

Digital Twin For The Maritime Industry **PRINCE PRINCE OF THE MARITIME INDUSTRY **PRINCE PRINCE OF THE MARITIME INDUSTRY **PRINCE OF THE MARITIME INDUSTR

Kongsberg Digital (KDI) launches a maritime digital twin with Höegh Autoliners as its first pilot customer.

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KONGSBERG DIGITAL LAUNCHING DIGITAL TWIN FOR MARITIME INDUSTRY TO TRANSFORM SHIPPING

Kongsberg Digital (KDI) launches a maritime digital twin with Höegh Autoliners as its first pilot customer. This is the beginning of a new transformation journey for ship operations.

As a market-leading developer and vendor of digital twins for the energy sector, KDI is now adding digital twin for maritime to its portfolio. Digital twins allow new ways of working and interacting with data and operational

insights. The first areas the maritime twin supports are trim advisory, 3D visualization of the vessel, and situational awareness around it, including weather conditions. The twin is powered by real-time data from the Vessel Insight data infrastructure and its eco-system of applications.

"The maritime industry is facing huge challenges to meet the new standards for increased transparency and reduced carbon footprint. As a response to this, we have developed a dynamic digital twin that provides a holistic view of the vessel and its surroundings, where data from the vessel is merged with other relevant data sources and presented in one common work surface for operators and shipowners. This will be the first step of enabling advanced integrated workflows in shipping," says Andreas Jagtøyen, Executive Vice President of Digital Ocean in Kongsberg Digital.

The objective of KDI's holistic digital twin is to support partners in utilizing advanced simulations to troubleshoot operations, make predictions of future performance, and over time, enable condition-based maintenance to reduce cost and operational downtime. The digital twin for maritime will build upon the Kognitwin® framework, KDI's digital twin for the energy market.

"Utilizing twin technology on an area of most importance, fuel reduction, is the first step in building a new family of technology and applications, component by component.", says Jagtøyen. "Furthermore, working towards risk assessment, twin technology can help ship owners and operators understand risk and make better decisions. Among other things, visualization to understand risk is critical. When you're assessing the situation of a vessel in the middle of the Atlantic, you must understand the real risk, for example, in the case of severe weather or side waves, and make decisions based on that understanding. Twin technology can achieve that better than any other tool."

Digital twin technology allows new ways of working and utterly new interaction possibilities and transparency between different stakeholders in the industry. Höegh Autoliners is KDIs partner for the pilot with their car carriers, supported by Delta Marine.

"We are pleased to partner with Kongsberg Digital on this pilot for digital twin for maritime," says Chief Operations Officer of Höegh Autoliners Sebjørn Dahl. "Like us, our customers and partners focus on sustainability, electrifying their products, and decarbonizing their supply chains. Our fleet is one of the

most environmentally friendly car carriers ever built. The additional insight and more rapid and cost-effective vessel management provided by KDI's digital twin will supercharge their environmental performance and enable future benefits faster. We already see benefits on trim optimization, but when we add the data around other facets of vessel operation, along with training and maintenance, we expect further benefits and savings to come thick and fast."

In the coming months, KDI will reinforce this digital twin for maritime development by adding new components for visualization and performance.

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KONGSBERG DIGITAL

Kongsberg Digital is a provider of next-generation software and digital solutions to customers within maritime, oil and gas, and renewables and utilities. The company consists of more than 700 software experts with leading competence within the internet of things, smart data, artificial intelligence, maritime simulation, automation, and autonomous operations.

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