

PROJECT

SMARTER-2

Surveillance of MARiTime surroundings through lasER technology (2)

Funding: European (Horizon 2020)

Duration: Sep 2016 - Nov 2019

Status: Complete

Total project cost: €3,571,406

EU contribution: €2,499,984



Call for proposal: H2020-SMEINST-2-2015

[CORDIS RCN : 204981](#)

Objectives:

Contact and collision incidences are now the most increasing, most frequent and overall the most costly type of accidents in the maritime transport sector, representing 40% of yearly insurance claims and force 1 out of 10 ships to an unplanned dry dock every year costing on average €400,000 per incident. Semi and fully submerged objects are particularly causing havoc to shipping and offshore platforms because they go undetected by state-of-the-art sensors (radars, sonars, optical sensors) presenting an acute need for improved observation capability of the ocean surface layer. A major concern considering the importance of shipping in general (90% of world's trade), their asset value (up to € 1 Billion cost to build) and the number of people at sea (about 2 Billion transported yearly). Similarly, the maritime security situation is worsening forcing vessels in average to spend €170,000 a year on security related solutions. The project opportunity arises from today's inability to observe this challenging ocean layer, causing unsatisfying operational risks in a greatly expanding market (with more frequent and more costly security and safety incidents in line with the strong industry expansion). These incidents can be reduced by an appropriate observational sensor like a ladar. It can detect for example drifting growlers (ice floes) or floating containers ahead of a vessel, preventing damaging collisions. The information that the sensor collects can also be directly used for operators to reduce operational cost, for example by accurately observing the sea state as to optimize sail plan models and vessel trim for fuel and emission savings. Such benefits have value for the operators, allowing them to purchase a relatively low cost sensor compared to the costs of an offshore or maritime incident. Moreover, the ladar is complementary to radar, sonar, and other maritime sensors. It would therefore fill a market gap rather than outcompeting existing sensor technologies.

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:

G.m.s. Global Maritime Services Limited

Address:

HIBEL ROAD 12
MACCLESFIELD
SK10 2AB
United Kingdom

Organisation Website:

<http://www.globalmaritimeservices.com>

EU Contribution: €940,669

Partner Organisations:

Ladar Limited

Address:

201 ROGERS OFFICE BUILDING EDWIN WALLACE REY DRIVE
AI-2640 THE VALLEY
Anguilla

EU Contribution: €322,000

O.m. Offshore Monitoring Limited

Address:

NIKOU PATTICHI 26
3071 LIMASSOL
Cyprus

Organisation Website:

<http://www.OffshoreMonitoring.com>

EU Contribution: €615,300

Hjelmstad As

Address:

TORGGATEN 20 B
2000 LILLESTROM
Norway

EU Contribution: €622,016

Technologies:

Sensor technologies
LADAR sensor for maritime

Development phase: Research/Invention

STRIA Roadmaps:

Cooperative, connected and automated transport, Network and traffic management systems, Other specified

Water transport (sea &

Transport mode: inland)

Transport sectors: Passenger transport, Freight transport

Transport policies: Safety/Security

Geo-spatial type: Other