



KONGSBERG MARITIME

Autonomous SolutionsDebunking 5 myths on Autonomy

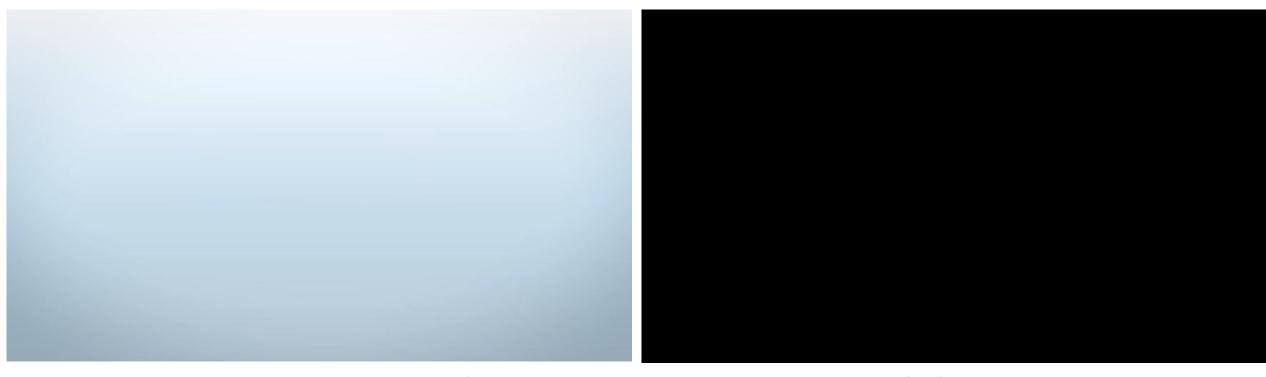
WorkBoat Show, New-Orleans, 1-Dec 2021

Olivier Cadet, SVP Global Operations, Americas





We Are on a Collaborative Journey



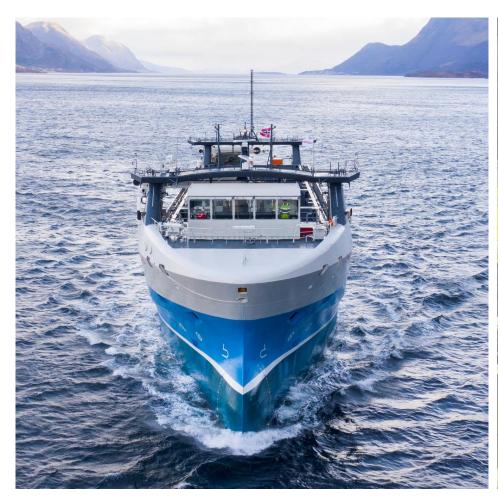
Zero Emission Autonomous Container Feeder Concept introduced in 2018

Vessel under test in 2021

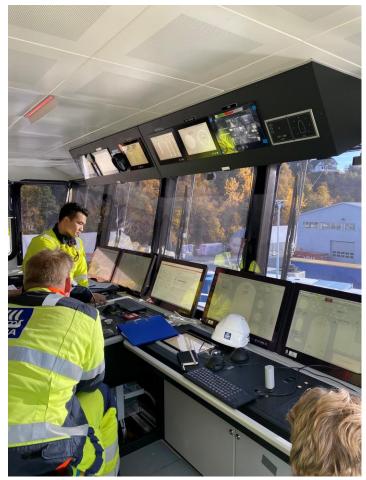


Yara Birkeland

From Reduced Crew to Fully Autonomous









Myth #1 Autonomy or Automation?





Remote and autonomy is new for the maritime industry







Learn From Current Applications

Re-purpose what works in other applications and let's not reinvent the wheel!



Sensors & Robotics



Integrated Solutions

Dynamic Positioning, Automation & Propulsion



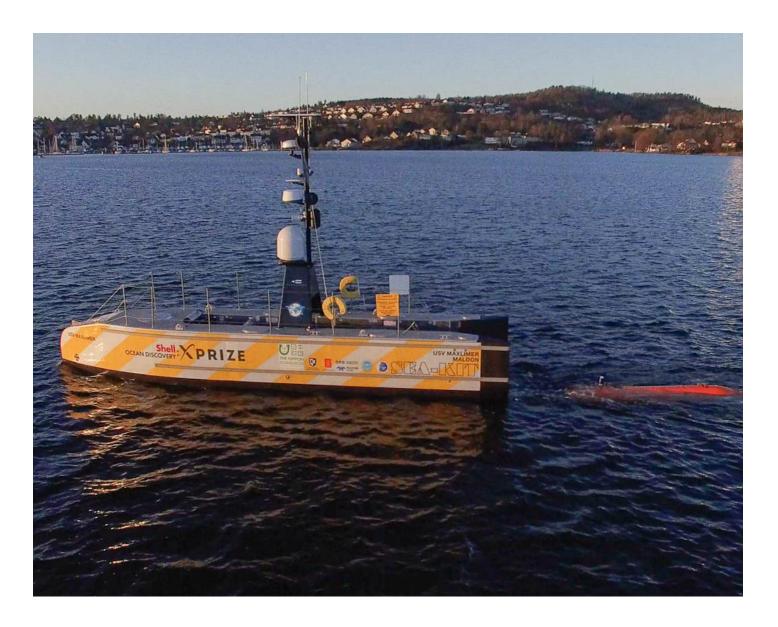
Next Generation Control System

KCS – Safety Automation System on Johan

Sverdrup platforms handling 160,000 I/O



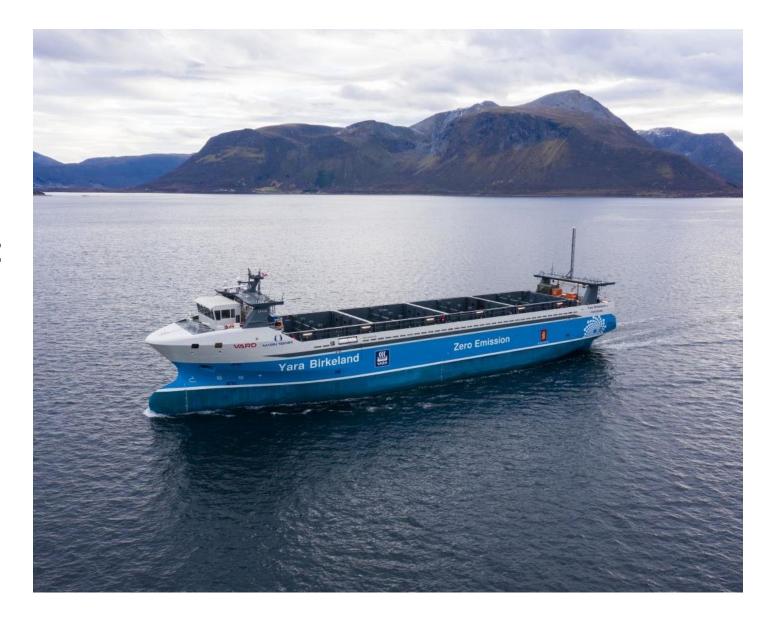
Any vessel can be made autonomous by adding the right sensors and control logic





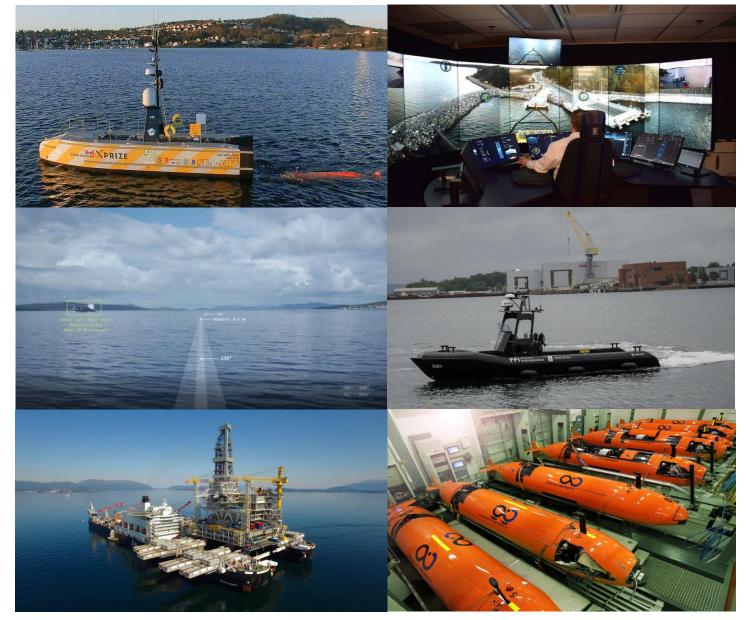
Design <u>for</u> safe, reliable, predictable and efficient autonomous operations

- Manage mission
- Navigate vessel
- Operate ship systems
- Monitor equipment
- Backup options





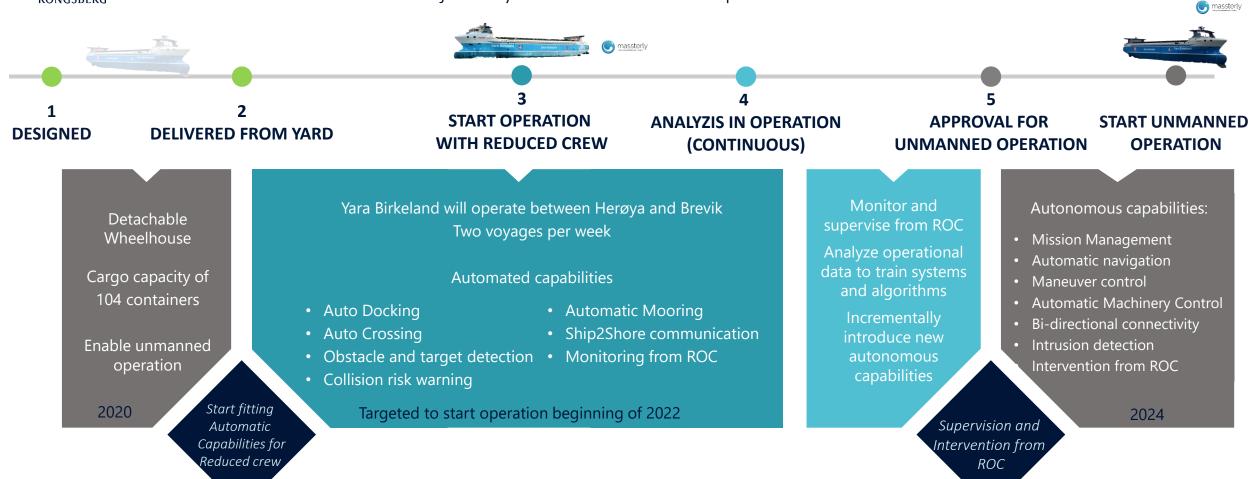
Autonomy will happen as a step-change for the maritime industry





Yara Birkeland

On journey towards unmanned operations





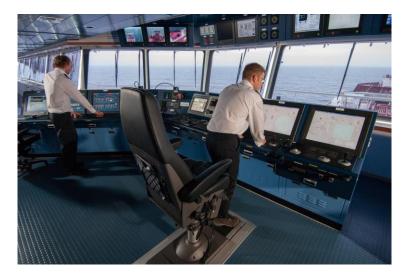
Autonomy means that seafarers will lose their jobs





The Human Will ALWAYS Be in the Loop

But where in the loop?





Design
Testing and Validating
Mission Planning
Exceptions Handling
Regulating

Do we have the right skillsets to handle Autonomous Operations in the maritime industry? And how are we approaching training of the next generation seafarers?



Culture of
Relentless
Continuous
Improvement
and Knowledge
Sharing



