

# tara

## international polar station

2020-2024



Fondation  
**tara océan**

CONFIDENTIAL PROJECT

# The future of arctic exploration & science



The Central Arctic remains one of the most unknown areas of our planet and is by far the most affected ecosystem from climate change: **65% of the summer sea ice thickness has been lost in central Arctic since the 70's.**

As mankind is on course to melt the summer Arctic sea ice within the next 20 to 30 years, we are proposing to develop and launch a scientific International Arctic station, Tara Polar Station. From 2022 to 2040 scientists in this longterm polar laboratory will witness the situation and study climate change, sea-ice evolution and pelagic ecosystems in the Central Arctic, over annual cycles.

Aligned with the UN Decade for Ocean Science for Sustainable Development 2021-2030, this project will benefit the entire scientific community and society.

**Take on this opportunity to become one of the six key partners of this endeavour with the Tara Foundation.**

# Tara polar station: the future of International climate research in the Arctic

Akin the International Space Station, the Tara Polar Station will become an international manned **station at the North Pole for the next 20 years**. The Tara Foundation is gathering international scientific teams aboard this station and is continuing its partnerships with universities around the world. The Tara Polar Station will offer scientists and media a permanent and unique access to the Arctic Ocean. It will be also one of the major voices of the Arctic for the coming decade.

*“At a time when climate issues are becoming increasingly urgent and the impact of climate change on polar region more and more obvious, the development of a long-term Arctic observatory proposed by the Tara Foundation is key to better understand the future of our planet. I am delighted that my Foundation and the Monaco Government through « explorations de Monaco » would be able to support this initiative.”*



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His Serene Highness Prince Albert II de Monaco



Tara in the ice in 2007. © François Bernard / Tara Ocean Foundation



## Expertise and know-how of the Tara Foundation

A century after the explorer Nansen, **the schooner Tara drifted in 2007 across the Arctic taking 507 days** as one of the greatest expeditions of the International Polar Year. This great scientific adventure at the heart of the climate machine, with the EU-funded DAMOCLES scientific program, from 2006 to 2008, shaped a unique expertise within the Tara Foundation teams.

Since 2009, the Tara Foundation and 40 public laboratories

designed and ran unique expeditions on ocean biodiversity ie *Tara Oceans* and *Tara Pacific*.

So far, **the discoveries have unveiled 150 million new genes and broadened our understanding and its mysterious ecosystems, fisheries among them.**

**Last but not least, the Tara Foundation enjoys the status of Special Observer to the United Nations in an attempt to bridge the gap between our societies and our Ocean.**

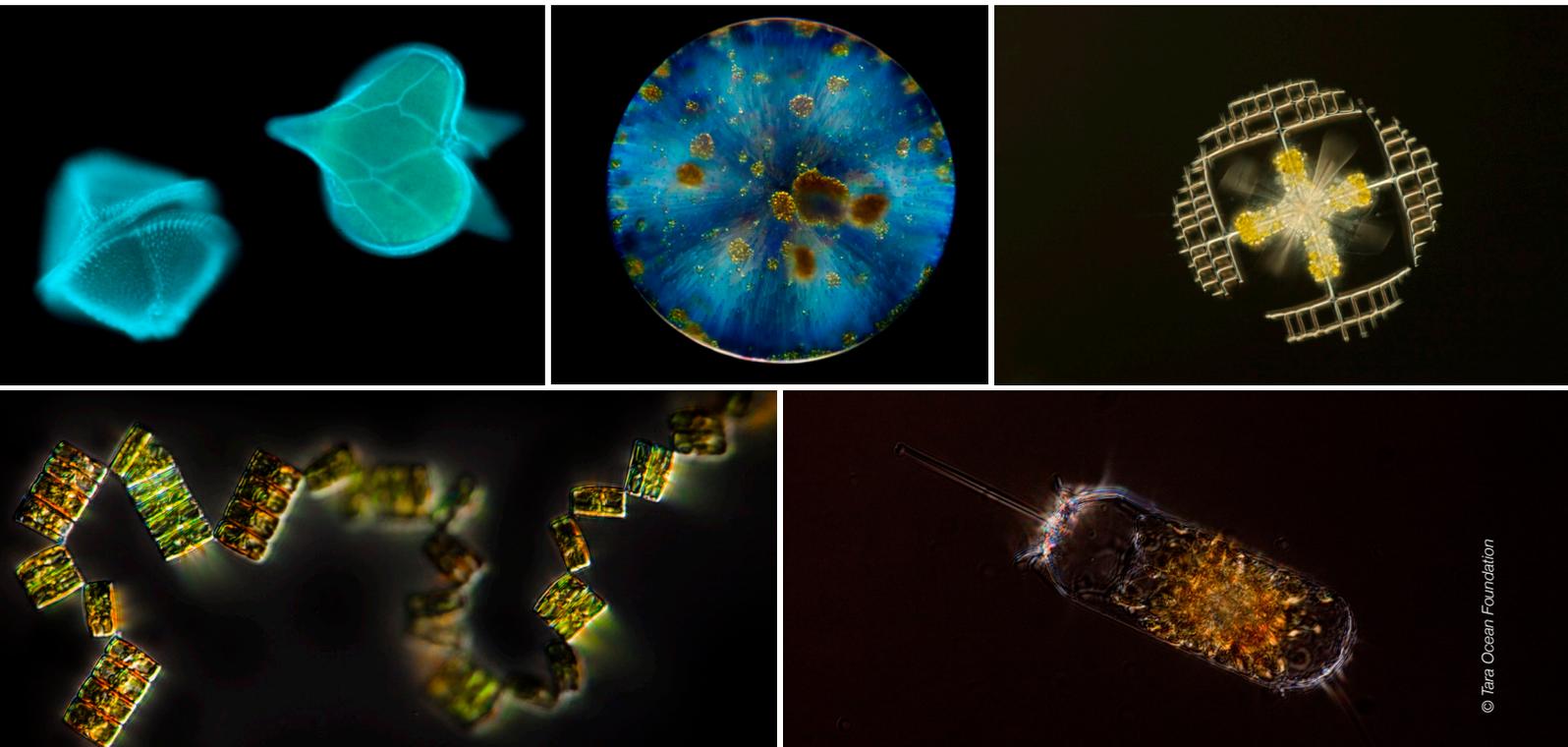
# Scientific objectives and approach

The level of our ignorance of the poles in general and the Arctic Ocean in particular is enormous, and yet this region is massively impacted by the past, actual and future global changes. Moreover, the access to the Arctic by scientists remains extremely difficult and therefore rare 9 months of the year, when compared to the Antarctic in the south.

This proposed vessel, adrift in the ice, will be both :  
— **an observatory** to monitor the Arctic atmosphere, snow, ice and ocean on the longterm and across seasons,  
— and **a laboratory** to explore in situ the hidden workings of the Arctic and its mysterious ecosystems.

Within the next decade, this beacon will witness the tremendous climate changes experienced by this unique ecosystem and raise awareness of what is being lost. We are at the dawn of an important loss of a unique marine biodiversity, even before we get to discover these life forms with probable high potential for mankind's health and innovation.

**This unique endeavour requires visionary sponsors, state-of-the-art technology, international experts and the courage of young engineers, scientists, sailors and explorers to take the challenge of the polar night lasting 7 months.**



© Tara Ocean Foundation



Architect : Olivier Petit

# Core Scientific Team

## Chris Bowler

co-director, biologist - PSL / CNRS, France

## Lee Karp Boss

co-director, oceanographer - University of Maine, USA

## Marcel Babin

co-director, arctic optics - Takuvik CNRS / Université Laval, Canada

## Colin Brownlee

cell biologist - MBA Plymouth, UK

## Colomban de Vargas

biologist - Tara Oceans Research Federation Director, CNRS/ Sorbonne, France

## Danièle Rod

oceanographer - Swiss Polar Institute, Switzerland

## Martin van Coppenolle

polar sea ice - CNRS / Sorbonne University, France

## Sergey Pisarev

arctic oceanographer - Shirshov Institute of Oceanology, Russian Federation

## Kathy Law

atmospheric processes - CNRS / Sorbonne University, France

## Soren Rysgaard

sea ice geochemist and ecologist - Aarhus University, Denmark

## Marie-Noelle Houssais

physical oceanographer - CNRS Sorbonne University, France

## Jody Deming

sea ice microbiologist and astrobiologist - University of Washington, USA

## François Fripiat

sea ice biogeochemist - Université Libre de Bruxelles, Belgique

## Georg Pohnert

metabolomics - MPI Jena, Germany

## Patrick Wincker

genomics - CEA Genoscope, France

## Eric Marechal

lipids specialist - CEA Grenoble, France

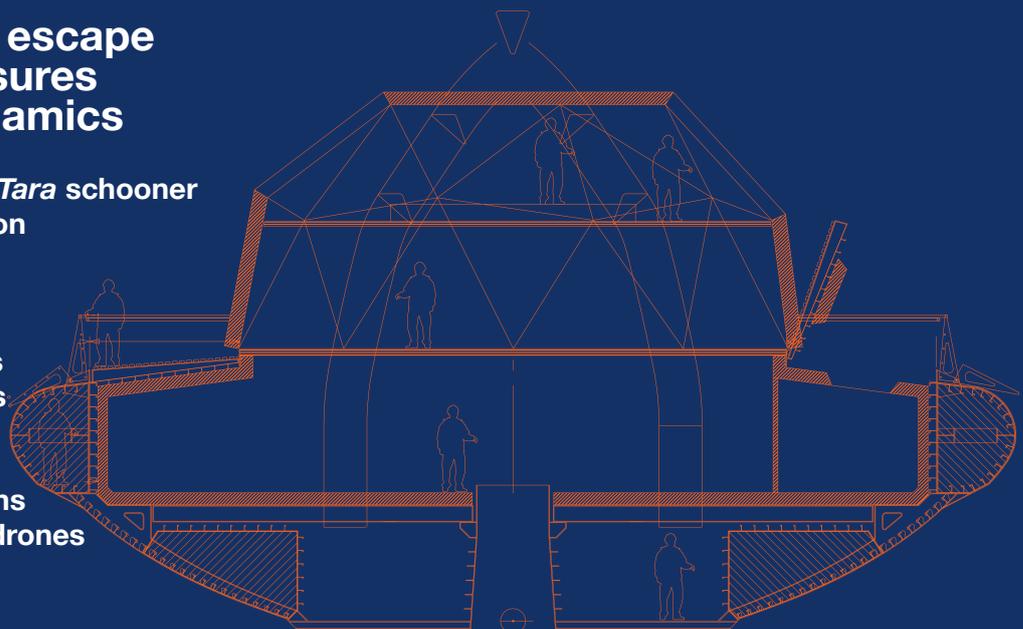
## Stéphane Pesant

biological oceanographer - MARUM Bremen, Germany

# tara polar station

This boat can escape the high pressures of sea ice dynamics

- Ice resistant alike *Tara* schooner
- Autonomous station
- 21<sub>m</sub> wide
- 6 labs
- 4 decks
- 12 crew members
- 4 x 200<sub>HP</sub> engines
- Generator, Solar and wind energy
- Broadband satcoms
- Underwater & air drones
- Moon pool
- High technology
- Architect: Olivier Petit



21m wide

# International events schedule and PR strategy

Tara Polar Station will benefit from worldwide media coverage and high level international exposure along the route.

## The Tara Polar Station on the road

### Mid. 2020

Building of the Polar Station

### Summer 2021

Splash of the Station

### Winter 2021-22

Technical tests in fast-ice in Northern Europe

### August 2022

Beginning of the Arctic drift

### April 2023

Spring camp in the North Pole area

### Early 2024

End of the drift

## International exposure

### Fall 2019 - Early 2020

Official international press launch of Tara Polar Station Program. The project is under press embargo until then.

### 2021

Beginning of United Nations Decade for Ocean Science (2021 - 2030)

- Dedicated events for partners during the whole project around the world, including the building
- Events with the Tara schooner at port calls during the project

### April 2023

Press & your guests on expedition to the Tara Station at the North Pole

### Summer 2023

- Icebreaker Cruise for partners to join the Station (NOT INCL.)
- Production of films sharing the Expedition worldwide

## Budget and funding strategy

The global budget over the first 5 years including the building, launch and the first expedition adrift in the Arctic Ocean from 2022 to 2024, is estimated to be **6M€/year with a total envelope of 30 M€ from 2020 to 2024.**

Proposed by the Tara Foundation, the Tara Polar Station program is an ambitious international initiative **open to six public and private partners at a level of 5M€ each.**

The Tara Foundation will bring its expertise in leading high level scientific missions in the Arctic and enhancing those missions through wide international exposure.

**Private** - The Tara Foundation is focusing on individuals and corporations worldwide to participate in this exciting project.

**Governments & affiliates** - The Foundation is already in contact with certain governments through their respective Polar Institutes and agencies to solicit scientific collaborations and financial contributions. **Governments involved in the co-funding will have their flags on the International Ice Station.**

**The ultimate goal is to get ready for the beginning of the UN Decade for Ocean Science 2021-2030. With the following drift in 2024-2026, etc... the program will remain active in the Arctic during the whole decade and beyond, offering the best available international science on climate and biodiversity as well as a strong message to spotlight the Decade and the situation in the Central Arctic.**

# Become one of the 6 key partners of this unique station at the North Pole

Financial support: **1 M€ per year over 5 years**

## Tailored benefits:

- Contribute to scientific discoveries that lead to a paradigm shift on the way we consider the planet
- Get international visibility on a climate-related commitment
- Get the opportunity to invite guests at the North Pole in 2023
- Organize live communications from the North Pole
- Have your logo on the Polar Station, the schooner *Tara* & on displays.
- Event opportunities B to B, B to A and B to C.
- Other tailor-made benefits to discuss

Tara Foundation is registered in three countries: in France, in USA - (501(c)(3) - and in Japan, and provides fiscal benefits in each of these countries.

*This project is led by the Tara Foundation, its Director Romain Troublé, its President Etienne Bourgois and Board of Directors and its Scientific Advisory Board. The Tara Foundation contributes with its experience and expertise in both Arctic logistics and global scale scientific Consortium management. It owns brands and operates the Tara Polar Station and the schooner Tara.*



With the support of:

Seed Partners:

**Dr Frederik Paulsen**  
**Prince Albert II of Monaco Foundation**  
**Explorations de Monaco**  
**agnès b.**  
**Fondation Veolia**

Industrial Partners :

**Altran, Bertin Technologies**  
**and Bureau Veritas.**

Special Advisors:

**Christian Contzen, Elie Znaty and Groupe Mazarin**

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