

## **NERC Autonomy Joint Strategic Research – Announcement of Opportunity**

### **Defence Science and Technology Laboratory (Dstl)**

Dstl, Royal Navy (RN) and UK ministry of Defence have a clear interest in the development of surface and underwater autonomous vehicles. Some examples of previous and current joint projects with Dstl are:

- LEMUSV: Long Endurance Marine Unmanned Surface Vehicle. Two prototypes were designed and built as part of a government-backed Small Business Research Initiative (SBRI) aimed to develop ocean-going robotic vehicles that will carry out sustained marine research over long periods. The project has been co-funded by the Natural Environment Research Council (NERC), Technology Strategy Board (now InnovateUK) and the Defence Science and Technology Laboratory (Dstl);
- MASSMO: Marine Autonomous Systems in Support of Maritime Operations. This series of joint academic and industry trials is a co-ordinated effort, by the National Oceanography Centre (NOC) to push the limits of both a) the capability of unmanned vehicles and b) the rapid exploitation of data that they provide. MASSMO1 and MASSMO2 have happened and MASSMO3 will occur during September/October 2016. Dstl have been key contributors all these trials;
- AAOSN: Adaptive Autonomous Ocean Sampling Networks. An SBRI competition run by NERC and Dstl, with InnovateUK to develop new technology solutions for coordinating a suite of marine autonomous systems enabling tracking of dynamic oceanographic features.

The key efforts that are of interest to Dstl are: a) the rapid development and testing of mobile autonomous platforms and sensors and b) the use of data from these platforms, in combination with other sources of data, to provide the most likely picture of the oceanographic environment (physical, geophysical, biological, chemical and marine life).

To support this joint strategic research programme alongside NERC, Dstl would consider<sup>1</sup>:

- advice and assistance on projects leading to rapid ‘pathways to impact’ for improved knowledge exchange with the UK MoD and letters of support for topics of interest to Dstl;
- advice and support for topics of interest within the Dstl fully funded national and UK French PhD schemes (<https://www.gov.uk/guidance/phd-research-funding#defence-and-security-phd-programme>). Calls for projects are issued annually;
- participation in, influencing of and access to data from future MASSMO trials (co-ordinated by NOC), where the joint goals are similar. This would include access to data from the RN gliders where possible;
- joint project partners on a case by case basis.

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<sup>1</sup> All the options are subject to availability of funds and resources to support these programmes