ANNUAL REPORT 2023



Fondation

Tara océan

explore and share



_{00.} Editorial

Already twenty years of commitment to the Ocean!

Twenty years that women and men have been inspired by the individual commitment of the two founders who gave life to a collective momentum to explore and protect the Ocean.

Twenty years since the scientific discoveries resulting from expeditions aboard Tara have demonstrated the essential role of the Ocean in the equilibium of our planet and life on Earth. Since 2003, Tara has led thousands of people in her wake, from political decision-makers to school children discovering a new world in a drop of water. This human adventure, bringing together sailors, scientists, artists, diverse partners and the general public, is a real revolution to preserve life.

Twenty years of action were possible thanks to the audacity and trust of our private and public supporters. Thanks to everyone's help, we were able to launch our 13th unprecedented expedition in Europe this year, in partnership with the European Molecular Biology Laboratory (EMBL). In addition, we began the construction of a second vessel — *Tara Polar Station*. The High Seas Treaty was finally adopted after 11 years of mobilization by the Foundation!

Twenty years is the time to build a human life, but only the blink of an eye for the planet. This fraction of a second for the Earth is enough for human activities to have major consequences on marine biodiversity and the overall health of the planet. 2023 was the hottest year on record globally. Everywhere, living species are in decline. We need to move faster, together, for the Ocean and the biodiversity it shelters.

At twenty, we are young and full of energy for the future! Beginning in 2025, a fleet of two vessels — the schooner *Tara* and *Tara Polar Station* —will allow us to amplify our impact. Exploring, sharing and protecting this living Ocean is more vital than ever. With you, we will be there for the Ocean!



Together, let's defend life. Let's protect the Ocean.

Étienne Bourgois, President Romain Troublé, Executive Director







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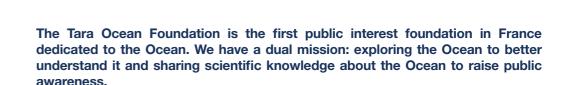
Thanks to you

Our governance

Perspectives

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For 20 years, we have supported innovative ocean science, in partnership with French and international research centers of excellence, to study marine biodiversity, as well as observe and anticipate the impacts of climate change and pollution.

Faced with the urgency of making the protection of the Ocean a common responsibility, the Tara Ocean Foundation raises public awareness of the challenges facing the Ocean, educates young generations, facilitates international cooperation and mobilizes policymakers.

Thanks to our Special Observer Status at the UN, the Tara Ocean Foundation actively participates in crucial decisions in favor of the Ocean.

Studying and protecting the Ocean means taking care of the global health of our planet and our future. It's also about protecting ourselves!

37
people on our team
(on land & at sea)

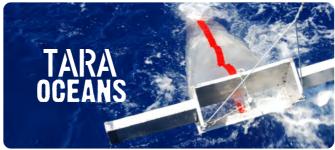
11 sailors

26 nembers of the shore tea million euros (annual budget)

Major expeditions



2006 - 2008 First Arctic drift since Nansen's in 1893



2009 - 2013
First global study of the plankton ecosystem



2014
Study of plastic's impact on the marine ecosystem in the Mediterranean Sea



2016 - 2018
Study of coral reefs' capacity to adapt to climate change



2019
First study on a European scale of sources of microplastics in rivers

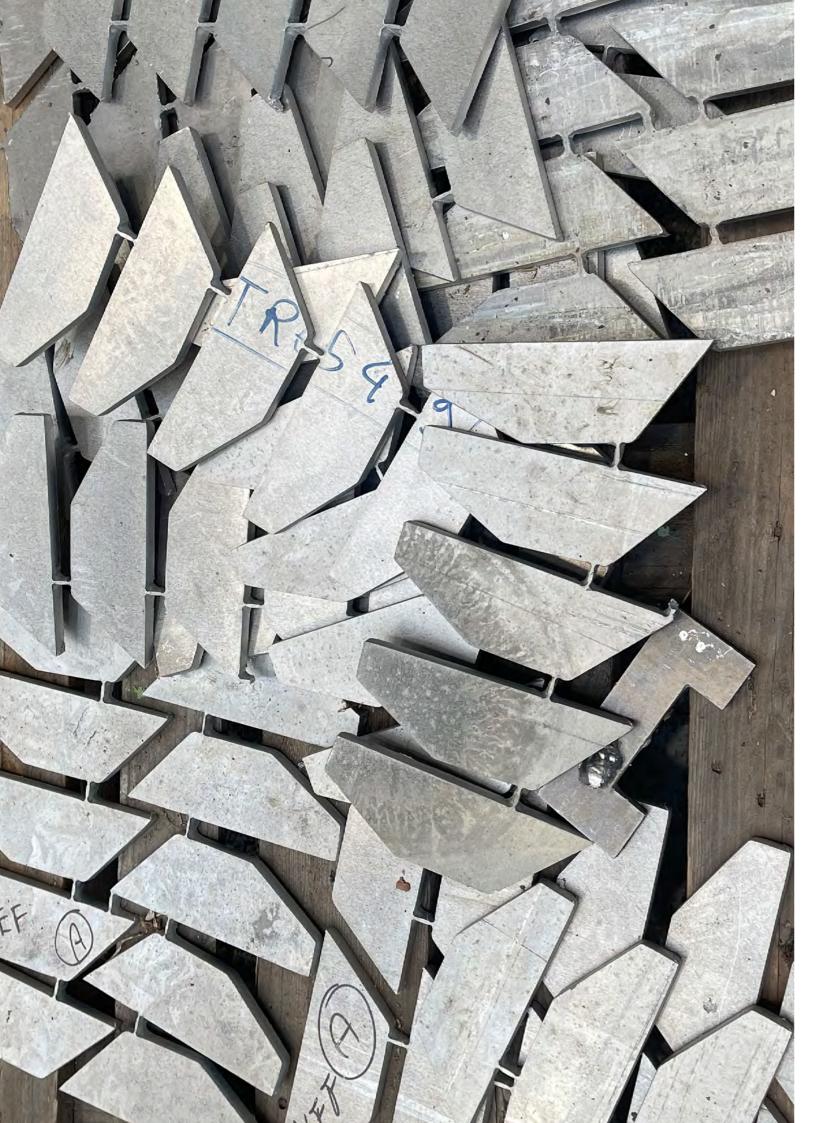


2020 - 2022Study of the Ocean's invisible inhabitants



2023 - 2024First study of the land-sea interface in Europe





_{02.} Major events in 2023

2023 was a very important year for the Tara Ocean Foundation and the ecosystem supporting us since the beginning. We marked the 20th anniversary of *Tara*'s purchase on October 13, 2003. This anniversary provided an opportunity to review the commitment and impact of the Foundation in favor of the Ocean and protection of life on Earth.

This was also the year when the Tara Ocean Foundation amplified our means of action with a fleet of two vessels: the schooner *Tara* set out on April 2 for her 13th expe-

dition, *Tara Europa (2023-2024)*; and the construction of the future *Tara Polar Station* began in Cherbourg in July.

Other events highlighted the essential role of the Foundation in the exploration and sharing of knowledge about the Ocean: an exceptional stopover in Lyon, the signing of the Global Treaty on the High Seas (known as the BBNJ Treaty), as well as the publication of the *Tara Pacific (2016-2018)* expedition results in the prestigious Springer *Nature Collection*.

Beginning of Tara Polar Station's construction

July 2023



After five years of conception and design, the Tara Ocean Foundation's polar program moved from planning to reality. Construction of the Foundation's second vessel, designed for observation and scientific research in the Arctic, was launched in July at the Constructions mécaniques de Normandie (CMN) shipyard in Cherbourg, France.

A central part of the drifting polar station—the « moon pool », a vertical aluminum tube giving access to water from the inside — began to be assembled in September.

This symbolic moment was the subject of the visit of His Serene Highness Prince Albert II of Monaco and Olivier Poivre d'Arvor, French Ambassador for the Poles and Maritime Affairs.

The construction of *Tara Polar Station* will last 18 months, with delivery expected at the beginning of 2025. The first expedition of the drifting laboratory (following a test campaign in 2025) is planned for the summer of 2026. The countdown has definitely started for this unprecedented scientific exploration of the North Pole!





The Foundation's 20th anniversary



To mark our 20th anniversary, the Foundation conducted an impact study. This retrospective showed that the scope of discoveries resulting from *Tara*'s expeditions went well beyond the scientific community, reaching policymakers, the general public and the world of education.

"Research on marine biodiversity would be less advanced without the Tara Ocean Foundation and associated laboratories. Tara's expeditions not only explored new areas of science and reported discoveries of fundamental importance, but they also energized the field of oceanography by opening up new possibilities for conducting marine research in a multidisciplinary and holistic manner. Indeed, the expeditions combine the implementation of public-private collaborative projects bringing together high-level researchers, the use of a relatively small boat (36 meters) to circumnavigate the Ocean rapidly, on an unprecedented time scale, while making the data accessible." (Impact study carried out by the Technopolis Group between December 2022 and June 2023)





Looking back on 20 years of commitment to the Ocean:

To celebrate our 20th anniversary and mobilize as many people as possible, the Foundation carried out numerous communication events and projects: an anniversary evening to bring together long-standing, new and future friends, collaborators and partners who support Tara; a book retracing the stories of these people who grew up with the Foundation over the miles traveled and scientific discoveries; a photographic exhibition featuring the images of the sailors who accompanied *Tara* to the four corners of the world; so many moments that allowed us to share an overview of the 20 years of adventures that

the Tara Ocean Foundation's many supporters have experienced by taking part in this collective project.

During these 20 years, the Foundation's activities have evolved in line with expeditions, advances in scientific knowledge and changes in society. This year was therefore an opportunity to take a step back from our actions, through three articles each focusing on a target of awareness and sharing (the general public, school environment and advocacy).

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"Tara is a conduit between scientists and politicians to encourage the making of better decisions for the Ocean."

Étienne Bourgois, president of the Tara Ocean Foundation



EXPLORE



580,000 kilometers traveled

13 expeditions

250 stopovers in ...

75 countries

20 YEARS of scientific discoveries with partner laboratories

200.000

types of marine viruses and retroviruses

500,000

species of bacteria

120,000

samples collected

100.000

species of microalgae discovered **150**

millions of new genes identified

The largest open-access database on the plankton ecosystem

tem

Nearly 1,100 scientific publications derived from the data collected during our expeditions - including 50 in the leading peer-reviewed journals: Nature, Cell and Science



A multidisciplinary approach:

bioinformatics modelling glaciology
marine biology biogeochemistry microbiology:
bacteriology and virology
taxonomy imaging meteorology archaeology
oceanography ecology radiation geology

Improved knowledge of ecology, the high seas, the Arctic Ocean, marine biogeochemistry and basic biological processes



SHARE

20 YEARS of awareness-raising

2 millions people made aware

million students learned more about the Ocean, related issues environmental challenges and sustainable development

100 000

children welcomed aboard *Tara*

20 YEARS

of science at the service of Ocean conservation policies



Status of Special Observer to the UN

Observer to the ON

years of mobilization in favor of the adoption of the High Sea Treaty

Participation
in the global treaty to end
Plastic Pollution

Launch of the
"Because the Ocean"
initiative to integrate
the Ocean into the Paris
Agreement (COP 21)

Mobilization campaigns:

Protected Marine Areas (MPAs)

Deep sea mining

National Strategy for the Sea & Coastline (SNML) Founding member of 3 collectives :

Ocean Beyond & Climate Plastic Med Platorm association (POC) (BeMed)

Flamingo Society

100

Advocacy to include to the charter "Rivers without plastic, the ocean protected"

in the French Anti-Waste

2

elected officials committed

eration

scientific cooperation projects in South America and West Africa

Impact data related to the Tara Ocean Foundation's 20 years of actions resulting from the internal analysis conducted by the Foundation and the impact study carried out by the Technopolis Group between December 2022 and June 2023.

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Signature of the High Seas Treaty

September 2023

38 media events

In 2023, after 15 years of negotiations, the treaty known as Biodiversity Beyond National Jurisdiction (BBNJ) was finally adopted — a major event for global governance of the Ocean.

For the final negotiation session, it took 2 weeks of work and a final session of more than 36 hours for the negotiators to remove the numerous obstacles to the adoption of the treaty's text. After a commitment of more than 10 years, forging links between the scientific community and UN experts, the Foundation's advocacy team was a key player in this last act.

The Tara Ocean Foundation is now working with our partners on the ratification of this treaty by the participating States: the text signed by the delegations during the negotiations must win the majority in national parliaments for official ratification and effective implementation. There's still a long way to go to protect biodiversity in the high seas!

The stopover in Lyon

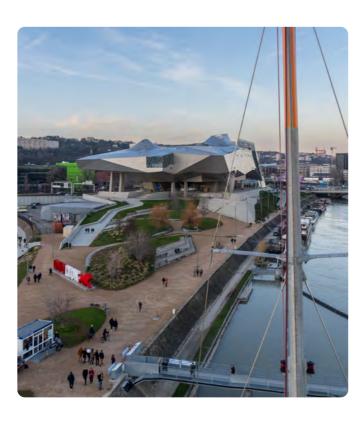
December 6, 2023 - January 21, 2024

At the end of the year, the schooner *Tara* sailed up the Rhône to make an exceptional stopover dedicated to awareness-raising. Halfway through the *Tara Europa expedition* (2023-2024), the crew moored the schooner for 47 days at the Confluence in Lyon, to raise awareness among the general public and local associations about understanding and protecting the Ocean, through an ambitious agenda of visits aboard, meetings and conferences.



SCAN ME

Discover the results of the Lyon stopover



Tara Europa - TREC (2023-2024)

2023 - 2024

As part of the European Union's mission Restore our Ocean and Waters, *Tara*'s 13th expedition — *Tara Europa - TREC* (2023-2024) — set out on April 2 from Lorient, the schooner's home port, heading for northern Europe. TREC (TRaversing European Coastlines) is an international scientific expedition, led by the European Molecular Biology Laboratory (EMBL).

This expedition explores the interactions between our planet's two main ecosystems, the Ocean and the Earth, to better understand how organisms — from viruses to animals — respond to natural and anthropogenic environmental changes on European coastlines, and in particular the chemical pollution generated by our society.

"

"Earth is a planet teeming with life, mostly invisible to our eyes. This life, still very poorly understood, not only produces the matter and molecules that feed us, heal us, and allow us to breathe oxygen, but also generates the ecosystems which are our home, and even causes the Earth to evolve as a whole, like a giant cell that floats and develops irreversibly in space. Understanding the fundamental principles underlying the evolution of life in all its complexity and diversity on a planetary scale is, in my opinion, THE question of the century. The answers to this question will quite simply contribute to the possibility of our survival on the living planet."

Colomban de Vargas, scientific codirector of Biocean 5D / Tara Europa







14 ©Thomas Larrat · Tara Ocean Foundation 15



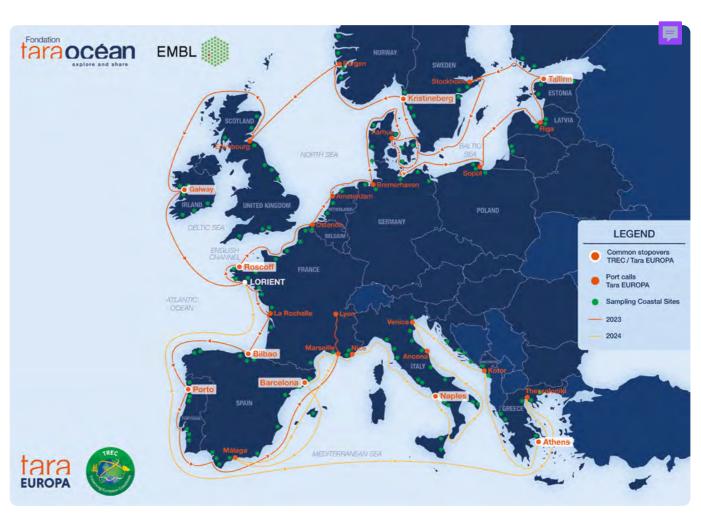
Exploring to understand

For 20 years, the schooner Tara has been exploring the global Ocean to better understand its biodiversity and the pressures weighing on marine ecosystems. Faced with the challenges of global warming and accelerating pollution, it is essential to study the Ocean and share knowledge with policymakers and the general public.

In 2023, Tara undertook the 2023-2024 Tara Europa - TREC expedition to study European coastal ecosystems and understand the impact of human activities on coastal biodiversity.

The year was also marked by the publication of results from the 2016-2018 Tara Pacific expedition in a 12-article series published by Springer Nature. Other publications relating to previous expeditions, such as the discovery of mirusviruses (Tara Oceans, 2009-2013), were released in 2023.

03.1 The expedition underway in 2023: Tara Europa - TREC



03.1.1 A unique study of biodiversity along European coastlines

Launched in April, the 2023-2024 Tara Europa - TREC expedition was conceived by the EMBL in collaboration with the Tara Oceans consortium, the Tara Ocean Foundation and more than 70 scientific institutions to study biodiversity both on land, via EMBL mobile laboratories (in trucks) and at sea aboard Tara.

Thanks to the TREC expedition, for the first time researchers are studying life at all scales — from viruses to animals— along the entire European coastline, to provide a more complete and in-depth understanding on how these ecosystems respond to changes in natural phenomena and anthropogenic pressures.

During the 2-year expedition, researchers from EMBL, the Tara Oceans consortium, the Tara Ocean Foundation and numerous European institutes and organizations will work on 120 sampling sites in 46 regions.

In 2023, the first year of the expedition, the schooner Tara traveled 16,000 km, making 17 awareness-raising stopovers and collecting 11,000 samples.

With the 2023-2024 Tara Europa - TREC expedition, the Tara Ocean Foundation will enrich the inventory of microscopic marine biodiversity. This fresco of life, initiated in 2009 with the 2009-2013 Tara Oceans expedition and improved during subsequent expeditions, notably Tara Pacific (2016-2018) and the Tara Microbiome (2020-2022), mainly focused on the high seas. With Tara Europa - TREC (2023-2024), scientists are studying the European coasts to map and inventory the species present and their interactions in this still little-known ecosystem.

This expedition between land and sea on an unprecedented scale will provide a precise image of the biodiversity and chemical pollution along European coastlines.

TARA EUROPA - TREC, Year 1 Zoom on Tara 16,000 km along European coastlines 17 stopovers in 15 countries 100 sampling stations 32 scientists of 9 different nationalities 11,000 samples collected at sea 21 team rotations 5 artists-in-residence 25 visits of the Foundation's website pages devoted to the expedition 26 Toom on the collaboration with EMBL 27 meetings with scientific institutions 5 supersites visited: Roscoff, Talinn, Kristineberg, Bilbao, Porto

03.1.2 Focus on the major scientific challenges

During the 2023-2024 Tara Europa - TREC expedition, researchers from EMBL, the Tara Oceans consortium, the Tara Ocean Foundation, as well as the European Marine Biological Resources Center (EMBRC- ERIC) and more than 150 research teams from 70 institutions

in 29 European countries collect and analyze samples of soil, sediment, aerosols and water, as well as selected model organisms, while measuring environmental parameters along European coasts.

Studying the land/sea interface: coordination and collaboration, watchwords of the expedition





During the 2023-2024 Tara Europa - TREC expedition, the schooner Tara collects samples in parallel with mobile laboratory trucks deployed on land by EMBL. Each sampling site is determined in collaboration with the EMBL teams. This is a first for Tara since the schooner usually collects samples alone offshore—a real challenge for the Foundation's operations team.

Some of the expedition's stopovers are **supersites** where scientists on land and at sea are joined by teams from local marine biological stations. The collected samples are brought directly to their labs for rapid analysis. Collaborations at supersites make it possible to develop joint activities that demonstrate the interactions between coastal ecosystems, and raise public awareness about biodiversity and the impact of human activities on the marine environment.

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« All of this is very dynamic and requires a lot of interaction between teams at sea, on land, in labs and offices, real collective intelligence and a lot of... WhatsApp! »

Colomban de Vargas, scientific co-director of Biocean 5D / Tara Europa

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Analysis of pollutants, major factors in the decline of biodiversity

This expedition also comprises an unprecedented study of chemical pollutants. Pollutants enter the environment through our consumption: industry, agriculture, homes and hospitals. This is the first time the Foundation is focusing on such a diversity of pollutants, collecting data essential for understanding the degradation cycle of these molecules in the environment.

The expedition's researchers are interested in 3 categories of contaminants to understand what pollution gradients exist at the land-sea interface:

Pharmaceutical products

More than 4,000 different pharmaceutical products have already been detected in European waters during previous research. These products, even broken down into by-products, can have deleterious impacts on ecosystems. However, they are not considered in the studies performed by regulatory agencies responsible for evaluating the impact of these products. For example, antibiotics pass through all purification systems and trigger worrisome pockets of antibiotic resistance in nature.

Pesticides

More than 1,000 pesticides are studied in the laboratory by EMBL to understand how pollutants are metabolized by bacteria and what their by-products are. The field study carried out by *Tara Europa - TREC (2023-2024)* will make it possible to investigate these products in real conditions of use and degradation, that is, in nature, and thus validate or refute the laboratory's hypotheses and models.

Plastic additives

During *Tara Europa - TREC (2023-2024)*, two large families of plasticizers will be studied by scientists to isolate bacteria capable of degrading these molecules. Seven laboratories are working together to accomplish the chemical profiling of these additives.

The accumulation of pharmaceuticals, pesticides and plastics in the environment is a very real threat to ecosystems and human health, which will worsen in the years to come. Everything that humans release into the environment has repercussions on all ecosystems, and is found in the air we breathe, the water we drink, and the food we eat. It is urgent to understand the scale and impact on the overall health of all living beings, and to define priorities for action.





Testimonials



François Aurat, Deck officer

« For the first time, I was going to travel to no less than 6 countries on a single trip; countries that are all different, more or less large, more or less rich, often witnesses of complicated pasts. For the first time, we were not alone: an EMBL shore team followed us to take samples in parallel. The stopover at Kristineberg (Sweden) marked this expedition with the arrival of the Advanced Mobile Lab (AML) everyone had been waiting for. »

Morgane Guillaum, biologist and engineer, Roscoff marine station

« Every mission has its highlights and the TREC expedition was no exception. These last months of sampling were punctuated by the organization of supersites— an intense mix of sampling at sea and on land, scientific meetings and awareness activities for all audiences.

I had the chance to participate in some of these important sites: Roscoff for example, TREC expedition's very first stop, then Kristineberg where we discovered the brandnew mobile laboratory installed in a truck and bringing together cutting-edge technologies; and then Porto, the last of the year. All these supersites follow more or less the same organization. One of the key elements is coordination. Indeed, before embarking for sampling, we need to hold a series of meetings to succeed in making everything coincide. A small challenge or a single grain of sand can change everything. Porto was in this sense a very special supersite, where bad weather disrupted this organization so finely planned in advance. During a supersite, we go at sea for 5 days, with 2 additional scientists studying marine aerosols, in addition to the usual team of scientists. We carry out a series of protocols and filter sea water for researchers working in labs on the subject of viruses among others. During this period of isolation aboard Tara day after day, we have visits from a local boat carrying colleagues, often the same faces we see again, site after site, coming to carry out net hauls near our sampling station and recover the carefully filtered water. A moment of exchanging smiles, signs and jokes shouted in the distance. Thus, even while being far away from all the activities linked to



these exceptional sites, these small moments of friendly exchange allow us to maintain constant cohesion with land. During this time, conferences and awareness-raising activities continue— they are key for introducing everyone to why this TREC expedition is so important.

Once back at the port, it's time to get together: the *Tara* crew, the different land teams, the local scientists, over a drink or a meal. We discuss our samples, the analyses, the TREC mission, our experiences and our lives. We visit the different laboratories, vans, laboratory trucks and vice versa, we take the opportunity to introduce *Tara*. These are always very good times, full of curiosities.

The supersites condense moments of sharing on both a scientific and human level. Looking forward to continuing in 2024! »

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03.1.3 Creating a new perspective on the Ocean with local stakeholders during stopovers

The route of the 2023-2024 Tara Europa - TREC expedition is an opportunity to meet European audiences during the schooner's numerous stopovers.

As part of the project financed by the European Commission, BIOcean5D, the Foundation is committed to using our expertise by organizing awareness-raising stops aimed at the general public. During these meetings, the *Tara* teams offer a program of activities promoting direct immersion so that everyone becomes aware of the many forms of life present in marine waters and understands the link between biodiversity and ecosystem functions.

In 2023, during the first part of the 2023-2024 Tara Europa - TREC expedition, 8 European countries hosted awareness activities during Tara's stopovers: visits aboard the schooner, round tables and scientific workshops.

Encounters with the diversity of European populations give rise to special moments, each stopover is unique:

- In Roscoff (France), researchers from the biological station hosted a forum of scientific activities with the Foundation throughout the Easter weekend — 1,700 visitors
- In Amsterdam (Holland), a jazz concert aboard Tara enlivened the quay of the maritime museum — 768 visitors
- The Ocean Race taking place at the time of the schooner's stopover in Aarhus (Denmark), sailing enthusiasts discovered Ocean research — 587 visitors

- The summer visit to the Estonian capital, **Tallinn** (with its geographical/political location and historical relationship with the Baltic Sea) was an opportunity to reach an audience with very unique stories about the Ocean— 668 visitors, 14 volunteers
- In Stockholm (Sweden), the Foundation's scientific work was presented through the photographic exhibition "Tara, a new look at a world to explore" — 315 visitors
- On the Irish coast, Tara welcomed aboard 440 students from classes in Galway; and a round table between scientists and artists explored the notion of 'discovery' in their respective disciplines.
- Back on the coasts of France, short stopovers in Lorient and La Rochelle found an audience more familiar with Tara's adventures 800 visitors
- In the Spanish Basque Country, Bilbao saw a particularly rich scientific, cultural and political program for an entire week (workshops, visits, political mobilization events, conferences, etc.)—1,300 visitors, 23 volunteers
- Finally, the stopover on the Atlantic coast of Portugal in **Porto**, was an opportunity for a dialogue with local cultural and scientific institutions and meetings with the general public 200 visitors

5,991
isitors (not counting schoolchildren)

1,306 tudents met Tara's teams 16 onference

9Z
volunteers were trained

Focus on Tara Europa Lab

Mobilizing European policymakers by creating a dialogue around the Tara Europa program

The strength of the 2023-2024 Tara Europa - TREC program lies in the standardization of protocols carried out across the entire itinerary. This provides an extremely valuable inventory of biodiversity and pollution of soil, water and sediments, while offering a unique potential for comparisons between the regions studied.

To connect this approach to local environmental issues, at various stopovers the expedition hosted discussions bringing together scientists from *Tara Europa - TREC* (2023-2024) and local stakeholders: the Tara Europa Labs. Organized in collaboration with the European projects BIOcean5D and BlueRemediomics, their objective is to initiate a privileged and expert dialogue between civil society, government institutions and academics, to identify how the results of the expedition can respond to local issues of coastal protection.

• Tallinn, Estonia - Eutrophication of the Baltic Sea. The Baltic Sea is a relatively closed basin: the water renewal cycle can last up to 30 years. Pollution and inputs released by anthropogenic activities on land therefore flow to the sea where they reach high concentrations. In particular, agricultural inputs (fertilizers and livestock effluent), once in the water, stimulate the growth of algae and bacteria in such proportions that they asphyxiate the environment. This phenomenon is called eutrophication.

The Tara Europa Lab in Tallinn was therefore interested in this key issue: avenues for improvement lie above all in transformation of agricultural and industrial activities on land. Joonas Plaan, member of the Board of Directors of the Estonian Nature Fund (FEN), first recalled this clear scientific observation, relayed for several decades by Estonian NGOs including the FEN. Alongside Helen Sooväli-Sepping, vice-rector for green transition at the Tallinn University of Technology (TalTech), they called on public authorities to take

rapid and ambitious action. The Estonian government, through Harry Liiv, member of the Estonian Ministry of Climate and the Helsinki Commission, also addressed the economic and social aspects raised by the fight against eutrophication, as well as the measures already taken, such as the input quotas allocated to the Baltic Sea coastal countries. Much remains to be done, but all participants welcomed this space for dialogue around one of the priority environmental issues for Estonia and its border countries.

• Galway, Ireland - Research ethics and blue carbon

Galway hosted the second workshop between scientists and stakeholders from Irish civil society — members of the academy, institutional leaders and members of associative networks. Chris Bowler, scientific director of the Tara Ocean Foundation, initiated a discussion on ethical principles of research, applied to ecosystem management and the notion of 'blue carbon'. What limits should we place on human intervention in nature? What place do we give to the principle of precaution? These fundamental exchanges in the current climatic and environmental context gave rise to a rich and diverse discussion, led by Professor Abbe Brown, specia- list in research ethics at the University of Aberdeen (Scotland), as part of the BlueRemediomics project.

This second Tara Europa Lab concluded with an exchange bringing together more than 20 stakeholders involved in the Irish marine environment, who discussed the local challenges encountered in the restoration of marine biodiversity, the potential of innovative solutions in terms of blue carbon and the role of politics in resolving these problems. These exchanges will continue during the second year of the 2023-2024 Tara Europa - TREC expedition. To follow the issues addressed and the stopovers concerned, consult the updated article on the Foundation's website.





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Focus on Tara's stopover in Lyon

Concluding the expedition's first year by highlighting the link between Ocean, river, and land

To conclude the first year and the first half of the expedition's journey, the Foundation's teams organized an exceptional 47-day stopover in Lyon, from December 6, 2023, to January 21, 2024.

Many activities, free and open to all, were held in different places in France: theme days, meetings, screenings, exhibitions and visits aboard *Tara*. By bringing the schooner so far inland, the Foundation wanted to raise awareness among as many people as possible (including those far from the coasts) of the Ocean's vital importance, and the richness of its biodiversity.

The stopover was also an opportunity to mobilize the Foundation's partners, local stakeholders and public authorities around the issues of preserving biodiversity in the Ocean, on the coasts, but also in the rivers and on land, wherever pollution finds its origin.

Thanks to the involvement of around 20 associations and territorial partners, this exceptional stopover made it possible to:

- Propose new perspectives on the Ocean at the intersection between science, art and philosophy;
- Address the interconnection between climate issues, protection of biodiversity and reduction of pollution;
- Provide the public with keys for observation, understanding, and action, so that each person can shape her/his relationship with this environment and commit to protecting it.

The program was a great success and raised awareness among more than 27,000 people. The vast majority of partners also reached new audiences by collaborating with the Foundation.



The year 2024 will be devoted to the Mediterranean coast, with stopovers planned in Marseilles, Nice (before the United Nations Ocean Conference, to be



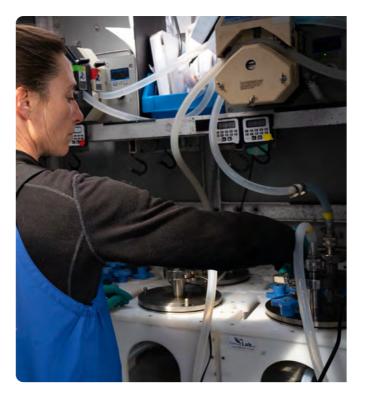
held there in June 2025), Venice, Naples and Athens. The expedition is scheduled to end in July 2024.

Focus on the research project aboard the IMOCA Biotherm

Launched this year with the Biotherm team and skipper Paul Meilhat, the Imaging FlowCytobot (IFCB) project aboard the IMOCA Biotherm during *The Ocean Race* made it possible, thanks to its sensors, to collect data on phytoplankton in areas inaccessible to the schooner *Tara*. The IFCB, already present aboard *Tara*, is an

instrument that combines cytometry, streaming and video technology to capture high-resolution images of microscopic particles such as phytoplankton in aquatic environments. This information on biodiversity in the high seas and remote areas of the Ocean will be added to the data collected aboard *Tara*.

03.2 Science: The various research programs





Presentation of the consortia

A scientific consortium is an agreement formed between several laboratories (French and international) to cooperate on implementing a common project. Conditions are framed by agreements which define the relationships between the members of the consortium and establish common rules. In the case of *Tara*'s expeditions, it is agreed that the results produced are the common property of all members of the consortium participating in the expedition.

The term "consortium" in French law is free and does not refer to a particular legal status. The consortium contract therefore only serves to supervise and formalize the collaboration between the members concerned. Each party to the consortium contract remains legally independent.

Each expedition has its own scientific consortium. This means that a contract of cooperation is signed between all the laboratories involved before each expedition.

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03.2.1 Previous expeditions of the Tara Ocean Foundation

Science takes time. It takes several years for the first results of an expedition to be accessible. Once samples are collected by researchers on board, they are sent and analyzed in numerous partner laboratories. The data is

then published in journals such as Nature and Science. These publications are common to the expedition's scientific consortium, and the raw data are shared as « open data » with the rest of the scientific community.





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"The missions carried out with the Tara Ocean Foundation are truly modern-day expeditions to explore marine biodiversity in a rapidly changing environment. Aboard the schooner Tara, dozens of French and international scientists work together to explore the effects of climate change and pollution on ecological balances. How can we not be sensitive to the beauty of coral ecosystems (*Tara Pacific 2016-2018*) or to the mysteries of the invisible organisms (*Tara Microbiome 2020-2022*) that must face plastic pollution (*Tara Microplastics 2019*) and many other pollutants (*Tara Europa - TREC 2023-2024*)? The numerous scientific publications generated by these expeditions crossing the global Ocean are essential today for understanding the issues linked to environmental protection."

Jean-François Ghiglione, CNRS research director, scientific coordinator of the Tara Microplastics expedition (2019), and of the ongoing citizen science action "Plastique à la loupe" (Plastics under the Magnifying Glass) since 2019.



Publications in 2023 from the consortia of earlier expeditions



Tara Arctic • 2006 to 2008

Scientific director:
Dr Jean-Claude Gascard, CNRS research director

No new publications



Tara Océans · 2009 to 2013

Scientific director:
Chris Bowler (replaced Eric Karsenti in 2020),
CNRS research director at the Ecole Normale
Supérieure (ENS).

Meng, L., Delmont, T.O., Gaïa, M. et al. Genomic adaptation of giant viruses in polar oceans. *Nat Commun* 14, 6233 (2023).

https://doi.org/10.1038/s41467-023-41910-6

Kaneko, H., Endo, H., Henry, N. et al. Predicting global distributions of eukaryotic plankton communities from satellite data. *ISME COMMUN*. 3, 101 (2023). https://doi.org/10.1038/s43705-023-00308-7

Rigonato, J., Budinich, M., Murillo, A.A. et al. Ocean-wide comparisons of mesopelagic planktonic community structures. *ISME COMMUN*. 3, 83 (2023). https://doi.org/10.1038/s43705-023-00279-9

Ibarbalz, FM, et al. 2023. Pan-Arctic plankton community structure and its global connectivity. Elem Sci Anth, 11: 1

DOI: https://doi.org/10.1525/elementa.2022.00060

Inomura K, Pierella Karlusich JJ, Dutkiewicz S, Deutsch C, Harrison PJ, Bowler C. 2023. High Growth Rate of Diatoms Explained by Reduced Carbon Requirement and Low Energy Cost of Silica Deposition. Microbiol Spectr 11:e03311-22.

https://doi.org/10.1128/spectrum.03311-22

Roberto Arrigoni, Jarosław Stolarski, Tullia I. Terraneo, Bert W. Hoeksema, Michael L. Berumen, Claude Payri, Simone Montano, Francesca Benzoni. Phylogenetics and taxonomy of the scleractinian coral family Euphylliidae ISSN 1383-4517.

https://doi.org/10.1163/18759866-bja10041

Gaïa, M., Meng, L., Pelletier, E. et al. Mirusviruses link herpesviruses to giant viruses.Nature 616, 783–789 (2023).

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https://doi.org/10.1038/s41586-023-05962-4

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Tara Méditerranée · 2014

Scientific director:
Dr. Maria-Luiza Pedrotti, CNRS research director

Baudena A, Kiko R, Jalón-Rojas I, Pedrotti ML. Low-Density Plastic Debris Dispersion beneath the Mediterranean Sea Surface. Environ Sci Technol. 2023 May 16;57(19):7503-7515. doi: 10.1021/acs. est.2c08873. Epub 2023 May 1. PMID: 37125732.

Fabri-Ruiz S, Baudena A, Moullec F, Lombard F, Irisson JO, Pedrotti ML. Mistaking plastic for zooplankton: Risk assessment of plastic ingestion in the Mediterranean sea. Sci Total Environ. 2023 Jan 15;856(Pt 2):159011. doi: 10.1016/j.scitotenv.2022.159011. Epub 2022 Sep 26. PMID: 36170920.

Alberto Baudena, Enrico Ser-Giacomi, Isabel Jalón-Rojas, S. Fabri-Ruiz, F. Galgani, et al.. The pathways of plastic in the Mediterranean Sea and its potential impact on marine biota. ASLO Aquatic Sciences Meeting, 2023, Palma de Mallorca, Spain. hal-04194470

Kedzierski, Mikaël & Palazot, Maialen & Soccalingame, Lata & Falcou-Préfol, Mathilde & Gorsky, Gabriel & Galgani, François & Bruzaud, Stéphane & Pedrotti, Maria Luiza. (2022). Chemical composition of microplastics floating on the Mediterranean Sea surface. 10.36253/979-12-215-0030-1.44.



Tara Pacific · 2016 to 2018

Scientific directors:

Dr. Serge Planes, CNRS research director & Dr. Denis Allemand, research director at the Centre scientifique de Monaco (CSM)

Publications in 2023

Planes, S., Allemand, D. Insights and achievements from the Tara Pacific expedition. *Nat Commun* 14, 3131 (2023)

https://doi.org/10.1038/s41467-023-38896-6

Lombard, F., Bourdin, G., Pesant, S. et al. Open science resources from the Tara Pacific expedition across coral reef and surface ocean ecosystems. Sci Data 10, 324 (2023)

https://doi.org/10.1038/s41597-022-01757-w

Belser, C., Poulain, J., Labadie, K. et al. Integrative omics framework for characterization of coral reef ecosystems from the Tara Pacific expedition. *Sci Data* 10, 326 (2023). https://doi.org/10.1038/s41597-023-02204-0

Noel, B., Denoeud, F., Rouan, A. et al. Pervasive tandem duplications and convergent evolution shape coral genomes. *Genome Biol* 24, 123 (2023). https://doi.org/10.1186/s13059-023-02960-7

Veglia, A.J., Bistolas, K.S.I., Voolstra, C.R. et al. Endogenous viral elements reveal associations between a non-retroviral RNA virus and symbiotic dinoflagellate genomes. *Commun Biol* 6, 566 (2023). https://doi.org/10.1038/s42003-023-04917-9

Galand, P.E., Ruscheweyh, HJ., Salazar, G. et al. Diversity of the Pacific Ocean coral reef microbiome. *Nat Commun* 14, 3039 (2023).

https://doi.org/10.1038/s41467-023-38500-x

Hochart, C., Paoli, L., Ruscheweyh, HJ. et al. Ecology of Endozoicomonadaceae in three coral genera across the Pacific Ocean. *Nat Commun* 14, 3037 (2023). https://doi.org/10.1038/s41467-023-38502-9

Rouan, A., Pousse, M., Djerbi, N. et al. Telomere DNA length regulation is influenced by seasonal temperature differences in short-lived but not in long-lived reefbuilding corals. *Nat Commun* 14, 3038 (2023). https://doi.org/10.1038/s41467-023-38499-1

Armstrong, E.J., Lê-Hoang, J., Carradec, Q. et al. Host transcriptomic plasticity and photosymbiotic fidelity underpin Pocillopora acclimatization across thermal regimes in the Pacific Ocean. *Nat Commun* 14, 3056 (2023). https://doi.org/10.1038/s41467-023-38610-6

Canesi, M., Douville, E., Montagna, P. et al. Differences in carbonate chemistry up-regulation of long-lived reefbuilding corals. *Sci Rep* 13, 11589 (2023). https://doi.org/10.1038/s41598-023-37598-9

Voolstra, C.R., Hume, B.C.C., Armstrong, E.J. et al. Disparate genetic divergence patterns in three corals across a pan-Pacific environmental gradient highlight species-specific adaptation. *npj biodivers* 2, 15 (2023). https://doi.org/10.1038/s44185-023-00020-8

Porro, B., Zamoum, T., Forcioli, D. et al. Different environmental response strategies in sympatric corals from Pacific Islands. *Commun Earth Environ* 4, 311 (2023). https://doi.org/10.1038/s43247-023-00946-8

Reddy, M.M., Goossens, C., Zhou, Y. et al. Multi-omics determination of metabolome diversity in natural coral populations in the Pacific Ocean. *Commun Earth Environ* 4, 281 (2023).

https://doi.org/10.1038/s43247-023-00942-y

Canesi, M., Douville, E., Montagna, P. et al. Sea surface temperature reconstruction in the Pacific Ocean using multi-elemental proxy in Porites and Diploastrea corals: Application to Palau Archipelago. *Chemical Geology* 645, 121884.

https://doi.org/10.1016/j.chemgeo.2023.121884

Canesi, M., Douville, É., Bordier, L., et al. Porites' coral calcifying fluid chemistry regulation under normal- and low-pH seawater conditions in Palau Archipelago: Impacts on growth properties. Science of The Total Environment 911, 168552.

https://doi.org/10.1016/j.scitotenv.2023.168552

Deshuraud, R., Ottaviani, A., Poulain, J., et al. From genome wide SNPs to genomic islands of differentiation: the quest for species diagnostic markers in two scleractinian corals, Pocillopora and Porites. To be submitted BioRXiv

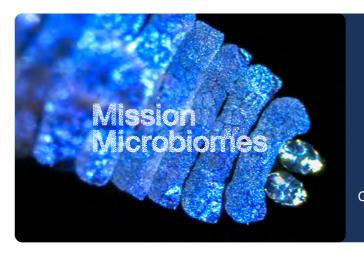
https://doi.org/10.1101/2022.10.21.513203



Tara Microplastics · 2019

Scientific director:
Dr. Jean-Francois Ghiglione,
CNRS director of research

First publication expected in 2024



No publications to date

Tara Microbiome · 2020 à 2022

Scientific directors:

Daniele Iudicone, researcher at Anton Dohrn Zoological Station (Naples, Italy),

Chris Bowler, CNRS research director & president of the Foundation's scientific committee

Colomban de Vargas, CNRS research director, director of the Tara Oceans research federation - GO-SEE

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03.2.2 The 2023-2024 TARA EUROPA - TREC scientific consortium



The scientific consortium of the 2023-2024 Tara Europa - TREC expedition brings together the following entities: EMBL, FTO, CNRS, Roscoff marine station, CEA, University of Maine, SZN (Stazione zoologica Anton Dohrn), Villefranche-sur-Mer Observatory, Sorbonne University, IFREMER, University of Oldenburg, CSIC (Spanish National Research Council), University of Jena, Woods Hole Oceanographic Institution, University of Tübingen, Oceanological Observatory of Banyuls-sur-Mer (OOB), ETH Zurich, Kyoto University, Ohio State University, Max Planck Institutes.

The scientific consortium of the 2023-2024 Tara Europa - TREC expedition is included in the broader scientific consortium of the TREC expedition, which brings together more than 70 scientific institutions.

TREC was created at the initiative of Edith Heard, director of EMBL, and the EMBL Heidelberg team: Peer

Bork, director; Rainer Pepperkok, director of scientific facilities, and Detlev Arendt, EMBL group leader, and coordinated by Paola Bertucci, in charge of scientific expeditions.

The team shares the research work as follows:

- Ocean: Colomban de Vargas, CNRS research director
- Soil: Leho Tedersoo, professor at the University of Tartu and Samuel Abiven, scientific director at CEREEP and teacher/researcher at ENS, CNRS
- Sediments: Raffaele Siano, researcher at Ifremer
- Shallow waters: Flora Vincent, group leader at EMBL and Hugo Berthelot, researcher at Ifremer
- Model organisms: Detlev Arendt, group leader at EMBL
- Chemicals: Michael Zimmermann, group leader at EMBL.

03.2.3 Focus on two scientific publications in 2023

The publication of 13 scientific articles in the Springer Nature collection

The year 2023 was marked by the publication of 13 scientific articles in the Springer Nature collection. These results are based on data collected aboard the schooner Tara during the *Tara Pacific* expedition (2016-2018) over more than 2 years, at 32 different sites across the Pacific Ocean. This multidisciplinary expedition led by Serge Planes, CNRS research director and Denis Allemand, scientific director of the Monaco Scientific Center (CSM), represents the largest study to date of the diversity of the coral reef microbiome. It took 5 years to publish these first results following analysis of only part of the thousands of samples collected.



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TO ACCESS PUBLICATIONS





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Serge Planes

Tara Pacific (2016-2018) generated a database unique in the world, open to everyone, with a pan-ecosystemic approach: that is to say, the sampling of all the ecosystem's components, from viruses to fish. This represents a "coral ecosystem genetic library" which has led to an improved understanding of the genomic complexity of coral reefs.

What to remember from the published results:

- Samples from *Tara Pacific (2016-2018)* include 2.87 billion genetic sequences, approximately 25% more than the 2.2 billion samples previously reported, indicating that the total number of microorganisms may have been considerably underestimated.
- Tara Pacific (2016-2018) demonstrates a lower environmental influence (i.e. the impact of environmental

conditions on the coral species) in Porites, a species of massive coral. Conversely, corals of the Pocillopora genus demonstrate a very strong impact from environmental conditions.

- Reef resilience depends on coral resistance, but also on the composition of its holobiont. Analyses from *Tara Pacific (2016-2018)* revealed a surprising result: the length of telomeres is strongly determined by coral environmental context, and in particular by temperature.

These first results now call for many more, as the database leaves the field open to almost unlimited research topics. Already providing us with a better vision of how these ecosystems function, the databases and samples certainly still hide potential answers to the questions that climate change poses for the sustainability of reefs.

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TO BETTER UNDERSTAND

Tara Pacific: first results of an exceptional expedition

235
media events in France & other countries

+700

visits of the Foundation's website article on Tara Pacific

250

consultations of the article via social media

Our most notable scientific publication of the year: Gaïa, M., Meng, L., Pelletier, E. et al. Mirusviruses link herpesviruses to giant viruses. Nature 616, 783–789 (2023). https://doi.org/10.1038/s41586-023-05962-4



« We have found an evolving treasure in the Ocean— something that corresponds to nothing we've known before. »

Tom Delmont, researcher at CNRS-Génoscope





A major scientific discovery was announced in the journal Nature in April 2023 — a new group of DNA viruses abundant in the Ocean called « mirusviruses ». These complex organisms were characterized by a team led by the CEA, CNRS, Génoscope, Pasteur Institute and other institutions, thanks to the large database (available as open data) established from sampling carried out during the 2009-2013 Tara Oceans expedition. This discovery is essential for the scientific community because it allows us to better understand

the biodiversity of plankton on the Ocean surface and the importance of viruses in these ecosystems. But it also sheds light on the evolutionary history of viruses since mirusviruses are halfway between the herpes virus and giant viruses, another distinct group of viruses present in the Ocean. This is a real opportunity to study the ecology and evolution of DNA viruses.

What to remember from the published results:

- Mirusviruses are very abundant on the Ocean surface, from the Equator to the poles, where they play a role in regulating microbial life by infecting unicellular organisms with nuclei (eukaryotes). They are very present in plankton cells.
- It is very likely that mirusviruses play many roles in the complex balance of plankton.
- -Mirusviruses form a third major group of DNA viruses infecting plankton on a large scale.
- These viruses cannot infect humans despite their genetics close to the herpes virus.

Scan me



FIND OUT MORE

Discovery of new viruses in the Ocean: Mirusviruses

650

visits on the website article, with more than

150

views of the article via Social networks

32 ©Tom Delmont ⋅ Tara Ocean Foundation 33



04. Sharing knowledge for change

For 20 years, sharing has been at the heart of the Tara Ocean Foundation's mission to educate, inspire and mobilize as many people as possible to preserve the health of the Ocean and the planet.

Through our initiatives with the general public, students and policymakers, the Foundation is committed to disseminating knowledge and discoveries from our expeditions to raise awareness about the urgent need to protect marine biodiversity and the Ocean.

04.1 Writing a new story: the Ocean Culture team

From an emotional point of view, the countless personal relationships with the Ocean reflect the great diversity of cultures on our planet. These varied perceptions of the contact with the marine world (anxiety, serenity, exaltation, etc.) are anchored in the intimate relations each of us has with this environment.

From an intellectual standpoint, even though the Ocean covers 70.8% of the surface of the globe and provides ecosystem services to 3 billion people on Earth, our knowledge has yet to be improved. Decades of research on marine ecosystems have allowed us to discover only 15% of the sea floor. There are, however, certainties: marine balances are disrupted by anthropic pressures (climate change, pollution, exploitation of resources, overfishing).

The Ocean Culture team's objective is to reconnect with these 2 aspirations — emotion and knowledge — often

opposed, although they are actually very much linked. This team explores their mutual influences to write a common narrative of the Ocean, bearing at its heart the importance of protecting this environment.

Each of the schooner's expeditions is an opportunity to challenge society, create innovative tools to reach and engage new audiences, and share the emotion of discovery. The schooner is an amazing vector to tell this story: science, adventures, curiosities, human exchanges, and interactions between species. For 20 years, the Tara Ocean Foundation has made science an element of common culture and a creator of links through meetings, workshops, books and events.

The Ocean is the future of our societies. It must be given the place it deserves in everyone's mind in order to protect the living.



About

60,000

people made aware of Ocean issues in France
and worldwide in 2023

53,158

5,117
people reached
uring stopovers abroad

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04.1.1 Knowledge sharing events

April 1-2 - Mission's departure

For her departure, the schooner Tara was the guest of honor of the Cité de la Voile Éric Tabarly in Lorient, which celebrated its 15th anniversary. More than 5,000 people gathered on the wharf to participate in many activities. This moment was accompanied by an artistic performance of the impressive tightrope walker, Nathan Paulin. A 350-meter-long crossing on a slackline, 25 meters above the ground, starting from the K1 block and ending above the ship at the time of *Tara*'s official departure.



June 3 - The Ocean Culture Festival



June 3, 2023 - 2nd edition of the Ocean Culture Festival in Paris: All connected to the Ocean

This event, open to all, offered a new look at our relationship to the Ocean, especially through rivers, these essential arteries that connect us to the marine world. Visitors, young and old, were invited to discover the Ocean from new perspectives mixing science, arts and literature.

On this occasion, "Nuit blanche", an artistic projection by Nicolas Floc'h on the building of the Climate Academy, immersed the public in the orange and yellow-colored waters of the Seine, those green of the Channel and blue of the Atlantic Ocean.

2h15
of conferences

12 lifferent workshops, 4 authors **1,200** free visitors

More than 8,000 visitors/spectators/listeners

The gala evening celebrating the 20th anniversary: TARA, the home where we always come back!





To celebrate the 2 decades of existence of the Foundation, a big reunion brought together the large *Tara* family: longstanding and new friends, partners, collaborators, sailors, researchers, artists, etc.

Nearly 300 people gathered at *La Fab* to share this anniversary evening, punctuated by an artistic performance and speeches retracing the adventures of this collective force that is *Tara*.

CinéSchool

CinéSchool is a joint initiative of Villa Albertine, the French Embassy and the FACE Foundation. Launched in 2021, its goal is to encourage interest in cinema and the French language among young audiences in the United States, through a program aimed at French teachers and integrated into school curriculum.

For the 2023 edition, 600 students watched Vincent Perazio's documentary *Océans, le mystère plastique* (*Oceans, the plastic mystery*), and discussed this theme with the Tara Ocean Foundation's team: Martin Alessandrini, advocacy officer, Marie-Sophie Bienfait, administrative head and Thomas Larrat, mediations and events project manager.

04.1.2 Exhibitions

Tara, un nouveau regard sur un monde à explorer (a new perspective on a world to be explored)



This exhibition allows visitors to (re)discover the unparalleled human, scientific and artistic adventure that Tara is, from major discoveries about marine life to the current expedition on the land-sea interface of the European coastline.

Instantanées d'équipage (snapshots by *Tara*'s crew) December 6, 2023, to January 20, 2024 - agnès b. boutique, Lyon

Sailors have been steadily taking turns for more than 20 years to navigate the global ocean aboard Tara. Each crew member has a unique perspective on the landscapes and experiences crossed during the schooner's expeditions. As their emotions return ashore with them, their photographs, presented in this exhibition, allow us to share a part of their experiences.

In the coming months, the selected photographs will be exhibited during the schooner's stopovers.





Tara, histoire d'un engagement pour l'Océan (story of a commitment to the Ocean)

Esplanade of the Gare de Lyon train station, Paris - November 8 to December 15, 2023

For a month and a half, the residents of Île-de-France discovered on the esplanade of the Gare de Lyon train station a 100-m-long exhibition highlighting *Tara*'s collective adventure: sailors, scientists, artists, stakeholders operating in the knowledge triangle (research, education and innovation) and for the protection of the Ocean.

The work of artist Manon Lanjouère, Les Particules (particles), created during her residency aboard *Tara* was highlighted.

04.1.3 Publications of the Tara Ocean Foundation

Tara: histoire d'un engagement pour l'Océan (story of a commitment to the Ocean) written by Sylvie Rouat and Stéphane Dugast: a book for the Foundation's 20th anniversary A human and scientific adventure.

Tara's missions are in line with the great expeditions of the 18th and 19th centuries, embarking sailors, scientists, journalists and artists around the world with a common objective: exploring the wonders, secrets and fragility of the Ocean.

This book, released in October 2023 by Paulsen editions, relates this revolution through words and images, from the Arctic pack ice to the Antarctic circumpolar current, the high seas and river estuaries.







Tara Océan Le mag n°4 - Tous connectés à l'Océan (all connected to the Ocean)

This 4th edition of *Le Mag* consists of 16 pages to better understand the multiple connections that link us to the Ocean, including an exclusive comic strip in which artist Antoine Bertin and scientist Flora Vincent go on a treasure hunt, looking for a plankton bloom. Le Mag was sent to the 60,000 subscribers of the Journal de Mickey and was distributed throughout the summer to the 90 beach clubs located in 75 towns along the French coastline.

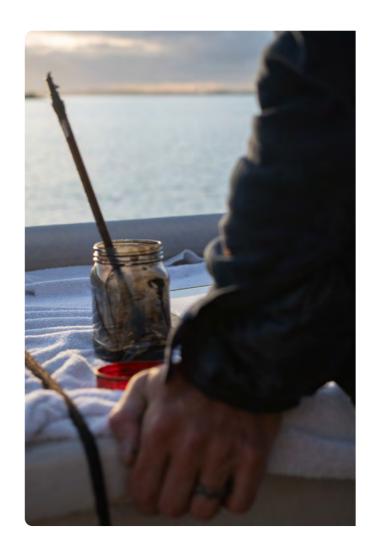
Secrets de mer (secrets of the sea)

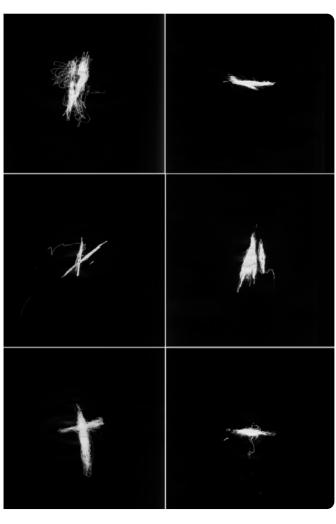
The book *Secrets de mer* presents the various perspectives of 36 marine authors, sailors, engineers, scientists, artists, writers on the issues and professions of the maritime world.

Eight pages are devoted to the Tara Ocean Foundation and its 2 main themes "Exploring to understand / sharing for change".









04.1.4 Artists-in-residence aboard Tara: Art & Science

Award-winning artists-in-residence

The artistic residency panel of the 2023-2024 Tara Europa - TREC expedition was held on April 16, 2023, to deliberate on the 200 applications presented. The jury, co-chaired by Agnès Troublé dit agnès b. and independent curator Jean de Loisy, was composed of:

- Lauranne Germond, director & cofounder of COAL Art & Ecology
- Nicolas Laugero Lasserre, director of the ICART School, cofounder of Fluctuart, president of Artistik Rezo and co-founder of the Quai de la Photo
- Francesca Thyssen, founder of TBA21

- Jean-Max Colard, in charge of the Talk program, Culture & Creation Department at the Centre Pompidou
- Béatrice Grenier, director of Curatorial Affairs at the Cartier Foundation
- Nathalie Guiot, founder of Fondation Thalie
- Etienne Bourgois, president of the Tara Ocean Foundation

The jury nominated 6 winners, 3 of whom embarked during the first year of the 2023-2024 Tara Europa - TREC expedition.

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ROBERTINA ŠEBJANI

https://fondationtaraocean.org/artistes/robertina-sebjanic/www.robertina.net

Embarked on June 5, 2023, in Aarhus (Denmark) and disembarked on June 22, 2023, in Riga (Latvia)

Echo of the abyss - toxic inheritances of Oceanic Ecologies

With this residency, Robertina Sebjnic started exploring a new field of artistic research by focusing on weapons abandoned in the Ocean, a topic often neglected but crucial because of the toxic pollution generated and the risks it poses to marine life. Her project aims to study the impact of chemical particles on water and marine life, investigating the past to better understand current hazards.

CÉCILE FOUILLADE - SIQOU

https://fondationtaraocean.org/artistes/cecile-fouillade/ www.sigou.art

Embarked on August 13, 2023, in Bergen (Norway) and disembarked on September 4, 2023, in Galway (Ireland)

A sculptural and translucent world

This artist wishes to stage the discreet and vital world of the marine microbiome. She creates sculptural pieces inspired by the species observed during her residency and highlights their shapes and textures, colors and translucency using the unique potential of porcelain. These organisms are therefore not only visible through images, but also tangible through volume and touch.

RENATA PADOVAN

https://fondationtaraocean.org/artistes/renata-padovan/www.renatapadovan.me

Embarked on September 15, 2023, in Galway (Ireland) and disembarked on October 5, 2023, in Bilbao (Spain)

Water-air interface

Renata Padovan has documented the Ocean surface and the physical, chemical and biological properties of the water, such as temperature and salinity, the presence of anthropogenic waste and pollutants, as well as neustonic microorganisms (living on the water surface). Combining environmental data with photographs, videos, sound recordings, drawings and samples, the artist works on the composition of an immersive installation that reports on these observations.

Winners embarking in 2024

Enrique Ramirez, Arianna Pace and Laure Winants

Artists outside the residency program

YANN BAGOT

https://fondationtaraocean.org/artistes/yann-bagot/ www.yannbagot.com

Embarked on July 18, 2023, in Stockholm (Sweden) and disembarked on July 30, 2023, in Kristineberg (Sweden)

Seeing and knowing

Experimenting with the effects of seawater on Indian ink, Yann Bagot sat every day on *Tara*'s deck to draw, inspired by the impetus of life on board. Facing the sky and the sea, he sought to connect with the scenery and immersed himself in this flow of light and ocean waves. Throughout the navigation, the artist focused on representing the landscapes crossed by capturing "the atmospheric topographic singularity of each place" and his perspective of the microbiome sampled and observed under the microscope during the stations.

CLAIRE NICOLET

https://fondationtaraocean.org/artistes/claire-nicolet/www.clairenicolet.com

Embarked on October 30, 2023, in Porto (Portugal) and disembarked on November 11, 2023, in Cadiz (Spain)

Painting of a large underwater garden

Starting from the marine world as a new exploration territory, Claire Nicolet paints an underwater garden that reflects both the expedition and the work carried out on board, using a pictorial and poetic language. The collected diagrams, cartographic clips, meteorological data, fragments of spaces and landscapes, impressions, notes and drawings allow her to imagine and create this "panorama or floating world".

Artist residencies in marine station

As part of the BIOcean5D project co-founded by the European Union, and in collaboration with the EMBRC, residencies in marine stations were proposed to several candidates or winners of the 2023-2024 Tara Europa - TREC artist-in-residence program.

An opportunity for these artists to enjoy an additional residence before or after their stay aboard the schooner.

YANN BAGOT

The artist was welcomed at the Kristineberg Center in Sweden for 15 days from July 30, 2023.

Yann Bagot met the terrestrial part of the *TREC* expedition, but also the local oceanographers and their work.

He experimented and initiated 2 series: Sea samples and Stations, based on sampling and revelations, evocations of microscopic marine life and the issues it is faced with.

CÉCILE FOUILLADE - SIQOU

Before her residency, Cécile Fouillade was welcomed for a week at Espegrend, the Bergen marine biological station in Norway.

It gave her an opportunity to initiate her immersion in the marine and scientific environment before the schooner arrived in Bergen.

04.1.5 Disseminating knowledge: Science, creator of links

For 20 years, the Tara Ocean Foundation has been developing with scientists a range of tools making knowledge about the essential role of the Ocean accessible to everyone. Today, the challenge is to multiply their impact on the general public, relying on local infrastructure whose core business is knowledge sharing.

As part of a partnership with the EDF Foundation that benefits from strong territorial anchoring, we plan on structuring our actions to optimize their dissemination. This scale-up strategy is not aimed at creating new resources, but rather at deploying and leveraging existing tools in new territories, among new audiences.

The pilot phase focuses on the Brittany and Auvergne-Rhone-Alpes regions.

The final objective is to create and federate an effective mediation network, anchored in territories, around societal issues related to the Ocean and the sharing of scientific culture.



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04.2 Federating the general public and the media around the Foundation's mission and raising awareness about the major issues facing the Ocean: the Communication team

Once again, the Tara Ocean Foundation has achieved a strong media presence and increased its community on social networks. The strategy of content creation and scientific popularization intended for the general public

Once again, the Tara Ocean Foundation has achieved a strong media presence and increased its community on major issues of marine biodiversity conservation.

The 20 years of commitment campaign

To celebrate the Foundation's 20th anniversary, a multichannel system was deployed for 9 months, starting in October 2023. The objective of this campaign was threefold: mobilizing the general public for the necessity to protect the Ocean, showcasing the Foundation's 20 years of impact and actions, and launching a fundraising campaign on social networks.

The communication device included an awarenessraising campaign around the lack of knowledge about the Ocean (vox pops, quizzes), articles, activities such as game contests, sharing of photos and community testimonials, as well as a 3-minute film on the collective adventure of *Tara*'s *20-year commitment to the Ocean*. A special edition of *Tara*, *sentinelle de l'Océan* created for the Foundation's anniversary, in partnership with the 1 Hebdo, was published in October in 3 languages (French, English and Japanese).

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For our newspaper, which has set itself the ambition to enlighten our time, the collaboration with Tara will remain a memorable date. Both through the narrative of this extraordinary adventure —scientific, technical, and above all human — and the horizons of knowledge the schooner has opened. For us, Tara has been synonymous with warning and awareness of phenomena often ignored or underestimated that impact and threaten the oceans, and therefore Life. Tara also gives us hope in her abilities to act and dream, from the familiar Mediterranean Sea to the mysteries of the North Pole.

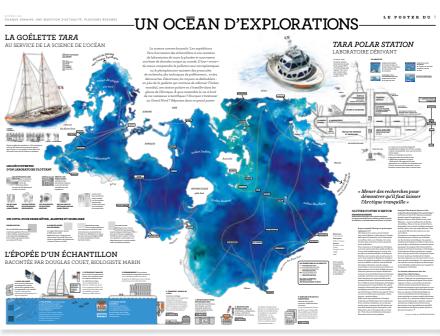
Eric Fottorino, president and publishing director at Editions du 1



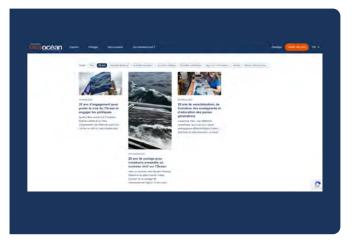












47
posts on social media

217,000 prints

10,000 interactions

The 3 articles published on our website summarizing the Foundation's 20 years of commitment around our 3 main themes can be consulted here: Advocacy, Ocean Literacy and Education.

Scan me



FIND OUT MORE ABOUT OUR 20 YEARS OF ACTION

42 © Tara Ocean Foundation (© Tara Ocean Foundation)

Raising awareness on plastic pollution

Partnership with Mme & M. Recyclage

In May 2023, the Foundation published on social media a series of 3 videos focusing on packaging for high consumption products, co-created with Lise Nicolas and Enzo Muttini aka Mme & M. Recyclage (Mrs. & Mr. Recycling).



This content was broadcasted ahead of the 3rd session of the Intergovernmental Negotiating Committee on Plastic Pollution (INC3). The aim was to raise awareness about plastic pollution among the largest audience possible.



Contributions to the intergovernmental negotiations of the Global Treaty against Plastic Pollution

Ahead of the 3rd session of the negotiations of the Global Treaty against Plastic Pollution, the foundation organized a briefing with French journalists to help them recommendations made by the foundation.

better understand the major issues of plastic pollution, the challenges of implementing such a treaty and the

14

85

Digital strategy

To meet the expectations of our various targets, the Tara Ocean Foundation has optimized our communication strategy with the purpose of providing knowledge to as many people as possible.





The website

The foundation regularly publishes articles on our website to make its actions known to a wide audience. These articles cover specific aspects of our activities, such as explaining the content of an academic scientific publication related to the schooner's expeditions, detailing the course of international negotiations in which the foundation participates, or highlighting the works of artists onboard.

In 2023, the Tara Ocean Foundation worked on the launch of a Japanese website so that Tara Ocean Japan could have its own communication channel and thus convey the right messages to its users.







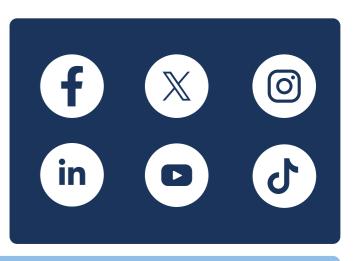
WEBSITE



Social networks

The foundation is active on 6 different social networks to reach as many people as possible. Our community is constantly growing with more than 180,000 subscribers.

New: We launched a Tara Ocean Foundation account on TikTok in March 2023 to expand our communication channels and share knowledge about the Ocean. The objective is to introduce our expeditions, marine biodiversity and the invisible world of micro-organisms by offering accessible educational content to younger people.



182,100

+13,432

45

© Tara Ocean Foundation ©Mr&Mme Recyclage · Tara Ocean Foundation, © Tara Ocean Foundation

Mailings

E-mails remain an important communication channel for the foundation to inform our community of major events and transmit news through our newsletter, published 4 times a year.



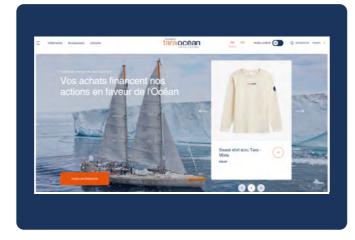




SUBSCRIBE TO THE NEWSLETTER

Redesign of the e-shop

The Foundation's e-shop was created 10 years ago to propose a small stock of clothing and equipment originally designed for *Tara*'s crew, and sell products during or after stopovers. To mark the release of the new collection during the schooner's stopover in Lyon, the foundation migrated the e-shop to a new platform. It was also overhauled to make it more modern and easier to navigate.







DISCOVER THE E-BOUTIQUE

04.3 Bringing the Ocean into the school curriculum: the Education team

04.3.1 A platform dedicated to school education for sustainable development and sciences

The foundation's education team is active in classrooms throughout France and in French high schools abroad, training and accompanying teachers in educating students for sustainable development with innovative pedagogic resources on science-society-Ocean issues. The tools offered to teachers are free, multiple and multifaceted: experiments to be carried out in the classroom, educational files, scientific documentaries, live videoconferences with researchers, etc. Pedagogic operations can be used as a common thread throughout the school year. The Tara Ocean Foundation emphasizes the importance of multidisciplinarity to integrate increasing complexity into education, while offering solid content for teaching the official curriculum. Drawing on the resources of the Foundation, teachers contextualize scientific contents and environmental issues. They develop a stimulating pedagogy for young people from elementary school (from the 4th grade) to the end of high school.

The foundation's resources are co-designed with the Ministry of National Education to be consistent with official programs. The entire educational project has been supported for 15 years by the General Inspectorate and extended by outreach work with regional inspectors and academic coordinators for Education for Sustainable Development (ESD) in most academies. This singular collaboration is a long-term process: pre-project advice, validation of concepts, coproduction, dissemination to mobilize teachers and evaluation. An advisory committee to the Education team provides expert assistance. It includes inspectors of National Education, experts from ADEME, La main à la pâte Foundation, the French Development Agency (AFD), UNESCO networks, etc.

2023 - partnership news related to the Education team:

In October, a new 3-year agreement was signed with the Ministry of National Education, attesting once again the Tara Ocean Foundation's links with French schools. The same month, following the positive response to a call for projects submitted to the French Development Agency (AFD), the Education team launched its implementation over 3 years. It will strengthen education for citizenship and international solidarity in the key operations of the pedagogical platform and training. During *Tara*'s stopover in Lyon, on December 14-15, the first highlight of this project was held: 2 days of seminars with 30 referents from academies in France and French high schools abroad: 1) to define themes and orientations, and 2) so that they implement the expected development.

The dissemination and impact of the foundation's educational tools are long-lasting.

Release of the Plastic pollution Fresco

After 2 years of design and testing in partnership with ADEME and the Ministry of National Education, the Plastic pollution Fresco — an introductory tool to the issues of plastic pollution — was deployed to secondary teachers in September 2023.

During an engaging and collaborative workshop, students acquire knowledge and reflect in groups to gradually build a fresco from maps to be logically pieced together. Any teacher can learn about this tool, through online workshops offered by the Tara Ocean Foundation's education team.

+ 115,000 students have worked 628
rained teachers during 38 online workshops

46 ©Tara Ocean Foundation 47

04.3.2 Educational operations of the Tara Ocean Foundation

+ 88,000
people registered for pedagogical operations worldwide

"Graines de reporters scientifiques" (aspiring scientific reporters)

Designed in partnership with the Liaison Centre for Education and Media Information (CLEMI), this operation aims to offer middle and high school students an opportunity to be scientific mediators for other young people on a major science-society subject: human influence on the Ocean. By positioning themselves as knowledge facilitators, students produce videos and podcasts that are posted and promoted on a dedicated website. This project is particularly favorable to the transversal approach lying at the heart of media education and information, and for sustainable development. This pedagogical operation is becoming increasingly successful, particularly within the network of French high schools abroad (AEFE).



7,200

students (in France and around the world) in nearly 250 classes participated in the "Graines de reporters scientifiques" operation

"Plastique à la loupe" (plastics under the magnifying glass), the participatory science operation on microplastics

Intended for middle and high school students, the participatory science operation "Plastique à la loupe" aims at building an unprecedented database on macro-, meso- and microplastics found on beaches and river banks, in metropolitan and overseas France, as well as at certain European sites targeted by researchers. This data will be used for scientific research and contribute to decision-making at the European level, as part of the "Strategy for the Marine Environment" (DCSMM) framework directive. Le Cèdre and the Observatoire océanologique de Banyuls-sur-Mer (OOB) are the scientific project stakeholders. The objective of this operation is twofold: First, help researchers answer scientific questions; second, be a driver for ecocitizenship, the development of critical thinking and the commitment of young people.

A specific methodology, designed by scientists, is proposed to the students (collecting samples in the field, then sending them to laboratories for chemical analysis and storing data in a database). The results allow scientists to identify the source of microplastics and reflect with students on the actions to be taken to reduce this pollution on a global scale. Exchanges between experts and students are organized throughout the school year to discuss the results obtained and possible solutions.

Learning scientific precise methodology and working in cooperation with researchers represent a concrete educational interest around plastic pollution, moving from knowledge to commitment during courses, with eco-delegates or within institutional projects.

The foundation's programs are present in all academies

24 academies in metropolitar adomios

academies in overseas departments and territories + 20,000 students and more than 600
schools have contributed of this participatory science

"Échos d'escale - expéditions virtuelles" (echoes of stopover - virtual expeditions)

This operation is part of our objectives of education for sustainable development. Through *Tara's* stopovers around the world, teachers and students are invited to discover local issues of sustainable development that echo more global ecocitizen challenges. They can choose their itinerary and the number of stopovers visited according to a theme, a region of the world or a sustainable development goal (SDG).

This flexible and attractive format for classroom activities has been widely used by teachers this year: 25,000 students have participated in France and worldwide. The operation is developing increasingly in French establishments abroad where we note a real enthusiasm

for the themes addressed; and the possibility to follow the schooner *Tara*'s adventures, in particular by exchanging several times a year with the crew.

Three conferences to promote virtual expeditions in class, bringing together nearly 1,200 students from metropolitan France, Italy, Greece, Israel, Albania, Romania, Turkey, Sweden, Portugal, Spain, Madagascar and England, were organized online and animated by the foundation's team. The students particularly loved "the great involvement of everyone" and found this exchange time "awesome, interesting, enriching, fun, original, informative and captivating."





25,000 students

1,100 classes

... participated in the "Échos d'escale - expéditions virtuelles" operation

"Coulisses de laboratoires" (behind the scenes in laboratories)

This operation allows teachers to lead their students aged 8 to 15 to the discovery of the world of scientific research. Through the digital platform "Coulisses de laboratoires" and fun activities in "Les carnets de labos" (lab notebooks), young people discover the key scientific instruments of researchers, their historical development and their usefulness in the research carried out aboard Tara. The operation also proposes to go behind the scenes of major maritime expeditions using various educational files, the latest of which allows students to trace Nansen's expedition aboard the Fram in the Arctic.



48 © Tara Ocean Foundation, © Tara Ocean Foundation 49

"Du bateau au labo" (from boat to lab)

By offering a contextualized approach to science in action to middle and high school students, the operation "Du bateau au labo" allows students to discover current environmental issues and research professions. This operation makes students players of the experimental approach by letting them manipulate real scientific data collected aboard Tara.

"Du bateau au labo" provides data kits presented in the form of spreadsheets accompanied by a pedagogical proposal for the teacher to use the data in class, as well as video clips in which scientists tell their story and present the importance of the data collected.

The annual cycle of online meetings with scientists

The strength of our educational platform also comes from the direct connection with the research world, in particular through video conferences between researchers and schoolchildren. These meetings are always very successful. They aim to raise questions among the students on crucial environmental topics, while giving them a taste for science and raising awareness of research professions. These videoconferences then become permanent resources, accessible from digital libraries.

In spring 2023, a session of 6 videoconferences involved 6,295 students aged 7 to 12. The 6th annual cycle was launched in November 2023: 15 scientists from national

and international laboratories raised awareness among 6,969 students about the challenges facing the Ocean through 11 themes and answered their questions live.

students, in 628 cla participated in 36 online meetings with scientists

Participation in teacher training

We work closely with the educational community in order to have a lasting impact on the younger generations. Participation in teacher training, through face-to-face meetings and videoconferences, is essential because it allows us to multiply the benefits of educational operations. It is also the result of a choice of consistency with official skills and programs, since training interventions are co-built with the General Inspectorate at the Ministry of National Education.



The Education team thanks our partners for allowing us to carry out pedagogical operations each year within classes.















04.4 The Tara Ocean Foundation's advocacy: Creating a dialog to engage policy-makers and preserve life

The Tara Ocean Foundation's advocacy consists in translating and transmitting knowledge to policy-makers on the issues, regulations and management tools to be deployed to support the appropriate decisions for the conservation and sustainable management of the Ocean. This year again, the advocacy team has been mobilized on the interconnected themes of climate, biodiversity and pollution to meet a single objective: the protection of Life.

The year was marked by strong mobilization of the advocacy team in international and national frameworks thanks to its technical and scientific expertise that make it unique. 2023 was also a year during which advocacy opened up to other disciplines and partnerships, allowing us to expand our perspective and enrich the foundation's discourse.

Finally, this year's highlights include promising advances with scientists to build monitoring and prediction tools and define ocean health indicators to be implemented by States.



The BBNJ Treaty: Creating a framework for the protection of biodiversity in the high seas

The Biodiversity Beyond National Jurisdiction (BBNJ) Treaty aims at regulating practices in the high seas. It incorporates important ecological principles for the common good, world heritage of humanity, equitable benefit sharing, capacity building and support for international research. After the signature of the States parties to this Treaty, several steps remain to be made before seeing its concrete effects: the Treaty must be ratified by the national parliaments of the signatory States before implementing effective measures. In 2023, the Tara Ocean Foundation continued to organize dialog between the scientific community and policy-makers to fill the remaining gaps in the text. In international law, the effective application of this Treaty requires precise definitions that will complement the text adopted.

To anticipate this work, a symposium was held in Edinburgh on October 6-7, at the initiative of the University and partners involved for many years, in the presence of dozens of experts and delegates. The Tara Ocean Foundation, committed to this issue since 2012, was one of the partners organizing the event alongside the University of Edinburgh, the French Office for

Biodiversity (OFB), and the BlueRemediomics project, co-founded by the European Union and the High Seas Alliance, among others. Composed of 8 round tables, the symposium addressed all the axes of the Treaty, as well as several specific themes. These subjects, whose frameworks are not yet defined precisely, will require important work ahead of the first COP (Conference of Parties, the meetings that will bring together the signatories to the Treaty) on:

- the financing of marine protected areas (MPAs)
- the modalities of scientific cooperation envisaged
- the role of the scientific committee.

These discussions in Edinburgh also allowed the pioneers of this long negotiation to share ideas for further efforts toward the implementation of the planned actions. For the foundation, it was an opportunity to project actions for the coming years, including the organization of a workshop in Nice in April 2024 that will prepare the United Nations Ocean Conference (UNOC) to be held in Nice in June 2025.

51 © POC · Tara Ocean Foundation

Taking actions with governments for a moratorium on the exploitation of the deep Ocean

Since the One Ocean Summit held in Brest in 2022, France has taken an important place on the international stage around the issue of deep sea mining. The call for a moratorium on this activity has grown, mobilizing both the French diplomatic corps and civil society.

This year, the foundation joined forces with a collective of organizations in France to highlight the urgency of this moratorium. The foundation co-signed an article published in Les Échos before the annual meeting of the International Seabed Authority (ISA) held in July in Jamaica, calling on the government to maintain its leadership role for the moratorium. The objective is to advance the debates with decision-makers, so that the subject can be taken to the UN agencies.

Developing tools to monitor and protect the health of the Ocean: the new Plankt'Eco project

In 2016, the Tara Ocean Foundation became the first foundation of public interest dedicated to the Ocean. The first project initiated in partnership with the French Facility for Global Environment (FFEM) was then initiated to develop scientific cooperation and advocacy activities with Africa and Latin America. In September 2023, a second project, entitled *Plankt'Eco*, was launched.

For a period of 4 years (2023-2026), the project aims at meeting the needs for knowledge on plankton ecosystems and their integration into current fisheries and climate research. The objective is to share with decision-makers innovative tools to monitor the health status of the Ocean and manage marine resources. This transition from research to political action responds to an increasingly urgent need in a rapidly changing world.

Including scientific data and tools in policy decisionmaking processes is one of the foundation's main challenges, requiring significant research knowledge, as well as political expertise.

Plankt'Eco will also set up a plankton imaging equipment platform, based in Dakar, as well as a training system around it for local academic institutions. The challenges of building scientific capacity for countries underrepresented in global oceanographic research and creating scientific networks at the international level are major.

Finally, the project will organize scientific mediation workshops with "frugal" plankton observation tools, in partnership with a Seleganese NGO.





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LEAFLER HERE

Plastic advocacy: supporting stakeholders toward a circular economy approach

Faced with the scientific findings of the omnipresence of plastics at sea and the impossibility of depolluting this space, solutions must be found on land. The Tara Ocean Foundation's advocacy has therefore been structured around the concept of circular economy, not reduced to recycling, but in its original meaning that invites us to mimic the functioning of Nature, to be inspired by its economy of means and the absence of harm to the living. A concept that translates into the "3R" strategy: Reduce, reuse, recycle — hierarchical and complementary principles. It is this ambitious vision that the foundation has once again raised as high as possible this year.

The foundation develops our advocacy from the international level with mediators by following up UN negotiations to the local level with communities by implementing the Plastic-Free River Charter. Complementary actions and audiences that demonstrate the foundation's ability to address everyone with the purpose of reaching the same goal: zero plastic in nature.



The foundation committed to an ambitious Global Treaty to fight Plastic Pollution

In order to tackle plastic pollution on an international scale, the Fifth United Nations Environment Assembly (UNEA-5) adopted a historic resolution in March 2022 to negotiate a global treaty by the end of 2024. Negotiating time is therefore short and precious. The impact of plastic production on the climate, and the countless effects of plastics on the environment and health, must motivate negotiators to move towards an effective international treaty that can be rapidly implemented.

The year 2023 saw two rounds of negotiations and an inter-sessional phase. The session held in Paris in May was of particular interest to the foundation. Drawing on our technical expertise and status as a UN observer, *Tara*'s advocacy team produced a policy brief establishing the fundamentals of an ambitious and operational treaty. The 7 major proposals include the issues of reduction and good governance. Reducing global production appears to be the only way of reducing pollution. And this issue in particular has been detailed by the Foundation at several high-level meetings at the Élysée Palace and the French National Assembly. Co-organizer and speaker at numerous events in partnership with NGOs, cities, politicians and scientists, the foundation also stimulates public debate, mobilizes specialized scientists and

journalists, and popularizes the issues at stake, particularly through the media. In October, negotiators from around the world met again, this time in Nairobi, at the headquarters of the United Nations Environment Program (UNEP). The third session of negotiations was a mixed bag, marked by the fact that the countries opposed to a strong treaty have now formed a coalition. Also, the presence of 143 petrochemical lobbyists had a major impact on our progress, preventing agreement on the work to be done before the next session in Ottawa in April 2024. Nevertheless, the Tara Ocean Foundation also notes the existence of a united front of NGOs, scientists, representatives of the "high ambition states" and small states of the South, representatives of indigenous peoples and workers in the plastics industry, all united in defense of a strong, binding treaty aimed at resolving the entire plastics issue. The foundation also emphasizes the fact that issues of climate change, human toxicity, ecosystem degradation and extended producer responsibility (EPR) are now widely recognized, and that plastic is not only a question of waste management. Finally, the foundation welcomes the setting up of 3 work groups to make progress on reduction issues, financial mechanisms and organizational aspects of the treaty. The first 2 issues in particular will mobilize the

52 ©Tara Ocean Foundation 53

foundation's team and the Tara plastics and pollution work group until the next negotiating session in April 2024. This ad hoc think tank brings together people from physical and life sciences (ecotoxicologists, rudologists, biologists, doctors specializing in health and the environment, among others) and social sciences (economists, sociologists). With their expertise and cross-disciplinary knowledge, they all participate in the Tara Ocean Foundation's advocacy efforts concerning plastics.





The foundation working for European packaging regulations

In 2023, the European Union waged another battle to reduce plastic pollution. Single-use plastic packaging accounts for over 40% of the volume of plastic waste produced, making it a major issue to be tackled in drafting EU packaging regulations (PPWR). The PPWR raised the Foundation's hopes, with firm reduction targets and particular attention paid to avoiding transfer of impacts (carbon, water, biodiversity) that would inevitably result from the simple substitution of plastic by other materials. Unprecedented mobilization of industrial players in the single-use sector to defend their model required the unfailing cohesion of NGOs and economic players in the

re-use sector who came together in an informal coalition to defend PPWR. We sent an increasing number of letters to the French president and ministers, urging decision-makers to act for greater consistency between public positions at UN level and what was done at the European level. At the same time, the foundation's views on this issue were sought on several occasions, including at an international press conference in Strasbourg on 28 September. The text will not see its fate decided until 2024, and the foundation team will remain mobilized until the negotiations are completed.





The Plastic-Free River Charter: mobilizing elected representatives and sharing best practice

In 2023, the Plastic-Free River Charter was signed by 113 local authorities, representing a total of 324 municipalities. To animate this community of decision-makers, the year 2023 was devoted to networking and exchanges, increasingly mobilizing local players to take action and reduce the use of plastics.

In July, the Assises Nationales de la Biodiversité (National Biodiversity Conferences), organized by the EcoMayors, partners of the Charter, provided the opportunity to hold the very first event involving signatories in sharing their commitments. The city of Avignon presented its measures to prevent and regulate the use of plastics, particularly during the annual Theatre Festival. The presentation was preceded by contributions from Jean-Francois Ghiglione, scientific director of the Mission Microplastiques (2019), and Pierre Souvet, president of the Association Santé Environnement France, who

proposed using scientific knowledge as the framework for discussing solutions to be developed. A webinar on reducing the use of plastic materials in school cafeterias was held in November to bring together committed elected representatives. This webinar was an opportunity to clarify the French regulatory context on plastic in school cafeterias, to identify relevant measures and the difficulties in implementing them, to share support tools developed by associations and national players, and to highlight the need for a support system for local authorities in implementing laws relating to plastic pollution.

In the year ahead, the foundation is more than ever committed for the Ocean of today and tomorrow, our «life support system» as Dr Sylvia Earle likes to describe it.



04.5 *Tara*'s activities in Japan in 2023



The "Graines de reporters scientifiques" (aspiring scientific reporters) operation

Tara Ocean Japan is the Japanese sister association of the Tara Ocean Foundation, directed by general secretary Yumiko Patouillet. Founded at the end of 2016, just before the schooner *Tara's* multiple stopovers in Japan during the *Tara Pacific expedition (2016-2018)*, the association since then has a number of institutional, academic and media partners.



All sampling for the Tara-Jambio Microplastics Mission (2020-2023) has been completed

In June, the mission arrived in Okinawa, the final destination of the 4-day sampling. At the same time, an awareness-raising event with local children and adults was organized, as well as a seminar at the Okinawa Institute of Science and Technology (OIST).

During this 3-year mission, 50 sites were sampled in collaboration with the 13 marine stations of JAMBIO (Japanese Association for Marine Biology), the network of marine stations of the National Universities of Japan.

Data on microplastics in Japanese coastal waters is still scarce, and the *Tara- Jambio Microplastics Mission* (2020-2023) is currently the largest simultaneous study of microplastics in surface waters, seabed sediments and beaches in Japanese coastal waters. In total, more than 300 samples were collected and all confirmed the presence and high density of microplastics.

The goal is to publish the first paper in 2024, under the direction of Sylvain Agostini, from the University of Tsukuba, one of the directors of Tara Ocean Japan.

The TARA JAMBIO ART PROJECT exhibition on Awashima Island

An art exhibition who took part in the *Tara-Jambio Microplastic Mission* (2020-2023) was held in Awashima from 25 March to 30 April, curated by Katsuhiko Hibino, artist and president of the Tokyo University of the Arts. 11 artists took part in this exhibition. All the artworks were exhibited in the former Awashima primary school, belonging to the town of Mitoyo, with which Tara Ocean Japan collaborates to raise awareness of the importance of the Ocean and the development of the outer islands.



AWASHIMA · 3/25~4/30

Strengthening social media communication

Tara Ocean Japan's digital communication was strengthened, particularly on social networks. Added to this is the launch of the new Japanese Tara Ocean Foundation website in March 2023.

The total number of messages increased by 65% compared to 2023. The total number of followers also increased by 22%.

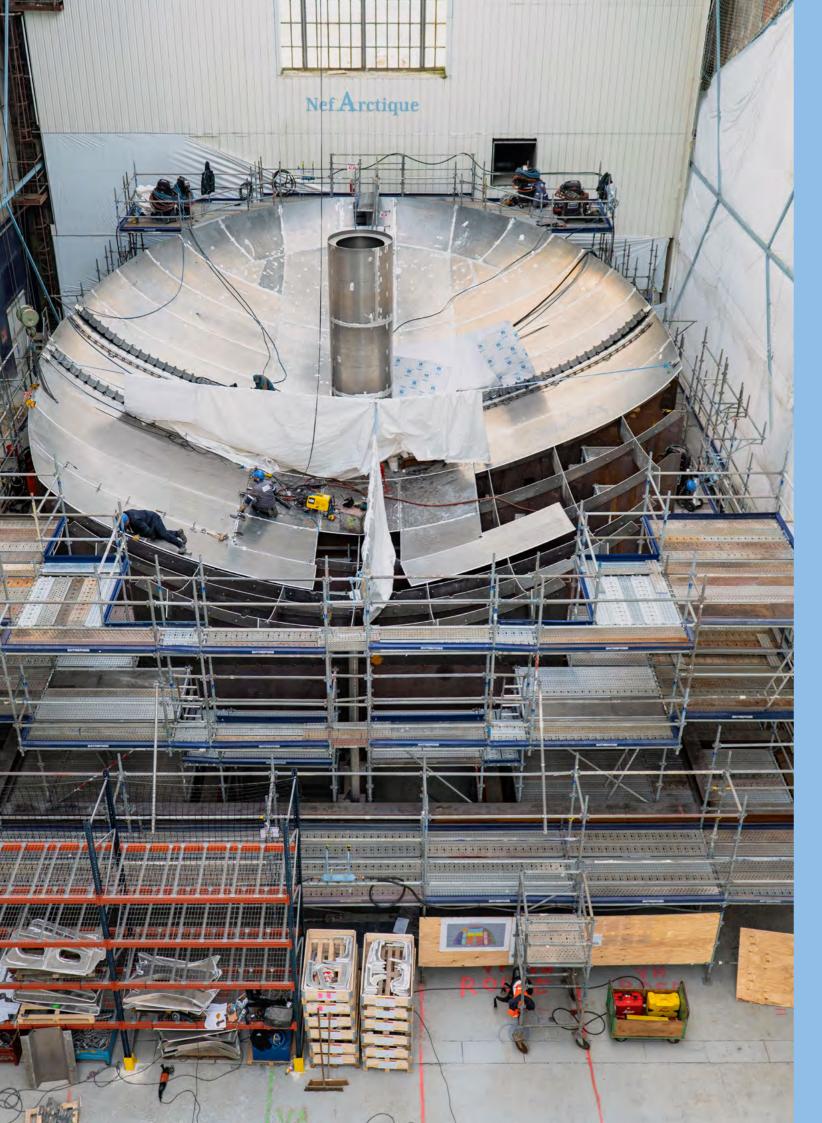
2,254

Followers on Instagram, X, Facebook, Youtube

416

Posts on Instagram, X, Facebook, Youtube





Our thanks to you: the partners and support of the foundation

Financial independence...

The Tara Ocean Foundation is financially independent and operates mainly thanks to the support of partner companies, some for a long time, and private donors in constantly increasing numbers.



...Thanks to companies and public institutions...

In 2023, the Foundation was able to count on the renewed support of co-founder Agnès Troublé, known as agnès b., as well as the loyalty of corporate sponsors such as BIC, L'Oréal and Biotherm, the Veolia Foundation and the as AXA and a number of new foundations.

In addition, public subsidies, both European and national - in particular from the French Global Environment Facility (FGEF) and new support from the Agence Française du Développement (AFD), and at regional level, with the Brittany Region and Lorient Agglomération -, represent loyal sources of financial support essential to the longterm survival of certain salaried positions. This public support testifies to the legitimate recognition of the Tara Ocean Foundation as a leading institutional player in scientific mediation.

This year, *Tara*'s stopover in Lyon was a great opportunity for local funding, with the support of the Metropole Grand Lyon, the City of Lyon, the Compagnie Nationale du Rhône and the Agence de l'Eau RMC, among others.

...And the increasing number of individual donators...

We have strengthened our fundraising among individuals, with loyal major donors (committed directly, through their personal foundation or via their private bank), as well as with a strategy of appealing for donations at the time EDF Foundation. We were joined by new partners such of payment of the Impôt sur la Fortune Immobilière (IFI) tax in the spring and at the end of the year at the same time as the Impôt sur le Revenu (IR) tax. This way, «donor paths» have been created, accompanied by the implementation of a digital marketing strategy to appeal to the generosity of the public.

> In addition, the traditional «Gala for the Ocean» dinner held at the end of November brought together more than 150 people, major donors and corporate partners, with much-appreciated appearances by celebrities such as Thomas Pesquet and Oxmo Puccino, among others. This 20th anniversary gala held at the Bridge was a great suc-

> The strategy of multiplying channels of communication to appeal for donations is helping develop both the Foundation's overall reputation and the base of small and medium-sized donors essential for the sustainability of resources.





Mixed funding to support the foundation's development

This balance between private (companies, foundations essential support of Capgemini Engineering and Bureau and individuals), and public resources guarantee the foundation's independence, while supporting the growth of our activities.

Finally, the year 2023 saw the financial commitments for the construction of *Tara Polar Station*, project launched at the end of the year with the support of the Banque Publique d'Investissement (Bpifrance), BNP and the The Tara Ocean Foundation warmly thanks all our Veolia Fondation, as well as for the preparation of scien-Primat. As for sponsorship for this second vessel, the thing would be possible.

Veritas, among others, has enabled a significant reduction in certain costs.

After 20 years, the generosity of our donors is still strong. Thanks to their commitment the foundation can continue its activities in the years to come.

private and public partners who have renewed their tific drift programs with the Fondation Didier et Martine confidence in the foundation and without whom no-



Our partners speak out

3 questions to Christophe Benoist-Lucy, Founder of La Fabrique Générale

partnership with the Tara Ocean Foundation mean to you?

For me, the foundation represents three ideas. Firstly, commitment: a boat, then teams on land

and at sea, partners, and new projects like Tara Polar Station. In 20 years, a lot of different expertise has come together in the service of research.

Then there's the message: raising public, political and economic awareness is necessary, every day and everywhere. There is no more universal issue than the health of our planet.

Finally, proof that when a project is sincere, powerful, shared and unselfish, the results go beyond the reach of its stakeholders. It's a wonderful lesson that I believe should inspire the corporate world, which could do much more to fulfill its mission of responsible construction, particularly in terms of the meaning, nature and management of the wealth created.

2. How do you share this partnership with your vathis subject?

A few years ago I set up La Fabrique Générale, a corporate events venue in Paris. We're proud of what we've created, aligning our values with our actions, because we host more than 250 events a year with often more than 15,000 people for a day or an evening (sometimes more).

1. What does the I wanted to welcome the Tara Ocean Foundation as a way of promoting its work and raising public awareness of the quality and absolute necessity of its action.

> In practical terms, we exhibit models of the schooner and the Tara Polar Station, and also Tara books and products. We take advantage of the start of seminar days or after-work to tell this story to our clients and spread the message of action, particularly about donations. We also offer to round off our estimates, and give the extra sums to the foundation.

3. A special moment with the Tara Ocean Founda-

There's not just one, but many: the first time I heard about this project, incredulous and amazed. My first visit to the boat. Meeting the crew. Romain Troublé's impassioned speeches. The gala dinners where I saw solidarity and generosity in action. The exceptional Salgado exhibition at the Maison Européenne de la Photographie. The incredible commitment of the teams, particularly when we set up our partnership with La Fabrique Générale. And last but not least, when we manage to ignite a flame of awareness in our clients minds, who don't necessarily know Tara and who take away this essential message.

To guote the marvelous Amerindian legend of the hummingbird, our special moments with the Tara Ocean Foundation are each gesture, each commitment that we make to a cause that we admire and that is greater than our-

To support the Tara Ocean Foundation:

nttps://fondationtaraocean.org/nous-soutenin



MAJOR PARTNER

agnis b.

PREMIUM PARTNERS









MISSION PARTNERS





















MAJOR SCIENTIFIC PARTNERS













INSTITUTIONAL SUPPORTS

















CLUB PARTNERS



















OFFICIAL SUPPLIERS





















MEDIA PARTNER

franceinfo:

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o6. The Foundation's carbon footprint

Since 2021, the Tara Ocean Foundation has been collecting data in order to establish its first carbon footprint. This is an internal process, initially to find out the real footprint of the Foundation's activities, but also with the aim of involving the teams in a global reflection to put in place coherent actions.

The Tara Ocean Foundation wants to set an example and rise to the challenges of climate change.

The study covers the implementation of all direct and induced activities at each of the organization's sites, over a full year. In 2023, the Foundation emitted 477 tCO2e (tonnes of CO2 equivalent). Unsurprisingly, the main sources of emissions were the schooner's propulsion and the teams' journeys to and from the boat.

To calculate its carbon footprint, the Foundation uses Ademe's Bilan Carbone® calculation method, with ABC standards. For the first carbon assessment, the Foundation was assisted by Utopies agency. In subsequent years the assessment was carried out

internally with the help of an expert, Pierre Gliganic. In 2023, for year 1 of the *Tara Europa - TREC expedition* (2023-2024), the Foundation's total greenhouse gas (GHG) emissions were 477 tCO2e, i.e. -259 tCO2e compared with 2022, the end of the *Microbiomes Mission* (2020-2022). The main GHG emissions come from immobilization, the schooner's diesel consumption, and team travel during the expedition.

There are several reasons for this significant reduction in the carbon footprint between 2022 and 2023:

- Fewer miles traveled, so less diesel consumed;
- The use of HVO-100 for 53% of fuel bunkering resulted in a saving of -77 tCO2e;
- This was a European expedition, therefore less distant, with a real effort made to ensure that the teams traveled by train.

Following the initial assessments, the schooner's expeditions were planned with shorter average sailing times, to allow for greater flexibility and to prioritize sailing.

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The carbon footprint of the Foundation

GHG emissions

Categories of emissions	Numbers	Emission sources	Total (t CO2
1. Direct GHG emissions	1.1	Direct emissions from stationary combustion sources	6
	1.2	Direct emissions from mobile combustion sources	69
	1.3	Direct emissions from non-energy processes	0
	1.4	Direct fugitive emissions	0
	1.5	Emissions from biomass (soil and forests)	
	Sub-total		76
2. Indirect emissions	2.1	Indirect emissions from electricity consumption	1
associated with energy	2.2	Indirect emissions linked to the consumption of energy other	0
		than electricity	
	Sub-total		1
3. Indirect emissions	3.1	Inbound freight	0
associated with transport	3.2	Outbound freight	0
·	3.3	Commuting to work	2
	3.4	Transporting visitors and customers	0
	3.5	Business travel	47
	Sub-total		49
4. Indirect emissions	4.1	Purchases of goods	141
associated with products	4.2	Fixed assets	173
	4.3	Waste management	5
	4.4	Upstream leasing assets	0
	4.5	Purchases of services	33
	Sub-total		352
5. Indirect emissions	5.1	Use of products sold	0
associated with products	5.2	Downstream leasing assets	0
·	5.3	End of life of products sold	0
	5.4	Investments	0
	Sub-total		0
6. Other indirect emissions	6.1	Other indirect emissions	0
	Sub-total		0
	TOTAL		477

Carbon Roadmap 2030 with the action plan drawn up in May 2023



- Operation of the schooner Tara and associated Foundation activities
- Construction of *Tara Polar Station* amortized over 50 years

 Operation of the *Tara Polar Station* and associated foundation activities

 *tCO2e: tonnes équivalent CO



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Our governance

Foundation objectives

The purpose of the Tara Ocean Foundation is to finance, alone or in partnership, French scientific research on the impact of global warming and climate change on ecosystems, to raise public awareness of environmental issues and to disseminate the data and results of this scientific research for educational purposes.

The means of action of the Tara Ocean Foundation are:

- Organization of scientific expeditions, in particular aboard the schooner *Tara*;
- Co-production of films, and organization of cultural and educational events during the expeditions organized by the Foundation, and dissemination of the results and/or the issues raised by these expeditions.
- The organization of exhibitions, conferences, events, television broadcasts, network broadcasts, as well as the publication, reproduction and editing in all forms and by all processes known or to be discovered, on the expeditions organized by the Foundation and their results and/or the issues raised by these expeditions.
- The payment of grants and financial aid to researchers or research teams on the impact of global warming and global changes on ecosystems and, more generally, any action contributing to the promotion of the Foundation's aims.

Administration and operation

The Tara Ocean Foundation is administered by a 9-member Board of Directors, made up of 3 colleges:

3 Founding members, of which two are life members: Agnès Troublé, (aka agnès b.) Étienne Bourgois, and the Endowment Fund Agnès Troublé, (aka agnès b.) represented by a person mandated by the legal entity;

4 members from the College of Qualified Personalities, comprising people chosen for their expertise in the Foundation's areas of activity. They are co-opted by the other members of the Board of Directors.

2 members from the Friends of the Foundation, people appointed by the association «Amis de Tara». Membership of the Board of Directors of the association «Les Amis de Tara» is incompatible with membership of the Board of Directors of the foundation, in a college other than that of the «Amis de Tara».

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A Government Commissioner, appointed by the Ministry of the Interior, attends meetings in an advisory capacity and ensures that the foundation's status is respected and that the activities of the Tara Ocean Foundation participates to the public interest.

Composition of the Board of Directors

College of founding members

Étienne Bourgois, Managing Director of agnès b., Chairman of the Tara Ocean Foundation

Agnès Troublé (aka agnès b.), Designer / Company Director

Nathalie Kistler, Company Secretary, appointed by the «Agnès Troublé, aka agnès b.» Endowment Fund and Treasurer of the Tara Ocean Foundation

College of qualified persons

Éric Karsenti, Emeritus Research Director at the CNRS and former Associate Research Director at the EMBL

Gérard Bonhoure, Honorary General Inspector of National Education

Françoise Gaill, Emeritus Research Director at the CNRS

Fabien Vatinel, Expert in heritage engineering

Friends of the Foundation

Sylvie Duboué, President of the Association les Amis de Tara and member of the Board of the Tara Ocean Foundation

Christian de Marliave, Publisher, polar specialist

Government Commissioner

Thierry Boisseaux, representative of the Ministry of Ecological Transition and Territorial Cohesion

Managing Director

Romain Troublé, as Managing Director of the Tara Ocean Foundation, oversees the foundation's services and ensures its operation. He has the necessary powers to carry out his mission by delegation from the Chairman and the Treasurer. He attends meetings of the Board of Directors and the Executive Committee in an advisory capacity.

General Secretary

Sébastien Ruiz, as Secretary General of the Tara Ocean Foundation, supervises the land team, administers the structure and its general services, and supports the development and deployment of the foundation's social missions in support of the Managing Director. He has the necessary powers to carry out his mission by sub-delegation from the Chairman and the Treasurer. He attends meetings of the Board of Directors and the Executive Committee in an advisory capacity.

Duties of the Board of Directors

Through its deliberations, the Board of Directors regulates the affairs of the foundation.

In particular, the Board of directors:

- decides on the foundation's program of action:
- adopts the report presented annually by the Executive Committee on the foundation's moral and financial situation;
- •votes, on proposal from the Executive Committee, on the budget and any amendments thereto, as well as on staffing forecasts;
- receives, discusses and approves the accounts for the financial year just ended, which are presented to it by the Treasurer with supporting documents;
- adopts the rules of procedure on proposal from the Executive Committee;
- accepts donations and bequests and allocates the proceeds and authorizes, apart from day-to-day management, acquisitions and disposals of movable and immovable property, contracts, leases and rental agreements, the creation of mortgages and loans as well as deposits and guarantees granted in the name of the Foundation;
- appoints one or more statutory auditors from the list referred to in article L. 822-1 of the French Commercial Code;
- sets the conditions for the recruitment and remuneration of staff;
- is kept informed by the Chairman of any draft agreement committing the foundation and deliberates on agreements falling within the scope of article L. 612-5 of the Commercial Code; in this case, it decides without the interested party being present.



The Tara Ocean Foundation is supported by two committees: a scientific committee and an educational advisory committee.

The scientific committee

Chris Bowler, CNRS Research Director and since 2010 head of the Environmental and Evolutionary Genomics Section at the Institut de Biologie de l'École normale supérieure (IBENS, CNRS/ENS)

Éric Karsenti, Emeritus Research Director at the CNRS and former Associate Research Director at the EMBL Françoise Gaill, Director of Research at the CNRS

Gaby Gorsky, Oceanographer

Patrick Wincker, Director of the Genoscope - National Sequencing Centre

Colomban de Vargas, CNRS Research Director at the Roscoff Biological Station

Serge Planes, Scientific Director of the *Tara Pacific* expedition. Serge Planes is CNRS Research Director at the Centre de recherche insulaire et observatoire de l'environnement (CNRS/EPHE/UPVD)

Educational Advisory Committee

Geneviève Baret, UNESCO Associated School
Gérard Bonhoure, Honorary General Inspector of National Education
Florence Clément, ADEME
Monique Dupuis, Honorary General Inspector of Education
Sabine Lavorel, French Institute of Education
Françoise Ribola, Académie de Versailles
Gabrielle Zimmermann, La Main à la Pâte Foundation

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Explore

Scientific Expeditions Team

Planning and coordinating scientific programs; leading expeditions

Team Manager Clémentine Moulin Technical Director /
Armament
Loïc Vallette

Logistics Team
Aliénor Bourdais
Alix Abautret

Technical Advisor

Jean Collet

Oceanographer Thomas Linkowski Volunteer Doctor
Thierry Mansir

Crew

Navigating and collaborating with scientists to carry out protocols

Captains
Samuel Audrain
Martin Hertau
Léo Boulon

Deck Officer François Aurat Cooks
Sophie Bin
Carole Pire

Boscos

David Monmarché

Mathieu Oriot

Chief engineers

Dave Picaud,

Laurent Rogniaux

Pôle Administratif et financier

Gérer durablement les ressources de la fondation

Administrative and Financial Manager **Anne Ghuysen**

Administrative Assistant Marie-Sophie Bienfait Accountant Caroline Vergiat

Development Team

Fund raising for the foundation's activities

Head of development **Véronique Vezin**

In charge of Philanthropy

Jonathan Achard

In charge of Partnerships
Pierre Mienville

Management

Team coordination, Foundation actions strategy guidance

Chairman **Étienne Bourgois**

General Manager Romain Troublé

General Secretary
Sébastien Ruiz

Share

Education Team

Making ocean science part of the school curriculum

Head of education Brigitte Sabard Education platform manager Pascaline Bourgain

Mission coordinator Plastics through a magnifying glass **Maëla le Picard**

Mission coordinators/teachers

Marine Cornuault,

Nolwenn Coïc

Advocacy Team

Creating a dialogue to engage policy and preserve life

Head of advocacy Romy Hentinger

Director of International Affairs André Abreu de Almeida Director of Public Affairs, Circular Economy Mission **Henri Bourgeois Costa**

In charge of Advocacy and International Cooperation Martin Alessandrini

Ocean Literacy Team

Writing a new collective narrative about the Ocean

Head of Ocean Literacy

Myriam Thomas

In charge of Cultural Action and Audience Development **Dalil Benhis-Folliot**

Mediation and Events
Project Manager
Thomas Larrat

BIOcean5D Mediation Project Manager
Anne-Marie Alleaume

Communications Team

Unite the general public and the media around the Foundation's mission and raise awareness of the major challenges facing the Ocean

Head of communication **Bérengère Roche**

Communications and Digital Marketing manager **Déborah Roussel** Communications Team
Camille Lextray
Eva-Salomé Romano

Graphic Designer Marine Prost

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OB. Our 2023 financial report

The financial statements for the year ended 31 December, 2023 and were approved by the Board of Directors on 26 June 2024. They have been certified without qualification by our auditors. They reflect the actions presented in this report in accordance with our corporate purpose.

Summary report

ASSETS	Net 2023	Net 2022
FIXED ASSETS	9 799 483 €	2 501 220 €
Concessions, patents, licenses, trademarks	94 320 €	100 278 €
Plant, machinery and equipment	2 326 918 €	2 298 832 €
Assets under construction	7 352 062 €	77 609 €
Other financial assets	26 183 €	24 500 €
CURRENT ASSETS	8 221 349 €	3 623 844 €
Stocks		
Inventories and work in progress	120 709 €	73 605 €
Receivables		
Trade debtors and related accounts	96 128 €	107 565 €
Other receivables	4 556 117 €	1 722 804 €
Miscellaneous		
Marketable securities	1 300 000 €	300 000 €
Cash and cash equivalents	1 168 844 €	1 388 899 €
Prepaid expenses	979 550 €	30 970 €
TOTAL ASSETS	18 020 832 €	6 125 064 €

LIABILITIES	2023	2022	
SHAREHOLDERS' EQUITY	3 017 926 €	2 648 731 €	
Without right of withdrawal			
Statutory equity	1 750 000 €	1 750 000 €	
Additional equity	241 246 €	241 246 €	
Retained earnings	657 485 €	987 740 €	
Profit for the year	369 195 €	-330 255 €	
OTHER FUNDS	5 723 208 €	592 621 €	
Investment grants	5 723 208 €	592 621 €	
Dedicated funds and funds carried forward	4 737 206 €	1 464 861 €	
DEDICATED FUNDS	4 737 206 €	1 464 861 €	
LIABILITIES	4 542 491 €	1 418 851 €	
Payables to suppliers & related accounts	142 045 €	109 352 €	
Tax and social security debts	348 304 €	261 600 €	
Other payables	954 897 €	0 €	
Deferred income	3 097 246 €	1 047 900 €	
TOTAL LIABILITIES	18 020 832 €	6 125 064 €	

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Key figures



- 7.3 million euros of capital expenditure in progress for the construction of a second vessel, the *Tara Polar Station*, on which work started in Cherbourg in July 2023.
- •5.2 million euros paid by BPI France as part of the total France 2030 grant of 12.999.405 euros.
- 2.2 million euros to be received to finance scientific research programs (French Global Environment Facility, French Biodiversity Office, EMBL European Molecular Biology Laboratory, European BIO5D programmes, Atlanteco, Blueremedionics, BNP Foundation).



- 2.4 million euros to be received under multi-year agreements.
- 4.7 million euros in dedicated funds to be allocated to programs run by the Tara
 Ocean Foundation over the

next few years. The projects concerned are: the European projects Atlanteco for €53,336, Blueremediomics for €233,110 and Biocean5D for €263,759, as well as the *Tara Polar Station* program for €2,421,959 including €2,091,522 for construction, the FFEM project for €1,765,042 including co-financing from the OFB.

Available cash at the end of 2023 was €2.5 million.

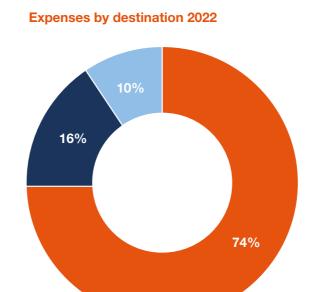
The year ended with a financing surplus of €369,195.

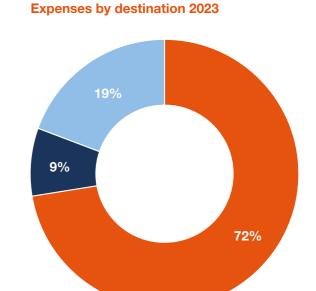
Income statement by origin and destination

REVENUE BY ORIGIN	Financial year 2023		Financial year 2022	
	TOTAL	Public generosity	TOTAL	Public generosity
INCOME FROM PUBLIC GENEROSITY	3 432 532 €	3 432 532 €	2 575 454 €	2 575 454 €
Donations, legacies and sponsorship	3 026 567 €	3 026 567 €	2 349 750 €	2 349 750 €
Other income from public generosity	405 965 €	405 965 €	225 704 €	225 704 €
INCOME NOT RELATED TO PUBLIC GENEROSITY	2 202 717 €	- €	1 517 675 €	- €
Corporate sponsorship	252 298 €	- €	207 308 €	
Unrequited financial contributions	1 686 416 €	- €	1 090 800 €	
Other income not related to public generosity	264 003 €	- €	219 567 €	
GRANTS AND OTHER ASSISTANCE	3 099 943 €		1 001 142 €	
REVERSAL OF PROVISIONS AND IMPAIRMENT				
REVERSAL OF PROVISIONS AND IMPAIRMENT	266 337 €		450 454 €	156 070 €
TOTAL	9 001 529 €	3 432 532 €	5 544 725 €	2 731 524 €

EXPENDITURE BY DESTINATION	Financial year 2023		Financial year 2022	
1 - SOCIAL MISSIONS CARRIED OUT IN FRANCE	TOTAL 3 648 961 €	Public generosity 1 333 256 €	TOTAL 3 198 759 €	Public generosity 2 100 808 €
Actions carried out by the organization	3 293 824 €	1 333 256 €	3 198 759 €	2 100 808 €
Payments to an organization operating in France 2 - FUNDRAISING EXPENSES 3 - RUNNING COSTS 4 - PROVISIONS AND DEPRECIATION	355 137 € 424 250 € 972 357 €	- € 90 678 € 181 355 €	- € 413 817 € 682 644 €	- € 115 762 € 231 232 €
5 - INCOME TAX 6 - REPORT OR DEDICATED FUNDS	48 084 € 3 538 682 €	1 618 978 €	40 415 € 1 539 344 €	800 000 €
TOTAL	8 632 334 €	3 224 267 €	5 874 979 €	3 247 802 €
SURPLUS OR DEFICIT	369 195 €	208 266 €	-330 254 €	-516 278 €

How our resources are used



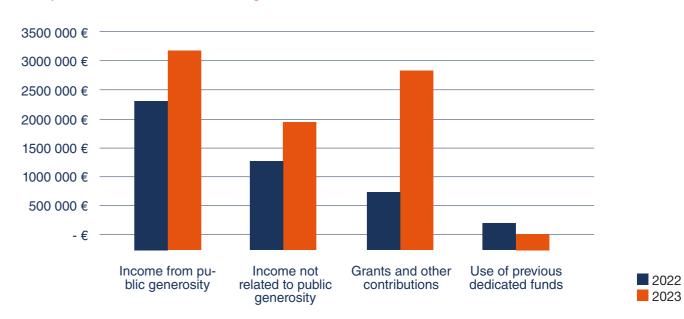


Social missions carried out in France
Fundraising costs
Operating expenses

These charts do not include dedicated funds carried forward or corporation tax

Where our resources come from

Comparison of 2022 and 2023 funding



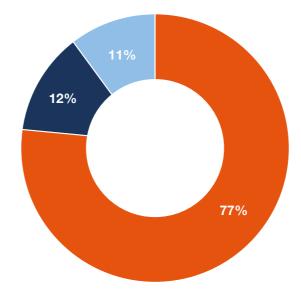
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Annual report on the use of resources collected from the public

EMPLOIS PAR DESTINATION	2023	2022
Jobs for the year		
SOCIAL MISSIONS Activities carried out by the organization in France	1 333 256 €	2 100 808 €
FUNDRAISING COSTS Costs of appealing to the generosity of the public	90 678 €	115 762 €
OPERATING COSTS	181 355 €	231 232 €
TOTAL EXPENSES	1 605 289 €	2 447 802 €
Depreciation, amortization and impairment Dedicated funds carried forward from previous year	1 618 978 €	800 000 €
SURPLUS FROM PUBLIC GENEROSITY FOR THE YEAR	208 266 €	000 000 0
TOTAL	3 432 532 €	3 247 802 €
VOLUNTARY CONTRIBUTIONS IN KIND		
Uses for the year		
Voluntary contributions to social missions in France	309 917 €	338 547 €
carried out abroad		
TOTAL	309 917 €	338 547 €

RESOURCES BY ORIGIN	2023	2022
Resources for the year Resources from public generosity Donations, legacies and sponsorships Manual donations Patronage	3 026 568 € 479 272 € 2 547 296 €	2 349 750 € 481 625 € 1 868 125 €
Other resources from public generosity TOTAL RESOURCES	405 965 € 3 432 533 €	225 704 € 2 575 454 €
Reversal of provisions and impairment Utilisations de fonds dédiés antérieurs PUBLIC GENEROSITY DEFICIT FOR THE YEAR		156 070 € 516 278 €
TOTAL	3 432 533 €	3 247 802 €
«RESOURCES CARRIED FORWARD LINKED TO PUBLIC GENEROSITY AT THE BEGINNING OF THE FINANCIAL YEAR» «Surplus or shortfall from public generosity	107 868 €	624 147 €
Net investments or divestments linked to public generosity Net investment and disinvestment linked	208 266 €	-516 278 €
to the generosity «RESOURCES CARRIED FORWARD LINKED TO THE GENEROSITY	-16 830 €	
FROM THE PUBLIC AT THE END OF THE YEAR	299 303 €	107 868 €
VOLUNTARY CONTRIBUTIONS IN KIND		
Resources for the year Voluntary contributions from the generosity of the public Voluntary work Services in kind Donations in kind Total	13 483 € 9 156 € 287 278 € 309 917 €	25 062 € 1 121 € 312 364 € 338 547 €

Resources from public generosity by origin -2023

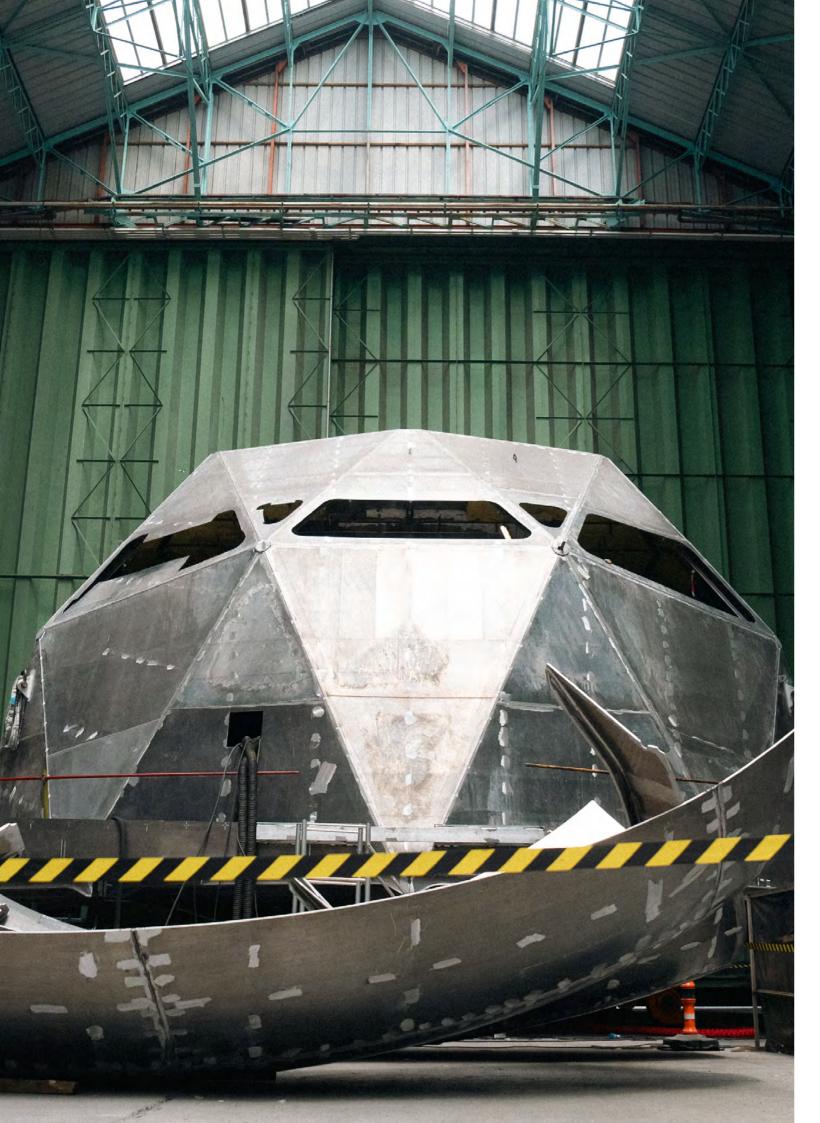




- 77% donations, legacies and sponsorship (companies, major donors and family foundations)
 12% donations from fundraising campaigns
 11% other resources from public generosity



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09. Outlook

2023 was the year of our 20th birthday, 2023 and particularly eventful for the Foundation. Besides the miles covered, we saw once again that the driving force behind our commitment lies in the collective strength and many collaborations that make this human and scientific adventure possible. The year ended with the *Tara* schooner making a prolonged stopover in Lyon, ancient capital of France, at the confluence of the Rhone & the Saone rivers. This stopover only strengthened our conviction: that we are all connected to the Ocean, even when we are geographically far from it.

After Lyon, the second year of the *Tara Europa - TREC* expedition (2023-2024) took us through the Strait of Gibraltar then along the shores of Europe's birthplace, the Mediterranean. The close collaboration with the EMBL teams, marine scientific stations and our many scientific partners will enable us in the years to come to reveal the immense biodiversity of our coastlines – a reflection of the richness that borders this sea, but also an alert to the chemical pollution weighing on coastal populations and ecosystems.

In parallel with this 13th expedition at sea, the mobilization of the Foundation's teams is continuing and will continue ashore in classrooms, museums, on the deck of Tara during stopovers, and in parliamentary chambers as political developments take shape. We will continue our efforts to secure the signature of the BBNJ treaty by urging the States Parties to ratify as soon as possible this text – essential for the health of the Ocean and an equitable sharing of marine resources. At UN meetings we will also continue to work towards strong commitments to prevent plastic and chemical pollution through an ambitious treaty on reducing the global

production of plastics, the only possible way to preserve the overall health of our planet and all living things. This is a matter of urgency. We must rise to the challenge.

On the Channel coast in Cherbourg, *Tara Polar Station*, the second vessel of the Foundation, is becoming a reality. The countdown of the Arctic ice pack melting and of global warming began a long time ago. Now it is speeding up. Alongside this new vessel project, a research program is being developed with the CNRS. Members of the scientific consortium will be responsible for defining the research areas and protocols deployed to help us better understand this very special, extreme ecosystem. The drifting *Tara Polar Station* will be completed in early 2025, and the first ice tests will take place in the following months.

Tara has always brought people together and continues to do so. One thing is certain: the schooner, soon to be joined by Tara Polar Station, will take us a long way, powered by the strength of our collective energy.

Together, let's defend life. Let's protect the Ocean.

Étienne Bourgois, Chairman Romain Troublé, Executive Director

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