



The Digital Twin_s of the Ocean



Webinar

Onsdag 15. mars 2023, kl. 15:00

DIGITALE TVILLINGER AV HAVET I NORGE



Støttet av
Forskningsrådet

PROGRAM

Welcome and introduction to ILIAD

Bente Lilja Bye, BLB

The Arctic Ocean forecasts and reanalysis from the Copernicus Marine Services

Laurent Bertino, Nansensenteret

FNs havforskningstiår i Norge

Mette Mila, Norges forskningsråd

FiskInfo - Dissemination of information to the Norwegian fishing fleet

Bård Johan Hanssen, SINTEF Nord

Digitale tvillinger i Norge

Håvard Legreid, Digital Tvilling AS

Diskusjon/Discussion

BLB

SINTEF



NTNU

HIR Ocean

Iliad's Digital Twin of the Ocean provides a virtual environment representing the ocean, capable of running complex, predictive management scenarios. The innovative system integrates across discipline, sensors, models, and digital infrastructures.





Enabling an ecosystem of **interoperable digital twins** for the ocean trough:

- Connecting to *existing* ocean data infrastructures
- Enhance ocean data infrastructures with *additional* observation technologies and **citizen science**



Create an open **marketplace** accessible for all providers and users by:

- Development of *innovative methods* in open frameworks and platforms
- Enable model *evaluations & comparisons* for many Earth science applications from weather, energy, aquaculture to climate and more



Provide **solutions** to address future societal challenges by:

- Assembling a broad and diverse *user community* of existing and new users,
- Supporting the communities in testing and using the project's *innovative technological solutions*

ILIAD DIGITAL TWINS OF THE OCEAN



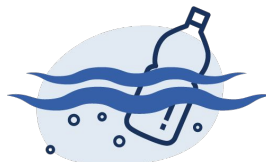
Existing Wind Farm Capacity



Ocean Energy Potential



Coastal Sediment Transport



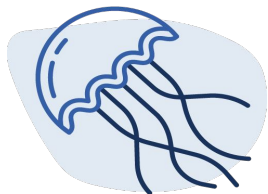
Plastic Pollution Monitoring



Oils Spill Simulation



Insurance For Marine & Maritime Activities



Jellyfish Swarm Forecast



Harbour Safety



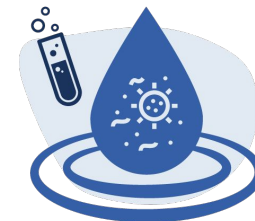
Met Ocean Hind, Now & Forecast



Fisheries Productivity & Sustainable Aquaculture



Ballast Water Monitoring



Aquaculture & Harmful Algae, Water Quality & Ship Traffic



ILIAD numbers

▶ Full name: Integrated Digital Framework for Comprehensive Maritime Data and Information Services

▶ Coordinator: Netcompany-Intrasoft

▶ Grant Agreement No: 101037643

▶ Project start date: 1. February 2022

▶ Project end date: 31. January 2025

▶ Duration of project in months: 36

▶ Overall budget: 18 956 630 EURO

▶ EU contribution: 17 046 230 EURO

▶ Partners: 56 + 2 linked third parties



ocean-twin.eu

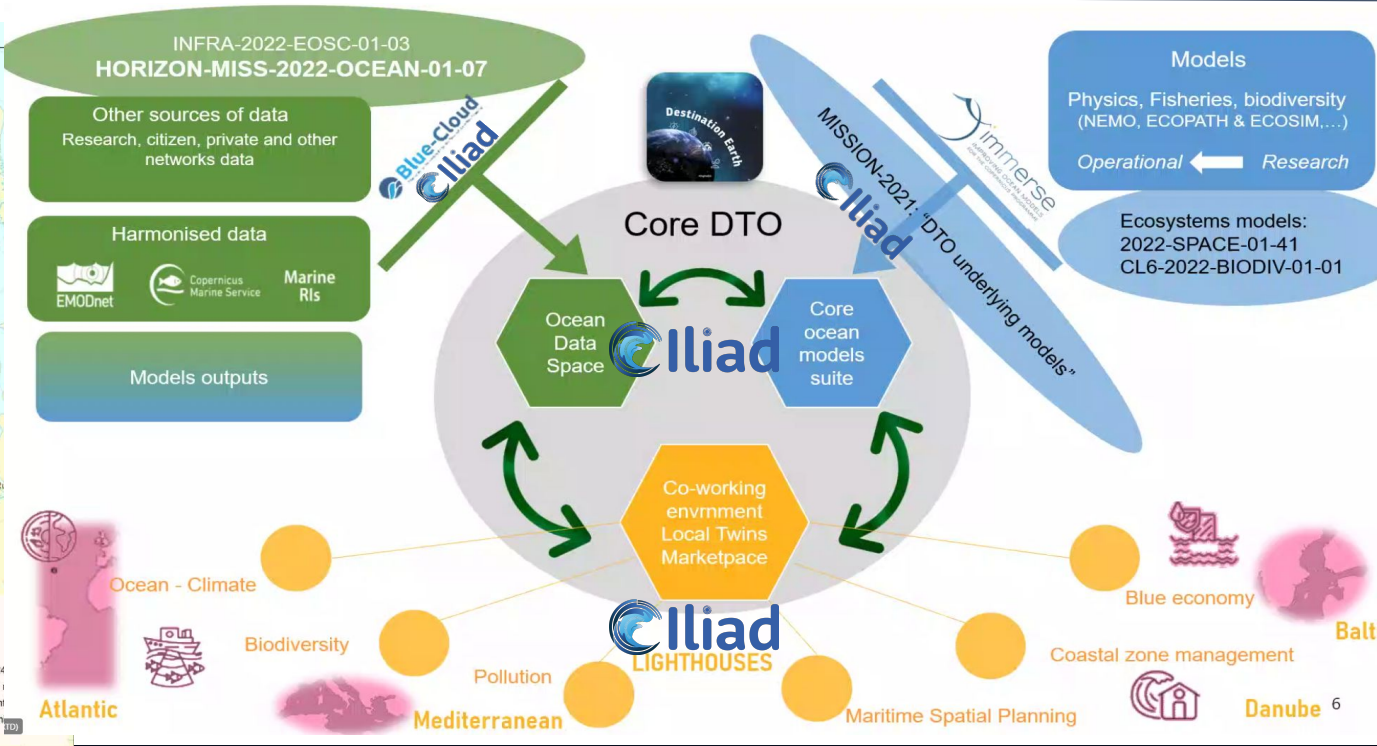


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ILIAD Norge, Europa og verden





Welcome and introduction to ILIAD

Bente Lilja Bye, BLB

Bente is Innovation-
Manager in ILIAD - Digital
Twins of The Ocean and
expert on data
management and capacity
development



The Arctic Ocean forecasts and reanalysis from the Copernicus Marine Services

Laurent Bertino, Nansensenteret

Laurent is an expert in ocean data assimilation and forecasting. Leading the Arctic marine forecasting center in the Copernicus Marine Services.



FNs havforskningstiår i Norge

Mette Mila, Norges forskningsråd

Mette Mila jobber i
Forskningsrådets
havsekretariat.
Sekretariatet har ansvar for
å koordinere og følge opp
FNs havforskningstiår i
Norge.



FiskInfo - Dissemination of information to the Norwegian fishing fleet

Bård Johan Hanssen, SINTEF Nord

Bård Johan is focused on data aggregation, processing, and composition of data from different data sources as well as decision support solutions using data visualization.



Håvard is an expert in human centered design and have a poetic sense of creativity where good solutions by necessity are elegant, and for people.

Digitale tvillinger i Norge

Håvard Legreid, Digital Tvilling AS