

PROJECT

BOSOWS

Blue Ocean Secondary Oily Water Separator

Funding: European (Horizon 2020)

Duration: Aug 2017 - Jan 2018

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



Call for proposal: H2020-SMEINST-1-2016-2017

[CORDIS RCN : 211497](#)

Objectives:

All ships produce oily bilge water. The MARPOL Convention requires vessels to have oily water separators and prohibits the discharge of water with more than 15ppm oil content.

Present techniques to clean bilge water on board include gravitational separation, adsorbents, flocculation, filtration and biotreatment. They are expensive, cumbersome and often unreliable under real life conditions at sea. Holding tanks on board are limited, some ports have insufficient reception facilities, and port delivery of oily water is expensive. Hence, 10-15% of all vessels regularly discharge illegally (OECD).

Our inventions (pat. pending) for the first time enable separation of water from the disparate mix of oil, grease, detergents, solvents etc. in bilge water by common flash distillation.

A working prototype superior to present solutions exists: it is insensitive to the ships motions and vibrations, reliable, requires less maintenance, employs no expensive and annoying filters, chemicals etc., and is easy to operate. Further, it exploits the engines cooling water for heating and seawater for cooling, and operates and cleans automatically.

The Phase 1 funding will be spent on developing a business plan and a technical feasibility assessment, including testbed certification of the cleaned water, patent processing and freedom to operate examination.

The customers for oily water separators are ship-owners, naval architects, shipyards etc. Their incentive to buy our separator is competitive price, and economical-, trouble-free and easy operation. The market is more than 6,000 units annually for new vessels and retrofitting.

Phase 1 team:

- H. A. Djurhuus, the inventor, experienced ship-engineer. Responsible for the technical feasibility study.
- L. Johannesen, electrician, AP Graduate in Service Engineering and ship-engineer. Responsible for the PLC programming and electronics.
- P. M. Jacobsen, MSc. in Economics, MBA in Shipping & Logistics. Responsible for business development.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Spf Blue Ocean

Address:

FUTALAG 21
100 TORSHAVN
Faroe Islands

EU Contribution: €50,000

Technologies:

Emissions control systems
Technique to clean bilge water

Development phase: Validation

STRIA Roadmaps: Vehicle design and manufacturing
Water transport (sea &

Transport mode: inland)

Transport sectors: Passenger transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Other