant contribution to the harmonization of existing European coastal observatories and to support future strategic developments.

Main events during the 1st period:

- May 2011: Kick off meeting and 1st Steering committee - Paris
- August 2011: 1st FerryBox best practices workshop – HZG
- January 2012: First TNA call
- January 2012: Workshop on calibration – SYKE
- February/march 2012: Workshop on fixed platforms best practices – CNR Roma and WP10 Kick-off meeting
- May 2012: Workshop on Glider best practices – CSIC Majorca
- October 2012 in Héraklion -HCMR:
    - "General assembly #1" and 2nd Steering committee
    - "TNA selection panel review" meeting
    - 2nd round workshop on best practices (all observatories)
    - Workshop on future strategy for coastal observatories

Reports and Communication issues:

In addition to contractual obligations such as deliverables, the overall communication on JERICO related topics is organized via several ways:

- JERICO website with OCEANBOARD (information site for professional and no professional public)
- An article in International Innovation journal
- A JERICO newsletter, created by the JERICO management team
- A Linkedin group about JERICO to enhance the publicity of our project

Deliverables and milestones:
Before M25: 30 deliverables were to be provided and 18 were submitted before M24.
1 deliverable postponed to M27 (1st summer school), 1 deliverable postponed to M42 (instead of M24, due to a typing error on the DOW).
Before M24: 11 milestones were to be provided (9 are achieved).

<u>Key points and discussions:</u>

J.M. Beckers asked a question on Operating cost of infrastructure: who is paying?

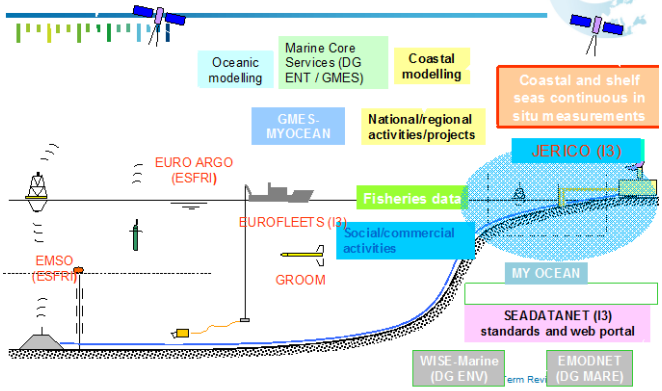
G.Petihakis: In the framework of JERICO a questionnaire was sent to the consortium asking about recorded cost of maintenance and calibration of infrastructures from the partners.

JERICO MID TERM REVIEW

Objectives and major achievements

2013, June 18-19th - UPMC - Paris

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



MAIN OBJECTIVE

Prepare for the future European Network of operational castal observatories (OCO) through:

- *Better coordination in structuring of each community related to the 3 observation systems: Glider, Ferryboxes and fixed platforms*
- *Increased harmonisation of existing infrastructures*
- *Exchange of know-how and definition of Best Practices*
- *Promoting coastal oceanography through TNA*
- *Agreed on deployment needs and gaps*
- *Promote innovation in technology (FCT and WP10)*
- *Propose a future strategy for coastal oceanography*

Why JERICO ?

- To address the challenge of observing the complexity and high variability of coastal areas at Pan-european level
  - New requirements arising from WFD and MSFD
  - Operational marine services (GMES)
- In the last decades marine observing systems have been implemented in **coastal and shelf seas** around Europe
  - They mostly answer local/regional **monitoring** and **oceanographic research demands**
- **Hetereogeneity and geographical dispersion** are often a limit
- Often driven through short-term research projects. **Sustainability is not guaranteed**

One of the main challenges for the European research community is now to **increase the consistency** and **the sustainability** of these infrastructures by addressing their future within a **shared pan-European framework.**

A VISION ?

The JERICO vision is to make a significant contribution to the harmonisation of existing European coastal observatories and to support future strategic developments.

JERICO will promote easier access to the infrastructures and data.

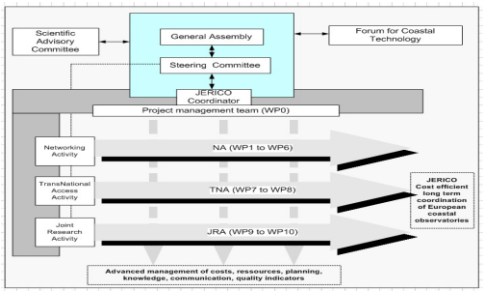
JERICO will:

- 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.

- support developments of new tools and technologies for the monitoring of key oceanographic parameters in coastal

How the project is structured ?



Scientific coordination

***Pascal Morin**, CNRS*
UPMC & IUEM – Roscoff
Coordinator of the ferrybox activity
Coordinator of the French coastal fleet committee
***Dominique Durand**, On behalf of NIVA*
Sr. Vice President IRIS Environment
***Ingrid Puillat**, Ifremer*
PhD in Oceanography
Deputy then coordinative of ESONET/NOE

JERICO Networking activities (NA)

WP1 : A common strategy, including definition and implementation aspects
WP coordinator INSU + Ifremer & NIVA
WP2 : Strengthening regional aspects
ROOS aspects and inter regional interfaces
WP3 : Harmonizing technological aspects
Observing systems : fixed station, ferrybox, gliders
WP4 : Harmonization operation and maintenance methods
Fouling, calibration, quality control, maintenance and costs
WP5 : Data distribution (Seadatanet and MyOcean)
WP6 : Public outreach and education

JERICO TNA & JRA

WP7 : Service Access (SA) to the data
WP8 : Trans National Access
WP9 : OBSERVING SYSTEM DESIGN
How to optimize the network : OSE, OSSE
WP10 : IMPROVE THE SYSTEM COMPONENTS
monitoring of key biological compartments and processes .
Developments and implementation on new platforms of physico-chemical sensors
Emerging technology : profiler, ship of opportunity
Ferrybox data quality control
Intercomparison RemoteSensing and Smart buoy

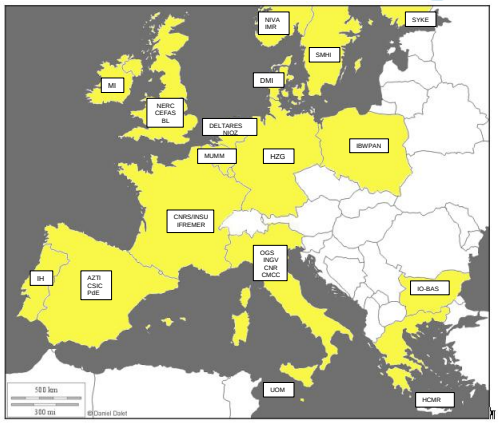
STEERING COMMITTEE

W. PETERSEN – HZG
S. KAITALA – SYKE
Richard Lampitt– NERC (since May 2013)
D. MILLS – CEFAS
D. DURAND – NIVA
G. NOLAN - MI
A. GREMARE – CNRS
S. SPARNOCCHIA – CNR
K. NITTIS – HCMR
J. TINTORE – CSIC
P. FARCY – IFREMER

TNA selection panel

Dr. Janet Newton, biological oceanographer, P.I. at the University of Washington and the Executive Director for the Northwest Association of Networked Ocean Observing Systems (NANOOS)
Dr George Zodiatis, Physical Oceanographer, University of Cyprus.
Dr. Richard Dewey, Physical Oceanographer, University of Victoria, Canada.
Dr Hans Dalhin, Director of EUROGOOS
Dr Roger Proctor, Program Leader, IMOS, University of Tasmania, Australia
Dr Franciscus Colijn, University of Kiel
Dr Laurent Mortier, GROOM coordinator, UPMC/LOCEAN laboratory
Dr Alicia Lavin IEO, Spain

PARTNERS



COMMUNICATION - JERICO WEBSITE

Paper in International Innovation

Editorial article of 3 pages to include colour graphics,

- *All partners & project receive full copyright use of the PDF of article upon publication*
- *All partners receive physical copies of the report*
- *Complimentary distribution of the publication to 50 contacts supplied by project.*
- *Coordinator receives 100 physical copies of the report for events and other workshops*

COMMUNICATION


Connecting
European coasts


INTELLIGENCE
JERICO
JOINT EUROPEAN RESEARCH INFRASTRUCTURE NETWORK FOR COASTAL OBSERVATORIES

COMMUNICATION - JERICO WEBSITE

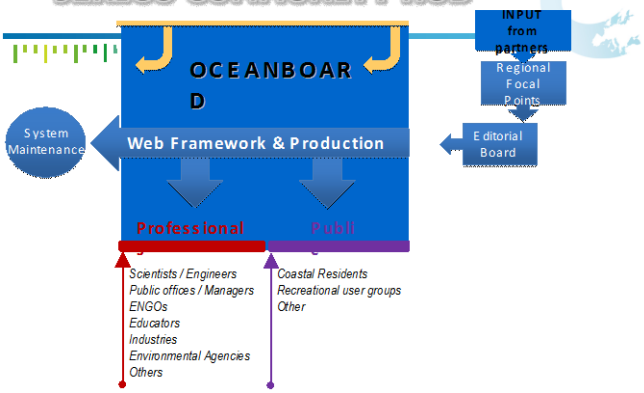
www.jerico-fp7.eu

A practical link with the partners:

- *General information: next events (FCT), project news*
- *Access to deliverable*
- *Information on TNA and Data*
- *Data tool provided by WP6*
- *OCEANBOARD*

OCEANBOARD : a well adapt tool to touch the professional or non professional public.
JERICOPROF and JERICOPUB

JERICO COMMUNITY HUB



MAIN EVENTS DURING THE 1st PERIOD

May 2011 : Kick off meeting and 1st Steering committee - Paris
August 2011 : 1st Ferrybox best practices workshop – HZG
January 2012 : First TNA call
January 2012 : Workshop on calibration – SYKE
February/march : Workshop on fixed platforms best practices – CNR Rome and WP10 Kick-off meeting
May : Workshop on Glider best practices – CSIC Majorca –
October in Heraklion:

- *"General assembly n°1" and 2nd Steering committee*
- *"TNA selection panel review" meeting*
- *2nd round workshop on best practices (all observatories)*
- *Workshop on future strategy for coastal observatories*

WHAT HAPPENNED SINCE IRAKLION

- *First FCT with a calibration experiment in Brest in October*
- *1st period interim report from November to January*
- *Maelle reinforce the coordination team*
- *2nd TNA call – beginning of January*
- *Submission of the interim report – January 29th*
- *Final delivery of the signed Form C with the Ifremer audit certificate – end March*
- *2nd Ferrybox best practice workshop – April 23rd*
- *Interim report rejected by Agnes Robin end of April*
- *New submission – May 13th*
- *3rd steering committee in Galway – May 16th and 17th*

FIRST INTERIM REPORT

- We started "slowly" to work on the technical and financial reporting in November

- I asked for one month delay to deliver the reporting at the end of January

- Maelle arrived at the end of December to take care of the financial reporting, forms C …

- We received all the form C before end of January

- The technical reporting was ready the 28th of January and submitted the 29th

- All the signed copy of form C had reached Ifremer at the end of February

FIRST INTERIM REPORT (cont')

- Reporting rejected by the commission end of April, submitted again the 13th of May

- Overall progress seems fine but there are almost systematic delays in deliverables: while some initial delays are quite frequent, it is however essential that the project goes back to track during the second period.

- Web site: some suggestions

  - ("About" section) possibly the list of WPs would give in addition a more precise overview of the planned activities and also more highlight on the 3 blocks of activities.

  - ("SA" section) even if SA is not yet operational, information on what is planned (and when expected to be in place) would be important. As it is (fully empty), it is not clear the interest to come back to the web site if there is no idea on what might be available

FIRST INTERIM REPORT (end)

- There's a # between the TNA data base and the report regarding the 7 days of glider's operation by CSIC (not charged in the Form C)

- Remaks concerning T & S for Kostas Nittis during 2012 (3 meetings): Travels to meetings/events other than those organised by the project (listed p61 of the core of the report): in such case it would be appropriate to check that such travels were necessary to the project and that the persons represented JERICO and reported back to the project.

- Waiting for the final comments from the commission

  - Reporting OK for Agnès Robin

  - Wait for HCMR feedback before next step (financial approval)

STATUS OF DELIVERABLES

- 30 DELIVERABLES TO BE PROVIDED BEFORE M25

- 18 WERE SUBMITTED BEFORE END M24

- 5 WERE SUBMITTED IN MAY (the last ones the 3rd of June)

- 2 ARE COMPLETED AND WILL BE SUMMITTED SOON

- 3 ARE ON DRAFT FORMS, ON THE WAY TO BE SUBMITTED BEGINNING OF JULY

- 1 IS POSTPONED TO M27 (1st summer school)

- 1 IS POSTPONNED TO THE END OF 2013(Jerico Label)

STATUS OF MILESTONES

- 11 MILESTONES TO BE REACHED BEFORE M24
- 9 ARE ACHIEVED
- 1 IS POSTPONED TO M27 (1st summer school)
- 1 IS POSTPONED FROM M24 TO M42
  (due to a typing invertion in the Dow)

Mid Term Review - JERICO - 23

3.2.2. WP11: Administrative and Financial management by Maëlle PICHARD-IFREMER

Slides are available on the following pages.

Costs are calculated with regards to Work Package activities: a balance distribution of such costs can occur within WPs of a same activity.

The total eligible costs presented by the 27 beneficiaries of the JERICO project represents 2,677,903.36€ with a requested EC contribution of 1,911,103.85€, which represent respectively 29.96% and 29.40% of the planned budget.

- Wp1: The first period has been time consuming, as it will be during the third period of the project to prepare the project conclusions and the roadmap for the future.
- Wp2: A lot of activities were carried out in the framework of WP2 because of the workshops organization and questionnaires preparation. INGV didn't declared any person-months and costs during the first eighteen months of the project.
- Wp3: In the framework of this WP, many activities were carried out during the 1st period because of the organisation of the « Best practices workshops » and of the questionnaires preparation.
- Wp4: The WP4 has a high percentage of realised cost with 44.29%.
- Wp5: less than 25% of planned budget for this WP has been spent, subcontracting are ongoing.
- Wp6: is going well according to the financial analysis of this WP.
- Wp9: Normal level of spending. Due to an internal error, IFREMER didn't declare any person-month on this WP. It will be corrected on the next financial form.
- Wp10: 24.27% of WP10 budget has been spent.
- Wp11: higher percentage of realized costs (45%). A considerable effort has been made on the management to launch the JERICO project.

Each beneficiary received a financial analysis of M18 reported expenditures by email with three different documents:

- Financial analysis of M18 reported expenditures : a pie chart and comments on expenses
- Expenditures per WP
- Expenditures by type of activity and person month for each WP

<u>Key points and discussions:</u>

Comments A. Robin: It doesn't matter if there is an unbalanced involvement of partners, what the EC wants to find out is if all the work is done. The Seven framework programme is quite flexible so we can re-allocate budget among beneficiaries and categories when necessary, as long as tasks and deliverables are in line with the grant agreement.

Project's financial status

Report M18

Presentation Outline

Presentation Outline :

- Reported cost by type of activity
- Expenditure rate compared to the initial budget
- Expenditure rate compared to the initial budget by workpackage

Considerations that should be taken into account

Costs are calculated regarding activities : a balance distribution of such costs can occurred within WPs of a same activity

Coordination						Support		RTD		Management
WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11

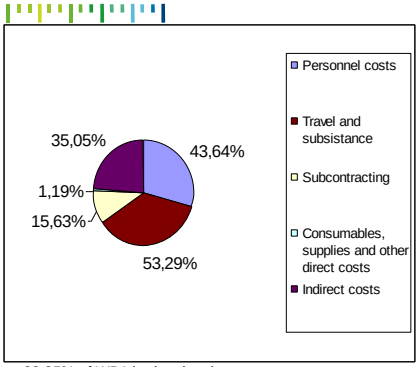
Reported cost by type of activity

REPORTED costs on Financial statements (P1+P2+P3)

	RTD (A)	Coordination (B)	Support (C)	Management (D)	Other (E)	Total A+B+C+D+E	
Personnel costs	338 423,69 €	821 927,56 €	- €	152 979,82 €	- €	1 313 331,07	36,79%
Subcontracting	6 205,37 €	31 030,00 €	- €	25 594,00 €	- €	62 829,37	21,90%
Other direct	46 975,27 €	195 030,67 €	- €	31 919,21 €	- €	273 925,15	28,89%
Indirect costs	254 320,35 €	674 057,13 €	- €	97 440,29 €	- €	1 025 817,77	34,23%
access costs	- €	- €	- €	- €	- €	0,00	0,00%
Total costs	**645 924,68**	**1 722 045,36**	**0,00**	**307 933,32**	**0,00**	**2 675 903,36**	
real/previsionnal	27,10%	36,99%	0,00%	45,15%		29,96%	
Requested EC contribution	484 443,51 €	1 118 727,02 €	- €	307 933,32 €	- €	1 911 103,85 €	
real/previsionnal	27,10%	36,60%	0,00%	69,17%		29,40%	

- No costs have been presented for Work package 7 as this WP will only start at month 19.
- No costs have been presented either for Trans-national Access to Coastal Observatories.

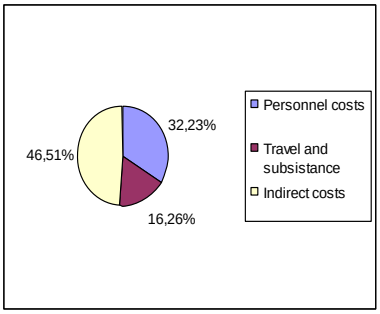
Expenditure rate compared to the initial budget : Workpackage 1



38.85% of WP1 budget has been spent

- WP1 is at near 40% of the costs.
- The main period of work for that WP is the 1st one as doing scientific coordination of the activities and to prepare the works of the others COORD WP
- IFREMER and CNR were the most involved in the WP activities.

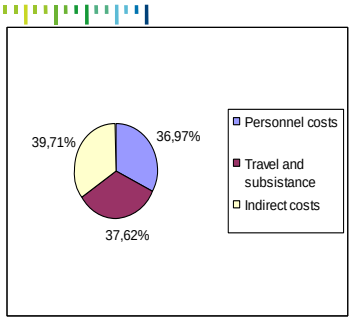
Expenditure rate compared to the initial budget Workpackage 2



35.49% of WP2 budget has been spent

- During that 1st period, a lot of activities were carried out in the framework of the WP2
- However, the involvement of the different partners within this WP is unbalanced.
- INGV didn't declared any time and costs during the first eighteen months of the project
- Deltares only spend 0.73 pm
- In fact, IMR (as WP leader), and SMHI (as deputy coordinator) are those that are most involved in the

Expenditure rate compared to the initial budget Workpackage 3



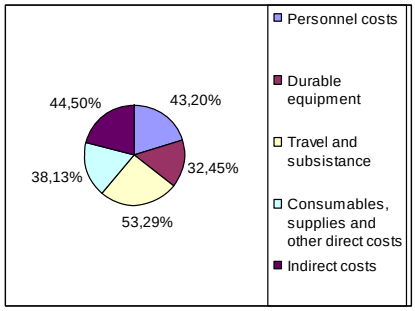
- *38.66% of WP3 budget has been spent.*
- *7457.73€ was spent for Consumables, supplies and other direct costs while in the initial draft budget only 800€ was budgeted.*

In the framework of this WP, many activities were carried out during that 1st period because of the organisation of the « Best practices workshops » and the preparation of the questionnaire.

However, the involvement of the different partners within this WP is unbalanced.

In fact, HCMR and CSIC are those that are most involved in the WP activities.

Expenditure rate compared to the initial budget Workpackage 4



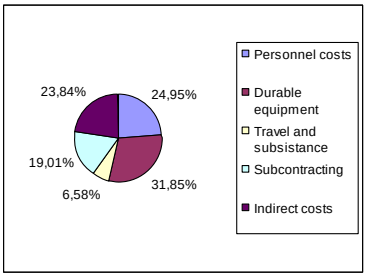
The WP4 has a high percentage of realised cost with 44.29%.

However, the involvement of the different partners within this WP is unbalanced.

In fact, HCMR (as WP leader), CSIC are very involve in the WP activities. In person month HCMR already spend 12.25 pm, which is about 72.06% of the 17 pm planned for this WP.
CSIC spend 10.17 pm whereas 5.50 pm were planned for this WP.

44.29% of WP4 budget has been spent

Expenditure rate compared to the initial budget Workpackage 5



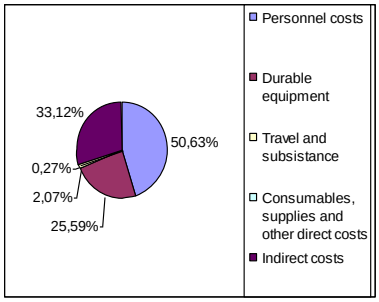
WP5 has less than 25%.
The sub contracts are on going and more time has to be spent by Ifremer.

Some partners didn't declared any time on this WP : IMR and MUMM

Or only few hours : SMHI (0.04 pm)

22.71% of WP5 budget has been spent

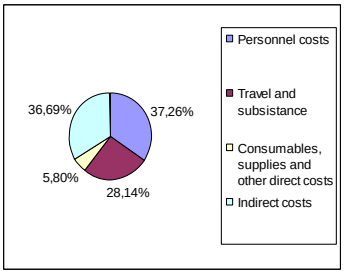
Expenditure rate compared to the initial budget Workpackage 6



WP6 is going well. The summer schools had to be postponed because of the lack of time to organise them.

34.50% of WP6 budget has been spent

Expenditure rate compared to the initial budget Workpackage 9



Normal level of spending for this WP.

The involvement of the different partners within this WP seems balanced.

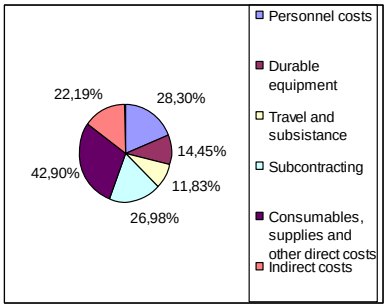
<u>With some precisions :</u>

•However HCMR already spend more hours on this WP that planned (5.76pm for 5pm planned)

•Some partners didn't declared any time on this WP : IFREMER and CNR.

35.77% of WP9 budget has been spent

Expenditure rate compared to the initial budget Workpackage 10



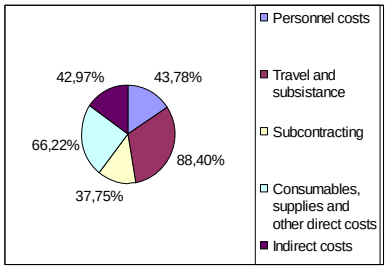
WP10 is only at ¼ of the costs. The WP10 started up to 10 month after the beginning of the project (Kick off meeting the 1st of March in Rome). WP10 is now at its cruse speed.

However, the involvement of the different partners within this WP is unbalanced.

In fact, OGS and INSU/CNRS are very involve in the WP activities. In person month OGS already spend 8.24 pm, which is about 91.56% of the 9pm planned for this WP. INSU/CNRS spend 18.10 pm/24pm planned (75.42%)

24.27% of WP10 budget has been spent

Expenditure rate compared to the initial budget Workpackage 11



WP11 has the higher percentage of realised costs

A considerable effort has been made on the management for the JERICO project launch

45.15% of WP11 budget has been spent

Reported effort progress by type of activity

ACTIVITY	RTD	COORD	SUPPORT	MGT	TOTAL
(A): Total pm (Project)	200,00	371,90	3,50	50,00	625,40
(B): Total pm - Previous periods	0,00	0,00	0	0,00	0,00
(C): Total pm - Actual period	71,89	169,77	0	16,78	258,44
(D): Total (B+C)	71,89	169,77	0	16,78	258,44
(E): % (D/A)	35,95%	45,65%	0,00%	33,56%	41,32%

Substantial involvement of beneficiaries in coordination activities

Beneficiaries emerging from this financial analysis

- Apart from INGV without any time and costs involved during the first eighteen months of the project, each beneficiary completed these templates for the first internal report at M18.
- CSIC : According to the document expenditure rate by type of activity, CSIC already have a high rate of consumption compared to the initial budget for coordination activities (99.23%).
- Puertos only spend 12.82% of the overall budget planned for the project and only spend 2.30 person month until M18 on the JERICO project.

Next step : **Mid term review**

Each beneficiary will receive a financial analysis of M18 report expenditure by email with three different documents :

- Financial analysis of M18 report expenditure : a pie chart and comments on your expenses
- Expenditure per WP
- Expenditure by type of activity and person month for each WP

Key lessons emerging from the first reporting period

Key lessons emerging from the first reporting period

There is no significant conclusion after analysis of the costs by activity and work package.

Nonetheless, few beneficiaries have a high rate of consumption of their budget or, in the opposite case, few beneficiaries are not sufficiently involved .

Comments from the EC on the interim :

Travels to meetings/events other than those organised by the project (listed p 61 of the core of the report) : we will need to ensure that such travels were necessary to the project and that the persons represented JERICO and reported back to the project.

3.2.3. WP1: A common strategy by Pascal Morin –CNRS

Slides are available on the following pages.

Tasks presentation

The objective is to develop a common strategy for a pan European network of operational coastal observatories to address the challenge of observing the complexity and high variability of coastal areas.

4 major actions:

1- Set up an European research infrastructure

2- Creating a JERICO label (standardization of operations and activities)

3- Organizing a Forum for Coastal Technology: FCT (JRA WP)

4- Promote access and open access to JERICO network

The JERICO project strives to meet key environmental challenges and knowledge gaps for OCO (Operational Coastal Oceanography) such as: assessment of environmental status, better understanding of functioning of coastal ecosystems, trans-boundary pollution transport, control and validation of operational models…).

To address efficiently these challenges, JERICO needs a common consensual strategy implying:

- Integration of existing observing systems,
- Definition of a framework for future systems dedicated to operational monitoring of the coastal environment,
- Optimal designing of future networks.

This common strategy requires a better knowledge on:

- Present key-environmental parameters (WP2 and WP3)
- Emerging key-environmental parameters (WP1 and WP10)
- Sampling requirements (WP2 and WP9)
- Elements of costs efficiency (WP4 and WP10)
- Standardization (WP3, 4 and 5)
- Data dissemination (WP5, 6 and 7)

The overall objective is to create coordination between WPs. In WP1, there are 6 main tasks. Task 1.4 “Definition strategy and interfaces with the monitoring of marine biodiversity” was delayed due to Carlo Heip death in autumn 2012. Sander Wijnhoven from NIOZ will take over this task.

The JERICO label couldn’t be defined at the beginning of the project as we need input from WP3 and WP4. That’s why the deliverable D1.4 was postponed.

The task 1.5 “Roadmap for the future” will be an important step as this task includes the analysis and synthesis of the deliverables of all the WPs to elaborate recommendations for new implementation of coastal observatories (cost/benefits, level of running costs, optimization of

existing funding, proposing a pan European governance, …)

Existing synergies between NA, JRA and TNA will allow us to speed up the implementation of new technologies and it generates adding values within the project and towards industry.

Main achievements of WP1:

- Definition of a common strategy : launching an European strategic view on OCO, implementation by the WPs
- TNA calls
- Terms of reference for the FCT and first FCT workshop in Brest

Next steps:

- Third call for TNA proposals
- Second FCT workshop
- Definition of a strategy and interfaces with the monitoring of marine biodiversity
- 4th and 5th Steering Committee meetings
- Formulation of the "Roadmap for the future"

Key points and discussions:

J.M Beckers: Task 1.2 definition of a label for coastal observatories, the submission of this deliverable was delayed. Why?

G. Petihakis: In order to define a label for coastal observatories we need inputs from WP3 and WP4. That's why we need to have a longer reflection on this deliverable.

J.M. Beckers: Do you plan to include a long-term commitment for the label?

G. Petihakis: It has been discussed. We want to include some topics like the sustainability. We will put a draft on the NEF, which will be under discussion.

A. Robin, question slide 7, on environmental challenges: Do you have any priority order regarding environmental challenges?

P. Morin: The priority is to have a good assessment of environmental status and modelisation.

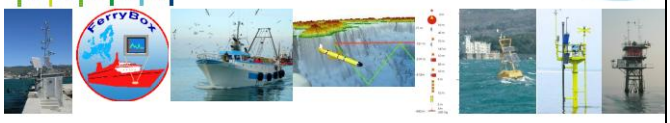
A. Robin: Which type of proposals did you receive regarding TNA: technological infrastructure developments or more research projects?

P. Farcy: Proposals are fairly balanced, this will be discussed with Stefania Sparnocchia tomorrow during her presentation.

WP 1: A common stategy

P. Morin, D. Durand, P. Farcy and I. Puillat
CNRS/INSU, NIVA, Ifremer
pmorin@sb-roscoff.fr

WP1: A common strategy - objectives, results, next events



JERICO

A
Joint
European
Research
Infrastructure network
for Coastal
Observatories

Coordinator: Patrick Farcy (Ifremer)

Project Management Team:
- Ingrid Puillat – IFREMER (F)
- Pascal Morin - CNRS/INSU (F)
- Dominique Durand – NIVA (N)

WP1: A common strategy - objectives, results

Why JERICO ?

- To address the challenge of **observing** the complexity and high variability of **coastal areas at Pan-european level**
  - New requirements arising from WFD and MSFD
  - Operational marine services (GMES)
- Often driven through short-term research projects, marine observing systems mostly answer local/regional monitoring. **Sustainability is not guaranteed**

One of the main challenges for the European research community is now to **increase the consistency** and **the sustainability** of these dispersed infrastructures by addressing their future within a **shared pan-European framework.**

WP1: A common strategy - objectives, results

The JERICO vision is to make a significant contribution to the harmonisation of existing European coastal observatories and to support future strategic developments.

JERICO will promote easier access to the infrastructures and data.

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.

- support developments of new tools and technologies for the monitoring of key oceanographic parameters in coastal systems.

WP1 Reporting: A common strategy - objectives, results

Objective: ***Developing a common strategy for a pan European network of operational coastal observatories to address the challenge of observing the complexity and high variability of coastal areas***

4 major actions:

1 - Set up an European Research Infrastructure for coastal observations based on existing systems in European coastal and shelf seas.

(initial state of existing networks, gaps, running costs, policies WFD and MSFD, technological developments, gouvernance)

2 - Creating a JERICO Label: To support **standardization** of operations and activities for the **benefit of data quality and availability** and **cost efficiency.**

(harmonization operation and maintenance methods, compability and interoperability to reduce costs, set of parameters, frequency, sampling

WP1: A common strategy - objectives, results

Objective: ***Developing a common strategy for a pan European network of operational coastal observatories to address the challenge of observing the complexity and high variability of coastal areas***

4 major actions:

3 - Organizing a Forum for Coastal Technology: To stimulate the development of new automated systems for the operational monitoring of the coastal marine environment, with the focus on the biochemical compartment. **(JRA)**

4 - Promote access open access to JERICO network: to **external users** for their own experiments and testing **(TNA)** and access to data and services **(SA)**

WP1: A common strategy - objectives, results
Common Strategy: Key elements and definition

Key environmental challenges and knowledge gaps for OCOs:

- Assessment of environmental status (eutrophication and primary production, biodiversity, harmful algae, ocean acidification)

- Better understanding of functioning of coastal ecosystems (trophic chain)

- Trans-boundary pollution transport (concentration of persistent pollutants)

- Control and validation of operational models (hydrodynamic, biogeochemical, transport models (sediment, contaminants, radionucleids)

To address efficiently these challenges, JERICO needs a common consensual strategy covering:

- Integration of existing observing systems into an **harmonized** pan-European framework

- Set a framework for future systems for the operational monitoring of the coastal environment, thanks to common progress initiated on sensors and platforms

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WP1: A common strategy - objectives, results

Common Strategy

- Define the rules for a better coordination at European level
- Launching a European strategic view on OCO
- Creating a JERICO label
- Promote open access to JERICO network
- Provide cross-regional integration and demonstration
- Coordinating networking actions for optimal integration of knowledge and consensus
- Suggest a roadmap for a deployment strategy

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WP1: A common strategy - objectives, results

Towards a Common strategy:

- Present key-environmental parameters measured (to be provided by **WP2 and WP3**)
- **Emerging key-environmental parameters** to be measured (to be provided by **WP1 and WP10**)
- **Sampling requirements** in space and time to address efficiently the needs of the EC Directives and GMES marine services (to be provided by **WP2 and WP9**)
- Elements of **costs and efficiency** of observing systems (to be provided by **WP4 and WP10**)
- Standardization, Quality standards (to be provided jointly by **WP3, 4 and 5**)
- Data dissemination (technology, channel, time constraint, …). (To be provided by **WP 5, 6 and 7**)

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WP1: A common strategy - objectives, results, next events

6 Tasks :

- ***Task 1.1: Set up the scene and implementation plan (M1-M24, INSU, all)***
  - *Rationale and definitions for a common strategy: define and give the orientations for the WPs and to prepare the roadmap for the future*
- ***Task 1.2: Jerico Label (M1-M12, HCMR, PUERTO, HZG, CEFAS)***
  - *Defining a label for coastal observatories, need inputs form WP3 and WP4*
- ***Task 1.3: Forum for Coastal Technology (M6-M48, MI, Ifremer)***
  - *Organisation of an intercalibration experiment of oxygen sensors linked to the 1st FCT at Ifremer. Report will be included in WP4 report.*
- ***Task 1.4: Definition strategy and interfaces with the monitoring of marine biodiversity (M12-M42, NIOZ, all)***
  - *Potential of existing coastal observatories to develop into observatories of biodiversity with interfaces with a biodiversity network.*
  - *Delayed due to Carlo Heip death in autumn 2012.*

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WP1: A common strategy - objectives, results, next events

6 Tasks :

- ***Task 1.5: Roadmap for the future (M24-48, INSU, all)***
  - *Analysis and synthesis of the deliverables of all the WPs to elaborate recommendations for new implementations of coastal observatories (cost/benefit, levels of running costs, optimization of existing funding, proposing a pan European governance, …),*
- ***Task 1.6: User access for the Trans National Activities (M1-M26, CNR, all WP8 partners)***
  - *2 calls for Trans National Access to existing infrastructures*

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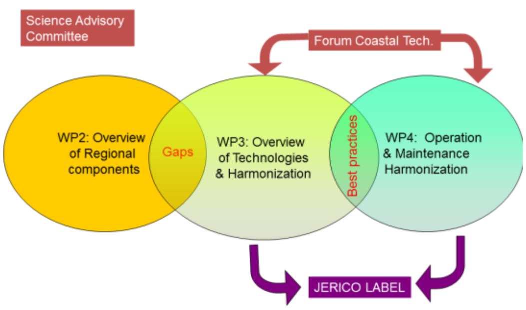
WP1: A common strategy - objectives, results
Coordination between NAS Workpackages



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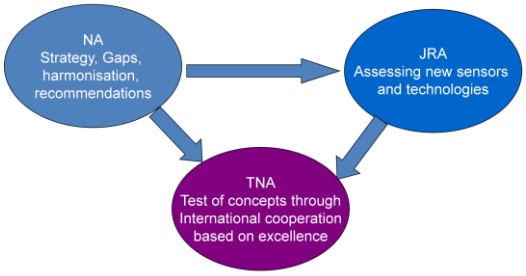
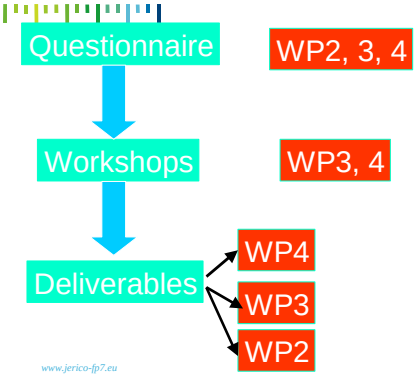
events
Interactions and feedbacks between project activities



Existing synergies between NA, JRA and TNA : speed up implementation of new technologies and generate adding values within the project and towards industry

events
Implementation plan: Expected contribution from WP2,3,4



WORKSHOPS:

- Crucial tool for reaching consensus and delivering inputs to the common strategy
- **3 Joint workshops WP3 – WP4** (ferrybox: 30-31. aug. 2011, fixed platforms: 29feb.1mar 2012, gliders: may 2012)

WP1: A common strategy – Main achievements

- Rationale and definitions for a common strategy: launching a European strategic view on OCO, implementation by the WPs

- First Call for TNA proposals jan-mar 2012 (13 proposals received, 11 approved, 2 rejected)
- Preparation of the call-peer review (drafting the call, guidelines for evaluation, setting the selection panel, diffusion on the website, …)

- Terms of reference for the FCT: definition of the role and objectives of FCT (exchange of information between users and providers, …)

- First FCT in Brest (october 2012), sensor intercomparison at Ifremer

- Second Call for TNA proposals jan-mar 2013 (6 proposals received)

WP1: A common strategy – Status of Deliverables

WP 1 - List of Deliverables

Deliverable Number	Deliverable Title	Delivery date	Status
D1.1	First call for TNA proposals	8	Done
D1.2	Rationale and definitions for a common strategy	9	Done
D1.3	Terms of reference of the FCT	9	Done
D1.4	JERICO Label definition	18	postponed
D1.5	Second call for TNA proposals	20	Done
D1.6	First report of the FCT activity	24	end of June 2013
D1.7	First report of the access activity	24	Done

WP1: A common strategy – Status of Milestones

Scheduled Milestones

Milestone Number	Milestone Name	Delivery date	Comments	Status
MS5	First Steering committee outputs	9	First Steering committee report	Done
MS6	Infrastructure available for users	11	Call	Done
MS7	First Forum for coastal technology	18	First forum report	Done
MS8	Second Steering committee outputs	18	Second Steering committee report	Done
MS9	Third Steering committee outputs	27	Third Steering committee report	Done
MS10	Second Forum for coastal technology	30	Second forum report	postponed

WP1: A common strategy – Next Steps

- Second Call for TNA proposals jan-mar 2013 (6 proposals received) – evaluation procedure underway. (D1.5 and D1.10)

- Second Forum for Coastal Technology (MS10, D1.8)

-Definition strategy and interfaces with the monitoring of marine biodiversity (task 1.4, D1.9)

-4th and 5th Steering Committee (MS11 and MS12)

- Roadmap for the Future (MS14 and D1.11)

WP1: A common strategy – Next Steps

Next Deliverables

WP 1 - List of Deliverables			
Deliverable Number	Deliverable Title	Delivery date	Status
D1.8	Second assessment of the FCT activity	36	
D1.9	Proposed strategy of the access activity	36	
D1.10	Second report of the access activity	42	
D1.11	Final Report	48	

WP1: A common strategy – Status of Milestones

Next Milestones

Scheduled Milestones				
MS11	Fourth Steering committee outputs	36	Fourth Steering committee report	
MS12	Five Steering committee outputs	45	Five Steering committee report	
MS13	User report of activities	47	Final report	
MS14	Roadmap for the future	48	Final report	

3.2.4. WP2: Strengthening regional and trans-regional activities by Henning Wehde -IMR

Slides are available on the following pages.

Tasks presentation

This WP is co-lead by Patrick Gorringe, from EuroGOOS. In this WP, there are 7 partners, 2 tasks, 5 deliverables

List of deliverables:

- D 2.1, Report on existing observation network from all ROOs : review of the present status of the observation systems provided by EuroGOOS
- D2.2, Report recommendations for future research and developments: the aim is to provide an overview of the main challenges that existing observational systems are facing. This will help providing an integrated status of the marine environment and to identify knowledge gaps.
- D2.3, Integrated pan European Atlas/first report on Coastal Observing systems. H. Wehde should provide a draft of this report by the end of the month.
- D2.4, Demonstration of the feasibility of joint trans-regional product, E-HYPE: development and set up of an operational hydrological forecast tool for delivering high-resolution real-time and forecast fluxes of water and nutrients to Europeans seas; demonstration of a possible approach to a pan European transport.
- D2.5, Integrated pan European Atlas/second report on Coastal observing systems: the aim is to provide an updated overview and reference to the existing European observing systems at the end of the project.

Issues, Next steps, agenda of activities:

Most of the deliverables are late, but with the finalisation of deliverable D2.3 (expected delivery of Version 1.0 by the end of June) the WP2 is on track again. The next meeting dedicated to WP2 will be in connection to the EuroGOOS annual meeting (19th November). WP2 will also contribute to the main strategy for the future coastal observatories.

INGV should contribute a little more to the effort on the Mediterranean Oceanography Network for the Global Ocean Observing System (MONGOOS). There is a severe lack of data from the Mediterranean MONGOOS observatories.

Key points and discussions:

J.M. Beckers: What are the specific aspects of JERICO comparing to EuroGOOS?

H. Wehde : EuroGOOS is on a larger scale, JERICO is on coastal observatories. EuroGOOS is mainly focusing on physical parameters. JERICO could have an added value.

D. Mills: Are they planning to make deliverable dynamic?

H. Wehde: deliverables are contributing to the overall picture; it has to be updated in the future.

D. Mills: In 2014, member states must have their national monitoring programme. Fixed platforms will be important this year.

H. Wehde: We can't see JERICO has one part. We have to include and to combine with others consortiums working on observation and to participate to the national monitoring programme.

D. Mills: Concerning the pan European map, each member state has to be very clear on how we will assess good environmental status. It does seem to me to be a valuable exercise to say what each country is doing on this topic. Regarding collecting data, how does each country define the good environmental status? Each partner within JERICO could share information about it, as there is a lack of information across Europe on this topic.

B. Karlson: if we address everything from the integrated marine policy there are a lot of themes and descriptors, and indicators inside the descriptors. For generating these indicators, of course we need data; that is to say we need data and to ensure the sustainability of these data.

P. Farcy: During the last JPI Oceans meeting, we stressed to the JPI Oceans that the sustainability of the entire chain is essential from data acquisition and to its delivery. As a second proposal, we insist on the link between data management and research.

A dynamical map is an interesting point, it can be done within EuroGOOS, and of course JERICO will contribute to that activity.

H. Wehde: we don't have to think only JERICO, but to integrate the overall picture.

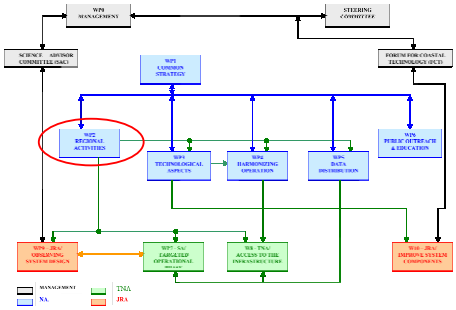
The overall challenge is to coordinate these activities to have an "operational maturity" in order to "find the information (descriptor as example)" in the large amount of complex data.

JERICO MID TERM REVIEW

Wp 2

Strengthening regional and trans-regional activities

2013, June 18/19th - UPMC - Paris



WP 2 Regional activities
Partners in WP2

Co leaded by Patrick Gorringe, EuroGOOS

• Arctic ROOS	IMR
• BOOS	SMHI
• NOOS	Deltares and IMR
• IBI ROOS	IH and AZTI
• MONGOOS	INGV
• Black Sea	IO-BAS

7 partners, 2 tasks, 5 deliverables

Task 2.1: State of the Art in Coastal observing systems

*Henning Wehde – **IMR**, SMHI, Deltares ,IH, AZTI, INGV, IO-BAS*

Task 2.2 Cross regional integration and demonstration

*Chantal Donnelly - **SMHI**, IMR, Deltares ,IH, AZTI, INGV, IO-BAS*

Deliverables:

D-2.1Report on existing observation network from all ROOSs

D-2.2 Report on recommendations for future research and developments for filling gaps in the areas where observations are unattainable due to lack of best practice or technologies from all ROOSs

D-2.3 Integrated Pan European Atlas/first report on Coastal Observing systems, update at the end of the project

D-2.4 Demonstration of the feasibility of joint trans-regional product production Transports and E-HYPE

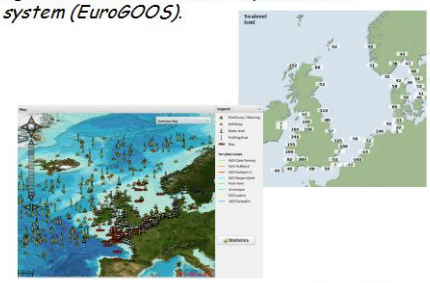
D-2.5 Integrated Pan European Atlas/second report on Coastal Observing systems, update at the end of the project

Deliverables status:

D-2.1Report on existing observation network from all ROOSs

A review of the present status of the observation systems provided by the regional Alliances of the European Global Ocean observing system (EuroGOOS).

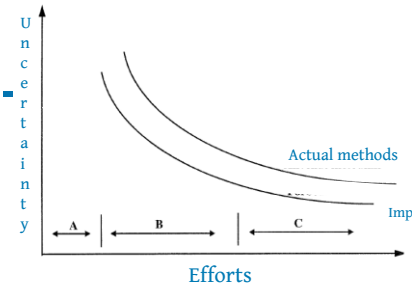
- *Arctic ROOS*
- *NOOS*
- *BOOS*
- *IBIROOS*
- *MONGOOS*
- *Black Sea GOOS*



D-2.2 Report on recommendations for future research and developments

The main aim for this report is to provide an overview of the

- *main challenges the existing observational systems are facing to provide an integrated status of the marine environment*
- *to identify knowledge gaps, that are recommended to fill within the upcoming years.*



Reducing uncertainty

A : too scarcely evolved efforts

B : more frequently measurements lead to improvement

C : New methodology needed for improvement

Central challenges

Arctic ROOS	NOOS	BOOS	IBIROOS	MONGOOS	Black Sea GOOS
Climate Change	Climate Change	Climate Change	Climate Change	Climate Change	Climate Change
Water masses distribution		Water masses distribution	Water masses distribution	Water masses distribution	Water masses distribution
	Water transport	Water transport		Water transport	Water transport
	Water exchange	Water exchange		Water exchange	Water exchange
Mixed Layer	Mixed Layer	Mixed Layer	Mixed Layer	Mixed Layer	Mixed Layer
Acidification	Acidification	Acidification	Acidification	Acidification	Acidification
Model validation	Model validation	Model validation	Model validation	Model validation	Model validation
Production basis	Production basis	Production basis	Production basis	Production basis	Production basis
Biodiversity	Biodiversity	Biodiversity	Biodiversity	Biodiversity	Biodiversity
Climate effects	Climate effects	Climate effects	Climate effects	Climate effects	Climate effects
	Eutrophication	Eutrophication		Eutrophication	Eutrophication
	Harmful algae	Harmful algae	Harmful algae	Harmful algae	
Alien species	Alien species	Alien species	Alien species	Alien species	Alien species
Management plan; MSFD	Management plan; MSFD	Management plan; MSFD	Management plan; MSFD	Management plan; MSFD	Management plan; MSFD

Periods important for processes

North Sea/Skagerrak	J	F	M	A	M	J	J	A	S	O	N	D
Nutrients												
Production basis (abiotic)	x	x	x	x	x			x	x			
Eutrophication	x	x			x	x	x	x				
Longtransport vs. lokal impact			(x)	x	x	x						
Oxygen(bottom water)	x	x					x	x	x	x		
Management plan	x	x		x	x	x	x	x				
Nutrient dynamic	x	x	x	x	x	x		x	x	x		
Acidification (DIC)	x			x				x		x		
Physical oceanography												
Transport		x	x	x	x	x	x	x	x	x	(x)	
Ventilation		x	x	x	(x)			x	x	x	(x)	
Mixed layer/ stability		(x)	x	x	x	(x)	(x)	(x)	x	x	x	
Climate effects		x	x	x	x	x	x	x	x	x	x	
Modell validation	x	x	x	x	x	x	x	x	x	x	x	X
Phytoplankton												
Production basis/ Primary Production		x	x	x	x	x	x	x	x	x		
Biodiversity		(x)	x	x	x	x	x	x	x	(x)		
Climate effects			(x)	x	x	x	x	x	x	x	x	
Eutrophication/environmental status		x	x	x	x	x	x	x	x	x		
Harmful algae/ blooms			x	x	x	x	x	x	x	(x)		
Alien Species			x	x	x	x	x	x	x	x	x	
Management plan		x	x	x	x	x		x	x	x		
Zooplankton												
Production basis/Primary production	x		x	x	x	x	x	x	x	(x)		
Biodiversity			x	x	x	x	x	x	x			
Climate effects			x	x	x	x	x	x	x			
Alien Species							(x)	x	x	x	(x)	
Management plan			x	x	x	x	x	x	x			

Central issues

- Attention to functioning of present Arctic Ocean ecosystem and with respect to climate change and expected change in productivity, human activities (Arctic)
- Attention to fresh water inflow and validation of forecasting models; sustainability of

  existing observational system and development towards to eco-system approach and MSFD-indicator needs and assessments (North Sea Region).
- Attention for the monitoring the climate variability, improvement of LT stability for

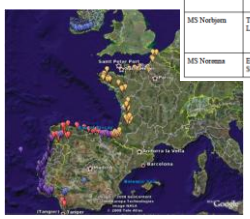
  T&S and oxygen along the water column (Baltic Sea Region)
- Attention to growth, and impact from extraction use of natural marine resources

  (Atlantic front of Europe IBIROOS–region)

D2.3 Integrated Pan European Atlas/first report on Coastal Observing systems

The main aim for this deliverable is to provide an overview over and reference to the existing European observing systems. The aim is to include all the available observing systems in the seas around Europe.

Name of the Ship	Route	Dataprovider	Variables cove
MS Vesterålen	Bergen (N)-Kirkenes (N)	IMR	T, S, Diss. Ox Fluorescence
KV TOR	West Coast Norway; Coastwatch ship, no regular route	IMR	T, S, Diss. Ox Fluorescence,
MS Bergensfjord	Bergen(N)-Hirtshals(DK)	NIVA	T,S, Turl Fluorescence, nutrients, Oxyg
MS Trollfjord	Bergen (N)-Kirkenes (N)	NIVA	T, S, Fluoresc Oxigen, Nutrients, irrad radiance, wind
MS Norbjørn	Tromsø (N)-Longyearbyen (N)	NIVA	T, S, Fluoresc Oxigen, Nutrients, irrad radiance
MS Norønna	Esbjerg (DK)-Seydisfjord (IS)	NIVA Matlab	T, S, Fluorescen



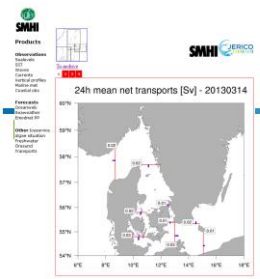
D2.4 Demonstration of the feasibility of joint trans-regional product production Transports; E-HYPE

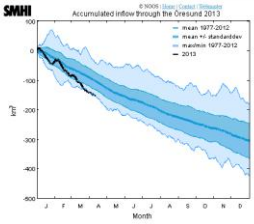
This report focusses on:

- *Development and setup of an operational hydrological forecast tool for delivering high-resolution real-time and forecast fluxes of water and nutrients to European Seas.*
- *Demonstration of an possible approach to a pan-European transport product.*

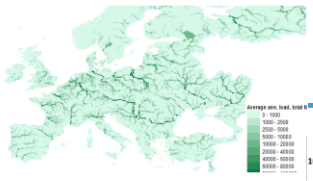
The hydrological data is intended as an improvement to the discharge climatologies and constant nutrient concentrations traditionally used by oceanographers as input to physical and biogeochemical ocean models.

The transport calculations are useful for customers interested in movement of water masses e.g. oceanographers, environmental organisations or fisheries.

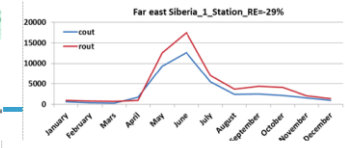


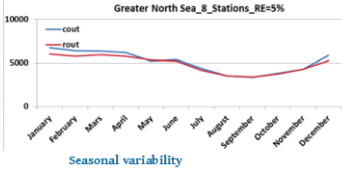


Transport

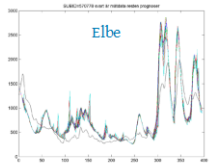


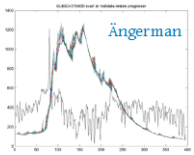
Total Nitrogen flux





Seasonal variability





Forecasts

D2.5 Integrated Pan European Atlas/second report on Coastal Observing systems

The main aim for this deliverable is to provide an updated overview over and reference to the existing European observing systems at the end of the project. The aim is to include all the available observing systems in the seas around Europe.

ISSUES, Next steps, agenda of activities

- *Most of the Deliverables were late, but with the finalisation of Deliverable D 2.3; expected delivery of Version 1.0 End of the Month the WP 2 is on track again*
- *Next dedicated WP 2 partners meeting in connection to the EuroGOOS Annual meeting (aim 19th of November)*
- *Contribution to the main strategy for future Coastal observatories*

3.2.5. WP10: Improved existing and emerging technologies by Glenn Nolan-MI

Slides are available on the following pages.

Tasks presentation

WP 10: JRA emerging technologies (Improve system components). The main objective of this WP is to improve system components, and to make recommendations.

6 keys subtasks in WP 10:

- Biological compartments
- Contaminants
- Profiling technology
- VOS
- Quality insurance for FerryBox data
- SPM inter comparison: no cost implication for the project. To what extend can we use buoys information?

Because most deliverables have to be delivered by the end of the project, the time already spent on this WP mainly focused on field aspect to the demonstration.

→ *Task 10.1: "Monitoring of key biological compartments and processes"*

This task is dealing with acquisition techniques and analysis of in situ sediment profile images to infer the ecological quality status of benthic habitats using either existing or newly developed indices.

The video imaging provides single snapshots showing water sediment interface, biological phenomena, classification of the object thank to video imaging. The technic is based on image recognitions technique.

One of the main scientific question is "How does a specie dominate a sediment?"

The objective is to try to have an end to end plankton community. Future developments of in situ systems dedicated to the zooplankton community are taken in account.

In the framework of JERICO, it is planned to have common softwares dedicated to image analysis and data management for flowcam, Zooscan. Other instruments are taken in account for other size ranges.

Working progress 2011-2012: 3 testing different softwares:

- Develop an integrated suite of softwares
- Test different protocols for sampling

- Testing different software settings for optimization of the (semi-)automatic recognition of plankton groups and additional collection at point B. This work has just started and is on progress.

→ Task 10.2.1: "Contaminants"

This task is dealing with development of physico-chemical sensors and their implementation on new platforms.

A prototype of chemical extractor has been tested between Oslo and Kiel in the framework of "Chem. Mariner" project. In this context, Polyethylene membranes are/were brought to laboratory for analyzing of PAH, PCB and some pesticides.

→ Task 10.2.2: "Development and implementation of sensors for the algal pigments on ships"

This task is aiming at reviewing existing instruments for spectral measurements. The multivariate analysis of spectral data sets to detect spectrally distinct phytoplankton is on the way. The idea is to give assessment on sensors capabilities, particularly for pigment detection.

→ Task 10.2.3: "carbonate system"

This task really focuses on FerryBox sensors. The Franatech pCO2 systems deployed on FerryBoxes have been tested, with the objective to compare the precision between the two measuring systems (pCO2/ and PH) and to have it in a single systems, in a standard FerryBox.

Upcoming activities:

- Combine pH and pCO2 into one system
- Deployment for long term tests on three ship routes (seasons, years)
    - Kattegat/Skagerrak (low saline water, high Chl-a)
    - Coastal areas (Fjords, Rivers mouth)
    - Barents Sea (cold waters/Arctic)
- Long term technical experience
- Long term calibrations experience (NOAA-gas)
- Establish the overall precision and accuracy
    - Comparison and implementation in the monitoring program
    - Hopefully implementation into the monitoring programs?
- Comparisons with other systems
    - GO-System, other membrane systems and other detectors

→ Task 10.3: "Emerging technology – profiling technology, inter-comparison with mature technology"

Profiling today focus on physical parameters of the ocean. EOL profiler: Glenn Nolan has showed the evolution of EOL buoy version. It's now larger and bigger, we are making a full step in profiling.

OGS buoy has been refitted and is ready to use. Tests on float system have been performed in late May. The ARVOR-C (initially named PAGODE) float is to be shipped from IFREMER soon and the experiment is planned for summer 2013.

A weather station has been implemented which is a good way to reach a larger public.

→ *Task 10.4: "Vessels of opportunity: Volunteering observation system"*
Glenn Nolan showed autonomous surface vehicles: kayak, small motorize vehicle, wave ladder…

Laurent Delauney will hold a conference in September on autonomous surface vehicles. Laurent Delauney is working on prototype proposal also (MOBESENS kayak, VAIMOS sailing boat).

Upcoming activities:

- Working plan for Adriatic experiment is presented
- Working plan for Irish Seas experiment is presented
- On national RVs for remainder of 2013
- Deploy on 10 Fishing Vessels in TOP 2014.

→ *Task 10.5: "Ferrybox quality assurance algorithm"*

→ *Task 10.6: "Remote sensing of suspended particulate matter concentration, inter-comparison, with smart buoy and benthic lander (MUMM)"*

- Tripods have recorded extensive data sets of continuous time series of SPM (Suspended Particle Matter) near the bottom.
- Large synoptic scenes of surface SPM concentrations may be retrieved from satellites
- Surface is missing link to the deep via water column description

Next steps in WP10:

- Planned WP10 meeting in late October 2013 in Nice (France).
- Demonstration surveys: scientists from the imaging community are needed!
- Adriatic profiler experiment (summer 2013)
- SOOP demonstration (Brest, October 2013)
- Push ahead with Adriatic and Irish Sea RECOPESCA activity
- 10.5 and 10.6: Ongoing

Key points and discussions:

J.M. Beckers: You showed a lot of interesting developments. Do you have any strategy to promote your work?

G. Nolan: we have mechanisms to open means and interact with industrials, to bring it to the next stage.

J.M. Beckers: Which tool gets the priority?

G. Nolan: The more efficient. It's hard to know for the moment which ones are going to reach commercialisation.

J.M. Beckers: Do you expect to have at the end of JERICO a list of tools which can be use?

G. Nolan: probably at the end of the project, as we should have a better overview.

A. Robin: Image recognition; is it specific to coastal environment?

A. Gremare: no, you can use for deep-sea observation. Sediment profiling can be used until 3000 meters.

P. Farcy: for the WP10 workshop in October, it will be open to the overall community. Teams that can use the tools developed within JERICO will be invited, and some teams sharing the same objective to define the best tool for the future will also be invited. That's the objective of the workshop in October.

J.M. Becker: In WP10, only 25% of the budget planned has been spent. How do you explain it?

G.Nolan: The tasks have started after the other WP. The WP10 Kick off meeting was in March last year. Also CNRS Person-Months are not fully accounted in this task. Indeed CNRS is in charge of the task 10.1 but persons in charge of this task are working in a joint research unit at the University of Bordeaux which is not yet contractually involved in the contract (clause 10). That's why we didn't count their time on the project yet. An amendment to the contract is in preparation.

D. Mills: comment on the software: developing the protocol to rapidly translate information is essential. The operational maturity of the system is also part of what we are doing.

A. Gremare: the complexity of the data makes it independent of the operator, that's why software is a key element for interoperability.

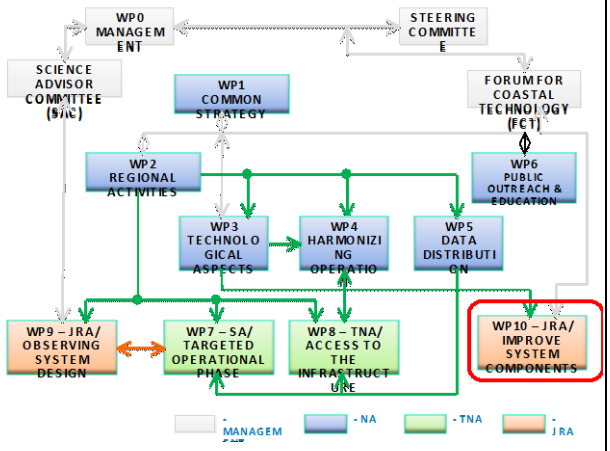
JERICO WP10: JRA EMERGING TECHNOLOGIES (IMPROVE SYSTEM COMPONENTS)

Glenn Nolan and Antoine Gremare

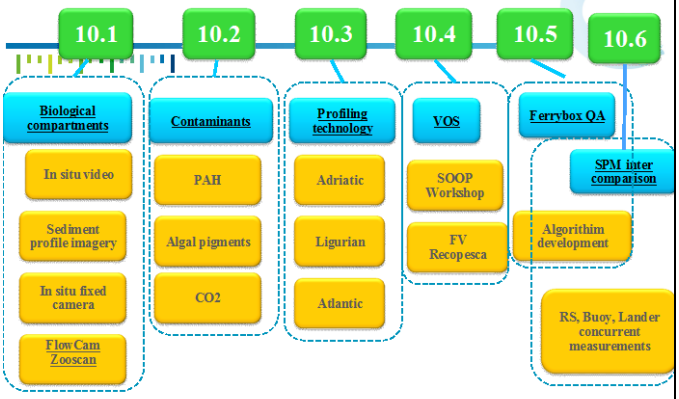
OBSERVING THE COASTAL OCEAN

COURTESY: EUGENE MC KEOWN, BIOSPHERICS LTD

JERICO WP SCHEME



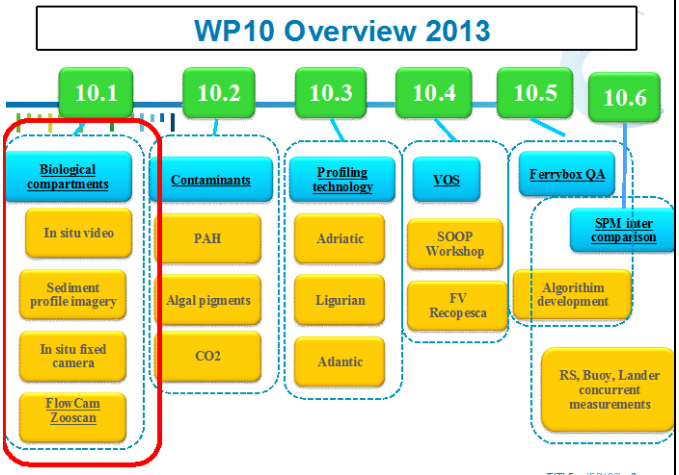
WP10 Overview 2013



DELIVERABLES: WP10

Deliverable Number	Deliverable title	Lead Beneficiary	Estimated indicative person months	Nature	Dissemination level	Delivery date
D10.1	Report on trials and deployment	20	20	R	PU	36
D10.2	Set of software	23	60	R	PU	42
D10.3	Report on data analysis	14	32.5	R	PU	42
D10.4	Report on potential new sensors	1	30	D	PU	42
Total			*142.5*			

WP10 Overview 2013



MONITORING OF KEY BIOLOGICAL COMPARTMENTS AND PROCESSES

J.C Duchene A. Gremare, A. Romero-Ramirez

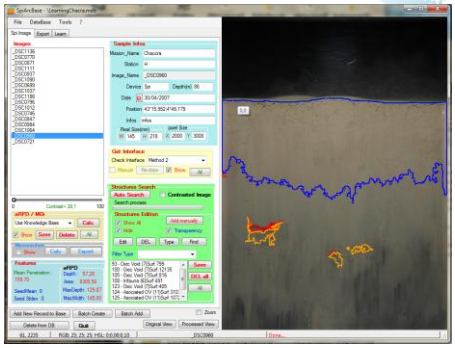
IN SITU SEDIMENT PROFILE IMAGES TO INFER THE ECOLOGICAL QUALITY STATUS OF BENTHIC HABITATS USING EITHER EXISTING OR NEWLY DEVELOPED INDICES

SpiArcBase:

- *Enhance the interpretation of features observed on SPIs*
- *Facilitate image management and structure visualization via a database*

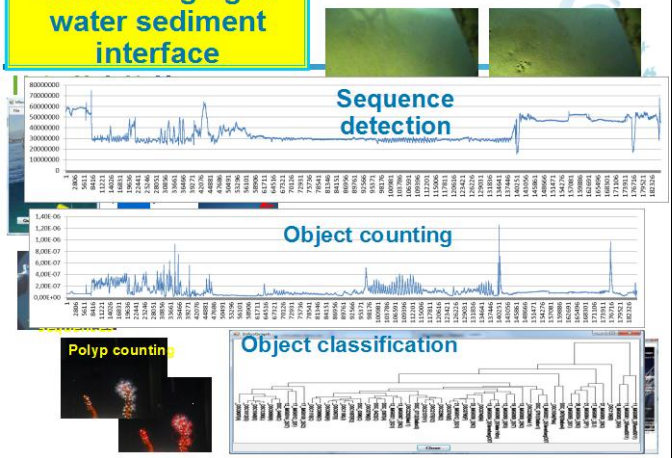
Available to download:

http://spiarcbase.epoc.u-bordeaux1.fr/

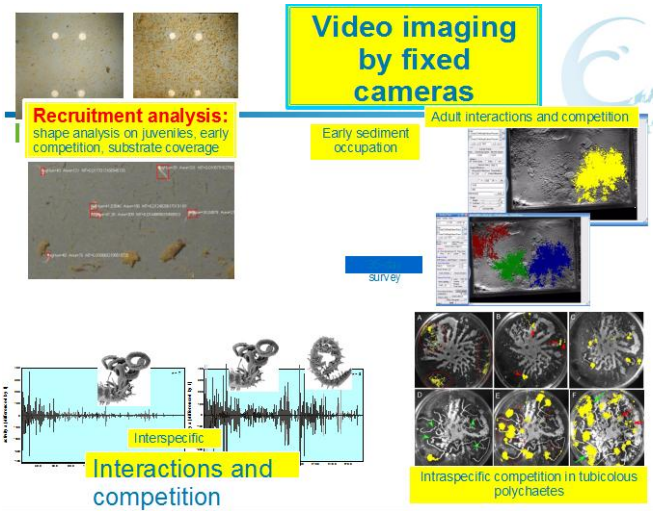


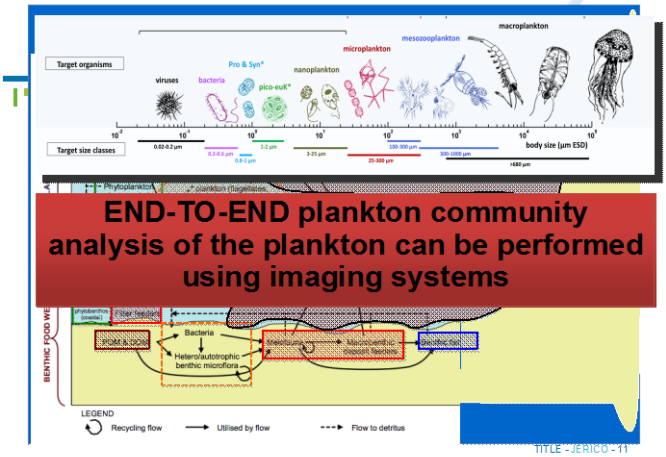
www.jerico-fp7.eu

Video imaging of water sediment interface

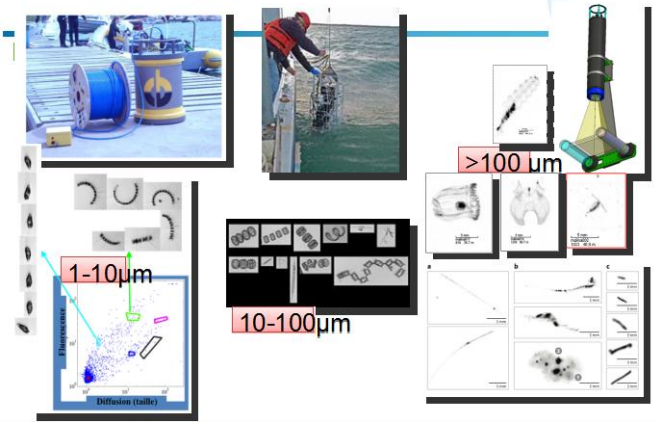


Video imaging by fixed cameras





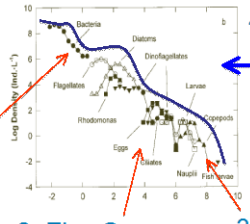
We try to take into account future development of *in situ* systems (cytometer, flowcam and UVP)



Pelagic ecosystem « end to end » monitoring using semi automated imaging systems

DELIVERABLE:
Common software for image analysis and data management for Flowcam, Zooscan.

We try to take into account other instruments (for other size ranges)

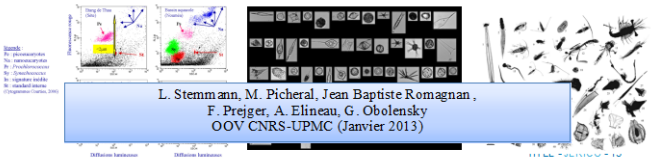


4 UVP, LISS

1: Flowcytometer

2: FlowCam

3: Zooscan



L. Stemmann, M. Picheral, Jean Baptiste Romagnan, F. Prejger, A. Elineau, G. Obolensky
OOV CNRS-UPMC (Janvier 2013)

Working progress 2011 - 2012:

1 **Develop an integrated suite of software:**

Released a first version of zooprocess 7.09 (in February 2012). zooprocess 7.12 has been displayed on the zooscan web page (http://www.obs-vlfr.fr/LOV/ZooPart/ZooScan/).

2 **Test different protocols for sampling:**

Samples have been collected weekly with Niskin bottles and different nets (50, 100, 200 and 680 µm meh size) to collect protozoa and metazoa.
Samples have been analysed using the FlowCam and Zooscan.
The full analysis has been completed in summer 2012.

3 **Testing different software settings** for optimization of the (semi-)automatic recognition of plankton groups. and additional collection at Point B. This work has just started.

TITLE - JERICO - 14

Publications based on JERICO

•Pieter Vandromme, **Lars Stemmann**, Carmen Garcia-Comas, Léo Berline, Xiaoxia Sun, Gaby Gorsky (**2012**) Assessing biases in computing size spectra of automatically classified zooplankton from imaging systems: A case study with the Zooscan integrated system. Methods in Oceanography, doi:10.1016/j.mio.2012.06.001

•**Lars Stemmann**, Marc Picheral, Lionel Guidi, Fabien Lombard, Franck Prejger, Hervé Claustre, Gabriel Gorsky (**2012**) Assessing the spatial and temporal distributions of zooplankton and marine particles using the Underwater Vision Profiler. CNRS Edition, ed. Françoise Gaill, Yvan Lagadeuc et Jean-François Le Galliard

•**Lars Stemmann** & Hervé Claustre & Fabrizio D'Ortenzio (**2012**) Integrated observation system for pelagic ecosystems and biogeochemical cycles in the oceans CNRS Edition, ed. Françoise Gaill, Yvan Lagadeuc et Jean-François Le Galliard

t

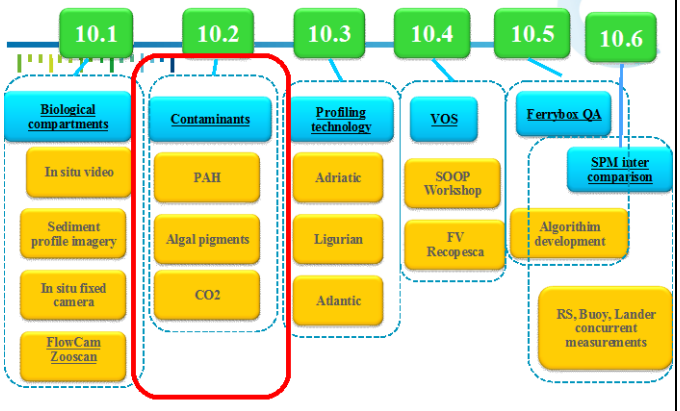
TITLE - JERICO - 15

JERICO WP10: JRA TASK 10.2. ALGAL PIGMENTS AND CARBONATE SYSTEM

Wilhelm Petersson, Jukka Seppala, Kai Sorenson

TITLE - JERICO - 16

WP10 Overview 2013



TITLE - JERICO - 17

TASK 10.2:

DEVELOPMENTS OF PHYSICO-CHEMICAL SENSORS AND IMPLEMENTATION ON NEW PLATFORMS

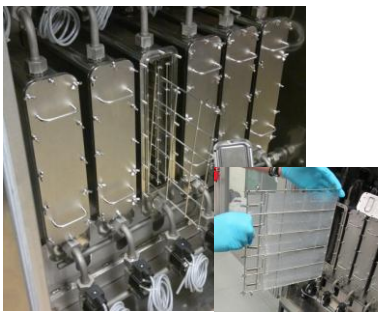
Subtask 10.2.1. Contaminants

Subtask 10.2.2. Algal pigments

Subtask 10.2.3. Carbonate system

TITLE - JERICO - 18

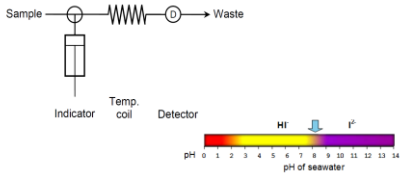
PROTYPE TESTING - «CHEMICAL EXTRACTOR»
CHEM. MARINER PROJECT – TEST OSLO-KIEL

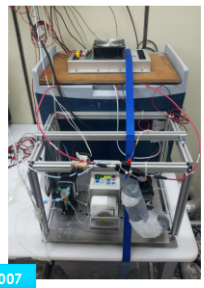


Polyetylene membranes and triolin

Membranes brought to laboratory for analysing of PAH, PCB and some pesticider.

New Spectrophotometric pH – Sensor for Underway Systems





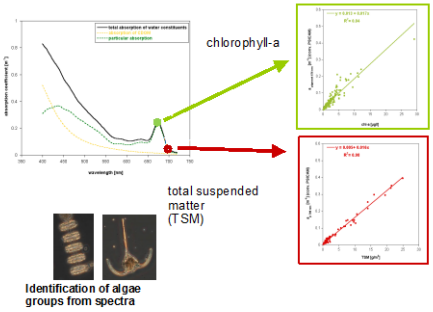
Principle
- Flow-Injection-System (FIA) system using an indicator dye *m*-Cresol purple
? Determination of the concentration of the indicator acid (HI^-) / base (I^{2-}) due to different absorption spectra (= absolute method)
? Calculation of the pH value using Henderson–Hasselbach equation

Results:
- labour version ready
- field test successful
- prototypes have to be tested for longer unattended deployment

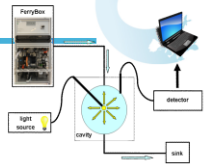
Precision	± 0.0007
Accuracy	± 0.003

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

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



Identification of algae groups from spectra



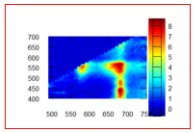
Results:
-prototype successfully tested in the field
-chlorophyll-a data more reliable compared to fluorescence data
-automatically cleaning has to be optimized
-algorithms for algae-group detection have to be developed

WP 10, TASK 10.2.2
DEVELOPMENT AND IMPLEMENTATION OF SENSORS FOR THE ALGAL PIGMENTS ON SHIPS (SYKE, SMHI, NIVA)

(1) Spectral datasets (fluorescence / absorption / reflectance) will be analysed for the detection of phytoplankton pigments (algal groups)

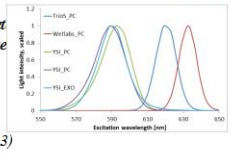
Review existing instruments for spectral measurements
- *Multichannel fluorometers, absorption/attenuation meters, spectroradiometers (2013-14)*

Multivariate analysis of spectral data sets to detect spectrally distinct phytoplankton groups.
- *Main techniques: Principal Component Analysis, Partial Least Squares (2013-14)*
- *Using existing field data*



WP 10, TASK 10.2.2
DEVELOPMENT AND IMPLEMENTATION OF SENSORS FOR THE ALGAL PIGMENTS ON SHIPS (SYKE, SMHI, NIVA)

(2) Commercially available single-wavelength fluorometers for accessory pigments (e.g. phycoeryhtrin) will be te



Review existing fluorometers
- *Lab tests with various instruments (2013)*
- *Survey on phycobilin fluorometer specifications (2013)*

Testing fluorometers for phycoerythrin detection.
- *Tests during research cruise (2012)*
- *Ferrybox measurements (2013)*
- *Lab measurements to support data (2013)*

WP 10, TASK 10.2.2
DEVELOPMENT AND IMPLEMENTATION OF SENSORS FOR THE ALGAL PIGMENTS ON SHIPS (SYKE, SMHI, NIVA)

(3) Instruments measuring phytoplankton variable fluorescence will be tested and measurement protocols will be optimized for transect studies.

Review existing instruments and measuring techniques suitable for FerryBox applications
- *Survey on instrument specifications, their suitability for flow-through measurements (2012-13)*

Testing instruments including optimization of measuring protocols and technical installations.
- *Two instruments (Chelsea & PSI), will be tested and measurement protocols examined and optimized (2012-14)*

NORWEGIAN FERRYBOX NETWORK

- ***Core water sensors***
- *Inlet temperature*
- *Temperature*
- *Salinity*
- *Turbidity*
- *Oxygen*
- ***Biogeochemical***
- *Chl fluorescence*
- *PC Fluorescence*
- *CDOM Fluorescence*
- *pH and pCO2*
- ***Water samples***
- *Chl-a*
- *TSM*
- *Turbidity*
- *CDOM*
- *Nutrients*
- *Algal pigment absorbtion*
- *Algae taxonomy*
- ***Deck sensors***
- *Uppwelling Radiance*
- *Down welling radiance*
- *Downwelling Irradiance*
- *Wind*

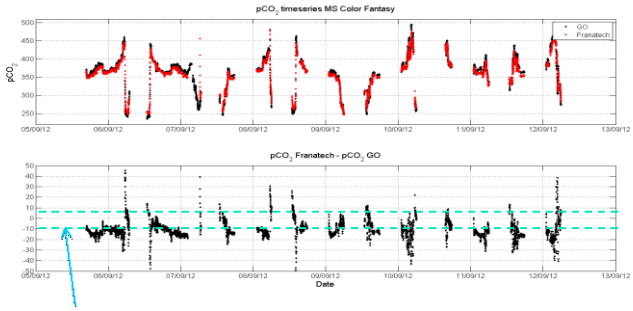
Kai Sørensen, NIVA kai.sorensen@niva.no

FRANATECH PCO2 SYSTEMS FOR FERRYBOX INSTALLATIONS

Flow through system
Uses external pump (Ferrybox)
Water leakage detector
Internal logging and on-line SW
Communication with Ferrybox

Kai Sørensen, NIVA kai.sorensen@niva.no

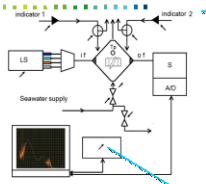
FIELD TESTS BETWEEN GO_PCO2 AND FRANATECH



+/- 2 % accuracy of the calibration gasses

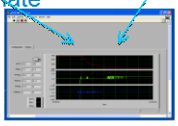
Kai Sørensen, NIVA kai.sorensen@niva.no

COMBINED APPROACH PH AND PCO2 INTO THE FERRYBOX



Physically implemented into the pCO2 will be tested!

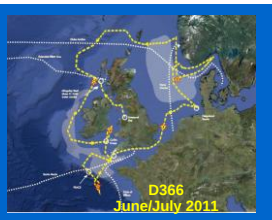
pH and carbonate

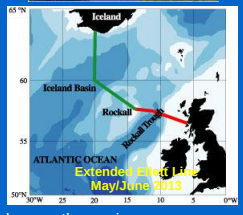


pCO2
Combined in a common labview Software with data from the Ferrybox eg. SST, pressure

Kai Sørensen, NIVA kai.sorensen@niva.no

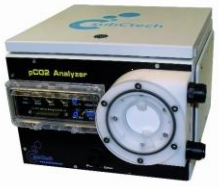
Cruise deployments





System deployed on the three cruises and currently running simultaneously with the PCO2 sensor.

NOC SUBCTECH PCO_2 INSTALLATIONS



- Endeavour during August 2013
- Comparison with CEFAS system
- Area: North Sea

- Finnsea from 2014
- Installation to complement existir
- Area: Finland to Spain

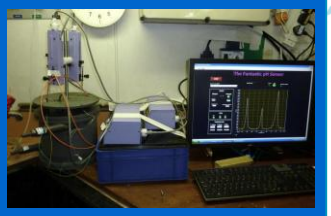
1 Cefas Endeavour

2 Finnlines

Characteristics of the current system

Automated shipboard system

Sample volume= 500 µL
Indicator volume= 12 µL
Frequency: 10 samples/hr
Thymol Blue Indicator
Surface seawater temperature



Accuracy ? 4 mpH (n=20)
Precision= 1 mpH (n=20)

pH system aboard RRS Discovery

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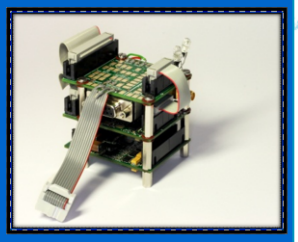
Improved Robustness for JERICO

Removal of PC – integrated controller

- Version 1: PIC microcontroller
  - RS232 interface for FB implemented
- Version 2: Atmel SAM4L
  - Improved interfaces, system control
  - RS232 and USB interfaces
- Development of conformal coasting for improved water resistance



Version 1: sensor system controller

32

Improved Robustness for JERICO

Adaptation of bespoke in-situ syringe pump

- Version 1:
  - Glass barrels
  - Titanium V plungers and quad ring seals
  - Stepper motor screw drive
- Version 2:
  - Titanium II barrels a plungers

Version 2 syringe pump (on nutrient "lab on a chip")

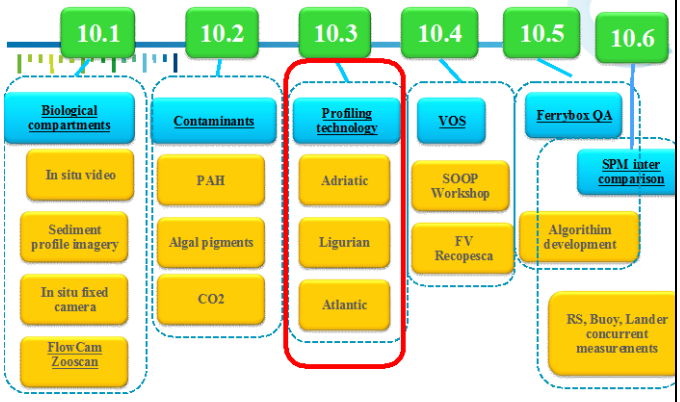
33

Kai Sørensen, NIVA
kai.sorensen@niva.no

FUTURE WORK

- *Combine pH and pCO2 into one system*
- *Deployment for long term tests on three ship routes (seasons, years)*
  - *Kattegat/Skagerrak (low saline water, high Chl-a)*
  - *Coastal areas (Fjords, Rivers mouth)*
  - *Barents Sea (cold waters/Arctic)*
- *Long term technical experience*
- *Long term calibrations experience (NOAA-gas)*
- *Establish the overall precision and accuracy*
  - *Comparison and implementation in the monitoring program*
  - *Hopefully implementation into the monitoring programs?*
- *Comparisons with other systems (Jerico-activity?)*
  - *GO-System, other membrane systems and other detectors*

WP10 Overview 2013



TITLE - JERICO - 35

JERICO WP10: JRA
10.3 EMERGING TECHNOLOGY - PROFILING TECHNOLOGY, INTER-COMPARISON WITH MATURE TECHNOLOGY

L.Coppola CNRS-INSU coppola@obs-vlfr.fr

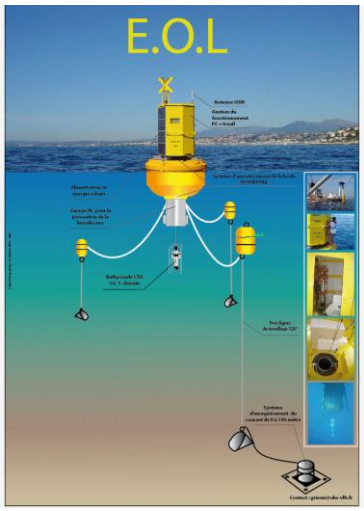
EOL: profiler coastal buoy existing since 2004 in Villefranche/Mer

- Two version: 2004-2008 and 2009-2011

Third version of the buoy still under construction

EOL version 3 progress:

- •Partnership signatures in July 28th between CNRS, University and Mobilis company
- •Top structure finished in June 2011
- •Float has to be bigger (14m3)
- •Installation planned in November 2012



INSERT TEXT

The new EOL buoy version 3 has been deployed in March 29th 2013 in the Villefranche bay.
The new version is larger and bigger than the previous one: 4 tons & 8m height & 3.6 diameter
The CTD profiler has been re-integrated in the buoy which provide one T&S profile every day (0-100m)
Additionally a cytometer has been also integrated for picoplankton & bacteria analysis

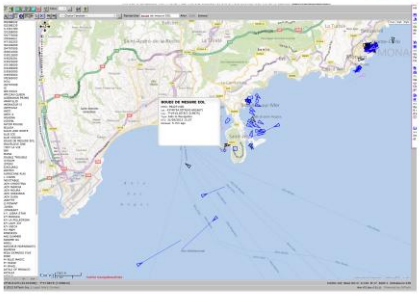
DEPLOYMENT OF THE NEW EOL BUOY VERSION 3 IN VILLEFRANCHE

Weather station has been implemented on the top of the EOL3 buoy with real-time transmission of data weather

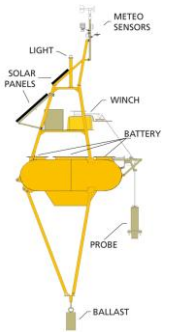
These data are accessible on the web site:
http://vtslite.siitech.com/vtslite/AView.aspx

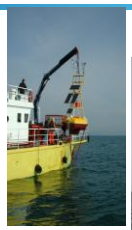
EOL ID = 992271400

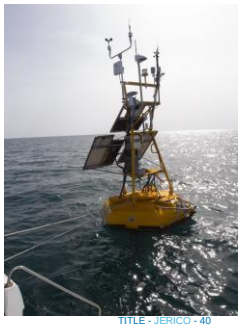
pCO2 CONTROS sensor should be installed in July 2013



THE OGS PROFILING DATA BUOY







OGS UPDATE

OGS buoy has been refitted and is ready to go

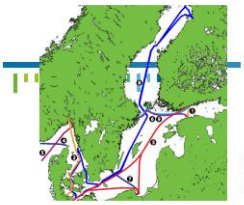
Tests on float tethering system (late May)

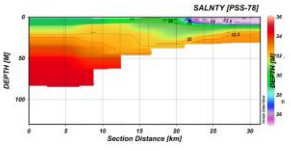
PAGODE float to be shipped from IFREMER soon

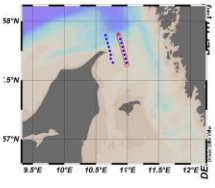
Experiment in summer 2013

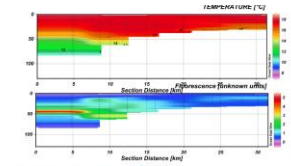
WP10 Demonstration survey the Kattegat-Skagerrak fro

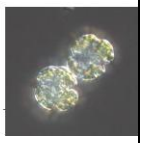
- Aim – describe processes in 3-D
- Three FerryBox routes in the area
- Buoys, one Argo float
- Monthly monitoring cruises
- Short cruises with research vessel in August 2012, May 2013 and June 2013



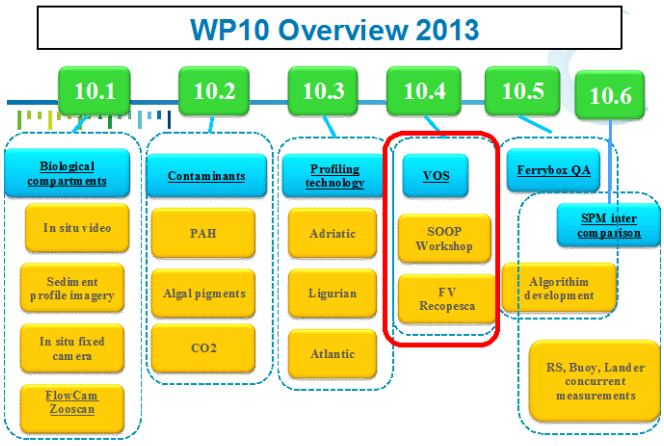








Cooperation with WP3 and 4 and the University of Gothenburg



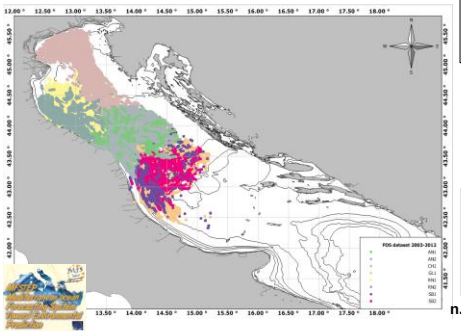
JERICO WP10: JRA TASK 10.4 VESSELS OF OPPORTUNITY

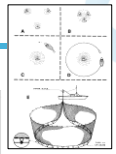
Laurent Delaunay, IFREMER
Michela Martinelli CNR-ISMAR

NEW OBSERVING SYSTEMS FOR SHIPS OF OPPORTUNITY

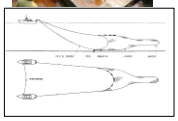
Ifremer – June 2012 – Workshop on Autonomous Surface vehicles

FOS - FISHERY OBSERVING SYSTEM: 7 VESSELS MONITORING THE ADRIATIC SEA SINCE 2003

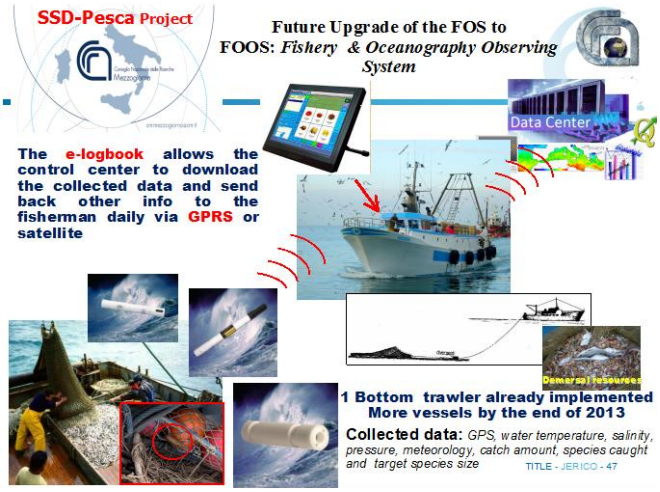




n.1 Purse seine

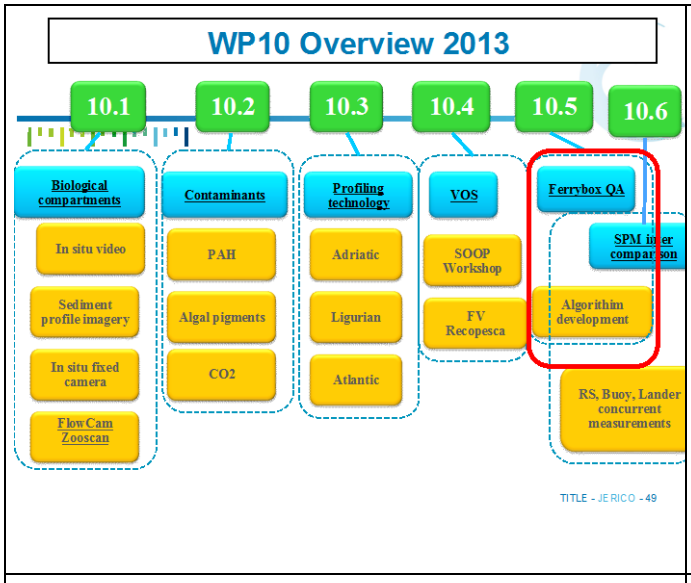


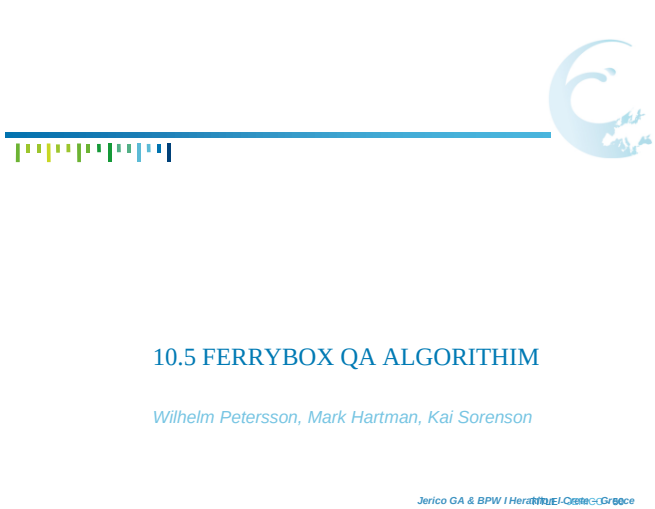
n. 6 Midwater pair trawlers

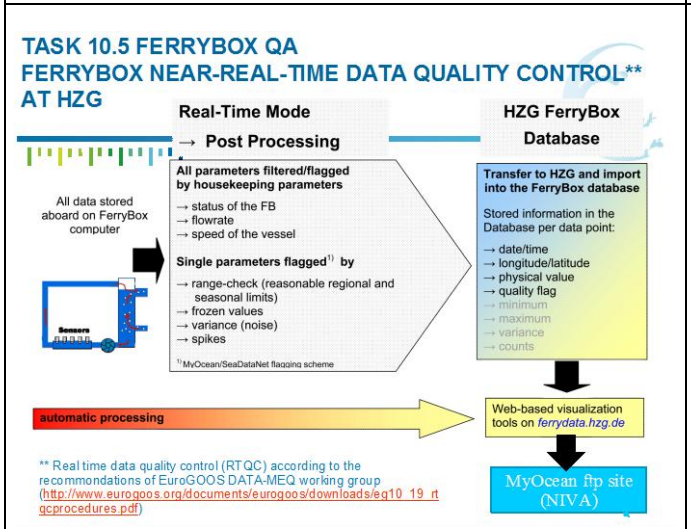


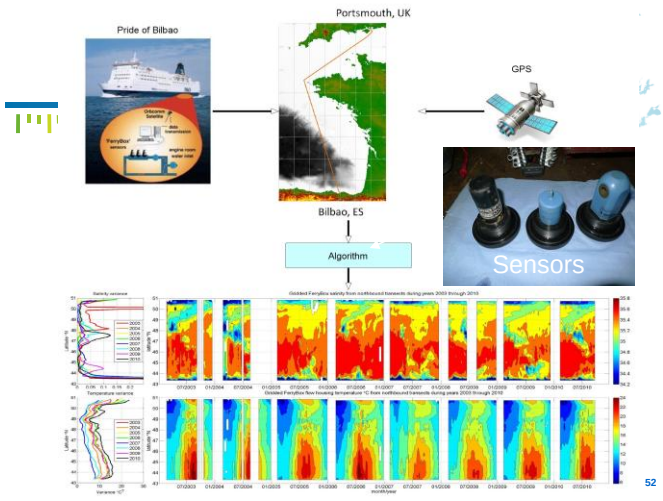
NEW OBSERVING SYSTEMS FOR SHIPS OF OPPORTUNITY

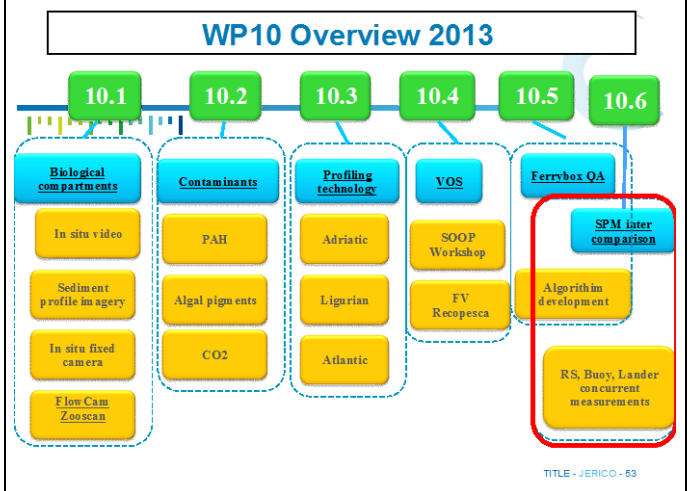
- Considerable work to date by Laurent Delaunay
- Prototype proposal also (MOBESENS kayak, VAIMOS sailing boat)
- Working plan for Adriatic experiment
- Working plan for Irish Seas experiment
- On national RVs for remainder of 2013
- Deploy on 10 FVs in TOP 2014.


WP10 Overview 2013
10.1
10.2
10.3
10.4
10.5
10.6
Biological compartments
In situ video
Sediment profile imagery
In situ fixed camera
FlowCam Zooscan
Contaminants
PAH
Algal pigments
CO2
Profiling technology
Adriatic
Ligurian
Atlantic
VOS
SOOP Workshop
FV Recopesca
Ferrybox QA
SPM inter comparison
Algorithim development
RS, Buoy, Lander concurrent measurements
TITLE - JERICO - 49


10.5 FERRYBOX QA ALGORITHIM
Wilhelm Petersson, Mark Hartman, Kai Sorenson
Jerico GA & BPW I Heraklion-Crete, Greece


TASK 10.5 FERRYBOX QA
FERRYBOX NEAR-REAL-TIME DATA QUALITY CONTROL** AT HZG
Real-Time Mode
→ Post Processing
HZG FerryBox Database
All data stored aboard on FerryBox computer
All parameters filtered/flagged by housekeeping parameters
→ status of the FB
→ flowrate
→ speed of the vessel
Single parameters flagged[1] by
→ range-check (reasonable regional and seasonal limits)
→ frozen values
→ variance (noise)
→ spikes
[1] MyOcean/SeaDataNet flagging scheme
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)


Pride of Bilbao
Portsmouth, UK
GPS
Bilbao, ES
Algorithm
Sensors
52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Biological compartments
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SOOP Workshop
FV Recopesca
Ferrybox QA
SPM inter comparison
Algorithim development
RS, Buoy, Lander concurrent measurements
TITLE - JERICO - 53


JERICO WP10: JRA
Task 10.6
Fritz Francken, Matthias Baeye & Michael Fettweis

Task 10.6: EMERGING TECHNOLOGY – REMOTE SENSING OF SUSPENDED PARTICULATE MATTER CONCENTRATION, INTER-COMPARISON WITH SMART BUOY AND BENTHIC LANDER (MUMM)

Rationale

- ***Tripods have recorded extensive data sets of continuous time series of SPM near the bottom.***
- ***Large synoptic scenes of surface SPM concentrations may be retrieved from satellites***
- ***Surface is missing link***

Smart buoy will allow to link both data and increase match-ups

PASSIVE MEASURING BUOY: TURBIDITY

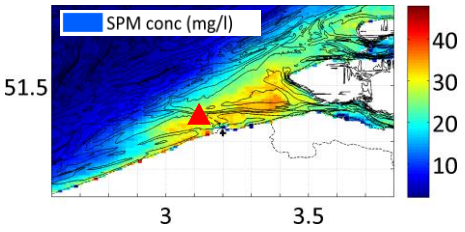
- *Shallow water turbidity meter*
- *OBS-5+ Campbell Scientific, autonomous*
- *+ wiper in order to avoid bio-fouling*
- *in cooperation with*

VLOOT

Mobiliteit en Openbare Werken

Vlaamse overheid

LOCATION

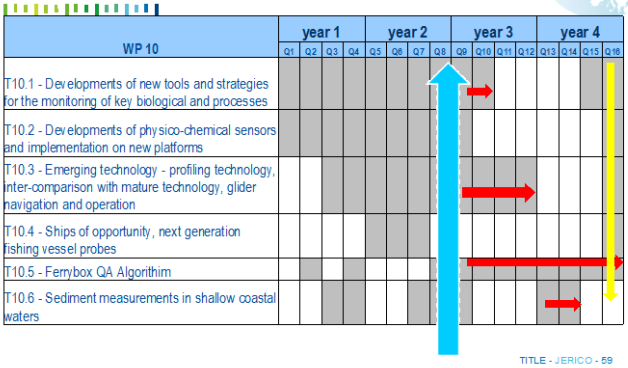


at a water depth of 1-2 m, near MOW1
at a distance of 6 km from Zeebrugge harbor
data will be logged internally over periods of several months (depending on sampling frequency)

WP10: NEXT STEPS

- **Plan WP10 meeting in late October (France)**
- **Demonstration surveys: scientists from the imaging community needed!**
- **Adriatic profiler experiment (summer 2013)**
- **SOOP demonstration (Brest, October 2013)**
- **Push ahead with Adriatic and Irish Sea RECOPESCA activity**
- **10.5 and 10.6: Ongoing**

PROGRESS TO DATE (MID TERM REVIEW)



DELIVERABLES: WP10

Deliverable Number	Deliverable title	Lead Beneficiary	Estimated indicative person months	Nature	Dissemination level	Delivery date
D10.1	Report on trials and deployment	20	20	R	PU	36
D10.2	Set of software	23	60	R	PU	42
D10.3	Report on data analysis	14	32.5	R	PU	42
D10.4	Report on potential new sensors	1	30	D	PU	42
Total			*142.5*			

3.2.6. WP3: Harmonizing Technological aspects by Wilhelm Petersen-HZG

Slides are available on the following pages.

Tasks presentation

General objectives of this WP are:

- To provide a common basis for the operational use of FerryBoxes, gliders, fixed platforms along European coasts;

- To review current status of existing systems in European seas.

- To define best technical solutions for compatible, robust, and cost-effective systems.

- To define procedures for harmonizing and merging quality assessed FerryBox and Fixed platform data at regional (ROOS) level.

- To provide technological solutions for testing and integrate new sensors on the different platforms.

4 workshops have been organized on FerryBoxes, gliders and fixed platforms.

3 Reports on current status of FerryBox systems, glider observatories within Europe and on fixed platforms have been delivered.

They are partly overlaps between WP3 and WP4 concerning best practices on technical solutions. That's why we did a re-definition and clarification of work distribution, including a joint workshop.

- WP3 will focus on best practices with regards to technical solutions including recommendations for installation of new platforms.
- WP4 will focus on best practices for operation, maintenance of each platform and for general sensor calibration for each platform type.

A report on fixed platforms in Europe including sea level stations is presented. The map of fixed platforms in Europe has to be updated. We can see the sea level also on EMODnet.

Summary of the fixed platform report: 89 identifiable marine observing systems are accounted. JERICO partners are involved in nearly 40% of these fixed platforms.

Next steps:

- Harmonization and merging data quality assessed from fixed platform. Standardise the outputs of fixed platforms with other systems such as FerryBoxes.
- Continuous work on deliverable D3.1-D3.3 including regular updates.
- Pushing common real time quality control algorithms for harmonizing and merging data quality assessed from FB systems and other systems onboard ships of opportunity (i.e. fishing vessels) and within ROOS regions. Partly already fulfilled by delivering FB data to MyOcean project.
- Test sites will be the North Sea and Adriatic Sea.
- Comparison of new sensors and assessment for Fixed Platforms (FP) in conjunction with

WP10

- Contributions to deliverable D4.4, best practices for the three different platforms (FB, FP, GL) within the working groups established in Crete.
- Further deliverables : D3.4/D3.5

Key points and discussions:

J.M. Beckers: for fixed platforms, how does someone from outside Emonet or JERICO can give its data?

W. Petersen and P. Gorringe: The best resource to get data is to reach regional database.

A. Robin: on fixed platforms map in Europe, how many platforms on this map and is it reflecting the current regional distribution, in particular in Mediterranean Sea?

W.Petersen: on this map there are 900 platforms, only fixed platforms.

The commission works on integrated monitoring, we need firstly to know what is there before the integration. It's vital to look at complementary, at regional scale also.

P. Farcy: there is a lack of observing systems (platforms) in the Mediterranean Sea and in the Black Sea according to this map.

P. Gorring: There is not much real time data there. For instance in Turkey: everything is stocked to the Mediterranean TAC. But this is slowly shifting. For example 6 months ago, they finally succeeded to get the data from Italy.

JERICO MID TERM REVIEW

WP 3 Harmonizing technological aspects

2013, June 18/19th - UPMC Paris

WP3: HARMONIZING TECHNOLOGICAL ASPECTS OVERVIEW

General Objectives:

- providing a **common base** for the operational use of FerryBoxes, gliders, fixed platforms along European coasts
- reviewing **current status** of existing the different systems in in European seas
- defining **best technical solution** for compatible, robust and cost-effective systems
- defining procedures for **harmonizing and merging quality** assessed FerryBox and Fixed Platform **data** at regional (ROOS) level
- providing technological solutions for **testing and integration of new sensors** (from WP 10) on the different platforms

Mid Term Review - JERICO - 2

WP3: OVERVIEW STRUCTURE

- **Tasks 3.1 FerryBox**
  Lead: Seppo Kaitala, SYKE (since May 2013)
- **Task 3.2 Gliders**
  Lead: Joaquín Tintoré, CISC
- **Task 3.3. Fixed Platforms**
  Lead: Rodney Forster, CEFAS

18 Involved partners:

		IFREMER (FR)	SYKE (FI)	IBWPAN (PL)	NIVA (NO)	OGS (IT)	CNR (IT)	HCMR (GR)	NERC (UK)	HZG (DE)	MUMM (BE)	CEFAS (UK)	SMHI (SE)	CSIC (ES)	NIOZ (NL)	MI (IE)	AZTI (ES)	INSU (FR)	PUERTOS (ES)	Number of partners involved
P.-No.		1	2	3	5	8	9	11	12	14	15	16	17	18	19	20	22	23	26	17
PM		2	4	6	5	4	7	8	13	16	3	8	4	5.5	0	2	3.7	7	6.5	104.7
WP 3.1	FerryBox	o	X	?	X	?	?	X	X	X	X	X	X	?	X	?	?	?	?	9
WP 3.2	Glider	X	?	?	?	?	?	?	X	X	?	o	?	X	?	X	?	?	?	7
WP 3.3	Fixed Platf	X	?	X	?	X	X	X	X	X	o	X	X	?	?	X	X	?	X	13

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WP3: SUMMARY OF ACTIVITIES IN WP3:

WORKSHOPS

Workshops (joint WSs together with WP4) including reports about the WS:

FerryBox:

1st JERICO FerryBox workshop in Geesthacht (August 2011 at HZG)

2nd JERICO FB-workshop in Helsinki (April 2013 at SYKE)

Gliders:

1st Glider workshop together with GROOM* in Palma de Mallorca (May 2012)

Fixed Platforms:

1st Fixed Platforms (FP) workshop in Rome (March 2012 at CNR))

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WP3: SUMMARY OF DELIVERABLES AND MILESTONES STATUS

D 3.1. Report on current status of FerryBox systems
(M09, delivered M14)
Excel tables and maps continuously updated on FerryBox community website (www.ferrybox.org)

D 3.2. Report on current status of gliders observatories within Europe *(M15 postponed to M24, delivered M26)*

D 3.3: Report on current status of fixed platforms
(M21 delivered M26)

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WP3: ENCOUNTERED PROBLEMS AND ISSUES

General:

Partly overlaps between WP3 and WP4 concerning best practise:

Solution:

Re-definition and clarification of distribution of work. including joint workshops

WP3 focus on best practice concerning technical solutions including recommendations for installation of new platforms,

WP4 focus on best practise for operation, maintenance specific for each platform and calibration general for all platforms

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WP3; ENCOUNTERED PROBLEMS AND ISSUES

Fixed platforms:

Efforts for getting an overview (D 3.3) have been underestimated. Very inhomogeneous and high diversity of the systems. Caused a quite long delay of D3.3.

Solution: close link and exchange of information with EMODnet (mainly with the physical portal). Development of a very flexible database able for easy updates and extensions

Gliders:

overlap with GROOM project required coordination and synchronisation with the tasks in GROOM

reason for delay of D 3.2.

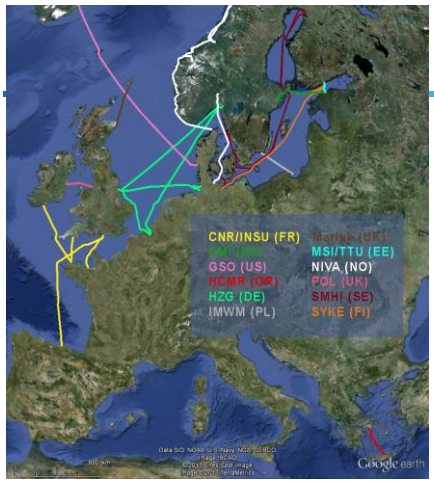
Outcome of Deliverables

D 3.1 REPORT ON CURRENT STATUS OF FERRYBOX

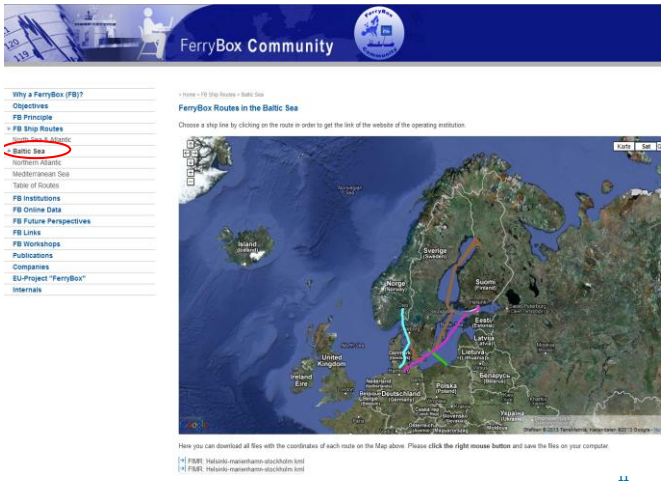
Joint European Research Infrastructure network for Coastal Observatories

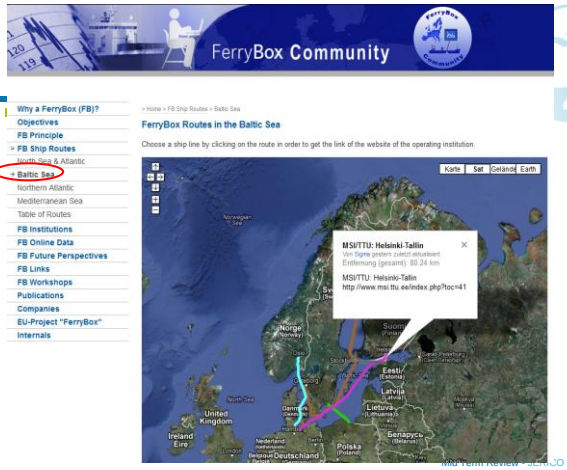
Report on current status of Ferrybox
D 3.1

Table of Contents



D 3.1: Report on Current Status of FerryBoxes in Europe





REPORT ON CURRENT STATUS OF GLIDER OBSERVATORIES WITHIN EUROPE – D 3.2

Joint European Research Infrastructure network for Coastal Observatories

Report on current status of glider observatories within Europe
D#3.2

Grant Agreement n°: 262584

Project Acronym: JERICO

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

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

Authors: Tintoré, J.; Testor P.; D. Smeed; L. Beguery, S. Pouliquen; E. Heslop M. Martinez-Ledesma, S. Cuar, M. Torner; S. Ruiz, L. Marcelballach, P. Knight.

Involved Institutions: CSIC, INSU/CNRS, HZG, IFREMER, NERC

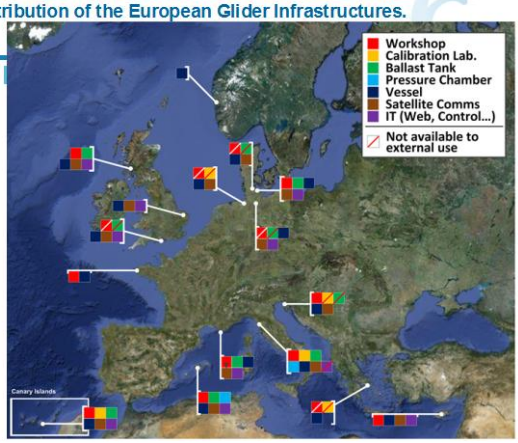
Version and Date: v1.8, 30 May 2013

CONTENT OF D 3.2

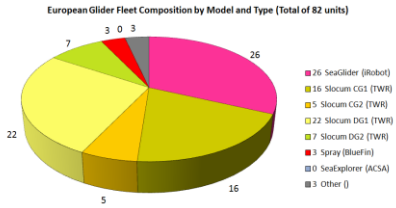
- Review of Glider Observatories in Europe
  - Infrastructure
  - Glider technology and sensors
  - People
- Review of Glider Operations in Europe
  - Activity
  - Problems
  - Type of missions
  - Logistics
- Data Management
- Costs
- Summary

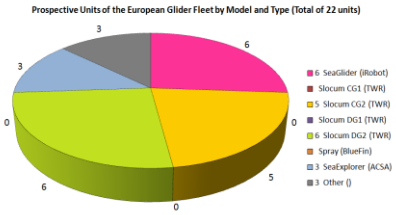
WP 3.2 GLIDERS
D 3.2.
Territorial Distribution of the European Glider Infrastructures.

Each color stands for an existing facility and those marked with an overlapping side bar are not available to be used by an external glider

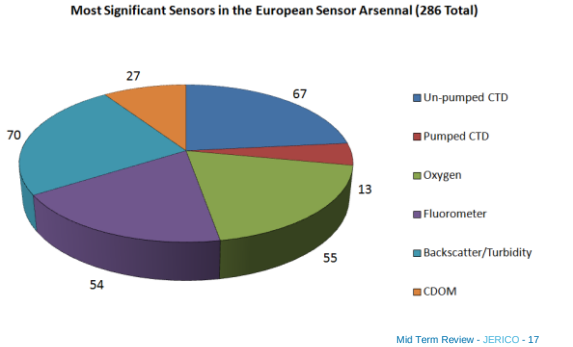


WP 3.2 GLIDERS
D 3.2.





WP 3.2 GLIDERS
D 3.2.



CONCLUSIONS REPORT ON GLIDERS IN EUROPE

- Glider Observatories
  - Limited HHRR (~1 man-year per glider)
  - Low variety of sensors may limit potential glider applications
- Glider Operations
  - Lots of different kind of missions have been performed
  - Gaps in spatial coverage (i.e. South Mediterranean or Gulf of Biscay)
  - Interest in increasing multiplatform experiments
- Data Management
  - Low dissemination both in Real Time and Delayed Mode
  - QC and Validation are key elements to foster gliders
  - Coriolis and EGO Network are good examples of general glider activity monitoring
- Costs
  - High variability in costs depending on each group
  - Moderate costs in personnel with respect to other costs
  - 2011 total investment (~4.1 M€) backs the idea of a a sustainable and cost-efficient European coastal glider observing infrastructure.

www.jerico-fp7.eu


WP 3.3. FIXED PLATFORMS
DELIVERABLE D 3.3.
Joint European Research Infrastructure network for Coastal Observatories
JERICO
Report on current status of fixed platforms
D3.3.1
Content:
•Executive Summary
•Introduction
•Main Report
• Description of Database
• European Overview & Statistics
• Systems
• Stations
• Parameters
•Discussion
•References
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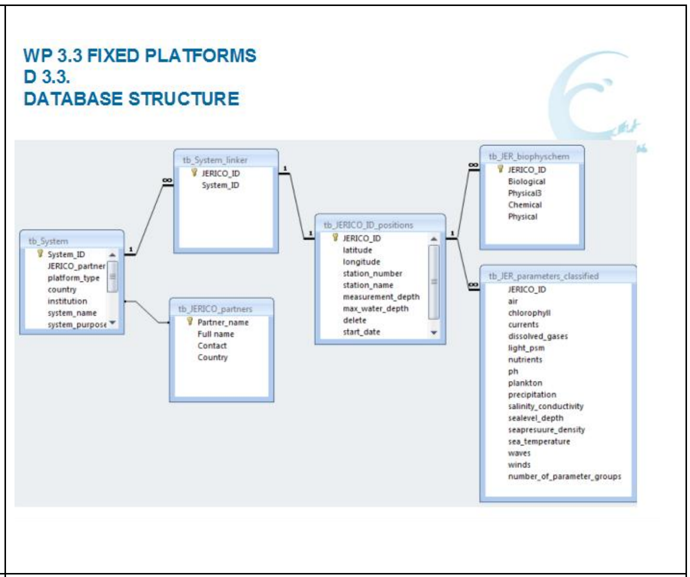
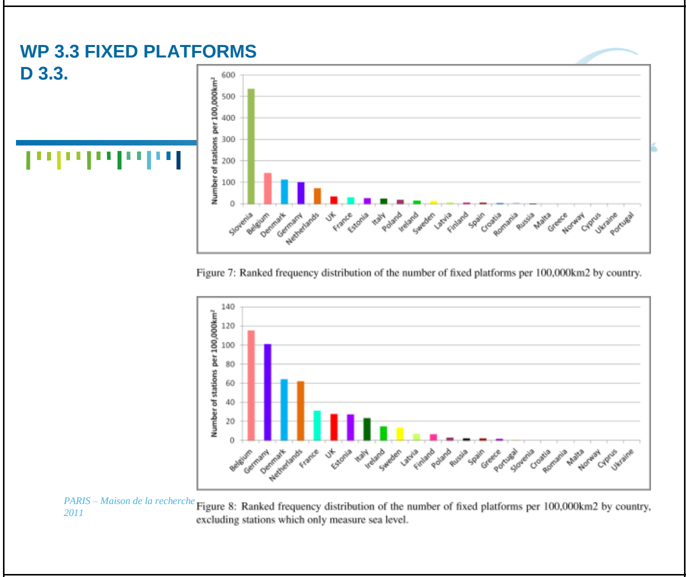
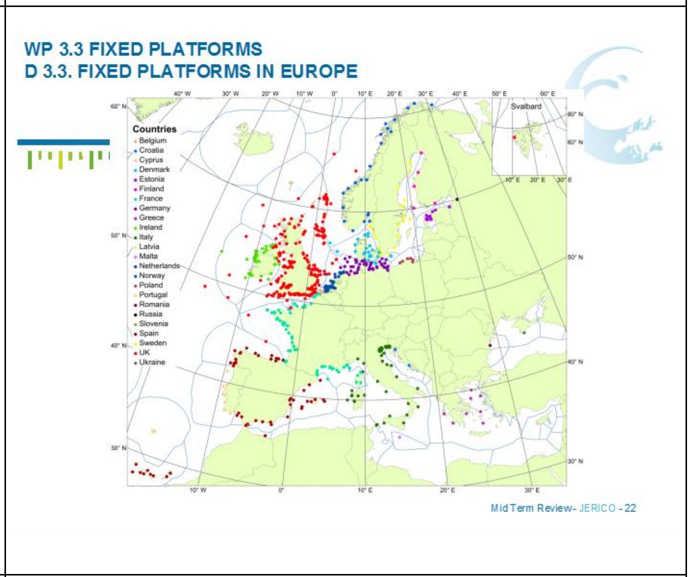
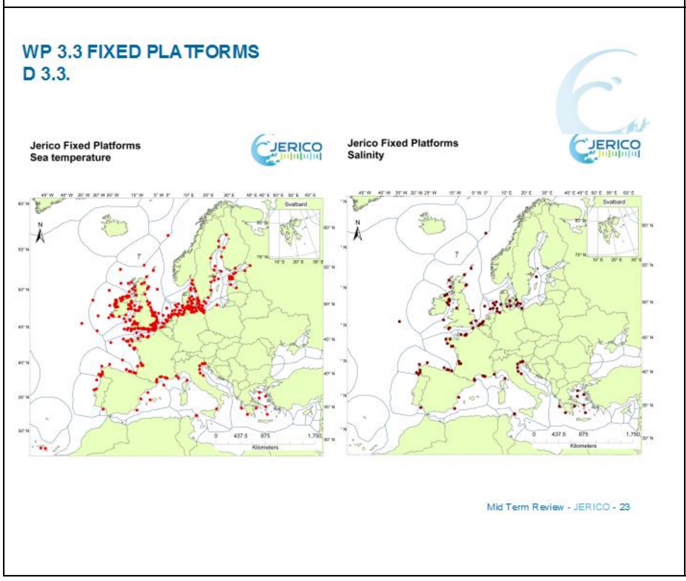
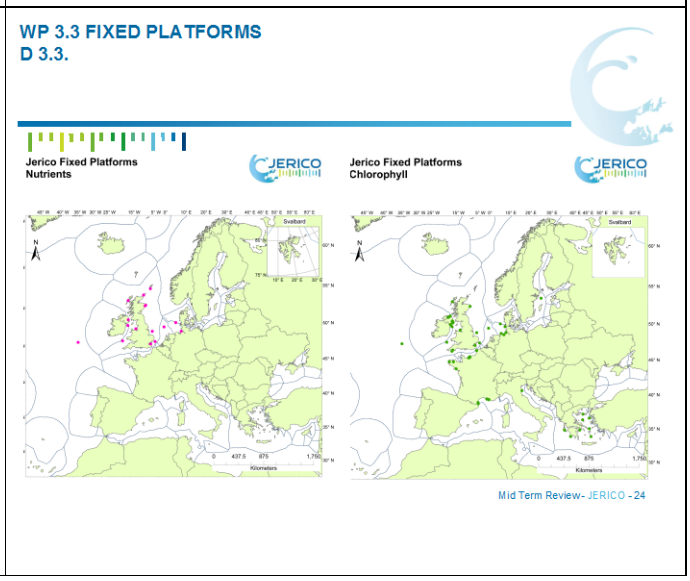

WP 3.3 FIXED PLATFORMS
D 3.3.
DATABASE STRUCTURE
tb_System_linker
JERICO_ID
System_ID
tb_System
System_ID
JERICO_partner
platform_type
country
institution
system_name
system_purpose
tb_JERICO_partners
Partner_name
Full name
Contact
Country
tb_JERICO_ID_positions
JERICO_ID
latitude
longitude
station_number
station_name
measurement_depth
max_water_depth
delete
start_date
tb_JER_biophyschem
JERICO_ID
Biological
Physical3
Chemical
Physical
tb_JER_parameters_classified
JERICO_ID
air
chlorophyll
currents
dissolved_gases
light_psm
nutrients
ph
plankton
precipitation
salinity_conductivity
sealevel_depth
seapressure_density
sea_temperature
waves
winds
number_of_parameter_groups


WP 3.3 FIXED PLATFORMS
D 3.3.
Number of stations per 100,000km²
Slovenia
Belgium
Denmark
Germany
Netherlands
UK
France
Estonia
Italy
Poland
Ireland
Sweden
Latvia
Finland
Spain
Croatia
Romania
Russia
Malta
Greece
Norway
Cyprus
Ukraine
Portugal
Figure 7: Ranked frequency distribution of the number of fixed platforms per 100,000km2 by country.
Figure 8: Ranked frequency distribution of the number of fixed platforms per 100,000km2 by country, excluding stations which only measure sea level.
PARIS – Maison de la recherche
2011


WP 3.3 FIXED PLATFORMS
D 3.3. FIXED PLATFORMS IN EUROPE
Countries
Belgium
Croatia
Cyprus
Denmark
Estonia
Finland
France
Germany
Greece
Ireland
Italy
Latvia
Malta
Netherlands
Norway
Poland
Portugal
Romania
Russia
Slovenia
Spain
Sweden
UK
Ukraine
Svalbard
Mid Term Review- JERICO - 22


WP 3.3 FIXED PLATFORMS
D 3.3.
Jerico Fixed Platforms
Sea temperature
JERICO
Jerico Fixed Platforms
Salinity
JERICO
Mid Term Review - JERICO - 23


WP 3.3 FIXED PLATFORMS
D 3.3.
Jerico Fixed Platforms
Nutrients
JERICO
Jerico Fixed Platforms
Chlorophyll
JERICO
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SUMMARY FIXED PLATFORM REPORT

- majority of station entries in the database contain at least the most basic metadata (i.e. station name or number, location, institution and variables measured)
- Total number of station: 916
- The greatest number of measurements is for physical oceanography,
  - 463 sea level measuring stations,
  - 446 sea temperature stations
  - 237 wave measuring stations were
- few instruments measuring biogeochemical or biological variables, only 8 stations were found to be measuring pH and a further 11 were measuring nutrients.
- 80 identifiable marine observing systems
- 33 of the 80 systems belong to organizations who are partners in the JERICO project
  => JERICO partners are therefore responsible for 39% of Europes fixed platforms

WP3: NEXT STEPS

- Harmonization and merging quality assessed data from fixed platform (T 3.3.3). Harmonise the outputs of fixed platforms with other systems such as FerryBox.
- Continous work on Deliverables D3.1 – D3.3 including regular updates
- *Pushing common real time quality control algorithms for harmonizing and merging quality assessed data from FB systems within ROOS regions (T 3.1.3.). Partly already fulfilled by delivering FB data to MyOcean)*
  Test sites will be the North Sea (Cefas, HZG, Ifremer) and Adriatic (CNR).

WP3: NEXT STEPS (cont)

- Comparison of new sensors and assessment for FPs (T 3.3.4) in conjunction with WP 10
- Contributions to deliverable D 4.4. Best Praxis for the three different platforms (FB, FP, GL) within the working groups established in Crete

Further deliverables:

- D 3.4. Report on new sensor developments (M36 = May 2014)
- D 3.5. Conclusion report (M42 = Oct 2014)

3.2.7. WP4: Harmonizing operation and maintenance methods by Georges Petihakis-HCMR

Slides are available on the following pages.

Tasks presentation

Regarding the WP structure, there are three main tasks:

→ *The first task is dedicated to calibration*, the objectives are:

- To standardise and to harmonise various facilities across European networks: a questionnaire on calibration issues was developed. Results were presented during the 2nd JERICO WP3&WP4 common workshop on fixed platforms in October 2012. The main conclusions are to enlarge the community of operators of in-house calibration facilities, to promote the adoption of accreditation for the calibration, to homogenize calibration approaches and to set up a permanent calibration-working group.
- To share existing calibration facilities within the network, thus significantly reducing costs. The implementation of common calibration exercises was actively discussed.
- To transfer know-how within the network through a series of workshops, seminars and staff exchange.

5 common events between WP3&WP4 were organized.

→ *The second task on bio fouling prevention*, the objectives are:

- To describe all different methods used across the network with reference to the cost and adaptability: a questionnaire on bio fouling was prepared and results were presented during the 2nd JERICO WP3&WP4 common workshop on fixed platform. Emphasis was on which are the most reliable sensors and on the description and evaluation of different methods in terms of actual costs.
- To share best practices and methodologies across the network with the aim to step towards a common approach. In this framework, the three specific workshops on fixed platforms played a significant role. In addition, during the common workshops in Rome and in Heraklion it was decided to perform a common biofouling experiment where selected partner sites will act as test beds.

Working in the frame of a group helped to set up an experiment evidencing what biofouling is doing to our sensors across our network covering from the eutrophic seas in the northern area to the most oligotrophic in the southern area. As a consequence, working in a topical group gave an added value to the experiment.

Marco Faimali (CNR) prepared a device to be deployed for one year by selected partners. The process of biofouling will be recorded through photographs. By the end, samples will be taken and analysed by the CNR.

- To evaluate new methods used by the community external to JERICO, to identify and to suggest possible future implementation. This is a future action. Part of it, will be dealt in the “best practices” actions and it will help us to know what people outside JERICO are doing.

→ *The last task: end to end quality assurance,* the objectives are to:

- Describe best practices in all phases of the system. At the beginning we thought to proceed

with a questionnaire, but during the Rome workshop it was decided for CALIBRATION and BIOFOULING to identify key-persons for each sensor/technology who will lead the work. Their responsibilities include describing the best practices for the sensor calibration of each parameter or group of parameters, distribute the information, recommending methodologies and issue protocols. The work was presented during the Heraklion workshop 4&5th of October 2012 as well as best practices on fixed platforms were discussed and two working groups were formed.

- Adopt common methodologies and protocols. This second objective is a continuous effort with discussions being more and more integrated. During the Heraklion workshop it was decided to produce a white paper for dissolved oxygen sensors and to explore the possibility to design and implement a CO2 calibration experiment in the HCMR calibration facility.

- Move towards the harmonization of equipments, which will help in reducing maintenance and calibration costs. It's also a continuous effort and results will stem out from the common activities within the network. A significant objective of WP4 is to record the "Running costs" associated with each platform.

Next steps:

To strengthen the calibration activities and work towards the milestone "Constitution of a permanent JERICO Working Group for Calibration Activities" we are preparing a COST proposal in September 2013 on calibration.

Key points and discussions:

P. Farcy: about the first experiment on gliders, do you plan it soon?

J. Tintoré: Our next action will be the calibration. The work that we have to do on gliders is much more important that what is written in the DoW. They already have a nice review of glider procedures. CSIC has a good overview on gliders.

P. Farcy: At the GROOM assembly, they said that they were very interested by the white paper (we have to send mails and information to Pierre Testor).

JERICO MID TERM REVIEW

Wp 4 HARMONIZING OPERATION AND MAINTENANCE METHODS

2013, June 18th-19th - UPMC - Paris

WP Structure

Task 4.1 Calibration

Subtask 4.1.1. Physical sensors
Subtask 4.1.2. Optical sensors
Subtask 4.1.3. Chemical sensors

Task 4.2 Bio fouling prevention

Subtask 4.2.1. Physical sensors
Subtask 4.2.2. Optical sensors
Subtask 4.2.3. Chemical sensors

Task 4.3 End to end quality assurance

Subtask 4.3.1. Fixed Platforms
Subtask 4.3.2. FerryBox
Subtask 4.3.3. Gliders
Subtask 4.3.4. Running Costs

Status Task 4.1 Calibration

Objectives

➢*Standardize and harmonize various facilities across European networks*

➢*Share existing calibration facilities within the network, thus significantly reducing costs*

➢*Exchange and transfer know-how within the network through a series of workshops, seminars and staff exchange*

Status Task 4.1 Calibration

1st Objective

➢ ***Standardize and harmonize various facilities across European networks***

✓ *A questionnaire on calibration issues was developed and distributed amongst partners. .*

Results were presented during the 2nd JERICO WP3 & WP4 common workshop on Fixed Platforms CNR, Rome 29th February – 1st March 2012

Conclusions future aims/actions:

- Enlarge the community of operators of in-house calibration facilities.
- Promote the adoption of accreditation for the calibration, and in general work more on the Quality Standards issues.
- Homogenize calibration approaches.
- Set up a permanent calibration-working group

Status Task 4.1 Calibration

2nd & 3rd Objectives

➢ ***Share existing calibration facilities within the network, thus significantly reducing costs***

➢ ***Exchange and transfer know-how within the network through a series of workshops, seminars and staff exchange***

The approach selected also for the 1st objective was discussion during workshops and most importantly common calibration exercises

Common Activities WP's 3&4

- *5 common workshop events between WP3 & WP4*
- *2 calibration exercises /workshops were organised:*

DATE	TITLE	LOCATION
30 -31 August 2011	1st JERICO WP3 & WP4 common workshop on FerryBox	HZG, Hamburg
9th February 2012	1st Calibration and biofouling prevention of optical sensors & sharing of calibration facilities	SYKE, Helsinki
29th February – 1st March 2012	2nd JERICO WP3 & WP4 common workshop on Fixed Platforms	CNR, Rome
22 – 23 May 2012	3rd JERICO WP3 & WP4 common workshop on Gliders	IMEDEA, Palma
4-5 October 2012	4th WP3 & WP4 common workshop on Best Practices	HCMR, Heraklion
10th of October 2012	2nd Calibration exercise, sharing of calibration facilities	IFREMER, Brest
24th April 2013	2nd FerryBox Best Practice Workshop	SYKE, Helsinki

1st Calibration and biofouling prevention of optical sensors & sharing of calibration facilities SYKE, Helsinki 9th February 2012

21 attendants from various partners. Aims of the workshop where:

- *How to perform the primary instrument calibration for fluorometers*
  - *Algae cultures / Solid secondary standards / Chemical standards*
  - *Comparison of instruments*
- *How to perform validation with field samples*
  - *How to deal with the variable fluorescence yield*
- *How to prevent bio fouling*

2nd Calibration exercise on DO, T & C sensors and inter-laboratory comparison, IFREMER Brest 8-12 October 2012.

Sensors	Description
Conductivity/Salinity/Temperature	Calibration at salinity 35 and temperature 5°C
Conductivity/Salinity/Temperature	Calibration at salinity 35 and temperature 15°C
Conductivity/Salinity/Temperature	Calibration at salinity 10 and temperature 15°C
Conductivity/Salinity/Temperature	Calibration at salinity 17 and temperature 15°C
Oxygen/Temperature	Calibration at O2: 100% (air equilibrium or nitrogen/oxygen bubbling) and temperature 20°C
Oxygen/Temperature	Calibration at O2: 100% (air equilibrium or nitrogen/oxygen bubbling) and temperature 10°C
Oxygen/Temperature	Calibration at O2: 50% (nitrogen/oxygen bubbling) and temperature 10°C (salinity: 0)

Status Task 4.2 Biofouling

Objectives

➢All different methods used across the network will be described with reference to the cost (implementation, maintenance) and adaptability (different sensors and areas)

➢There will be sharing of best practices and methodologies across the network with the aim towards a common approach

➢New methods used by the community external to JERICO will be evaluated to identify and suggest possible future implementation

Status Task 4.2 Biofouling

1st Objective

➢ ***All different methods used across the network will be described with reference to the cost (implementation, maintenance) and adaptability (different sensors and areas)***

- ✓ *A questionnaire on biofouling issues was prepared.*
  - ✓ *Version 1 End-October 2011*
  - ✓ *Version 2 Mid-November 2011*
  - ✓ *Deadline End-January 2012.*

Results were presented during the 2nd JERICO WP3 & WP4 common workshop on Fixed Platforms CNR, Rome 29th February – 1st March 2012

Emphasis was on a) which are the most reliable sensors and b) to describe and evaluate different methods in terms of actual costs.

The questionnaire was constructed into two parts, a general part and a part specific to each type of sensor. 18 partners replied with 52 sensor surveys.

Status Task 4.2 Biofouling

2nd Objective

➢ ***There will be sharing of best practices and methodologies across the network with the aim towards a common approach***

Significant role played the three platform specific workshops:

1. During the first common WP3 & WP4 workshop in HZG in Hamburg (30/08/2011) best practices on sensors used on FerryBox systems were discussed.
2. During the second common WP3 & WP4 workshop in Rome (29 Feb – 1 March 2012) bio fouling prevention best practices on sensors used on Fixed Platforms were discussed.
3. During the third common WP3 & WP4 workshop in Palma (22 – 23 May 2012) bio fouling prevention best practices on sensors used on Gliders were discussed.

Status Task 4.2 Biofouling

2nd Objective cont….

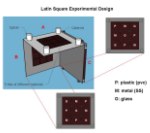
During the common workshops in Rome (29 Feb – 1 March 2012) and in Heraklion (4th & 5th of October) it was decided to perform a common bio fouling experiment where selected partner sites will act as a test bed.

Dr. Marco Faimali (CNR) is coordinating the task and has finished the design of the biofouling plates and the shipment.

N°	Partners	Reference person	e-mail	Coastal Water	Open Water
1	ISMAR	Marco Faimali	marco.faimali@ismar.cnr.it	x	x
2	HCMR	Manolis Ntoumas	mntou@hcmr.gr	x	x
3	AZTI	Carlos Hernandez	chernandez@azti.es	x	x
4	IFREMER	Laurent Delauney	laurent.delauney@ifremer.fr	x	x
5	CEFAS	Dave Sivyer	dave.sivyer@cefas.co.uk	x	x
6	SMHI	Bengt Karlson	Bengt.Karlson@smhi.se	x	
7	SYKE	Jukka Seppala	jukka.seppala@ymparisto.fi	x	

Status Task 4.2 Biofouling
2nd Objective cont….

11 sites (open water and coastal water) along a European geographical gradient



Status Task 4.3 Biofouling
3rd Objective

- ***New methods used by the community external to JERICO will be evaluated to identify and suggest possible future implementation***

This is a future action although a part of it will be dealt in the Best Practices (Laurent and Marco).

Status
Task 4.3 E2E qa

Objectives

- *To describe best practices in all phases of the system (pre-deployment test, maintenance, calibration etc)*
- *To adopt common methodologies and protocols*
- *Move towards the harmonisation of equipment, which will help in reducing maintenance and calibration costs. For this inter calibration tests and in-situ validation will be organised and "Running costs" associated with each platform will be recorded.*

Status Task 4.3 E2E QA
1st Objective

- ***To describe best practices in all phases of the system (pre-deployment test, maintenance, calibration etc***

Although originally was thought to proceed with a questionnaire during the Rome workshop it was decided for CALIBRATION and BIOFOULING to identify key-persons for each sensor/technology who will lead the work. Their responsibilities include describing the best practice for the sensor calibration of each parameter or group of parameter, distribute the information, recommend methodologies and issue protocols.

The work was presented during the Heraklion workshop 4&5 of October 2012.

- ✓ *Biofouling best practices for Optical and Physical Sensors*
- ✓ *Calibration best practices for*
  - ✓ *Chl-a,*
  - ✓ *Temperature,*
  - ✓ *Conductivity,*
  - ✓ *Chemical and Oxygen sensors.*

Status Task 4.3 E2E QA
1st Objective cont….

The platform specific best practices were discussed during the platform-dedicated workshops:

- •Hamburg, Ferry Box 30-31 Aug 2011
- •Rome, Fixed Platforms 29 Feb – 1 Mar 2012
- •Palma, Gliders 22-23 April 2012

During the Heraklion workshop 4&5 of October 2012 across platform best practices were discussed and two working groups were formed:

Fixed Platforms
Carlos Hernandez (AZTI) - coordinator·
Detlev Machoczek (BSH)
Yannick Aoustin (IFREMER)
Dave Sivyer (CEFAS)

FerryBox
Kai Sörensen (NIVA)-coordinator
Wilhelm Petersen (HZG)
Mark Hartman (NERC)
David Hydes (NOC)
Pascal Morin (CNRS)
Manolis Ntoumas (HCMR)
Seppo Kaitala (SYKE)
Malin Mohlin (SMHI)

Status Task 4.3 E2E QA
2nd Objective

- ***To adopt common methodologies and protocols***

- The second objective is a continuous effort with discussions being more and more integrated as workshops take place and partners are involved in common exercises etc.
- During Heraklion workshop it was decided to produce a White Paper for dissolved oxygen sensors. On going !!!
- Furthermore during the Heraklion workshop it was decided to explore the possibility to design and implement a CO2 calibration experiment in the HCMR calibration lab.

Status Task 4.3 E2E QA

3rd Objective

- ***Move towards the harmonisation of equipment, which will help in reducing maintenance and calibration costs. For this inter calibration tests and in-situ validation will be organised and "Running costs" associated with each platform will be recorded***

The third objective is also a continuous effort and results will stem out from the common activities within the network.

A significant objective of WP4 is to record the "Running costs" associated with each platform. Towards this a questionnaire/excel sheet has been prepared and distributed to partners.

Deliverables

Del. no.	Deliverable name	Delivery date from DOW	Actual/Forecast delivery date	Estimated indicative person-months *)	Lead benificiary
D4.1	Report on existing facilities	M18	M21	10.00	HZG
D4.2	Report on calibration best practices	M36	M36	20.00	HZG
D4.3	"Report on biofouling prevention methods	M36	M36	20.00	CNR
D4.4	"Report on best practice in operation and maintaining	M42	M42	20.00	HCMR
D4.5	Report on running costs of observing systems	M48	M48	14.50	CEFAS

Milestones

MS. no.	Milestones name	WP n°	Delivery date from DOW	Actual/Forecast achievement date	Lead contractor
MS15	Constitution of a permanent Working Group within JERICO for Calibration Activities	4	M30	M30	HCMR

Ongoing work

- ***BMP experiment***
- ***Explore the new BIOFOULING methods used by the community external to JERICO***
- ***Organise inter-calibration tests and in-situ validation***
- ***Explore the possibility of a 3rd exercise in association with the Glider community (EGO) focusing on sensors for gliders***
- ***Setup Permanent working group on Calibration → COST proposal***
- ***Working groups on Platform specific Best Practices***
- ***Calibration and biofouling best practices***
- ***Running costs***
- ***Design and implement a CO2 calibration experiment***
- ***White Paper for dissolved oxygen sensors***

3.2.8. WP5: Data management and distribution by Rajesh Nair-OGS

Slides are available on the following pages.

Tasks presentation

The operating strategy of WP5:

- Create suitable partnerships with ongoing European data management initiatives to meet objectives → formalize links and actively engage with SeaDataNet-II (SDN-II) & MyOcean (MyO) to support JERICO data flow and dissemination.
- Build on what already exists → SDN-II for Delayed-mode (DM) data & MyO for Real-time (RT) data.
- Avoid duplication of efforts → cooperate with SDN-II & MyO in the development/improvement of data handling methodologies and data quality assurance procedures, prioritizing JERICO-specific monitoring parameters/technologies.

Why this operating strategy?

To work on the data, supports the "open&free" data policy paradigm. Many JERICO partners have already contributed to SDN-II/MyO or planned to do so. So there was no point to create something new.

The objective is also to bring the quality of the data back to the people making the measurement. The use the infrastructure already use for SeaDatanet and MyOcean.

→ *Create value for measured data*: the activity is mainly developing common procedures for assigning uncertainties to measured parameters. The outline for the first deliverable relating to this task, D5.4, the document "Guidelines for uncertainty" (due at the end of month 30) has been prepared and sent out for comments and suggestions. A review on temperature and salinity measurement, aimed at establishing a procedural framework for uncertainty evaluations for these variables within JERICO, is also in progress.

→ *The second task focus on the harmonisation of delayed-mode data management procedures with SeaDatanet*: there is a subcontract with MARIS to provide non-NODC data providers with support in using the SDN-II infrastructure for handling data and with MARUM to enable the adoption of the SensorML standard within JERICO.

→ *Task 5.3 focuses on the development of the JERICO data management framework for dealing with real-time data.* There are interactions between JERICO, MyOcean, EuroGOOS and EMODnet-PP to promote their infrastructure for our needs. There is a subcontract with Capgemini to develop dataset indexing procedures that can ensure compatibility with MyO TAC requirements.

The deliverable 5.1 was submitted a little bit late as well as deliverable 5.2. The deliverable D5.3 ("First data management report"), scheduled for M24, is in preparation. Its submission has been delayed to allow integration of results after a short survey on data providers views with regards to the WP5 activities carried out so far.

→ *Work on the next programmed deliverable, the document entitled "Guidelines for uncertainty"* (D5.4) due at the end of M30, is ongoing.

Next steps:

- Formalize collaborations with SDN-II and MyO to permit information and exchange.
- Setup of a "floating" group of experts within JERICO to call upon for advice on the management of specific data types (e.g. biodiversity, turbidity, etc.)?
- Creation of a working group to oversee the expected interaction with SDN-II and MyO on data issues?

Key points and discussions:

J.M. Beckers: What is your strategy toward Lifewatch and Emodnet?

S. Sparnocchia: both are focusing on other types of data, on biodiversity data. JERICO is focusing on real time data and delayed mode data. Those projects are complementary to JERICO.

B. Karlson: Is it possible to use coastal data, biodiversity data in connection with JERICO's data?

A. Gremare: The goal of crossing this kind of data must be done "a priori".

P. Farcy: at the beginning of the project, we decided to interface with existing data management systems (delayed mode and real time). We don't want to develop something specific but to interface with other data bases. We need to be able to interface with overarching data management systems. For the moment we integrate data in SeaDataNet and MyOcean.

We have in WP1 a task about how coastal observatories can interface with biodiversity. We can add to this task an activity to explore how we can manage the data for the biodiversity community.

J.M. Beckers: For interface, in the project you speak of a lot of format. How do you plan to comply with other data formats?

R. Nair: It is planned to have people transforming their data in different formats when they send them to MyOcean and SeaDataNet. It's a way to make people use the same format.

WP5: DATA MANAGEMENT AND DISTRIBUTION

Overview and Status: months 1 - 24

Caterina Fanara (cfanara@ogs.trieste.it)[1], Loic Petit De La Villeon[2], Alessandro Crise[1] and Rajesh Nair[1]

[1]OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Italy
[2] IFREMER, France

JERICO Mid-term Review, Paris, France, 18 - 19 June 2013

WP5: the operating strategy

Create suitable partnerships with ongoing European data management initiatives to meet objectives ? formalize links and actively engage with SeaDataNet-II (SDN-II) & MyOcean (MyO) to support JERICO data flow and dissemination.

Use what exists ? SDN-II for Delayed-mode (DM) data & MyO for (near) Real-time (nRT) data.

Avoid duplication of efforts ? cooperate with SDN-II & MyO in the development/improvement of data handling methodologies and data quality assurance procedures, prioritizing JERICO-specific monitoring parameters/technologies.

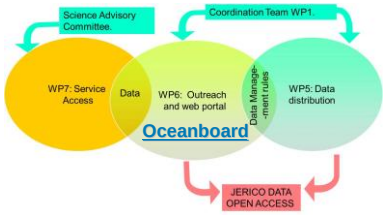
WP5: why this operating strategy?

Create suitable partnerships with ongoing European data management initiatives to meet objectives ? supports the "open & free" data policy paradigm; will aid in ensuring compatibilty, interoperability, and the implementation of communal data handling practices.

Use what exists ? Many JERICO partners are already contributing to (or are prepared to contribute to) SDN-II/MyO.

Avoid duplication of efforts ? cooperating with SDN-II/MyO will allow JERICO to participate in establishing Europe's database and management infrastructure for coastal marine data.

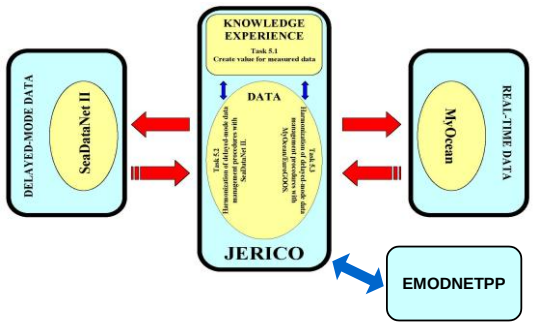
WP5: the operating structure



JERICO is adopting an open access data policy. The flow of data from JERICO partners to the community of users is driven by the synergic action of three WPs.

WP5 defines the rules for data management and distribution
WP7 is collecting data from partners
WP6 provides the platform for distribution of data and tools.

WP5: a functional description



WP5: tasks

5.1 Create value for measured data (Task Leader: OGS; other partner involved: HCMR)

Activity description: development of common procedures for assigning uncertainties to measured parameters.

Actions (to date…)

- The outline for the first deliverable relating to this task, D5.4, the document "Guidelines for Uncertainty" (due at the end of month 30) has been prepared and sent out for comments and suggestions. The outline sets down the overall structure of the document, indicates the main topics that will be handled, and provides concise descriptions of each topic to show the planned development of the subject matter.
- A review on temperature and salinity measurement, aimed at establishing a procedural framework for uncertainty evaluations for these variables within JERICO, is also in progress.

WP5: tasks

5.2 Harmonization of delayed-mode data management procedures with SeaDataNet (Task Leader: IFREMER; other partners involved:
HCMR, MUMM, OGS**)**

Activity description: development of the JERICO data management framework for delayed-mode data.

Actions (to date…)

- Continuous interaction with SeaDataNet-II (SDN-II) to promote the use of, and facilitate seamless integration with, its established infrastructure for managing the JERICO delayed-mode data stream.
- Subcontract with MARIS to provide non-NODC data providers with support in using the SDN-II infrastructure for handling data; specifically, MARIS is charged with updating the EDIOS catalogue, generating CDIs, and developing a portal prototype for accessing these data.
- Subcontract with MARUM to enable the adoption of the SensorML standard within JERICO.

WP5: tasks

5.3 Harmonization of real-time data management procedures with MyOcean/EuroGOOS (Task leader: IFREMER; other partners
involved: CNR, NIVA, IMR, HCMR, PUERTO, SMHI**)**

Activity description: development of the JERICO data management framework for dealing with real-time data.

Actions (to date…)

- Continuous interaction with MyOcean (MyO), EuroGOOS and EMODnet-PP to promote the use of, and facilitate seamless integration with, its established infrastructure for managing the JERICO real-time data stream.
- A specific JERICO dataset label (tag) was implemented to clearly identify outgoing JERICO data.
- A JERICO Index was set up, which allows sorting of JERICO data from composite data sets
- Subcontract with CAPGEMINI to develop dataset indexing procedures that can ensure compatibility with MyO TAC requirements

WP5: deliverables

Status

- The deliverable D5.1 ("DM data management handbook, V1", the first version of the JERICO delayed-mode data management handbook), scheduled for M8, was submitted (late) in M13.
- The deliverable D5.2 ("RT data management handbook, V1", the first version of the JERICO real-time data management handbook), scheduled for M8, was submitted (late) in M13.
- The deliverable D5.3 ("First data management report"), scheduled for M24, is in preparation; its submission has been delayed to allow integration of results of a short survey amongst data providers on their views of the activities carried out in the WP so far.
- Work on the next programmed deliverable, the document entitled "Guidelines for uncertainty" (D5.4) due at the end of M30, is ongoing.

The next deliverable, D5.4: "Guidelines for uncertainty"

Document Structure

TABLE OF CONTENTS

The next deliverable, D5.4: "Guidelines for uncertainty"

The subject matter

4.1 Measurement and uncertainty

- What is a measurement?

- What is not a measurement?

- What is measurement uncertainty?

- Error versus uncertainty.

- Sources of uncertainty.

- What is not a measurement uncertainty?

- Why is uncertainty important?

The next deliverable, D5.4: "Guidelines for uncertainty"

The subject matter

4.2 Determining uncertainty

- General principles.

- Standard uncertainty.

- Combined standard uncertainty.

- Expanded uncertainty.

- Summary of the steps involved in estimating uncertainty.

WP5: what next?

- Formalize collaborations with SDN-II and MyO to permit sharing and exchange of information.
- Review and revise the Data Management Handbooks - so as to incorporate a more practical “how to…” approach - to prepare deliverables D5.6 (“DM data management handbook, V2”) and D 5.8 (“RT data management handbook, V2”), due at the end of M48; a meeting between the WP leader and the leader of Task 5.2 has been proposed in the second half of 2013 to begin the process for D5.6.
- Setup of a “floating” group of experts within JERICO to call upon for advice on the management of specific data types (e.g. biodiversity, turbidity, etc.)?
- Creation of a working group to oversee the expected interaction with SDN-II and MyO on data issues?

3.2.9. WP6: Outreach by David Mills- CEFAS

Slides are available on the following pages.

Tasks presentation

→ *The JERICO web site* is implemented, 1000 visits, 100 researches of site, from almost 100 countries. On the JERICO website there are two kinds of accesses: public and professional domain. JERICO website provides information on the main achievements and in process action like on the JERICO summer school for example.

→ *The first JERICO Malta summer school* is a success in term of level of interest, involving around 84 applicants from several countries.

Out of the 6 deliverables, already three of them are submitted: 1, 2, 4. Deliverable 6.3 is coming soon as the first summer school will be held this summer in Malta.

Within this WP there are two milestones: summer schools 1 and 2.

Suite of web-based interactive tools:

There are several applications as the glider educational tool and the JERICO data tool
→ *JERICO glider tool:* a simple web-based tool for glider mission follows up in quasi real time, enabling students to follow directly on a daily basis the progress results, etc., of glider missions. For younger school kid with an English site and a Spanish one: to explain what is a glider, what it does. You can follow a route of glider…The glider educational tool has an adapted design for kids and students, for kids around 10 and 11 years old.

→ *JERICO data tool:* The nature of data and maps can be displayed like for instance times series and data from the FerryBoxes. It can be displayed in different forms, multiple formats.

The goal of data management is to demonstrate and to influence political decisions by providing usable information on which decisions can be made upon (highlighted during the conference in Galway about the Atlantic and Artic).

The JUD (Jerico User Display) was presented during the Helsinki FerryBox meeting: it produces images that can be transmitted over a coaxial cable. A possible improvement is by incorporating a table of current data values together with the current configuration; implement some degree of data quality control prior to the images being display to screen, to make the system more robust for data or system anomalies.

Next steps:

- First summer school in July 2013 about operational oceanography.

- Second summer school planned for month 39 (about data management and analysis).

Key points and discussions:

J.M. Beckers: HMAI format will be displayed on your system; why didn't you use directly the SeaDataNet format?

W. Petersen: we should be flexible on the format, the data format is not a big issue. The most important is to find the way to display the data.

B. Karlson: Users want data in real time, that's why this HMAI format is used.

J. Tintore showed a preliminary version of the glider tool for kids.
Website: www.followtheglider.com

JERICO MID TERM REVIEW

WP 6

2013, June 18/19th - UPMC - Paris

WP6 DELIVERABLES

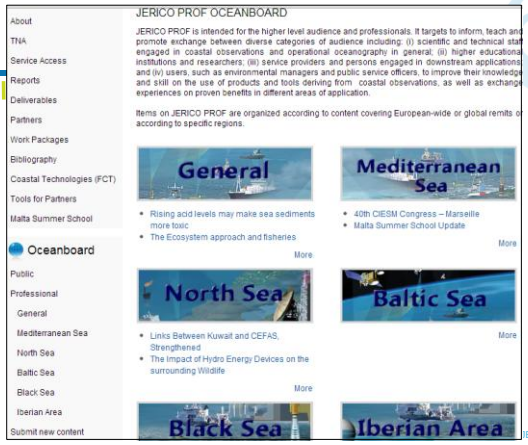
List of deliverables

Delive-rable Number [61]	Deliverable Title	Lead benefi-ciary number	Estimated indicative person-months	Nature [62]	Dissemi-nation level [63]	Delivery date [64]
D6.1	Design and launching of JERICO OceanBoard V0	16	6.00	P	PU	6
D6.2	Jerico Community Hub	16	5.00	P	PU	12
D6.3	Summer school 1	7	4.00	R	PU	27
D6.4	Development and implementation of suite of web-based interactive tools	16	8.00	D	PU	24
D6.5	Summer school 2	10	4.00	R	PU	39
D6.6	Final version of JERICO OceanBoard	16	6.05	P	PU	30
		Total	33.05			

WP6 MILESTONES

Schedule of relevant Milestones

Milestone number [59]	Milestone name	Lead benefi-ciary number	Delivery date from Annex I [60]	Comments
MS20	Summer School 1	16	28	First summer School report
MS21	Summer School 2	16	40	Second summer School report



DELIVERABLE 6.4

SUITE OF WEB-BASED INTERACTIVE TOOLS

Glider educational tool

A simple web-based tool for glider mission follow up in quasi real time enabling students to follow directly on a daily basis the progress results, etc., of glider missions

Jerico Datatool

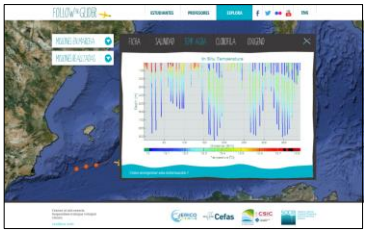
Datatool to give users access to integrated data products and datasets via an online interface hosted at the Community Hub.

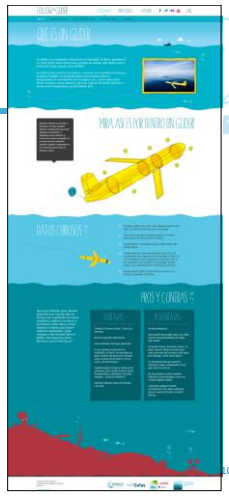
Jerico User Display

Design a template for a ship-based and web-based Ferry-Box passenger or web-user display

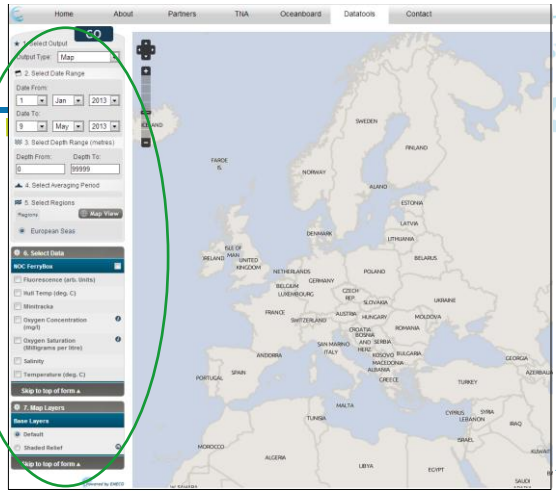
Glider Educational Tool

•Home with an adapted design for kids and students





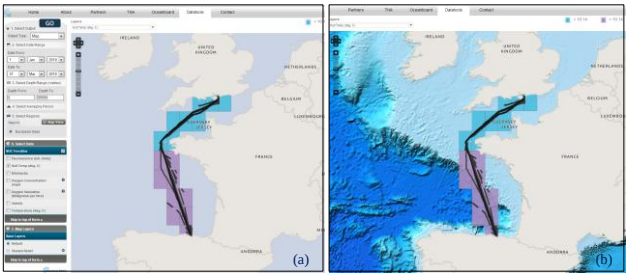
http://www.jerico-



DELIVERABLE 6.4

JERICO DATATOOL

Datatool outputs (products): maps

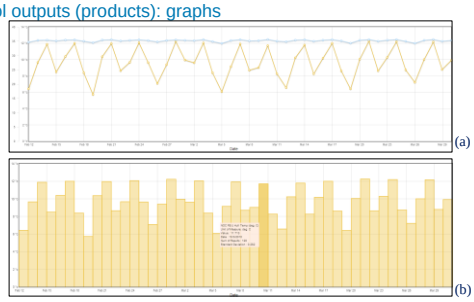


Mean hull temperature (ºC) for Jan–Mar 2010 displayed on (a) 1º grid, and (b) shaded relief base-map

DELIVERABLE 6.4

JERICO DATATOOL

Datatool outputs (products): graphs

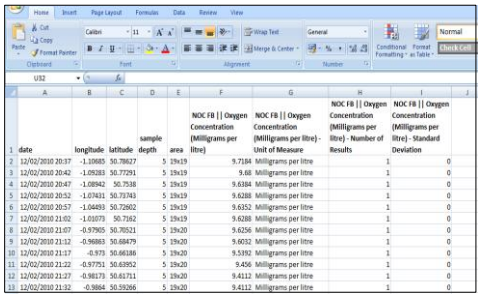


(a) Line and point for temperature & salinity, (b) bar graph of oxygen showing a pop-up information box

DELIVERABLE 6.4

JERICO DATATOOL

Datatool outputs (products): csv files

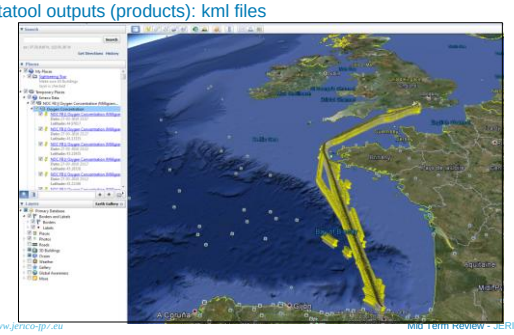


	A	B	C	D	E	F	G	H	I
1	date	longitude	latitude	sample depth	area	NOC FB || Oxygen Concentration (Milligrams per litre)	NOC FB || Oxygen Concentration (Milligrams per litre) - Unit of Measure	NOC FB || Oxygen Concentration (Milligrams per litre) - Number of Results	NOC FB || Oxygen Concentration (Milligrams per litre) - Standard Deviation
2	12/02/2010 20:37	-1.10685	50.78627	5	19s19	9.7184	Milligrams per litre	1	0
3	12/02/2010 20:42	-1.09283	50.77291	5	19s19	9.68	Milligrams per litre	1	0
4	12/02/2010 20:47	-1.08942	50.7538	5	19s19	9.6384	Milligrams per litre	1	0
5	12/02/2010 20:52	-1.07431	50.73743	5	19s19	9.6288	Milligrams per litre	1	0
6	12/02/2010 20:57	-1.04833	50.72602	5	19s19	9.6352	Milligrams per litre	1	0
7	12/02/2010 21:02	-1.01073	50.7162	5	19s19	9.6288	Milligrams per litre	1	0
8	12/02/2010 21:07	-0.97905	50.70521	5	19s20	9.6256	Milligrams per litre	1	0
9	12/02/2010 21:12	-0.96863	50.68479	5	19s20	9.6032	Milligrams per litre	1	0
10	12/02/2010 21:17	-0.973	50.66186	5	19s20	9.5392	Milligrams per litre	1	0
11	12/02/2010 21:22	-0.97751	50.63952	5	19s20	9.456	Milligrams per litre	1	0
12	12/02/2010 21:27	-0.98173	50.61711	5	19s20	9.4112	Milligrams per litre	1	0
13	12/02/2010 21:32	-0.9864	50.59266	5	19s20	9.4112	Milligrams per litre	1	0

DELIVERABLE 6.4

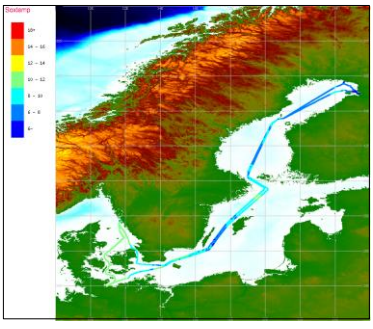
JERICO DATATOOL

Datatool outputs (products): kml files



DELIVERABLE 6.4

JERICO USER DISPLAY (JUD)



- Testing carried out by SMHI & HCMR
- TransAtlantic AB is interested in having access to a web site with the content of the JUD, to be available on their ships and in their offices.

DELIVERABLE 6.4

JERICO USER DISPLAY (JUD)

Helsinki FerryBox meeting

- Produce images that can be transmitted over a coaxial cable.
- Possible improvement by incorporating a table of current data values together with the current configuration.
- Implement some degree of data quality control prior to the images being display to screen.
- Make the system more robust to data or system anomalies.
- Use open source projects for data visualisation.
- There may be some interest in JUD on French ferries.

NEXT STEPS

DELIVERABLES 6.3 & 6.5

Jerico summer school 1
D6.3 Summer school 1 M27 (July 2013)
Milestone 20: First summer school report M28 (Aug 2013)

Jerico summer school 2
D6.5 Summer school 2 M39 (July 2014)
Milestone 21: First summer school report M40 (Aug 2014)

NEXT STEPS

DELIVERABLE 6.3 : MALTA SUMMER SCHOOL

1st Summer school 8th–13th July, University of Malta

- Operational Oceanography in the 21st Century – The Coastal Seas
- 84 applicants.
- 28 countries: Europe, Middle East, South America, Asia.
- Selection Committee ranked applicants.
- 36 applicants selected.

NEXT STEPS

DELIVERABLE 6.3 : MALTA SUMMER SCHOOL

Malta Summer School programme

Day 1
- Overview on Operational Oceanography
- Coastal Observatories (1); concept of observatories, COSYNA, sensors & platforms

Day 2
- Coastal Observatories (2); FerryBox, ROVs, Jerico label
- Hands-on session; MyOcean

Day 3
- Numerical Modelling Techniques
- Numerical Modelling Techniques; practical sessions

Day 4
- Data Management ; data exchange, QC, data forma, climatologies, SeaDataNet
- Visualisation and analysis techniques of time series data

Day 5
- Applications; satellite data, oil spill models, Jerico Datatool

Day 6

NEXT STEPS

DELIVERABLE 6.5: DELTARES SUMMER SCHOOL

2nd Summer school 2014, Deltares NL

Fourth Paradigm (data intensive scientific discovery) & work flows (turning data into information)

Fedor Baart
Gerben de Boer
Martin Verlaan
Nicky Villars
Ghada El Serafy

NEXT STEPS

DELIVERABLE 6.5: DELTARES SUMMER SCHOOL

- 4th paradigm is **data-centric science**
- Currently EU infrastructures try to deliver data to end-users (algorithms)
- But the data become so big end-users cannot store it any more
- Near-future end-users want their algorithms to go to the data
- Moving algorithms to centrally stored data will allow **sharing algorithms**
- Workflow communities are the future

NEXT STEPS

DELIVERABLE 6.5: DELTARES SUMMER SCHOOL

One workflow a day, with hands-on exercise

1. **OpenDA** (www.openda.org) – Martin Verlaan, Ghada El serafy
   open source data assimilation toolbox (Java)
2. **OpenEarth** (www.OpenEarth.eu) – Fedor Baart, Gerben de Boer
   open source data processing toolbox (Matlab, Python , R)
3. **EMECO** (www.emecogroup.org)
   open source workflow
4. **DINEOF/DIVA** (http://modb.oce.ulg.ac.be/mediawiki/index.php/DINEOF)
   open source empirical orthogonal function toolbox (Fortran)
5. **NOAA NDBC** SOS, **Reading** ECMWF THREDDS/ncWMS …
   open source: netCDF4, OPeNDAP, AJAX
6. **OceanDataView** (odv.awi.de)
   alas, not open source

Prof. J-M Beckers agreed informally to let Univ. Liege do a 1-day DINEOF/DIVA workshop

Just brainstorming: non-JERICO Partners that could be invited.

3.2.10. WP7: Service and data access by Loïc Petit de la Villéon-IFREMER

Slides are available on the following pages.

Tasks presentation

The objective is to deliver data to the user through SeaDataNet and MyOcean. « Data assembly must be targeted to be compliant with MyOcean requirements and SeaDataNet standards (see WP5) ».

During the first period of the project, we focused on delivering data through the MyOcean data flow. During the 2nd period, the delivering of data in near real-time to MyOcean will continue as well as the delivering of data in delayed mode to SeaDataNet.
Difficulties are met to have contact with Pol-COBS; so the data are not yet available. Richard Lampitt said he will send us much more information on what data will be available because they will reorganize their observing system. We'll have the new specifications before it will be available, at the end of the summer. Maybe a new FerryBox line will be proposed.

How to get the data?
Through MyOcean:

- register as a user of MyOcean
  http://www.myocean.eu/web/56-user-registration-form.php
- get a personal user login and password
- connect to MyOcean in situ distribution unit
  ftp1.ifremer.fr/INSITU_GLO_NRT_OBSERVATIONS_013_030
- an index file dedicated to JERICO allows to sort out the JERICO data directory
- find links to the monthly data directories

Next steps:

- Continue the integration of data through MyOcean
- Initiate the SeaDataNet data flow
- describe the sensors (sensorML)
- Share the sensors description (Sensor Registry)
- Generate the CDIs

P. Farcy presented targeted operational phases that will begin in 2014

- Top 1 : JERICO data tools
- Top 2 : data & demonstrative products collected from sensors on board of fishing vessels (Irish and Adriatic seas)
- Top 3 : data from buoys collocated with FerryBox lines

Key points and discussions:

A. Robin: How to find if these data are available? On the website?

L. Petit de la Villéon: not for the moment. But it will be written on the website, which data will be available. A lot of projects want to be implemented as data provider systems, but it's not always feasible and it can be very expensive too.

A. Robin: it's important to be able to link data to a particular project as JERICO. Firstly in case of audit, you need to provide evidence that the service ("Service Activities") was achieved through JERICO. It's also a way to promote the JERICO project as well as this kind of instrument ("I3" project) and European funding.

WP 7: Service and data access

Mid-term review: 18-19 june 2013

Presentation Outline

- General objective of WP7
- Means: how the data are distributed ?
- Status
- Next steps

General Objectives and Means

- Provision of usefull data
- Provide free access to observations and well referenced meta-data
- « Data assembly must be targeted to be compliant with Myocean requirements and SeaDataNet standarts (see WP5) »

Status of WP7

- During the 1st period of the Project, focus was put on delivering the data through the MyOcean data flow
- During the 2nd period, delivering data in near real-time through MyOcean will continue and delivering delayed mode data to SeaDataNet

Status of WP7: data availability

Data Availability: MOLIT and MESURHO

Molit
WMO code: 62021

Mesurho
WMO code: 61284

Data Availability: Alg@line

FINMAID
Call sign: OJMI

Silja Serenade call sign: OJCS No cruise during the winter period

Kristina Brahe call sign: OIEC data will flow through NIVA –Norway-

Data Availability: CRS Coastal station 69059 & 69060

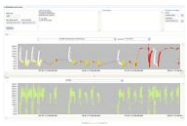
69059

69060

Data Availability: Nowegian FerryBox Network

Trollfjordj: LLVT

Color Fantasy: LMSD



Bergensfjord: OUZI2. No data in 2013

Norbjorn: LAKM4. No data in 2013

How to get and visualize the data ?

Through the Coriolis web portal

Example: 3 ferrybox vessels

How to get the data?

Through the Myocean:

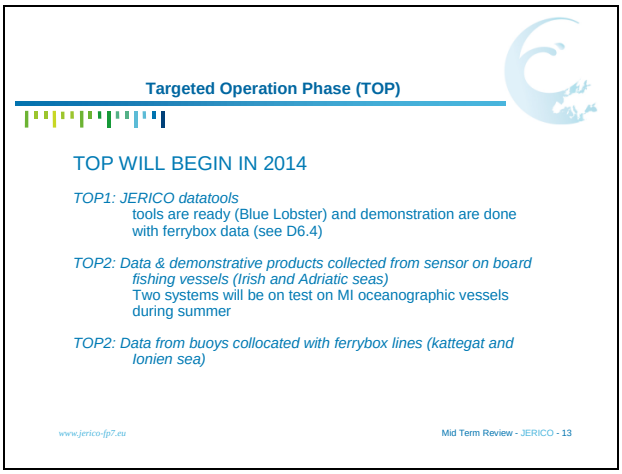
- register as a user of Myocean
  http://www.myocean.eu/web/56-user-registration-form.php
- get a personnal user login and password
- connect to the MyOcean in situ distribution unit
  ftp1.ifremer.fr/INSITU_GLO_NRT_OBSERVATIONS_013_030
- an index file dedicated to Jerico allows to to sort out the Jerico data
  directory etc/project
- and links to the data

Next steps

- Continue the integration of data through Myocean

-Initiate the Seadanet data flow

- describe the sensors (sensorML)
- Share the sensors description (Sensor Registry)
- Generate the CDIs


Targeted Operation Phase (TOP)
TOP WILL BEGIN IN 2014
TOP1: JERICO datatools
tools are ready (Blue Lobster) and demonstration are done with ferrybox data (see D6.4)
TOP2: Data & demonstrative products collected from sensor on board fishing vessels (Irish and Adriatic seas)
Two systems will be on test on MI oceanographic vessels during summer
TOP2: Data from buoys collocated with ferrybox lines (kattegat and Ionien sea)
www.jerico-fp7.eu
Mid Term Review - JERICO - 13

3.2.11. WP8: Trans National Access (TNA) to coastal observatories by Stefania Sparnocchia-CNR

Slides are available on the following pages.

Tasks presentation

WP8 objective is to open original coastal infrastructures among those operated by the JERICO Consortium to Trans National and free-of-charge access. (Enabling activities are developed in WP1-T1.6)

Organizations are offering to researchers/users their infrastructure. These proposals have to be transnational and free of charge. Our original plan was to have two calls for TNA proposals.

→ First call: 13 proposals received, 9 have been financed.

→ Second call: Only 6 received, 4 have been evaluated.

→ Third call: new plan to have a third call.

Among TNA activities, a web page has been developed to promote the calls.

All projects involved in the first call will be concluded by the end of the year 2013.

3 types of projects:

- Calibration
- In situ testing / research
- Research

Second call: 4 scientific evaluations performed, granting letters have been sent for each funded project. Most of the proposals submitted to the second call involve transnational groups, two of them include scientists from non Member/associated Countries.

Next steps:

Organisation of a third extra-call in September/October 2013.

Deadline before December 2013. Accepted projects will end within autumn 2014. We have to find a way to be more proactive in promoting the TNA opportunity.

Key points and discussions:

A. Robin: Have you received requests from the same TNA project to access several platforms?

S.Sparnocchia: Yes we did.

A.Robin: Did you plan a questionnaire regarding level of satisfaction?

S. Sparnocchia: no, but we ask the users to answer the questionnaire made by the Commission.

A. Robin: If you reallocate money from a facility to the other one, due to a change in the type/quantity of service or transnational access, you need to do an amendment. To be discussed further.

P. Farcy: Do you plan for H2020 to simplify the management of TNA?

A. Robin: Discussions are ongoing in Brussels, no decisions were made yet. Our service asked the possibility to claim costs either via a unit of access (and identifying its average cost – exactly as under FP7 – because it is convenient for some infrastructures such as large scale facilities) or via the additional costs of specific TNA project or a combination of both options. I cannot anticipate whether this will be accepted. In any case, at her understanding we will not come back to estimated costs as it was in FP6, reimbursement will have to be based on actual costs (not specific to FP7 or Horizon2020, this is the EU Financial regulation).

J. Tintoré: are we the only consortium having a hard time to understand the process of TNA? In JERICO, such kind of access never has been formalized before, it took some work.

A. Robin: The difficulty within JERICO was to have some infrastructures opening a new type of access to (external) users while TNA is in principle designed to extend an existing and standard modality of access to non-national researchers.

J.M. Beckers: Why did you receive fewer proposals than expected?

S. Sparnocchia: We did a lot of promotion for the second call. We have contacted Eurofleets, EuroGOOS, and many other projects and organizations. What was lacking for the second call is a door to door marketing/promotion, looking for users. We have to find a way to better promote the opportunity. Moreover, potential users could have renounced to submit a proposal considering that the amount of funds they could receive (few thousands of euros and only for travels and shipping equipment) wasn't worth the effort of building up a valid scientific experiment and drafting a detailed proposal. TNA would be probably more successful if the budget available for users could support also ancillary costs, such us consumables for laboratory analysis or for calibrating/running instrumentation.

A. Robin: it is frequent for this kind of project, that well known facilities are more demanded than less known ones. If it is confirmed that a more pro-active advertisement did not change the outcome for some of the less/not demanded facilities, there is no point to continue to propose them in successive calls: if few facilities didn't received any proposal, it's probably time now to decide to re-allocate the quantity of access and related budget to well demanded installations. Eventually you have to answer the needs of the scientific community.

An amendment to the grant agreement will be necessary for the modifications of the TNA infrastructures and for selecting the next call proposed infrastructures

WP8 - TRANSNATIONAL ACCESS
TO COASTAL OBSERVATORIES

Status of activities at M24

WP8 OBJECTIVE

To open original coastal infrastructures among those operated by the JERICO Consortium to

Trans National and free-of-charge access.

(Enabling activities are developed in WP1-T1.6)

Call program	1st Call	2nd Call	extra 3rd Call
Opening	12 January 2012	14 January 2013	Sept/Oct 2013
Deadline	extended upto 3 Apr '12	extended upto 27 Mar '13	Nov/Dec 2013
Submitted proposals	13	6	
Approved proposals	10	Evaluation concluded for 4 out of 6 proposals	
Scheduled projects	9	…	

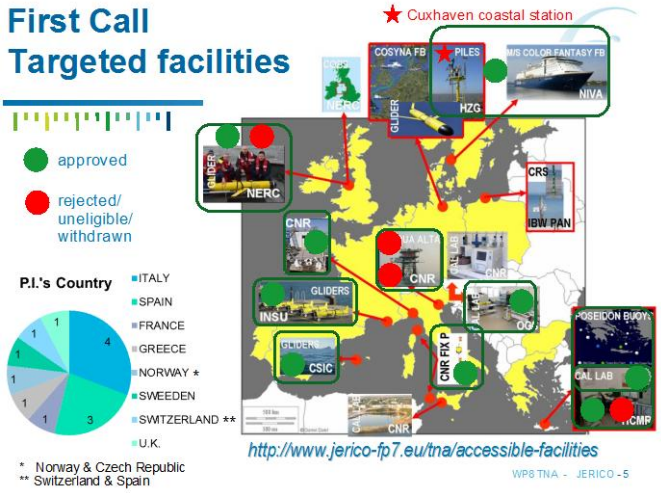
TNA INFORMATION

www.jerico-fp7.eu/TNA

FIRST CALL CALENDAR

Action	Who	When
D1.1 1st Call opening	JERICO TNA Office (CNR)	12 Jan 2012
1st Call closing	JERICO TNA Office (CNR)	3 Apr 2012
Scientific Evaluation	Selection Panel	3 Apr – 5 Jun 2012
Feasibility Assessment	Facility operators	24 Apr – 13 Jun 2012
Communication of results to proponents and operators	JERICO TNA Office (CNR)	10 July 2012
Revision of critical proposals	TNA Users	August - September 2012
First Selection Panel meeting	Selection Panel + TNA management team	1 October 2012

First Call
Targeted facilities



* Norway & Czech Republic
** Switzerland & Spain

FIRST CALL
PROJECT SELECTION

1. Evaluation by the Selection Panel (SP). 3 reports for each proposal .

Evaluation criteria, **Threshold score > 60**

1.Fundamental, scientific and technical value	- max 30
2.Quality of the work program	- max 25
3.Feasibility	- max 20
4.Potential for seeding links with industry	- max 10
5.Quality of users groups	- max 10
6.European representativity	- max 5

Selection Panel
1.Janet Newton, SAC
2.George Zodiatis, SAC
3.Richard Dewey, SAC
4.Hans Dahlin, SAC
5.Roger Proctor, SAC
6.Franciscus Colijn, FCT
7.Laurent Mortier, FCT
8.Alicia Lavin, FCT,

TNA management team
1.Stefania Sparnocchia
2.Patrick Farcy
3.Ingrid Puillat
4.Pascal Morin
5.Dominique Durand

2. Validation by facility operators.
3. Final assessments by the SP.
4. Signature of agreements between End users, facility operators and IFREMER.
5. Implementation of projects.

Main suggestions for second call coming from SP meeting (Oct 1st, 2012):
-More suitable if evaluation by SP (1) followed validation by Operators (2).
-Change criteria 3 and 6 with "Evaluation of risks and payoff" and with "European relevance", respectively.

FIRST CALL - EVALUATION RESULTS & STATUS

SCORE	REF. No	TYPE	OPERATOR	PROPONENT	STATUS
87.1	CALL_1_13	GL	NERC - UK	Allan - NO	Agreement signing Scheduled Sep 13
86.8	CALL_1_10	GL	NERC - UK	Wahlin - SE	Withdrawn
82.1	CALL_1_9	FP	CNR - IT	Coppola - FR	Started, 20 Nov 12
76.6	CALL_1_2	FP	CNR - IT	Zibordi - IT	Not eligible
76.5	CALL_1_5	CAL	OGS - IT	Pethiakis - GR	Concluded (25 Feb – 1 Mar 13)
75.6	CALL_1_11	CAL	HCMR - GR	Bozzano - IT	Concluded (26 – 30 Nov 12)
74.3	CALL_1_4	FB FP	NIVA - NO HZG - DE	Jones - UK	Agreement signing Scheduled Jun 13
72.7	CALL_1_1	FP & CAL	HCMR - GR	Gonzales Davila - ES	Started, 3 Mar 13
72.0	CALL_1_8	GL	CSIC - ES	Ribotti - IT	Started, 23 Oct12
70.1	CALL_1_6	FP	CNR - IT	Edith Joseph - SW	Agreement signign Scheduled Jul 13
68.0	CALL_1_7	GL	CNRS - FR	Caballero Reyes - ES	Agreement signing Scheduled Jul 13
59.3	CALL_1_12	FP	CNR - IT	Deudero - ES	Rejected
59.0	CALL_1_3	CAL	HCMR - GR	Nair - IT	Rejected

CONCLUDED AND RUNNING PROJECTS

http://www.jerico-fp7.eu/tna/calls-and-selection/first-call/approved-projects

Calibration

CEBIO - Calibration and inter-calibration exercise of bio-geochemical sensors. R. Bozzano, CNR - ISSIA @ POSEIDON CAL LAB (HCMR).

RTC - Reference Temperature Calibration. G. Petihakis, HCMR @ OGS CTO.

In situ testing/Research

MEDACID - Mediterranean Sea ocean acidification time series experiment. M. Gonzales-Davila, Universidad de Las Palmas de Gran Canaria @ POSEIDON Salonikos buoy + CAL (HCMR)
Testing a novel pH sensor in an oligotrophic environment; studying pH variability in coastal waters

Research

OXY-COR - Integration of dissolved oxygen concentration measurements in the long term time series data in the Corsica Channel. L. Coppola, Obs Vflr @ Corsica Channel mooring (CNR)
Scientific study of water masses evolution in the NW Med from the perspective of DO content and its variability, implementing the existing installation with an optical DO sensor .

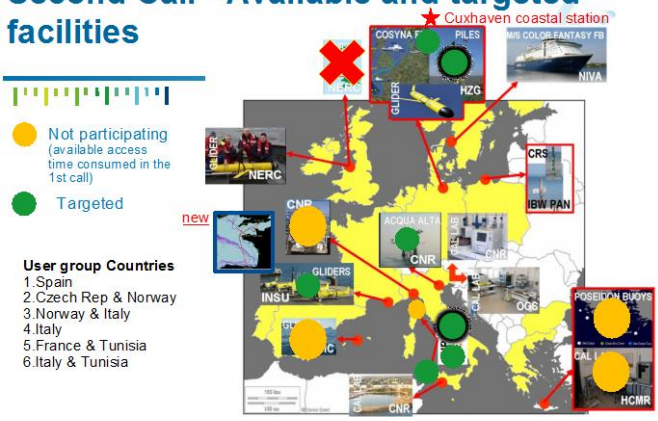
GABS - Deep Glider Acquisitions between Balears and Sardinia. A. Ribotti. CNR – IAMC @ CSIC glider facility.
Scientific study of dynamics and variability of a buffer zone between Algerian and Provencal sub-basins with CSIC glider, cruise data and modelling.

Puillat et al.: JERICO : A Joint European Research Infrastructure Network for Coastal Observatories Supporting Marine Research in the Mediterranean Sea, 40th CIESM Congress – Marseille, France, 28 October - 1 November 2013

SECOND CALL CALENDAR

Action	Who	When	Status
D1.5 2nd Call opening	JERICO TNA Office (CNR)	14 Jan 2013	Done
2nd call closing	JERICO TNA Office (CNR)	15 Mar 2013	Done Re-scheduled to 18 March, finally extended to 27 March
Feasibility assessment	Operators of targeted facilities	end of April	Done 2 out of 6 proposals were not feasibile, revision requested
Scientific evaluation	Selection Panel	8 Apr - 28 May 2013	Done (4 out of 6 proposals)
Revision of non-feasibile proposals	Users	14 June 2013	Done (1 out of 2 proposals)
Communication of results to proponents and operators	JERICO TNA Office (CNR)	12 Jun 2013	Done (3 out of 4 proposals. Waiting for administrative information for the fourth)
Projects start	Users	After signature of agreements	

Second Call - Available and targeted facilities



Not participating (available access time consumed in the 1st call)

Targeted

User group Countries
1.Spain
2.Czech Rep & Norway
3.Norway & Italy
4.Italy
5.France & Tunisia
6.Italy & Tunisia

http://www.jerico-fp7.eu/tna/calls-and-selection/second-call/access-facilities

2ND CALL EVALUATION PROCEDURE

Three steps:

1.Validation of each proposal by the manager of the targeted facility.
2.Evaluation by the Selection Panel (SP) based on **scientific excellence, innovation and impacts on the state-of-the-art**.
3.Final assessments by the SP.

Six evaluation criteria:

1. Fundamental, scientific and technical value max 30
2. Quality of the work program max 25
3. Evaluation of risks and payoff max 15
4. Potential for seeding links with industry max 10
5. Quality of users groups max 10
6. European relevance max 10

Threshold score > 60

SECOND CALL – SUBMITTED PROPOSALS

SCORE	REF. No	TYPE	OPERATOR	PROPONENT	PROJECT TITLE - ACRONYM	STATUS
82.8	CALL_2_1	FP	CNR - IT	Sánchez Vidal - ES	MEditerranean sediment TRap Observatory - METRO	Approved
	CALL_2_2	FB FP	HZG – DE CNR - IT	Klánová - CZ	Emerging Chemical Contaminants in European Coasts - ECCECs	Under evaluation by operator
82.3	CALL_2_3	FP	CNR - IT	Sørensen - NO	Radiometry Assessment of optical Data for ocean color applications - RAD	Approved
82.2	CALL_2_4	FP FB	HZG – DE	Sanfilippo - IT	Field Test Of MicroLFA nutrients monitoring device for Ferrybox systems - FITO MicroLFA	Approved
75.2	CALL_2_5	FP	CNR - IT	Lefevre - FR	Monitoring Oxygen in the Sicily Channel - MOSC	Approved
	CALL_2_6	GL	INSU/CNRS - FR	Olita - IT	Multi Sensor Investigation in the Channel of Sardinia - MuSICs	Under revision by user

NEXT STEP: THIRD CALL

- Opening: September/October 2013
- Deadline before December 2013
- Offer all the available facilities, allowing for reallocation of access costs among partners (in order to offer the totality of the remaining TNA budget – about 154 K€, 33% of TNA budget)
- Accept projects that will end within Autumn 2014
- Stimulate partners to be more proactive in promoting the TNA opportunity

TNA RELATED DELIVERABLES & MILESTONES (OVERVIEW)

M8 D1.1 First Call for TNA proposals
Delivered in January 2012 (M9), updated with an Addendum in May 2013 (application form, description of facilities)

M11 MS6 Infrastructure available for users

M20 D1.5 Second Call for TNA proposals
Delivered in January 2013 (M21)

M24 D1.7 First report of the access activity
Delivered in May 2013 (M25)
(Will be updated in summer including more results from 1st Call)

M42 D1.10 Second report of the access activity

M48 D8.1 Trans National Access Provision
(Summary of Access provided under JERICO)

3.2.12. WP9: New methods to assess the impact of coastal observing systems by Srdjan Dobricic-CMCC

Slides are available on the following pages.

Tasks presentation

WP9 should apply mathematically sophisticated methods based on the statistical measure of the impact of coastal observations in order to provide the information on how to optimize investments and extract the most of the data from European coastal observing systems.

Two types of experiments tasks:

1. Impact of existing observational platforms (OSE)
2. Impact of future observational platforms (OSSE)

Impact of coastal observations in the Northern Adriatic Sea: map to see the difference between temperatures at 10m depth (0C) estimated by the control and assimilation experiments on 01 August 2006.

*Deliverable status: S*o far, they produced 4 deliverables, the last three ones were delayed (D9.2/D9.3/D9.4) of two months due to a staff changes. The final report will be produced before the end of the project, to link this deliverable with the final report of JERICO.

Next steps: Remaining deliverables

- D9.5 Scientific report on OSE experiments (M36)
- D9.6 Scientific report on OSSE experiments (M36)

It appears essential to organize another workshop before writing the two final scientific reports. If possible, it should be organized with the WPs that are particularly interested in our results. The EuroGOOS meeting in November may be a good occasion.

This WP will allow us to ask the question of the trade-off between money and efficiency.

WP9: NEW METHODS TO ASSESS THE IMPACT OF COASTAL OBSERVING SYSTEMS

Presented by Srdjan Dobricic on behalf of research groups at CMCC, DELTARES, DMI, HCMR HZG, IFREMER, INSU/CNRS and MUMM

MOTIVATION

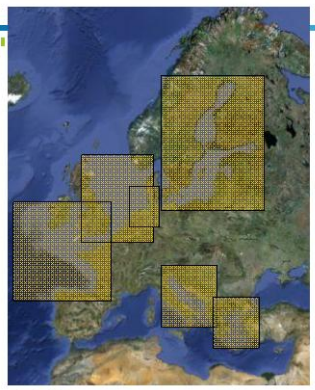
WP9 should apply mathematically sophisticated methods based on the statistical measure of the impact of coastal observations in order to provide the information on how to optimize investments and extract the most of the data from European coastal observing systems

WORK PLAN

Two types of experiments tasks:

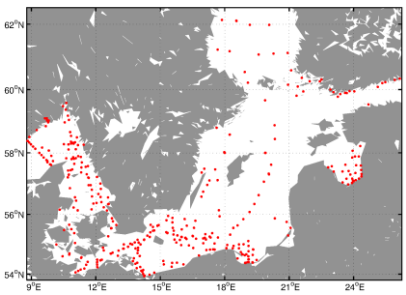
1. *Impact of existing observational platforms (OSE)*
2. *Impact of future observational platforms (OSSE)*

PARTNERS



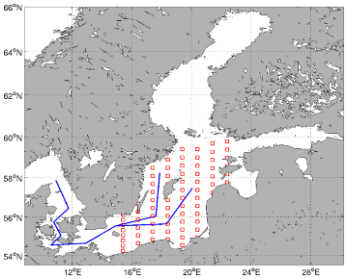
- *CMCC*
- *IFREMER*
- *DMI*
- *DELTARES*
- *HCMR*
- *HZG*
- *MUMM*
- *INSU/CNRS*

BALTIC SEA OSE



Spatial distribution of the temperature and salinity profiles assimilated during the precursor and inflow event period of 2006.

BALTIC SEA OSSE



the observing system comprising repeated XBT lines (blue lines) and moored buoy array (red squares).

3.2.13. WP11: Project Management by Patrick Farcy -Ifremer

Slides are available on the following pages.

Tasks presentation:

Main achievement of the project (see the Deliverable status in the following slides):

- WP1: Roadmap for WPs (D1.2); FCT activities well launched (D1.6)
- WP2: Inventories of GOOS is still in process. 3 deliverables submitted + 1 on the way.
- WP3 & 4: 5 common workshops: fixed platforms, FerryBoxes and gliders + Best practices handbooks.
- WP4: calibration facilities, Biofouling preventionWP5: Data management handbook, first version is done (D5.1 & D5.2)
- WP6: Launching of OceanBoard and JERICO website.
    - 1st summer school in July.

►*Amendment to the Grant Agreement*:

→ *Niva sub-contracting to IRIS*: NIVA participation in JERICO has been led by Dominique Durand who has now left NIVA. Kai Sorensen has taken over his position as project leader regarding NIVA participation in JERICO and he will be in charge of the development of the infrastructure relevant for JERICO. However to ensure that the continuity and competence are maintained in the NIVA group regarding JERICO, Dominique Durand will continue to support the JERICO project by being subcontracted by NIVA. The main task of Dominique Durand will be linked to WP1. Subcontract with IRIS, for one half of the remaining WP1 budget 36 500€.

→ *CNRS request an amendment to the JERICO GA* with retroactive effect under special clause 10, with the involvement of the following third parties:

•Université de Perpignan: through the Joint research Unit CEFREM (UMR-JRU n°5110), will be involved on WP3

•Université de Bordeaux: through the Joint research Unit EPOC (UMR-JRU n°5805)

→ *Trans National Access:* Revision of number of Accesses. In the form « Summary of transnational access/service provision per installation » the calculation of 240 units of access given by INSU-CNRS for an amount of 103 533€ for his National Glider Facility was unfeasible. Following internal discussion, the estimated number of accesses should be of 198 units of access.

→ *Nomination of Financial Statement Authorised Signatories* (FSIGNs) for electronic Forms C signatures. The amendment becomes applicable to all beneficiaries under a given grant, i.e. there will be no "mixed" reporting in a consortium (either all electronic-only or all with paper signature).

Comment A. Robin: We can't merge the FSIGNs amendment with the other types of amendment. Two independent requests have to be handled.

►*Associated partners:*

The JERICO "Associated Partner" partnership agreement, shall apply to any public organisation or any network that are not JERICO Parties but who are accepted for joining the Project by General

Assembly. One partnership agreement shall be signed by each Associated Partner and the Coordinator for the account of the Consortium."

4 proposals:
- *Sven Lovén Centre for Marine Sciences of the University of Gothenburg:* main potential scientific contact Dr. Micheal Klages. Not much information for the moment, some emails were sent to get more information.

- *Marine Hydrophysical Institute of the National Academy of Sciences of Ukraine* (MHI NASU): main potential contact, Mrs Veronika Maslova. Cancelled!

- *SARTI group at UPC (Universitat Politecnica deCatalunya)* with Dr. Joaquin del Rio as main scientific contact. SARTI team agreed to work on WP 1 and more specifically on the future strategy of JERICO in which we would like to integrate deep-sea observatories. Associated partnership agreement is in its finalisation process.

- *PLOCAN in Spain (Canaria)*: main potential contact, Mr. Carlos Barrera. After discussion, we agreed on the fact that PLOCAN could work on WP1, 3, 4, 6 and 7. Associated partnership agreement is in its finalisation process.

Next steps in 2014:

- strategy / white paper "future strategy for coastal observatories"
- Second FCT workshop in London (March)
- Scientific Advisory Committee, meeting in May : white paper workshop
- General Assembly in Oslo (TBC) in May
- 2nd interim report (June) – technical and financial
- Deliverables and products of WP3/WP4 & JRA (end 2014)

Key points and discussions:

J.M. Beckers: interesting project, and interesting long term prospective if efforts can be sustained. There are delays, but it's not blocking the project. Interactions between WPs must be now strengthened and shown in the next reporting periods (while preparing the common strategy and the label definition).

A. Robin: complex project, with different types of facilities, different stakeholders. It's important to have this kind of research infrastructure projects. She might have overestimated the importance of use of JERICO data in coastal modeling, WP9 particularly, which explain the choice of the reviewer.

JERICO is not the only initiative dealing with marine data and observation systems, but JERICO can be a foundation stone in building a larger system and addressing a larger community. There is a need of more interoperability, to save money, to show optimization. We have to demonstrate that working together helps saving money in the future, being more efficient and better serve the science community and other stakeholders, which is important.

The project must avoid delays in deliverables as the EC will not accept extension of duration of the project.

JERICO MID TERM REVIEW

Wp 11 Management

2013, June 18/19th - UPMC - Paris

Main achievements of the Project

1. *WP1: Roadmap for WPs (D1.2); FCT activities well launched (D1.6)*
2. *WP2: Inventories of GOOS is still in process. 3 deliverables submitted + 1 in the way.*
3. *WP3 & 4 : 5 common workshops : fixed platforms, ferryboxes and gliders + Best practices handbooks.*
4. *WP4: calibration facilities, Biofouling prevention*
5. *WP5: Data management handbook, first version is done (D5.1 & D5.2)*
6. *WP6: Launching of OceanBoard and JERICO website.*
   1st summer school in July.

Main achievements of the Project

1. *WP7: Starting month 21 with the real time data flow up to MyOcean TAC (Coriolis)*
2. *WP8 : First call for TNA done and 9 proposals accepted Second call for TNA done and 4 proposal accepted + 2 in a second stage evaluation*
3. *WP9: a workshop on OSE and OSSE initiated the WP9 activities*
4. *WP10: workshop on VOS in June 2011. WP10 kick off in March 2012. Interim workshop in Nice (October 2013)*
5. *WP11. Consortium agreement, qualitu assurance plan, Identity set, First periodic report M18 (technical and financial)*

WP 11 - Management

Task 1: day to day management
Task 2: financial follow-up
Task 3: Technical reporting, M18, 36, 48
Task 4: Quality assurance plan (with HCMR)
Identity set (with NIVA)
Task 5: Consortium animation
Task 6: Other management related issues
Exchanges with Australia and USA
Associated partners

WP11 – MANAGEMENT Task 2/3

Internal interim report for M9 (both technical and financial)
(A necessary exercise for the 1st period reporting M18)

1st Interim report M18 (both technical and financial)

Addendum to the 1st Interim Report M18 (technical only)

Preparation of the amendment of Jerico GA

Amendment to the GA

NIVA sub-contracting to IRIS

- *Niva participation in JERICO has been led by Dominique Durand who has now left NIVA.*
- *Kai Sorensen has taken over his position as project leader regarding Nivas participation in JERICO and will be in charge of the development of the infrastructure relevant for JERICO.*
- *However to ensure that the continuity and competence are maintained in the NIVA group regarding JERICO, Dominique Durand will continue to support the JERICO project by being subcontracted by NIVA.*
- *The main task of Dominique Durand will be linked to WP1*
- *Subcontract with IRIS, for one half of the remaining WP1 budget 36 500€.*

JERICO MID TERM REVIEW

Wp 11 Management

2013, June 18-19th - UPMC - Paris

Amendment to the GA

CNRS request an amendment to the JERICO GA with retroactive effect under special clause 10, with the involvement of the following third parties :

- *Université de Perpignan : through the Joint research Unit CEFREM (UMR-JRU n°5110), will be involved on WP3*
- *Université de Bordeaux : through the Joint research Unit EPOC (UMR-JRU n°5805)*

Trans National Access : Revision of number of Access. In the form « Summary of transnational access/service provision per installation » the calculation of 240 unit of access gived by INSU-CNRS for an amount of 103 533€ for his National Glider Facility was unfeasible. Following internal discussion, the estimated number of access should be of 198 unit of access.

Amendment to the GA

HZG : change of offered platform (piles) in TNA

Reduction of the number of piles (COSYNA-PILE) from three to one within their coastal observatory COSYNA.

Instead they would like to offer as unit of access a fixed platform located in the estuary of the Elbe Riber (Cuxhaven) to the same conditions and same access costs.

This station is measuring the same set of parameters continuously and has in addition a better electric power (220 V) provision

Amendment to the GA

Nomination Financial Statement Authorised Signatory (FSIGN) for no more signed Forms C

All partners in the consortium agree to do an amendment to the contract.

The amendment becomes applicable to all beneficiaries under a given grant, i.e. there will be no "mixed" reporting in a consortium (either all electronic-only or all with paper signature).

WP11 – MANAGEMENT Task 4

Quality assurance plan V4 – available, on the website (deliverables).

Identity set : the description is on the website. To have the # items (ppt, logo, etc…) please ask to Ingrid or me.

WP11 – MANAGEMENT Task 5/6

Janet Newton from IOOS is member of the SAC

Richard Dewey from the university of Victoria

Roger Proctor from Australia

Participation to the EU-Australian workshop in Brussels in 2012

3 new associated partners

Associated partners

Aim of an associated partnership agreement

- Definition of the JERICO grant agreement, **"Associated Partner"** shall designate any public organisation or any network that are not Parties but who are accepted for joining the Project by General Assembly. One partnership agreement shall be signed by each Associated Partner and the Coordinator for the account of the Consortium."

- For your information, the associated partner can, in no case whatsoever, claim any part of the financial contribution provided by the European Community in the framework of JERICO.

- The purpose of this associated partnership agreement, hereinafter referred to as this Agreement is :

1.1. To open JERICO exchange to Associated Partner
1.2. To open specific tasks to Associated Partner, in particular in connection with Workpackage (to define) as detailed in Annex 1 of EC-Contract.
1.3. To participate to some Project general tasks as designation of review panel members, attendance to advisory committees and participation to associated partnership recruitment
1.4. To prepare the Project's future steps.

Associated partners

4 proposals :

- Sven Lovén Centre for Marine Sciences of the University of Gothenburg : main potential contact, Mr Micheal Klages. Not much information for the moment, email send to have more information.

- Marine Hydrophysical Institute of the National Academy of Sciences of Ukraine (MHI NASU) : main potential contact, Mrs Veronika Maslova. Cancelled!

- Joaquin del Rio, from SARTI research group at the UPC (Universitat Politecnica deCatalunya) SARTI (UPC). They agree to work on workpackage 1 and on the future strategy for JERICO in which we would like to integrate deep sea observatories. **Associated partnership agreement in its finalisation process**.

- Plocan in Spain : main potential contact, Mr Carlos Barrera. After discussion, we agree on the fact that Plocan could work on WP1, 3, 4, 6 and 7. **Associated partnership agreement in its finalisation process.**

D1.1	First call for TNA proposals	1	M8	**M9**	5	6.75	CNR
D1.2	Rationale and definitions for a common strategy	1	M9	**M21**	6	2	INSU/CNRS
D1.3	Terms of reference of the FCT	1	M9	**M14**	3	1	MI
D1.4	JERICO label definition	1	M18	Postponed	2	0	HCMR
D1.5	Second call for TNA proposals	1	M20	**M21**	5	0	CNR
D1.6	First report of the FCT activity	1	M24	Postponed to M26	3	0	MI
D1.7	First report of the access activity	1	M24	M25	5	0	CNR
D2.1	Report on existing observation network	2	M12	**M21**	6	3	IMR
D2.2	Report on recommendations	2	M12	**M25**	6	3	IMR
D2.3	Integrated Pan European Atlas first report	2	M18	Postponed to M26	6	0	IMR
D2.4	Demonstration of the feasibility of Joint trans-regional production	2	M24	**M25**	9	0	SMHI
D3.1	Report on current status of FerryBox	3	M9	Uploaded M15 **Submitted M17**	20	12	HZG/NOCS
D3.2	Report on current status of gliders observatories within Europe	3	M15	Postponed to M26	20	1	CSIC

D3.3	Review of current marine fixed instrumentation	3	M21	Postponed to M26	20	5	HZG/CEFAS
D4.1	Report on calibration existing facilities	4	M18	**M22**	10	3	HZG
D5.1	DM data management handbook V1	5	M8	**M13**	6	3	Ifremer
D5.2	RT data management handbook V1	5	M8	**M13**	6	3	Ifremer
D5.3	First data management report	5	M24	Postponed to M26	6	0	OGS
D6.1	Design and launch of JERICO OceanBoard v0	6	M6	**M13**	6.0	3	Cefas (+UoM)
D6.2	JERICO Community Hub	6	M12	**M13**	5.0	0.5	Cefas
D6.3	Summer school 1	6	M15	Postponed to M27	3.02	0.3	UoM
D6.4	Development and implementation of suite of web-based interactive tools	6	M24	M24	8.0	0.0	Cefas
D6.5	Summer school 2	6	M27	Postponed to M39	4.0	0.07	DELTARES
D8.1	Trans National Access Provision	WP8	M48	M48	2.50	0.50	CNR
D9.1	First scientific report	9	M12	**M12**	10	10	CMCC
D9.2	First report on OSE	9	M18	**M21**	10	10	HCMR
D9.3	First report on OSSE	9	M18	**M21**	10	10	DMI
D9.4	Second scientific report	9	M24	**M25**	7.5	7.5	CMCC
D11.1	Signed consortium agreement	11	M2	**M8**	2	2	IFREMER
D11.2	Quality assurance plan	11	M3	**M6**	5	5	HCMR
D11.3	Identity Set	11	M6	**M12**	2	2	NIVA
D11.4	First periodic report	11	M18	**M21**	12	0	IFREMER

Milestones

MS1	Kick off meeting	WP11	1	**M1**	Ifremer	**Yes**	Kick off meeting report
MS2	First intermediate GA	WP11	18	**M18**	Ifremer	**Yes**	General Assembly in Heraklion (1 and 2 Oct)
MS5	First steering committee outputs	WP1	9	**M9**	INSU/CNRS Ifremer	**Yes**	First steering committee report
MS6	Infrastructure available for users	WP1	11	**M9**	INSU/CNRS	**Yes**	1st TNA call
MS7	First forum for coastal technology	WP1	18	**M18**	INSU/CNRS	**Yes**	Held during the Sea Tech Week in Brest
MS8	Second steering committee outputs	WP1	18	**M19**	INSU/CNRS Ifremer	**Yes**	SC meeting in Heraklion in October the 2nd.
MS9	Third steering committee outputs	WP1	27	M25	INSU/CNRS Ifremer	**End of May**	SC meeting in Galway 16/17 May 2013
MS16	First JERICO management Handbook	WP5	8	**M13**	OGS	**Yes**	Handbook in progress
MS17	Launch of service access	WP5	18	**M13**	OGS	**No**	
MS20	Summer School 1	WP6	16	***27***	CEFAS	**No**	Organisation UOM
MS21	Summer School 2	WP6	28	***40***	CEFAS	**No**	Organisation Deltares
MS22	JERICO workshop on sensors for vessels of opportunity and fishing vessels probes	WP10	12	**M2**	MI Ifremer	**Yes**	Workshop report done
MS23	Software and manuals for new image analysis techniques (including Flowscan and Zooscan)	WP10	24	***42***	INSU/CNRS (not BLIT as indicated in the DOW)	**No**	**Milestone MS23 brought in line with Deliverable D10.2**

Next Deadlines

- D6.3 Summer school one M27
- MS20

- D6.3 Final version OCEANBOARD M30

- WP10 Workshop in NICE October – 16/18

- Constitution of a permanent WG on calibration (WP4) COST proposal

- WP1 LABEL DEFINITION

- Annual Meeting Eurogoos with WP2 and WP9 Meetings