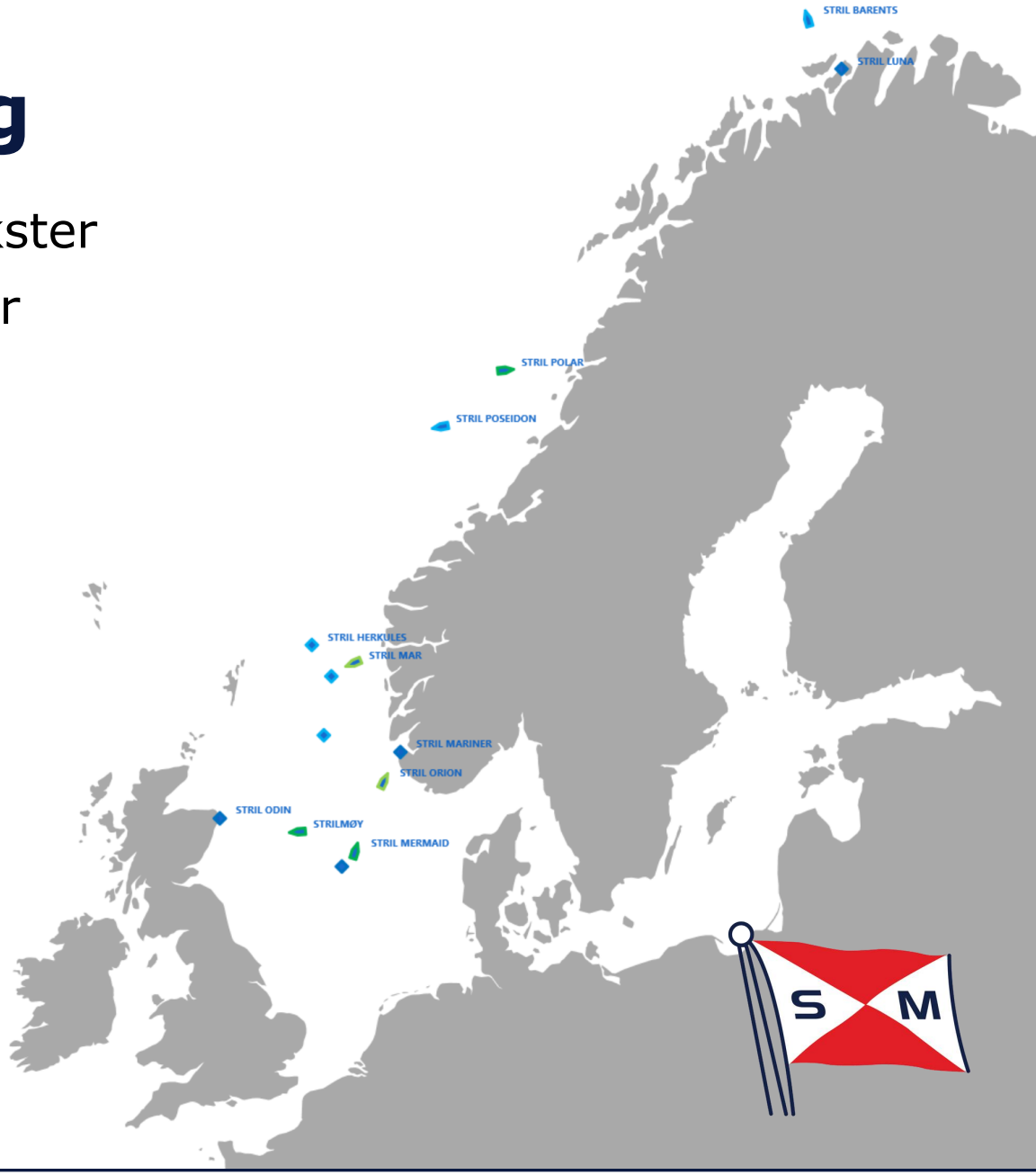
Onboard Carbon Capture on Offshore Support Vessels

Simon Møksters Shipping

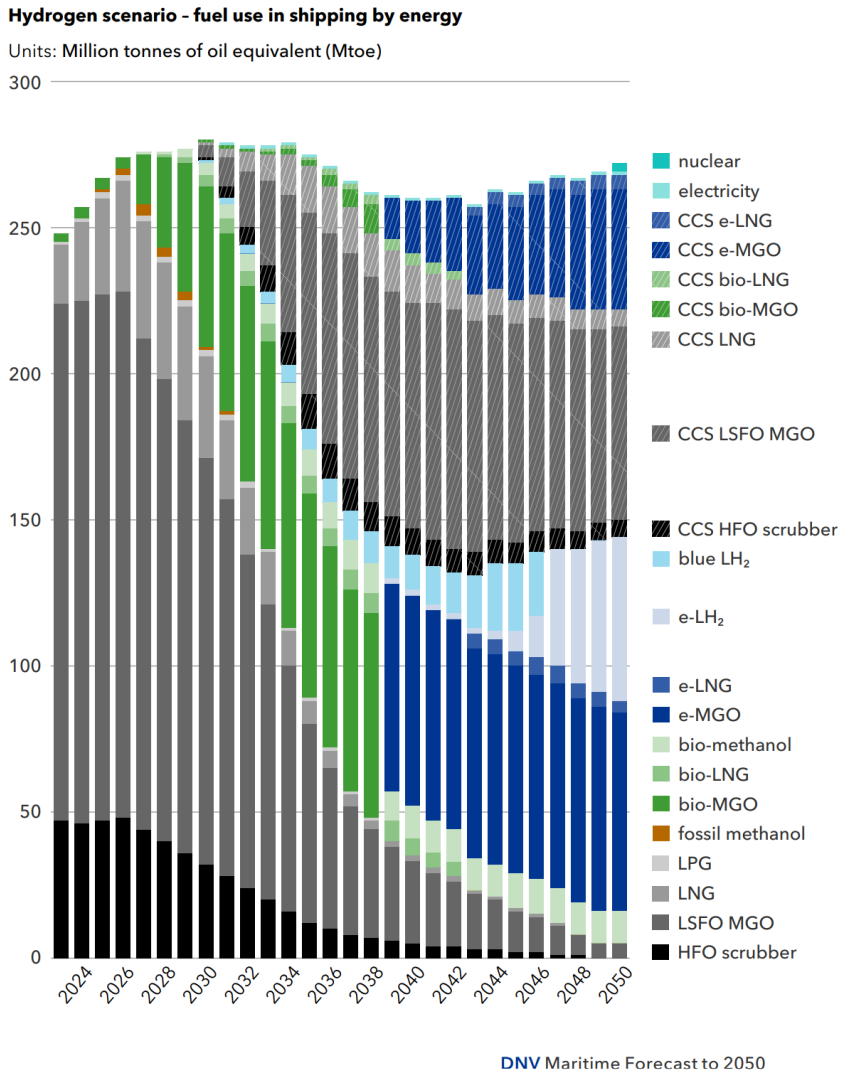
- Established in 1968 by Capt. Simon Møkster
- Fully integrated ship owner and manager
- 15 high-spec vessels
  - 9 PSV
  - 4 ERRV
  - 2 Subsea
- NOR & NIS flag
- 450 employees
- Main trading area is Norway and Northern Europe



Norwegian ship owner with an infinite perspective

The Road to Net-Zero in 2050

- Ambitions, goals and increased national, regional and international regulations
- Norwegian regulation on low and zero emission offshore support vessels
- Avaliability of low and zero emission fuels will be a bottle neck
- New builds vs retro-fit
- The need for technologies that can decarbonise today’s fuels



DNV Maritime Forecast to 2050

The Road to Net-Zero in 2050

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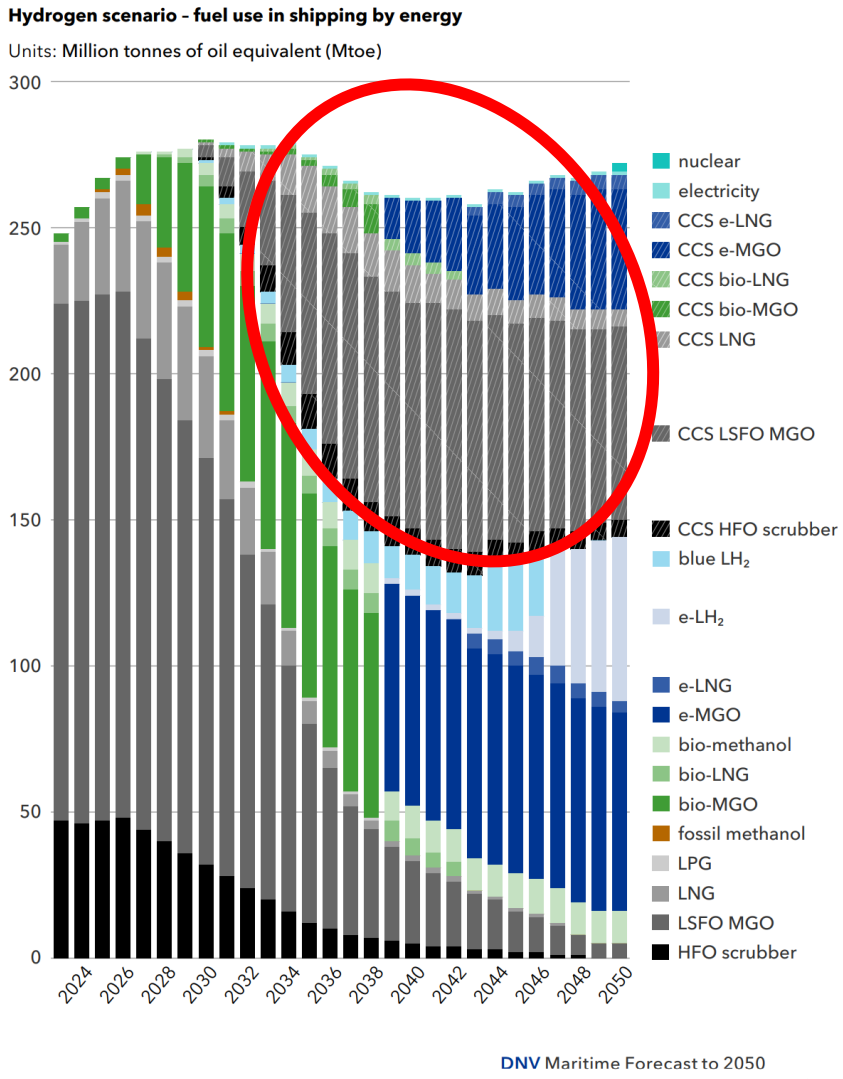
- **We need onboard carbon capture!**



DNV Maritime Forecast to 2050

Onboard Carbon Capture

- Mature technology onshore
- Successful full-scale pilots
- Continue to use existing carbon-based fuels – reduce risks related to availability and price
- Able to retro-fit on existing vessels
- Scalable technology
- Easiest, cheapest and safest low-carbon alternative that can be implemented today!

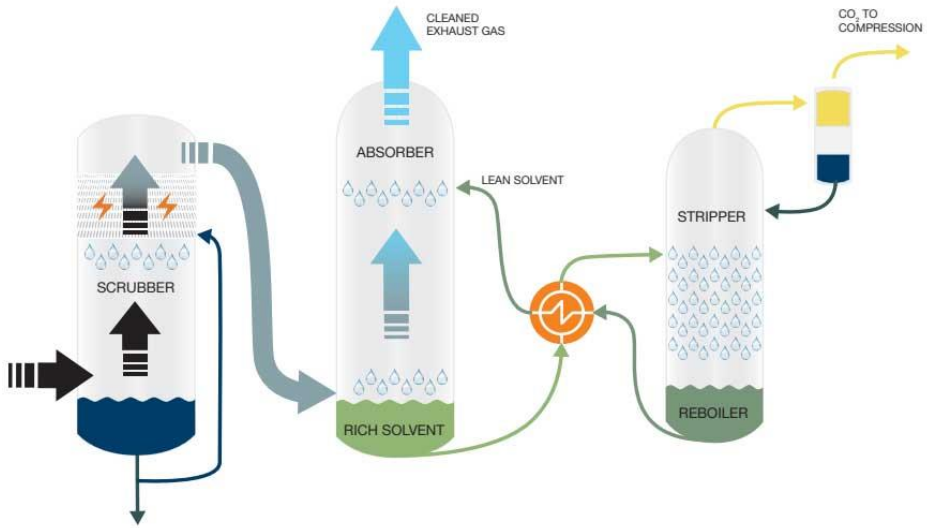
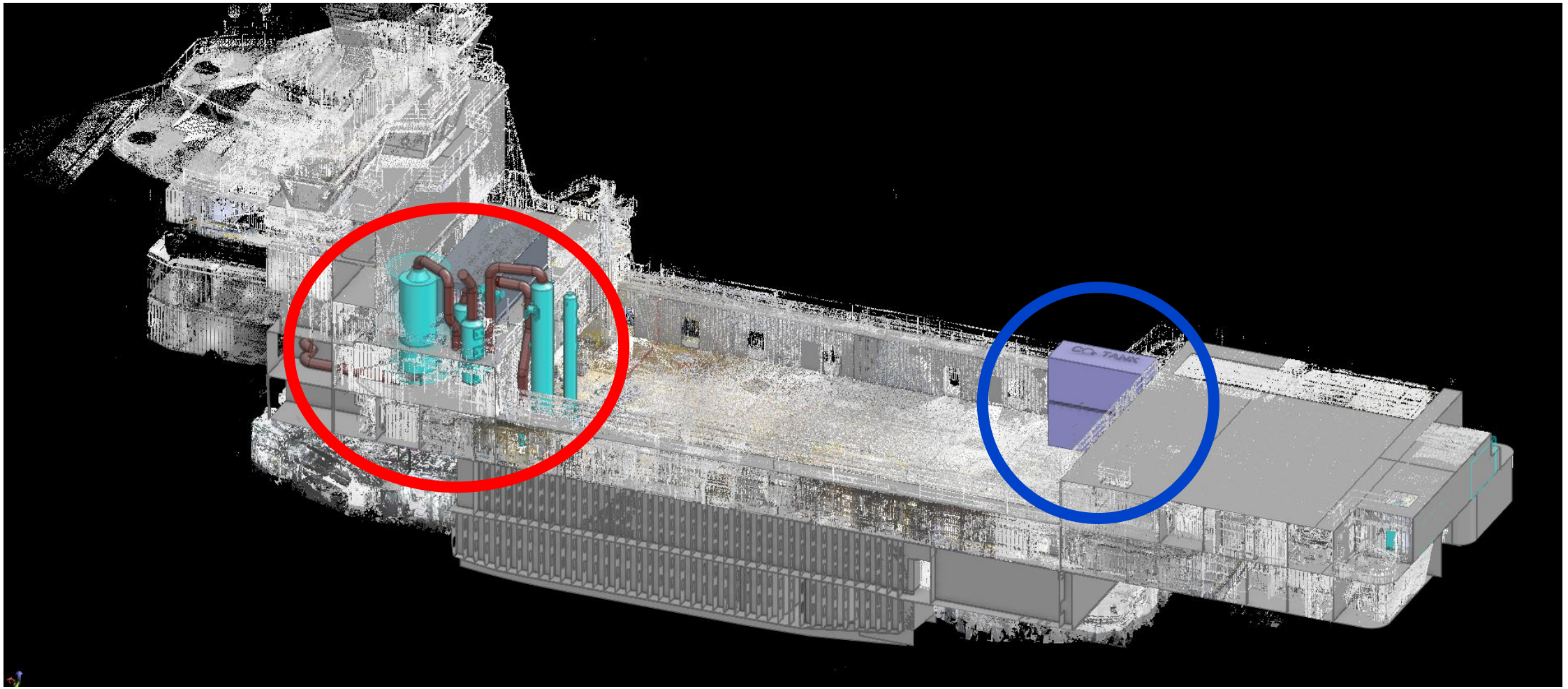


Illustration: Wärtsilä Moss

"The Road to CCS"

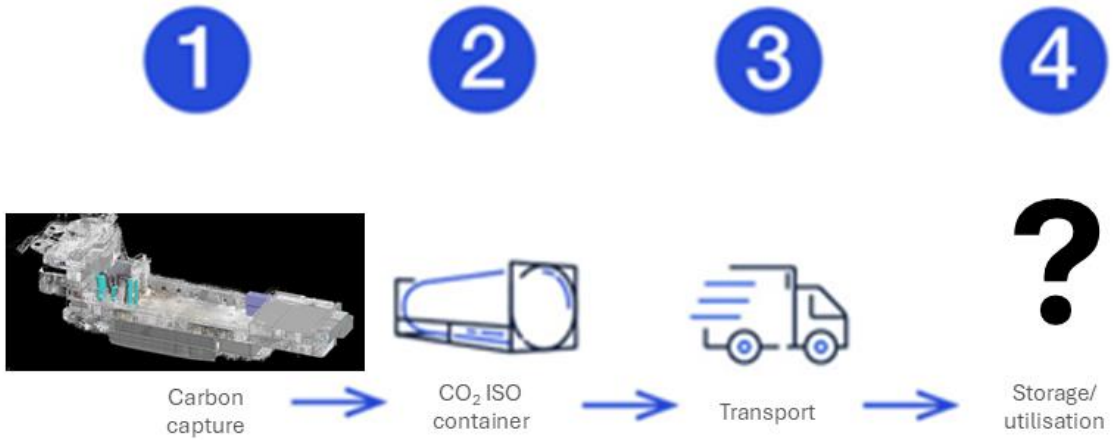
- Pilot project for onboard carbon capture on an offshore vessel
- Technical feasibility study completed in 2023
- Wärtsilä Moss' amino acid technology
- 70 % reduction in emissions
- «Stril Barents» PSV built in 2015
- LNG and battery hybrid
- Grant from ENOVA under the program «Banebrytende maritim teknologi»
- Partners are Wärtsilä Moss, Vår Energi and Sintef

"The Road to CCS"



Current Challenges

- CO2 value chain – how to get rid of the captured CO2
  - The carbon value chains have to be established
  - Not viable to establish full value chains around small emitters with small volumes
  - Value chains for large emitters awaiting large-scale storage projects
  - Strict requirements for purity for utilisation
- Uncertain framework conditions on carbon capture, utilisation and storage
  - Development of new storage projects
  - Recognition of carbon capture in various regulatory frameworks: EU ETS, FuelEU Maritime, etc.



Thank you for your attention

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