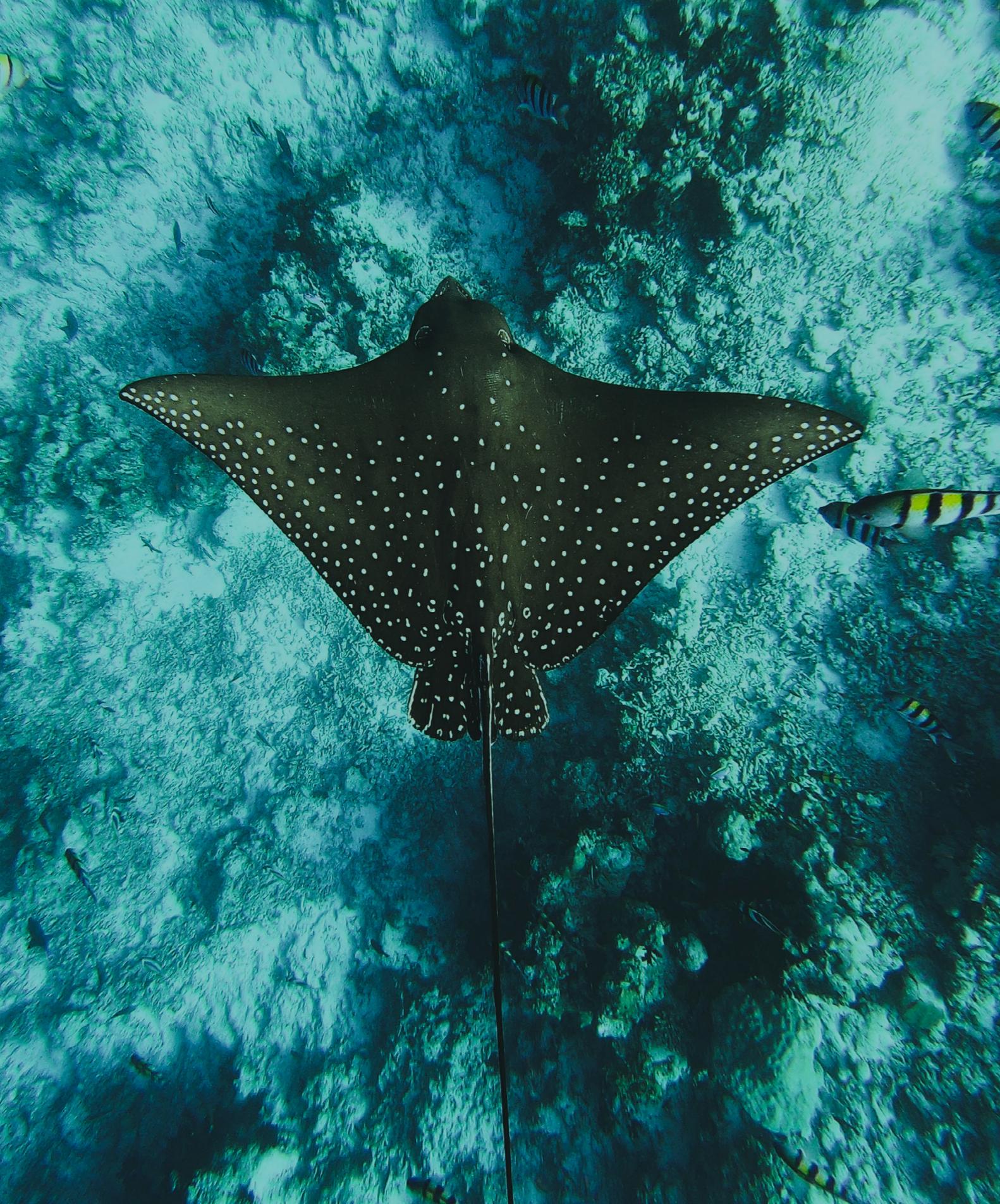




AN NU AL REPORT 2020



The European broker for Ocean Science and Technology

EurOcean, the European Centre for Information on Marine Science and Technology, is an independent, non-profit, scientific organisation, established in 2002 by the Portuguese Foundation for Science and Technology (FCT) and the French Research Institute for Exploitation of the Sea (Ifremer). EurOcean aims to support European Marine Science and Technology advances, by fostering information exchange, cooperation and collaboration among its members, the ocean community and society.

EurOcean has two types of members. Full members are public or non-profit European marine research, innovation and entrepreneurship, funding and outreach organisations. Cooperating members are organisations, with a regional or global reach, involved in activities complementary to those of EurOcean.



CARLOS GARCÍA-SOTO
President

“ The Decade of Ocean Science for Sustainable Development (2021 - 2030) is starting now, and EurOcean and all of us together as a network are called to play an important role to define the Ocean We Need for the Future We Want. ”



4 It is a privilege and an honor having been elected President of EurOcean. I sincerely appreciate the trust that you as Eurocean members have deposited in me. EurOcean is a gold nugget in Europe’s science and technology landscape, and I pledge to nurture it.

With the support of vice-presidents Giuseppe Magnifico (CNR) and Ana Hilário (CESAM | Univ. Aveiro), this endeavor will surely be easier. I anticipate a mandate driven by innovation and ambition, which we, as Executive Committee, will support and steer, considering members, other ocean stakeholders and society as a whole.

To Slawomir Sagan (IO PAN) and Tina Mertens (VLIZ), former EurOcean’s president and vice-president, a word of gratitude. We shared the leadership of EurOcean over the past four years. It has been a pleasure to work together and this experience will be an added value to the new Executive Committee.

Special thanks also to our Executive Director, Sérgio, and to all his team that have deeply transformed EurOcean. They carried out over the last two years challenging and needed reforms without losing sight of its original mission, which has never been so relevant. This was a difficult year because of the pandemic, yet it was exactly when resilience was the most important that the outstanding results achieved by our network and by its secretariat speak for themselves.

The Decade of Ocean Science for Sustainable Development (2021 - 2030) is starting now, and EurOcean and all of us together as a network are called to play an important role to define the Ocean We Need for the Future We Want.



SÉRGIO BRYTON
Executive Director

“ EurOcean is increasingly a financially healthy organization, a must for our mission. ”



We cannot speak about 2020 without mentioning COVID-19. This ruthless pandemic that takes away our loved ones, hampers our social nature and disrupts our economy.

We worked away from the office since Spring, due to public policies and the instinct of self-preservation. Digitalization and work-life balance measures implemented in 2019, and the team’s professionalism softened the impact.

Nonetheless, we focused on delivering value to our stakeholders. We created a number of research and development opportunities for our members, provided them with bespoke information, supported their activities and highlighted their achievements. We also contributed to initiatives related with the UN Decade of Ocean Science and supported Ocean policy makers.

A positive financial result was achieved, consolidating

the upwards trend. We were awarded new projects, a merit to the team, but also of those who trust in EurOcean as their partner. We optimized our financial management procedures. EurOcean is increasingly a financially healthy organization, a must for our mission.

We improved the governance of EurOcean by implementing a strategic monitoring mechanism. Based on the Balanced Scorecard, this tool will contribute to achieving the goals of the Strategic Plan 2025.

Our research infrastructures database also grew, most notably with information from POGO, the EUMarineRobots project, and the BONUS infrastructures. RID has also become a source of information to the European Atlas of the Seas.

This was a very positive year, despite the circumstances.



AT A GLANCE

.....
The Centre

.....
Membership

.....
Full Members

.....
Cooperating Members
.....

THE CENTRE



3

Nationalities



2

Researchers⁽¹⁾



9

Projects⁽²⁾

⁽¹⁾ Researchers involved in marine science and technology initiatives.

⁽²⁾ Marine science and technology research projects in 2020 as partner.



Information Management



Science Communication



Knowledge Transfer



Project Management



Costal Zone Management



Research Expeditions



Naval Military Sciences



Geology



Environmental Sciences



Marine and Naval Radioelectronics

MAIN AREAS OF EXPERTISE



Proposal Writing



Ocean Governance



Funding Mechanisms



Strategy and Decision Support



Marine Biology



Ocean Literacy



Nautical Engineering



Information Technologies



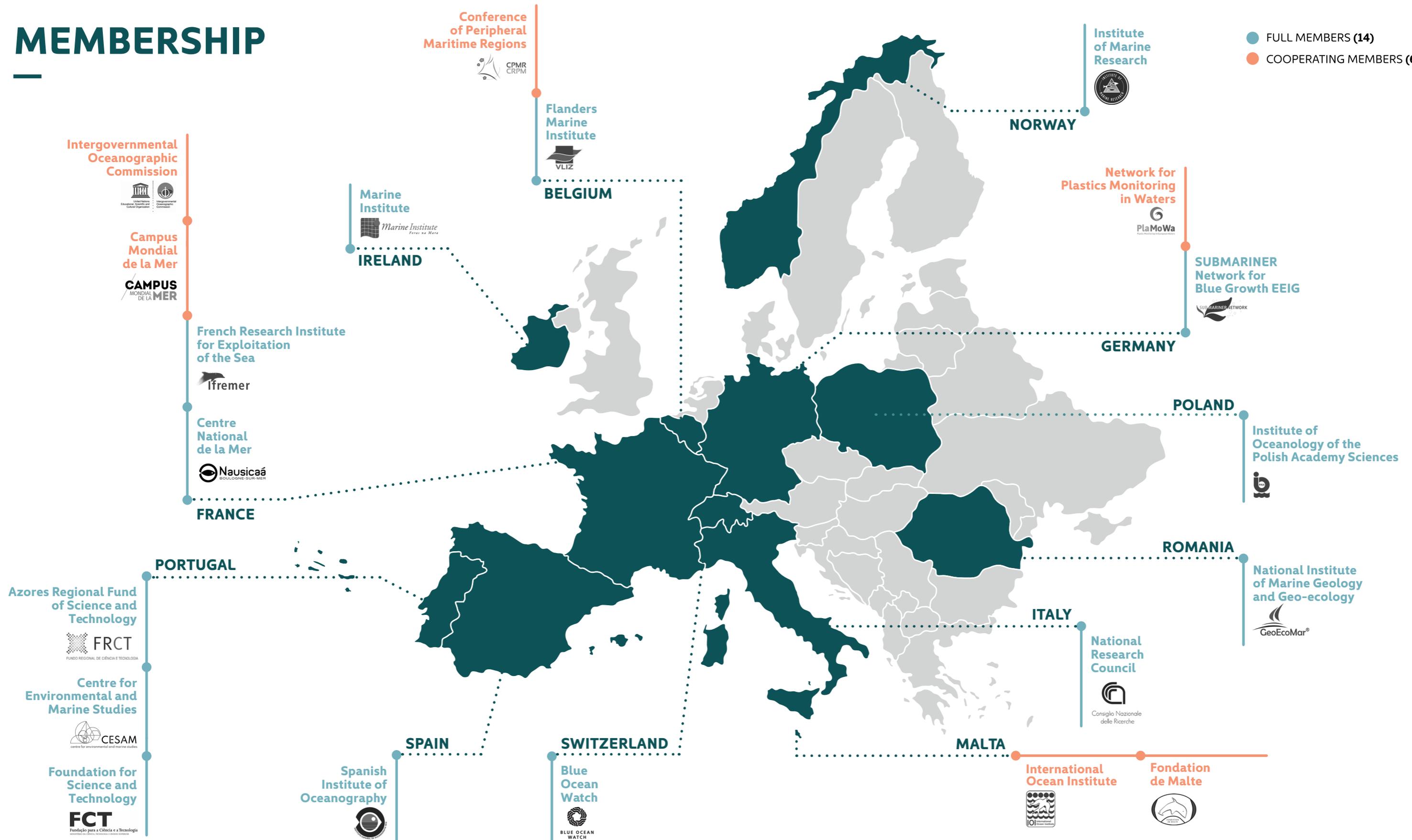
Research Funds



Organisational Management

MEMBERSHIP

- FULL MEMBERS (14)
- COOPERATING MEMBERS (6)



10

11

FULL MEMBERS



11
Countries



+ 150
Infrastructures⁽¹⁾



+ 3,150
Researchers⁽²⁾



+ 400
Projects⁽³⁾

MAIN AREAS OF EXPERTISE



Blue
Biotechnology



Noise and
Plastics Pollution



Sensors and
Sensing



Big
Data



Artificial
Intelligence



Circular
Economy



Autonomous
Vehicles



Youth
Engagement



Tsunami
Prediction



Vessel Energy
Efficiency



Ecological Risk
Assessment



Ecosystem
Services



Biodiversity and
Environmental Stressors



Cumulative Effects and
Impact Assessment



Aquaculture



Climate Change



Alternative
Resources



Multi-uses
of the Sea



Human and
Ocean Health



History and Cultural Heritage in
Coastal and Maritime Regions



Blue
Economy



Citizen
Science



Polar Research



Ocean
Monitoring



Acoustic Telemetry
and Animal Tracking



Marine Spatial
Planning



Fisheries Sustainability and
Seafood Value Chain



Marine Renewable
Energy



Geo-archaeology



Research Vessels
and Observatories



Underwater
Munition

⁽¹⁾ Marine science and technology research infrastructures owned or supported.

⁽²⁾ Researchers employed or supported involved in marine science and technology initiatives.

⁽³⁾ Marine science and technology research projects in the last 5 years (2015 - 2020) as partner or funder.

COOPERATING MEMBERS



11
Countries



+ 500
Infrastructures⁽¹⁾



+ 800
Researchers⁽²⁾



+ 65
Projects⁽³⁾



+ 80
Organisations⁽⁴⁾

MAIN AREAS OF EXPERTISE



Outreach
Monitoring



Maritime
Affairs



Cohesion
Policy



Transport and
Accessibility



Tourism



Climate



Marine
Energy



Deep-ocean
Exploration



Migration



Submarine
Warfare



Ocean
Governance



Electronic
Warfare



Maritime
Security



Marine Applied
Communication



Space Observation
Technologies



Ship Repair, Shipbuilding
and Naval Engineering



Fisheries and
Aquaculture



Marine Biology, Ecology
and Oceanography



Knowledge of
Coastal Areas



Plastics in a
Circular Economy



Education
and Training

⁽¹⁾ Marine science and technology research infrastructures owned or supported.

⁽²⁾ Researchers employed or supported involved in marine science and technology initiatives.

⁽³⁾ Marine science and technology research projects in the last 5 years (2015 - 2020) as partner or funder.

⁽⁴⁾ Associated organisations (i.e. network members).



CENTRE ACHIEVEMENTS

.....
Membership and Collaboration

.....
Information Management

.....
Communication and Networking

.....
Projects

.....
Services

.....
Finances

.....

MEMBERSHIP AND COLLABORATION

ACTIVITIES AND OPPORTUNITIES FOR MEMBERS

| Provision of bespoke information

| MyOceanGate workgroup creation

| Up to 20 research and development opportunities

| Organization of the first EurOcean Skills workshop on social media communication

| Development of the OCEAN TRIP H2020 proposal lead by EurOcean and involving several EurOcean Members (IO PAN; IMR; CNR; CESAM; VLIZ and IFREMER)



DISSEMINATION AND PROMOTION OF MEMBERS

| Promotion of the 2020 Sea Tech Week, organised by cooperating member Campus Mondial de la Mer

| Support for Members' activities through website, social media and monthly newsletter

| Support for the participation of members IO PAN and Ifremer in Sea Tech Week

PARTNERSHIPS AND COLLABORATIONS

| Partnership with the Digital Training Institute

| Renewed collaboration agreement with ERVO

| EurOcean became a founding member of EU4Ocean

| RID became a data provider of the European Atlas of the Seas

| Collaboration with DG MARE for the Ocean Hackathon

| Collaboration with POGO, EMBREC, BONUS and EUMarineRobots to update the RID

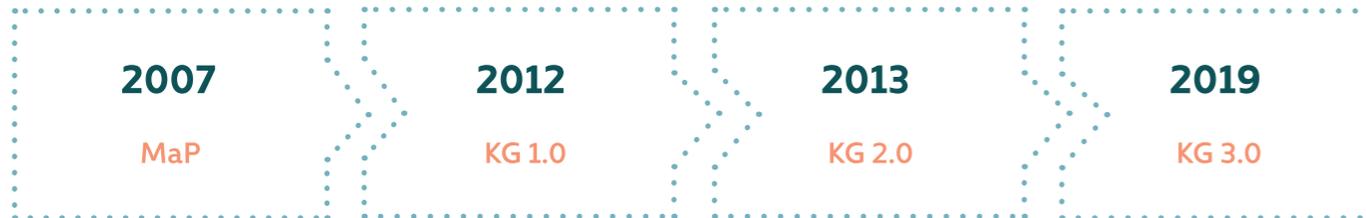
| Support to the organization of Sea Tech Week



INFORMATION MANAGEMENT

KNOWLEDGE GATE

A repository of information about marine science and technology research and innovation projects that were funded by the European Union and the Member States programmes (FP7, H2020, INTERREG IV, INTERREG V, LIFE, FP6, INTERREG III).



2020

- 7 European Programmes
- 6 Billion Euro in Funding
- + 3,000 Projects
- + 7,600 Participants
- + 2,000 Knowledge Outputs
- 120 Countries

RESEARCH INFRASTRUCTURES DATABASE

A repository of information (technical, scientific and operational) about European marine science and technology research infrastructures (research vessels, underwater vehicles and large equipment, mobile ocean observatories, satellites for sea and ocean observation, flumes and test labs for ocean engineering, marine biology stations, fixed point open ocean observatories, aquaculture research facilities, marine neocosms facilities, in situ tests for ocean renewable energy, deep ocean drilling research facilities, marine data providers, basins, coastal observatories).

In 2020, became a data source of the European Atlas of the Sea. RID was updated with 34 new infrastructures from BONUS and 41 from EUMarineRobots.



2020

- + 880 Infrastructures
- + 160 Research Vessels (including 91 from ERVO)
- 142 LEXI
- 15 Categories
- + 35 Countries

COMMUNICATION AND NETWORKING

WEBSITE & SOCIAL MEDIA REACH

WEBSITE



0.4%
Decrease
in Users



6.7%
Decrease
in Sessions



7.4%
Decrease
in Pageviews

FACEBOOK



18.6%
Increase
in Followers



49.8%
Increase
in Posts



18.3%
Increase
in Likes



8.5%
Decrease
in Shares

TWITTER



102%
Increase
in Followers



155%
Increase
in Posts



99%
Increase
in Likes



52%
Increase
in Shares

LINKEDIN



146%
Increase
in Followers

PROMOTION OF THE EMSO
CONFERENCE – PREPARING FOR
UN DECADE OF OCEAN SCIENCE

PARTICIPATION IN ARCTIC
FRONTIERS CONFERENCE, TOWARDS
UN DECADE OF OCEAN SCIENCE



EUROCEAN FEATURED IN AN
ARTICLE ON SONAR #2 | CAMPUS
MONDIAL DE LA MER JOURNAL

PARTICIPATION IN DG MARE
#EU4OCEAN OCEAN LITERACY
WORKSHOPS

PARTICIPATION IN THE INTERNATIONAL
DATA SHARING WORKSHOP ORGANISED
BY IOC UNESCO

PARTICIPATION IN UN OCEAN
LITERACY SUMMIT



PARTICIPATION IN SEA TECH WEEK
“COOPERATION MODELS” SESSION



PARTICIPATION IN THE
PUBLIC DISCUSSION ABOUT
THE PORTUGUESE OCEAN
STRATEGY 2021 - 2030

ENGAGEMENT WITH IWG-SODIS AND THE DEVELOPMENT
OF THE GLOBAL STRATEGY FOR OCEAN DATA AND
INFORMATION STEWARDSHIP

PARTICIPATION IN THE
ATLANTIC CITIES PROJECT
STAKEHOLDERS GROUP



SUPPORT TO PT DIRECTORATE-GENERAL
FOR MARITIME POLICY EEA GRANTS BLUE
GROWTH PROGRAMME

PROJECTS

AANChOR

All Atlantic Cooperation for Ocean Research and Innovation



BUILDING AN ALL ATLANTIC OCEAN COMMUNITY
Implementing the Belém Statement

www.allatlanticocean.org

Aim: To support the implementation of the Belém Statement by building the All-Atlantic Ocean Research Community and to identify concrete collaborative research and innovation activities across the whole Atlantic basin, from pole to pole.

Role: WP 9 leader - Communication and dissemination.

Major Achievements:

- Launch of a week-long social media campaign on Ocean & Human Health for 2020 World Ocean's Day.
- Participation in All-Atlantic Ocean Research Forum.
- Migration of AORA website contents to the AANChOR portal.

www.aqua-lit.eu

Aim: To provide a sustainable toolbox of innovative ideas and methodologies to prevent marine littering from aquaculture activities and remove and recycle litter from the aquaculture facilities both before litter enters the sea and for litter already existing at sea.

Roles:

- WP5 leader - Scaling up the tide.
- Task 3.3 leader: Monitoring and quantification of AQUA LITTER.
- Task 6.2 leader: Dissemination material.
- Task 6.3.1 leader: Target promotional campaigns, newsletter.
- Task 6.3.2 leader: Public outreach.
- Task 6.4 leader: AQUA-LIT website.

Major Achievements:

- Virtual Learning Lab co-organisation.
- Lead a collaboration between AQUA-LIT and Thermaikos Gulf protected area Management Authority (Greece).

AQUA-LIT

Preventive Measures for Averting the Discarding of Litter in the Marine Environment from the Aquaculture Industry



AQUA-LIT

MaRINET2

Marine Renewable Infrastructure Network for Enhancing Technologies 2



www.marinet2.eu

Aim: This project builds upon the achievements of the advanced community created in MaRINET FP7. MaRINET 2 will ensure the continued integration and enhancement of all leading European research infrastructure and facilities specialising in research, development and testing of offshore renewable energy systems including electrical sub systems and grid integration through a range of TRLs (1 - 7).

Role: EurOcean is deploying its Marine Research Infrastructures Database (RID) as part of this Infrastructure.

Major Achievement: Ongoing update and maintenance of the RID in support of Marinet2.

CatRIS

Catalogue of Research Infrastructure Services



CatRIS

www.project.catris.eu

Aim: To develop an open, trusted and user-friendly portal to a harmonised and aggregated catalogue of services and resources provided by Research Infrastructures (RI) and Core Facilities (CF) across Europe.

Role: WP 6 leader - Communication, dissemination and exploitation.

Major Achievements:

- Development of CatRis video presentation.
- Identification of RI networks and projects for the RI services.

www.eurofleets.eu

Aim: Facilitate open access to an integrated and advanced research vessel fleet, designed to meet the evolving and challenging needs of the user community.

Role: WP 9 leader - Dissemination and Communication.

Major Achievements:

- Communication Package Towards Other Infrastructures.
- Development of a project video.

EUROFLEETS PLUS

An alliance of European marine research infrastructure to meet the evolving needs of the research and industrial communities



NAUILOS

New approach to underwater technologies for innovative, low-cost ocean observation



NAUILOS

www.nautilus-h2020.eu

Aim: To unlock the critical knowledge contained in the ocean over the coming decades, and to realize the mutual benefits of marine observation for all elements of a sustainable ocean.

Role: WP 10 Leader - Outreach, communication and dissemination.

Major Achievements:

- Project Kick-off.
- Signed grant agreement
- Development of content to the 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.

Roles:

- WP 7 co-leader - Communication and dissemination.
- Task 1.3 leader: Collaboration development and establishment of Pan-Arctic Observing Forum.

Major Achievements:

- Participation in Special Session on Communication at European Geophysical Union Conference.
- Participation in the Communications Task Group of the European Polar Cluster.
- Participation in the INTAROS Stakeholder Task Group.

INTAROS

Integrated Arctic Observation System



INTAROS

SERVICES

Ocean Literacy



ONGOING

Communication

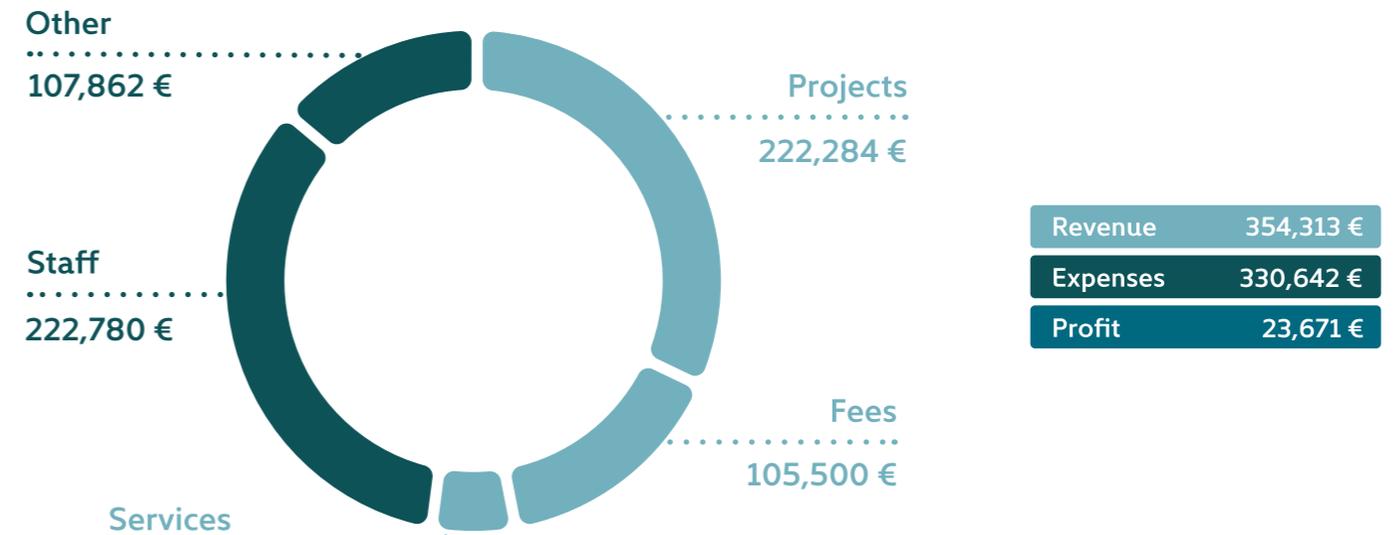


Communication

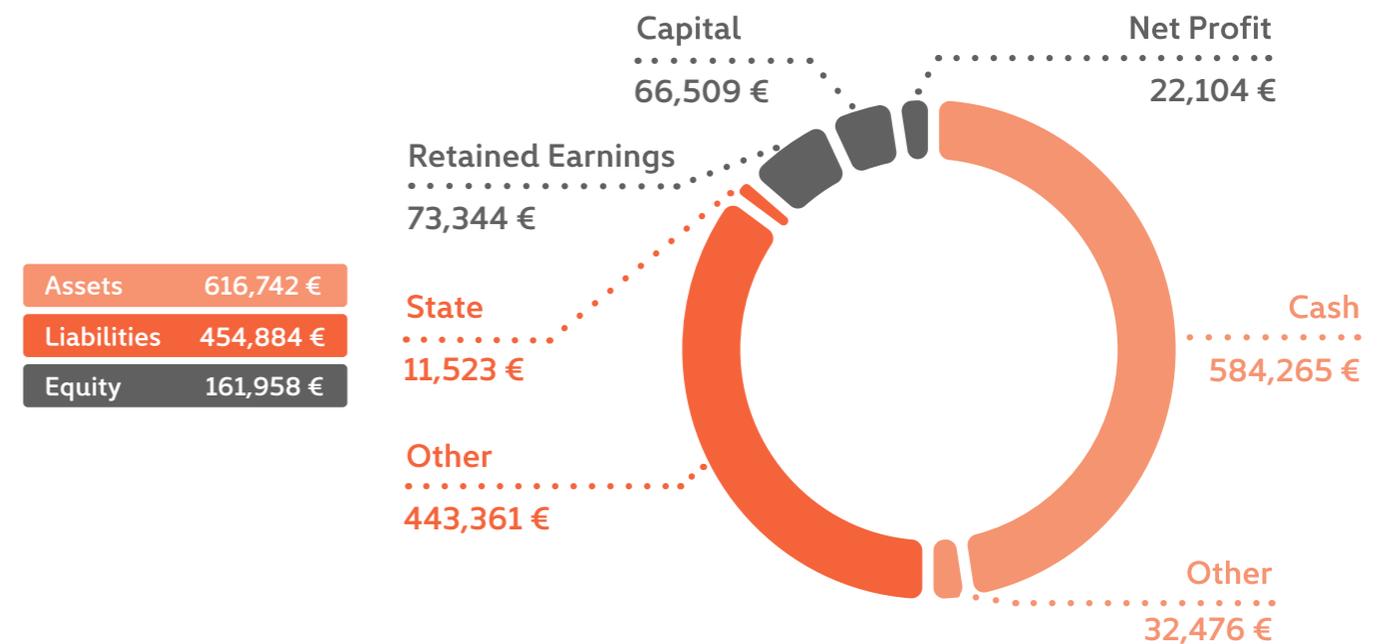


FINANCES

REVENUE AND EXPENSES



ASSETS, EQUITY AND LIABILITIES





—
**MEMBERS
ACHIEVEMENTS**

.....
Full Members
.....

FULL MEMBERS

FCT

PORTUGAL

FCT
Fundação para a Ciência e a Tecnologia
RECTORIA DA INVESTIGAÇÃO E INOVAÇÃO

FCT has the mission to establish Portugal as a global reference in science, technology, and innovation in all scientific domains. In 2020, FCT supported the creation of the Blue Bioeconomy Collaborative Laboratory (B2E CoLAB), which is a private, non-profit association, operating at full capacity since 2020. It aims to shape a new blue bioeconomy R&I agenda, committed to creating economic and social value. FCT contributed to the co-design of All-Atlantic Joint Activities in the six thematic Belém Statement priorities, through the coordination of the CSA-AANChOR project; provided expertise to international working groups (e.g. JPI Oceans Action WG on “Underwater noise in the marine environment”); and participated in the European Marine Board Working Group on “Geohazards in the marine environment.”

GeoEcoMar successfully secured funding for the proposal “Developing Optimal and Open Research Support for the Black Sea”. The programme aims to bring the four pillars of the SRIA into reality, turning the challenges into opportunities for a highly valued Black Sea. Further success was achieved for the proposal “Advancing Black Sea Research and Innovation to Co-Develop Blue Growth within Resilient Ecosystems” (BRIDGE-BS), under the same topic and to whose development GeoEcoMar contributed as an important partner. The project will develop predictive tools and capabilities necessary to understand and predict the impacts of climate-driven and anthropogenic multi-stressors on the services stemming from Black Sea ecosystems.

GeoEcoMar

Romania



NAUSICÁÁ

FRANCE



In 2020, Nausicaá opened its new exhibition “In the Eye of the Climate” to raise awareness on climate change. Under the Mr. Goodfish programme, a partnership with Auchan Retail France was established to empower the consumers in identifying seafood products from responsible and sustainable aquaculture. 2020 saw the SUMARIS project end and the Blue Living Lab kick-off. Nausicaá kept working on the development of Ocean Literacy at European level as a member of the EU4Ocean coalition and its three communities, the EU4Ocean platform, the Youth4Ocean Forum coordinated by Nausicaá and the EU Network of Blue Schools.

CESAM |
UAVEIRO

PORTUGAL



CESAM members contributed to the study “The environmental impacts of plastics and micro-plastics use, waste and pollution: EU and national measures” for the European Union, commissioned by the Policy department for Citizens’ Rights and Constitutional Affairs of the European Parliament. The members also acted as experts in the Group of Scientific Advisors that presented a report on “Environmental and Health Risks of Microplastic Pollution” to the European Commission DG R&I. CESAM has also actively contributed to the ocean policy process by co-authoring several chapters of the second UN World Ocean Assessment (WOA 2), and co-leading two international working groups (funded by SCOR-Scientific Committee on Oceanic Research, and DOSI-Deep-Ocean Stewardship Initiative) tasked with the design of a 10-year programme of deep-sea biological science under the UN Decade of Ocean Science for Sustainable Development.

In 2020, the French Oceanographic Fleet, operated by Ifremer, acquired a new robot capable of diving to a depth of 6,000 m, a truly “tailor-made” machine at the service of ocean sciences, “Ulyx”, a real technological breakthrough in the exploration of the abyss. Frédérique Le Roux, an Ifremer researcher in molecular microbiology won an Advanced Grant from the European Research Council for DYNAMIC, a project that studies phages in marine environments. The ICES Outstanding Achievement Award 2020 was given to Clara Ulrich, Ifremer Deputy Scientific Director. Finally, Ifremer joined forces with the German Marine Research Alliance to strengthen the sustainable use of the coasts, seas and oceans through research, data management and digitalization, infrastructure, and transfer.

IFREMER

FRANCE



IEO

SPAIN



The Spanish Institute of Oceanography (IEO) participated through its scientists in the Group of Experts (18 lead scientists) and the Pool of Experts (780 scientists) that have finalized during 2020 the 2nd World Ocean Assessment (WOA2) the United Nations. One of the key objectives of WOA is to support through Technical Abstracts the major UN ocean initiatives such as the future international agreement on Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction (ABNJ), the Sustainable Development Goals (SDGs) of the UN 2030 Agenda, SDG14, and the UN Decade of Ocean Science for Sustainable Development. A Summary of WOA2 approved by the UN General Assembly and elaborated by the 18 leading researchers (including IEO) is available [here](#).

The Italian Oceanographic Commission (COI), hosted by CNR, organized two regional consultations, conducted between January and November 2020, as part of the preparatory activities of United Nations Decade of Ocean Science for Sustainable Development (2021–2030), targeting specific priorities and co-design and capacity building needs for the Mediterranean Region. CNR had a leading role as coordinator of the H2020 project BlueMed, a Coordination and Support Action to support the development of the BlueMed R&I Initiative for blue jobs and growth in the Mediterranean area, launched in 2014.

CNR
ITALY



Under the name “Ocean Innovation Space”, in 2020 VLIZ initiated the expansion of the laboratory facilities of its Marine Station Ostend. The new, energy-efficient building will enable VLIZ to expand its research capacity and cater to the institute’s steady and fast growth.

At the end of 2020, USV Adhemar became the first Belgian uncrewed surface vehicle remotely controlled by pilots to leave and enter Ostend’s seaport. The voyage was part of a sea research mission set up by VLIZ. The year was marked by swiftly adopting a new modus operandi and by reorganizing VLIZ’s activities, resulting in a varied package of innovative research projects, new publications and revamped (digital) communication formats related to the COVID-19 pandemic.

VLIZ
BELGIUM



MI
IRELAND



2020 saw the deployment and commissioning of several infrastructure platforms. It also saw a range of oceanographic and climate change missions and research activities in coastal and deep waters of Ireland to increase national and global data collection coverage efforts to improve modelling of ocean and climate change. During 2020 the research vessels RV Celtic Explorer and RV Celtic Voyager completed a full survey schedule of 525 days. The amount of new research investments awarded under the Marine Institute’s Marine Research Programme, included €3 million for ship time and €2.3 million for research and innovation actions.

Highlights for 2020 at IO PAN included the ARctic EXperiment (AREX) expedition that was devoted to oceanographic, meteorological, aerosol, chemical and ocean ecosystem observations in the open ocean regions, including the eastern Norwegian and Greenland seas, Fram Strait and the southern Nansen Basin of the Arctic Ocean, and in the selected West Spitsbergen fjords. Another highlight was the CommOcean 2020 conference dedicated to communicators working in marine institutes, governmental bodies and NGO’s, and marine scientists looking to develop skills in modern ocean science communication, wherever in the world they are working.

IO PAN
POLAND



IMR
NORWAY



In 2020, IMR celebrated the formal opening of Lofoten–Vesterålen Ocean Observatory (LoVe Ocean), located in a highly productive coastal shelf-slope area, and in an environment sensitive to external stressors. It is equipped with a range of chemical, physical, and biological sensors streaming continuously to the onshore infrastructure through fiber optic sub-sea cables and made publicly available. IMR also saw the creation of a new department, IMR Digital, that will strengthen the existing IT development, support and data management infrastructure and services for IMR staff and external users.

EurOcean

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