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Kongsberg Digital and Shell sign agreement on digitalization partnership, including a Kognifai Dynamic Digital Twin of the Nyhamna gas facility

(Asker, October 10, 2019) Today, Kongsberg Digital, a subsidiary of KONGSBERG, signed an agreement to digitalize the Nyhamna facility, a gas processing and export hub for Ormen Lange and other fields connected to the Polarled pipeline. A/S Norske Shell is entering the partnership as operator of Ormen Lange and on behalf of Gassco as the operator of Nyhamna. The value of the contract scope, with a fully realized dynamic digital twin, is approximately 100 MNOK - with agile and iterative deliverables starting from

Q4 2019.

KONGSBERG will utilize Kognifai® Dynamic Digital Twin to establish a dynamic virtual representation of the gas plant and its behavior – continuously updated with integrated information reflecting the status of the facility in real time. As Technical Service Provider at Nyhamna, Shell will be equipped with the ability to simulate scenarios and uncover new options for optimization of its real-life counterpart.

“We are proud to partner with Shell and support their strategy as a leading international energy company. Our dynamic digital twin technology is cutting edge and will be the foundation for significant transformation within the energy industry in the years to come, through supporting smarter and more efficient ways of designing, engineering and operating assets,” says Geir Håøy, CEO of KONGSBERG.

Business benefits of digital twin technology for oil & gas industry include real-time view of a facility, its processes and production. Physical models and machine learning algorithms provide virtual sensors and insight into the non-instrumented part of a facility and can be leveraged to spin up and manage model instances to perform ‘What-If’ analysis, scenario analysis and to uncover the best options for optimization. These capabilities can be used at existing assets to increase production, manage power consumption and reduce carbon footprint; and also, to plan, design and construct new assets or modify existing facilities. Virtual collaboration and common situational awareness across disciplines can drive down maintenance and operating cost and enable remotely operated assets and efficient operations centers.

“With the implementation of the dynamic digital twin we believe Nyhamna will be at the forefront of digitalization in the oil and gas business, which is exciting to Shell and our partners at Nyhamna. Shell’s digital strategy is value driven, predicated on finding new and better solutions to drive improved business outcomes. With the digital twin we expect new insights that we can leverage to further improve the productivity, reliability and performance of the gas facility,” says Agnete Johnsgaard-Lewis, Managing Director of A/S Norske Shell.

The partnership between Shell and Kongsberg to develop a dynamic digital twin of the Nyhamna facility will be based on an open and collaborative business model, thus entailing opportunities for future collaboration and

deployment of dynamic digital twin technology at other assets.

“The Kognifai Dynamic Digital Twin is an open ecosystem designed to utilize a variety of applications to increase efficiency and optimize production for assets,” says Hege Skryseth, President of Kongsberg Digital. “We are proud to work with Shell on their digital frontrunner Nyhamna. We are looking forward to an exciting collaboration in the coming years.”

With a leading position in digitalization, this is an important milestone for KONGSBERG to leverage deep domain expertise and innovation in the digital realm. The first stage of the delivery is set for fall 2019.

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ABOUT

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 500 software experts with leading competence within the internet of things, smart data, artificial intelligence, maritime simulation, automation and autonomous operations.

Kongsberg Digital is subsidiary of KONGSBERG (OSE-ticker: KOG), an international, knowledge-based group delivering high-technology systems and solutions to clients within the oil and gas industry, subsea, merchant marine, defence and aerospace.

Nyhamna: Large process facility in Aukra municipality in Møre and Romsdal - in operations since 2007. Initially built as a land facility for processing and exporting gas from the Shell operated Ormen Lange field. After a significant upgrade, the plant is able to process gas from other fields in the Norwegian Sea connected to the Polarled pipeline. Now a hub for gas processing, Nyhamna exports gas to UK and continental Europe through the Langed pipeline.

Nyhamna is owned by Nyhamna Joint Venture: Petoro, Equinor, Cape Omega, A/S Norske Shell, Ineos, Wintershall, OMV, Total, ConocoPhillips and North Sea Infrastructure. Gassco is the operator, and A/S Norske Shell is the technical service provider for Nyhamna.