EUROPEAN COMMISSION

Executive Agency for Small and Medium-sized Enterprises (EASME)

Grant Agreement number: 674364 - ZEBCOM - H2020-SMEInst-2014-2015/H2020-SMEINST-1-2014

BENEFICIARY:

CORES LTD , COASTAL RESEARCH AND ENGINEERING SERVICES

ZERO EMISSION ROBOT - BOAT FOR COASTAL AND INLAND WATER MONITORING (ZEBCOM)

ZEBCOM project is co-financed by the EU HORIZON 2020 programme (H2020-SMEInst-2014-2015)

Phase 1 of the Project takes place from 1 June 2015 to 30 November 2015

Objectives of Phase 1: Development of a Feasibility study including the elaboration of a business plan.

The project *Zero Emission Robot Boat for Coastal and Inland Water Monitoring (ZEBCOM)* aims to develop a "robot vessel" (recently becoming popular as ''drone'') serving as an automated tool for hydrographic survey and water quality monitoring. Using another popular terminology it can be described as a combination of a small Unmanned Surface Vehicle USV (or Autonomous Surface Vehicles ASV) with a number of automated (robotised) devices providing hydrographic survey measurements and water quality monitoring. ZEBCOM monitoring systems will operate in inland waters (lakes, rivers, channels), or at calm coastal areas (ports, lagoons, sheltered zones).

ZEBCOM boat technology is based on optimised use of solar power to charge traction batteries that provide power to the electric engines (with zero fossil fuel emissions). Remote control and data transfer to/from the boat are secured by using radio-telemetry technology. Measurement and monitoring abilities are provided by a combination of standard (certified) measuring devices, with non-conventional devices developed by CORES ltd.

ZEBCOM represent an innovative, cost effective, and environmentally friendly approach to hydrographic survey and water quality monitoring.

ZEBCOM robot boats offer a number of advantages:

- no men onboard, remote operated from the land
- easy-to-use (light weighted, mobile)
- no need of operation permission procedures
- fast response (suitable for use in emergencies);
- flexible (applicable to various applications),
- safe (operating at complicated/dangerous sites, at restricted water depths, small rivers)
- low production and maintenance costs