

L3 ASV to Conduct Autonomous Navigation Study for UK Government



L3 ASV has received UK government funding for a pioneering project on autonomous navigation of maritime vessels. The company will conduct a study with its partners in the Maritime & Coastguard Agency (MCA) and United Kingdom Hydrographic Office (UKHO), focusing on the future of marine navigational data and charts. The project is funded by the Department for Transport's Transport Technology Research Innovation Grant (T-TRIG) and aims to promote early-stage science, engineering or technology innovations with the potential to advance the UK's transport system.

The project will begin by exploring the characteristics of navigational data and charts in terms of what they comprise, their structure, and how they are updated.

"Current navigational data and charts have been developed over centuries to be read and interpreted by humans," said Dan Hook, senior director of business development at L3 ASV. "Over the coming decade, more and more marine vessels will be operating unmanned, and the charts will be read by computers."

The project will identify the technical data requirements to enable the development of a Smart Chart system, which will then provide information to autonomous vessels to enable safer navigation.

Data requirements

Tim Wilkes, product manager for the MCA, said, "Understanding the data requirements of autonomous vessels is going to be hugely important for the MCA if we are to continue to ensure the safety of navigation in UK waters to save lives and combat pollution. This project will help us identify some of the regulatory issues that accompany a shift to smart and autonomous shipping, and will highlight how the MCA can use its wealth of bathymetric and ship movement data to support this growing industry."

Shipping Minister Nusrat Ghani said, "As we move through the 21st century, technology will continue to transform the UK's world-leading maritime sector. Innovations such as Smart Charts pave the way for automation and Smart Shipping, and we are keen to support British companies making the most of new technologies, giving our vibrant sector a competitive edge. Technology and innovation are a key part of our Maritime 2050 initiative, which will set a vision for the growth and success of our maritime sector over the next 30 years."

Seafloor and tides

Mark Casey from the UKHO commented, "A wealth of marine geospatial data, from bathymetry depicting the seafloor, to the speed and direction of the tides, supports navigation across our oceans. For over 200 years, the UKHO has supplied this information to shipping and defence sectors to help keep mariners safe. We have developed our expertise in sourcing and processing this location-based information to help others better understand the marine environment. With this expertise and knowledge, we are well placed to help our partners identify the data requirements and standards needed to support autonomous vessels of the future."