




# Effects of the IMO 2020 Sulphur cap on liner shipping

An aerial photograph showing the deep blue ocean with a prominent white wake from a ship stretching towards the horizon under a clear sky. A large, semi-transparent white circle is positioned on the right side of the image, serving as a background for the text.

# Presenting the Alphaliner IMO 2020 watch

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**Alcohol, Biomethane and Ammonia are the best-positioned fuels to reach zero net emissions**

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## IMO 2020



Taking bold action to clean up shipping emissions  
by reducing the sulphur content in ships' fuel oil



### HOW?

- 0.50%** reduced from 3.50%  
– significantly less sulphur permitted in ships' fuel oil
- 77%** drop in overall SOx emissions from ships  
– annual reduction of approximately 8.5 million metric tonnes of SOx



### WHEN?

- From **1 January 2020**



# Presenting Alphaliner

The screenshot displays the Alphaliner web application interface. At the top, there is a navigation bar with the Alphaliner logo and various icons for different sections: Home, News, Vessel Manage, Orderbook, Services, Owners, Operators, Fixtures, Sales, TOP 100, Ports, and Distance Table. A search bar is located on the right side of the navigation bar. Below the navigation bar, there is a tabbed interface with 'Orders' and 'Deliveries' tabs. The 'Deliveries' tab is active, showing a search bar and a table of ship units. The table has columns for Delive..., Name, Fav, Typ, Teu, Spd, G, Manag. owner, Operator, Shipyard, and S. The table lists 10 units, including COSCO SHIPPING NEBULA, CMA CGM LOUIS BLERIOT, COSCO SHIPPING SAGITTARIUS, YM WELLBEING, KOTA PERWIRA, EVER BEING, KHUNA BHUM, EVER GIVEN, and COSCO SHIPPING ANDES. The table also shows the date of delivery, the ship's type, and the operator.

Delive...	Name	Fav	Typ	Teu	Spd	G	Manag. owner	Operator	Shipyard	S
Oct 18	COSCO SHIPPING NEBULA	☆	cc/m	21,237	22.0	N	COSCO Mercury (COSCO Shipping Holdin...	COSCO Shipping Lines Co Ltd	Shanghai Waigaoqiao Shipbuilding (CSSC)	O
Oct 18	CMA CGM LOUIS BLERIOT	☆	cc/m	20,954	22.0	N	CMA CGM	CMA CGM	Hanjin-Philippines	O
Oct 18	COSCO SHIPPING SAGITTARIUS	☆	cc/m	20,119	22.5	N	COSCO Shipping Holdings Co Ltd	COSCO Shipping Lines Co Ltd	Shanghai Waigaoqiao Shipbuilding (CSSC)	O
Oct 18	YM WELLBEING	☆	cc/u	14,220	23.0	N	Shoei Kisen	Yang Ming	Imabari	T
Oct 18	KOTA PERWIRA	☆	cc/v	11,923	22.0	N	Industrial & Commercial Bank of China (IC...	Pacific International Lines (PIL)	Jiangsu Yangzijiang Xinfu	T
Oct 18	EVER BEING	☆	cc	2,910	21.8	N	Evergreen Marine Corp.	Evergreen Line	Imabari	O
Oct 18	KHUNA BHUM	☆	cc	1,668		N	Regional Container Lines	RCL	Jiangsu New Yangzi	O
Sep 18	EVER GIVEN	☆	cc/m	20,388	21.0	N	Shoei Kisen	Evergreen Line	Imabari	T
Sep 18	COSCO SHIPPING ANDES	☆	cc/u	14,568	22.5	N	COSCO Shipping Holdings Co Ltd	COSCO Shipping Lines Co Ltd	Jiangnan Changxing	O

- Daily monitoring of service deployment for **7000+** ships in **1600+** liner services showing rotations and partnerships
- **500+** Liner operators listed – free Alphaliner Top 100 ranking (including orderbooks)
- Terminals details for **3400+** container ports with real time and history view of ships calls
- Orderbook – Shipowners – Second hand sales – Fixtures (chartering history of ships)
- Liner & Port news: daily on [www.alphaliner.com](http://www.alphaliner.com), **weekly newsletter** and **monthly monitor**
- Idle ship analysis

# First option: Very Low Sulphur Fuel Oil (VLSFO)



	Price \$/ton (average last 30 days)
IFO 380 Rotterdam	\$352
IFO 380 Singapore	\$438
0.5% VLSFO Rotterdam	\$533
0.5% VLSFO Singapore	\$553
VLSFO premium Rtm	+\$181
VLSFO premium Sin	+\$116

VLSFO **51.4% more expensive** in Rotterdam  
(26.4% in Singapore)  
Future prices ???



# First LNG powered megamax (23,112 teu) for CMA CGM



- Emissions of sulphur and fine particles **-99%**
- Emissions of nitrogen oxide **-85%**
- Emissions of CO2 **-20%**

# Organizing LNG supply chain



February 2018:

CMA CGM signs contracts with Total Marine Fuels Global Solutions.

20 LNG-powered ships by **2022**:

- 9 x 23,112 teu
- 5 x 15,000 teu (EPS charter)
- 6 x 1,380 teu (Containerships) of which three already in service



# LNG developments



Mid 2020: conversion of the LNG-ready SAJIR (14,993 teu) as test for Hapag-Lloyd.  
Cost = **30M USD**.



First ship-to-ship SIMOPS LNG Banker operation (Unifeeder) in Vuosaari (Helsinki).

## Third option: scrubbers



Newbuilding MCS ISABELLA (23,656 teu)  
Cost of scrubber ca. 3,5 – 4M USD



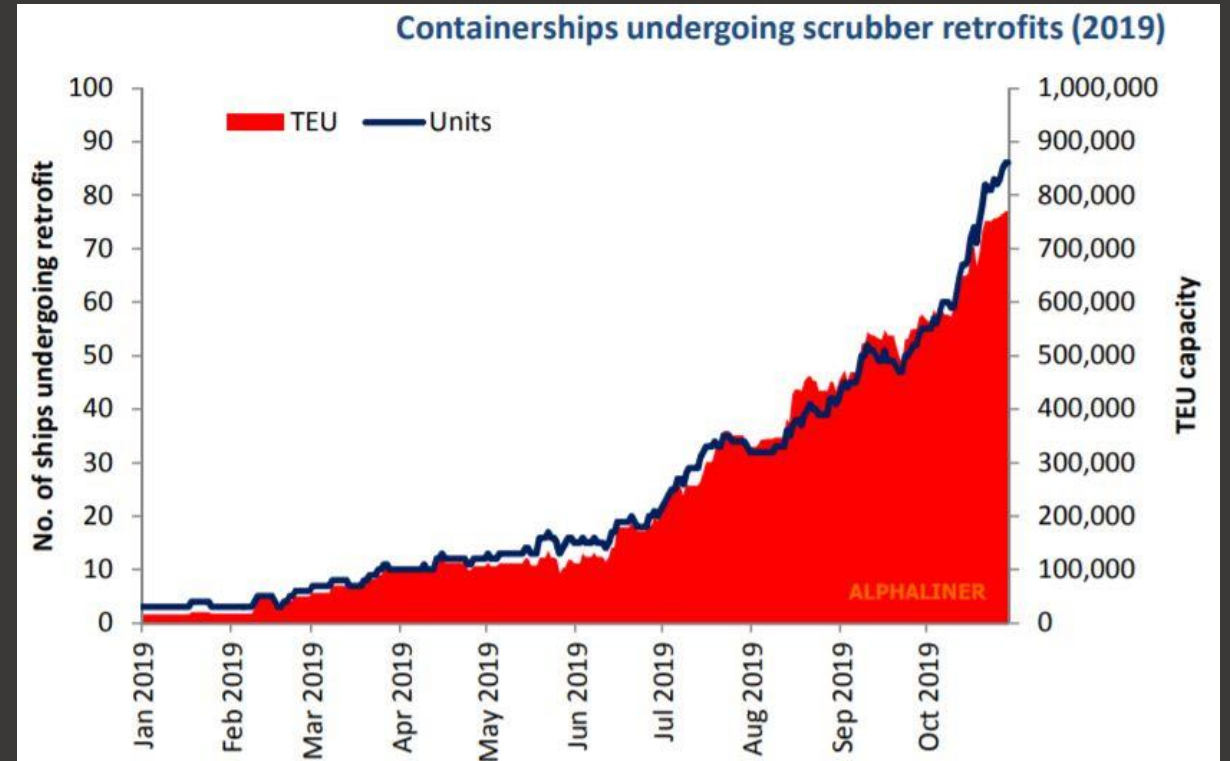
Retrofit on ULSAN EXPRESS (13.169 teu)  
Average stay at the yard = 62 days



# Alphaliner IMO 2020 watch

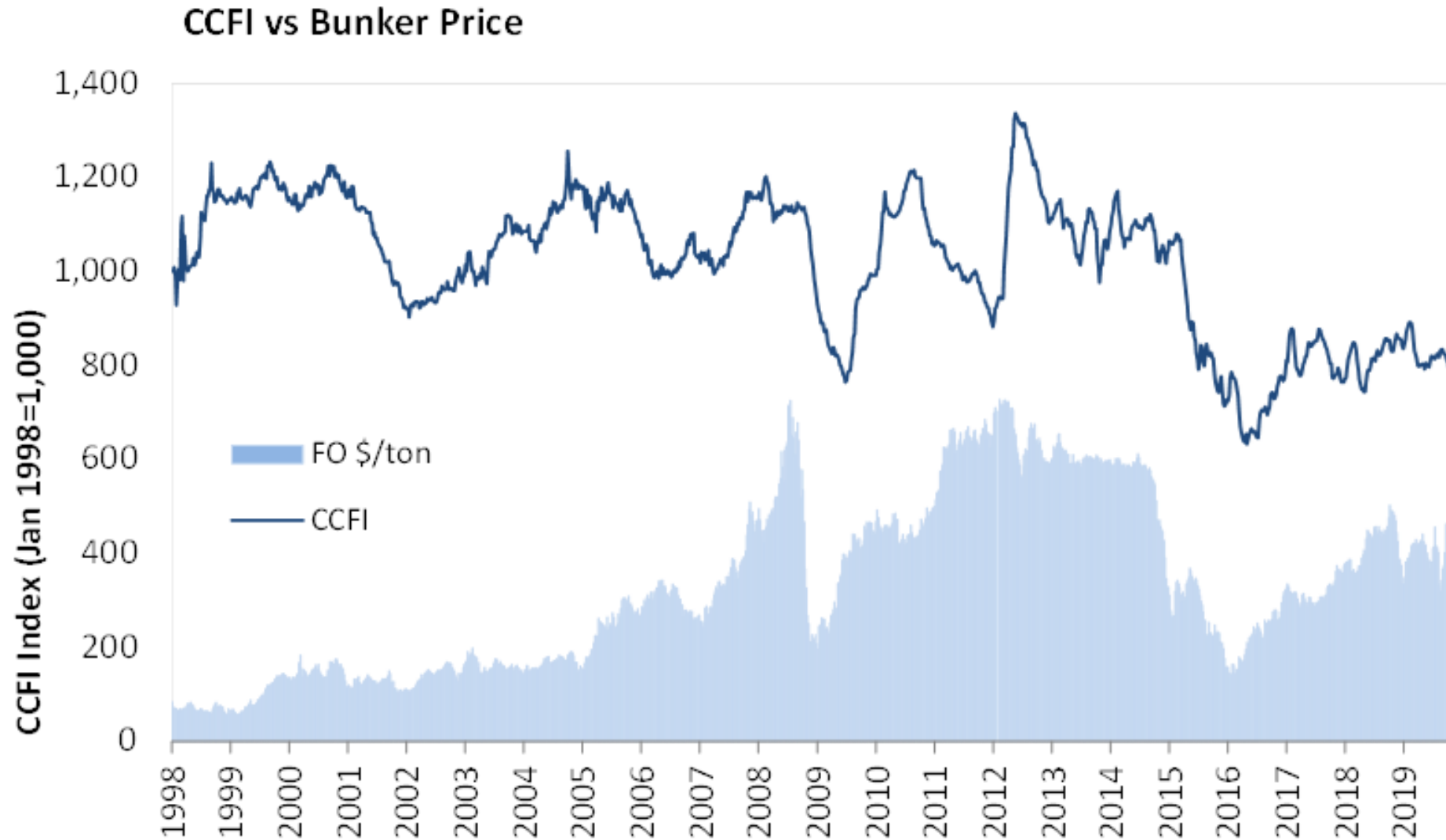
## • Scrubber Watch (as at 29 October 2019)

	Units	TEU
<b>EGCS Scrubber fitted containerships</b>		
Newbuildings delivered	55	423,045
Retrofits completed	98	814,472
Retrofits ongoing	86	770,309
<b>LNG fuel ready containerships</b>		
Newbuildings delivered	9	22,380
Retrofits completed	1	1,020
Retrofits ongoing	0	0



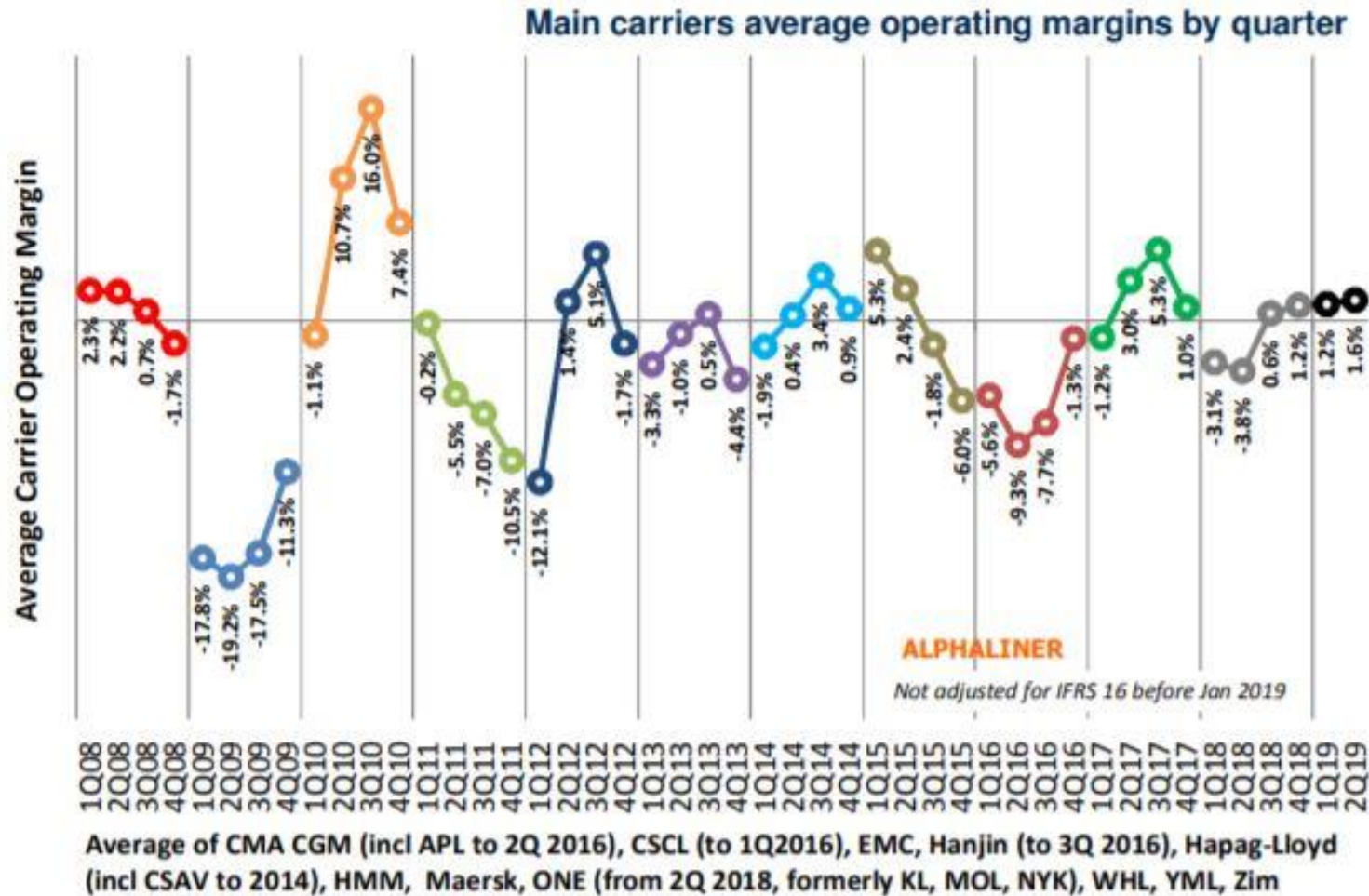
- 29 Oct 2019: 153 ships (**1.24 Mteu**) retrofitted with scrubber
- Jan 2020: ca 260 ships (**2.3 Mteu**) = 10% of total container fleet capacity
- End of 2020: ca **5 Mteu**

# Transferring extra cost to shippers and forwarders





# Fuel price vs. average operating margins



**2015:** sharp decrease of fuel price =>

**no effects on margins.**

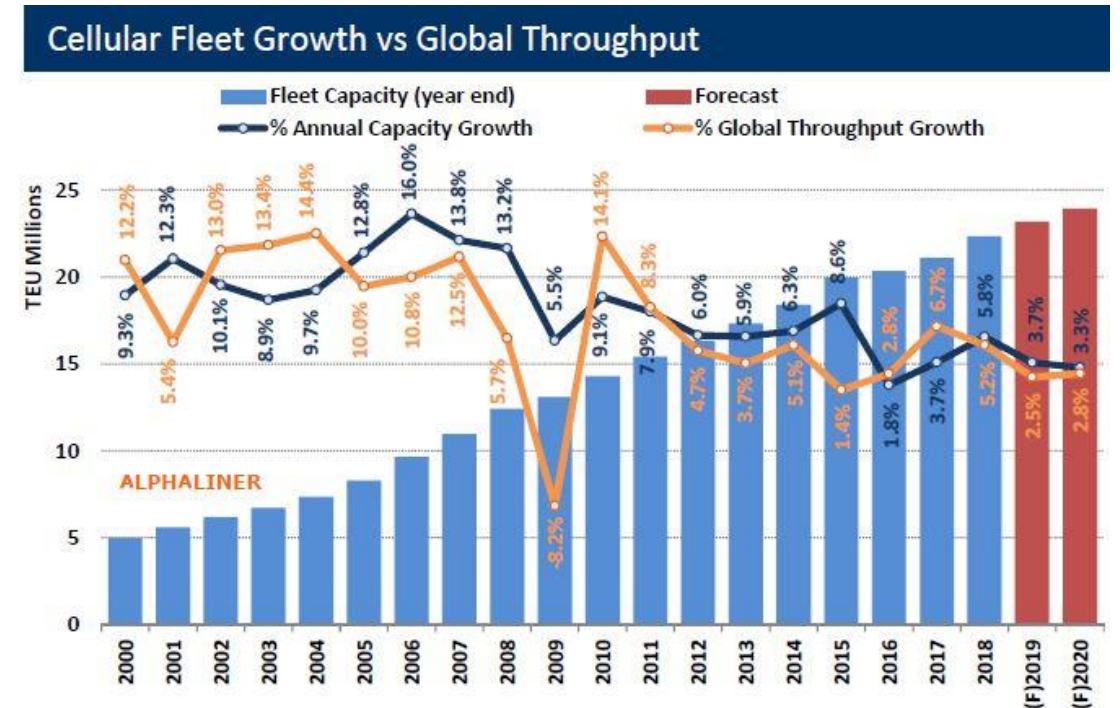
**2016:** vice versa

# Container fleet 2020 forecast

- Container fleet in Oct 2019: 22,19 Mteu  
(5,322 ships)
- YOY 3,9% fleet growth
- Oct: Inactive fleet 898,750 teu (3,9% of total)
- Orderbook = 2,463 Mteu (10,8%)

**2020 growth (1,163 Mteu) and reactivation of unused fleet => +9.3%?**

**Volumes growth of 3% OK (scrapping, etc...)**





# Inactive fleet watch

Inactive containerships > 500 TEU  
As at 14 Oct 2019  
Breakdown by Size Range

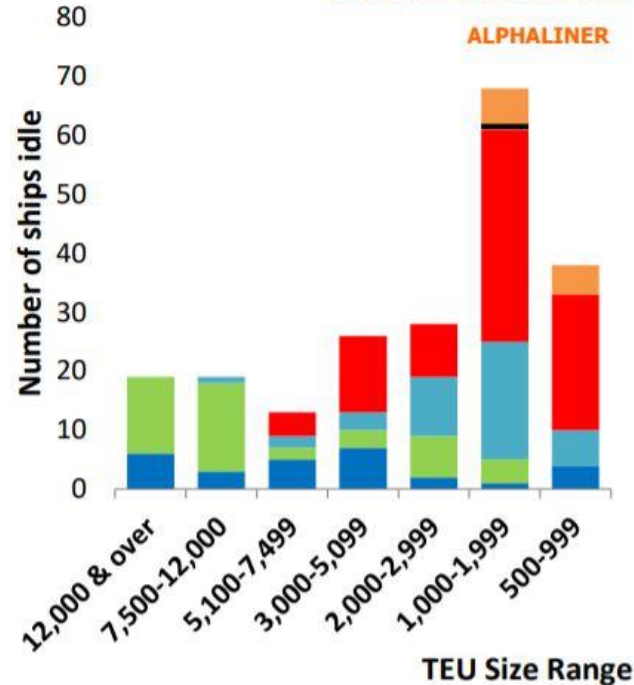
TEU Range	Units idle	Trend	of which, NOO Units	%	*SR
500-999 teu	38	↗	34	89%	0
1,000-1,999	68	↗	63	93%	4
2,000-2,999	28	↗	19	68%	7
3,000-5,099	26	↗	16	62%	3
5,100-7,499	13	↗	6	46%	2
7,500-12,499	19	↗	1	5%	15
12,500 & over	19	↗	0	0%	13
Total units	211	↗	139	66%	44

Total TEU                      898,750      278,587      31%

Inactive TEU as  
% of total fleet

3.9%

Inactive ships distribution  
as at 14 October 2019



44 ships retrofit  
=> 436,036 teu  
inactive

- NOO & other in limbo
- NOO vessels laid up
- NOO vessels spot
- NOO vessels with employment secured
- Carrier controlled for scrubber retrofit
- Carrier controlled (owned & chartered)

# Conclusions



Extra cost, uncertainty about price evolution and availability.



Possible effect on scrappings and newbuildings.



Scrubber is favorite option for big ships (allowing speeding up?)

## Sulphur cap is extra trigger for more economies of scale!





Thank you!  
[stefan@alphaliner.com](mailto:stefan@alphaliner.com)

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