

2026

OCEANRY

WE EMPOWER THE
TINY MIGHTY
PLANKTON

THIS IS WHAT
WE ARE
SEEING.

Heating

Earth's energy imbalance more than doubled in two decades, reaching 1.8 W/m^2 in 2023.¹

Acidification

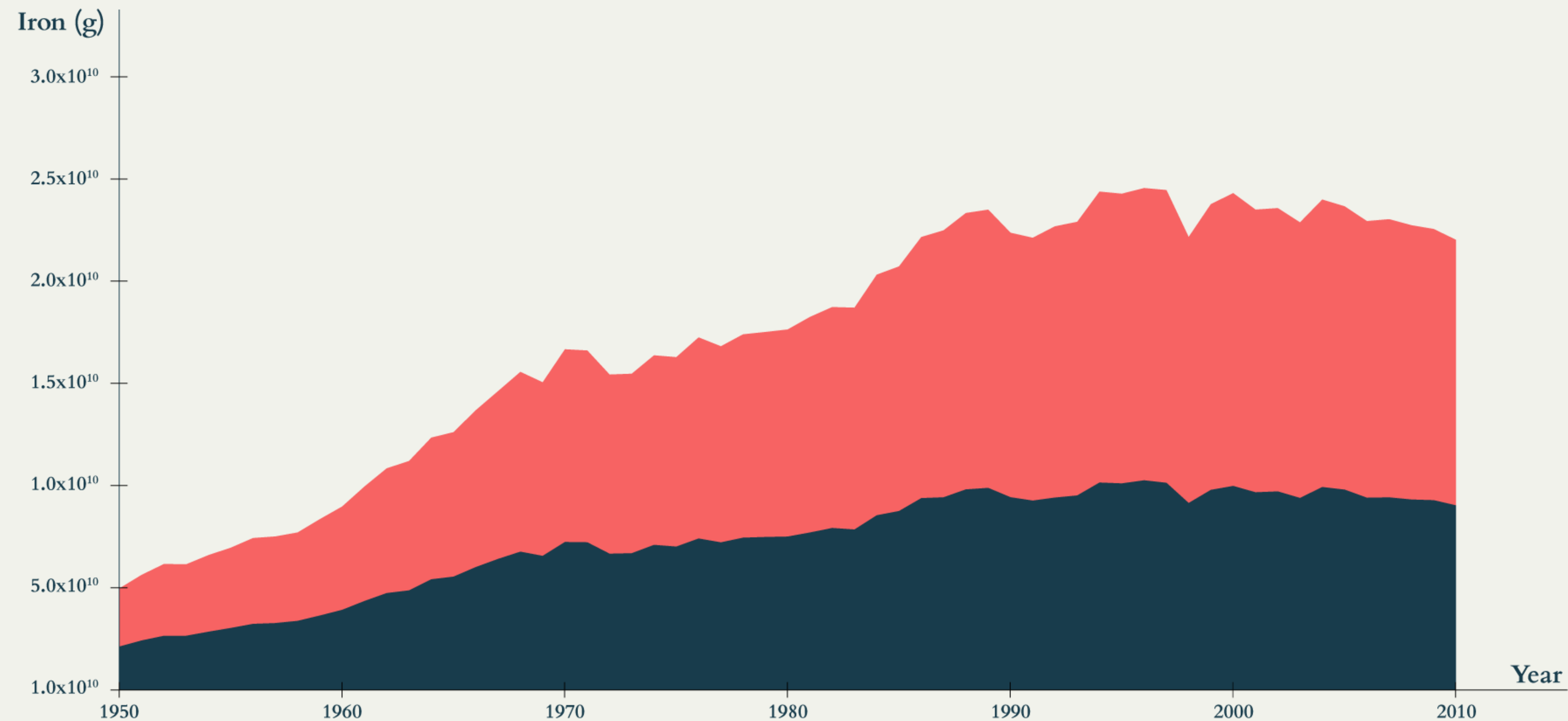
The ocean has absorbed about a quarter of human CO_2 emissions.²
Open ocean surface pH has fallen since the late 1980s.³

Declining marine life

Monitored marine vertebrate populations have declined by 56% on average since 1970.⁴
Satellite data show that net primary production has declined significantly across >40% of the ocean, driven by stronger nutrient limitation.⁵

THIS WHAT WE DON'T: WE ARE TAKING IRON OUT OF THE OCEAN FASTER THAN NATURE PUTS IT BACK.

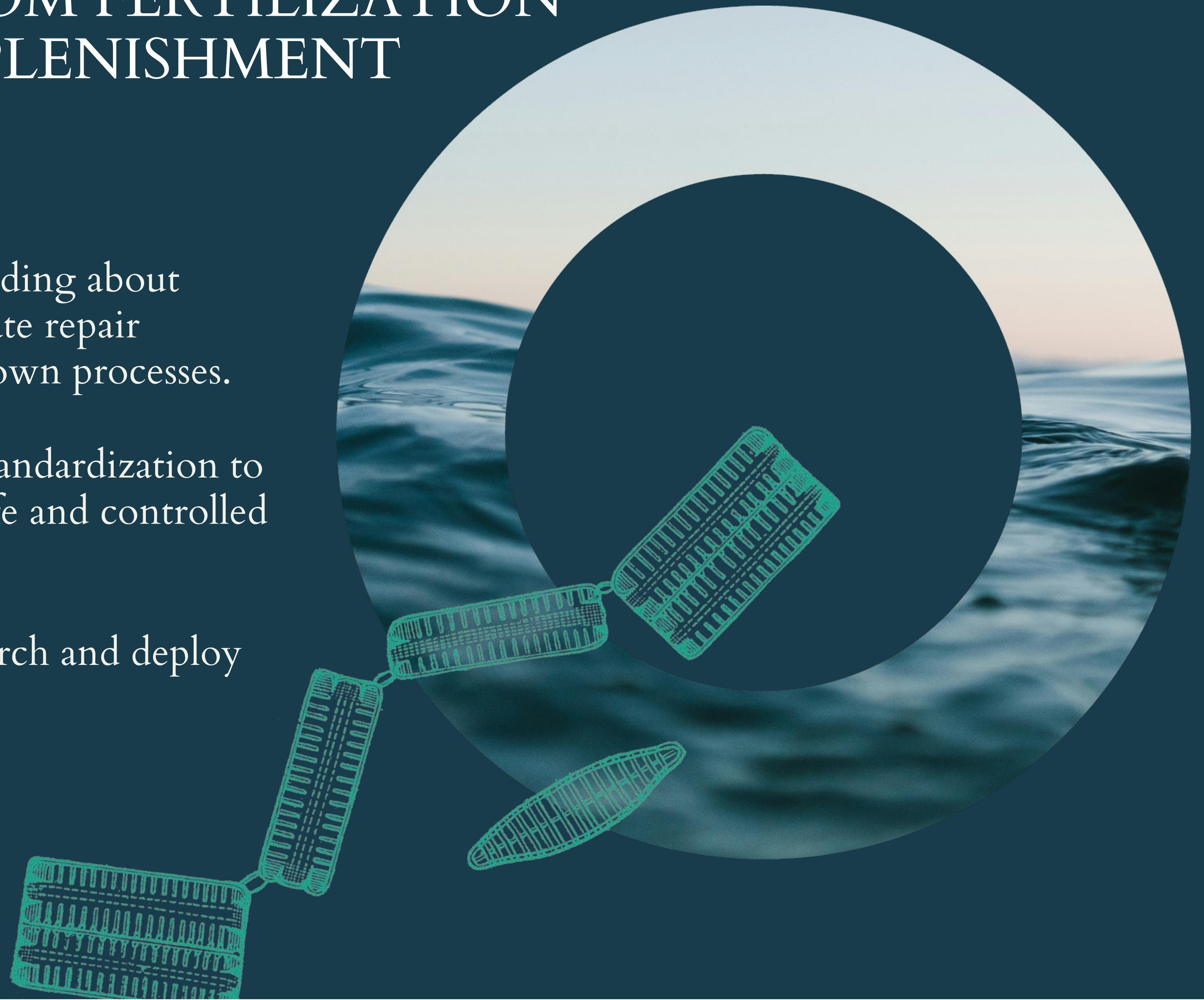
Commercial fishing removes up to 30,000 tonnes of iron from the ocean every year: the iron held in >70 million tonnes of fish and other marine species.



PARADIGM SHIFT FROM FERTILIZATION TO OCEAN IRON REPLENISHMENT

OCEANRY'S GOALS

1. **Increase awareness** and understanding about Ocean Iron Replenishment, a climate repair technique that biomimics nature's own processes.
2. **Develop global regulation** and standardization to conduct iron replenishment in a safe and controlled manner.
3. **Raising funding** to promote research and deploy first Proof-of-Concept.



MESOCOSM EXPERIMENT INCLUDING mCDR AND BIODIVERSITY RESEARCH ON THE NORTH ATLANTIC

FUNDING REQUIRED FOR

- Ship, crew and fuel
- Raw material
- Container tanks
- Engineering
- Functional testing
- Sampling and analysis
- Operators/technicians
- Project team and admin
- Consulting services
- Insurances
- Personal safety
- Travelling
- Scientific research team
- Media activities

Schedule:
April-June 2028

RESEARCH DISCIPLINES

Carbon sequestration

- CO₂ concentration net change in air and water
- Biomass net change in different ocean layers
- Scale
- Efficacy Fe:CO₂
- Permanence

Biodiversity restoration

- Number and concentration of different species
- Impact on food chains
- Harmful algal blooms
- Permanence

Aerosols

- Concentration net change
- SO₂, DMS, O₂, nitrous aerosols, hydrocarbons, particulate matter in the area

Ocean chemistry, physics and dynamics

- pH
- Temperature
- Nutrients

CONTAINERS FILLED WITH AMBIENT OCEAN WATER AT HIGH SEAS

1. 3 x FeSO₄ 100 µg/m³
2. 3 x FeSO₄ 50 µg/m³
3. 3 x FeSO₄ 200 µg/m³
4. 3 x Reference container and reference samples from surrounding sea

Laboratory container

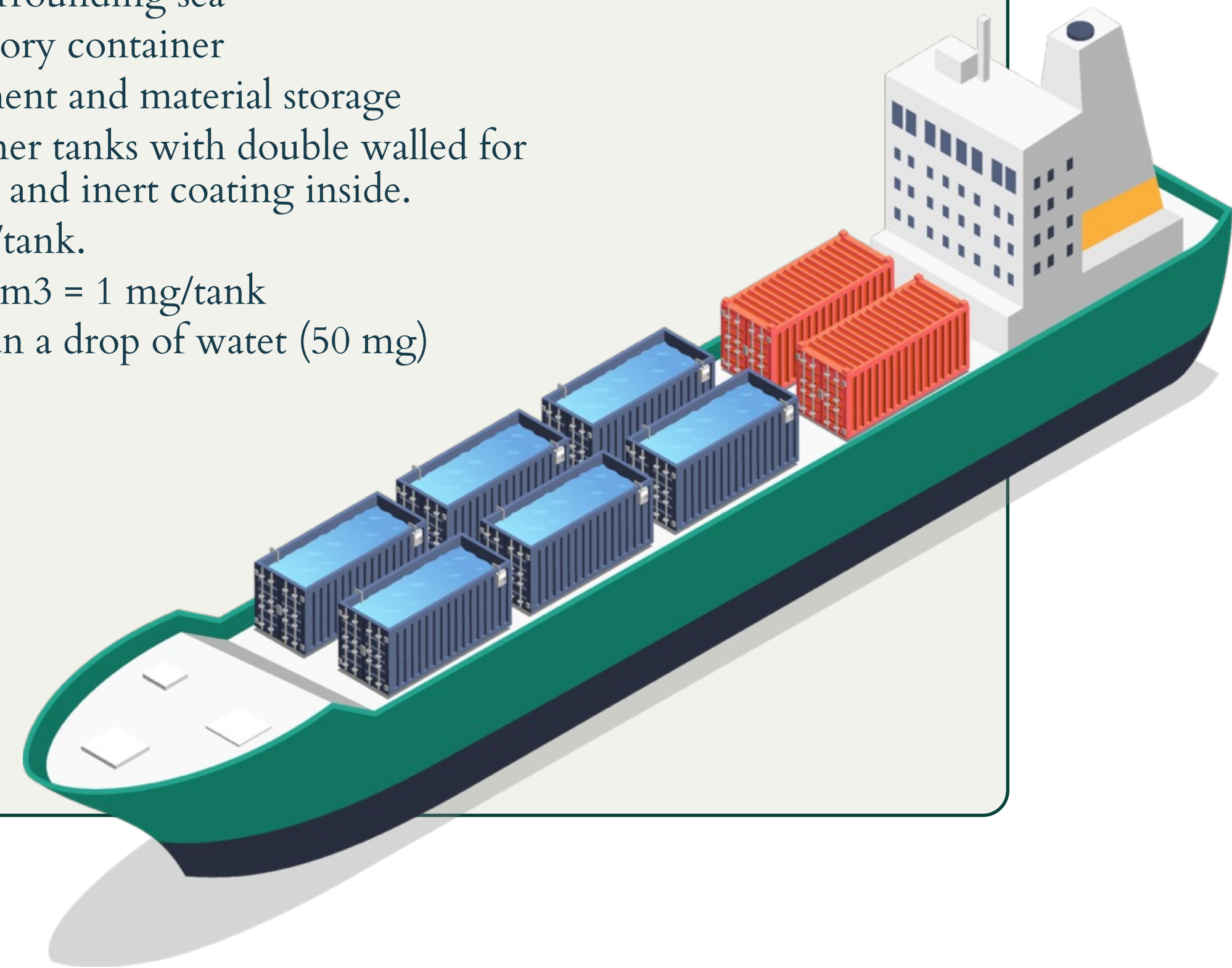
Equipment and material storage

Container tanks with double walled for cooling and inert coating inside.

~10 m³/tank.

100 µg/m³ = 1 mg/tank

Less than a drop of water (50 mg)



WE HAVE SUPPORT FROM A STRONG INTERNATIONAL ADVISORY BOARD

SCIENCE



Santiago Hernández León
Biological oceanographer, Institute of Oceanography and Global Change (IOCAG), University of Las Palmas de Gran Canaria.



Christine Klaas
Senior Scientist at the Alfred Wegener Institute. Plankton ecologist and co-author of the EIFEX deep carbon export study.



Kyle Mayers
Senior Researcher at NORCE, Norway. Studies trophic dynamics from viruses to zooplankton, using mesocosm experiments.



Kevin J Flynn
Plankton ecophysiologicalist and modeller, Plymouth Marine Laboratory, UK.



Arlene Haffa
Professor of Biology and Chemistry, California State University Monterey Bay. Has studied the effect of commercial fishing on the ocean iron cycle.



Pavla Dagsson-Waldhauserová
Agricultural University of Iceland. Studies how volcanic and mineral dust travels to the ocean and catalyses plankton photosynthesis.

GOVERNANCE, POLICY & SOCIAL LICENSE



Janos Pasztor
Hungarian/Swiss diplomat. Former Executive Director of C2G, former UN Assistant Secretary-General on Climate Change, former WWF Director.



Erik Solheim
Norwegian diplomat. Former Minister of the Environment, UN Under-Secretary-General and Executive Director of UN Environment Programme.



Karlijn Arts
Strong experience in green lobbying and regulation development.



Eliška Pechlátová
EU Young Energy Ambassador at CINEA and EU Climate Pact Ambassador.



Leena Joshi
Founder of Climate Conservancy, a non-profit with 9,000 volunteers in 60+ countries. Board and advisory roles including World Ocean Day.

OPERATIONS & BUSINESS LINKAGE



Sami Tornikoski
Expert in NGO work and sustainability, with a background from the UN and WWF.



Tero Taipale
Experienced in operations and scaling first of its kind solutions in high tech growth companies.



Erik Mansner
Climate strategist in the food and agriculture sector across 10+ countries. Over 10 years in food, plastics and petrochemicals.

Oceanry is the only known EU-based organisation working exclusively on Ocean Iron Replenishment.

Our advisory network covers marine biology, oceanography, aerosol science, engineering, chemistry, policy and communications, with researchers from the University of Helsinki, ULPGC (Canary Islands), AWI (Germany), NORCE (Norway) and Plymouth Marine Laboratory (UK).

WE HAVE A MULTIDISCIPLINED TEAM

CORE TEAM



Tomi Nyman
Co-Founder
Funding
MSc Tech

Ecopreneur and chemical engineer with a target to cut CO2 emissions by 1 Gt. Developer of Neste’s bioplastics, bio-chemicals and chemical recycling programs.



Maria Lahtinen
Co-Founder, Science Coordinator
PhD of Chemistry

Scientific expert with background in Sartar, Faron and Bayer.



Monika Pohjoispää
Sustainability & Compliance
PhD of Chemistry

Chemist working on sustainability, quality and regulatory compliance.



Melina Pinomaa
Co-Founder
Stakeholders & Communications
MSc Econ.

Broad experience in sustainability and growing climate technologies. Communications and sustainability background from the green building sector. Board Member at Foundation for Better Nature, a Finnish restoration and conservation foundation.



Janina Pykäri
Doctoral researcher in marine biology and blue carbon. Strong background in both marine ecology and physical oceanography



Anne Karumo
Marketing & International Relations
Master’s in Political Science

20+ years in international communications and marketing experience from EMEA, APAC and North America

VOLUNTEERS

Our core team is supported by volunteers, with backgrounds ranging from communications and law to engineering, chemistry and sustainability.



WHAT NEXT

PROOF-OF-CONCEPT IS OUR STARTING POINT TO VALIDATE THE METHOD

Plan includes immediate focus to launch the researched-focused PoC to validate the impacts.

