SULMARA

Experience

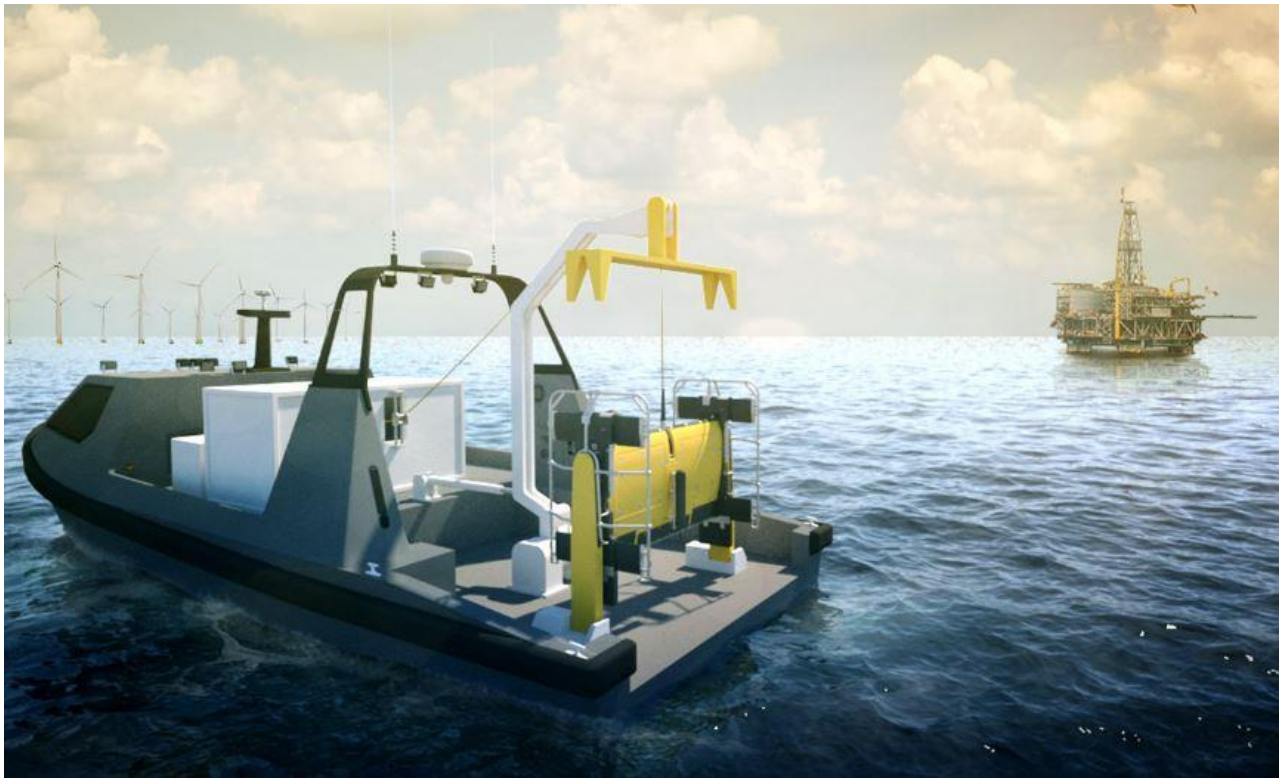
Feasibility study delivering data from USV and ROTV

12 month study for the European Space Agency.

Location: Europe - Onshore

How can we reduce the time for decommissioning data acquisition?

In our drive to improve, Sulmara Subsea personnel identified that the standard industry deliverables fell markedly short of what was achievable using in-house knowledge to its full potential. As such, Sulmara Subsea decided to set a new standard for “as-built” charting and deliverables. Typically, survey contractors deliver data in the form of standard excel graphs for interim trenching data. Often the data presented is from multiple sources, all of which needs to be presented in a way that allows the easy identification of trends and correlations for the trenching team to evaluate the results. This is time consuming and requires significant amount of man hours to provide the data.



Delivery

The study focussed on the potential benefits a USV being able to remotely deploy and recover a survey payload on a towed vehicle within the decommissioning sector.

Sulmara are already delivering survey data from hull mounted sensors mounted on USVs, controlled via satellite communication in 'over-the-horizon' mode.
Currently there is no commercially available uncrewed data acquisition service, capable of meeting the survey requirements for offshore decommissioning. Focussing on a reduction in cost and environmental impact, Sulmara aim to minimise the requirement for large survey vessels when delivering the data required for decommissioning. This can be achieved by deploying an ROTV to locate survey sensors (including video, sidescan sonar, MBES, pipetracker and magnetometer) close to the seabed. This capability will suit not just the decommissioning sector, but will be relevant throughout the oil and gas (O&G) project lifecycle and have cross sector appeal with significant opportunities within offshore wind. Working with Xodus, and their Xamin tool, further cost and environmental benefits can be realised through campaigning and reduced mobilisations /demobilisations.

Added Value

This study was carried out in conjunction with the European Space Agency and Satellite Communications (SatCom) and Satellite Navigation (SatNav) are utilised in this project to provide:

- Beyond the Horizon communications
- Reliable highly availability communication for control
- On demand high data transfer rate for data pipeline
- High accuracy positioning
- To ensure attractive operational costs for client

Current Status:

Sulmara have now completed a technical feasibility evaluation covering development of an ROTV/USV survey service for offshore decommissioning. A business plan for the associated service has been developed, which is based on inputs obtained from a user engagement study. Through partnering with technology providers we have secured access to suitable USV and ROTV systems, which will be utilised in proof-of-concept (PoC) trials. We have formulated plans for implementation of an automated launch and recovery system, and our partner Xodus will work with us in providing remote data access capabilities. We have received support from

multiple operators (both O&G and offshore windfarm (OWF)) who have expressed interest in participating in PoC trials. A provisional demonstration project plan and budget has been delivered to ESA and O&G and OWF operators have committed to providing access to assets in trial locations and to provide feedback on any data collected during PoC trials.

“Data handling and presentation methods are ever changing as the world accepts new ideas. Our team are continually developing, faster and more efficient methods of automated processing to inform our clients about the condition of their assets.”

Kevin McBarron
CEO