COMMON SENSE

FP7-OCEAN-2013-614155-COMMONSENSE

Cost-Effective Sensors, Interoperable with International Existing Ocean Observing Systems, to Meet EU Policies Requirements

Project Details

Funding Programme:	7th Framework Programme (FP7)
Sub Programme:	Oceans of Tomorrow
Funding Scheme:	Collaborative Project
Project Duration:	2013-2017
Total Budget:	€6M
Funding to DCU:	€497,000

Project Partners:

1. National Centre for Sensor Research, Dublin City University, Ireland
2. Leitat Technological Center, Spain
3. Fundació Navegació Oceànica De Barcelona, Spain
4. Consejo Superior de Investigaciones Científicas (CSIC), Spain
5. Consiglio Nazionale delle Ricerche (CNR), Italy
6. University of Skopje, Macedonia
7. Plymouth Marine Laboratory (Remote sensing group), UK
8. TE Laboratories Ltd., Ireland
9. Cefas - the Centre for Environment, Fisheries and Aquaculture Science, UK
10. Sub*C* tech GmbH, Germany

Project Description:

The COMMON SENSE project will contribute to support the implementation of the Marine Strategy Framework Directive (MSFD) and other EU policies (e.g. Common Fisheries Policy), providing easily usable across several platforms, cost-effective, multi-functional innovative sensors to detect reliable in-situ measurements on key parameters by means of methodological standards. This proposal will focus, by means of a multidisciplinary and well-balanced consortium on eutrophication, contaminants, marine litter and underwater noise descriptors of the MSFD.

The project will first provide a general understanding and integrated basis for sensors cost effective development (WP1 and WP2). Within the following WPs (5-8) the project will design and develop new generation sensors focused on the detection of:

- nutrient analytes by utilising established colorimetric chemistries for phosphate, ammonia, nitrate and nitrite
- low concentrations of heavy metals (Pb, Hg Cd, Zn and Cu),
- surface concentration of microplastics
- underwater noise by means of a bespoke acoustic sensor pod.

These sensors, developed onto modular systems, will be integrated into multifunctional packages (WP4). Innovative transversal sensors (e.g. temperature, pressure, pH and pCO2) will be also integrated to provide the variables with a comprehensive reference frame. The Common Sensor

Web Platform will be created (WP3) aiming at bringing a more sophisticated view of the environment implementing the sensor web enablement standards but optimising e.g. data acquisition, access and interoperability. The sensors developed will be interoperable with existing and new observing systems and they will also be field tested (WP9) by means of different platforms (e.g. research vessels, racing yachts, buoys). Dissemination and exploitation activities (WP10) will enable to transfer knowledge and technology resulting from the project to be used with commercial, scientific, conservational and strategic purposes.