

PROJECT

H2MOVE

Hydrogen generator for higher fuel efficiency and lower carbon emissions in maritime transport

Funding: European (Horizon 2020)

Duration: Feb 2017 - May 2017

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



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

[CORDIS RCN : 208131](#)

Background & policy context:

Global marine shipping, which transports around 90% of world trade, emits around 1000 Mt of CO₂ annually and is responsible for about 2.5% of global greenhouse gas emissions which is comparable to a major national economy such as the UK, Germany or South Korea. As seaborne trade is predicted to increase by 70% until 2030, and shipping emissions are predicted to increase between 50%-250%, innovation in technology is needed to reduce carbon footprint of vessels.

Objectives:

Aris Pump Ltd. developed H2MOVE, safe small foot-print hydrogen generator to be installed into engines of marine vessels to significantly improve performances, delivering 35% less air pollution, 30% better fuel efficiency and consequently 30% fuel cost saving with a safe hydrogen technology.

Methodology:

The feasibility assessment will concentrate on preparing a pilot in the segment of marine engine applications, improving the electrolysis technology and validating the scale-up strategy of the H2MOVE engine. Phase 1 will develop the IP management strategy for EU and worldwide commercialization, prepare financial projections and assess sale agreements on global scale. A key activity will be identifying and discussing commercial partnerships with selected marine engine manufacturers, to reach target users i.e. vessel owners or operators.

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:

Aris Pump Limited

Address:

PERGAMOU STREET 16
2413 NICOSIA
Cyprus

EU Contribution: €50,000

Technologies:

Fuel cells and hydrogen fuel
Hydrogen generator for electricity generation

Development phase: Research/Invention

STRIA Roadmaps: Transport electrification, Low-emission alternative energy for transport
Water transport (sea &

Transport mode: inland)

Transport sectors: Passenger transport, Freight transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Other