

## A Connected Ocean Conference 2016

### A Connected Ocean and EuroGOOS joint workshop programme, **Draft V4**

Note: all participants are invited to the

#### **Sea Tech Week opening session,**

*Tuesday morning, October 11th, at Le Quartz "Grand Théâtre", 10:00-12:30.*

09:45 – Welcome of attendees

10:00 – Short welcome speeches (by the mayor of Brest and a representative of Brittany region)

10:10 – Introduction of the main theme of Sea Tech Week “Ocean and Digital technologies”, by IEEE-OES, partner of Sea Tech Week // René Garello

10:20 – Keynote on advances in digital technologies applied to marine science // Susan Avery (title to be confirmed)

10:45 – Round-table discussion “digital technologies in different marine science areas”

- Ocean characterization // Kate Moran, ONC (to be confirmed)
- Security and safety // Jean-Guy Fontaine, NURC/NATO
- Biology // A. Murat Eren, University of Chicago
- Ocean Racing // to be confirmed

11:45 – Presentation of expertise in marine sciences and technologies in Brittany, through the local cluster “Campus Mondial de la Mer”

This session will be moderated by a journalist (Anne Chevrel). A pinch of humor will be brought by Sébastien Chambres, member of the “Impro infini” improvisational theater company.

#### **Notes to "A Connected Ocean" participants**

**Posters** will be on display all day Tuesday-Wednesday, located near the coffee breaks.

**Invited talks** are 30min, including questions.

**Contributed talks** are 15min long+5min questions (= 20min slots).

### **Tuesday afternoon october 11th - A Connected Ocean plenary session (joint with EuroGOOS)**

*Le Quartz, Small Theater, 14:00-18:00*

14:00 - 14:10 Introduction of ACO (A.M. Treguier, R. Garello)

14:10- 14:40 Stanley Matwin, "Big Data Meets Big Water: the Example of the AIS Ship Tracking Data"

14:40- 15:10 - Thomas O'Reilly: Standards for interoperable marine sensors: technologies and adoption

15:10 - 15:40 - Christoph Waldmann "Addressing the grand technological challenges in ocean observation in Europe"

*15:40 - 16:00: Coffee break*

### **16:00-18:00 Interoperable marine data: What is the Blue Growth potential?**

16:00-16:30 Patrick Gorringer, EuroGOOS Marine Open Data in Europe: opportunities for industrial Blue Growth stakeholders.

16:30- 17:00 Sylvie Pouliquen, Ifremer, France Atlantic data integration through EU AtlantOS project.

17:00-18:00 User Perspectives:

Renaud Laborbe, Executive Chairman, Open Ocean, France (TBC)

Director, dotOcean, Belgium (TBC)

Discussion. Moderator: Patrick Gorringer, EuroGOOS

**18:30 – 21:00 (time to be confirmed): Welcome cocktail at “Plateau des Capucins” offered by Brest Métropole and Crédit Agricole Filière Mer. Transportation by tramway.**

## **Wednesday morning October 12th**

### **A Connected Ocean**

*Le Quartz, room number 8, 9:00 -12:30*

#### **9:00-10:40 : " Big Data infrastructure and analytics in ocean science"**

9:00 Adrian Leadbetter : Linked Ocean Big Data: Exploring connections between marine datasets in a Big Data world

9:20 Aurélien Ducourneau : Is deep learning relevant for ocean remote sensing data? A case study on satellite-derived SST data.

9:40 Raza Abidi : E-Science Platform for Ocean Data and Knowledge management

10:00 Laurent Etienne : Sea Ice Navigation Risk Assessment in the Canadian Arctic

10:20 Romain David : IndexMed projects: new tools using the CIGESMED DataBase on Coralligenous for indexing, visualizing and data mining based on graphs

*10:40-11:10 Coffee Break, poster viewing*

#### **11:10 - 12:30 : "Multimodal synergies in ocean studies"**

11:10 Adrien Martin : Retrieving current vectors from squinted atisat: airborne demonstration and validation

11:30 Frédéric Jourdin : Measuring in water suspended particles by statistical learning of ocean colour satellite data with models of ocean currents

11:50 Gaelle Herbert : New insights on the upper layer circulation in the Gulf of Guinea

12:10 Ronan Fablet : Synergies between along-track altimeter data and sea surface tracer fields using convolutional models: application to the reconstruction of mesoscale sea surface currents

### **EuroGOOS session : "The power of open-access interoperable marine data for the maritime sector: An untapped resource?"**

*Le Quartz, room number 7, 9:00-12:30*

Moderator: Jonathan Williams, Marine South East, UK

Introduction to the workshop objectives. Jonathan Williams, Marine South East, UK

Panel and open discussion: Industrial applications of open access marine data: How to maximize uptake?

*Jan-Bart Calewaert, EMODnet*

*Patrick Gorringer, EuroGOOS*

*Dominique Obaton, Copernicus Marine Service TBC*

*Renaud Laborbe, Open Ocean TBC*

*TBD, dotOcean TBC*

### Breakouts

- How can publicly funded marine information sharing initiatives develop to meet industry user needs? What are the specific needs of SMEs?
- What are the bottlenecks to more efficient exploitation of marine observation and data resources by the private sector?
- How to target users effectively (do they know we are here?)

Breakout facilitators: Oonagh McMeel, Seascope Consultants, Ayoze Castro, Plocan, John Breslin, SmartBay Ireland

*Networking and coffee*

Reports from breakout facilitators

Panel and open discussion : What are the next steps to improve collaborations between public data initiatives and the private sector catalysing the conversion of information to innovation?

*John Breslin, SmartBay Ireland*

*Ayoze Castro, Plocan, Spain*

*Patrick Gorringer, EuroGOOS*

*Jan-Bart Calewaert, Seascope Consultants/EMODnet*

*Dominique Obaton, Copernicus Marine Service TBC*

## **Wednesday afternoon, october 12th**

### **A Connected Ocean : parallel session, "Interoperability standards for the marine environment"**

*Le Quartz, room number 7, 14:00-18:00*

14:00 Convenors's introduction, including ambitions for the session

14:05 Jean François Rolin : "Various tools to stimulate interoperability in ocean monitoring as experienced by European Marine Research Infrastructures "

14:25 Catherine Satra Le Bris : "Sextant, a Marine Spatial Data Infrastructure: implementation of OGC protocols for the dissemination of marine data at Ifremer"

14:45 Daniel Toma : Standard-based middleware for marine sensor networks

15:05 Hosi Bao Lam : "Toward networked automatic coastal observatories: architecture and applications of vision sensors "

*15:25 Coffee break*

- 15:40 Janet Fredericks : "Cross-Domain Observational Metadata for Environmental Sensing"
- 16:00 Thomas Loubrieu : "Sensor web enablement standard integrated services supporting observatory operators, from sensor purchase to data preservation and publication"
- 16:20 Fadi Obeid: "Secure Data Communication Protocol for sub-sea cabled observatory"
- 16:40 Joaquin del Rio : "Synchronization Experiences at Obsea UPC "

**1700-17:30 PANEL DISCUSSION 1**

Moderators: Eric Delory & Thomas O'Reilly

Panel members: Joaquin del Rio, Jean-François Rolin, Catherine Satra Le Bris, Hozi Bao Lam, Fadi Obeid

**1730 - 18:00 PANEL DISCUSSION 2**

Moderator: Sylvie Pouliquen

Panel members: Janet Fredericks, Thomas Loubrieu, Joaquin Del Rio

**A Connected Ocean: parallel session, "Biological rates, upwelling: new autonomous approaches and integrated observations"**

**Le Quartz, room number 8, 14:00 - 17:30**

- 14:00 George Petihakis : ADCP observations of migration patterns of zooplankton in the Cretan Sea
- 14:20 Frédéric Cyr : A new glider-mounted optical sensor of dissolved organic matter
- 14:40 Grigor Obolensky : Euro-Argo : a new European Research Infrastructure for climate change research and operational oceanography
- 15:00 Bernard Bourles : Toward sustained and enhanced observations in the eastern tropical Atlantic based on the PIRATA network.

*15:20 - 15:40: Coffee break*

- 15:40 William Kirkwood : Automation for In Situ Multi-Stressor Biogeochemical Experiments
- 16:00 Alban Lazar : 1,5 year of observations from the MELAX ocean-atmosphere mooring-observatory in the Senegalese coastal upwelling.
- 16:20 Andrea Devis Morales : Analyzing seasonal, interannual and extreme climate variability in the caribbean sea upwelling system off colombia

16:40-17:30 : Round table. Moderator: Richard Lampitt, "long-term observation tasks of biological processes"

**POSTER viewing 17:30-19:00**

**19:00 – 23:00 Social event at Le Quartz including Brittany buffet and concert of Bachar Mar Khalife.**

## **"A connected Ocean" POSTERS**

**(reminder: submission of posters will be possible until the end of september)**

Elodie Martinez : A novel approach dedicated to build a climate oceanographic observatory in the central South Pacific: THOT (Tahitian Ocean Time series).

Christophe Maes : On the stability and spatio-temporal variance distribution of salinity in the upper ocean.

Alain Loussert : Maximization of the power of the ultra-wide band "UWB" signal sent to the human body while respecting the Federal Communications Commission "FCC" constraints

Tuyen Truong : Wireless network on coastal topologies: Parallel simulation of radio coverage on cellular systems

Ediang Okuku : Understanding of precipitation process along nigerian coast.

Ediang Okuku : Climate information and sustainable development: an overview in west africa coastal areas.