



EMODnet - European Marine Observation and Data Network - Physics

Knowledge base for growth and innovation in ocean economy: assembly and dissemination of marine data for seabed mapping

MARE/2012/10 - Lot 6 Physics [SI2.656795]



EMODnet Physics - background

Ur- European Marine Observation and Data network:

- Support **better discovery of data** (INSPIRE Directive), **free access** to data and few restrictions on use and **re-use of data** (Environmental Information Directive and Public Sector Information Directive)
- Support to the **Shared Environmental Information System SEIS** (in collaboration with **EEA**) to **modernise and simplify** the collection, **assembly, use** of the data and information for environmental policy
- **integration of different national and local marine** and observation systems into a coherent European system: **ur-EMODnet**

And moved to:

- **Converge data collection** and **build a single gateway** to access data from EMODnet, Copernicus Marine Service and fisheries data (via Data Collection Framework) → *EMODnet = in situ*
- **Support** Member States to **design** the most appropriate monitoring and observation system **for European sea-basins** (*check points*)
- Provide **joint products from multiple sources**





2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
------	------	------	------	------	------	------	------	------	------	------	------

Phase 1 – limited sea basins

Phase 2 - low resolution

Phase 3 - multi-resolution

Bathymetry
Geology
Physics
Chemistry
Biology
Physical habitats

Bathymetry
Geology
Physics
Chemistry
Biology
Physical habitats
Human activity

Secretariat – Central portal

Mediterranean check point

North Sea Check point

Arctic check point

Atlantic check point

Baltic Check point

Black Sea Check point

s users to assess
product by

Learn

Measure



EMODnet Physics

EMODnet Physics objectives and commitments:

- *Provides a **single point of free and open access to marine real-time and archived data on physical conditions of European Seas***
- *Attract and provide access **to any user and stakeholder***
- ***Build on existing infrastructures and avoid duplication** of efforts*
- *Facilitate **integration and interoperability** with further systems*
(INSPIRE compliant, WMS, WFS, etc)
- ***Attract new and better data and new data owners/providers***
(e.g. Adriatic Sea is a target area)
- ***Improve back office infrastructure** for the benefit of the ROOSs and contributing Institutes and give **visibility and awareness** to contributors*
- ***Full engagement of the EuroGOOS ROOSs***
(50% of the budget to empower ROOSs data interoperability infrastructure)

EMODnet Physics



EMODnet
Physics

Interoperability



Reinforce

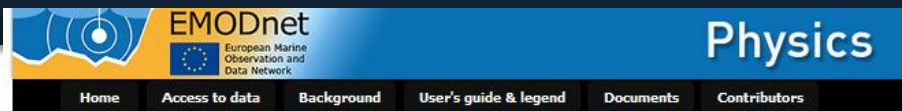
WMS
WFS
Web
services
...
socials



Sustain

contacts@emodnet-physics.eu

EMODnet Physics



Welcome to EMODnet Physics



Search, Discover, Analyse, Inform

The EMODnet Physics provides access to physical data and metadata available for use by public authorities, scientists and industry, contributes towards the definition of an operational European Marine Observation and Data Network (EMODnet) and contributes to developing of the definition of the Global Monitoring for Environment and Security (GMES) marine core service.

[ACCESS TO DATA](#)

[ACCESS TO WMS/WEB SERVICES](#)

[ACCESS TO CATALOGUE](#)

Meetings | News

2014/05/07
OBSEA joins EMODnet Physics

2014/05/06
Jerico Summer School 2014

2014/04/28
EGU General Assembly 2014-Vienna, 27 April-2 May 2014

2014/04/03
7th EuroGOOS Conference, Lisbon 28-30 October 2014

2014/04/03
First EuroGOOS EMODnet and myOcean link

News from web

2014/05/02
Soil contamination widespread in Europe

2014/05/01
Environment & Me! photo competition open for entries

2014/04/30
New cars meet CO2 target two years ahead of the deadline

2014/04/30
Finding Europe's quiet areas

2014/04/14
Climate change: immediate action is the best economic option

Near real time data and metadata are populated by data owners, organized at EuroGOOS Regional level according ROOSs infrastructure and conventions and made available with the EMODnet Physics user interface. Latest 60 days are freely viewable and downloadable while the access to older data (monthly archives) request credentials. Archived data series and metadata are organized according and in collaboration with NODCs network.

The EMODnet Physics is also developing high level interoperability layers and OGC services (WMS, WFS, and WCS) for data discovery, view and download to facilitate end user data access and machine-to-machine interaction.

Apps available



For support, feedback and further information contact us: contacts@emodnet-physics.eu
© Copyright EMODnet Physics 2011 - 2016

**INSPIRE
Services**

DISCOVER

VIEW

DOWNLOAD

WMS/WFS

Data Policy

Open & Free

www.emodnet-physics.eu



contacts@emodnet-physics.eu

Interoperability and services

EMODnet 2 PHYSICS

Dashboard

Web Service ASMX

WMS

WFS

Catalogue

Clean address bar

Method	Description	Params	Example
GetAllDataOwner			Example XML Example TXT
GetAllLatestData60Days		PlatformID	Example XML Example TXT
GetAllLatestDataCode		PlatformID ParamCode	Example XML Example TXT
GetAllLatestDataFromTo		PlatformID StartDate EndDate	Example XML Example TXT
GetAllLatestDataFromToCode		PlatformID ParamCode StartDate EndDate	Example XML Example TXT
GetAllLatestDataParameterGroup		PlatformID ParameterGroupID	Example XML Example TXT
GetAllParameters			Example XML Example TXT
GetAllParametersGroup			Example XML Example TXT
GetAllPlatforms			Example XML Example TXT
GetPlatformId		PlatformID	Example XML Example TXT
GetAllPlatformsDataOwner		DataOwnerCode	Example XML Example TXT

Web Services (real time delivery)



EMODnet Physics

Platform: 62084

NRT PLOT MIN/AVG/MAX PLATFORM INFO DATA AVAILABILITY

SEE ALL PARAMETERS ? SEE ALL PLOTS ?

TIME RANGE FROM TO 2014

YOU CAN PLOT MINIMUM, AVERAGE AND MAXIMUM DATA IN A RANGE BETWEEN A STARTING AND AN ENDING YEAR

62084

PLOT FEATURES

W WAVES AND WIND

T WATER TEMPERATURE

Sea temperature
Unit of measurement: degree_Celsius

Quality flag: 1 Depth: all

1970/0:

degree_Celsius

year and month

Select statistic: minimum PLOT

S WATER SALINITY/ CONDUCTIVITY/ DEN SITY

DATA OWNER
Puertos del Estado - Spain

PLATFORM CODE
62084

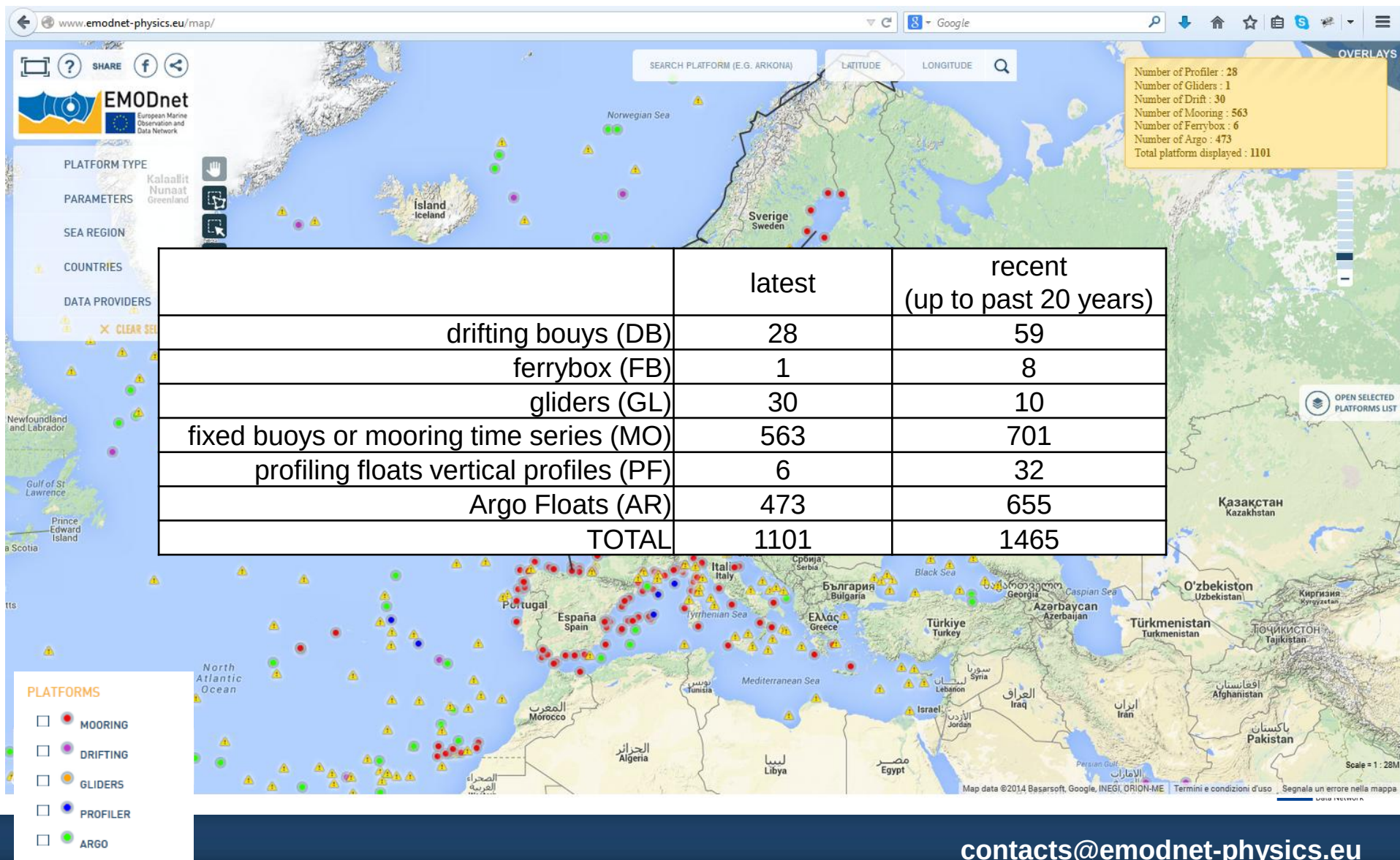
PLATFORM TYPE
fixed buoys or mooring time series

PROVIDER
Puertos del Estado (Spain)

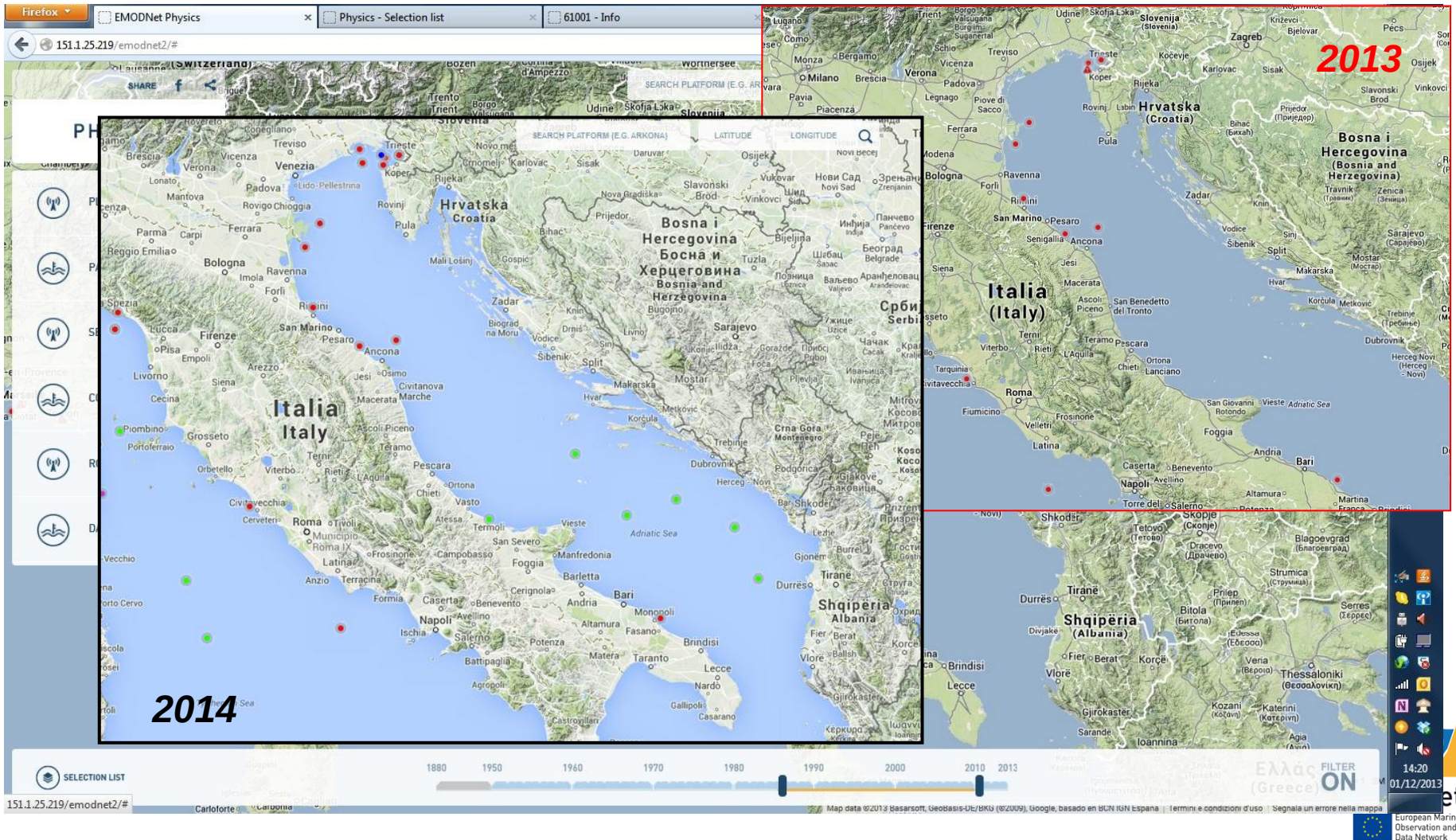
INSTITUTION
Puertos del Estado

WMO PLATFORM CODE

EMODnet Physics



EMODnet Physics



EMODnet Physics and CDI

	latest + recent	connected to CDI	Potential already in SDN
drifting bouys (DB)	59		
ferrybox (FB)	8		

EMODnet PHYSICS
DISCLAIMER
OPEN SELECTION LIST
ADD TO SELECTION LIST
SHARE
f
<

Platform:

OGS

DATA OWNER
OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Division of Oceanography

DATA & INFO
CDI INFO

REQUEST DATA
REQUEST ALL DATA
CLEAR SELECTED

we need to work closer to make this info available and make more data available and accessible

TIME RANGE
>>

EMODnet Physics



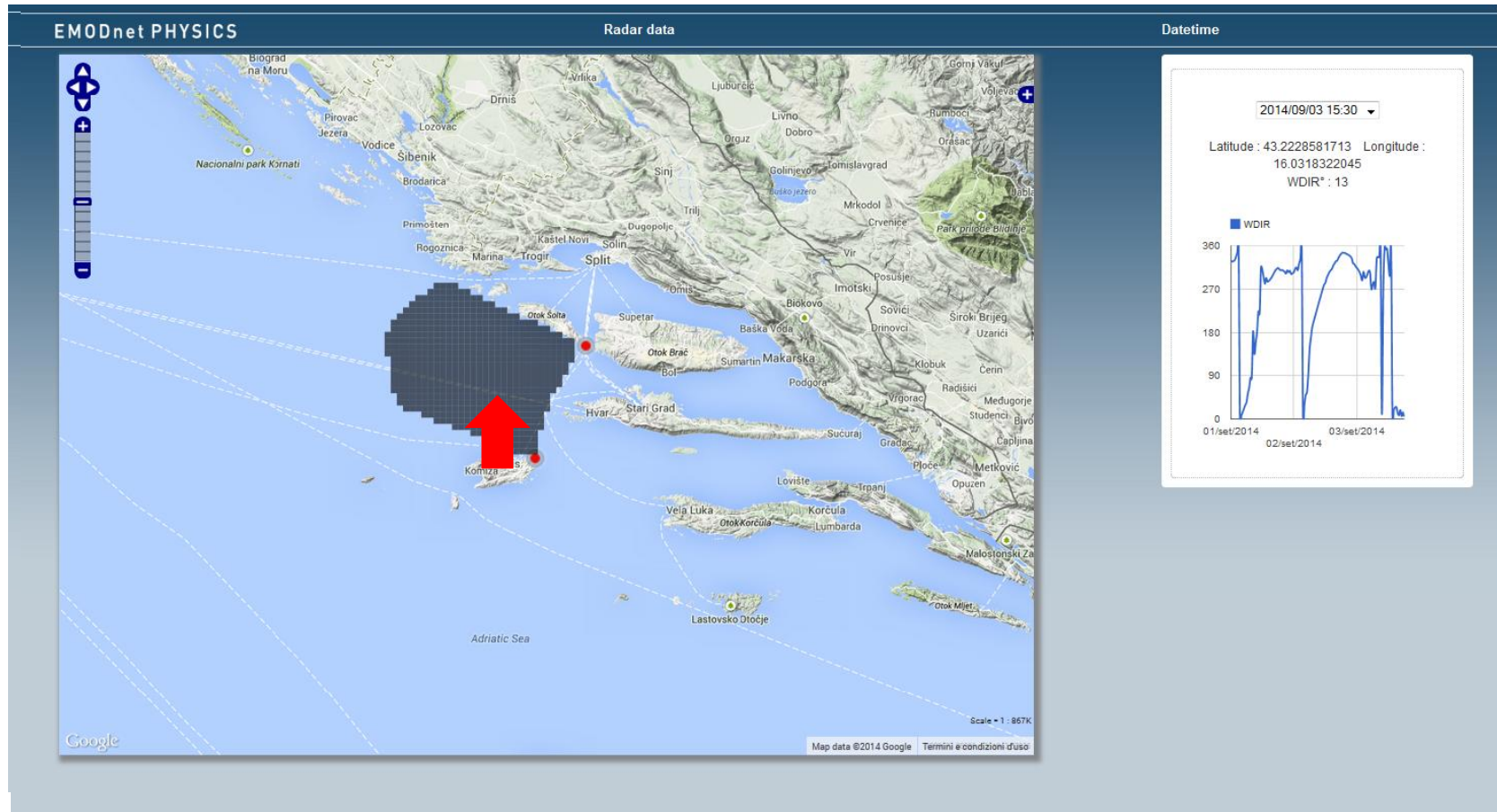
- *Work on a common data flow and management*
 - *access data and validate for your purpose and make this available in the system*
- *Different users have different needs*
 - *make data available and accessible*
 - *inform about data quality, award any step in the process*
- *New platforms are coming → need for new schemas*

(EMODnet)



European Marine
Observation and
Data Network

EMODnet Physics and HFR



EMODnet Physics

Landing pages

www.emodnet-physics.eu

www.emodnet.eu/physics

Contacts and feedback

contacts@emodnet-physics.eu

Operational Test system

<http://151.1.25.219/emodnet2/> ...

Background, meetings, news

www.emodnet-physics.eu/portal

www.emodnet-physics.eu/portal/news

www.emodnet-physics.eu/portal/bibliography

www.emodnet-physics.eu/portal/meetings

Test system CDI

<http://151.1.25.219/emodnet2cdi/>

Operational System

www.emodnet-physics.eu/map

www.emodnet-physics.eu/map/dashboard

www.emodnet-physics.eu/map/catalogue

www.emodnet-physics.eu/map/service/defaultWMS

www.emodnet-physics.eu/map/service/WSEmodnet2

[Home page](#) > [Bibliography](#)

QA/QC Protocols

A major pre-requisite for establishing QC standards is a strong QA program. Good QC requires good QA, and good QA requires good scientists, engineers, and technicians.

Publications on QA / QC

Title	Authors	Journal
In Situ Calibration of Optode-Based Oxygen Sensors	H. Uchida, T. Kawano, I. Kaneko & M. Fukasawa	J. of Atmos. and Ocean. Technol. (2008) DOI 10.1175/2008JTECHO549.1
Automated Data Quality Assessment of Marine Sensors	G.P. Timms, P.A. de Souza Jr., L. Reznik and D.V. Smith	Sensors (2011) DOI 10.3390/s111009589
Implementation of Real-Time Quality Control Procedures by Means of a Probabilistic Estimate of Seawater Temperature and Its Temporal Evolution	G.M.R. Manzella and M. Gambetta	J. of Atmos. and Ocean. Technol. (2013) DOI 10.1175/JTECH-D-11-00218.1

Quality Assurance

Quality Control

Reference	Title	Published
IOC-CEC Manual & Guides 26	Manual of quality control procedures for validation of oceanographic data	1993 UNESCO
SIMORC BODC	Data quality control procedures	2007 6th FP DG RESEARCH
IOC Manual & Guides 22	GTSP Real-Time Quality Control Manual	2010 UNESCO
SeaDataNet QC	SeaDataNet QC procedures V2	2010 SeaDataNet
QARTOD water level manual qc	Manual for Real-Time Quality Control of Water Level Data	2014 QARTOD