

SONAR

CAMPUS
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THE JOURNAL OF CAMPUS MONDIAL DE LA MER #13 - DEC 2025

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GLOBETROTTER**

INTERNATIONAL MARINE SCIENCE AND TECHNOLOGY WEEK

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2021 United Nations Decade
of Ocean Science
for Sustainable Development
2030



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October 16-18, 2026:
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THE JOURNAL OF CAMPUS MONDIAL
DE LA MER #13 - DEC 2025

THALOS

FROM FISHING VESSELS TO RACING YACHTS, THALOS CONNECTS THE OCEAN

From its base in Lorient, Thalos links the seas from horizon to horizon using satellite communication, stepping up digitalisation for fishing fleets, merchant shipping, working vessels and ocean racing yachts.



© Franck Betermin

CATSAT, one of THALOS's solutions for optimizing fishing operations

Founded in 2001, Thalos has responded to the critical challenge of bringing connectivity on board. "Our primary mission is to advise each client so that they can choose the best satellite service for their vessel and activities", explains Delphine Robinet, the company's head of marketing. Thalos

has set up and developed its own solutions, including OceanBox, which is designed to manage, secure and optimise all on-board data flows. "We manage connectivity and the network, as well as file and video transfer, while always controlling costs and data security", Delphine Robinet continues. Thalos is thus able to propose solutions for operations monitoring using AI to collect key data such as vessel positions, catch and discard volumes, and species caught.

The extreme conditions of ocean racing as a showcase

As a result of deploying its systems in ocean racing, Thalos gained both agility and visibility. Delphine Robinet explains: "This experience has allowed us to adapt our mo-

dules for extreme environments, including for voice processing amid all the noise of an offshore racing yacht. This highly innovative sector is driving the ecosystem forward, creating a virtuous circle. That lets us prepare for new sail-powered cargo vessels, and we can showcase our expertise to new players in the maritime sector." Thalos is currently perfecting its solutions for the global fleet while creating new partnerships in the context of a fundamental digital transition in the maritime domain. Delphine Robinet concludes: "We're already aiming to catch the next wave, between operational requirements, cybersecurity and the green transition." ●

➔ **information:**
www.thalos.fr

TECHNATURE AND POLYMARIS

SUSTAINABLE COSMETICS FROM THE SEA

Two neighbouring companies from Brest have joined forces to develop an innovative biomaterial based on natural, biodegradable polymers. Technature is a pioneering marine cosmetic firm, while Polymaris specialises in bioengineering. Together they have paved the way for environmentally friendly, 3D-printed cosmetic patches.

Lucas Vallée, Innovation Manager at Technature, explains: "We use natural polymers produced by marine bacteria that are both mouldable and biodegradable". Developed by Polymaris, these natural polymers benefit the environment by replacing petrochemical-based plastics as a dry, light and customisable medium for administering cosmetics.

An innovative biomaterial from the ocean

Lucas Vallée continues: "3D printing means we can produce tailor-made cosmetic patches that release soluble ingredients on contact with water." It was Roscoff Marine Station that put him in touch with Polymaris and the project also receives support from the Compositic platform, which turns the material into 3D-printable filament. "This is a great example of collaborative innovation, spanning marine biotech and the cosmetic industry", he explains. After 9 months in R&D, the product is now ready for in-

The collaborative marine biotechnologies developed by Technature and Polymaris



© Technature

dustrial-scale production, which is scheduled for 2026. According to Lucas Vallée, "Besides our patches, the technology opens up opportunities for other innovative, environmentally responsible cosmetic applications. This is a major advance in the sustainable utilisation of marine resources". ●

➔ **information:**
www.tech-nature.com
www.polymaris.com/en
www.compositic.fr/en

HARNESSING HIDDEN POTENTIAL



Dr Nathalie Tonné

Project Manager at the European Marine Observation and Data Network (EMODnet)



Pierre Sérodes

Director of the Research Infrastructure and Information Systems Division (IRSI) at the French National Research Institute for Ocean Science (Ifremer)

EMODNET AND IFREMER

A STRATEGIC ALLIANCE TO DECODE THE OCEAN

Dr. Nathalie Tonné, Coordination Officer at the Secretariat of the European Marine Observation and Data Network (EMODnet), and Pierre Sérodes, director of the Research Infrastructure and Information Systems Department (IRSI) at Ifremer, share a common goal: making Ocean data accessible, interoperable, and useful for all. For more than fifteen years, Ifremer has contributed its scientific and data management expertise into the EMOD-network of +130 partners, which collectively aggregate, harmonise and standardize data, also producing open and free data products at a European scale.

Could you briefly introduce your two organizations?

Nathalie Tonné: EMODnet is the European service for in situ marine data of the EC Directorate-General Maritime Affairs and Fisheries (EC DG MARE), funded by the European Maritime Fisheries and Aquaculture Fund. We aggregate observations into FAIR (Findable, Accessible, Interoperable, and Reusable) pan-European datasets and map layers, and produce unique data products, which we both make openly and freely available for a diverse user base across various sectors spanning among others research and academia, public administration and policy, citizen science, and the Blue Economy.

Pierre Sérodes: Ifremer is the french research institute for ocean science that conducts research, innovates, and provides expertise to protect the ocean, responsibly exploit its resources, and share marine data. Every day, we collect, validate, and disseminate scientific ocean data through data infrastructures such as Sextant or Seanoe. To process these vast volumes of information, we rely on cutting-edge tools like Datarmor, our recently upgraded supercomputer.

What does your collaboration look like in practice?

Nathalie Tonné: Ifremer is a key partner for EMODnet, contributing to the delivery of multiple thematics and data



ingestion. Ifremer's Sextant geospatial data infrastructure provides us with an essential source of metadata. We also collaborate on tools such as Globe, an innovative software for processing and visualizing oceanographic data before these are integrated into one of our flagship data products, EMODnet Bathymetry's Digital Terrain model (DTM). Ifremer was also active in shaping EMODnet's Vision 2035, which we presented at the EMODnet Open Conference last November in Brussels, Belgium.

Datarmor, the only high-performance computer in France dedicated to the ocean



The Ifremer headquarters lobby in Brest: the ocean at its heart

© Technopôle Brest-Iroise

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“Marine data are central to the challenges of tomorrow”

Pierre Sérodes: We (Ifremer) have been instrumental in the EMODnet Seabed Habitats EUSEaMap data product, and we also take part in joint projects like Blue Cloud 2026. These collaborations allow us to bring disciplines together and make our data as widely available as possible, while establishing a reference framework to ensure interoperability.

How and why are your organizations involved in the Ocean Hackathon?

Nathalie Tonné: We have been providing EMODnet’s full service offer and supporting teams for the past four years because this event perfectly illustrates the value of open innovation in creating sustainable solutions.

Pierre Sérodes: For the same reasons, we offer privileged access to our coastal and offshore data, as well as technical mentoring. The 2024 edition, for example, led to the creation of biodiversity monitoring tools. This year, we aim for even more integrated applications by combining EMODnet and Copernicus data.

In your view, what will be the main challenges for marine data in the coming years?

Nathalie Tonné: Data harmonization remains a major

challenge in building a digital twin that provides a predictive and integrated vision of the Ocean at the European scale. That’s precisely what we’re working on within the European Digital Twin of the Ocean (EU DTO) via the EDITO infrastructure project which EMODnet delivers together with Copernicus Marine Service.

Pierre Sérodes: Marine data is at the heart of tomorrow’s challenges. With the emergence of the European Digital Twin of the Ocean and the growing use of artificial intelligence, it is essential to have high-quality reference datasets that are prepared for model training. It is also becoming crucial to ensure interoperability between datasets from multiple disciplines—ranging from ocean physics to biology—and from diverse sources. This is vital to represent the complexity of how the ocean functions and to model its evolution in an integrated manner. By combining observations, data management, and modeling, we will be able to provide answers to key questions regarding energy, the impact of climate change, and the effects of human activities on marine ecosystems. ●

📍 **information:**
emodnet.ec.europa.eu
www.ifremer.fr



ENSTA

ENSTA TRAINS FUTURE ENGINEERS IN MARINE DATA AND AI

Field practical work
for ENSTA's future
hydrographers and
roboticists

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The Journal of Campus Mondial de la Mer - SONAR #13

In January 2025, the French National Graduate School for Advanced Technologies (Ecole Nationale Supérieure de Techniques Avancées ENSTA) brought its Paris and Brittany campuses under a single organisational umbrella, which has strengthened its research and engineering offering. Gilles Le Chenadec is a professor who specialises in AI and underwater acoustics – he sees this major change as an opportunity to train more future engineers in handling marine data.



Gilles Le Chenadec,
professor
specializing in AI
and underwater
acoustics

Gilles Le Chenadec explains: "Almost half the engineers we trained at ENSTA Bretagne worked in the maritime sector, and the new combined ENSTA continues to support these key areas of expertise. Our students will still be able to acquire and develop the skills that maritime industries want. On the Brest campus, our expertise centres on hydrography, oceanography, mobile robotics, naval architecture, marine renewable energy and materials. Nowadays, all these areas require people who can work with data".

Challenges remain for AI and marine data

In the maritime sector as elsewhere, the digital revolution and artificial intelligence have been transformative. Gilles Le Chenadec observes: "The volume of maritime data has grown hugely, along with the number of sensors. The advent of AI has really boosted the utilisation of those data, but many challenges remain, not least that of access to properly annotated databases. These are a rarity and can be costly to create, especially in complex, wide-ranging contexts such as the underwater environment". He adds, with a combination of realism and optimism: "Using AI to process marine data is an especially

stimulating and dynamic area for training and research, so we're constantly adjusting our teaching. Data are everywhere and tomorrow's engineers will need to know how to handle, interpret and interrogate them".

Where AI meets mathematical and physical modelling

ENSTA is adapting its programmes in light of these developments, as Gilles Le Chenadec explains: "Right from their first year, students learn about AI regardless of their specialism. The goal is for each engineer to master the basics of AI – while also gaining a solid grounding in physical and mathematical modelling, which remain essential for understanding and solving complex real-world problems". This means ENSTA prioritises two skill sets: "All our future robotics engineers, hydrographers and oceanographers will have firm foundations in applied mathematics as well as data science". The Institute also focuses firmly on concrete applications: "Students work on Lake Guerlédan: they deploy autonomous robots, collect data on the marine environment and use AI-driven methods to analyse the water column, lake floor structure and fish. These projects illustrate the cross-cutting skills needed in maritime engineering today". ●

📍 information:
www.ensta.fr

NUSENSE

NUSENSE SUPPORTS SAFETY AND SECURITY AT SEA WITH RADAR TECHNOLOGY

This 2024 start-up designs radars inspired by the automotive industry that meet maritime safety needs.

Christophe Calvez is a co-founder and director of the Brest-based company, which employs 18 people and has just completed its first financial year with a €1 million turnover. He gives us the back story: "NUsense was created by an experienced team – originally from the German ZF Group – specialising in advanced driver assistance systems. Our core business is designing compact radars to deploy in robotics, to secure sensitive sites or to manage flows".

Offshore surveillance, docking assistance and floating object detection

Having worked on land-based monitoring, the company then set its sights on a maritime horizon – detecting floating objects, assisting with docking drones and vessels, and monitoring offshore wind farms. Calvez underlines the benefit of this: "Our radar operates in all weather conditions, which is a clear advantage over purely visual systems".

NUsense occupies an 800m² site at Technopôle Brest-Iroise, with a laboratory housing automotive-standard measuring equipment for testing and calibration. It is here that the company is busy readying its range of radars, with a planned market launch in September 2026. In



© NUsense

developing its products, NUsense has received support both from the Technopôle and through a partnership in naval technology with the French Defence Procurement Agency (DGA) via the Orion innovation cluster. Funds totalling €250,000 were raised in July and a second funding round is planned for 2026. This will allow the company to strengthen its R&D, sales and supply chain teams with a target of adding ten employees by 2027. ●

NUsense's radar technology serving multiple maritime challenges

Information:

www.nusense.fr/en

campuser.fr/cluster-orion-4132-0-0-0.html

defense.gouv.fr/dga/dga-techniques-navales

QUIET-OCEANS

PROTECTING THE WORLD OF SILENCE

A company from the Brest area has been pioneering the fight against underwater noise pollution. Quiet-Oceans recently joined the CLS Group and is preparing to move into the new Ocean Tech Center (Brest). This move will boost its national and international growth.



© Quiet-Oceans

Installation of an offshore wind farm: Quiet-Oceans is listening

Quiet-Oceans was created in Plouzané in 2010 to develop marine acoustic modelling and monitoring tools for both the public and private sectors. As the company's CEO Carl Bois explains:

"Ours is the most frequently deployed platform in Europe when it comes to mapping underwater noise." Quiet-Oceans technology is used to forecast the effect of construction sites such as wind turbines and ports, and to minimise negative effects, in particular on cetaceans, by adapting projects.

Forecasting the acoustic impact of marine projects

Carl Bois emphasises the company's strong proposition: "Incorporating our tools into the design phase enables clients to reduce the risks associated with environmental impact assessments, namely delays and additional costs." This is of great benefit in a sector where

each day of delay can cost millions, and where conserving marine life is now a priority.

Quiet-Oceans has clients in 25 countries, mainly in Europe. The company is continuing to grow following last year's purchase by Toulouse-based CLS Group – which will help support its international ambitions. Carl Bois illustrates this: "We expect to close this year with a turnover of €5 million, up by 15%". He also expects the company's new autonomous sensor systems to underpin this growth. Similarly in 2026, new premises and recruitment taking the team from 28 to 30 will further this dynamic while reinforced EU regulations on species conservation and the environment also promote continued expansion. ●

FAIRSCOPE

SCIENTIFIC OBSERVATION THROUGH FRUGAL INNOVATION

With PlanktoScope, an open-source digital microscope using low-tech, flow-through technology, Morlaix-based FairScope has democratised plankton imaging, paving the way for continuous monitoring of coastal environments while keeping costs down.

“Too often, research is restricted by the cost and complexity of the instruments required”, observes Thibaut Pollina, who set up FairScope in 2023 with his brother Fabien. “We set ourselves the challenge of meeting 90% of demand using a simple, robust and affordable tool to make mass observations at the lowest possible cost.” The PlanktoScope that the brothers invented, a bamboo-housed flow-through digital microscope, comes in at only a 20th of the cost of industrially produced alternatives. The technology was made possible thanks to support from Stanford University and Roscoff Marine Station – Sorbonne University, together with Plankton Planet, an international research consortium.

Frugal innovation – global impact

“To start off with, we just wanted to produce open-source plans, but given the requests for the devices that came in, we decided to set up a company”, Thibaut Pollina says. He has already sold some 330 units to around 100 labs in 26 different countries.

“There’s high demand from Europe and the US, and from Japan, too”, Pollina notes. “The project has brought together a network of over 1,000 participants, with scientists, the sailing community and fab labs all making a contribution.” Indeed, the company head took part in 2023’s Ocean Hackathon*. “This development has allowed us to experiment



© FairScope

with new approaches to analysing environmental data, expanding our vision of the future of automated marine observation”, he adds. Working with Technopôle Brest-Iroise, FairScope currently has a staff of seven and is aiming for a €1 million turnover in 2026. The next stage is an in situ version of PlanktoScope that can autonomously conduct continuous monitoring from buoys, boats, drones or the quayside for coastal surveillance, aquaculture and research. ●

Thibaut Pollina (CTO) and David Le Guen (COO), and their PlanktoScope

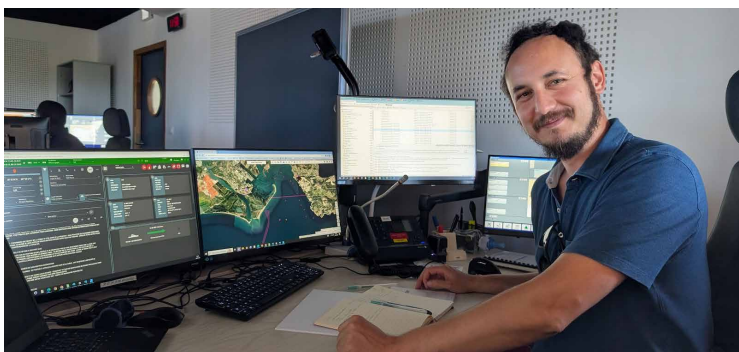
information:

www.fairscope.com
planktonplanet.org
www.sb-roscoff.fr

VAIATA DYNAMICS

AI AT THE HEART OF SEA RESCUE

Vaiata Dynamics has partnered with IMT Atlantique and Lab-STICC in Brest with the goal of revolutionising emergency management at sea using artificial intelligence.



© VAIATA Dynamics

Édouard Vallet, co-founder of Vaiata Dynamics, is training AI for sea rescue

“At sea, every second counts”, Édouard Vallet says, “and our goal is to speed up incident reporting times from 20 minutes to 2 minutes.” With his passion for programming, Édouard Vallet quit his career as a fintech entrepreneur in 2023 to set up Vaiata Dynamics, based near Toulon. The start-up firm partnered with the IMT Atlantique technological university and Brest’s Research Laboratory in Information and Communication Science and Technology (Lab-STICC), and has been developing a solution for transcribing and analysing emergency communications in real time.

Faster decision-making

“Maritime safety is being held back by equipment that hasn’t changed in 50 years, so it needs a real boost. This is what we have been doing, by using AI to make communications clearer as well as accelerating and simplifying decision-making”, says Vaiata co-founder Colomban Monnier, a maritime safety expert and former merchant navy captain.

Having won prizes at Ocean Hackathon* 2023 and Octo’pousse 2025, Vaiata Dynamics is now seeking to refine its technology, and is jointly developing its AI components with French regional operational surveillance and rescue centres (known as CROSS centres), including Finistère. The system will soon be extended to land-based emergency calls. “Everything is geared towards cutting down the time spent on paperwork and concentrating on the rescue itself”, says Édouard Vallet, who is currently seeking partners to take his solution to an industrial scale. ●

information:

vaiata-dynamics.com
www.imt-atlantique.fr
labsticc.fr

BEEP

A LABORATORY AT THE HEART OF DEEP-SEA ECOSYSTEMS

Based in Brest, the BEEP lab's French name stands for **Biology and Ecology of Deep Sea Ecosystems**. It's a key player in researching the ecology and microbiology of the abyssal zone.

Claire Geslin is deputy director of this joint research unit and explains its origins: "BEEP is the product of merging a microbiology lab with an ecology lab which enables us to study both microorganisms and the medium-sized creatures found in these ecosystems. We currently have around 50 permanent members – researchers from the University of Western Brittany (UBO), the French National Research Institute for Ocean Science (Ifremer) and the French National Centre for Scientific

Research (CNRS). With another 50 PhD students, post-docs and masters students, it's an environment where science can truly thrive!"

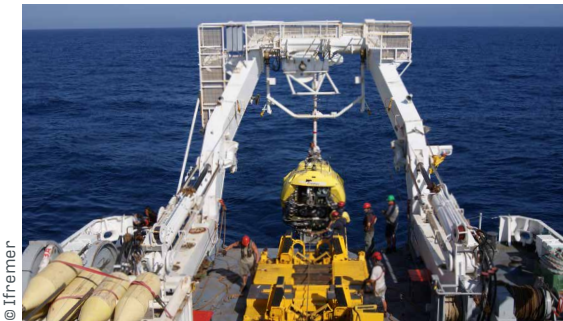
A voyage of discovery into the abyss

BEEP studies microorganisms that have adapted to live in extreme conditions: bacteria, archaea and viruses able to survive at over 90°C and up to 300 bars of pressure. The lab's research area also covers cold-water corals and complex symbioses such as that between hydrothermal vent shrimp and the associated microorganisms. Claire Geslin expands on the lab's innovative methods: "The main challenge we face lies in understanding not only this diversity but also how these communities operate in such extreme environments. We are currently developing observatories by installing cameras deep underwater. We apply deep learning methods to analyse the resulting image data" ●

Information:

www.umar-beep.fr/en

BEEP, scientific diving to explore abyssal ecosystems



© Ifremer

OCEAN DATA LAB

DEMOCRATISING SATELLITE OCEANOGRAPHIC DATA

The private research laboratory OceanDataLab in Brest uses innovative algorithms and open-source tools to facilitate maritime satellite data analysis. The lab's expertise has led to collaborations with the European Space Agency (ESA), the French space agency (the National Centre for Space Studies - CNES) and the French National Institute for Ocean Science (Ifremer), plus private-sector stakeholders.

OceanDataLab was established in 2013 at the tip of Brittany to develop innovative solutions for easier access to and analysis of satellite oceanographic data. Its CEO Fabrice Collard believes: "Our strength lies in applying innovative algorithms to transform

raw data into usable information". The algorithms his teams have developed account for wind, waves and currents. By simulating how these elements behave, the algorithms optimise planning for ocean operations and make it easier to capitalise on the resulting data.

France 2030 prize winner

Fabrice Collard adds: "Our aim is to democratise satellite data". Once analysed, these data are made publicly available via an open-source platform. They can then be employed for environmental monitoring, to prepare for scientific missions, and to optimise shipping routes. OceanDataLab collaborates with research



Fabrice Collard, head of OceanDataLab, in the field

© OceanDataLab

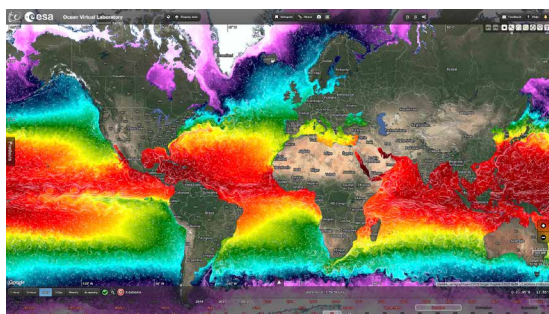
institutes including Ifremer, the CNES and the ESA, plus private stakeholders such as Brest-based Actimar, as well as training young researchers in spatial oceanography. The lab's efforts were recently rewarded with a 'France 2030'* innovation prize. ●

*France 2030 is a national investment plan launched in 2021 to accelerate innovation, reindustrialize France, and support ecological and digital transitions. It funds projects in key sectors like energy, health, space, transport, food, and deep tech, with a total budget of €54 billion.

Information:

ovl.oceandatalab.com
www.oceandatalab.com

OceanDataLab's open-source platform



© OceanDataLab

ROMINA VANESSA BARBOSA

DEDICATED RESEARCHER AND GLOBETROTTER

From Belén to Plymouth, via Brest and British Columbia, Argentinian biologist Romina Vanessa Barbosa is dedicated in her commitment to marine research. With a passionate enthusiasm for both science and international collaboration, she shares her career path, her plans and the current challenges for marine ecology.

You're originally from Argentina. How did you get from there to Brittany?

Well, I'm 37 years old and was born in Catamarca in Argentina. I went to university in Córdoba in Spain before doing a masters in biological oceanography in São Paulo, in Brazil. I then came to the University of Western Brittany (UBO) in Brest in 2018 to do a PhD in marine ecology looking at the distribution and dynamics of intertidal benthic species, with a particular focus on mussels.

Why did you choose Brest for your doctorate?

I always wanted to do a PhD in marine ecology and ideally abroad. Brest is the perfect place for marine science and, as my partner was starting his own doctorate at Ifremer, I seized the opportunity to do mine in Brest too.

What was the topic of your thesis?

I worked on the effects of topography and rock structures on the distribution and behaviour of mussels in the context of climate change. Using drones, we observed that the mussels favoured particular orientations that had an impact on their growth and reproductive capacity. This research contributed some significant learning for coastal management and shellfish farming.

After Brest, you went to Canada to the University of Victoria. What took you there?

Again, it was a combination of family and professional reasons. I coordinated a post-doctoral project on laminaria (kelp) distribution, working with the local Kwakwaka'wakw communities in British Columbia. It was such an enriching experience to work with different cultures and scientific disciplines, with a direct impact on ecosystem management.

You're now in Plymouth. What does your international collaboration look like today?

As well as maintaining my links with Canada through the Pacific Salmon Foundation and the University of Victoria, I am involved in creating synergies between Brest, Plymouth and a number of international teams working on field observation and modelling. I'll also be participating in a masters course at the Laboratory of Environmental Marine Sciences (LEMAR), as well as spending time as a visiting researcher in Brest to strengthen these partnerships. We've also launched a summer university on laminaria in Chile for the Latin American community, which is aimed at both students and government officials.

What are the main challenges in your area of research?

For me personally, the main challenge is definitely to find a permanent research post. But thinking more generally, it's the need to increase long-term monitoring of mussels and underwater forests which are experiencing the impacts of warming, as evidenced by the mass mortality events in mussels in 2019. Projects are currently ongoing to monitor and restore both laminaria and mussels, and long-term monitoring will help us to evaluate the success of these projects.

Do you have a message of hope to finish with?

I believe that with the international cooperation that's now well underway, it will be possible to help mussels to increase their resilience to climate change, while accepting that their populations and communities will inevitably have to evolve. I am focused on pursuing my career in this spirit of research and dissemination of results. ●



© Romina Vanessa Barbosa

MERCATOR OCEAN INTERNATIONAL

MAKING OCEAN FORECASTING GLOBAL

As one of the leading players in ocean modelling and forecasting in Europe, Mercator Ocean International is well on its way to becoming an intergovernmental organisation, which opens up new prospects for protecting the oceans on a global scale.

Established in Toulouse in 1995 and with around 100 staff, Mercator Ocean International is the global ocean forecasting centre for the European Commission-funded Copernicus Marine Service. Copernicus collates and provides free marine data at a European level, which can be accessed via state-of-the-art visualisation tools.

A European player going from strength to strength

Mercator Ocean's shareholders include a number of French research bodies, such as Ifremer, the French National Research Institute for Sustainable Development (IRD), the French National Centre for Scientific Research (CNRS), the Naval Hydrographic and Oceanographic Service (Shom) and Météo France, as well as Norwegian, Italian, Spanish and British research organisations. "We have a number of other international collaborations on the go, in particular as part of the United Nations Decade of Ocean Science," says Fabrice Messal, who is responsible for coordinating the development of Mercator's digital tools and optimising user experience on the platform. Twelve European countries backed the creation of the Mercator International Centre for the Ocean at the

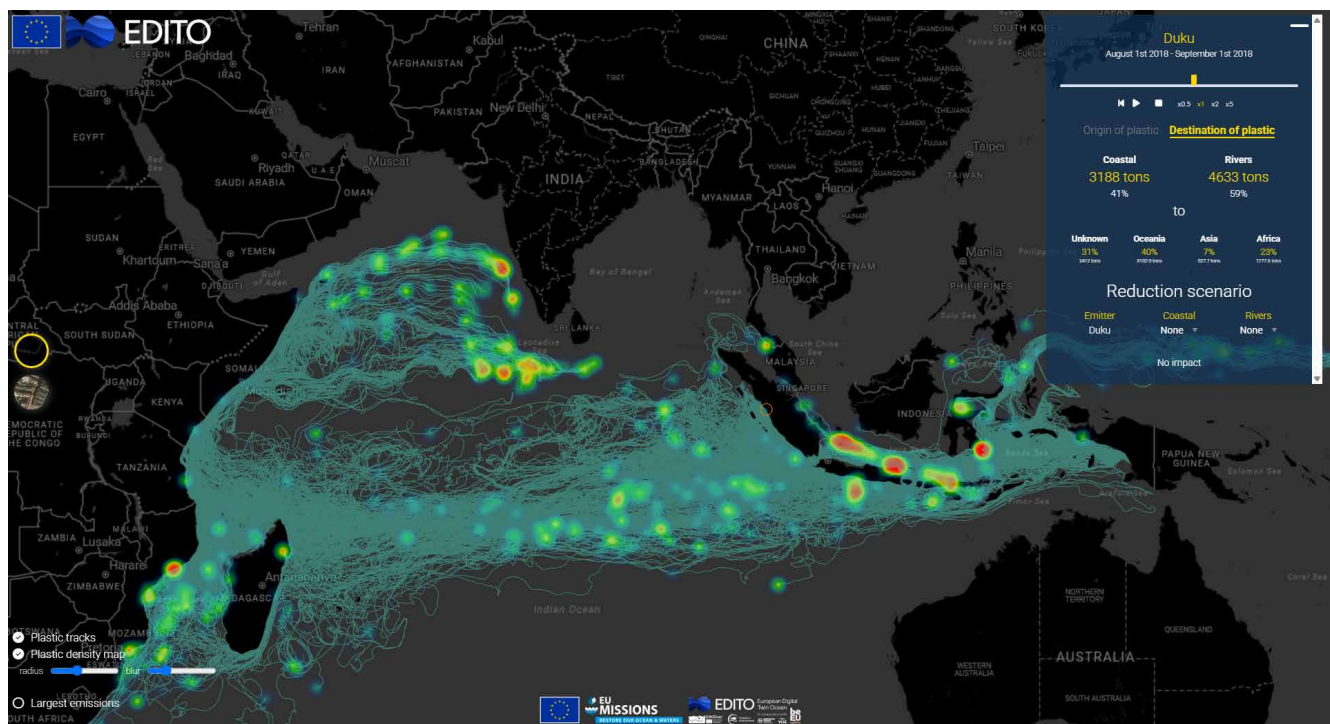
UN Ocean Conference (UNOC3) in June 2025, which marks a decisive step towards the Centre achieving intergovernmental organisation status.

At the heart of Mercator Ocean International's strategy is the Digital Twin of the Ocean, an environment open to everyone that brings together science, technology and cutting-edge expertise from across Europe. "This powerful digital infrastructure provides access to a vast data catalogue and enables simulations to be conducted," Fabrice Messal explains. "It allows decision-makers, researchers and manufacturers to develop tools to help make informed choices in tackling challenges such as marine pollution, biodiversity protection and optimisation of maritime traffic. The digital environment provides a space where the community can share data, software components and innovations." Fabrice Messal concludes: "The idea is to use science to support policymaking, for example in addressing the impacts of climate change."

"Using science to support policymaking"

➕ information:
www.mercator-ocean.eu

Modelling plastic drift for Indonesia, using the EDITO infrastructure operated by Mercator Ocean International



OPTI'SEA

ARTIFICIAL INTELLIGENCE SUPPORTING MARINAS

Guided by the motto 'collect, analyse, optimise', Opti'Sea is a start-up based in Finistère which is revolutionising port management with innovative tech and the pragmatic use of AI.

“There are three of us co-founders – two engineers and a manager. We're all passionate about sailing and all come from the industry”, says Laura Le Du, one of Opti'Sea's co-founders. Established in 2021 in Quimperlé, the company has set up a dozen systems in French ports from Saint-Malo to Port-la-Forêt and La Baule. It's now expanding with the installation of innovative solutions in other European ports. Laura Le Du goes on to explain the company's concept: “We optimise port management with optics – hence the name. By collecting images in situ we can understand maritime activity in real time. Using AI we can transform these images into usable data”.



© Opti'Sea

Innovation at the heart of the marina

The solutions designed by Opti'Sea – Opti'Traffic, Opti'Access and Opti'Speed – analyse the movements and behaviour of vessels as they pass through the marina. This helps to reduce the risk of accidents, optimise the use of space and protect biodiversity. “Lowering navigation speeds mitigates tensions between users, protects infrastructure and reduces diesel consumption”, highlights Laura Le Du, who envisages working with national partners “in the near future” to install the company's equipment on a much larger scale. This ambitious approach has recently seen Opti'Sea raise €500,000 and qualify for the status of ‘Young Innovative Company’ (JEI), which entitles SMEs that invest in research and development to various tax and social security benefits. ●

OPTI'SEA offers a maritime traffic management service for marinas



© Opti'Sea

OPTI'SPEED, OPTI'SEA's tool for measuring and displaying navigation speed in marinas

information: www.optisea.fr

6-8
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in Brest and around the world

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