

Argeo chooses Kongsberg Maritime-supported Eelume autonomous underwater inspection solution



Argeo has signed the first commercial contract for Eelume's snake robot technology. From left: Atle Gran, Kongsberg Maritime; Trond Crantz, Argeo; Thomas Nygaard, Kongsberg Maritime; Morten Bjerkholt, Eelume

Kongsberg, Norway, 8th November 2021 – Argeo AS, a survey and inspection company focused on subsea data acquisition and visualisation, has selected Eelume's autonomous 'snake robot' to assist in their operations in the first commercial contract to be signed for this innovative technology. Eelume's advanced robotic solutions have been developed with the assistance of Kongsberg Maritime, who remain a majority shareholder in the venture.

Argeo's stated aim is to transform the ocean space inspection industry through robotics, sensors, and data analytics technology. By enabling more efficient acquisition of data with higher accuracy using technologies such as Eelume, the company can construct advanced and highly accurate digital models based on geophysical, hydrographic, and geological data. This enables organisations in the Infrastructure, Offshore Wind, Oil & Gas and Marine Minerals industries to significantly reduce their operational carbon footprint, since large surface vessels are no longer needed.

"We believe that this is just the beginning of a major shift in how the industry conducts underwater operations. There is a need in the market for this type of solution, and we anticipate a significant requirement for more robots of this type in the long term," says Trond Crantz, CEO, Argeo. *"In addition to lowering carbon footprint and increasing efficiency, Eelume technology will enable Argeo to significantly reduce the costs related to inspection, light intervention and monitoring (IMR) of subsea assets and infrastructure. Currently, 90% of these costs are vessel related. Implementing Eelume as a resident inspection tool for Offshore Wind and Oil & Gas will replace up to 70% of vessel activities."*



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KONGSBERG has been actively involved in Eelume since the company was founded in 2015 and has brought almost 30 years of experience gained from their HUGIN Autonomous Underwater Vehicle (AUV) to the development of the Eelume snake robot. *"After many years of focused research and development by an incredibly strong team at Eelume AS, the time has come to enter into commercial contracts for autonomous Eelume vessels,"* says Thomas Nygaard, SVP Marine Robotics, Kongsberg Maritime. *"It is very gratifying that we have been able to so quickly agree this, our first commercial contract, for delivery to Argeo AS. The combination of Eelume with Argeo technology promises to be a disruptive force for many applications in the ocean space."*

Within offshore energy, there is a growing demand for autonomous underwater robots which can perform tasks with minimal human intervention on site, reducing costs and emissions while increasing safety by allowing personnel to stay on land. Eelume aims to become a leading player in this market, developing autonomous underwater robots with unique properties for different types of missions. *"We are very pleased with this sale of our underwater snake robot to Argeo,"* says Morten Bjerkholt, CEO, Eelume. *"Argeo's plan to offer inspection and mapping assignments based on autonomous submarine robots suits us perfectly and shows that our unique technology, using the snake robot as a carrier of sensory technology to carry out autonomous inspection assignments, meets a customer need. We look forward to further collaboration with Argeo, where we will also look at opportunities to integrate specific sensors from Argeo in separate modules of the robot."*

In operation, one Eelume robot can typically provide a serviceable footprint of 50-75 km². Argeo propose matching the technology with their Unmanned Surface Vessels (USV), making the Eelume an effective mobile survey solution complete with deployment and recovery system. *"Argeo's uniqueness comes from patenting and developing advanced sensors and analytical tools that integrate straight into robotics platforms such as the Eelume robot,"* says Crantz. *"This uniqueness, coupled with disruptive robotics solutions, allows us to solve costly everyday problems for large and existing clients worldwide. We are very excited to start this journey and to continue our collaboration with Eelume and KONGSBERG to transform the IMR industry."*

Both Eelume and Argeo's aims are wholly in accord with Kongsberg Maritime's focus on sustainable and autonomous technologies. *"Argeo has shown itself to be a forward-thinking and innovative company that will use unmanned solutions to save both carbon emissions and costs,"* concludes Nygaard. *"Furthermore, such solutions will increase safety in the offshore industry, by allowing more of the operations that are currently performed offshore to be moved safely to land through robotics and autonomy."*

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About Kongsberg Maritime

Kongsberg Maritime is a global marine technology company providing innovative and reliable 'Full Picture' technology solutions for all marine industry sectors. Headquartered in Kongsberg, Norway, Kongsberg Maritime has manufacturing, sales and service facilities in 34 countries.

Kongsberg Maritime solutions cover all aspects of marine automation, safety, manoeuvring, navigation, and dynamic positioning as well as energy management, deck handling and propulsion systems, and ship design services.

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About Argeo

Argeo AS is a company with a mission to transform the ocean surveying and inspection industry by utilising autonomous surface and underwater robotics solutions. Equipped with unique sensors and advanced digital imaging technology, these autonomous underwater vehicles (AUVs) will significantly increase efficiency and imaging quality in addition to contributing to substantially reducing CO₂ emissions from operations for this global industry.

The company's highly accurate digital models and digital twin solutions are based on geophysical, hydrographic, and geological methods from shallow water to the deepest oceans, for market segments in Infrastructure, Offshore Wind, Oil & Gas and Deep Sea Minerals.

Argeo was established in 2017 and has offices in Asker and Tromsø, Norway. Since the start-up, Argeo has carried out complex projects for some of Norway's largest companies in the field.

Web: [Argeo AS](#)

About Eelume

Eelume AS is a spin-off from NTNU. The company was founded in June 2015. Eelume's technology and solutions are based on NTNU's well-known research within snake robotics. The company's vision is to disrupt underwater operations by use of autonomous inspection and intervention robots. The Eelume vehicle is an articulated, autonomous, jointed, subsea vehicle. The robot can carry different sensors and connect to a range of different tools and payloads for carrying out inspection, survey and light intervention missions. The robot can be deployed for single missions from a surface vessel or it can remain subsea-resident for months, operating from its seabed docking station without surface vessel support. The configuration of the vehicle may be easily adapted to suit many different mission profiles by altering the number of flexible joints, thrusters and payload modules. Due to its low-profile body design, flexible body joints and powerful thrusters the vehicle is agile and has unique manoeuvring and access capabilities into confined spaces.

Kongsberg Maritime and Equinor Ventures are the main investors in the company.

Web: [Eelume AS](#)

Social media: [LinkedIn](#)