



USMART

Smart dust for large scale underwater wireless sensing

End User Workshop
9th–10th May 2018

Great North Museum, Newcastle University

The [USMART](#) project is a £1.3M EPSRC funded collaboration aiming to deliver a step change in the cost effectiveness of subsea data gathering. Ultra-low-cost, low power underwater acoustic communication devices are being combined with flexible sensor payloads, smart distributed sensing algorithms and efficient network protocols to create a framework for mass deployment of subsea sensors with wireless data collection. Potential application areas include:

- Underwater infrastructure health monitoring in the offshore oil & gas, renewables and water industry.
- Marine environment monitoring – measuring physical and chemical parameters.
- Marine biodiversity monitoring, impact assessment and mitigation.
- Underwater security – detection of threats to infrastructure and assets.

As potential end users of the USMART project outputs, we greatly value your input to identify the most valuable applications of the technology and your help in defining the demonstrator systems and test beds that will be created later in the project. Attending the first **End-User Workshop** is an opportunity for you to learn more about this exciting project, network with other stakeholders and to play a valuable role in steering the future development and commercialisation of the technology.

Outline Programme

Day 1

- Project overview - aims, objectives and progress
 - Keynote – Underwater asset monitoring*
 - Lunch & networking
 - Keynote – Marine environment monitoring*
 - Keynote – Marine biodiversity and ecosystems*
 - Evening meal (complimentary)
- * followed by breakout discussions

Day 2

- Short presentations on specific applications including security
- Breakout discussions on demonstrator systems and testbeds.
- Lunch & networking
- Laboratory tours and demonstrations.
- Specialist discussions on focused applications.

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