PRESS RELEASE
Date: July 17th, 2025

FOR IMMEDIATE RELEASE

European Horizon-funded expedition sets sail along Norwegian and Swedish coasts to study marine biodiversity and ocean health.

Smögen, Sweden – A new scientific expedition under the DiverSea project (funded by the Horizon Europe program) will be officially launched on June 22 in Smögen, aiming to monitor and analyse the decline in coastal biodiversity and the changing colour of Norwegian and Swedish coastal waters. The expedition is a collaboration with the concept Sailing4Science (S4S), and its mothership Hrimfare – a 67-foot steel yacht hosting 12 people onboard.

Hrimfare, 67 feet and 38 tons of steel. She was recently launched in Kungshamn/Smögen after an eight-year transformation process from a tough round-the-world racer into a sailing ocean lab.

Using a combination of satellite imaging, underwater sensors, and other groundbreaking technologies and techniques, the expedition will:

- Track biodiversity loss in marine Nordic ecosystems.
- Monitor changes in the color of coastal water, which can indicate broad ecological shifts.
- Train artificial intelligence (AI) to interpret satellite images of coastal waters, creating a better understanding of the ongoing “darkening” of our ocean.

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

HRIMFARE

Sailing4Science

DiverSea

A group of scientists, students, and sailors will embark on the iconic round-the-world racing yacht Hrimfare in Smögen, Sweden, on July 22st of a “Sail Off Ceremony”. Smögen is a small island and a fishing village on the west coast of Sweden. Despite its small size it is the most visited west coast island with over a million visitors per year. The crew and scientists are in for a five-week expedition along the coast up to Trondheim, Norway, and will include the sampling of the south of the Norwegian border, capturing the signal of the Baltic surface current and the Danish Jutland current. A number of visits and showcasing events will be arranged in coastal locations, such as Fredrikstad, Oslo, Arendal, Stavanger, Bergen, Ålesund, and finally Trondheim. The purpose is to raise awareness on biodiversity loss and other ocean-related challenges and engage with the local communities.

What will be happening during the expedition?
While Norwegian University of Science and Technology’s (NTNU) remote sensing satellite – Hypso-1 – is taking pictures of a segment of coastal water, the team onboard Hrimfare will collect samples and measurements of the water from the surface down to the seabed using advanced in-situ sensors, underwater drones, as well as frugal equipment onboard to define exactly what the satellite cameras are capturing. The cameras in Hypso-1 can define harmful algae blooms in the surface water and thereby warn local communities and ocean farming industries.

The results will play an important role for the DiverSea project and the Norwegian “Grønn platform” and other European efforts with the ambition to create and develop predictive scenario-building content as tools for policymakers’ planning and decision making.

As part of our ongoing commitment through DiverSea and S4S, this expedition aims to advance ocean science, deepen biodiversity knowledge, and foster cross-sector collaboration among researchers, sailors, policymakers, and engaged citizens alike.

Follow our biodiversity-driven expedition and our social media.

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ABOUT DIVERSEA

Integrated observation, mapping, monitoring and prediction for function of coastal seas

DiverSea is a 9-million-euro funded project, coordinated by the Norwegian University of Science and Technology (NTNU), bringing a team of 19 institutions together from 13 countries with a joint focus on the study of marine biodiversity and ecosystems. This four-year project was launched in 2023 and aims to:

- Develop new nucleic acid detection methods and advance innovative marine observation and monitoring technology
- Implement data integration capabilities designed for compatibility with established standards
- Carry out analysis and predictive scenario building
- Develop a cutting-edge dashboard for biodiversity and ecosystem services to facilitate the data and knowledge integration as a user-friendly tool for policymakers and the public

The project will actively engage the broader public through targeted stakeholder communication and citizen science initiatives. Research will be conducted across multiple case studies in Europe, including the Norwegian coastal system, the Atlantic coastline, the Mediterranean, the Adriatic and the Black Sea.
Funded by the European Union under the Horizon Europe Programme, Grant Agreement No. 101082004 (DiverSea). Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

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ABOUT SAILING4SCIENCE

Sailors and scientists united to surface deep ocean realities.

We are building a global network of sailors and researchers to observe and collect vital marine data for simple delivery to open-source data banks for research purposes. We create awareness onboard, in ports, and marinas through open science participation, active communication, and demonstrations. We share ocean insights and inspire people to adopt new ocean-friendly lifestyles. We build and exchange capacity with low-income countries with a frugal approach to ocean observations in their home waters. Sailing4Science is endorsed by the United Nations Ocean Decade.

Website: https://www.sailing4science.org/
Instagram: https://www.instagram.com/sail4science/
Facebook: https://www.facebook.com/Sailing4science/

ABOUT HRIMFARE

Upcycled from a tough ocean racer into a sailing ocean lab.

Hrimfare is the Mother Ship of the concept Sailing4Science. She is one of the specially designed steel yachts in “The World’s Toughest Yacht Race" – The Global Challenge. It was initiated in 1990 and considered the ultimate sailing challenge for amateur sailors and is still considered one of the most iconic sailing competition races ever. Ten identical Challenge 67-foot yachts were built and crewed by ordinary men and women and sailed westwards around the world, against prevailing winds and currents (referred to as the "wrong way"). Today, after 8 years of upcycling and renovation, Hrimfare is transformed into a safe and comfortable research yacht for 12 people, certified by MCA – the world’s most respected yacht certifier.

Website: https://www.hrimfare.com/
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