

# Collaborative Autonomy at the National Oceanography Centre

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National  
Oceanography Centre  
NATURAL ENVIRONMENT RESEARCH COUNCIL

[noc.ac.uk](http://noc.ac.uk)

**NERC** SCIENCE OF THE  
ENVIRONMENT

# SBRI: Adaptive Autonomous Ocean Sampling Networks (AAOSN)



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NOC Events

**Marine Autonomy and Technology Showcase 2016**  
November 14, 2016 - November 18, 2016  
**Marine Autonomy & Technology Showcase**

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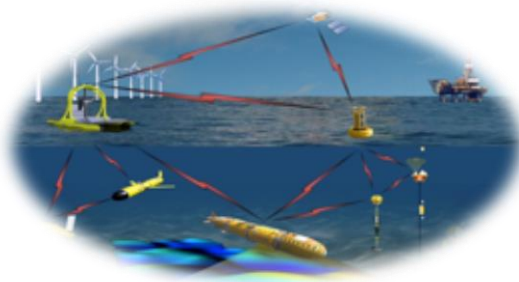
## Finalists announced in £1.5 million competition to develop advanced autonomous systems

July 21, 2015

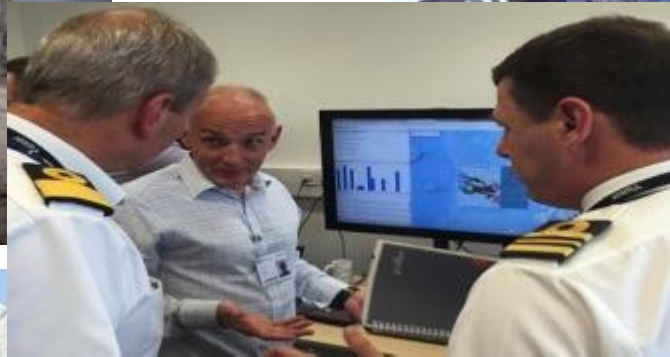
The final phase of a competition to develop novel Adaptive Autonomous Ocean Sampling Network (AAOSN) management systems for the National Oceanography Centre (NOC) is now underway. Two UK consortia will move forward to develop systems capable of coordinating a suite of marine autonomous vehicles gathering data from the ocean over periods of months, and tracking and sampling dynamic features.

The two-phase competition was launched last September by the Natural Environment Research Council (NERC) in partnership with the Defence Science and Technology Laboratory (DSTL) and Innovate UK, with £1.5 million being made available for the project. Phase one saw nine consortia submit feasibility studies, five of which were funded. After a review of the outcomes of the phase one studies, two consortia were invited to apply for phase two for the development of prototypes, which would be capable of undertaking demonstration missions at sea.

The two consortia moving forward to the final stage are led by SeeByte Ltd in partnership with ASV and the Marine Biological Association (MBA) and University of Exeter in partnership with Marine South East Ltd and the Met Office. Each will now spend the next 12 months developing their products, with the first test mission expected to take place in February 2016.



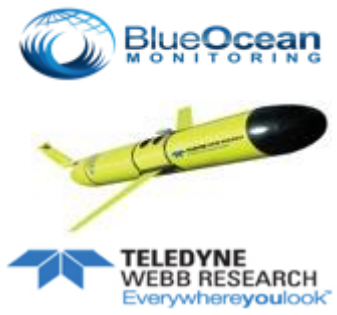
# Marine Autonomous Systems in Support of Marine Observations



# Project funding



# Promoting innovation



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# Joint operations



MASSMO3  
Autumn 2016

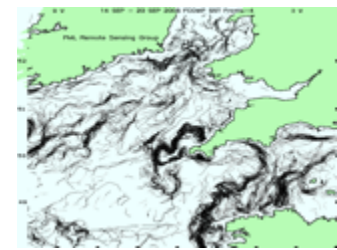
# Public engagement



# Data management



# Operational products



# Launch and Recovery of multiple AUVs from a USV

The development of a low-cost AUV launch & recovery system from an USV for applications including;

defence, oil spill monitoring and science. The AUVs will be autonomously deployed from an ASV, providing science users increased range, spatial sampling resolution and reduced cost versus existing solutions; thus eliminating dependence on expensive ship time.



Our partners:



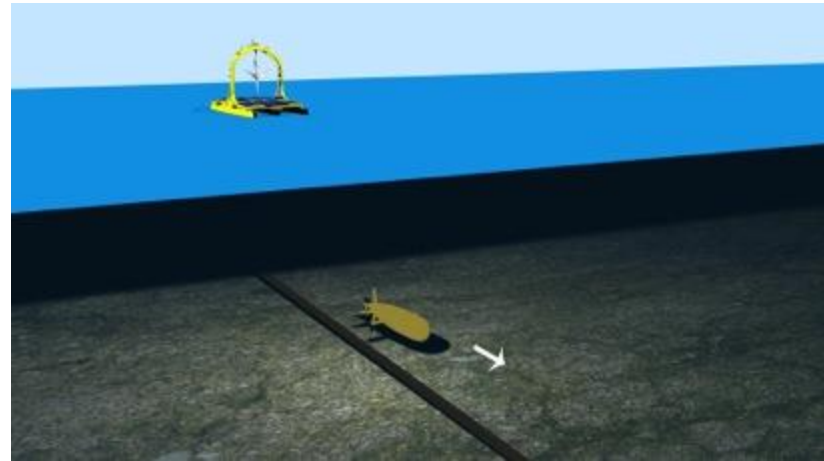
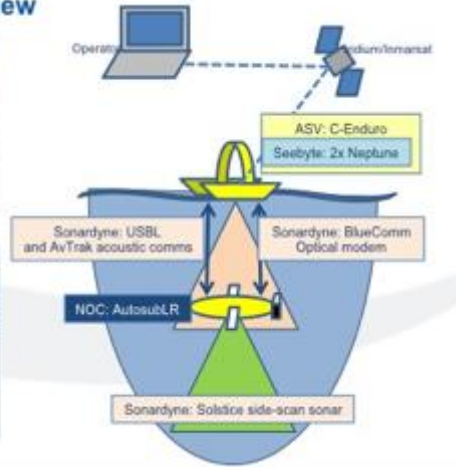
ASV unmanned marine systems

UNIVERSITY OF  
Southampton

# Autonomous Surface and Sub-surface system

## Autonomous Pipeline Survey Systems

### ASSSS Concept overview



Our Partners:



# Marine Robotics Innovation Centre



**THALES**

**NORTHROP GRUMMAN**

**STEATITE**

**ASV** unmanned marine systems



**Schlumberger**



**HYDROID**  
A KONGSBERG COMPANY



**AutoNaut**  
| A Seiche Company |



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