



KONGSBERG has developed Integrated Vessel Concepts for a wide range of vessel types (IMR – Inspection Maintenance & Repair pictured - images of other vessel types are available on request)

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## Kongsberg Maritime: New ‘Integrated Vessel Concepts’ hold key to conserving and generating power on board

- *Integration layer harmonises handling, operation and energy functions*
- *Concepts combine existing and new technologies to meet specific operational demands*

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Kongsberg Maritime has launched a new portfolio of fully 'Integrated Vessel Concepts' designed to harmonise handling, operations and energy systems on a wide range of specific vessel types. The concepts are the product of the company's new 'Integration' strategy, which has been established this summer to leverage existing and new KONGSBERG technology to achieve tangible operational efficiency improvements.

With its new Integration strategy applied to specific vessels, KONGSBERG has created a new level of integration to enable more dynamics and distributed power management between disparate systems on board. The first set of vessels types to receive Integrated Vessel Concept configurations cover a wide spectrum of maritime operations. Vessel types include: Container, Forage Carrier, FPSO, Inspection Maintenance & Repair, Research, Ro-Pax, Shuttle Tanker, Small Scale LNG, Superyacht, Trawler and Wind Farm Support.

To facilitate Integrated Vessel Concepts, KONGSBERG is further developing its scope of supply to the global shipbuilding industry with focus on electrical systems including switchboards and drives. Electrical systems will be fully integrated with on board technology, ensuring optimal power consumption for dynamic vessel operations. With integration between disparate systems, distributed power management, data sharing on board and ashore can be significantly improved, facilitating enhanced decision making across the operational chain.

Though purposely designed for a broad range of vessel types and customisable to specific requirements, several specific new systems have already been developed for use within KONGSBERG's Integrated Vessel Concepts. These include for the first time, the vessel dynamics integrated into the power management layer, providing a new concept for Energy Control. Integrating all elements of the power plant to the energy control layer and distributing control functions closer to the consumers with fast acting sensors, redefines the definition of efficiency.

Dynamic Load prediction (DLP) – a new Dynamic Positioning (DP) system to predict power usage for a vessel's thrusters, Dynamic Inertia Control (DIC) and Dynamic Supervision & Control (DSC) are some of the new features

enhancing energy control for DP operations. Solutions for power plant optimisation include power regeneration using permanent magnetic electric motors for rotating equipment and enhanced battery solutions for peak shaving and storage. Examples include systems for vessels with large rotating equipment like winches and electric gangways, which are designed to convert motion into power.

Already highly regarded as a maritime technology company through its delivery of extensive i.e. automation, navigation and manoeuvring systems for merchant and offshore vessels, KONGSBERG is actively developing existing partnerships and creating new partnerships with industry leaders to facilitate its new energy and engineering innovations. The company's work in EIT projects forms the basis of its expanded energy focused product line, which will be further developed and integrated with more recognisable KONGSBERG technology for automation and operations.

*"A primary driver for the development of our Integration strategy and Integrated Vessel Concepts is conservation and predictable utilisation of energy, resulting in lower fuel consumption and the associated environmental benefits. However, we also want to create 'free' energy for hybrid or even fully electric power configurations, which are now becoming more viable due to less expensive batteries and more sophisticated power management," said Srinivas Tati, Vice President, Business Development, Kongsberg Maritime. "Our approach to integration goes much deeper though. We have studied in-depth how different vessels operate to understand how the unification of on board technologies can change how we think about and conduct maritime operations at every level."*

Ends

Watch the video, 'Welcome to a new world of integrated performance' on YouTube: <https://www.youtube.com/watch?v=zatQ1Ogw00w>

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### **About Kongsberg Maritime**

Kongsberg Maritime is a global marine technology company providing innovative and reliable technology solutions for all marine industry sectors including merchant, offshore, subsea and naval. Headquartered in Kongsberg, Norway, the company has manufacturing, sales and service facilities in 20 countries.

Kongsberg Maritime developed systems for vessels cover all aspects of marine automation, safety, manoeuvring, navigation, and dynamic positioning. Subsea solutions include single and multibeam echo sounders, sonars, AUV/Underwater Robotics, underwater navigation, communication and camera systems.

Marine and offshore training simulators, LNG solutions, information management, position reference systems and technology for seismic and drilling operations are also part of the company's diverse technology portfolio.

In parallel with its extensive technology portfolio, Kongsberg Maritime provides services within EIT (Electro, Instrument & Telecom) engineering and system integration, on an EPC (Engineering, Procurement & Construction) basis.

Kongsberg Maritime delivers solutions that cover all aspects of technology underwater and on the water, aboard new build and retrofit vessels, and on offshore platforms and rigs, often under a single supplier strategy called The Full Picture.

Kongsberg Maritime is part of Kongsberg Gruppen (KONGSBERG), an international, knowledge-based group that celebrated 200 years in business during 2014. KONGSBERG supplies high-technology systems and solutions to customers in the oil and gas industry, the merchant marine, and the defence and aerospace industries.

*[www.km.kongsberg.com](http://www.km.kongsberg.com)*