

# Snake-like Swimming Robots for Subsea Inspection and Light Intervention



Kongsberg Maritime and Statoil have signed an agreement with Eelume, an Norwegian University of Science and Technology (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 been conducting 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 a mix of entrepreneurial spirit, industrial competence, technology and a demanding end-customer. The result is a very robust development process from idea to market.

