



UiT Norges arktiske universitet

An expedition in the Arctic Ocean to promote the Sustainable Development Goals

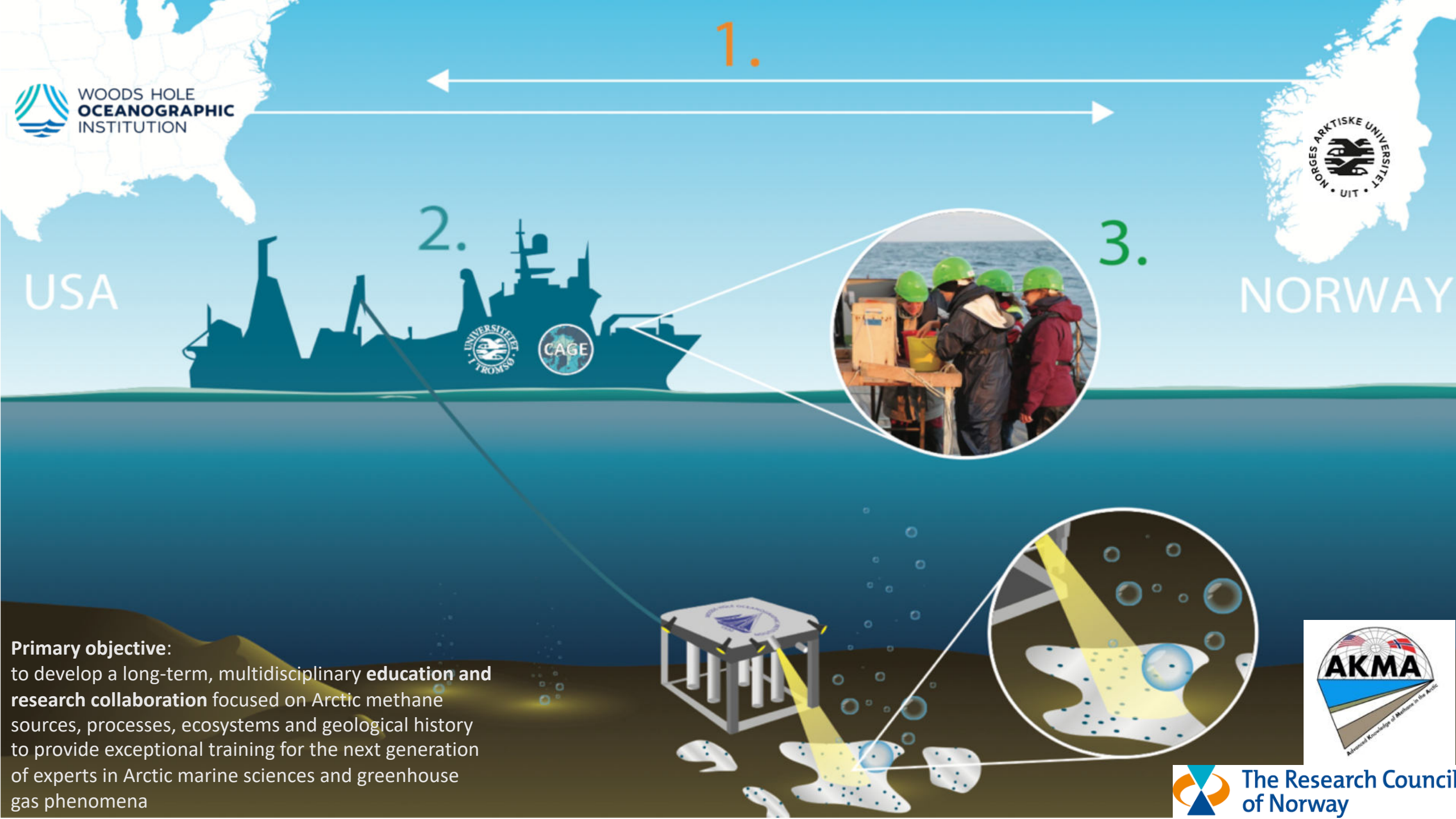
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UiT The Arctic University of Norway,
Tromsø,
Norway

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2021
2030

United Nations Decade
of Ocean Science
for Sustainable Development



1.

WOODS HOLE
OCEANOGRAPHIC
INSTITUTION

ARKTISKE UNIVERSITET
UIT

USA

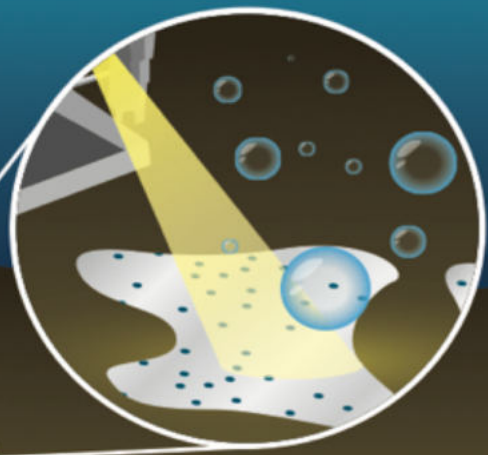
NORWAY

2.

3.

UNIVERSITET
TROMSØ

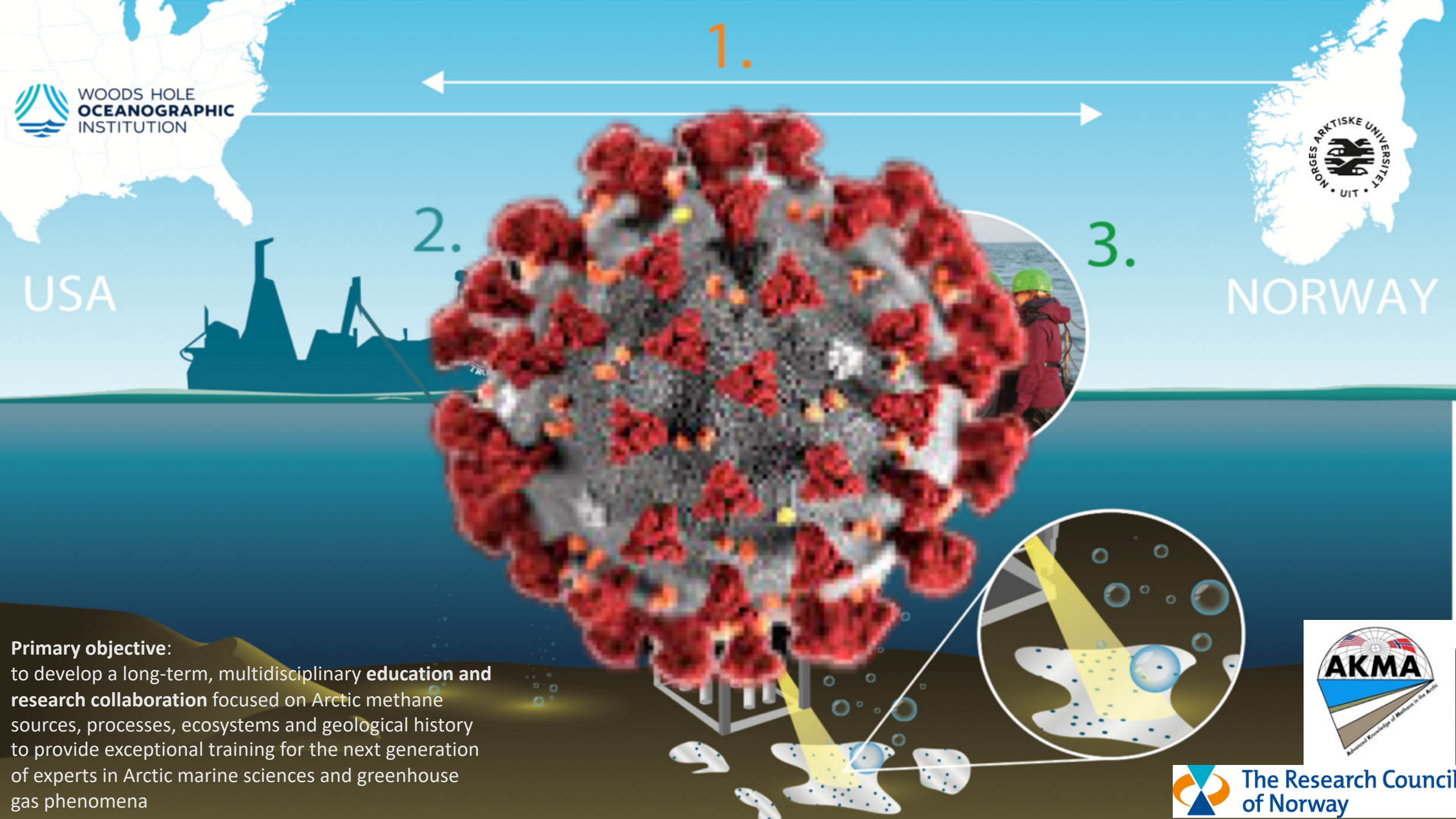
CAGE



Primary objective:
to develop a long-term, multidisciplinary **education and research collaboration** focused on Arctic methane sources, processes, ecosystems and geological history to provide exceptional training for the next generation of experts in Arctic marine sciences and greenhouse gas phenomena

AKMA
Advanced Knowledge of Methane in the Arctic

The Research Council
of Norway



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• UIT •

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AKMA
Advanced Knowledge of Methane in the Arctic

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of Norway



ENGAGE

INSPIRE

DEVELOP

THE AKMA VIRTUAL RESEARCH CRUISE

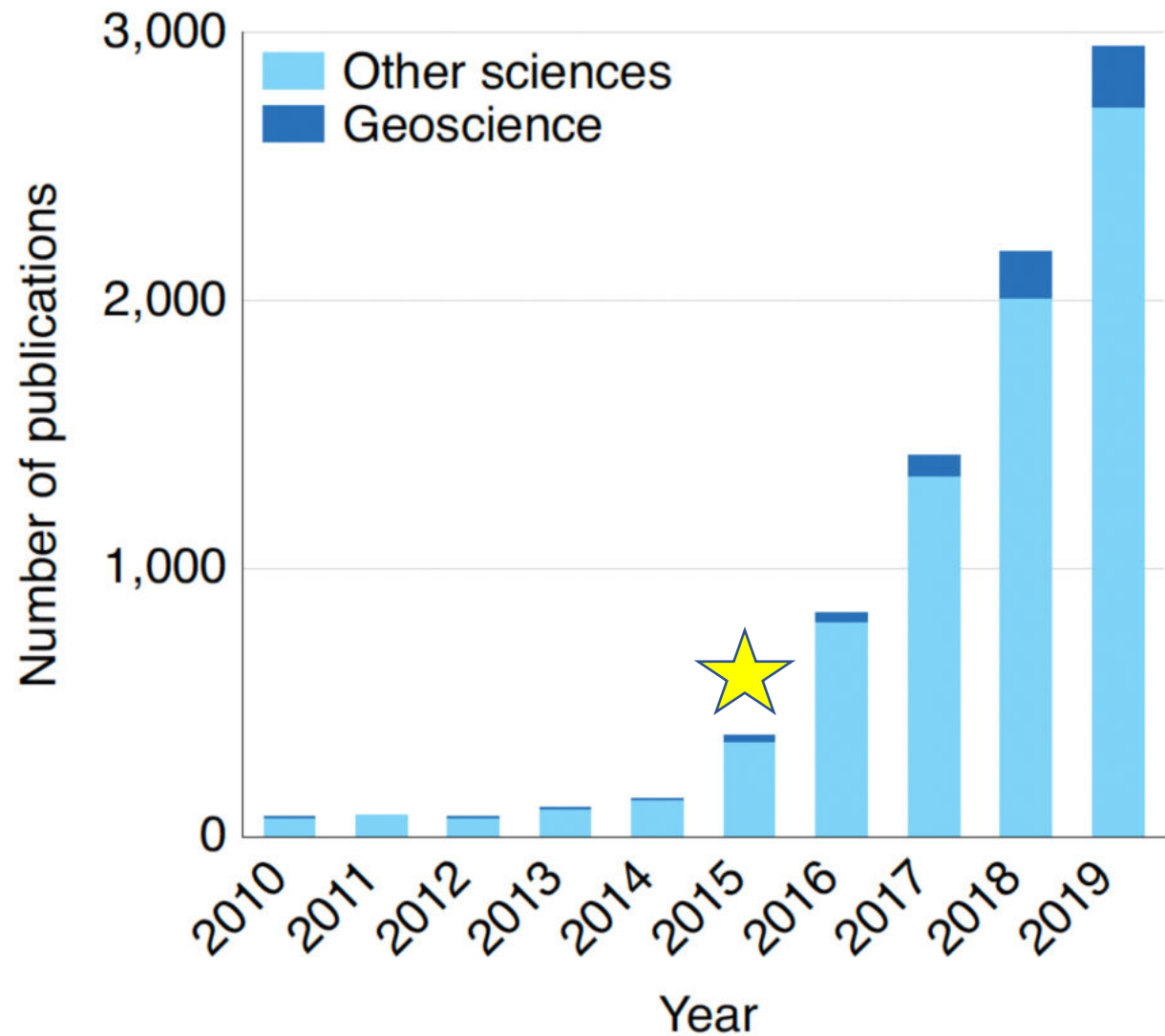
R/V KRONPRINS HAAKON Geoscience Virtual Cruise

Developed within the AKMA project



thinglink..

<https://akma-project.com/vr-cruise>



"....some indicators require better and more frequent data collection and dissemination...."

How the ocean use will change in the future?
Where are the knowledge gap?

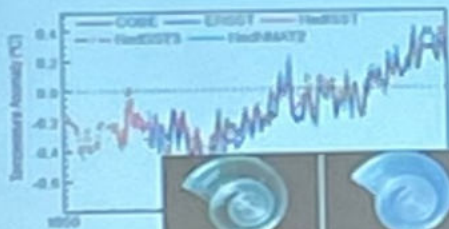


2021
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The ocean in the face of anthropogenic pressures



Climate change and
Ocean warming

Ocean Acidification

Eutrophication,
and hypoxic zones

Over-fishing

Pollution
(plastics, metals, ...)

THE OCEAN AND ITS ECOSYSTEMS, CLIMATE CHANGE AND THE SUSTAINABLE DEVELOPMENT GOALS

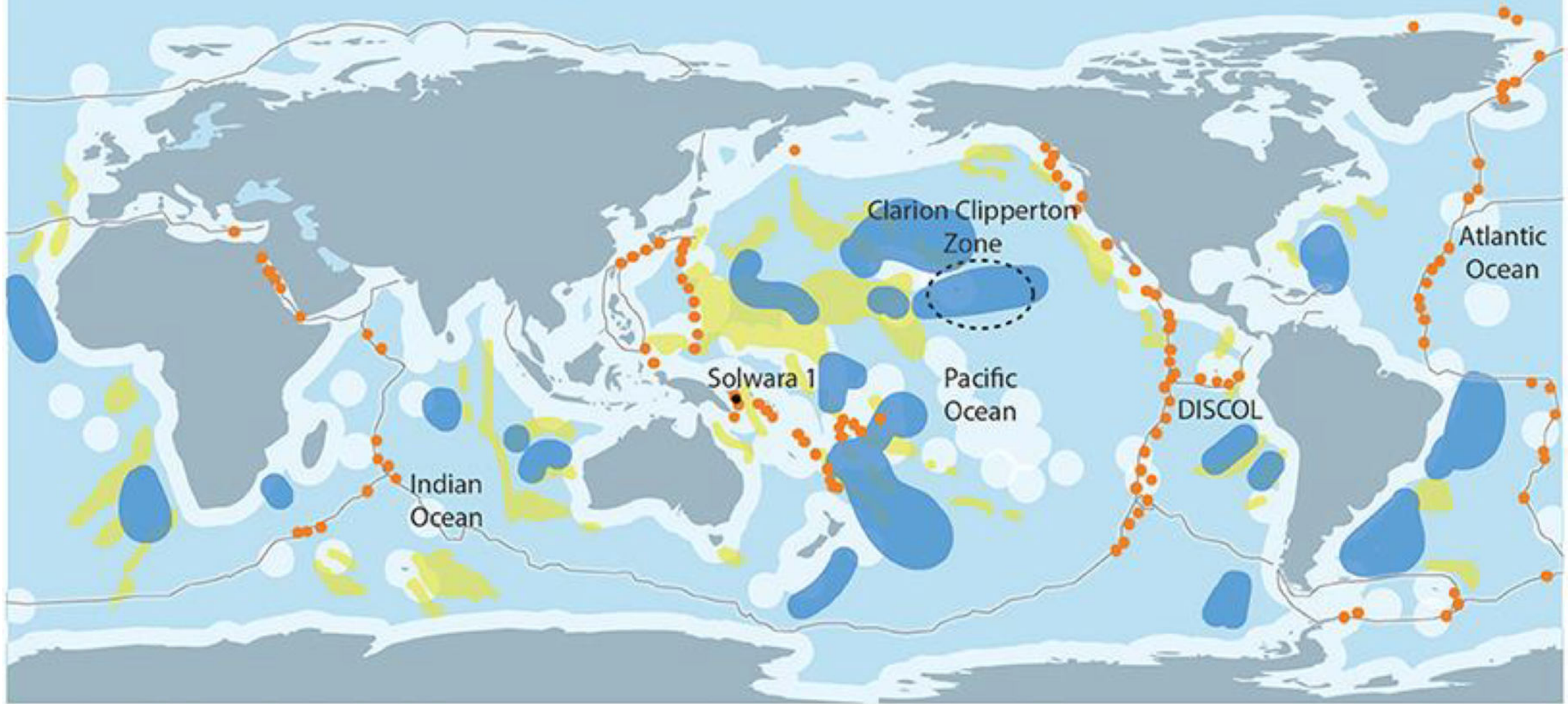
Laurent Bopp (Ecole normale supérieure)

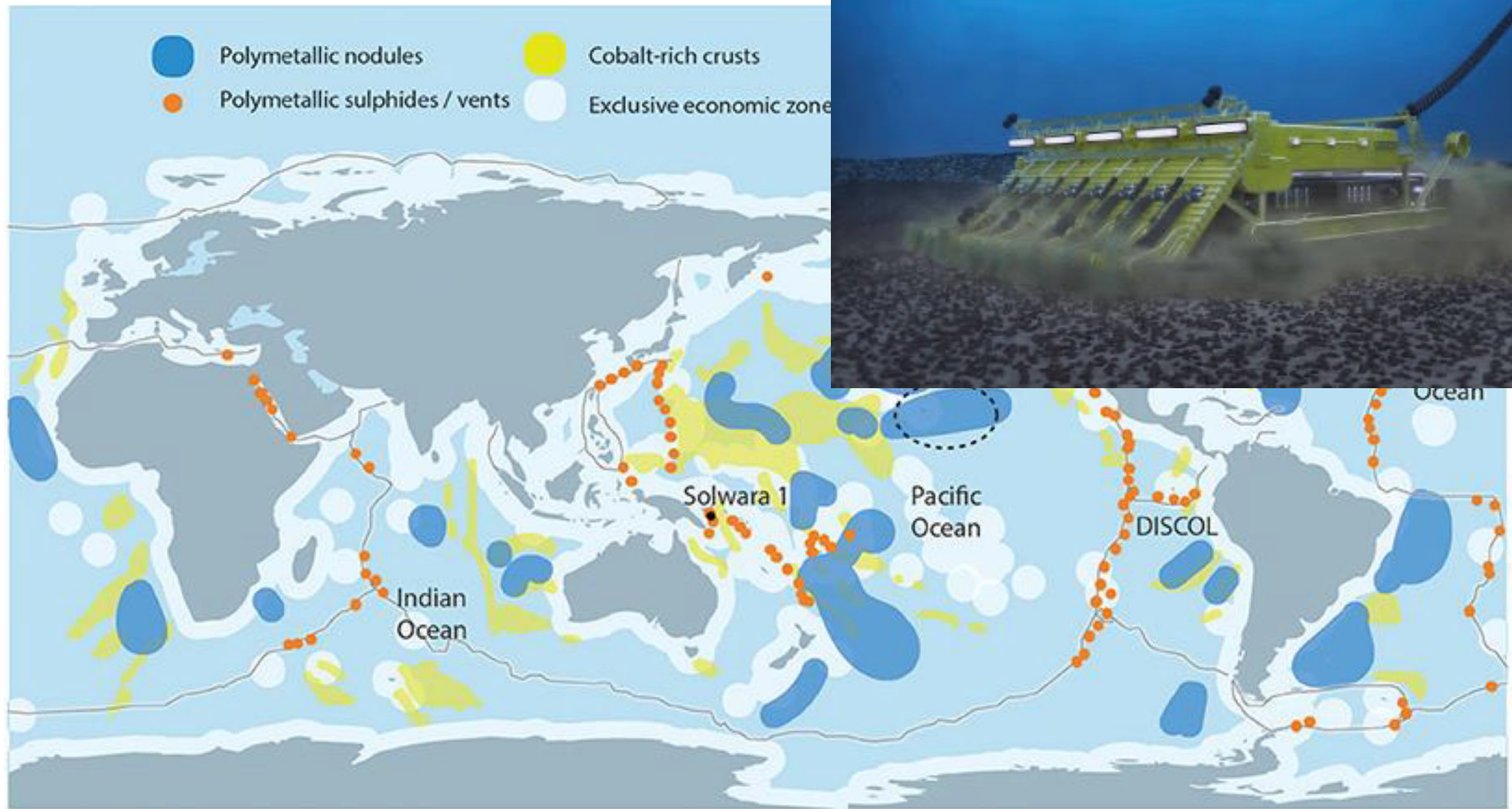
EGU General
Assembly 2023

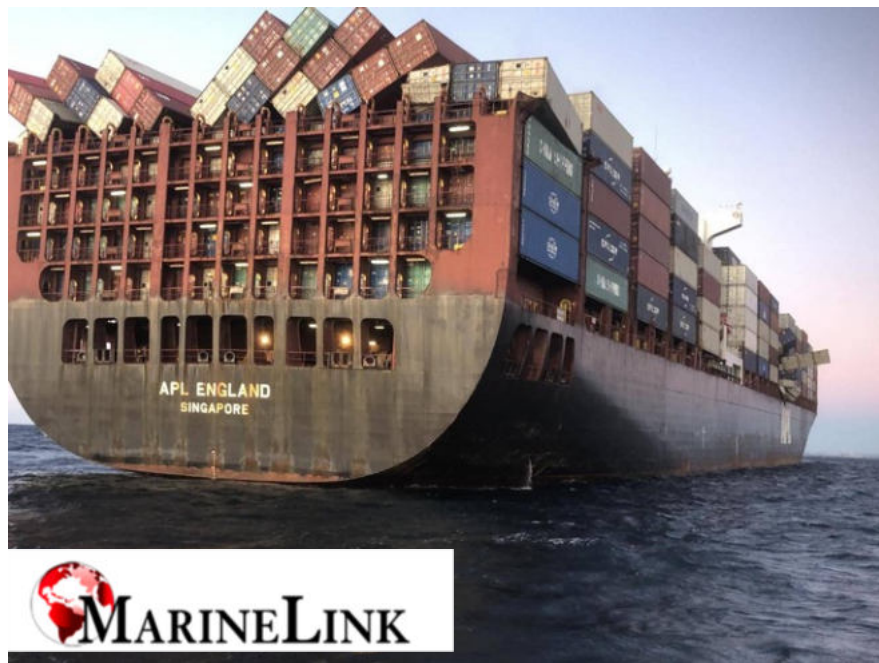
Vienna, Austria & Online | 23-28 April 2023



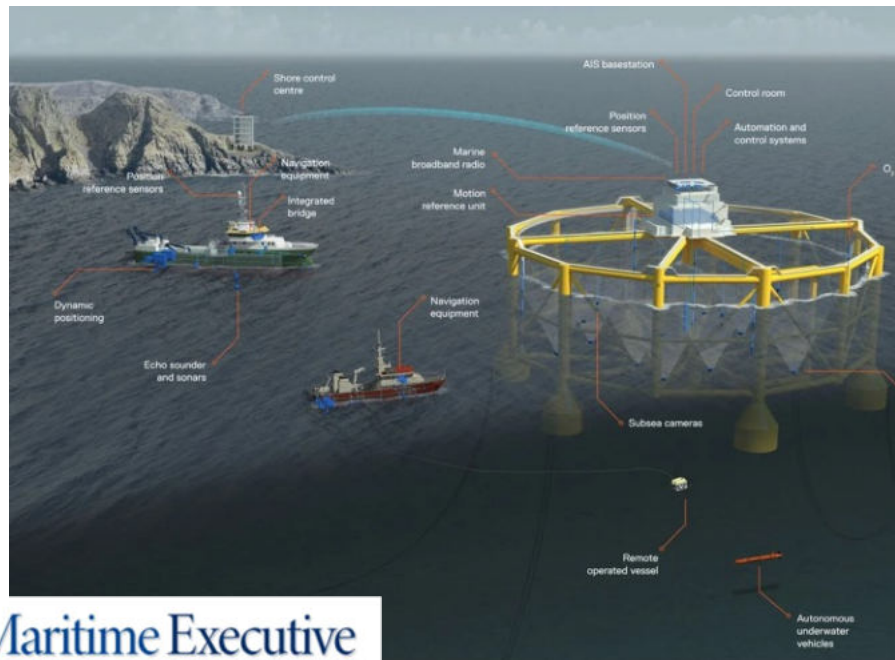
- Polymetallic nodules
- Polymetallic sulphides / vents
- Cobalt-rich crusts
- Exclusive economic zones



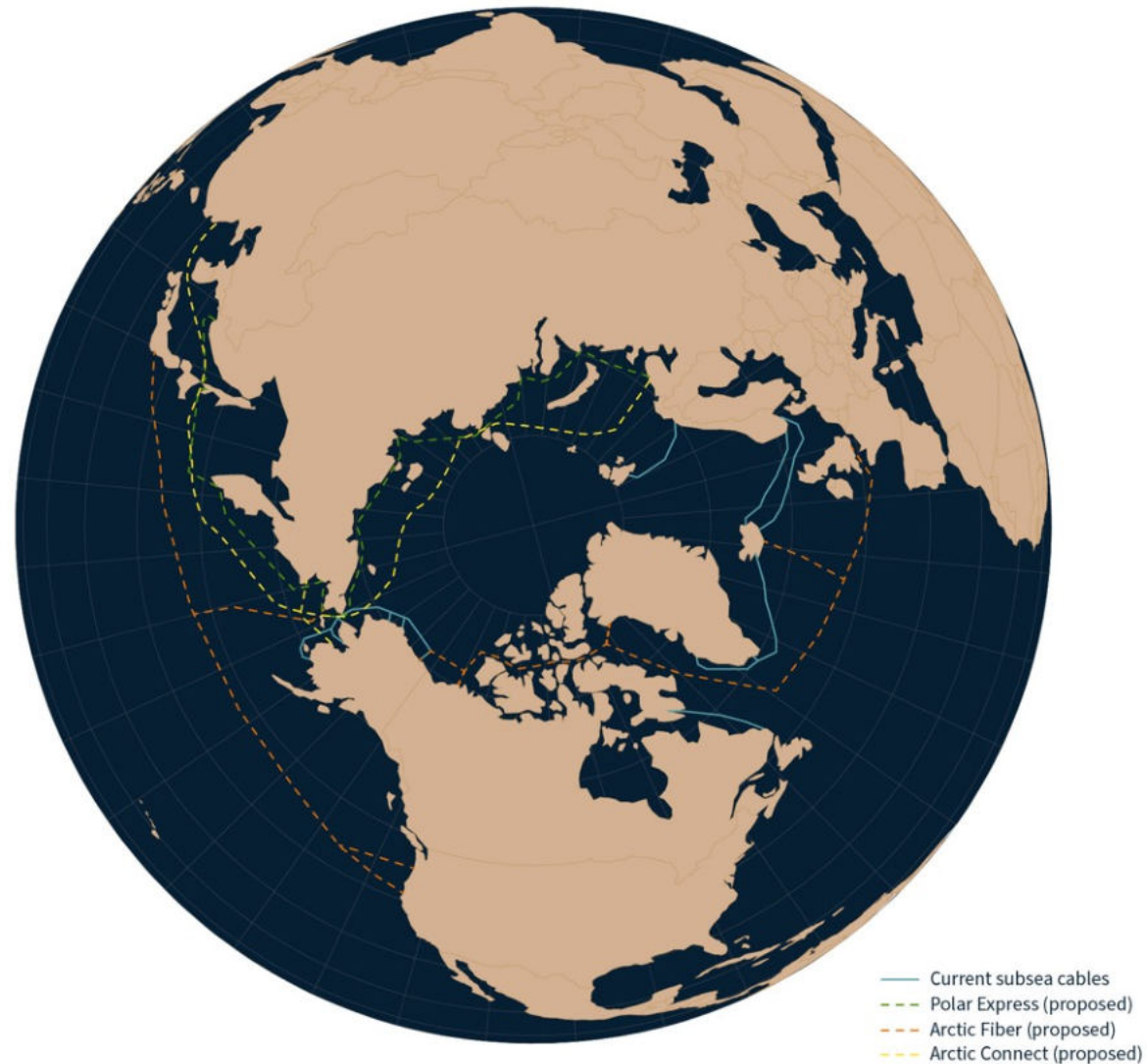




Underwater data centers



Arctic Undersea Cables



Source: CSIS original creation based on information from "System Specifications," Quintillion, <https://qexpressnet.com/system/>; Winston Qiu, "MegaFon Begins Offshore Survey for the Arctic Connect Subsea Cable Project," August 26, 2020, <https://www.submarinetworks.com/en/systems/asia-europe-africa/arctic-connect/mega-fon-begins-offshore-survey-for-the-arctic-connect-subsea-cable-project>; "Arctic submarine fiber-optic cable line Polar Express," Morsviazputnik, https://www.marsat.ru/en/Polarexpress_project_description.



Our **aim:** to advance collective knowledge about methane activity in the seabed, on the seafloor and in the ocean in Arctic regions.

Our **goals:**

1

Investigate cold seeps (methane, gas hydrate and oil) from 4 sites in the Arctic Ocean (Fram strait) to study origin of fluids, micro-meio-macro-biology, environmental DNA, ice biogeochemistry

2

Develop learning tools to experience the ocean using all our senses (touch, sight, smell, hearing and taste)

The AKMA team aims at involving projects, people, school classes & teachers, and scientists from the 7 continents to spread awareness on the **17 Sustainable Developments Goals**

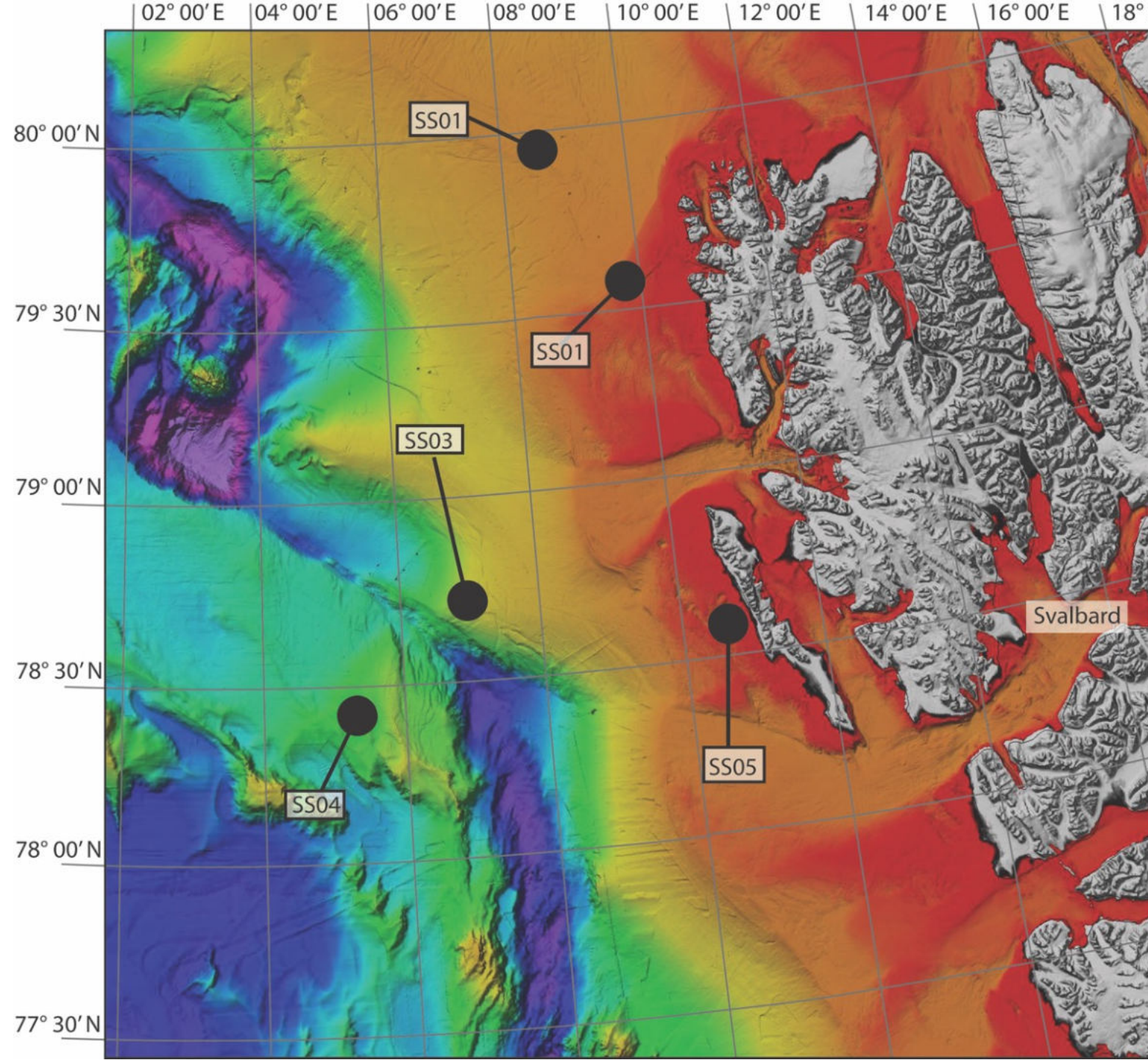


1

Investigate cold seeps (methane, gas hydrate and oil) from 4 sites in the Arctic Ocean (Fram Strait) to study origin of fluids, micro-meio-macrobiology, environmental DNA, ice biogeochemistry

Preliminary results:

- Melyssa Correa-Diaz et al.
- Argentino et al. HMMV
- Argentino et al. Oil seep
- Hemmateenejad et al.
- Panieri et al., in prep
- Master projects at UiB
- Master projects at Uit
-





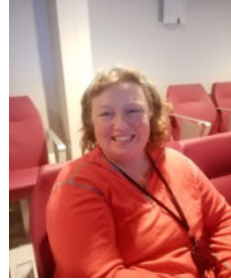
Erling Rosnes
Teacher



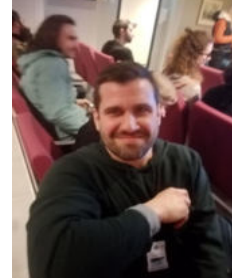
Jan Pawlowski
Biologist



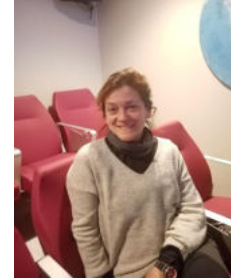
Sofia Ramalho
Biologist



Mari Heggernes Eilertsen
Biologist



Filip Maric
Environment health philosophy



Alessandra Savini
Geomorphologist



Fulvio Franchi
Planetary geologist



André Jensen
Geologist



Katrin Losleben
Feminist theory/sound studies



Vibeke Os
Manager, skolelaboratoriet



Margherita Poto
Lawyer



Jane Zimmermann
Artist



Matthew Stiller Reeve
Educator/project manager



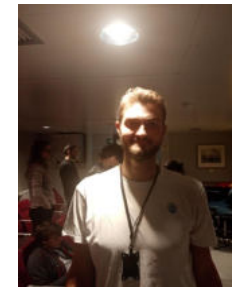
Solmaz Mohadjer
Geoscientist/communicator



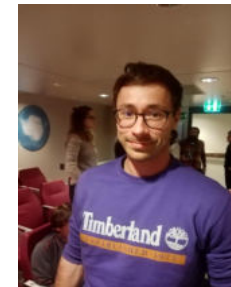
Vibeke Aune
Teacher



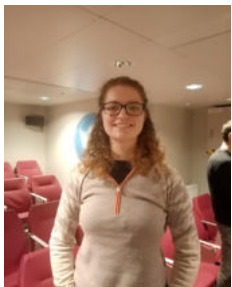
Fanny Cusset
PhD student



Clément Bertin
PhD student



Raphael Moncelon
PhD student



Ciara Willis
PhD student



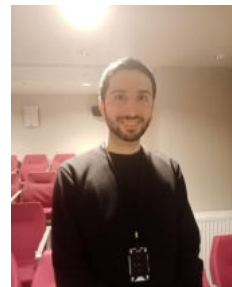
Dimitri Kalenitchenko
Microbiologist



Pierre Antoine Dessandier
Benthic ecologist



Victor Poddevin
Teacher



Claudio Argentino
Geochemist



Kate Waghorn
Geophysicist



Stefan Buenz
Co-chief



Jessica Eve Todd
PhD student



Giuliana Panieri
Chief



Davide Odonne
Videographer



Monica Clerici
PhD student



Bjørn Olsen
Engineer



Villads Dyrved Holm
MSc student



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of Ocean Science
for Sustainable Development



OCEAN
SENSES



High-school teacher

High-school teacher

scientist

scientist

scientist

facilitator

Davide Oddone



our senses

– TASTE –

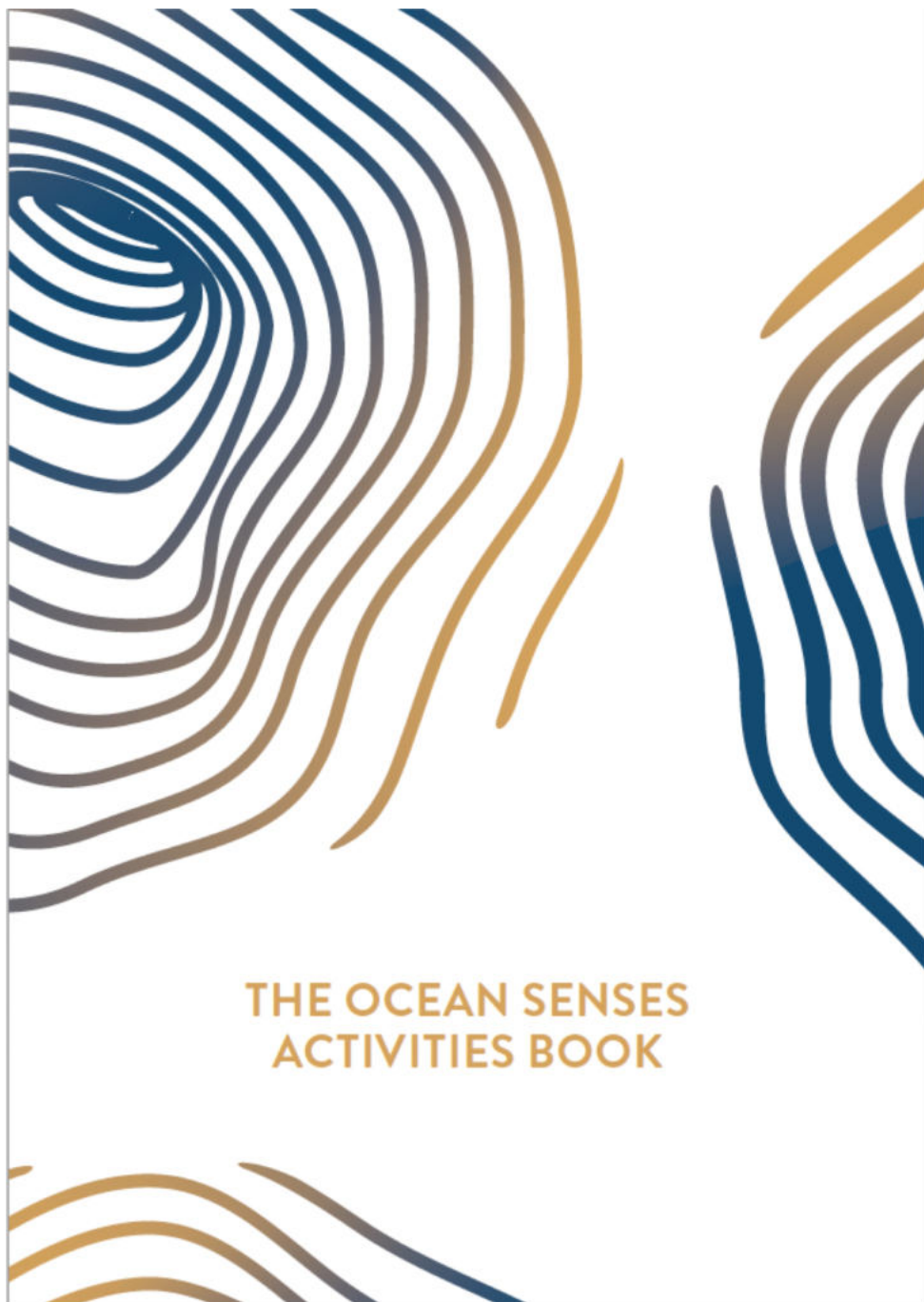
– SIGHT –

– TOUCH –

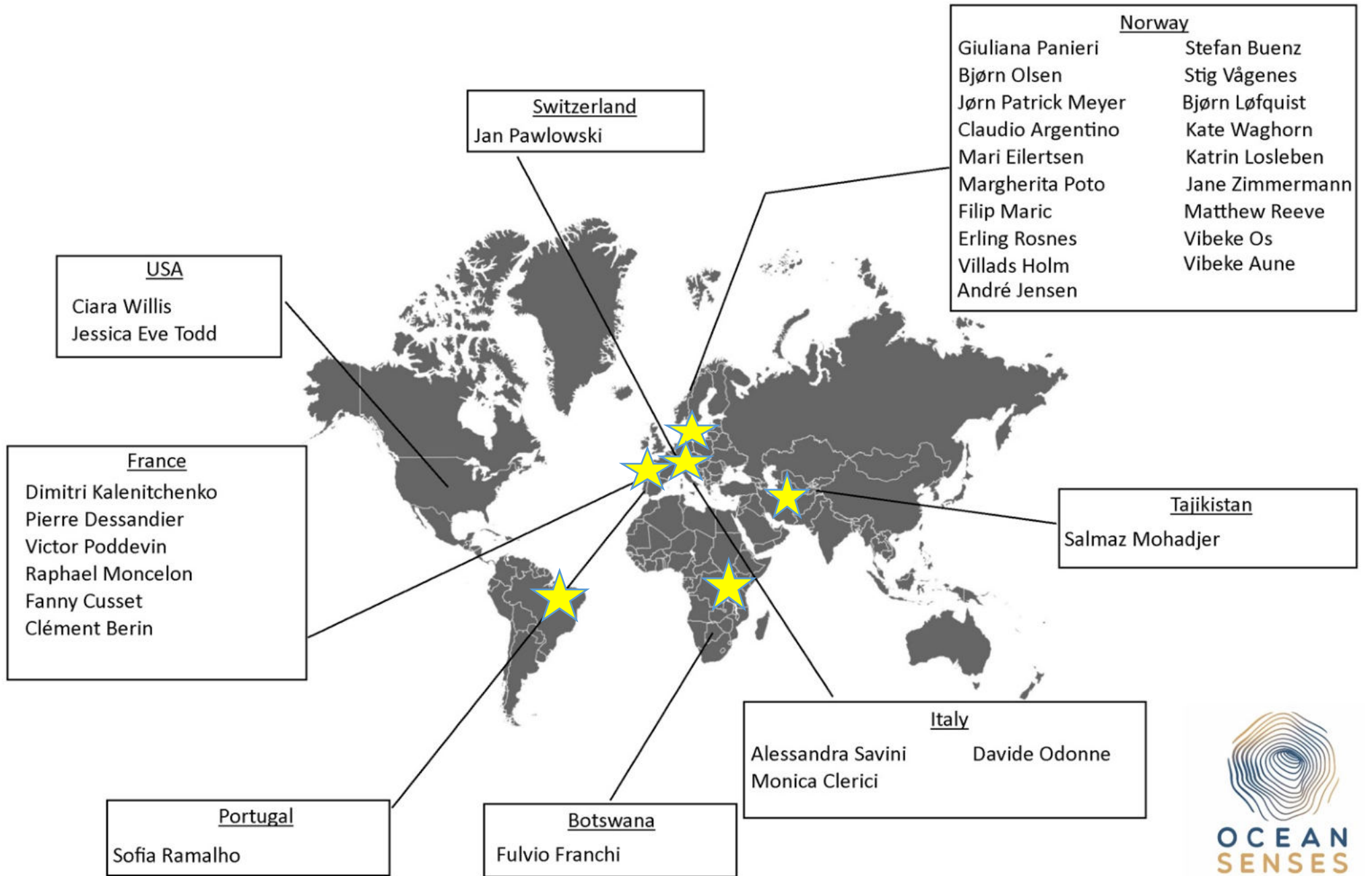
– SMELL –

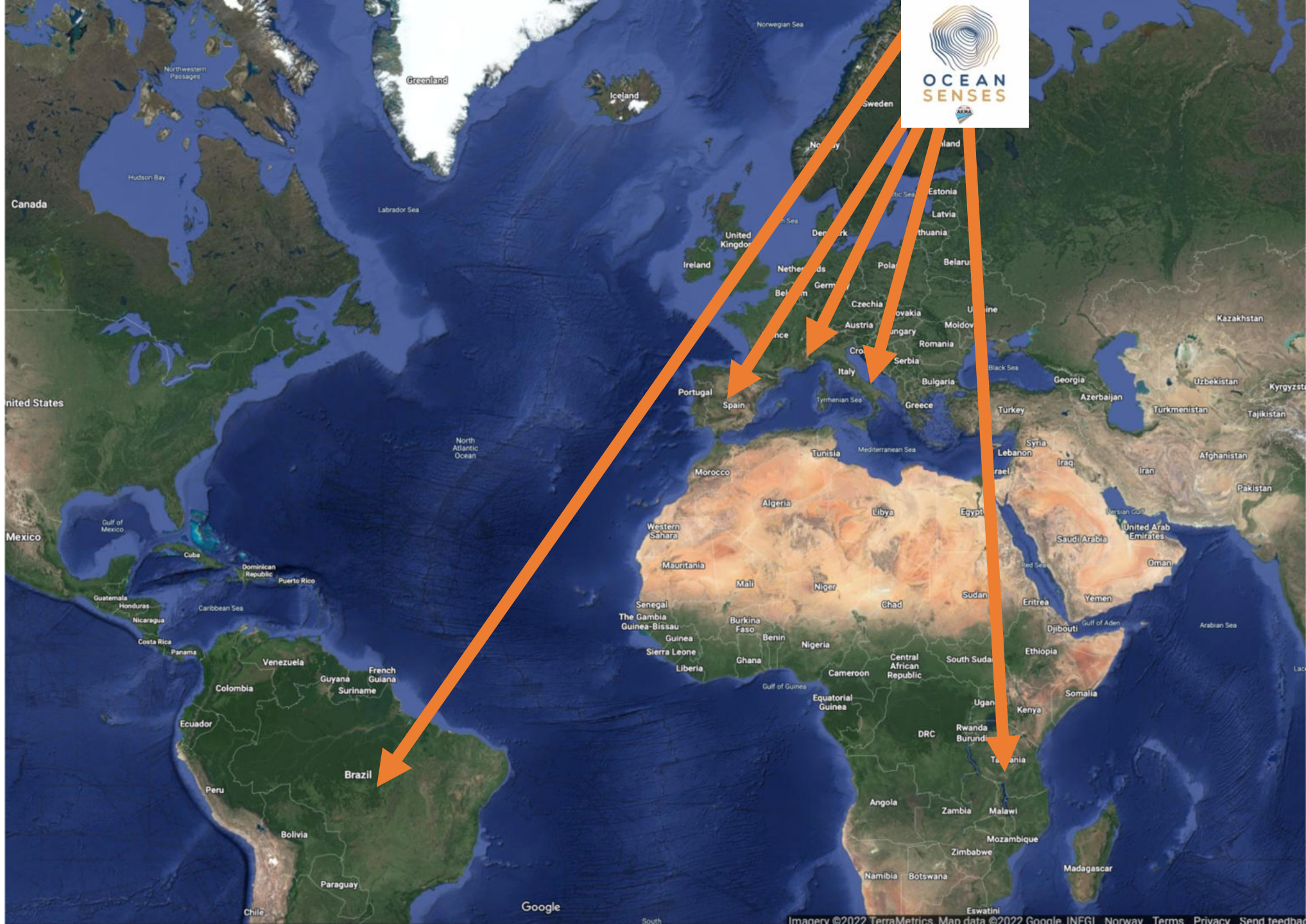
– SOUND –





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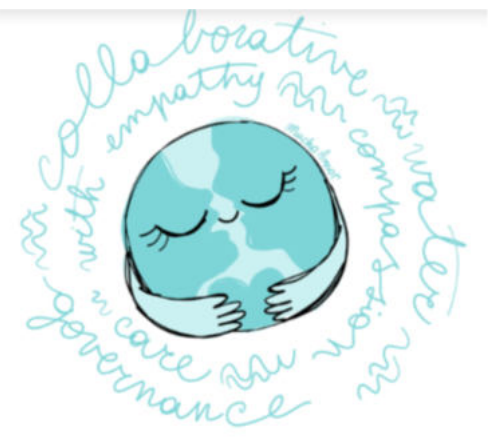


Chiquitano people in
Mato Grosso, Brazil
(Vila Niva Barbecho,
Acoziral, Nsta Senhora
Aperecida)





Matimira and the Nyasa District, Tanzania



DAAD Workshop, 17-19 April 2023

Dialogue with South Europe 2023/Hochschuldialog mit Südeuropa 2023



INTERACTIVE WORKSHOP



AN INNOVATIVE PARTNERSHIP and METHODS FOR KNOWLEDGE
Co-PRODUCTION IN WATER GOVERNANCE
THE CASE STUDY OF THE GESSO STURA NATURAL PARK





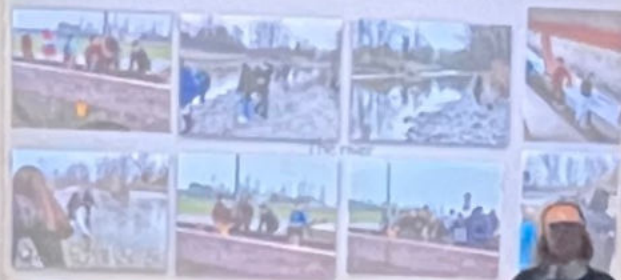
INTERACTIVE WORKSHOP



AN INNOVATIVE PARTNERSHIP and METHODS FOR KNOWLEDGE
CO-PRODUCTION IN WATER GOVERNANCE
THE CASE STUDY OF THE GESSO STURA NATURAL PARK



In the Scientist's shoes



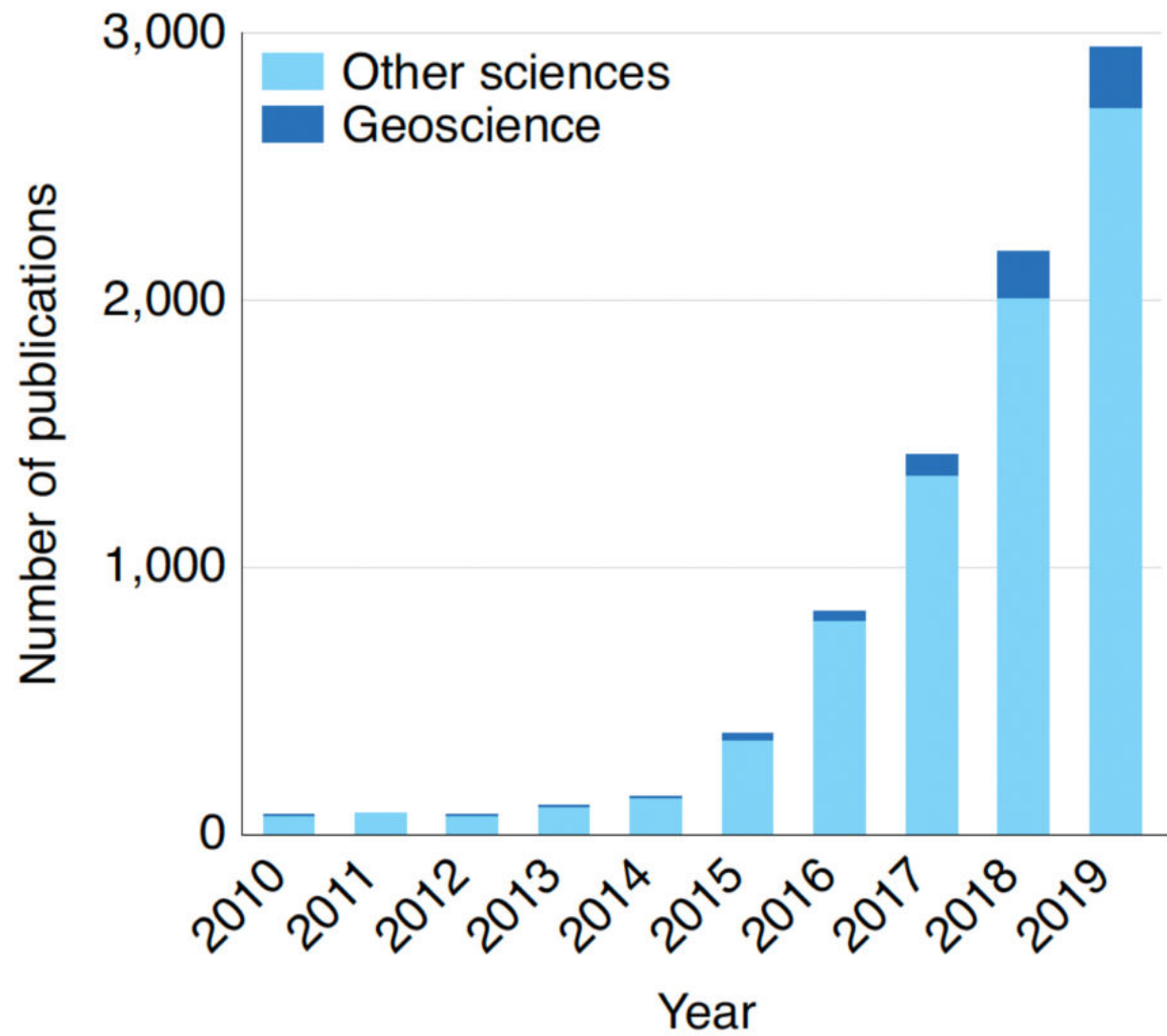
European
MARINE BOARD
Advancing Seas & Ocean Science



Curating and co-producing
quality educational resources
about our Oceans



EMBRACING THE OCEAN
ARTISTS 2023-2024



A person's hands are visible, holding a white sign with a curved top edge. The sign has the text "We need YOU!" written in a dark blue, sans-serif font. The background is a clear blue sky with some light, wispy clouds. The sign is held up in the center of the frame, and the hands are positioned on either side, gripping the edges of the paper.

We need
YOU!