



Swimming down to subsea templates

Apr 18, 2016 10:39 BST

## Kongsberg Maritime: NTNU Spin-Off Company Eelume Collaborates with Kongsberg Maritime and Statoil to Develop Swimming Robots for Subsea Inspection and Light Intervention

Kongsberg Maritime and Statoil have signed an agreement with Eelume, a NTNU spin-off company, to accelerate new technology that will significantly reduce costs related to subsea inspection, maintenance and repair operations.

NTNU and Sintef have conducted research on snake robotics for more than 10 years. Eelume is now developing a disruptive solution for underwater inspection and maintenance in the form of a swimming robot. The idea is to let these robots do inspection and light intervention jobs on the seabed, reducing the use of large and expensive vessels. With its snake-like form, the slender and flexible body of the Eelume robot provides access to confined areas that are difficult to access with existing technology.

Eelume robots will be permanently installed on the seabed and will perform planned and on-demand inspections and interventions. The solution can be installed on both existing and new fields where typical jobs include; visual inspection, cleaning, and adjusting valves and chokes. These jobs account for a large part of the total subsea inspection and intervention spend.

The strength of the collaboration lies in the unique contributions from each of the parties. Eelume is founded by top academics from NTNU, Kongsberg Maritime brings in 25 years of experience and technology development within marine robotics and Statoil provides access to real installations for testing and qualification. The combined efforts now include an exciting mix of entrepreneurial spirit, industrial competence, technology and a demanding end-customer. The result is a very robust development process from idea to market.

“With our unique expertise in the field of snake robotics Eelume is the first company in the world to bring these amazing robots into an industrial setting. Now we take the step from academia and into the commercial world to secure our place in the new and exciting subsea intervention landscape,” says Pål Liljebäck, CTO Eelume

“This is a perfect example of how NTNU AMOS can contribute to bringing research based innovations into the market place through new spin-off companies and cooperation with leading industry players. Eelume is already the 5th spin-off company from researchers at NTNU AMOS and the third since 2013. SFF NTNU AMOS is strongly supported by the NTNU management, the Norwegian Research Council, Statoil, DNV GL and SINTEF Group,” says Asgeir J. Sørensen, Director, NTNU AMOS, Centre for Autonomous Marine Operations and Systems.

“As the main shareholder and responsible for business development in the company we think this is a perfect match for effectively introducing a new

innovation based on NTNU inventions and competence into the market place. The support from Innovation Norway and the FORNY program in the Norwegian Research Council has been crucial to reach this milestone,” says Anders Aune, Head of TechTrans, NTNU Technology Transfer AS.

“This partnership offers the chance to bring radical technology to the market, not just in what the Eelume robot can do, but how it does it,” says Bjørn Jalving, Executive Vice President Subsea Division at Kongsberg Maritime. “It is a new tool that will enable operators to realise large scale cost savings by introducing new ways of conducting routine tasks and helping to prevent unscheduled shutdowns by reacting instantly when required.”

“Eelume is a good example of how new technology and innovation contributes to cost reduction. Instead of using large and expensive vessels for small jobs, we now introduce a flexible robot acting as a self-going janitor on the seabed. To support smaller companies in bringing new technology to the market is an important part of our research portfolio,” says Statoil’s Chief technology officer Elisabeth Birkeland Kvalheim.

Ends

**For further information, please contact:**

Gunvor Hatling Midtbø  
**Kongsberg Maritime**  
Tel: +47 33 03 42 09  
[gunvor.hatling.midtbo@km.kongsberg.com](mailto:gunvor.hatling.midtbo@km.kongsberg.com)

---

**About Kongsberg Maritime**

Kongsberg Maritime is a global marine technology company providing innovative and reliable technology solutions for all marine industry sectors including merchant, offshore, subsea and naval. Headquartered in Kongsberg, Norway, the company has manufacturing, sales and service facilities in 20 countries and a total of 65 worldwide offices.

Kongsberg Maritime developed systems for vessels cover all aspects of automation, control, navigation, safety and dynamic positioning. Kongsberg Maritime also develops subsea solutions covering systems for Underwater Mapping (UMAP), Underwater Navigation (UNAV), Subsea Monitoring (SUMO) and Marine Robotics in addition underwater cameras.

Marine and offshore training simulators, LNG equipment, information management software, position reference systems, integrated aquaculture technology and advanced products to support seismic and drilling operations are also part of the company's diverse portfolio.

In parallel with its extensive technology portfolio, Kongsberg Maritime provides services within EIT (Electro, Instrument & Telecom) engineering and system integration, on an EPC (Engineering, Procurement & Construction) basis.

Kongsberg Maritime delivers solutions that cover all aspects of technology underwater and on the water, aboard new build and retrofit vessels, and on offshore platforms and rigs, often under a single supplier strategy called The Full Picture.

Kongsberg Maritime is part of Kongsberg Gruppen (KONGSBERG), an international, knowledge-based group that celebrated 200 years in business during 2014. KONGSBERG supplies high-technology systems and solutions to customers in the oil and gas industry, the merchant marine, and the defence and aerospace industries.

[www.km.kongsberg.com](http://www.km.kongsberg.com)