SINTEF

SEAGLOW

Empowering the energy transition

Nor-Fishing

18. August 2026 – Morten Bondø

Funded by
the European Union

“Pioneering the future of low-impact fishing by equipping small-scale fishing vessels with game-changing technologies”

Seaglow prosjektet viser demonstratorer:

- **4 små fiskebåter**
  (-12 meters, passive gears)

- **2 teknologier (Ecoating and SIMUL)**

PART OF THE
EU MISSIONS
RESTORE OUR OCEAN & WATERS

Funded by
the European Union

Consortium partners

NORDDANMARKS EU-KONTOR

SINTEF

DANISH TECHNOLOGICAL INSTITUTE

Fraunhofer CML

RI. SE

AZTI MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Food & Bio Cluster Denmark

LOW IMPACT FISHERS OF EUROPE

FORENINGEN FOR SKÅNSOMT KYSTFISKERI

Bona Fide (DK)

Hanstholm Fiskeriforening

SFPO

Voiste Sadama (EE)

CLEAN OCEAN COATINGS

Thai Union

Per Harald Skibstad (NO)

PART OF THE EU MISSIONS

RESTORE OUR OCEAN & WATERS

Funded by the European Union

Demonstrator 1: Valentina (Gøteborg, Sverige)

→ Plug-in parallel hybrid,
High speed

Demonstrator 2: PMA-605 (Vöiste, Estland)

→ Elektrisk framdrift
Low speed

Demonstrator 3: T 247 ESTER (Hanstholm, Danmark)

→ Plug-in parallel hybrid drivetrain
low speed

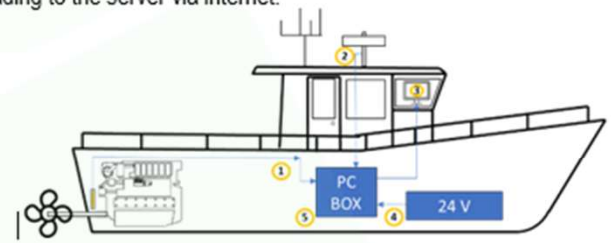
PART OF THE
EU MISSIONS
RESTORE OUR OCEAN & WATERS

Funded by
the European Union

SIMUL Technologies

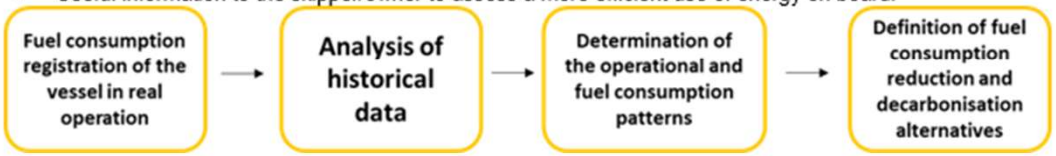
Technologies to be used:

1. Inductive tachometer: Measures engine speed and sends signal to the PC box.
2. GPS signal: time, vessel position, speed and course.
3. On-board visualisation: shows data in real time: engine rotational speed, vessel speed, and calculation of fuel consumption.
4. Connection to vessel batteries: Powered with 12-24 V; Low electric consumption to be installable in the artisanal and small-scale fishing vessels. 220 V powered version is also developed.
5. PC Box: Receives all the data from the acquisition devices and calculates the fuel consumption in real time.
6. Internet connection. Any modifications can be carried out remotely.
7. Data coupling and uploading to the server via internet.



Outputs:

- Vessel operational profile.
- Estimation of the fuel dependence of the fishing activity.
- Useful information to the skipper/owner to assess a more efficient use of energy on board.



Expected impact:

- A 4% reduction in fuel consumption, on average on all three demonstrator vessels from use of the sensors alone, in line with previous experience in Spain.
- High-quality data on fuel consumption from all combinations of technologies piloted.

PART OF THE
EU MISSIONS
RESTORE OUR OCEAN & WATERS

Funded by
the European Union

Demonstrator 4: Anna Katharina (Sandnes)

→ Ecoating – nytt giftfritt bunnstoff

ECOATING - AN INNOVATIVE TECHNOLOGY

Ecoating is a combination of a nanostructured patented particle and a polymer matrix, so called **Polyramik**®. By combining the advantages of ceramics and polymers, our coating is hard and flexible at the same time.

Expected impact:

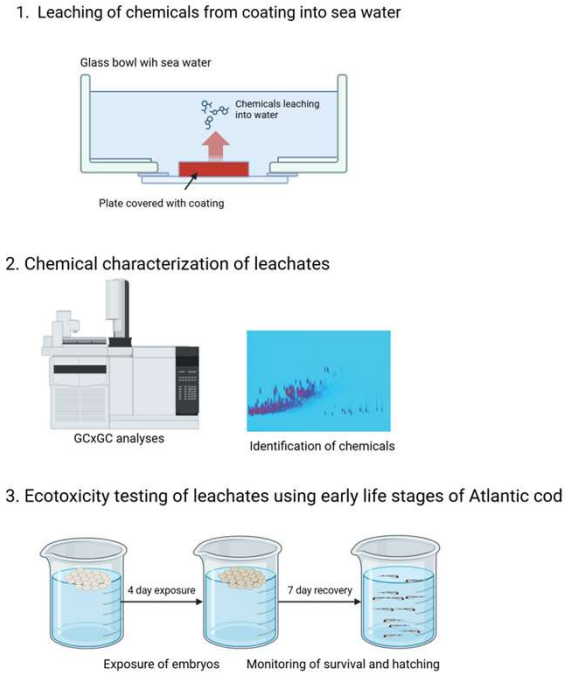
- The expected impact of the COC hard coating is a reduction of 10% of fuel emissions for comparable performance.
- Using the sensor technologies, SEAGLOW will measure the individual effects and analyse and validate dependencies on the different influencing factors. Based on this, the effects on other boats and ships can be predicted or calculated.

PART OF THE EU MISSIONS
RESTORE OUR OCEAN & WATERS

Funded by the European Union

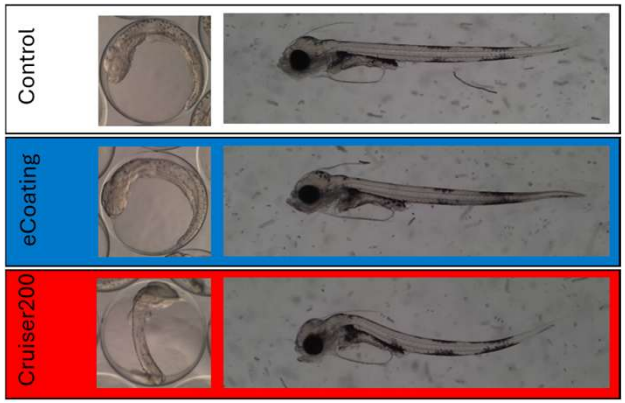
Testing av giftighet og utvasking fra bunnstoff

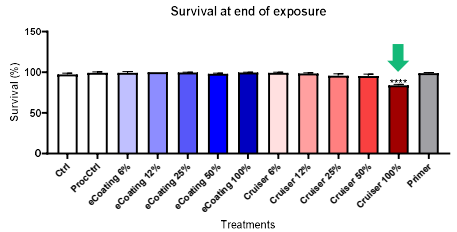
- Plater med **Ecoating**, **konvensjonell** (Cruiser200) og **primer** by COC
- Utvasking til sjøvann (leachates)
  - Kjemisk-analyse
  - Giftighets-analyse

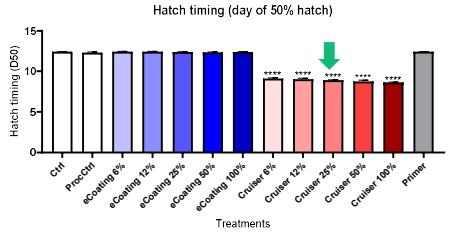


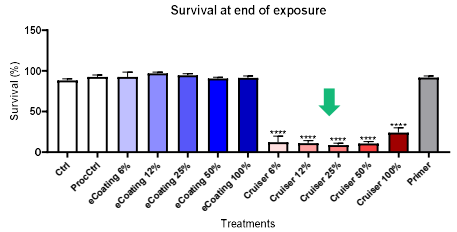
Test på Torskelarver

- 4 dagers eksponering
- Cruiser prøvene viste prematur klekking av larver, høy dødeliget og utviklingseffekter
- Ingen påvist effekt etter eksponering for eCoating eller primer



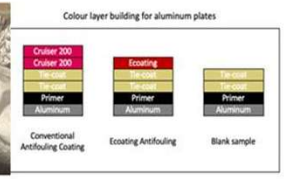






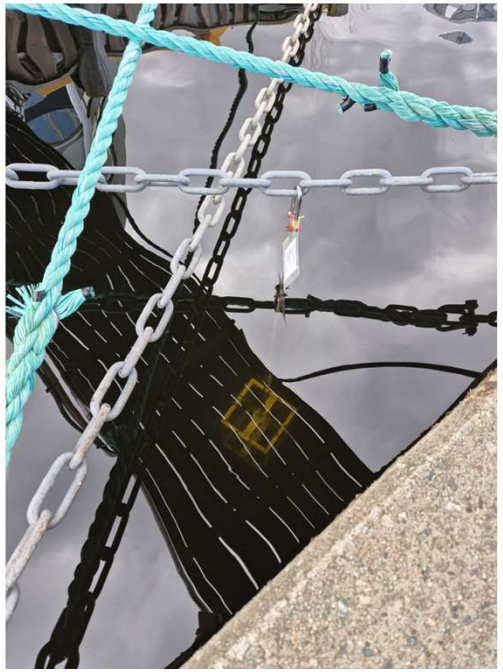
Test av begroing på E-coating

Coated testplater montert på ramme



Satt ut i sjøen

Analyse av groe- og biofilmutvikling gjennom vår og sommersesongen



Vil du bruke Ecoating på din båt?

- Ta kontakt med oss på SINTEF-standen!

Foto: Morten Bondø / SINTEF Ocean

Teknologi for et bedre samfunn

Teknologi for et bedre samfunn

SINTEF.NO