ALFA
LAVAL

Marine Division

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Alfa Laval Group

Marine Division by numbers

- Order intake (OI) based on LTM September 30, 2018,

Order intake:

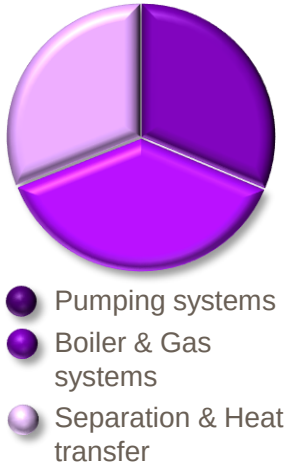
SEK Bn 16.5 (+39%*)

Sales:

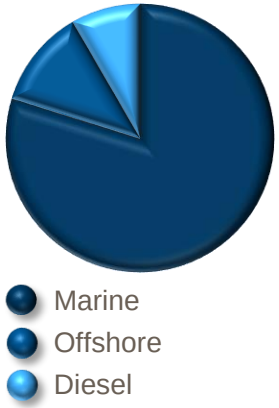
SEK Bn 13.0 (+16%*)

Split by type of orders

OI by Business units



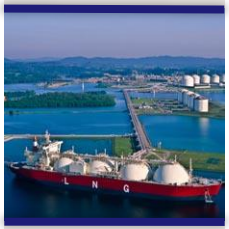
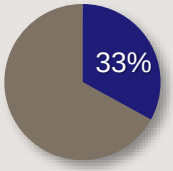
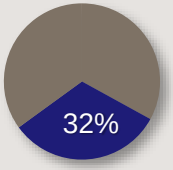
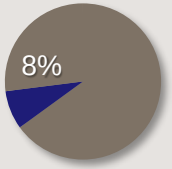
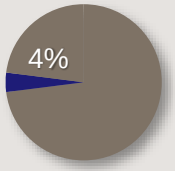
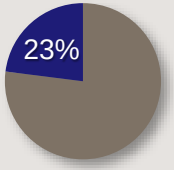
OI by industry



*) Compared with WY 2017, fixed rates

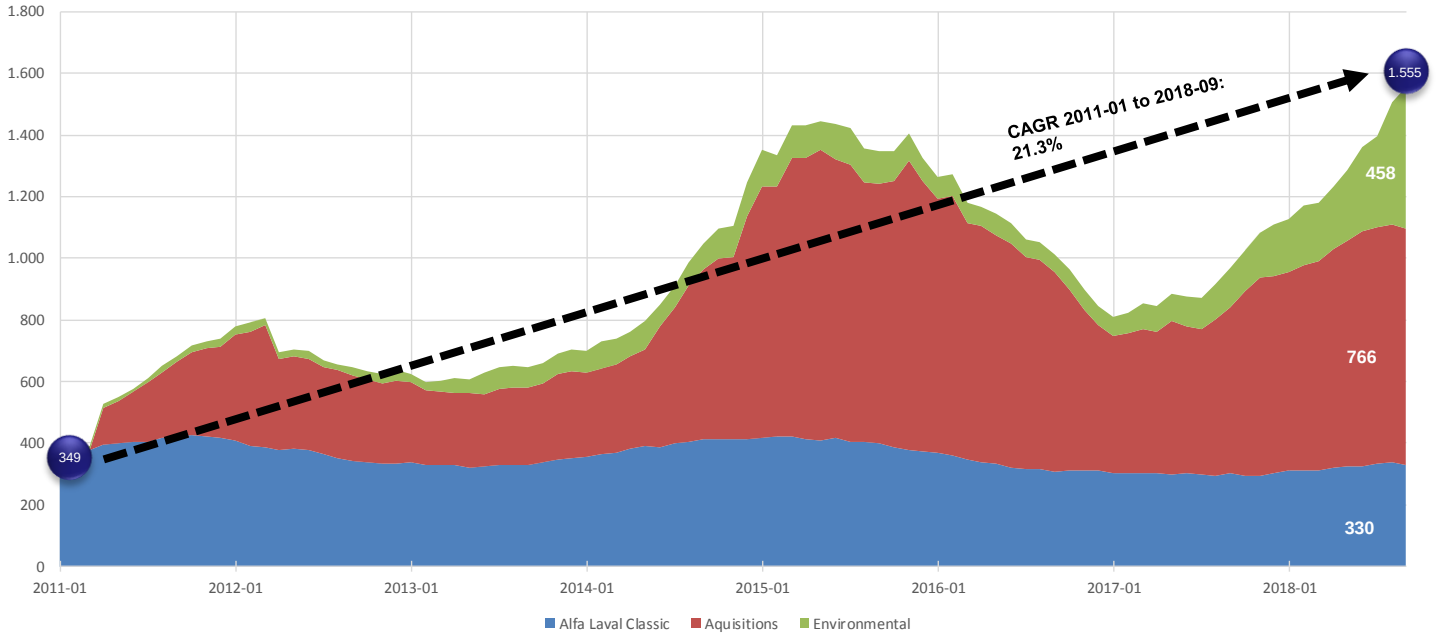
Industries and Growth drivers

Distribution of orders LTM September 2018

	Ship building	Environ., Gas & Energy, Marine	Offshore	Engine power	Service
					
Driver	World trade & Fleet capacity	Legislation and fuel cost	Energy needs	Electrical power needs	World trade
Share					

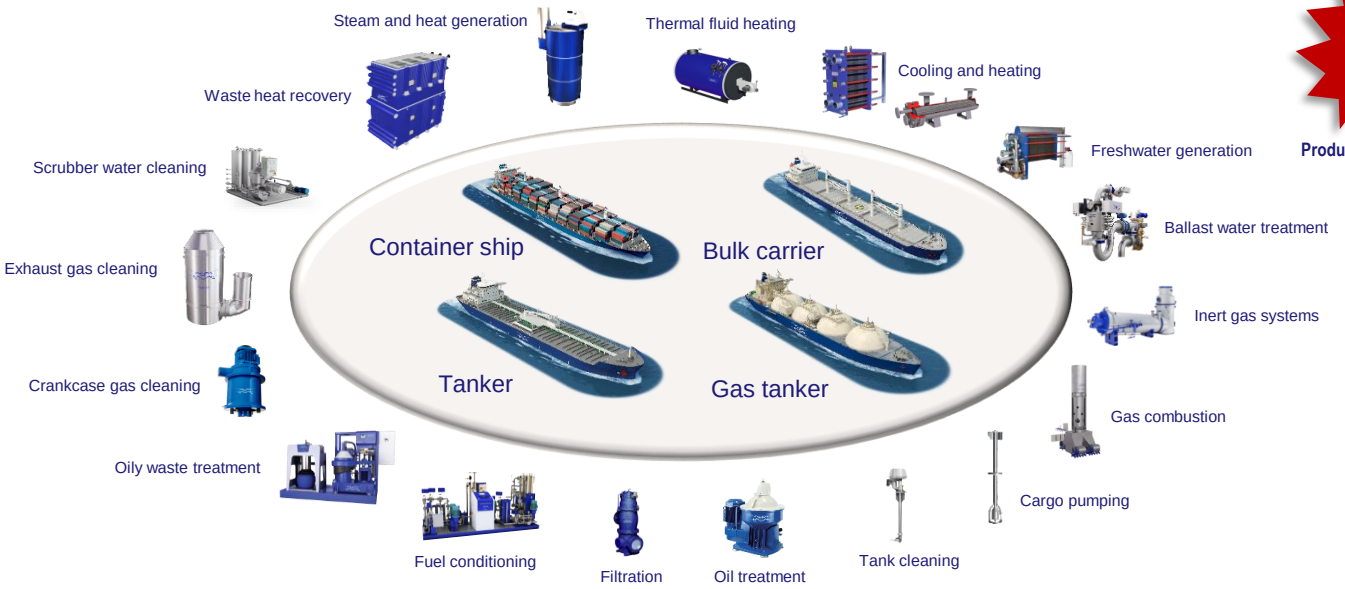
Marine Division,total

Orders Received, LTM



Alfa Laval on board

- Product, system & application leadership, 17 product groups



16 Product launches LTM

30 Product launches NTM

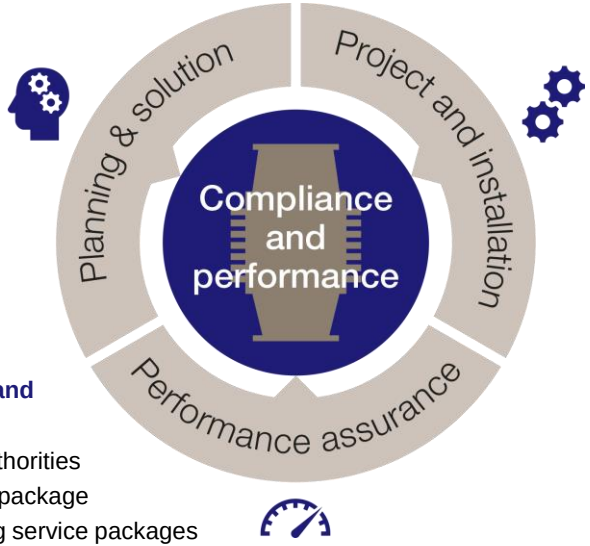
Test & Training Centre

Total solutions in ballast water treatment

The complete Alfa Laval PureBallast offering

Optimal fit for your vessel and budget

- Feasibility studies
- Legislation experts
- Financing



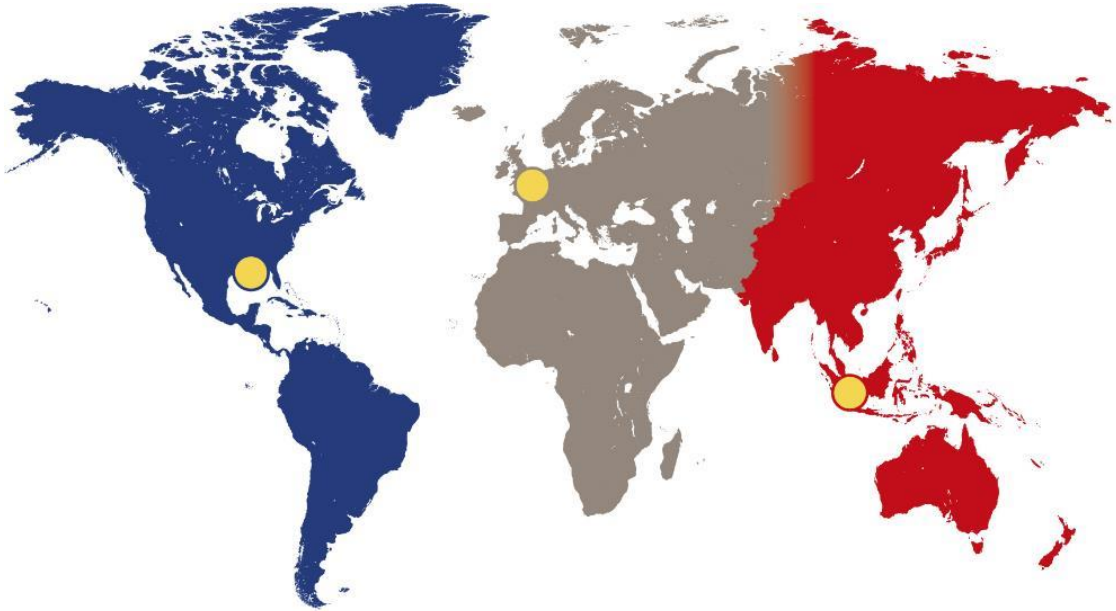
Securing compliant and reliable operation

- Easy reporting to authorities
- Compliance service package
- Sampling and testing service packages
- Crew trainings – offline and online

Project execution you can trust

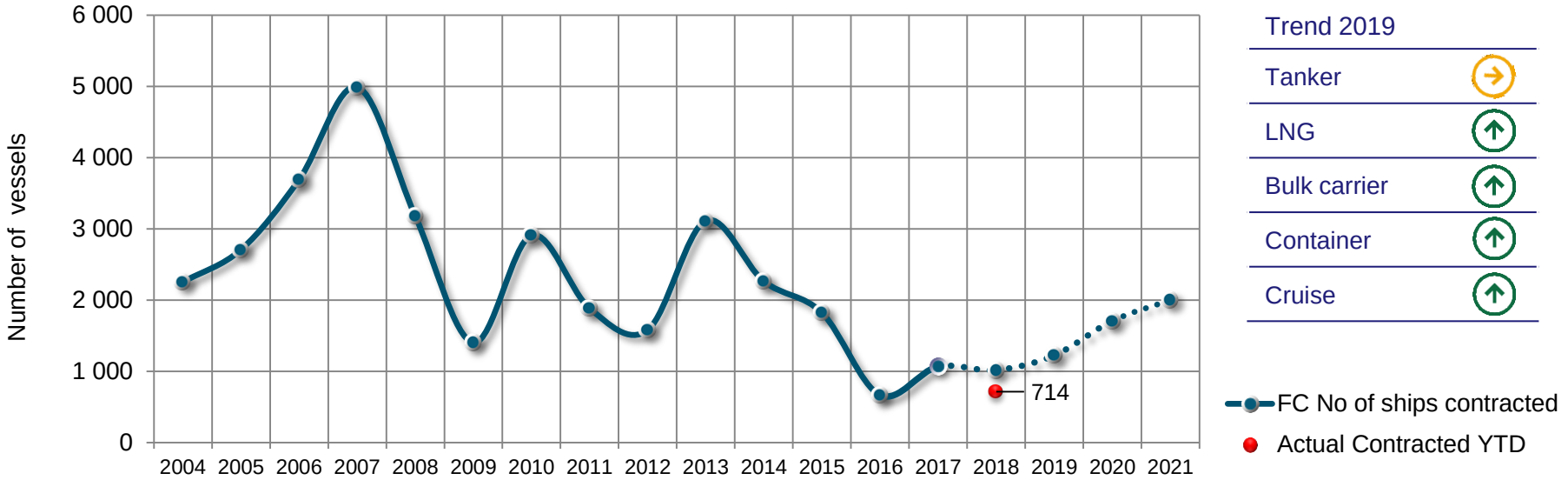
- Project management
- Commissioning
- Various commissioning options
- Network of trained engineering- and installation partners

International Marine Service



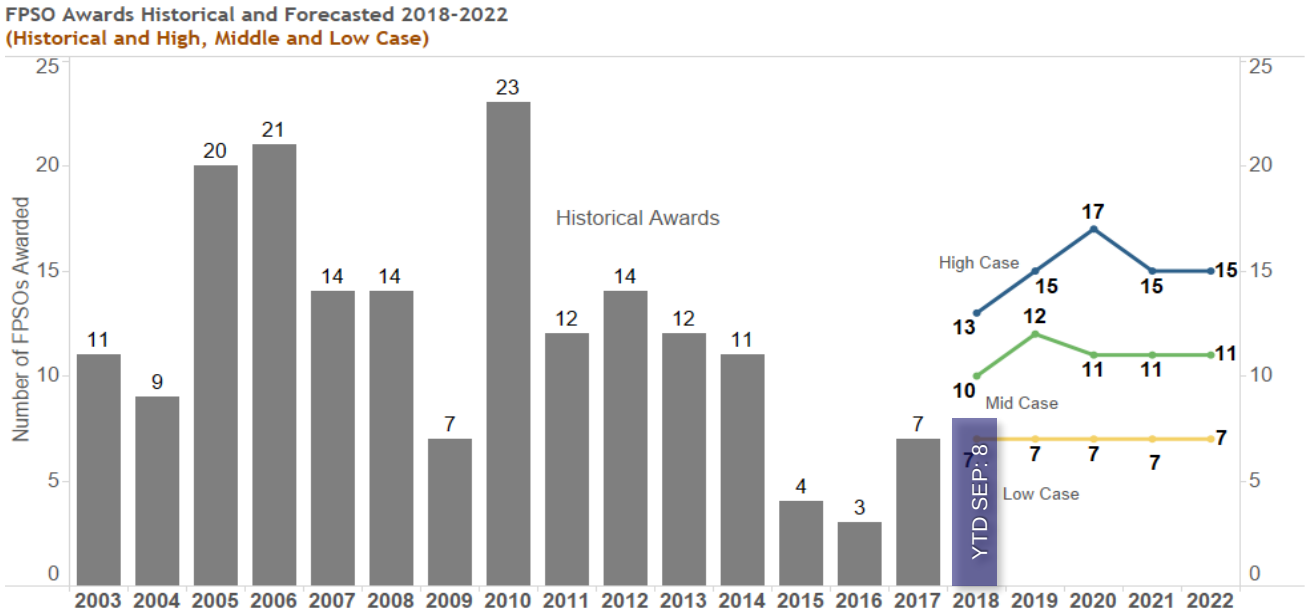
Yard contracting

- 1st October 2018, including all ships above 2,000 Dwt/Gt



Source: Clarkson Research Services Limited

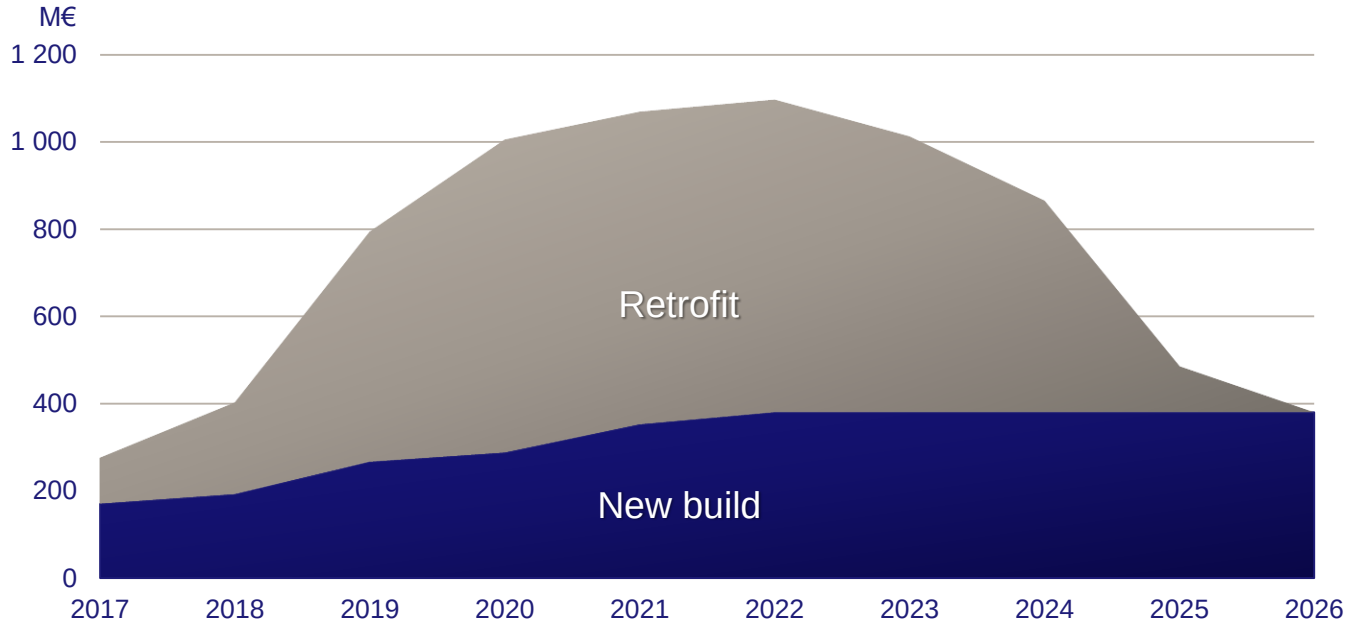
FPSO awards



Source: EMA FPS Industry Report- Q1, 2018

Ballast water treatment

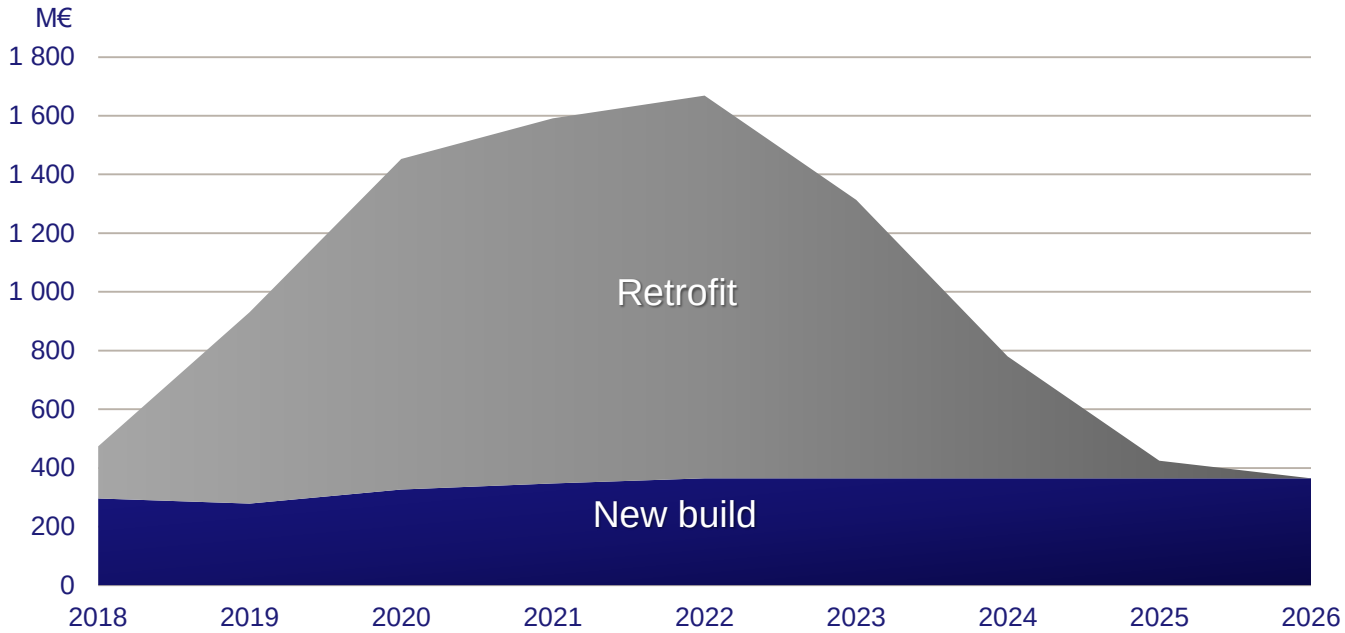
- Expected market development (MEUR), as communicated at CMD 2017



EUR 7 B
market value

Ballast water treatment

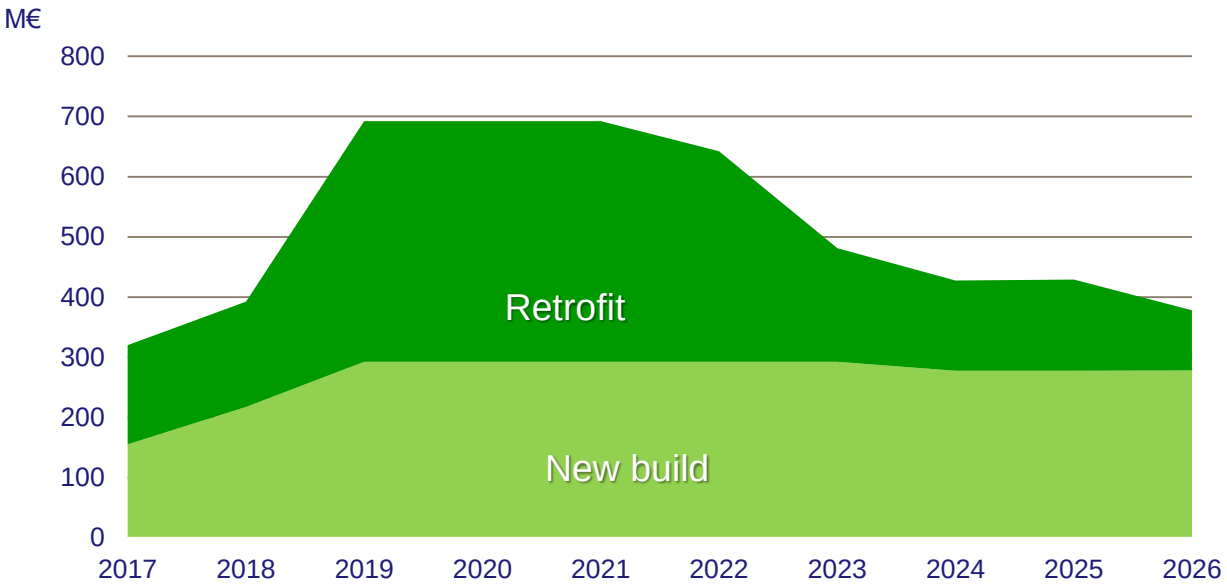
- Expected market development (MEUR)



EUR 9 B
market value

Scrubbers

- Expected market development (MEUR), as communicated at CMD 2017

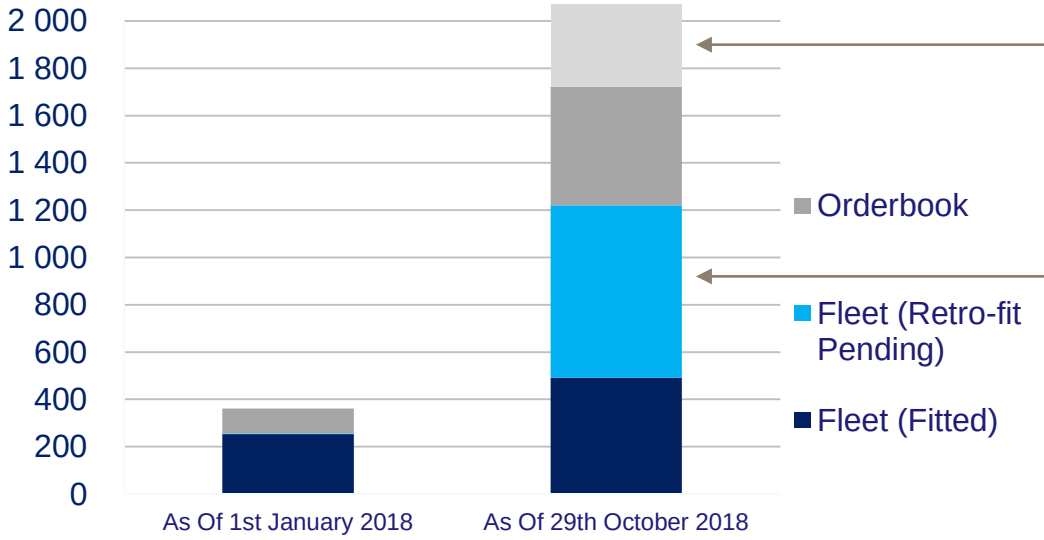


€ 5B
market potential

SOx Scrubbers development

- Uptake Accelerating In 2018

Clarksons Research Scrubber Count (No. Vessels)



Orders not yet published/linked to individual ships.

x 4 increase in count confirmed since start year.

Source: Clarksons Research. Figures exclude some orders still to be linked to individual vessels. Actual aggregate numbers will be higher. Please contact Clarksons Research and/or visit World Fleet Register for the latest numbers.

SOx Scrubber comments

- Total market of orders in 2018 higher than expected
- Order backlog has an even split between newbuilds and retrofit.
- Newbuild order backlog according to Clarkson now contains 16% scrubbers (# ships) with higher numbers for tankers (26%), Containerships (26%) and lower for bulkers (13%)
- Higher percentage of scrubbers on ships with larger engines (above 12-14 MW)
- Average shipset value higher than 1.0 MEUR due to larger engine sizes
- Latest market reports 2018 show a trend to a possible higher market potential 2018-2026 than our 2017 guidance
- Potential very much depends on the fuel price delta between 0.5% sulphur fuel and HFO, availability of fuels, adoption rate per ship segment and assessment of environmental impact of scrubbers

SOx Scrubbers and the environment

- Further distillation of HFO at the refineries will be costly and will increase CO2 emissions due to higher energy consumption.
- Combustion converts Sulphur into harmful SOx . The scrubbing process converts SOx to harmless sulphate salts which are naturally present in the oceans. Sulphur is thus not thrown into the water
- Harmful particulate matters (unburned HFO, lube oil, soot, calcium, nickel, vanadium = PM) are caught in the scrubber.
- LNG combustion slips methane which is a 28 times more powerful greenhouse gas than CO2

In conclusion…

- Marine Division

- Yard contracting is forecasted to increase in 2019 and the years thereafter.
- Orders of Ballast water equipment and SOx Scrubbers are developing above previous expectations. Ballast water equipment potential 2018-2026 upgraded. Scrubber potential 2018-2026 possibly higher than 2017 guidance.
- Innovation of our product and systems assortment is high and will continue to have a top priority the coming years.

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