

WEBINAR

TUESDAY 28 OCTOBER
10:30-11:30 GMT

Next-generation shuttle tankers: fleet renewal and technological innovations

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WEBINAR

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Sivert Olsvik Saether

Business Development & Marketing Manager

Brunvoll

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Reducing Downtime and Saving Costs: A Case Study on Brunvoll's Retractable Azimuth Thrusters, with Serviceability on Regular Dock Blocks or While Afloat

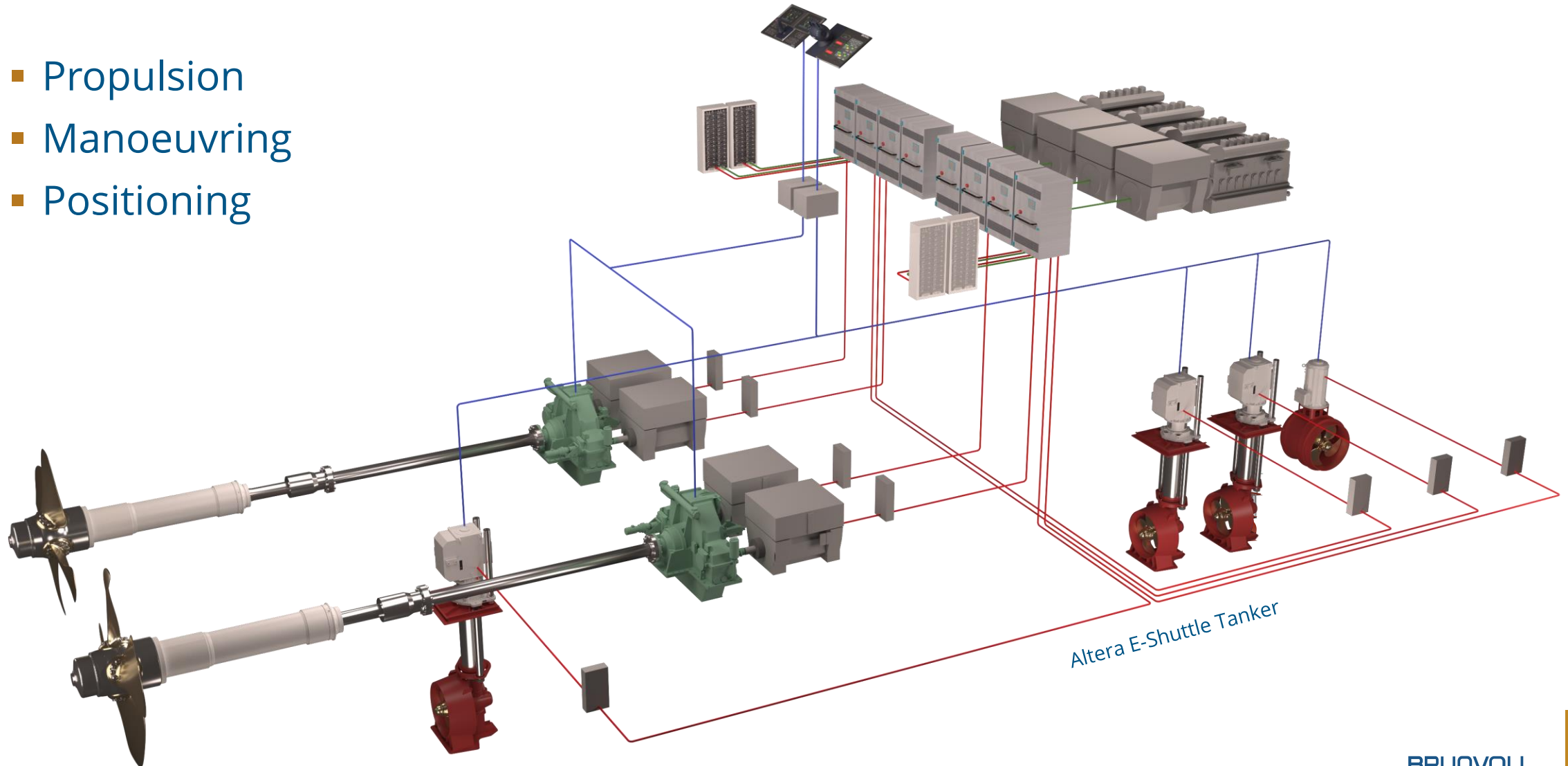
Next-generation Shuttle Tankers Webinar



Teekay's ship-naming ceremony at the Port of Stavanger

Shuttle Tanker Arrangement

- Propulsion
- Manoeuvring
- Positioning



Retractable Azimuth Thruster

- History
 - Navy
 - Offshore Energy
 - Fishery (Combi tunnel thruster)
- Power range
- Delivered units
- Serviceability on regular dock blocks and while afloat



Serviceability on regular dock blocks or while afloat

- Regular maintenance
 - 5. and 10. year docking
 - Dock
 - Availability
 - Depth limitations
- Unforeseen event
 - Incident repair while afloat



Serviceability on regular dock blocks or while afloat

- Regular maintenance
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- Unforeseen event
 - Incident repair/service afloat



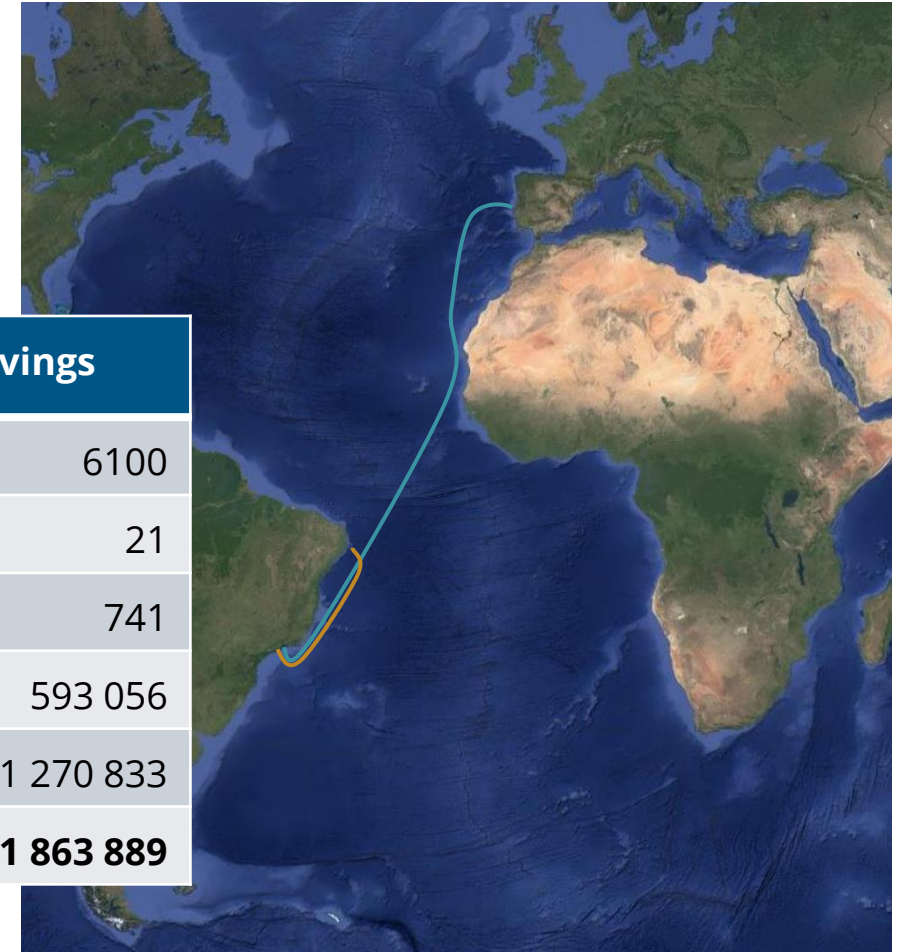
Picture from yesterday, during maintenance on M/T "Synnøve Knutsen"

Brazilian Case Study

- Fuel and off-hire cost

Parameter	Rio - European shipyard	Rio - Brazilian shipyard	Savings
Roundtrip sailing distance [nm]	8400	2300	6100
Roundtrip sailing duration [days]	29	8	21
Roundtrip fuel consumption [tonnes]	1021	280	741
Roundtrip fuel cost [USD]	816 667	223 611	593 056
Roundtrip off-hire [USD]	1 750 000	479 167	1 270 833
Roundtrip total cost[USD]	2 566 667	702 778	1 863 889

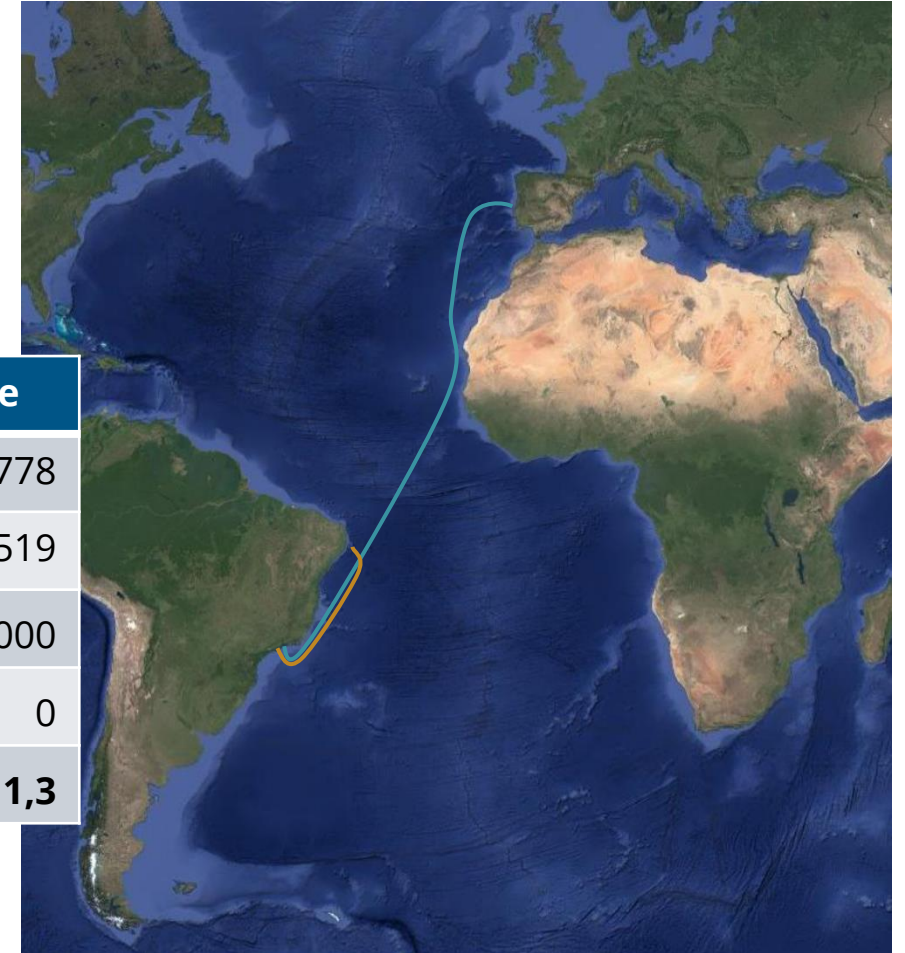
*Fuel price 800 USD/tonnes, Day rate 60.000 USD, Transit 12 knots, Fuel consumption 35 tonnes/day.



Brazilian Case Study

- Return of investment

Parameter	Value
Total savings, dry-docking at 5. and 10. years [USD]	3 727 778
Average savings per year, 15 years operation [USD]	248 519
Added Capex [USD]	350 000
Added OPEX [USD]	0
Return of investment [year]	1,3



“Keep calm and shuttle on”

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Felipe Figueiredo

Fleet Manager

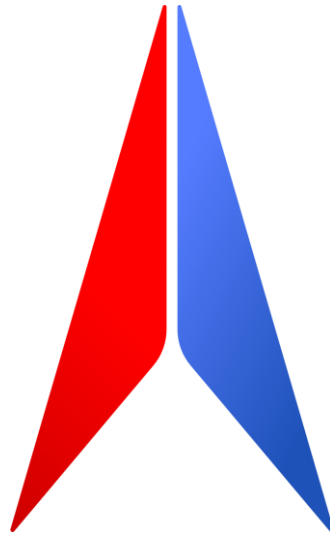
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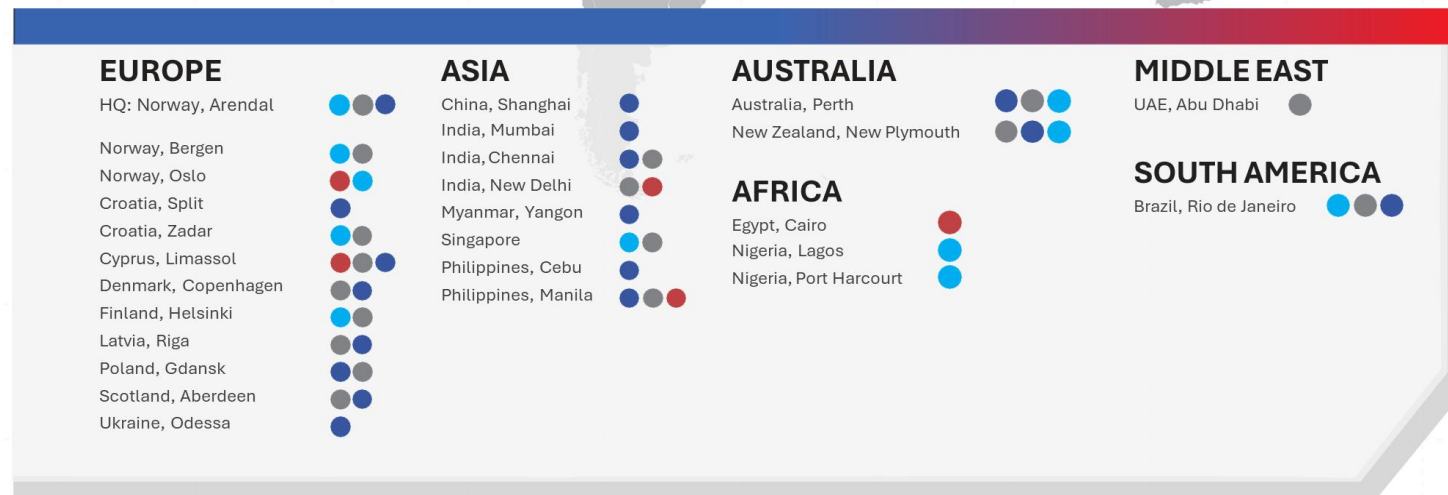
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OSM Thome

We have the right ingredients to provide a quality service to the maritime and offshore industry. This includes robust processes, global coverage, volume and great people!

OSM THOME GLOBAL FOOTPRINT



-  **TECHNICAL MANAGEMENT**
-  **CREW MANAGEMENT**
-  **SHARED SERVICES**
-  **RECRUITMENT**

SHUTTLE TANKERS TECHNICAL MANAGEMENT

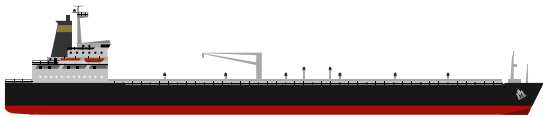


OSM Thome – A Pioneer and Global Leader

- Roots back to Rasmussen Maritime Services (1977) — first shuttle tanker operator.
- Operated the world's first shuttle tankers, *Polytrader* and *Polytraveller* (1979).

OSM Thome Is The World's Number One Third Party Shuttle Tanker Manager

- Today, OSM Thome manages ~10% of the global shuttle tanker fleet, providing both crew and technical management.
- Decades of operational experience form the foundation for developing next-generation shuttle tankers.

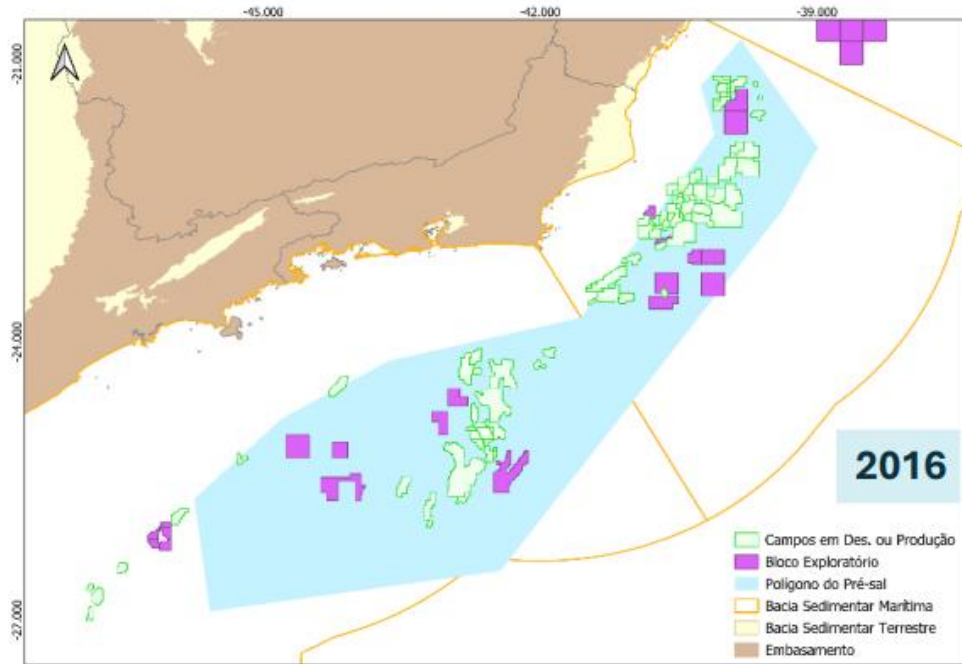


11
SHUTTLE
TANKERS

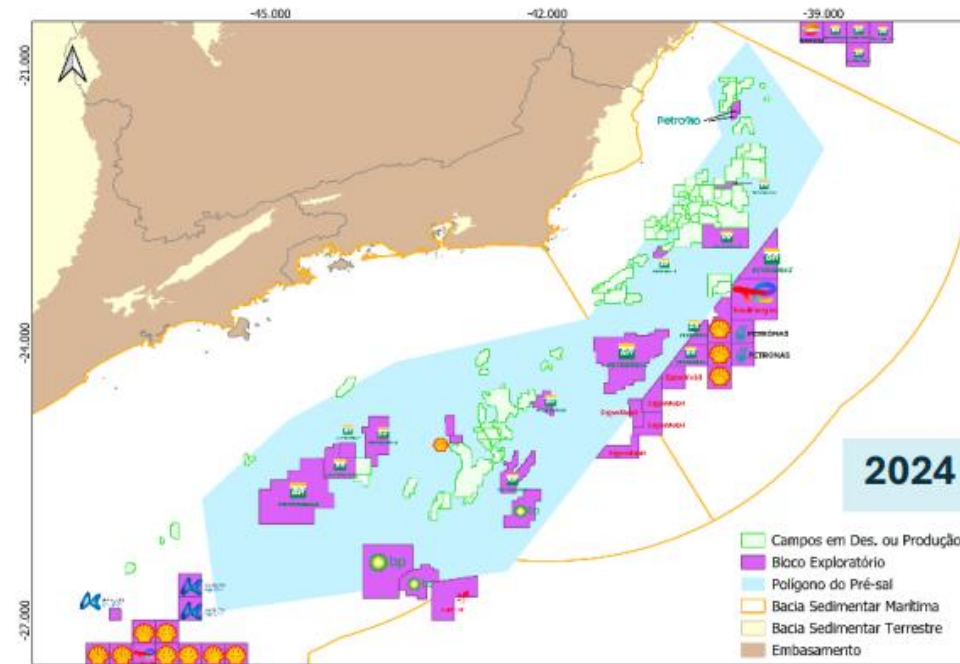


Contracts for the Campos and Santos Basins

OPP and OPC (2016=>2024)



Blocks featuring active contracts (2016)



Blocks featuring active contracts (2024)

Shuttle Tanker Project for Petrobras Offloading Operations in Brazil



Length Overall: 279m

Scantling Draught: 17m

Ships dimensions:



Moulded
breadth: 48m

Suezmax DP2 Ships



Designed for improving
energy efficiency



Deadweight: Approx. 155,000
metric tons at scantling draught



DP2 System: DP2 system:
station keeping (position
and heading) capability



Shore-power technology:
operating with cleaner energy
sources at the terminal



Alternative fuels: dual fuel
ready-for class notation for
methanol and ethanol



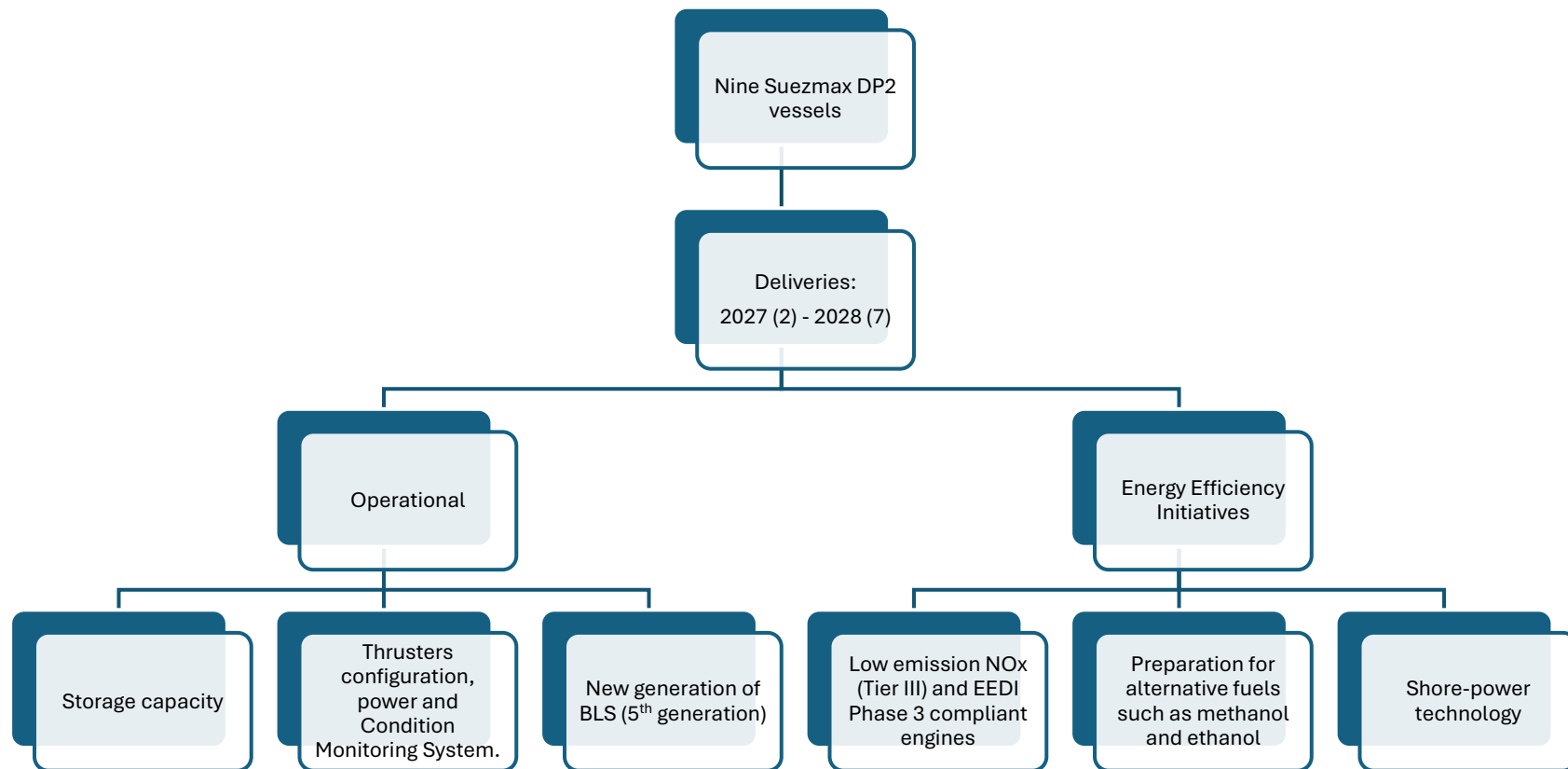
**New design with more power
installed,** increasing DP
operations safety and reliability



BLS: Bow loading system,
safer and faster



Lower emissions: NOx Tier III
engines and EEDI Phase 3 vessel



Source:

https://transpetro.com.br/en_us/transpetro-institucional/noticias/transpetro-will-double-platform-offloading-capacity-by-2028.htm

NEW PROJECTS' FEATURES



- Rudder Bulb
- Pre Swirl Duct
- Shaft Power Meter
- Engine Control Optimization
- Low Friction Antifouling Coating
- Ultrasonic Antifouling System for Seachests and Propeller
- Exhaust Gas Economizer for Auxiliary Engines
- PRS Upgrade
- VOC Recovery Systems
- Nitrogen IGG
- DC Grid
- Trim Optimization Software
- Smart Class Notation



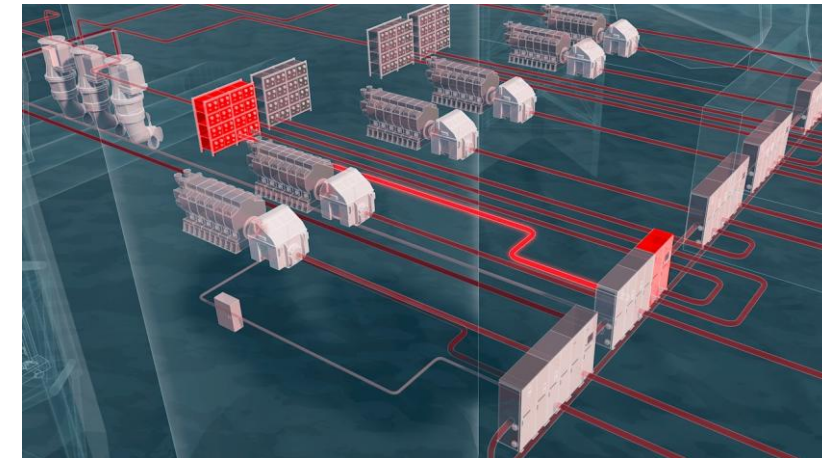
Source: Wartsila



Source: Friedrich Mewis



Source: Alfa Laval



Source: ABB



OSM Thome

THANK YOU!

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Catrine Vestereng

SVP & Business Director Tankers, Maritime

DNV

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DNV update on Shuttle Tankers

Riviera Shuttle Seminar

Catrine Vestereng, SVP & Global Segment Director for Tankers, DNV

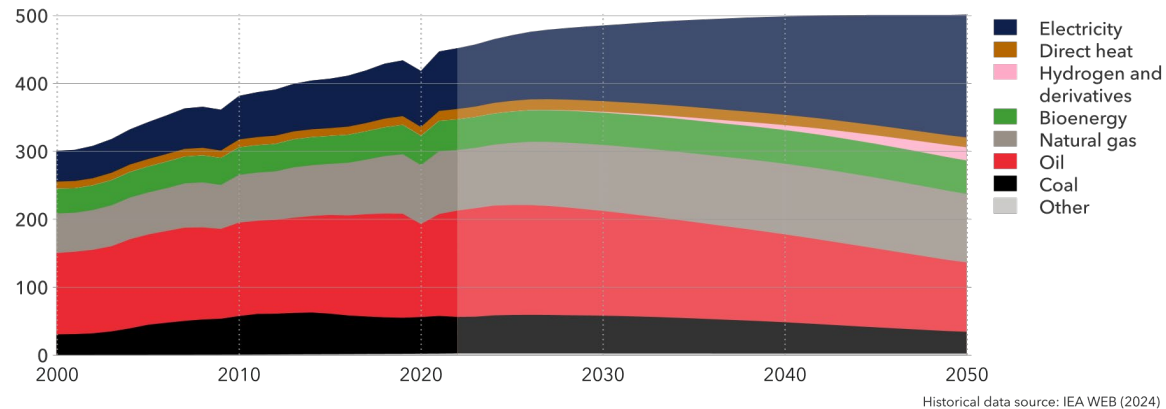
28th October 2025

Global oil demand is still increasing

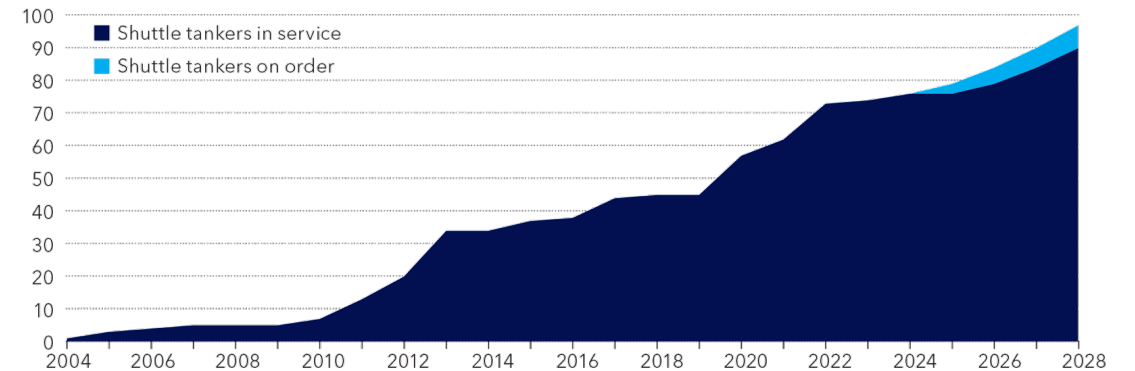
...which is reflected in the increasing Shuttle fleet

World final energy demand by carrier

Units: EJ/yr

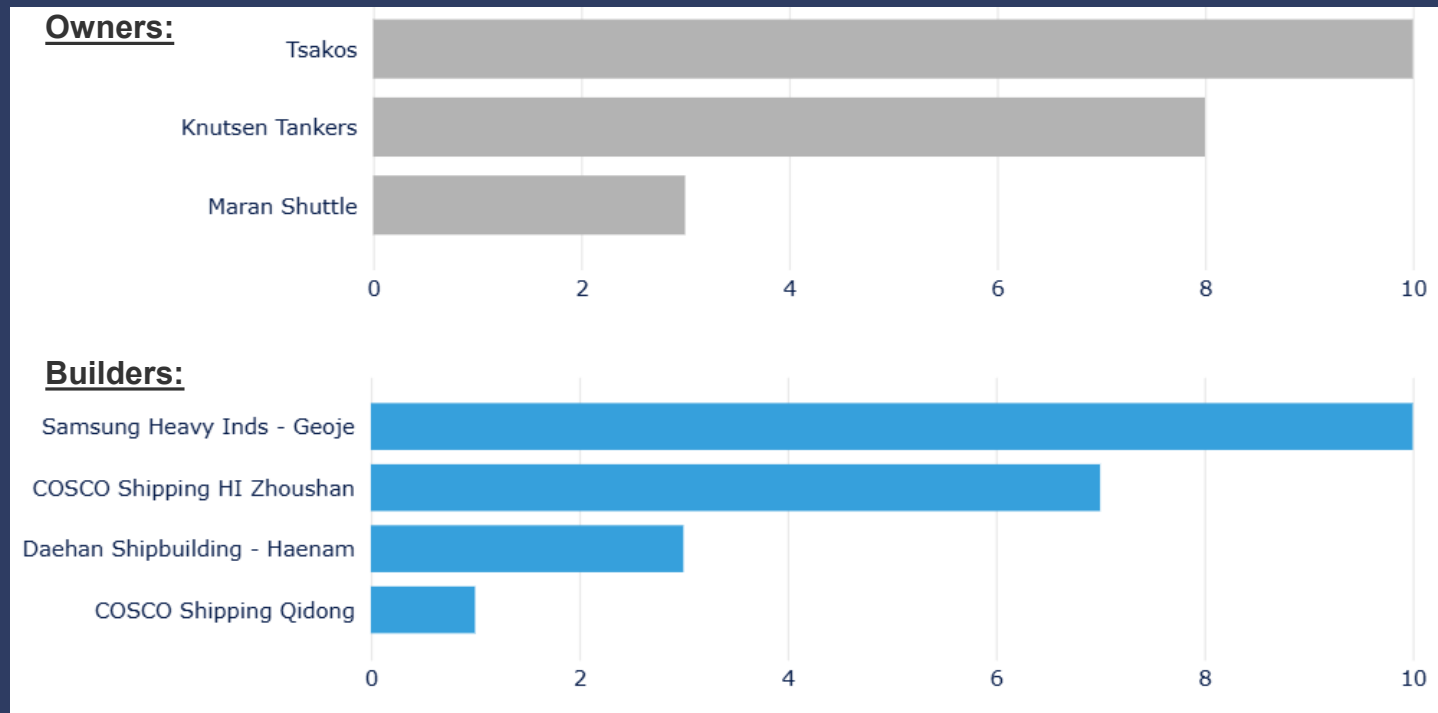


Age profile of existing shuttle tanker fleet operating in the North Sea, Canada and Brazil, by year of delivery (accumulated)

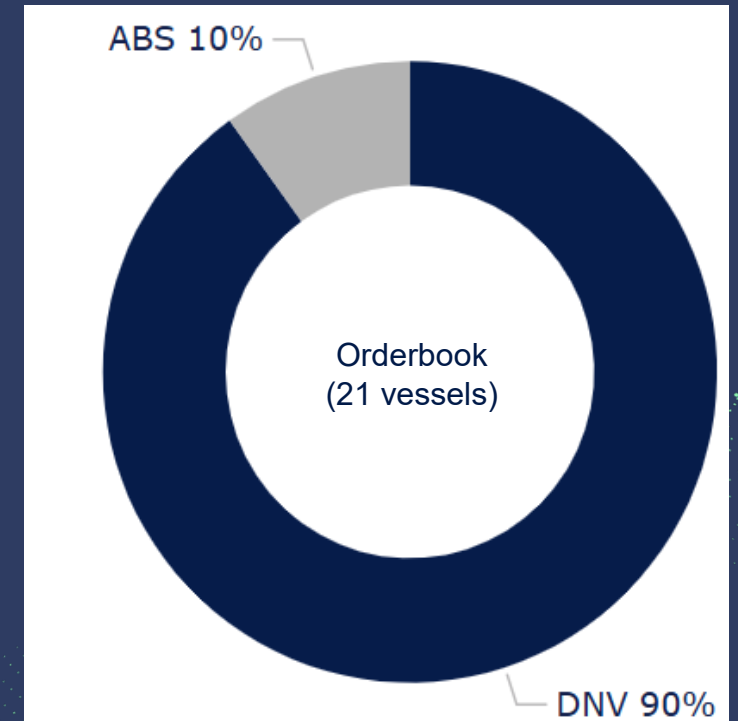


Current orderbook is South Korea (70%) and China (30%) and DNV is the preferred class

Newbuilding Orderbook by Owner and Builder



Class Market Shares – for orderbook [nos]



**Three KEY
FACTORS**
are shaping
the
development
of shuttle
tankers
today...

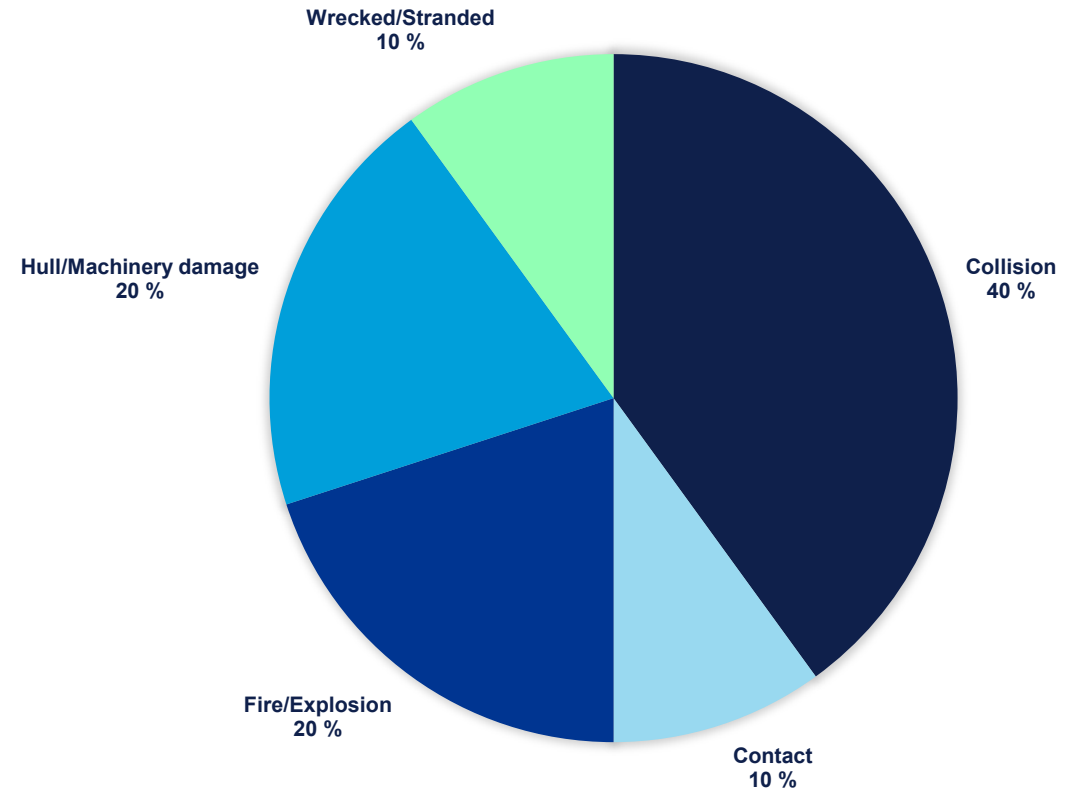


The global fleet has been growing steadily for decades. By the end of 2024, there were 102 ships in the global fleet classified as shuttle tankers according to Clarksons, with 81 of these on the available market.

Safety is fundamental to shuttle tanker development over the years and continues to be a priority

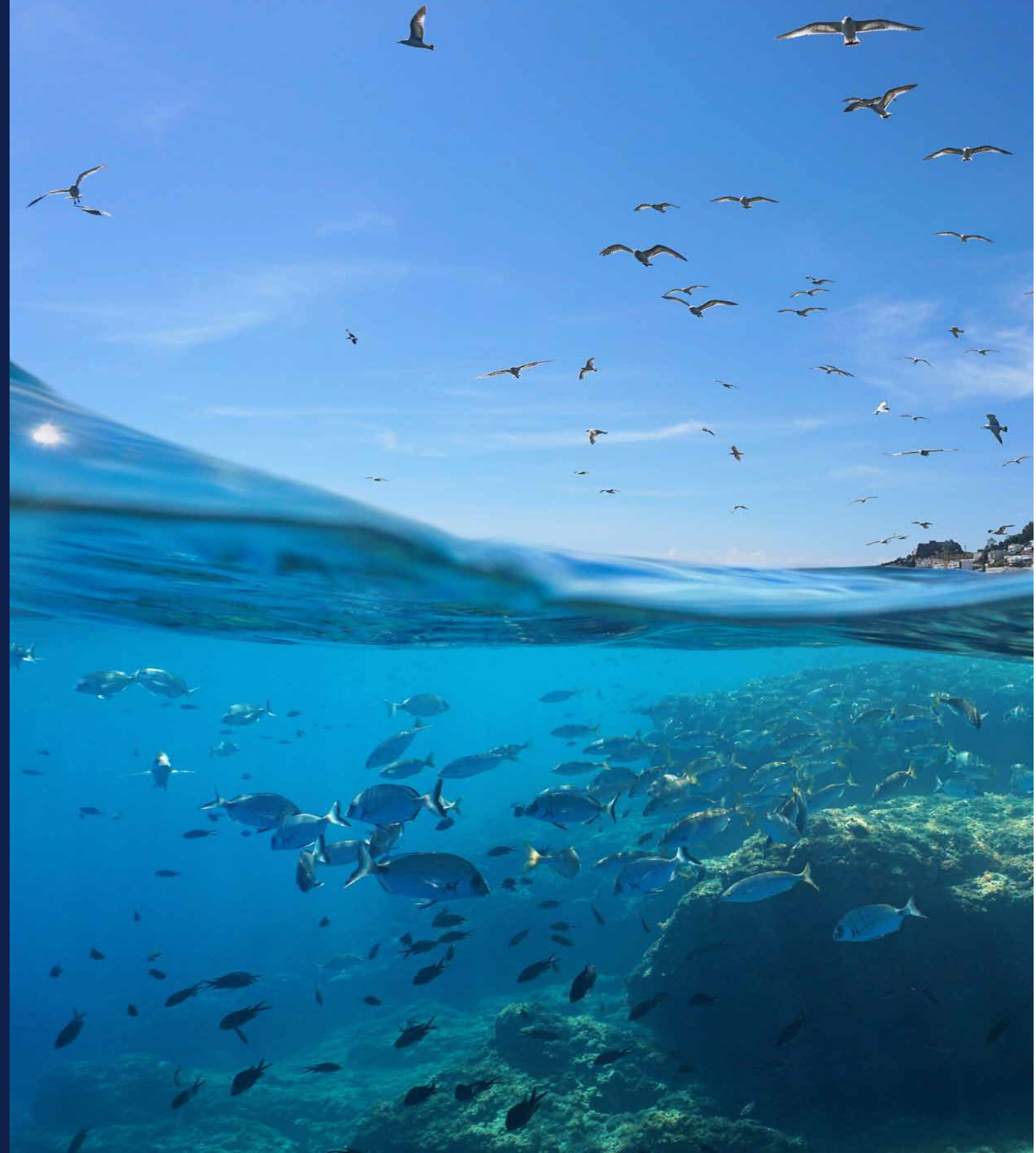
- Dynamic positioning
- Bow loading arrangements
- Nautical safety
- Fire safety
- Hull design

DISTRIBUTION BETWEEN INCIDENT TYPES FOR SHUTTLE TANKERS
(2005-2024)



Environmentally friendly operations increasingly seen as a strong driver for development

- Driven by **local and international regulations**
 - CII
 - EEXI
 - FuelEU Maritime
 - Norog140
- Increased uptake of **energy efficiency measures** and **alternative fuels**



Increased focus on **efficiency** and **smart technologies** in design and operation

- Increased digitalization driving **energy efficiency**
- Continuous advancement within **operational functionalities** (e.g. DP and BLS)
- Utilization of digital interface for **improved active monitoring**



Combining traditional and new challenges requires trade-offs, leading to **higher complexity** and **new risks**

- Safety and safety margins
- Independency, segregation, safety barriers
- Established technologies



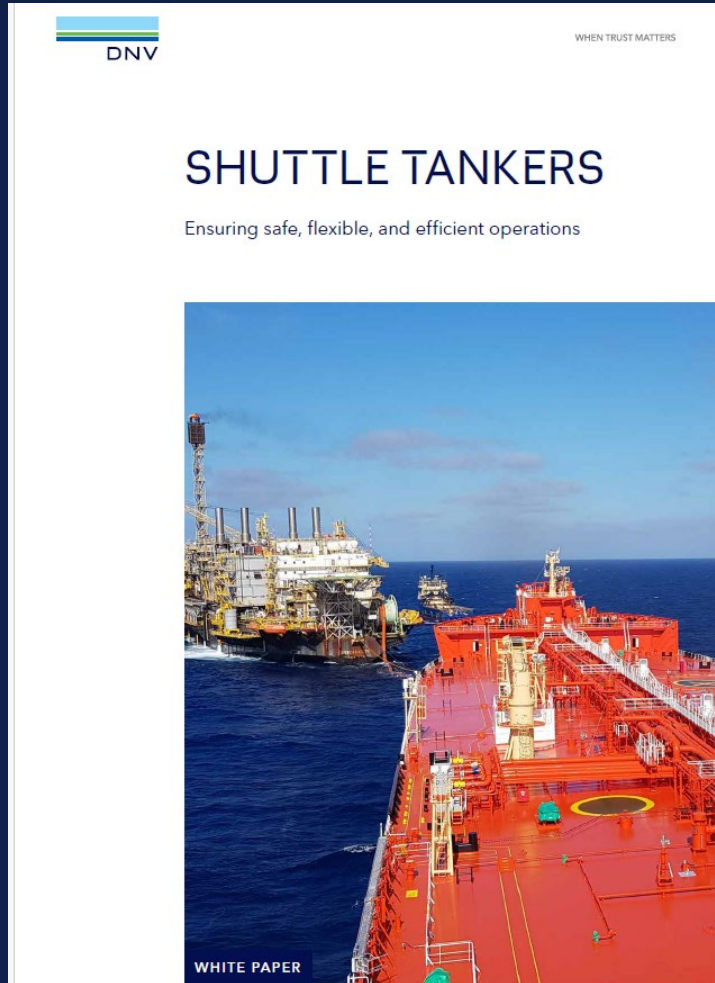
- New fuels and technologies
- Increasingly interconnected systems
- Design optimization



- Increased complexity / high integration
- Higher demand for operational awareness
- New safety risks from new fuels and technologies
- Cyber security risks



Download the our recently published white paper and stay informed about the most important factors shaping shuttle tankers today



Thank you for listening! – Any questions?



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