

OceanBestPractices System: a global resource to facilitate harmonizing practices in ocean observation, data and information

Best Practices Working Group:

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IMDIS 2018 – Barcelona (SPAIN), 5-7 November



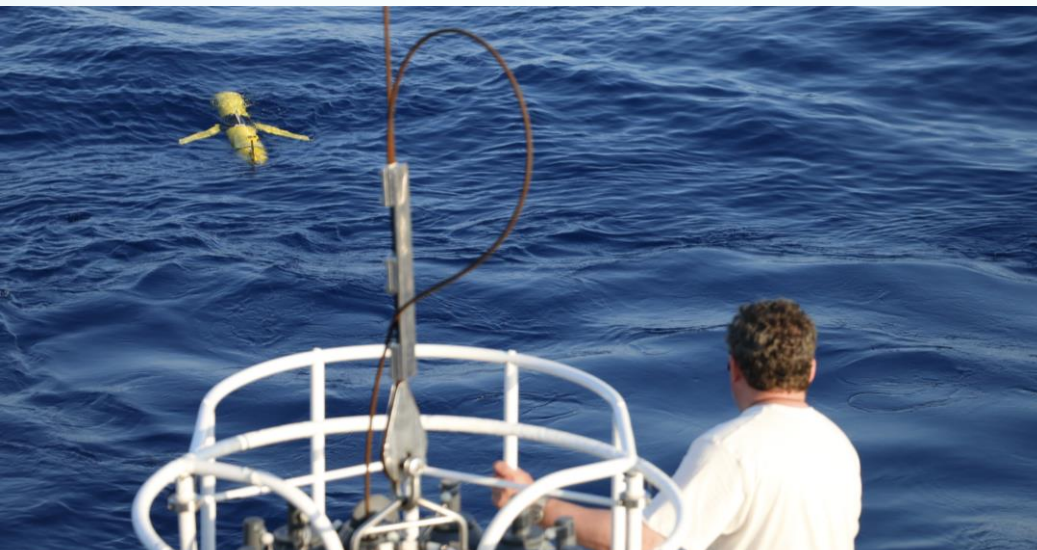
Best Practice Vision

- To have agreed methods for every activity in ocean observing research, operations and applications that are broadly adopted.



Best Practice Mission

- To provide and sustain a system which fosters collaboration, consensus building, and innovation by providing coordinated and global access to best practices across ocean sciences.



Challenges of Best Practices

- Quality of BP Documentation varies widely
- Data and metadata formats are inconsistent
- Machine readability is limited (if at all)
- Sustainability is often not guaranteed
- Lack of coordination/awareness among projects and organizations



Ocean Best Practices System

- Living, Sustained, Comprehensive System for Ocean Observing Best Practices
- Academic recognition through peer review and DOIs
- Improved visibility from search engines
- Training resource
- Greater Interoperability across programs and institutions

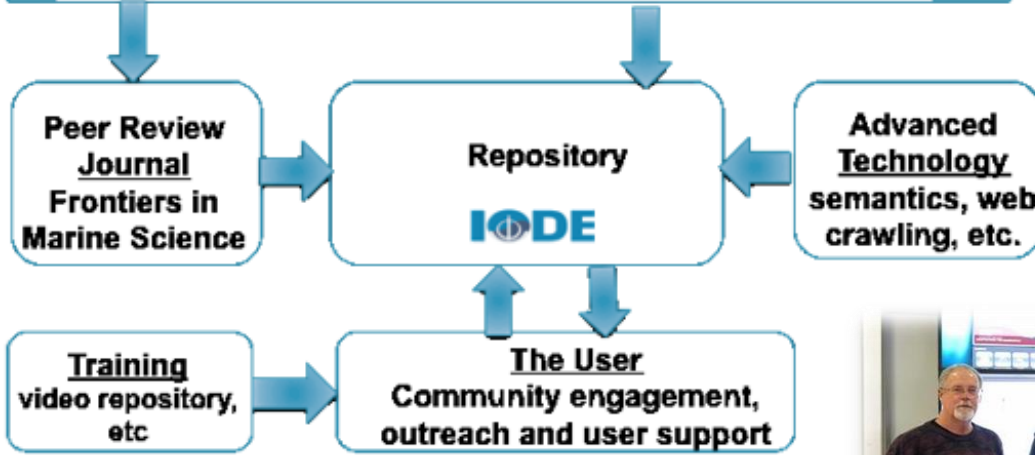


Benefits for the Ocean Observing Community

- **Open Access** to documented BPs
- A **Sustained Repository** to host BPs
- **Peer reviewed publications** linked to BPs
- **Community service** update & acknowledgement of skills and BPs quality



Addressing such challenges





Societal Requirements

Societal Benefits

Scientific Approach

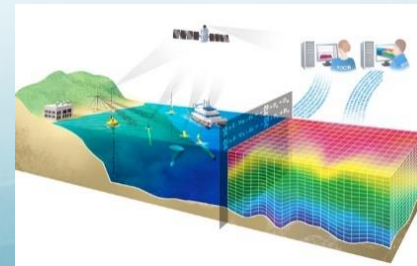


Products and Services

Data Acquisition



Data Management Services



Marine Safety & Environmental Protection

Ranking of met-ocean data products

IBI region

Evolving and Sustaining Ocean Best Practices Workshop, IOC, Paris, France, Nov 2017

“A community best practice is a methodology that has repeatedly produced superior results relative to other methodologies with the same objective.”

To be fully elevated to a best practice, a promising method needs to be adopted and employed by multiple organizations.”

EOS article: Citation: Hermes, J., J. Pearlman, and P. L. Buttigieg (2018), What’s the best way to responsibly collect ocean data?, Eos, 99, <https://doi.org/10.1029/2018EO096533>. Published on 04 May 2018.

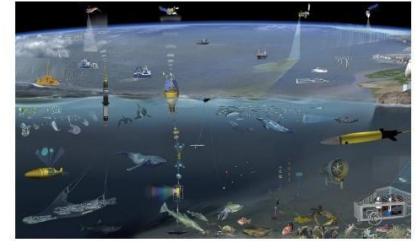


Image credit: NEXOS Project

**Evolving and Sustaining
Ocean Best Practices Workshop**
15 – 17 November 2017
Intergovernmental Oceanographic Commission, Paris, France

Proceedings

Editors
Pauline Simpson, Francoise Pearlman and Jay Pearlman

Rapporteurs:
Mark Bushnell, Juliet Hermes, Cristian Munoz

January 2018



FAIR Principles adopted in OBPS

BPs meet domain-relevant community methodologies??

F
Findable



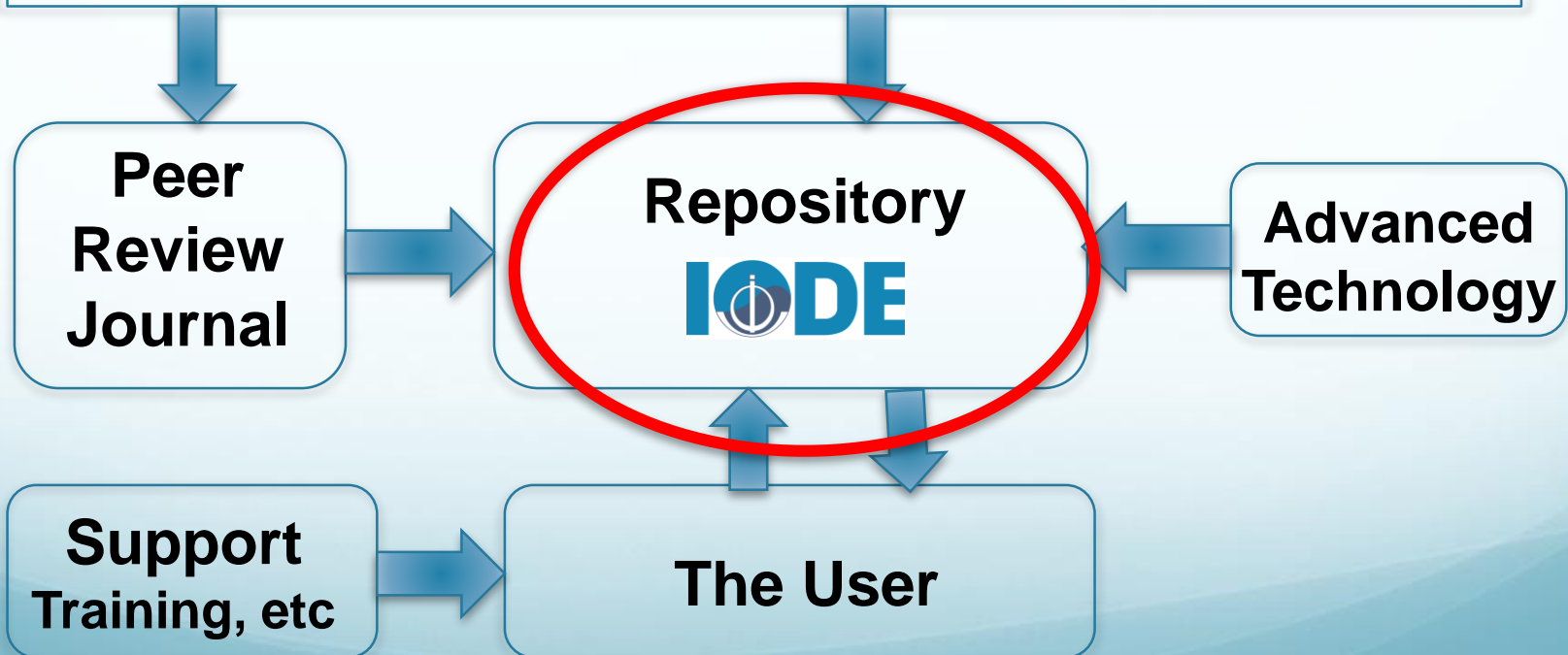
A
Accessible

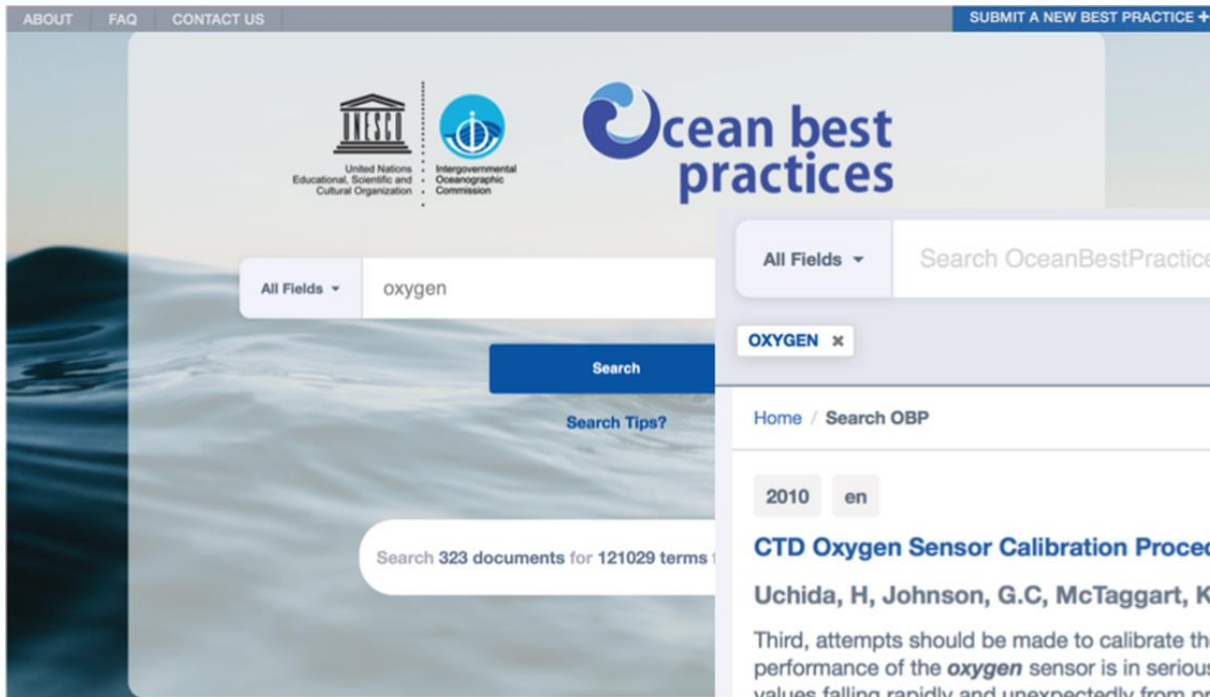


R
Reusable



Participating Organizations and Programs





ABOUT FAQ CONTACT US SUBMIT A NEW BEST PRACTICE +

United Nations Educational, Scientific and Cultural Organization
Intergovernmental Oceanographic Commission

ocean best practices

All Fields ▾ oxygen

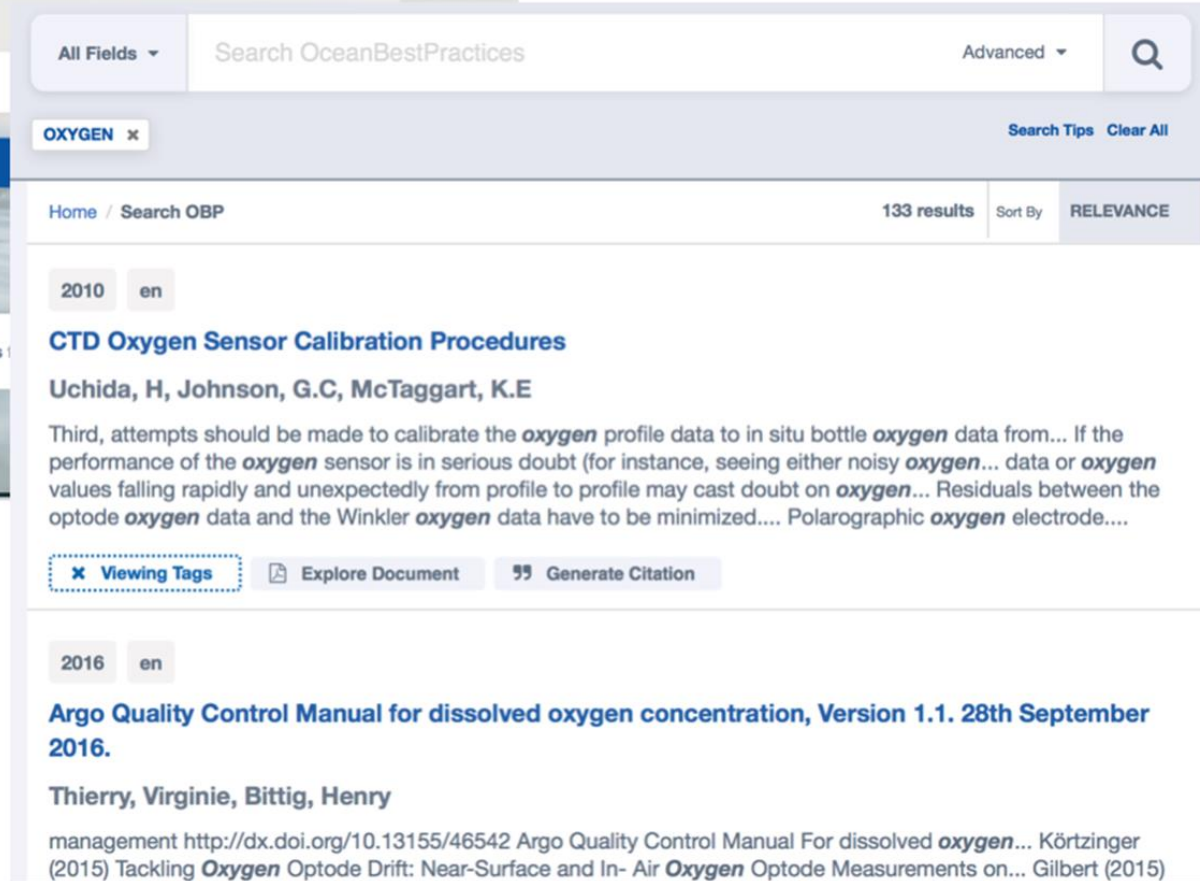
Search

Search Tips?

Search 323 documents for 121029 terms

www.oceanbestpractices.org

Search October 27 2018



All Fields ▾ Search OceanBestPractices Advanced ▾

OXYGEN x Search Tips Clear All

Home / Search OBP 133 results Sort By RELEVANCE

2010 en

CTD Oxygen Sensor Calibration Procedures
Uchida, H, Johnson, G.C, McTaggart, K.E

Third, attempts should be made to calibrate the *oxygen* profile data to in situ bottle *oxygen* data from... If the performance of the *oxygen* sensor is in serious doubt (for instance, seeing either noisy *oxygen*... data or *oxygen* values falling rapidly and unexpectedly from profile to profile may cast doubt on *oxygen*... Residuals between the optode *oxygen* data and the Winkler *oxygen* data have to be minimized.... Polarographic *oxygen* electrode...

x Viewing Tags Explore Document Generate Citation

2016 en

Argo Quality Control Manual for dissolved oxygen concentration, Version 1.1. 28th September 2016.
Thierry, Virginie, Bittig, Henry

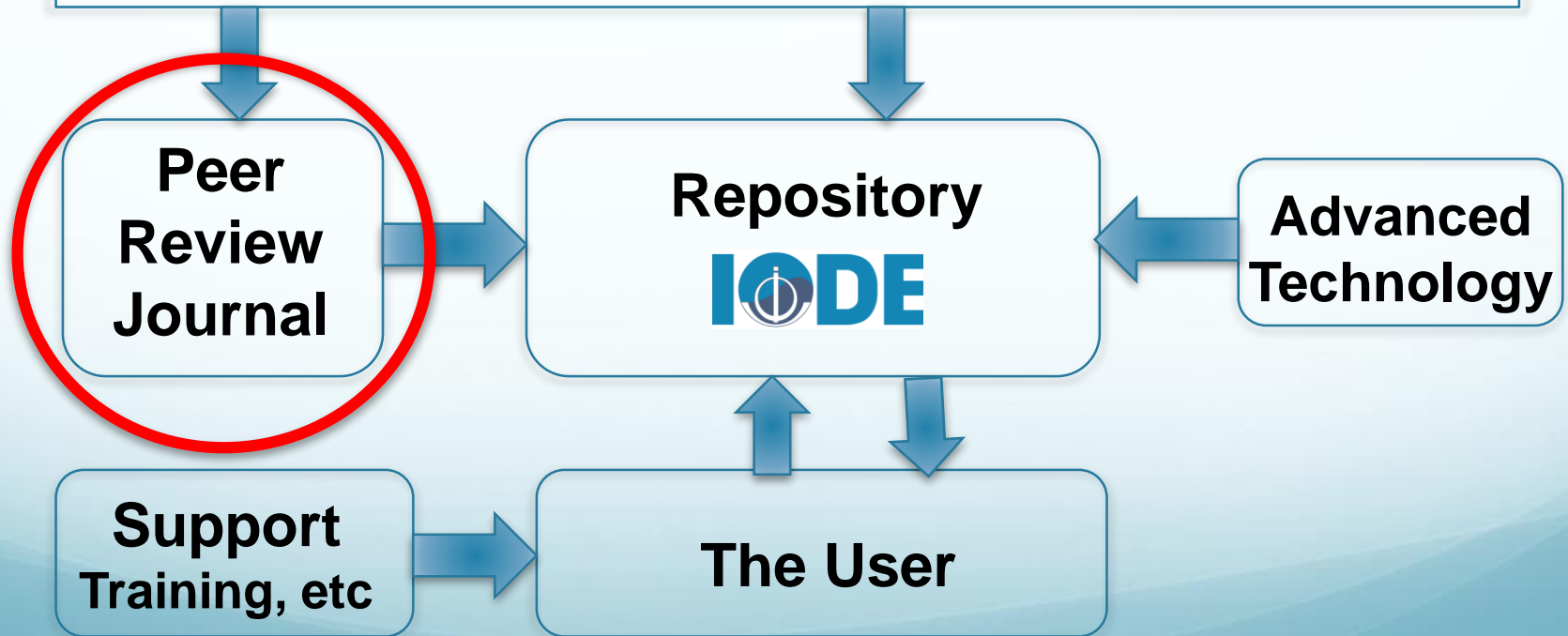
management <http://dx.doi.org/10.13155/46542> Argo Quality Control Manual For dissolved *oxygen*... Körtzinger (2015) Tackling *Oxygen* Optode Drift: Near-Surface and In- Air *Oxygen* Optode Measurements on... Gilbert (2015)

User Interface Landing Page



Search Results

Participating Organizations and Programs

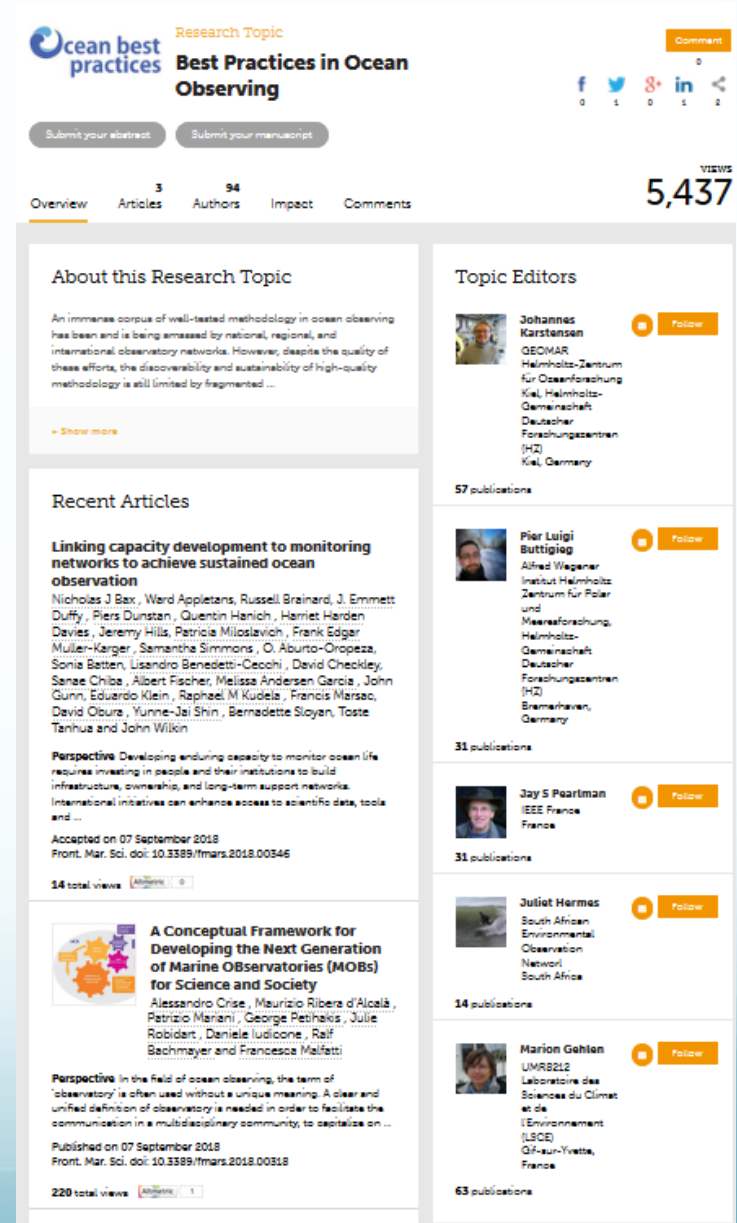




frontiers in Marine Science

Best Practices in Ocean Observing

- Open access
- Open process review
- Linked to the OBP-R



The screenshot shows the 'Best Practices in Ocean Observing' page on the Ocean Best Practices website. The page features a navigation bar with 'Overview', 'Articles' (3), 'Authors' (94), 'Impact', and 'Comments'. A 'Views' counter shows 5,437 views. The main content area is divided into three sections:

- About this Research Topic:** A text block explaining the importance of well-tested methodology in ocean observing, with a 'Show more' link.
- Recent Articles:** A list of articles, including:
 - Linking capacity development to monitoring networks to achieve sustained ocean observation:** By Nicholas J. Bax, Ward Appletans, Russell Brainerd, J. Emmett Duffy, Piers Dunstan, Quentin Hanich, Harriet Harden Davies, Jeremy Hills, Patricia Miloslavich, Frank Edgar Müller-Karger, Samantha Simmons, O. Aburto-Oropeza, Sonia Batten, Lisandro Benedetti-Cecchi, David Checkley, Senze Chiba, Albert Fischer, Melissa Andersen Garcia, John Gunn, Eduardo Klein, Raphael M. Kudela, Francis Maiseo, David Obuze, Yunne-Jai Shin, Bernadette Sloyan, Toste Tanhua and John Wilkin. Published on 07 September 2018. 14 total views.
 - A Conceptual Framework for Developing the Next Generation of Marine Observatories (MOBS) for Science and Society:** By Alessandro Crise, Maurizio Ribera d'Alcalá, Patrizio Mariani, George Petihakis, Julie Robidart, Daniele Iudicone, Raif Bachmayer and Francesca Malfatti. Published on 07 September 2018. 220 total views.
- Topic Editors:** A list of editors with their profiles and publication counts:
 - Johannes Karstensen:** 57 publications.
 - Pieter Luigi Buttigieg:** 31 publications.
 - Jay S. Pearlman:** 31 publications.
 - Juliet Hermes:** 14 publications.
 - Marion Gehlen:** 63 publications.

Participating Organizations and Programs



Peer Review Journal

Repository
IODE

Advanced Technology

Support Training, etc

The User



Community Engagement



Using BPs

Training & Support

**Reviewing &
Publishing**

**Documenting &
Disseminating**

WAY FORWARD

- Long-term “Home” for the OBPS
- “Inclusive” – community based
- **IOC of UNESCO**
- **E-Repository and System**
hosted/managed by
IOC Project Office for
IODE
- IT support offered



OBPS: IOC project

- IODE and GOOS will jointly request establishment of **OBPS Project** by 30th Session of IOC Assembly (26 June – 4 July 2019)
- IOC Steering Group for OBPS will be established
 - Project manager/chief editor
 - Technical manager
 - Representatives of partner communities
 - ...

OBPS and ODIS

- **ODIS = IOC Ocean Data and Information System**
- *“to improve the accessibility and interoperability of existing data and information, and to contribute to the development of a global ocean data and information system, to be referred to as the IOC Ocean Data and Information System, leveraging established solutions where possible”.*

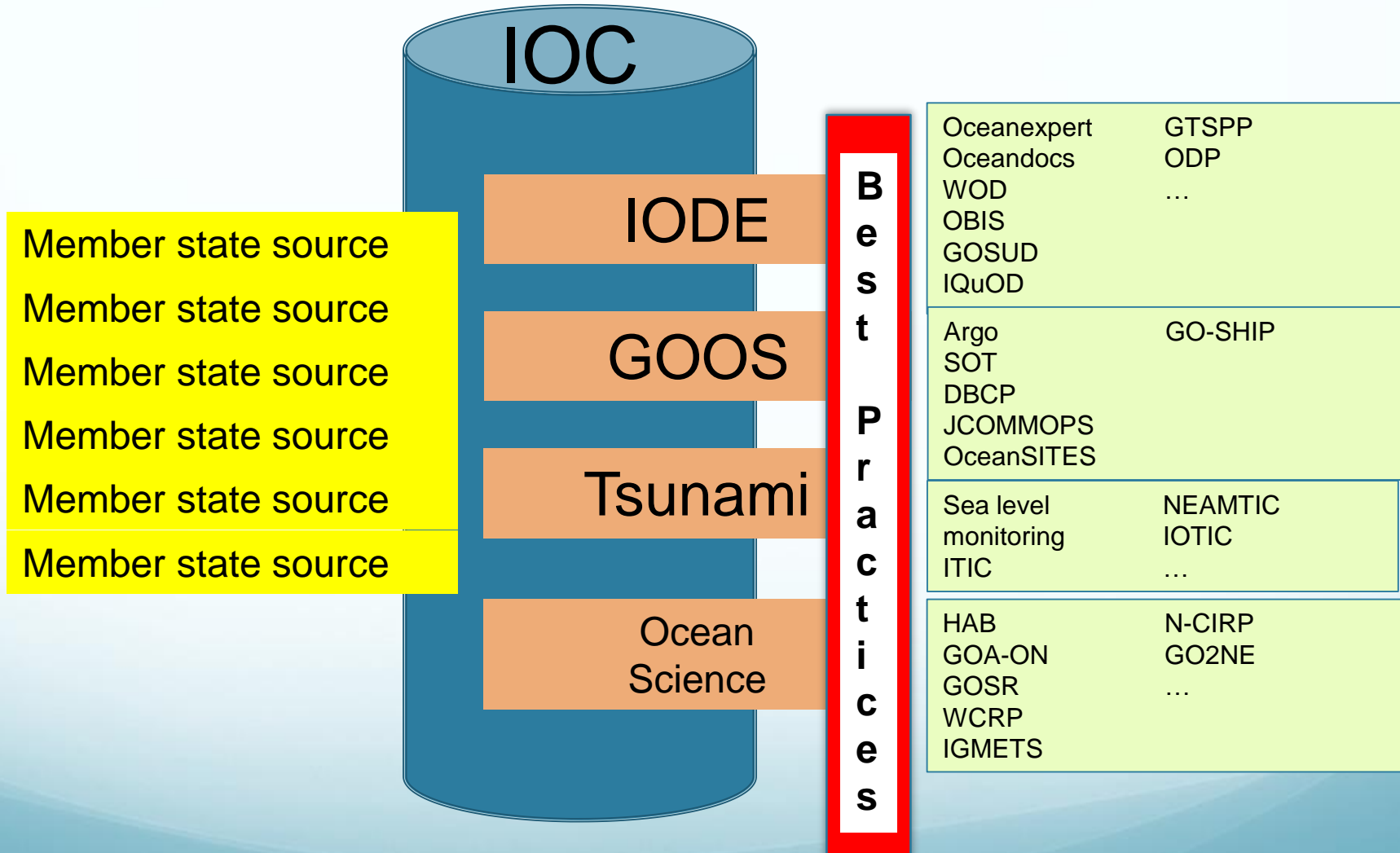
Building on existing efforts

Examples of the types of efforts we hope to leverage:

- Knowledge platform efforts
- Thematic networks
- Metadata and data brokering/exchange
- Semantics and other foundation activities
- Platform development
- **Sharing of best practices**



ODIS : "shop" concept



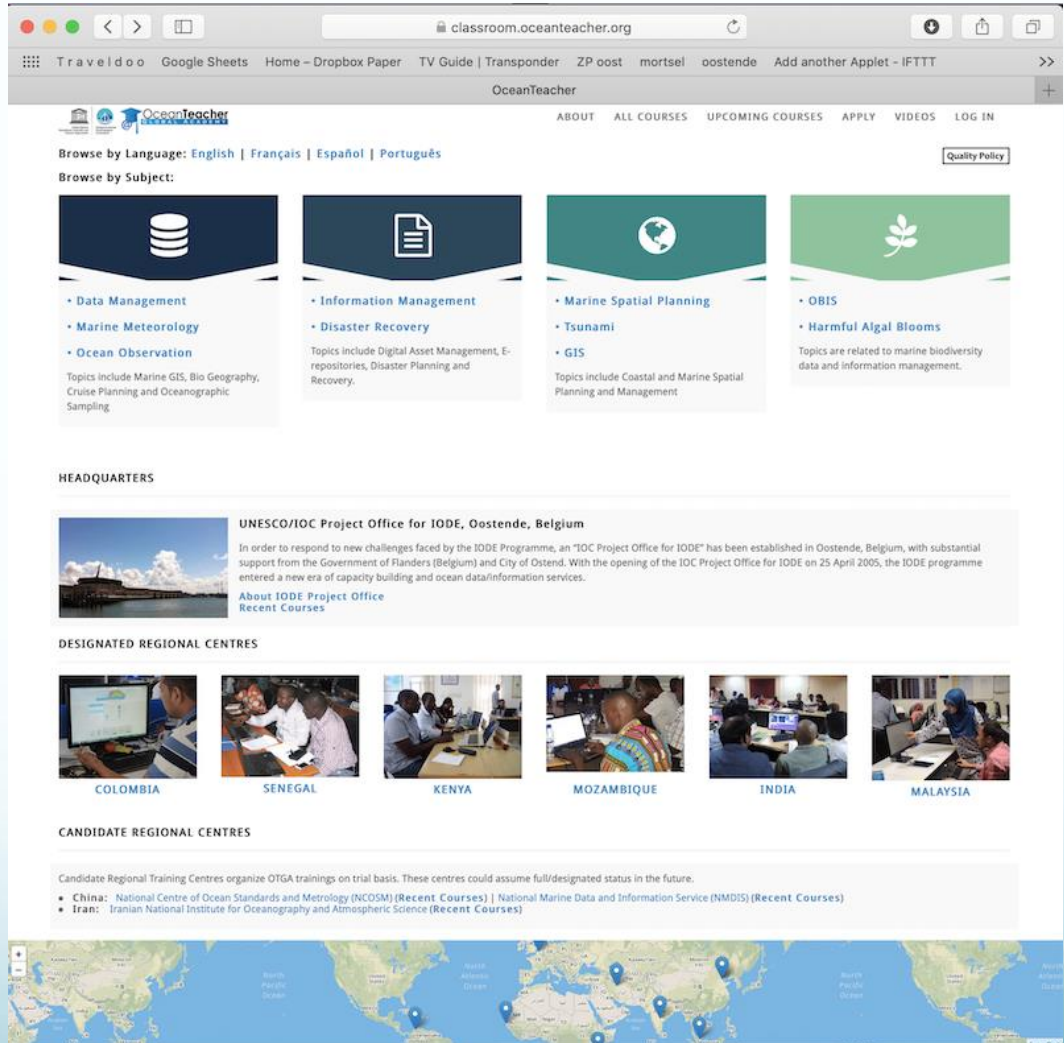
Training?

OceanTeacher Global Academy

Global network of
Regional Training Centres

Currently focus mainly on
IODE themes but additional
themes and/or centres can
be established

Strong community
involvement needed to
develop courses and lecture
courses



The screenshot shows the OceanTeacher website interface. At the top, there is a navigation bar with links for 'ABOUT', 'ALL COURSES', 'UPCOMING COURSES', 'APPLY', 'VIDEOS', and 'LOG IN'. Below this, there are language options: 'English | Français | Español | Português' and a 'Quality Policy' link. The main content area is titled 'Browse by Subject:' and features four columns of course categories:

- Data Management**: Topics include Marine GIS, Bio Geography, Cruise Planning and Oceanographic Sampling.
- Information Management**: Topics include Digital Asset Management, E-repositories, Disaster Planning and Recovery.
- Marine Spatial Planning**: Topics include Tsunami and GIS.
- OBIS**: Topics are related to marine biodiversity data and information management.

Below the subject categories, there is a 'HEADQUARTERS' section featuring a photo of the UNESCO/IOC Project Office for IODE in Oostende, Belgium, with a brief description of its role and a link to 'About IODE Project Office Recent Courses'.

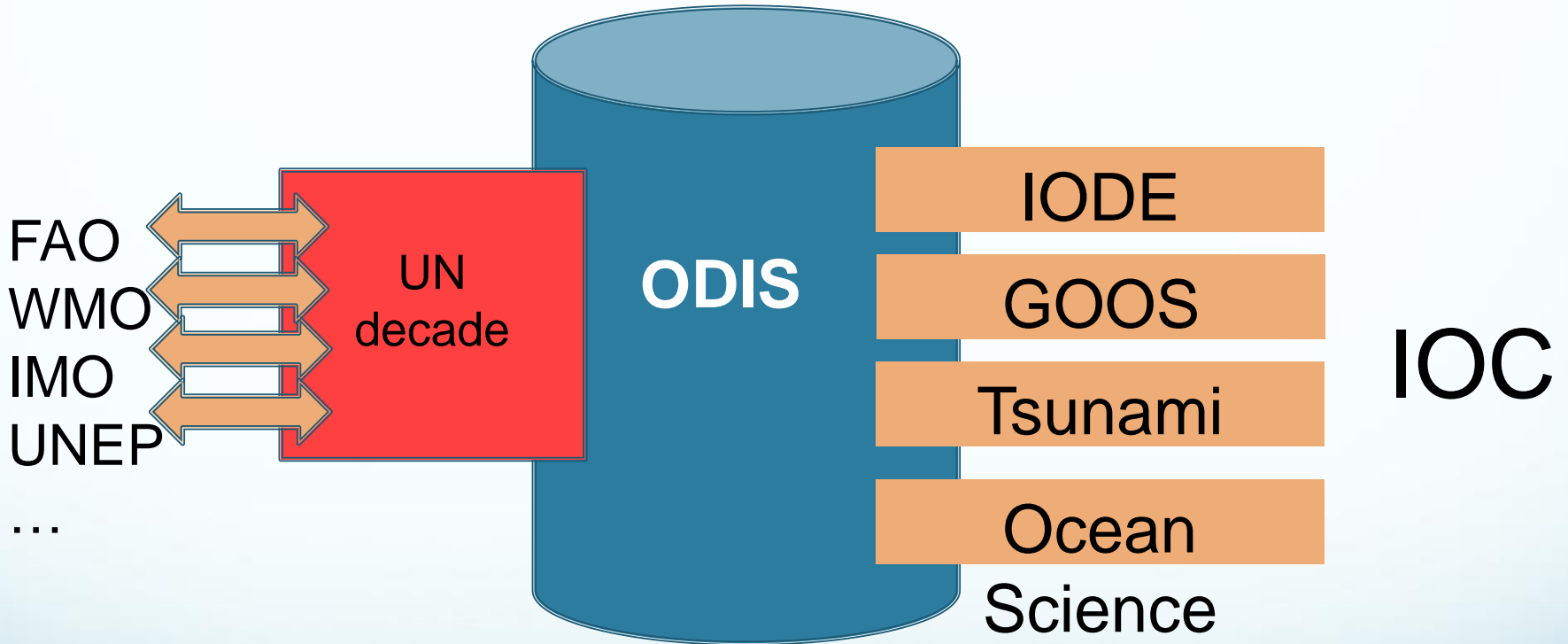
The 'DESIGNATED REGIONAL CENTRES' section displays a row of six photos representing training activities in Colombia, Senegal, Kenya, Mozambique, India, and Malaysia.

The 'CANDIDATE REGIONAL CENTRES' section lists two potential centres: China (National Centre of Ocean Standards and Metrology and National Marine Data and Information Service) and Iran (Iranian National Institute for Oceanography and Atmospheric Science).

At the bottom of the page, there is a world map with blue location pins indicating the global distribution of training centres.

UN decade on Ocean Science for Sustainable Development

2021-2030



QUESTIONS?