



EurOcean – The European Centre for Information on Marine Science and Technology, established in 2002, is an independent scientific non-governmental organisation of leading European marine organisations whose aim is to facilitate information exchange and generate value-added products in the field of marine sciences and technologies between a wide range of governmental and non-governmental bodies. In 2017, EurOcean comprised 12 Member organisations based in 10 European countries and 4 Cooperating Members.

EurOcean, a clearing house for information on marine science and technology in Europe, through its internet site (<a href="www.eurocean.org">www.eurocean.org</a>) facilitates access to information on topics related to marine science and technology in Europe with priority given to three main domains: Marine Research Infrastructures, Marine Knowledge Management and Ocean Communication and Public Outreach Activities. EurOcean also contributes to initiatives aiming to promote the Blue Society (vision for society in which people benefit from the Ocean's vast potential while preserving its environmental integrity) principles and implementation of the United Nations Sustainable Development Goal 14 (UN SDG14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development).

EurOcean also provides dedicated services and project contributions in relation with the above topics.





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# KNOWLEDGE OF THE OCEAN IS STILL FAR FROM SUFFICIENT

#### Slawomir Sagan

(IOPAN Member Representative, Poland) EurOcean President





# UPGRADING OUR INFOBASES TO PROVIDE IMPROVED SERVICES

**Ned Dwyer** 

EurOcean - Executive-Director



### EurOcean offers comprehensive quality data, added value information and knowledge services.

In 2017 EurOcean has contributed to a number of important initiatives aimed at improving understanding and use of the ocean environment. Many of them were aimed at supporting the implementation of the United Nations 2030 Agenda for Sustainable Development and its Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. The ocean is the most under-sampled component of the Earth's system and today our information and knowledge of the ocean is still far from sufficient to answer key scientific questions, such as those related to climate change and to ensure sustainable use of its resources. The Decade of Ocean Science for Sustainable Development (2021-2030), announced by IOC-UNESCO — a EurOcean Cooperating Member—is then the call for mobilisation

of the scientific community as well as policy-makers. EurOcean is prepared to take an active role in the process.

EurOcean´s focus activities of information collection and value adding on Marine Research Infrastructures, Marine Knowledge Management and Ocean Communications and Public Outreach touches the building blocks of the marine science production line: data – information – knowledge, thus contributing to the achievement of SGD14. In support of UN goals, EurOcean continues to seek closer cooperation with the key organizations and bodies involved in implementation of SDG14. Moreover by offering, in addition to comprehensive quality data, added value information and knowledge services it enables more efficient implementation of marine research and innovation.



### Providing products, services and information, to support those working at the forefront of marine science and technology.

Providing products, services and information, to support those working at the forefront of marine science and technology developments in Europe, remains at the core of EurOcean´s business. With the support of the H2020 COLUMBUS project, the Marine Knowledge Gate infobase has been completely redesigned and will be fully launched in mid-2018 with a much easier to use interface and a number of new services. Likewise the current marine research infrastructure infobases are being consolidated into one easier to use infobase and this will enhance the support to initiatives such as the European Ocean Observing System (EOOS) initiative and the many marine activities under the ESFRI umbrella.

Identification of measures to overcome some of the barriers to marine knowledge transfer was the practical outcome of a workshop co-organised by

EurOcean in collaboration with the COLUMBUS project, which built on the EurOcean 2016 European Parliament event Knowledge Exchange in the Spotlight event. This theme was further explored in a European Parliament event in the spring of this year. EurOcean also led a debate on how to enhance and support coordination of Europe's ocean observing system through an event organised with the help of its Italian Member, the National Research Council (CNR). 2018 is proving to be a busy one, with the imminent launch of our upgraded infobases and the planning of a major event in Brussels to commemorate one of our founders, Professor Mário Ruivo. Keep updated on these activities and the latest news in relation to marine science and technology across Europe by checking out our website and subscribing to the monthly newsletter.

### **ABOUT EUROCEAN**

**Structure and Governance** 



One representative from each Member organisation

Establishes the strategic goals and operational guidelines and approves the annual workplan

#### EurOcean Foundation Board

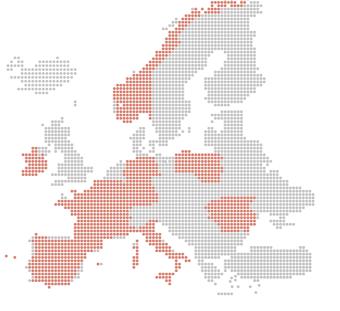
Established under Dutch Law and also legally registered in Portugal

Slawomir Sagan – President Tina Mertens – Vice-President Nicolae Panin – Treasurer Manuel Cira – Member Francisco Pinto - Member •

#### **Executive Committee**

Oversees operations and implementation of the annual workplan

Slawomir Sagan (IOPAN - Poland) — President Tina Mertens (VLIZ - Belgium) — Vice-President Carlos García-Soto (IEO - Spain) - Vice-President



# EurOcean Network

Members

10 Countries Cooperating Members



Francisco Pinto (FRCT - Portugal)





(VLIZ - Belgium) Vice-President





António Pascoal (FCT - Portugal)











Per Nieuwejaar

(IMR - Norway)



Aurélien Carbonnière (IFREMER - France)





Slawomir Sagan (IOPAN - Poland) President





Carlos García-Soto (IEO - Spain) Vice-President





**Fiona Grant** (MI - Ireland)





Nicolae Panin

(GeoEcoMar - Romania)

(Nausicaá - France) (SUBMARINER Network -





Angela Schultz-Zehden

#### **Cooperating Members**



CPMR - Conference of Peripheral Maritime Regions









### EurOcean Office



Ned Dwyer Executive-Director (EurOcean contract)



Cristina Costa
Office Coordinator
European Project Manager
(EurOcean contract)



Sandra Sá European Project Manager (EurOcean contract)



Ruth Higgins Science Officer (FCT fellowship)



**Tiago Garcia**Science Officer
(FCT fellowship)



Margherita Zorgno Science Officer (EurOcean Contract)



Raquel Ribeiro Science Officer (EurOcean Contract)



Lorenza Evangelista Science Officer (CNR, Italy in-kind contribution)



Hosted by FCT, Portugal Co-founding Member and Hosting Organization

### EurOcean Skills





Membership is open to organisations based in Europe that are involved in funding, implementing or disseminating about research related to marine science and technology. Furthermore Cooperating Membership is available to organizations with a regional or global reach that are involved in activities complementary to those of EurOcean.

#### Some of the benefits of EurOcean membership include:

- As part of its Steering Committee a role in **influencing** the strategic, policy and technical agenda in relation to marine science and technology information management and dissemination, through an organised and well connected forum at the European level;
- The potential to **build strategic collaborations** with a network of key marine institutes and science research funding bodies across Europe;
- Support of the EurOcean Office and the Members in **identifying funding opportunities** and building partnerships;
- Preferential access and ability to **request tailored analyses** of the extensive holdings in our infobases on marine research infrastructure and on marine relevant projects funded at the European level and nationally. This can put you ahead in identifying research gaps and opportunities and the key organisations to build partnerships with;
- Access to the EurOcean Office and its communication tools to **disseminate information** and activities of your organisation to a mailing list of over 6,000 subscribers.

Watch our <u>video</u> to find out more and if you are interested in discussing membership, contact the Executive-Director, Ned Dwyer.



#### Welcome CESAM as EurOcean's New Member



CESAM – the Centre for Environmental and Marine Studies of the Universidade de Aveiro, Portugal has requested to rejoin the EurOcean Network starting from 2018.

After a four year interval, EurOcean is extremely happy to welcome CESAM on board and support them with enhanced networking across its existing membership and partners.

# MARINE RESEARCH INFRASTRUCTURES

The Research Infrastructures Database is the most comprehensive tool to learn about a diverse set of marine infrastructures.



### Our Aim

Europe has an extensive network of marine research infrastructures which incorporates a wide range of facilities. Consolidation, co-ordination and more streamlined access to such facilities is being promoted at European and regional scales through a range of initiatives.

#### **EurOcean supports such activity by:**

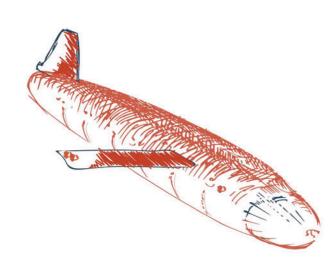
- Providing open access to a comprehensive catalogue of research vessels and embarkable equipment, on-land and offshore research and test facilities, remote and in-situ observation facilities:
- Carrying out analysis of the status of Europe's marine research infrastructure to support policy development and strategic decision-making;
- Leading discussions on the evolution of Europe's marine research infrastructure and contributing to the implementation of the European Strategy Forum on Research Infrastructures (ESFRI) and the development of the European Ocean Observing System (EOOS);
- Collaboration through funded projects and partnerships in order to increase the visibility and coordination of usage of Europe's marine research infrastructure.

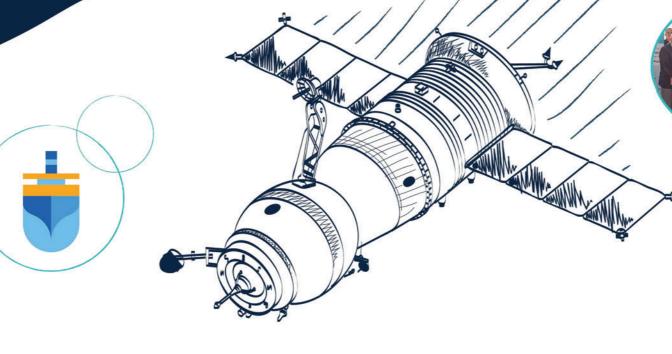


### Achievements in 2017

#### Enhancing access to Marine Research Infrastructures Information

By consolidating EurOcean's existing four marine infrastructures infobases into one harmonised Research Infrastructures Database (RID 2.0), it will be much easier for users to navigate and find the information they want. Work during 2017 focussed on design of the new infobase and the cleaning and updating of existing and addition of new records, to continue to bring you a comprehensive, coherent and up-to-date marine research infrastructures infobase, now in a dynamic module base and compatible with ISO and other widely used standards. Don't miss the launch of the new and improved RID in 2018 and, in the meantime check out our current infrastructures catalogues here. Do you own a facility not yet listed in our infobase? Please contact Science Officer Sandra Sá to find out how to include it.







#### Offshore Renewable Energy Lights up the RID

Always responding to the evolving needs of the marine infrastructure community, the Research Infrastructures Database (RID) now includes records detailing facilities used to support offshore wind energy developments and electrical/grid integration facilities. More than seventy records were updated or newly added to the RID, to support the transnational access (TNA) element of the H2020 funded MARINET2 project, which is focussed on supporting the research required to make offshore renewable energy a viable source of clean energy in the near future. Would you like to test your offshore renewable energy technology in world-leading testing facilities? Apply to the next MARINET2 TNA call in November 2018.

# Lack of Knowledge Restricts our Understanding in a Rapidly Changing Arctic

Ensuring the sustainability of Arctic observation systems is a major goal of the H2020 funded INTAROS project. As a project partner EurOcean contributes by making sure all relevant messages are widely spread and reach the relevant audience, through its co-lead role in the projects dissemination and communication activities. In 2017 EurOcean took the opportunity to present the project to high level stakeholders during the European Commission organised A New Era of Blue Enlightenment event in Lisbon in a session highlighting the need for enhanced ocean observations from the Arctic to the Antarctic. Stay up to date on project developments by subscribing to the INTAROS newsletter.





# Smarter Ocean Observations Required for an Uncertain Future

Given the time-lags in determining the impact of stressors on the ocean, it is even more vital that our understanding is improved by enhancing and committing to long-term ocean observations. This was one of the conclusions from the EurOcean and our Italian Member CNR organized event Perspectives for enhancing co-ordination and support of Europe's Ocean Observing System held in Capri, Italy. There were presentations from a range of institutions involved in coordinating and carrying out observations of the ocean and we invite you to check out the videos of all presentations and the report on the outcomes.







#### Sowing the Seeds for Future Collaboration

Researchers who took part in **EUROFLEETS2** funded cruises were enthusiastic about the success of the project which concluded in 2017. EUROFLEETS2 succeeded in demonstrating how coordinated access to Europe's research vessel fleet led to ground breaking collaborative research and better training opportunities for the next generation of marine scientists. EurOcean had a major role in the communications and outreach activities and during the final year oversaw the development of video materials and a final brochure highlighting the outcomes of the project. Check out all the results of the project here. A new proposal was submitted to a H2020 Infrastructures call in early 2018 and we hope to see a positive evaluation in order to build on the work done so far.

### Achievements in 2017



The European Research Vessels Operators
(ERVO) group requested the European Marine
Board to establish a working group to develop a
foresight report on European Research Vessels.
Following long-lasting collaboration with the ERVO
Group in particular regarding the management and
maintenance of the ERVO website, EurOcean will
support the development of the foresight
document by providing special access to its
databases. Stay tuned for the new foresight
report on European Research Vessels,
which should be completed in early
2019.







EurOcean also provides services in terms of website content maintenance and update for the Ocean Facilities

Exchange Group (OFEG), which provides a forum to consider barter exchange and co-operation opportunities for the Global and Ocean Class research fleet.

### What is EurOcean RID (Marine Research Infrastructures Database)?

The Research Infrastructures Database is one of EurOcean's key contributions to the oceanographic community through the provision of an open-access comprehensive catalogue of European marine dedicated research facilities. We are currently carrying out a major overhaul of our infrastructures databases, to be unveiled in 2018, to ensure we continue to provide the best possible up-to-date and fit-for-purpose tool, thus in line with the ever changing needs of the oceanographic community.



### What can you find in EurOcean\_RID?



More than 800 Infrastructures including:



Research Vessels



Aquaculture Research Facilities



for Ocean Engineering

Flumes and Test Labs



Marine Data Providers



**Underwater Vehicles** and Large Equipment



Satellites for Seas and Oceans Observation



From > 30 **European Countries** 

### Support us supporting your community!

Contact us

- If your infrastructure is not yet displayed in the database;
- If you want to assess the distribution of infrastructures (e.g. Aquaculture Facility research topics and species held, Underwater Vehicles per depth range, among other statistics);
- If you wish to present RID data through your own webportal.

EurOcean\_RID strives to be the reference infobase in European Research Infrastructures and has supported and benefited from numerous collaborations such as:















### Why is EurOcean\_RID relevant for you?

- Summary information of each infrastructure
- Information of the infrastructure operator
- Data compatibility through use of ISO and other relevant widely used standards (under development)
- Starting point for diverse trends analysis and policy development support
- Support of research activities through barter and charter
- Information on ESFRI related Framework Programme funded projects (under development)

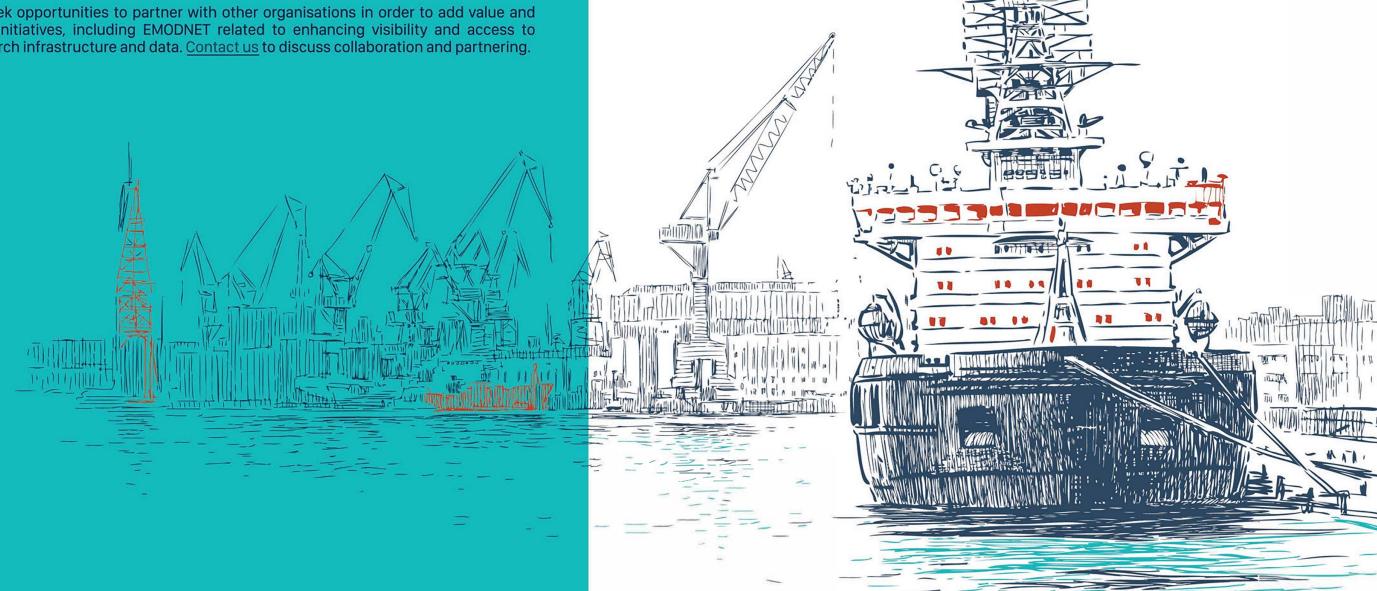


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### **OUTLOOK**

The new and improved Research Infrastructures Database - RID 2.0 will be launched in 2018, making it simpler for users to find the information they want in the more than 800 records currently in the catalogue. We are also working on database interoperability, thereby making it easier to align and share data with other relevant initiatives. EurOcean will continue to support the development of the European Ocean Observing System by contributing to developments of its strategy and implementation plan by, for example, assisting EOOS in mapping of existing observation infrastructure and further developing RID to respond to its needs.

We will continue to seek opportunities to partner with other organisations in order to add value and make synergies with initiatives, including EMODNET related to enhancing visibility and access to Europe's marine research infrastructure and data. Contact us to discuss collaboration and partnering.



# MARINE KNOWLEDGE MANAGEMENT

Marine Knowledge Gate, the most comprehensive marine and maritime projects and results repository, is your tool to: Connect; Extract; Advance and, Inform!



### Our Aim

To meet the goals of the Europe 2020 Flagship Initiative Innovation Union in the marine sphere, there is a need to take advantage of existing generated knowledge, data and information repositories and advances in knowledge transfer.

## EurOcean, as a focal point for information on marine science and technology, will continue to contribute by:

- Providing detailed information on a comprehensive set of European and nationally funded marine and maritime projects;
- & Capturing and highlighting the results, or Knowledge Outputs from numerous European and nationally funded projects across a range of marine thematic areas;
- 4 Identifying trends and gaps in marine science investment;
- & Carrying out benchmark exercises of organisations and countries performance in different programmes and research themes;
- Supporting marine knowledge identification and transfer by partnering in relevant European funded projects and with institutions;
- Leading high-level discussions on the need and evolution of Knowledge Transfer and contributing to the implementation of the Marine Knowledge 2020 Strategy;
- Preparing tailored information for our Members on relevant European funding calls and developments in European research policy.



### Achievements in 2017

# More Projects and their Outcomes at Your Finger Tips in an Improved Interface

Striving to continue to bring you the most comprehensive, coherent and up-to-date infobase on marine-related research and its major outcomes (KO's), work during 2017 focussed on the design of a new and improved service oriented infobase structure and user interface. We have also focused on update of more than 400 new records in collaboration with the COLUMBUS project. A more sophisticated search, an intuitive map interface, better linking between projects and participants, download of records and interoperability are just some of the new features being incorporated in the upgraded Marine Knowledge Gate infobase, a beta version of which has been released in January 2018. You can still access over 6,000 European and nationally funded projects and more than 2,900 Knowledge Outputs (KO's) or project results in Marine Knowledge Gate 2.0.







# More than € 1 Billion

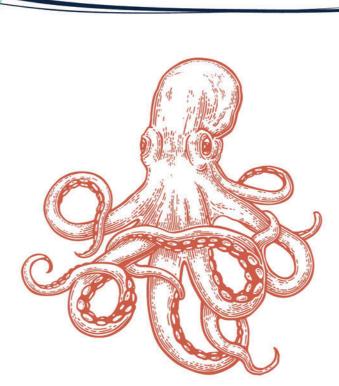
In the three year period (2014 – 2016), the
European Union had invested over €1 billion in
marine research through the H2020, LIFE and
INTERREG V funding programmes. More than 1,300
institutions from 56 countries were involved in the
funded projects. You can find out more, including who
were the top funded institutions in each programme, in
this handy booklet published following an analysis of
part of the Marine Knowledge Gate V2.0 content.
This and other analyses such as tailored
benchmark studies are available to you. To find
out all available services and their

conditions contact the Office

Coordinator, Cristina Costa.

invested in Marine Research

since 2014





Building on the 2016 EurOcean and the Cooperating Member CPMR organised seminar at the European Parliament on Knowledge Exchange, further insights and practical proposals were raised during a workshop entitled *Marine* Knowledge Transfer & Innovation: Learning from Regional & European Initiatives co-organised by EurOcean with other partners from the H2020 COLUMBUS project at the premises of the National Oceanographic Centre, UK. Improving the links between the innovation and skills agenda and, reviewing academic advancement structures to reward knowledge transfer activities were just some of the practical proposals made available in the event's summary report.







#### Highlighting the Importance and Benefits of Marine Knowledge Transfer

A well tested methodology for marine Knowledge
Transfer is one of the key results delivered by the
H2020 funded COLUMBUS project which ended in early
2018. The project, building on the experience of the
MarineTT and STAGES projects, aimed to ensure that
applicable knowledge generated through EC-funded science
and technology research can be transferred effectively to
enhance governance and support Blue Growth. EurOcean
continued to play a key role in this area, leading the
COLUMBUS identification, collection and monitoring of past
and current research activity and supported the collection
of results or Knowledge Outputs from FP7 and H2020
projects focused on a number of priority Blue Growth

Check out the EurOcean maintained Marine
Knowledge Gate - the upgrade of which was
also partly funded by COLUMBUS - to
view these and many other
Knowledge Outputs.





#### Preparing for High Impact Storms on our Coasts

Take advantage of the toolbox developed as part of the FP7 funded RISC-KIT project to help you in disaster risk reduction in relation to coastal storms. This toolbox, which provides a range of guides, frameworks and data, is one of the major outcomes of the project in which EurOcean led the Communications and Outreach activities. In the last period of the project EurOcean coordinated a Summer School dedicated to international PhD students and early career scientists to endow the next generation of coastal managers with tools and practical experience in identifying and prioritizing the coastal zones most at risk. For further information here on the project main outcomes and other EurOcean led tasks such as the organisation of the final End-Users Day and Final Conference.

### Achievements in 2017



### Creating Opportunity North and South in the Atlantic

Considering cross-disciplinary and wide-ranging cooperation as key to improved ocean knowledge and governance, EurOcean signed the Florianopolis Declaration establishing the AIR Centre and looks forward to supporting its development. The (AIR) Atlantic International Research Centre, an initiative with the strong involvement of FCT (EurOcean Member) aims to foster new paradigms of interaction around the Atlantic and across scientific disciplines to foster new knowledge on the ocean, climate and energy sustainability. Read how effective scientific diplomacy has transformed an idea into reality over the last 18 months in this publication "Atlantic Interactions", to which EurOcean contributed, with an article entitled Enhancing Atlantic Marine Research Infrastructure at the Azores International Research Centre.

#### Better Off Blue – Great Opportunity in the Marine Bioeconomy

Awareness raising and marketing of the possibilities of the marine biotechnology economy in the Baltic Sea Region was seen as a key action by participants at the Better off Blue Conference on creating synergies for a biobased society, co-organised by EurOcean Member SUBMARINER Network in Berlin in September 2017, EurOcean Executive-Director Ned Dwyer spoke of the need for co-creation and co-design of blue bioeconomy projects, as this approach is more inclusive of citizens and thus creates better local and regional ownership. Read the Better off Blue Conference Declaration promoting actions to enhance the blue bioeconomy in the region, which was launched by SUBMARINER Network Managing-Director Angela Schultz-Zehden.







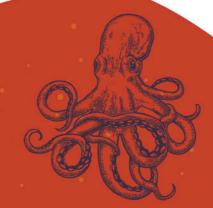


### What is EurOcean\_KG (Marine Knowledge Gate Infobase)?

The Marine Knowledge Gate infobase is a one of a kind, innovative open access comprehensive tool which provides detailed information on European and nationally funded projects and project outcomes and is EurOcean's contribution to bridging the information gap to all the marine and maritime community.

Striving to provide the best possible up-to-date and user relevant tool, EurOcean KG has evolved from providing Information to providing Knowledge and is currently under a substantial upgrade to focus on Services, bringing the user a step closer to Applied Knowledge and Understanding.





### What can you find in EurOcean\_KG?



Over 6.000 marine and maritime related projects



Project partners funding information (when publically available)



Funded by more than 15 European and National Funding Programmes such as:

H2020, INTERREG V, LIFE, EMFF JPI Oceans (under development), HELCOM and 25 European Coastal Countries



Project tagging for an easier and more accurate search



Pre-defined infographics of user selected data set





Open access to the infobase dataset (under development)

### Support us supporting your community!

Contact us

- If your project is not yet displayed in the infobase;
- 4 If you want to understand: i) Major research trends and gaps; ii) Who is collaborating with whom; iii) How is your institution or country performing in comparison to others and, iv) What Knowledge has been generated;
- 4 If you wish to present Knowledge Gate data through your own webportal.

Marine Knowledge Gate strives to be the reference infobase in Marine and Maritime Research and its Outcomes and has supported and benefited from numerous collaborations such as:













### Why is EurOcean KG relevant for you?

- Summary information of marine and maritime funded projects
- Information on generated knowledge
- Interactive user-friendly map navigation
- Starting point for diverse trends analysis and policy development support



- Support of research activities through understanding existing knowledge gaps
- Promotion of Knowledge Transfer and Uptake of research results
- Data compatibility through use of ISO and other relevant widely use standards (under development)

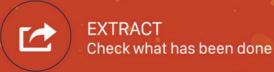
Marine Knowledge Gate, your tool to:



CONNECT See who is doing what



**ADVANCE** Fast track your work





**INFORM** Let others know what you have accomplished

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### **OUTLOOK**

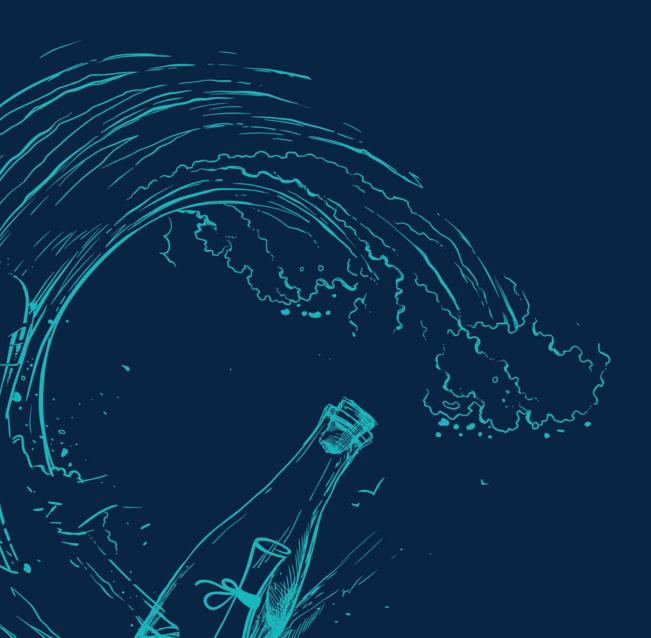
The completion and launch of the new and vastly improved Marine Knowledge Gate V3.0 will be a major focus of 2018. We will continue to build on the services provision of this unique repository and will continue to identify trends and gaps in marine and maritime research scientific investment such as where major marine research investments are focussed, who is most successful in coordinating European funded projects and what kind of results are being generated, among others.

We will also continue to support the Marine Knowledge 2020 Strategy by seeking strategic partnerships and involvements in relevant projects. <u>Contact us</u> to discuss how we can provide specific services to meet your marine knowledge needs and to discuss other possible collaboration and partnering.



# OCEAN COMMUNICATION AND PUBLIC OUTREACH ACTIVITIES

Advocating for better stewardship of our ocean.

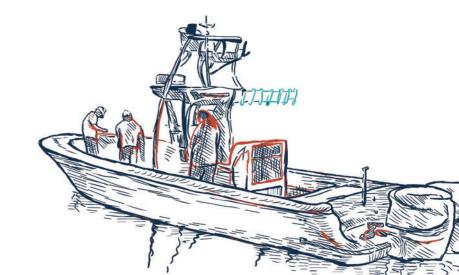


### Our Aim

Raising awareness widely on the challenges facing the ocean, involving as many stakeholders as possible in finding solutions for improved management of the marine space, sparking young people's interest in being better custodians of the ocean and considering marine careers are all part of EurOcean's communication and outreach goals.

#### We aim to achieve this by:

- Keeping you informed of current developments in marine science and technology in Europe via our monthly e-Newsletter, web page and social media presence;
- Bringing diverse stakeholders together in workshops and events to provide a range of perspectives on the challenges facing the ocean and possible solutions;
- \$\displays \text{Supporting the implementation of the Responsible Research and Innovation (RRI) approach;
- Delivering quality dissemination and communication materials by partnering in collaborative projects;
- 🕹 Engaging young people in ocean issues through the Professor Mário Ruivo competition;
- 4 Advocating for better stewardship of our ocean by contributing to regional and global efforts.

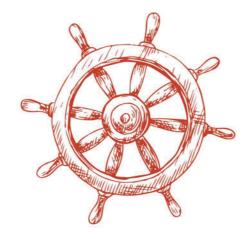


### Acmevements in 2017

### Keeping you informed on ocean issues

Find out in 4 minutes how our products and services and becoming a EurOcean Member can help you, through our new video released in 2017. The video completed the suite of materials updated over the last two years, including our logo, website and social media presence to make it easier for our partners and clients to understand what EurOcean does and how its range of products and services can support them in their marine research and innovation related activities.









Whilst beaches in Portugal and elsewhere shrink due to the combined effect of erosion and sea level rise, coastal tourism keeps growing.

EurOcean brought over 30 stakeholders together in a World Café to analyze the environmental, cultural, social, economic and political components of this issue. The results constitute a set of priority actions to be developed under the RRI (Responsible Research and Innovation) initiatives of the H2020 funded MARINA project, led by EurOcean Member CNR, and can be found in its

#### Knowledge Sharing Platform.

You too can have your voice heard on a range of issues from sustainable aquaculture to deep sea mining and from the future of marine transportation to blue biotechnology by joining the <a href="MARINA">MARINA</a>
<a href="MARINA">Knowledge Sharing Platform</a>.



Responsible Research and Innovation encompasses public engagement, gender equality, science education, open science, ethics and new governance models. Its objective is to involve wider society in the conception, enactment and usage of scientific research. In support of RRI EurOcean has provided the MARINA project special access to its Marine Knowledge Gate Infobase so we can all learn from past RRI related Framework Programme funded projects best practices. Join the MARINA knowledge sharing platform to find out about these best practices.







### Telling Stories about the Ocean

Ocean Literacy can be promoted through coastal web atlases and also through storytelling. Geographic Information Systems (GIS) are powerful tools which now combine the power of mapping technology with the human desire to read a story. EurOcean contributed to a workshop and course on this topic in Santa Marta, Colombia, through its membership of the International Coastal Atlas Network (ICAN) project of the IODE. Check out a story map of the workshop here and join the ICAN community if you too want to tell better ocean stories.



Contributing with An Ocean of
Opportunities – the Professor Mário
Ruivo Prize, EurOcean is one among more
than 1,400 voluntary commitments made so far
to implement an action that advances the
implementation of the Sustainable Development
Goal 14. The EurOcean outreach action is a
competition which asks young people to
confront the challenges facing us and to
envisage new and innovative solutions that
will support sustainable use of the Ocean
for many generations to come. You too
can add your voice and submit a
voluntary commitment for
the Ocean.

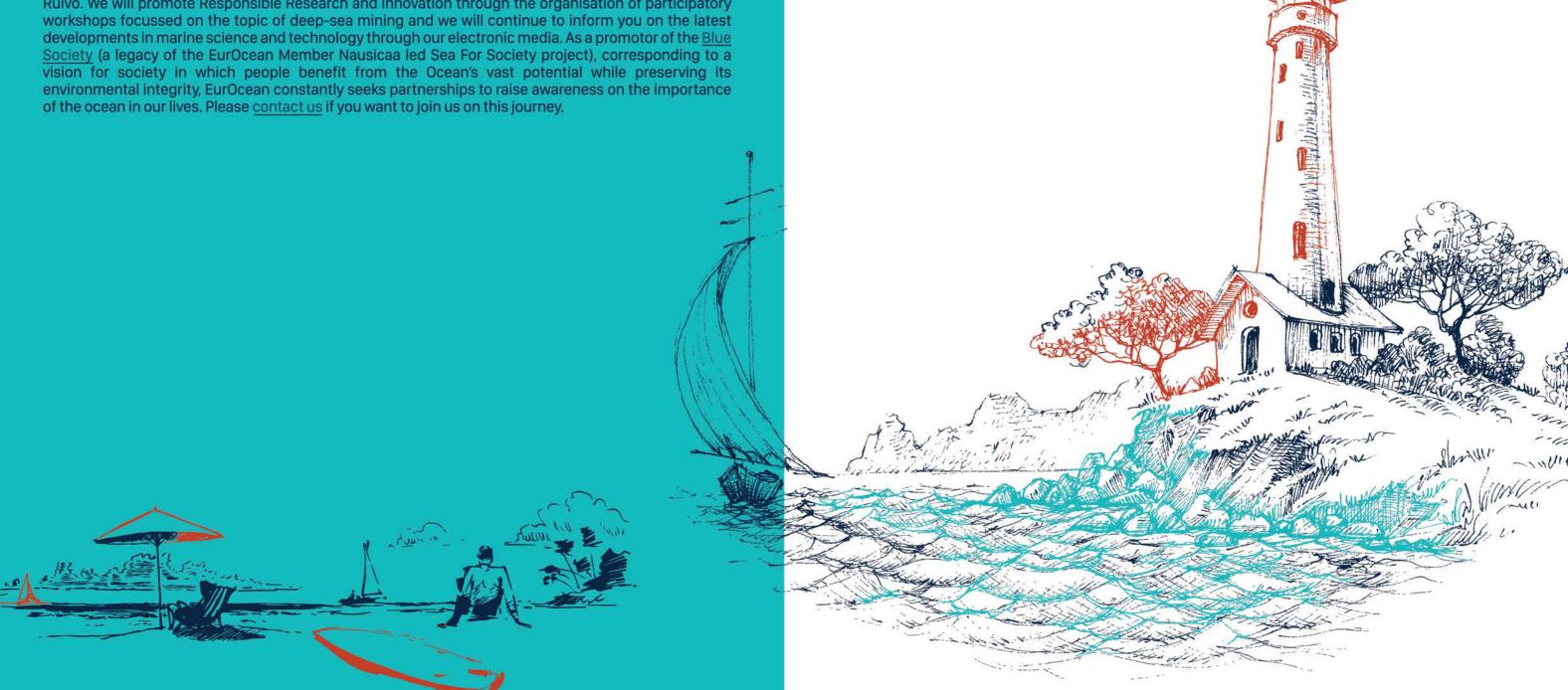




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### **OUTLOOK**

A major conference and ocean science exhibition is being planned for June 2018 in Brussels to highlight the legacy to ocean science and governance of EurOcean co-founder and 1st President, Professor Mário Ruivo. We will promote Responsible Research and Innovation through the organisation of participatory



### **MEMBERS HIGHLIGHTS**

"EurOcean fills a gap by taking scientific knowledge and information and making it usable"
Niall McDonough, Executive Secretary (Former),
European Marine Board (EMB).





#### **FRCT** – Portugal

In 2017 the Government of the Azores, through the Regional Fund for Science and Technology (FRCT), won the Atlantic Project Awards in the category "Protection, Safety and Improvement of the Coastal Marine Environment", for the work carried out under the European Mistic'Seas project, now in the second phase (Mistic'Seas II). This award clearly showcases the international recognition of FRCT as a European project participant and coordinator alongside the exponential growth in European project consortia, currently over 20.



#### **VLIZ** – Belgium

In 2017, VLIZ concluded a new covenant with the Flemish government for the period 2017–2021. VLIZ will fully retain its current mission, and is additionally mandated to initiate and conduct research at the service of, in collaboration with and as a complement to the Flemish and international marine research groups. The VLIZ research strategy is publicly available. Additionally, VLIZ was given the task of further developing the interface between marine research and the blue economy.



#### FCT - Portugal

The Florianopolis Declaration signed by 8 countries and several research institutions and industry actors was a milestone for the *Atlantic Interactions* initiative led by Portugal and FCT as it formally established the creation of the Atlantic International Research Centre (AIR Centre). The signing took place at an event in Florianopolis, Brazil which brought together more than 100 participants from 14 different countries from a different range of stakeholders, including governments, industry and academia.



#### **CNR** - Italy

Updating, consolidating and implementing the BLUEMED Strategic Research and Innovation Agenda (SRIA) as a tool to promote cooperation among all relevant stakeholders towards a healthy, safe and productive Mediterranean Sea, envisioned as a focal point for innovation, is a key activity of the National Research Council of Italy (CNR) coordinated H2020 BLUEMED project. Check out the project brochure to find out more on this four-year action, involving 11 partners from 9 EU countries.

### **MEMBERS HIGHLIGHTS**



#### GeoEocMar - Romania

GeoEcoMar continued to lead its ESFRI Research Infrastructures (RI) project DANUBIUS - The Danube International Centre for Advanced Studies for River-Delta-Sea Systems. The DANUBIUS project, a Flagship Project of the E.U. Strategy for the Danube Region, is the second major distributed RI project with the status of Flagship Project and aims to provide a world-leading research infrastructure that will enable excellent interdisciplinary research in river-sea systems that will have high social and



#### **IMR** – Norway

The three most important events for the Institute of Marine Research (IMR) in 2017 were the decision to merge IMR and the National Institute of Nutrition and Seafood Research (NIFES) effective from 1 January 2018, the delivery of the third research vessel named "Dr. Fridtjof Nansen" dedicated to foreign aid projects in Africa and Asia, and the introduction of a "traffic light" system as a tool box for the management of growth of the aquaculture industry along the coast of Norway.



### IEO - Spain

The United Nations invited Dr. Carlos García-Soto from the Spanish Institute of Oceanography (IEO) to give a presentation on The effects of climate change on oceans including environmental, social and economic implications at the 18th Meeting of the Informal Consultative Process on Oceans and the Law of the Sea in New York. The IEO presentation addressed: (i) major climate change drivers impacting fisheries and aquaculture; (ii) effects of climate change on biogeography and fishery catches; (iii) adaptation options; (iv) vulnerability of the national economies and, (v) conclusions relevant to the fisheries policies and to Sustainable Development Goal-14.



### Marine Institute

#### MI - Ireland

A major transatlantic collaborative survey led by the Marine Institute and National University Ireland was carried out on the RV "Celtic Explorer". The GO-SHIP A02 survey team of scientists from six countries is a great example of the Galway Statement in action: working together to better understand and increase our knowledge of the Atlantic Ocean and its dynamic systems, and promoting its sustainable management. With our INFOMAR programme partners, Geological Survey Ireland we continue to map Ireland's extensive marine territory. In 2017 high resolution seabed maps were created for over 2877 km² of the Celtic Sea.



#### IFREMER – France

Ifremer and Centrale Nantes join forces to create the THEOREM Research Infrastructure, which brings together the oceanic engineering basins (3 wave basins of different capacities) and the offshore test site of Centrale Nantes and the Ifremer test basin equipped with wave and wind generators as well as the swell and current basin at Boulogne-sur-Mer. Thanks to this research infrastructure, France is endowed with unparalleled marine engineering resources in Europe, aimed at providing research organizations and industry competitive test facilities for their research and innovation in all sectors concerned with interactions between structures and the ocean environment.



#### **IOPAN** – Poland

The <u>SatBałtyk</u> system, running at IOPAN operationally since 2015, provides daily a wide range of parameters on the Baltic Sea environment. The system is based on satellite data and specially dedicated eco-hydrodynamic models that allow the provision of information on the state of the environment regardless of the cloud coverage over the Baltic. Since 2017, data from the system are being successfully used to support the Polish contribution to the assessment of the environmental condition of the Polish EEZ of the Baltic Sea.



#### Nausicaá - France

In 2017 Nausicaá focused on the massive expansion of their aquarium and exhibition centre opened to the public in May 2018. The new building, built in the shape of a Manta Ray, houses one of the largest aquariums in the world, holds a staggering 10,000m³ of water and recreates the ecosystem of the high seas.



### <u>SUBMARINER Network –</u> Baltic Region

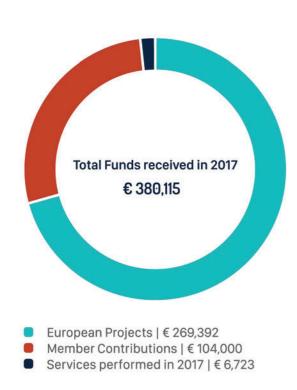
The 2<sup>™</sup> SUBMARINER Conference Better off Blue - Creating synergies for a bio-based society fostered a multi-level dialogue between relevant stakeholders to critically review advances made in fields such as new forms of aquaculture, blue biotechnology and maritime spatial planning in the Baltic Sea and was an opportunity to seek new areas of joint activities. The event brought together a wide range of actors within the SUBMARINER Network, its projects and beyond.

### **FINANCES 2017**

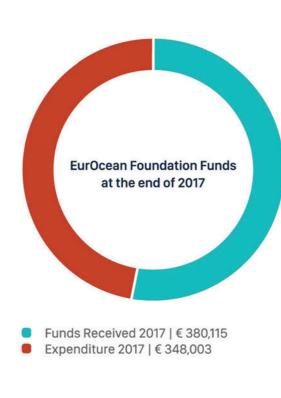
The EurOcean annual budget is based on:

- Member organisation contributions;
- European projects contracts;
- Contracts of services;
- 4 Other contributions; e.g. deposit interests, reimbursements.

The following financial table show the 2017 EurOcean finances in accordance with professional accounting principles, which at the time of this report were independently audited.









### **ANNEXES**

### EurOcean Project Participation in 2017

#### MARINET 2 - Marine Renewable Infrastructure Network for Enhancing

Type: EC H2020 Integrating Research Infrastructure Activities for Advanced

EC financial contribution: € 10.5 million

**Duration:** 54 months (1 January 2017 - 30 June 2021)

Coordinator: UCC, Ireland

**Consortium:** 39 partners from 13 countries

Website: www.marinet2.eu

Aim: To ensure the continued integration of the leading European research infrastructures specialising in research, development and testing of offshore wind and ocean energy systems including electrical sub systems



#### MARINA - Marine Knowledge Sharing Platform for Federating **Responsible Research and Innovation Communities**

Type: EC H2020 Blue Growth - Integrating Society in Science and

Innovation: Knowledge Sharing Platform EU financial contribution: € 3 million **Duration:** 36 months (1 May 2016 – 30 April 2019)

**Consortium:** 14 partners from 11 countries

Coordinator: CNR, Italy

Website: www.marinaproject.eu

Aim: To create an all-inclusive Knowledge Sharing Platform (KSP) catalysing and organising the convergence of already existing networks, communities, on-line platforms and services providing an online socio-technical environment that facilitates and stimulates the direct engagement of researchers, Civil Society Organisations (CSOs), citizens, industry stakeholders, policy and decision makers, research funders and communicators for improving Responsible Research and Innovation



#### RISC-KIT - Resilience-Increasing Strategies for Coasts - toolKIT

**Type:** EC FP7 Environment (including Climate Change)

EU financial contribution: € 6 million

**Duration:** 42 months (1 November 2013 - 30 April 2017) Consortium: 18 partners from 10 countries and 2 international

**Coordinator:** Deltares. Netherlands

Website: www.risckit.eu

Aim: To develop methods, tools and management approaches to reduce risk and increase resilience to low-frequency, high-impact hydro-meteorological events in the coastal zone, to enhance forecasting, prediction and early warning capabilities, improve the assessment of long-term coastal risk and optimise the mix of prevention, mitigation and preparedness measures



#### INTAROS - Integrated Arctic Observation System

Type: EC H2020 Research and Innovation Action

EC financial contribution: € 15.5 million

Duration: 48 months (1 December 2016 - 30 November 2021)

Coordinator: NERSC, Norway

Consortium: 49 partners from 20 countries

Website: www.intaros.eu

Aim: To develop an efficient integrated Arctic Observation System by extending, improving and unifying existing and evolving systems in the

different regions of the Arctic



### COLUMBUS – Monitoring, Managing and Transferring Marine and Maritime Knowledge for Sustainable Blue Growth

Type: EC H2020 Blue Growth - Unlocking the Potential of Seas and Oceans

**EU financial contribution:** € 4 million

Duration: 36 months (1 March 2015 - 28 February 2018)

**Consortium:** 27 partners from 12 countries Coordinator: BIM, Ireland

Operational Leader: AquaTT, Ireland Website: www.columbusproject.eu/

Aim: To capitalise on the EC's significant research by ensuring accessibility and uptake of research Knowledge Outputs by end-users (policy, industry, science and wider society), thus ensuring measurable value creation from research investments contributing to sustainable Blue Growth within the timeframe of the project



#### EUROFLEETS2 - New Operational Steps Towards an alliance of **European Research Fleets**

Type: EC FP7 INFRASTRUCTURES - Research Infrastructures

EC financial contribution: € 9 million

Duration: 48 months (1 March 2013 - 28 February 2017)

Coordinator: IFREMER, France Consortium: 31 partners from 20 countries Website: www.eurofleets.eu

Aim: To consolidate the efforts and work of EUROFLEETS1 in the construction of a pan-European distributed research fleet infrastructure with common strategic vision and coordinated access to European marine research vessels and equipment



### Key Weblinks Used in This Publication

#### Front End-Paper

Blue Society - www.bluesociety.org/

EurOcean-www.eurocean.org

United Nations Sustainable Development Goal 14-

sustainabledevelopment.un.org/sdg14

CESAM - Centre for Environmental and Marine Studies of the Universidade de Aveiro -

CNR (Italy) - Consiglio Nazionale delle Richerche - www.cnr.it

CPMR (Belgium) - Conférence des Régions Périphériques Maritimes d'Europe - cpmr.org/

FCT (Portugal) - Fundação para a Ciência e a Tecnologia - www.fct.pt/ FdM (Malta) - Fondation de Malte - www.fondationdemalte.org/

FRCT (Portugal) – Fundo Regional para a Ciência e Tecnologia –

GeoEcoMar (Romania) - Institutul National de Cercetare - Dezvoltare pentru Geologie si

Geoecologie Marina – www.geoecomar.ro/website/index.html

IEO (Spain) - Instituto Español de Oceanografía - www.ieo.es/er

IFREMER (France) - Institut Français de Recherche pour L'exploitation de la Mer-

IMR (Norway) - Havforskningsinstituttet - www.imr.no/

IOC-UNESCO (France) - International Oceanographic Commission of UNESCO -

IOI (Malta) - International Ocean Institute - www.ioinst.org/

IOPAN (Poland) - Instytut Oceanologii Polskiej - www.iopan.gda.pl/

MI (Ireland) - Irish Marine institute - www.marine.ie/Home/home

Nausicaá (France) - Nausicaá Centre National de la Mer - www.nausicaa.fr/

SUBMARINER (Baltic Region) - SUBMARINER Network-

VLIZ (Belgium) – Vlaams Instituut voor de Zee – www.vliz.be/

EurOcean Executive-Director Email – ned.dwyer@eurocean.org

EurOcean Institutional Video - www.youtube.com/watch?v=ec0xGn|OMSc&t=7s

EurOcean Website - www.eurocean.org/

#### Marine Research Infrastructures

EMODnet - European Marine Observation and Data Network - www.emodnet.eu/

E00S - European Ocean Observing System - www.eoos-ocean.eu/

ERVO - European Research Vessel Operators - www.ervo-group.eu/np4/home

ESFRI - European Strategy Forum on Research Infrastructures - www.esfri.eu EurOcean Marine Research Infrastructures catalogues—www.eurocean.org/np4/8.html

EurOcean Science Officer Sandra Sá email — infrastructures@eurocean.org

EurOcean\_RID - Research Infrastructures Database - rid.eurocean.org

EUROFLEETS 2— www.eurofleets.eu

EUROFLEETS 2 Final Brochure-

www.eurofleets.eu/np4/%/B\$clientServletPath%/D/?newsld=537&fileName=eurofleest22017.pdf EUROFLEETS 2 Videos - www.eurofleets.eu/np4/533.html

European Marine Board Research Vessel Working Group -

www.marineboard.eu/european-research-vessels

INTAROS Event at the A New Era of Blue Enlightenment -

www.intaros.eu/news/recent-news/intaros-ushering-in-a-new-era-of-blue-enlightenment/

INTAROS Newsletter - www.intaros.eu/news/recent-news/

MARINET2 Project - www.marinet2.eu

MARINET2 Project Timetable of Calls—www.marinet2.eu/facilities/timetable-calls/

OFEG - Ocean Facilities Exchange Group - www.ofeg.org/np4/hor

Perspectives for enhancing co-ordination and support of Europe's Ocean Observing System Event: Video - ams5.src.cnr.it/extra/EurOcean2017.html

ww.eurocean.org/np4/%7B\$clientServletPath%7D/?newsId=49&fileName=OpenSession\_ OceanObservations\_Report\_Fin.pdf

#### Marine Knowledge Management

Atlantic Interactions Publication -

www.atlanticinteractions.org/wp-content/uploads/2017/07/atlantic\_interactions\_book\_72.pdf Atlantic International Research (AIR) Centre—www.atlanticinteractions.org Better off Blue Conference - www.submariner-network.eu/network/better-off-blue

Better off Blue Conference Declaration -

www.submariner-network.eu/files/1\_CP\_ASchultz-Zehden.pdf

EurOcean Office Coordinator Cristina Costa — Cristina.costa@eurocean.org

EurOcean UK is so far the top marine performer in H2020 Booklet -

Marine Knowledge Gate 2.0 Database – www.kg2.eurocean.org

Marine Knowledge Gate 3.0 Database BETA Version - kg.eurocean.org Marine Knowledge Transfer & Innovation: Learning from Regional & European

Initiatives Seminar Report -

www.eurocean.org/np4/%7B\$clientServletPath%7D/?newsId=48&fileName=EMD\_KT\_wo

MarineTT-www.marinett.eu/

Marine Knowledge 2020 Strategy-

ec.europa.eu/maritimeaffairs/policy/marine\_knowledge\_2020\_en RISC-KIT — www.risckit.eu/np4/home.html

RISC-KIT Toolbox - www.risckit.eu/np4/toolbox

Supporting Marine Research Knowledge Exchange for Blue Growth Seminar Reportwww.eurocean.org/np4/%7B\$clientServletPath%7D/?newsId=263&fileName=EPKnowle

#### **Ocean Communications and Public Outreach**

8° ICAN Workshop on Coastal Web Atlases enhancing Ocean Literacy (OL) -

8° ICAN Workshop Story Map-

dalspatial.maps.arcgis.com/apps/MapTour/index.html?appid=38d5422a39a74a5f9af42d

Blue Society - www.bluesociety.org/

An Ocean of Opportunities: Commitments - oceanconference.un.org/comi

The Professor Mário Ruivo Prize EurOcean Voluntary Commitment -

EurOcean Connections with ICAN - www.eurocean.org/np4/70.html

EurOcean Email - eurocean@fct.pt

EurOcean Institutional Video - www.youtube.com/watch?v=ec0xGnIOMSc&t=58s EurOcean Your Ocean, Your Future Event - www.eurocean.org/np4/605.html

EurOcean Website - www.eurocean.org/np4/home

ICAN—International Coastal Atlas—ican.iode.org/members

MARINA Knowledge Sharing Platform - www.marinaproject.eu/ RRI - Responsible Research and Innovation -

ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation Sea for Society — seaforsociety.eu/np4/home.html

United Nations Registry of Voluntary Commitments -

United Nations Sustainable Development Goal 14 -

www.bluemed-initiative.eu/wp-content/uploads/2018/05/Bluemed\_Brochure\_ENG.pdf

"Dr. Fridtjof Nansen" research vessel - http://rid.eurocean.org/record.jsp?load=2021

INFOMAR Programme — www.infomar.ie/ Mistic'Seas II Website — http://mistic-seas.madeira.gov.pt/

SatBałtyk System Website – satbaltyk.iopan.gda.pl/

economic implications THEOREM Research Infrastructure Website wwz.ifremer.fr/Espace-Presse/Communiques-de-presse/Archives/Communiques-2017/

VLIZ Research Strategy – www.vliz.be/en/VLIZ-research-framework

AIR Centre - Atlantic International Research Centre website -

Better off Blue - Creating synergies for a bio-based society Conference www.submariner-network.eu/network/better-off-blue

BLUEMED Website — www.bluemed-initiative.eu/
Celtic Explorer research vessel — rid.eurocean.org/record.jsp?load=543

IEO Carlos García-Soto presentation -

w.un.org/depts/los/consultative\_process/icp18\_presentations/garcia-soto.pdf

NAUSICAA opens one of the world's largest aquariums -

The effects of climate change on oceans including environmental, social and

L-Ifremer-et-Centrale-Nantes-unissent-leurs-moyens-pour-creer-I-Infrastructure-de-Re



### Participation in Meetings and Events in 2017

Visit to CIMA, UAIg; Faro, Portugal; January

INTAROS Kick-Off Meeting; Bergen, Norway; January

RISC-KIT 2nd Summer School; Faro, Portugal; January

MARINA Sustainable Fisheries and Aquaculture Workshop; Ponta

Delgada, Azores, Portugal; January

EUROFLEETS Final Conference; Brussels, Belgium; January

MARINA World Café Sun, sand...and safety! - How long will we have

beaches?; Faro, Portugal; January

RISCK-KIT Steering Group Meeting; Berlin, Germany; February

MARINET2 Kick-Off Meeting; Dublin, Ireland; February

Visit to NIOZ; Texel, The Netherlands; February

COLUMBUS Partnership Meeting; Lisbon, Portugal; February

RISC-KIT 3rd End User Day and Final Conference; Delft, Netherlands; April

AIR Centre Meeting; Ponta Delgada, Azores, Portugal; April

European Maritime Day; Poole, United Kingdom; May

Um Mar Sem Plásticos; Lisbon, Portugal; May

EurOcean Executive Committee Meeting; May

MARINA International Workshop Sustainable tourism in coastal areas:

The challenge of urbanisation; Copenhagen, Denmark; May

INTAROS First Stakeholder Meeting; Brussels, Belgium; May

Marine Knowledge Transfer & Innovation: Learning from Regional &

European Initiatives; South Hampton, United Kingdom; May

CoastWatch Seminario; Lisbon, Portugal; June

INTAROS Steering Group Meeting; Sopot, Poland; June

MARINA General Assembly; Caparica, Portugal; June

ERVO Annual Meeting; Helsinki, Finland; June

Co-ReSyF 2nd Advisory Board Meeting; Lisbon, Portugal; July

A New Era of Blue Enlightenment; Lisbon, Portugal; July

COLUMBUS Management Meeting; Dublin, Ireland; July

Visit to CSIC; Barcelona, Spain; September

Oceans Meeting; Lisbon, Portugal; September

8th ICAN Workshop on Coastal Web Atlases enhancing Ocean Literacy

(OL); Santa Marta, Columbia; September

SUBMARINER-Network Better off Blue Conference; Berlin, Germany;

ptember

JPI Oceans 2nd Conference; Lisbon, Portugal; October

Internacional Conference Desenvolvimento Sustentável dos Oceanos:

Uma utopia simples; Faro, Portugal; Novembro

EurOcean Executive Committee Meeting; Capri, Italy; November

EurOcean Steering Committee Meeting; Capri, Italy; November

Perspectives for enhancing co-ordination and support of Europe's

Ocean Observing System; Capri, Italy; November

COLUMBUS 2nd Annual Conference; Brussels, Belgium; November

MARINA Mid-Term Review; Rome, Italy; December

EUROFLEETS Plus Preparatory Meeting; Dublin, Ireland; December

Visit to EuroGOOS; Brussels, Belgium; December

European Marine Board Forum; Brussels, Belgium; December



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#### EurOcean Members

























#### EurOcean Cooperating Members











