

PROJECT

PerMarDrive

Integrated PERmanent Magnet Motor-Clutch Drive for Parallel Hybrid Power MARINE Propulsion Systems

Funding: European (Horizon 2020)

Duration: Dec 2015 - May 2016

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



Call for proposal: H2020-SMEINST-1-2015

[CORDIS RCN : 199295](#)

Background & policy context:

The Maritime industry is in a frantic search for ways to design and operate marine vessels that generate less CO₂ and further modify the existing fleet to reduce emissions. The Maritime industry accounts for 3% of global emissions which will continue to rise to 5% by 2050 if the old propulsion technology does not improve.

Objectives:

PerMarDrive is a marine propulsion system being developed to address maritime emission through reducing fuel consumption by 15% and lowering vessel maintenance costs by 50%. PerMarDrive includes our Permanent Magnet AC motor, which offers incomparable speed (2300RPM) within mid-high power range (up to 1000KW) applications that will be coupled with an innovative integrated clutch drive. PerMarDrive is envisaged to be sold for 250k€ and 600k€ for the smallest to the largest respectively. Once commercialised, PerMarDrive will enable TEMA to generate cumulative revenues of €69.6M by 5th year in product commercialisation, from a market expected to grow to €10, 9 billion at CAGR of 10% by 2024. We expect to clinch to 0,14% of the global Hybrid Marine Propulsion Systems market by the year 2023.

Methodology:

In Phase 1 we will validate PerMarDrive prototype, develop Intellectual Property strategy, and carry out a market study, search and recruit partners and draft a business plan. In Phase 2, we will finalise the scale-up, demonstration, design and operability of PerMarDrive to match the requirements of the targeted customers.

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:

Tema Automatizacija U Industriji Doo

Address:

JOSIPA VOLTICA 14/P
52100 PULA
Croatia

EU Contribution: €50,000

Technologies:

Ship propulsion
Hybrid drive for hybrid
propulsion

Development phase: Implementation

Transport

STRIA Roadmaps: electrification

Water transport (sea &

Transport mode: inland)

Transport sectors: Passenger transport, Freight transport

Transport policies: Deployment planning/Financing/Market roll-out, Environmental/Emissions aspects

Geo-spatial type: Other