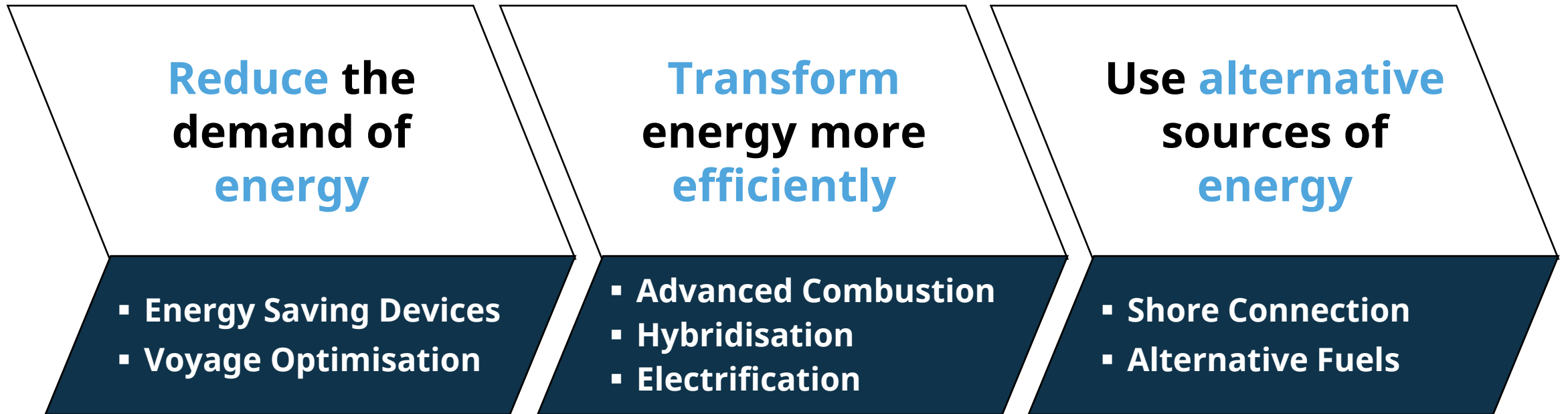


Seattle Ferries Decarbonization Alternatives Technology Development and Readiness

Mark Keneford - Managing Director Wärtsilä Canada

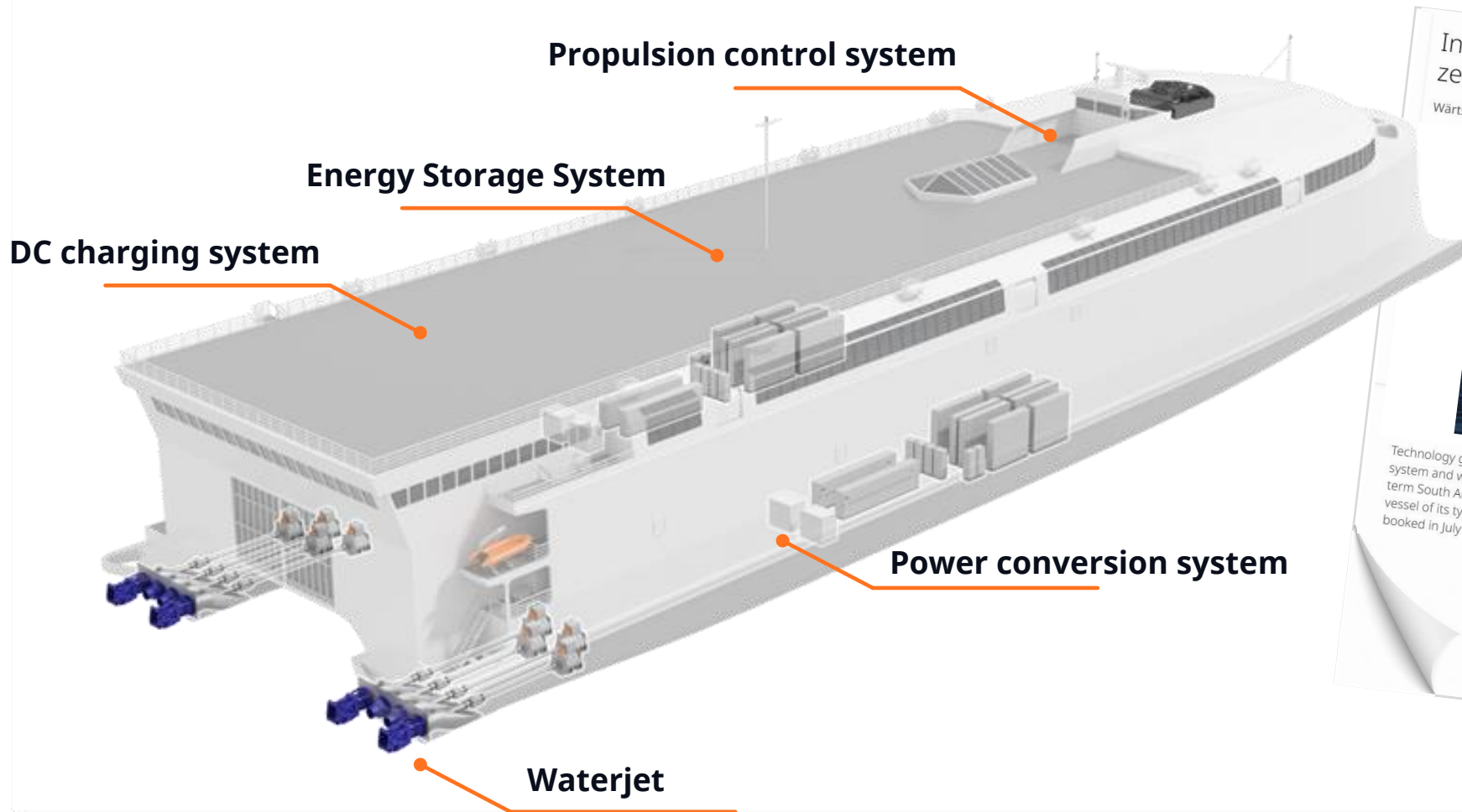
Dave Adams – Senior Sales Manager

Approach to Decarbonisation



Integration is key to achieving decarbonisation

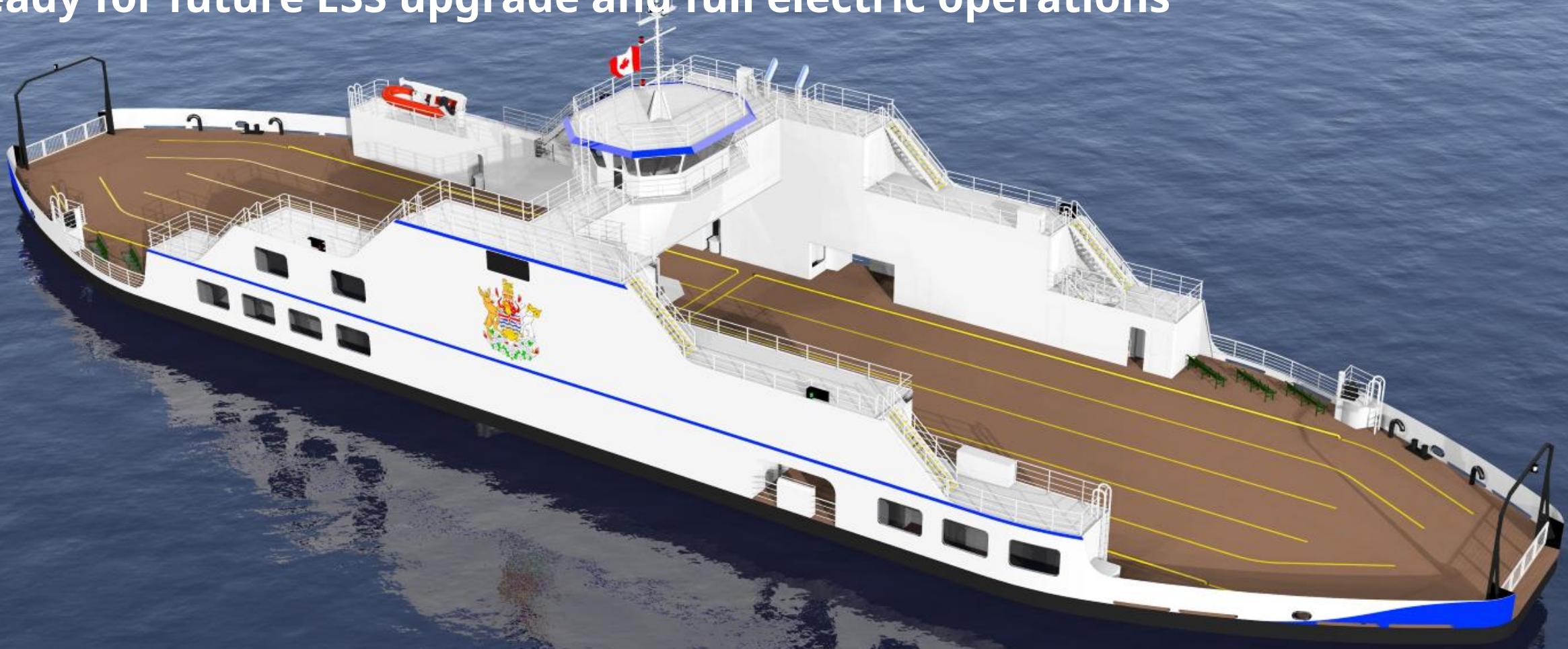
The biggest battery electric ship ever built has Wärtsilä integrated solution on-board and on-shore



<https://www.wartsila.com/media/news/24-08-2023-incat-tasmania-selects-wartsila-solutions-for-world-s-first-zero-emissions-lightweight-ro-pax-ferry-3313434>

New Kootenay lake ferry

Designed as diesel-electric hybrid
Ready for future ESS upgrade and full electric operations



MS Medstraum – the world's first zero-emission fast ferry

Wärtsilä's job was to deliver the PMS/EMS control system, propulsion motors, power converters, batteries, onboard and shore-based battery charging equipment, and various electrical systems.





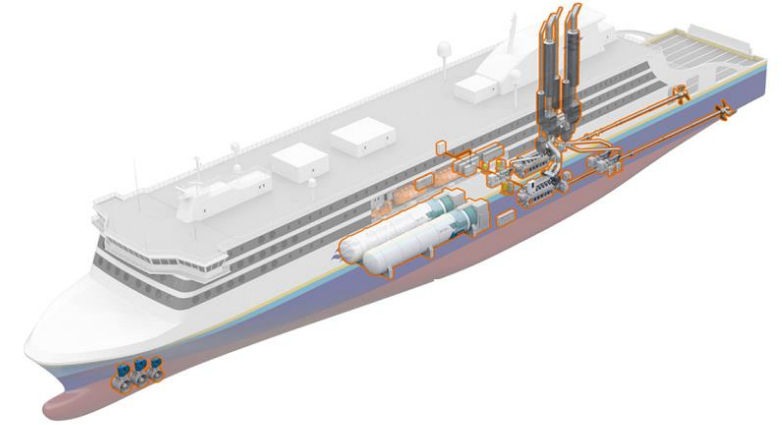
Boreal Sjø AS
Pure Electric



Isle of Man Steam Packet Company
Electric Hybrid - Diesel



STENA/Marine Atlantic
Mechanic Hybrid - Gas



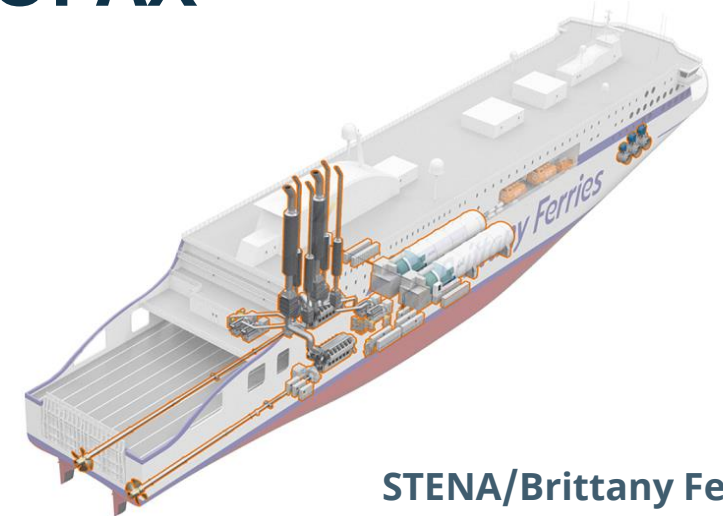
EXPERIENCE FROM SMALL PURE ELECTRIC FERRY TO THE LARGEST HYBRID ROPAX



Balfour ferry, western pacific
Electric Hybrid - Diesel



Finnlines
Mechanic Hybrid - Diesel



STENA/Brittany Ferries
Mechanic Hybrid - Gas



WÄRTSILÄ