Kongsberg to Deliver Autonomous Vessels Solution for Ecosystem Monitoring

Kongsberg Maritime has reached an agreement to supply Norway's Institute of Marine Research (IMR) with four autonomous vessels. The scope of supply includes two Kongsberg Maritime Sounder USVs (Unmanned Surface Vehicles) and two Kongsberg AUVs (Autonomous Underwater Vehicles), which will form the practical basis of the institute's long-term strategy to develop the monitoring and management of marine environments and resources.

The four autonomous vessels will be equipped with Kongsberg's new Blue Insight, a cloud-based ecosystem designed to facilitate remote instrument operation, data visualization and smart management of oceanographic and meteorological data. Infrastructure for automated classification of fish through machine learning is a key feature of the delivery, consolidating the long-running partnership between Kongsberg and the IMR towards the goal of implementing seagoing drones for ecosystem management.

Merging AUV and USV Operations

The Kongsberg AUVs are scheduled for delivery this year, with the USVs following in the late summer/early autumn of 2022. The AUVs are depth-rated to 1,500m and are equipped with a powerful payload for environmental monitoring and seabed mapping. The IMR USVs will be equipped with a full EK80 wideband system accommodating ADCP functionality, similar to the setup on their existing research vessels. Importantly, control and navigation of both AUVs and the Sounder USVs can be handled by a single interface. The comprehensive overview provided by this fleet management capability enables interoperability between all assets and reduces in-mission complexity.

This integrated autonomous survey solution is the first to merge AUV and USV operations, and the investment testifies both to the IMR's future- and sustainability-focused ambitions and to its faith in Kongsberg's ability to supply the most advanced autonomous craft.

Kongsberg Maritime is to deliver two Sounder USVs and two AUVs for the Institute of Marine Research.

Adoption of High-tech Digital Solutions

As one of the largest marine research institutes in Europe, the IMR is committed to promoting sustainable practices at sea, and digitalization is a cornerstone of this policy. Stimulus programmes introduced last year to facilitate remote working during and after the pandemic have accelerated the institute's wholesale adoption of high-tech digital solutions, supported by a substantial digital investment by Norway's Ministry of Trade, Industry and Fisheries, in addition to external research grants.

"As we embark on the next stage in this project, we are happy to do so alongside our trusted and long-term partner Kongsberg Maritime," says the IMR's CEO, Sissel Rogne. "We are seeing a wide range of changes in our coastal and ocean ecosystems – and these changes happen fast. In response to this, we must streamline and increase our management efforts. To obtain this we need innovative and reliable partners, and the cooperation with Kongsberg Maritime is therefore vital to us. Their USVs and AUVs will initially work alongside our traditional research vessels in an 'armada strategy,' but will subsequently operate more independently as we expand our plans."

"We're very pleased to have secured this contract with the IMR," adds Tonny Algrøy, sales director, Ocean Science, Kongsberg Maritime. "This delivery builds upon decades of collaborative work with the IMR to create innovative solutions for ocean ecosystem monitoring, and the addition of smart platforms plus a new e-infrastructure solution is a logical next step in this shared history."