

High impact solution

Thruster Digital Twin: KONGSBERG

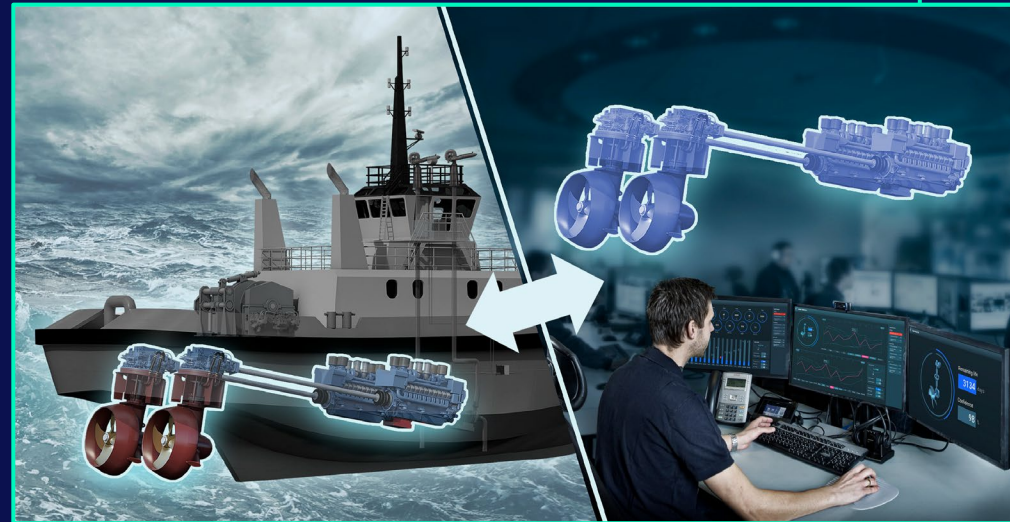
Joni Keski-Rahkonen, KONGSBERG
Marko Jurmu, Erkki Siira, VTT

Business need

Investigate the potential of digital twin technologies in marine thruster lifecycle: design, manufacturing, testing, operation in the field.

Solution

- Brainstorming with research and SME (EDR Medeso, Remion) partners to identify possibilities and enabling technologies of digital twins
- Choosing predictive maintenance as the first target service
- Investigating virtual sensing as a cost-effective data provisioning solution



Impact

- Digital twin technology opens multiple development paths for thruster development and competitiveness in general, including as-a-service thinking
- Taking steps towards secure remote controlling and autonomous operation of marine vessels, enabled by digital twins
- Reducing downtime from thruster operation in the field through predictive maintenance
- Increasing marine traffic sustainability by digital twin-based energy-efficiency

Outlook

Digital twins remain a strategic technology in KONGSBERG's digitalisation strategy in the future, and the company is committed to establishing new business based on this technology.