NERITES

Monitoring Underwater Heritage

Systematic autonomous remote surveying of underwater cultural heritage monuments and artifacts using non-destructive, cost-effective and transportable digital solutions

Partners: LZH, ESi, ROBUSTENG, uulm, ATLANTIS CONSULTING, CERTH, GRAAltech, CNR ISMAR, Università della Calabria, International Hellenic University, Ministero della Cultura, Alpes Lasers

The **NERITES** project focuses its efforts on Underwater Cultural Heritage monuments and artifacts' assessment, operating at a very challenging environment when compared to most in-land cases.

The technologies comprise a set of multidisciplinary scientific and engineering approaches combining beyond state of art components and methodologies, aiming at reducing OPEX (Operational Expenditures) and CAPEX (Capital Expenditures) in Underwater Cultural Heritage surveying missions, and improving state-of-preservation and degradation assessment accuracy.

Main Objectives

- Remote measurements and autonomous monitoring of Underwater Cultural Heritage sites, including buildings, monuments and artifacts.
- Improved accuracy in assessing the state-of-preservation and degradation of Underwater Cultural Heritage assets.
- Alerting for a variety of conditions of the Underwater Cultural Heritage allowing the time effective intervention.
- Cost effective solution with decreased implementation risk for humans (divers).
- Transition to greener solutions aligned with EU's and UN's policies.

13	Project Partners
5	Countries involved
36	Duration in months
€	Budget 3,994,750€

Main Expected Results

- Development of LIBS (Laser Induced Breakdown Spectroscopy) system and underwater QCL (Quantum-cascade laser) sensor for in situ real time measurement and detection of pollutants around.
- Development of Autonomous Remote Sensing Platform (ARSP) for Underwater Cultural Heritage Monitoring.
- Sophisticated algorithms to provide and communicate alarming conditions for Underwater Cultural Heritage assets.
- Capitalization of the ARSP platform with co-operation of CCI industries.
- Pathway to market and acceleration to finance.

info@nerites.eu
www.nerites.eu

Funded by the European Union