



# CAPITAL MARKETS DAY 2019



# Wallenius Wilhelmsen ASA – Capital markets day 2019 program

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## Market outlook

**Michael Hynekamp**

**EVP and Chief Operating Officer WW Ocean and WW Solutions**

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## Decarbonisation

**Roger Strevens**

**VP Head of Global Sustainability**

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## Digitalisation

**Simon White**

**EVP and Chief Digital Officer**

**Mats Amland**

**VP Head of Transformation Office**

# Market Outlook

Mike Hynekamp  
EVP and COO WW Ocean & WW Solutions

# There is no doubt that the industry around us is changing...

## Electrification



## Mobility models



## Autonomy



## Flexible manufacturing

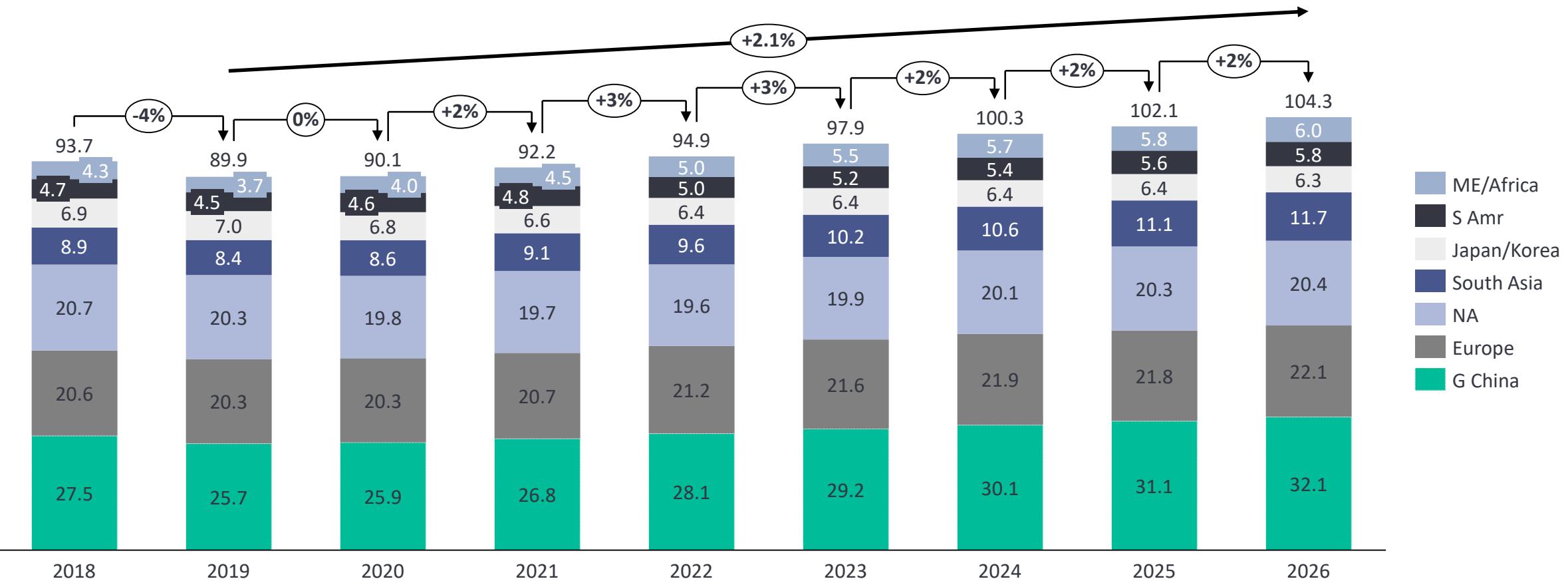


## New entrants

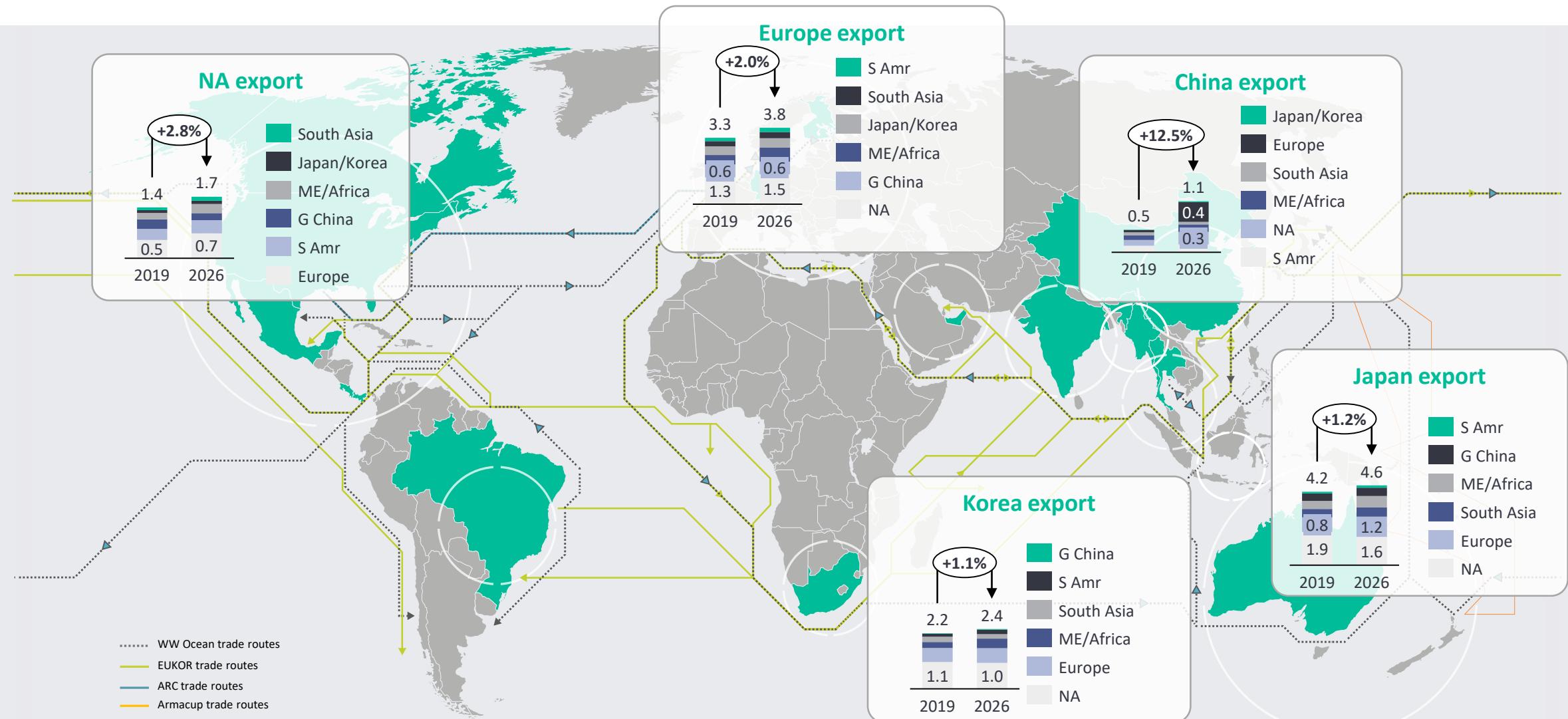


# Light vehicle sales growth expected to see a CAGR of ~2.1% going forward

LV global sales, sales region, million units, 2018-26

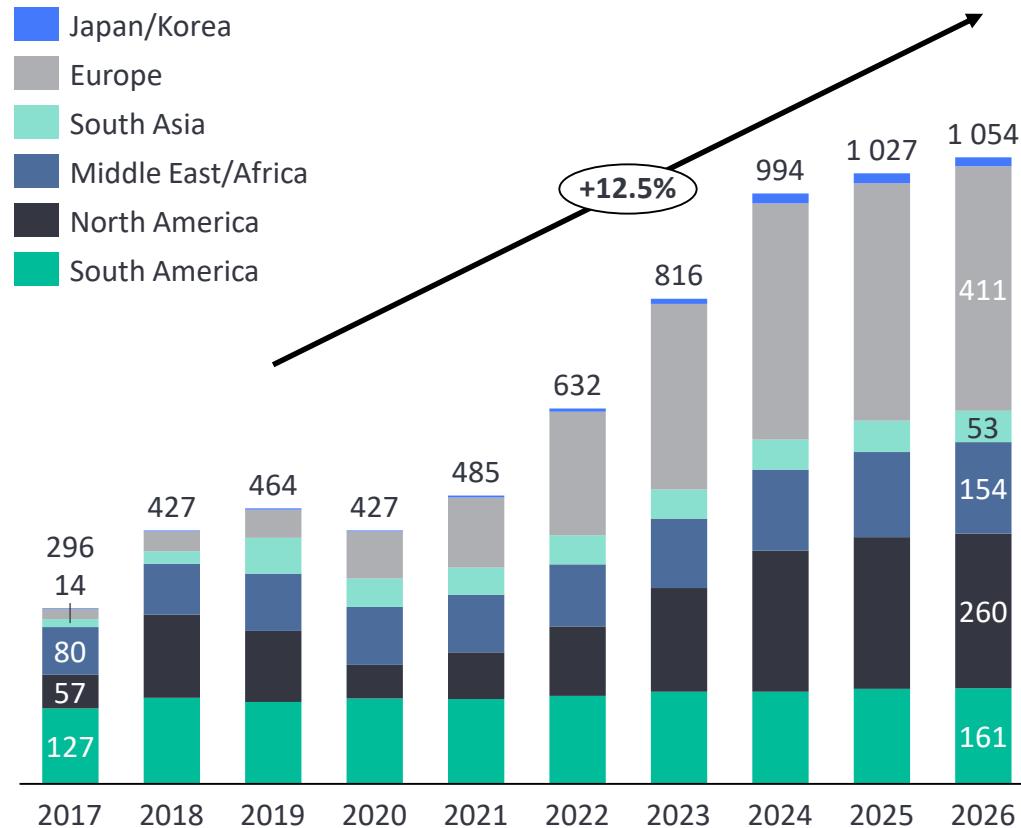


# Forecasted growth in deepsea volumes in all key markets



# Chinese light vehicle export set to be ramped up to >1 million units / year

Chinese LV export per consumption region 1000 units, 2017-26FC



## Comments on Chinese LV export

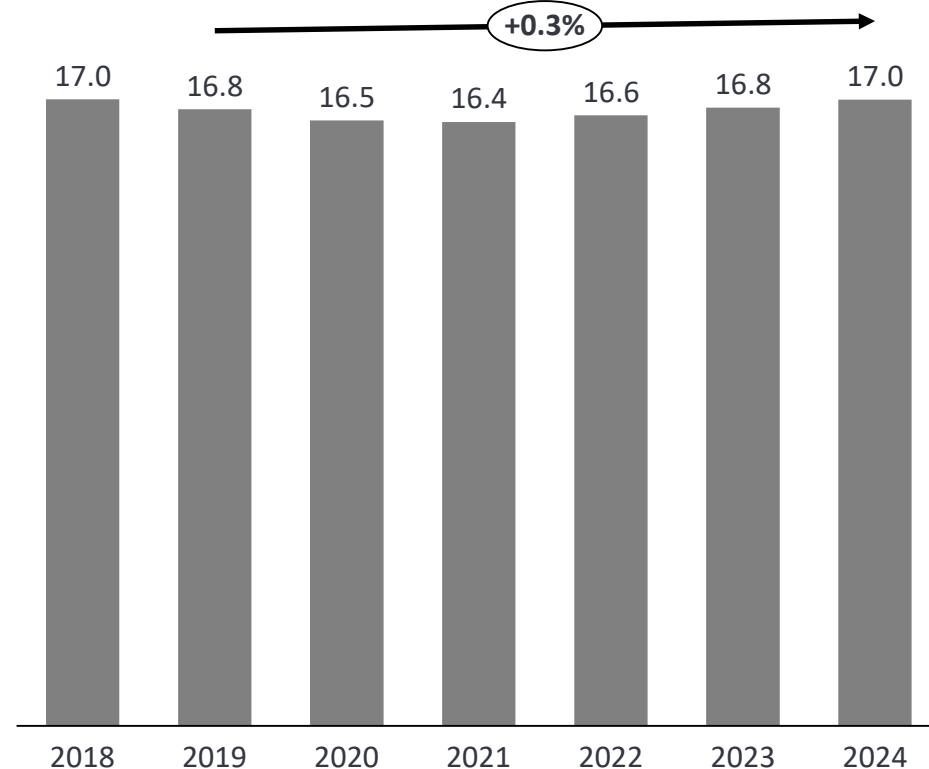
- **China** largest production region globally, expected to increase from 26m in 2018 to 32m in 2026
- **Open capacity** at Chinese plants
- Chinese **export of LVs** to increase from 296k in 2017 to 1054k in 2026
- **Battery electric vehicles (BEVs)** expected to contribute to most of export growth
- Regional emission regulation to influence consumption of BEVs, where **Europe** is expected to be a large consumer of these vehicles

# North American light vehicle production and H&H sales show stable outlook

## Vehicle processing

### LV production NA

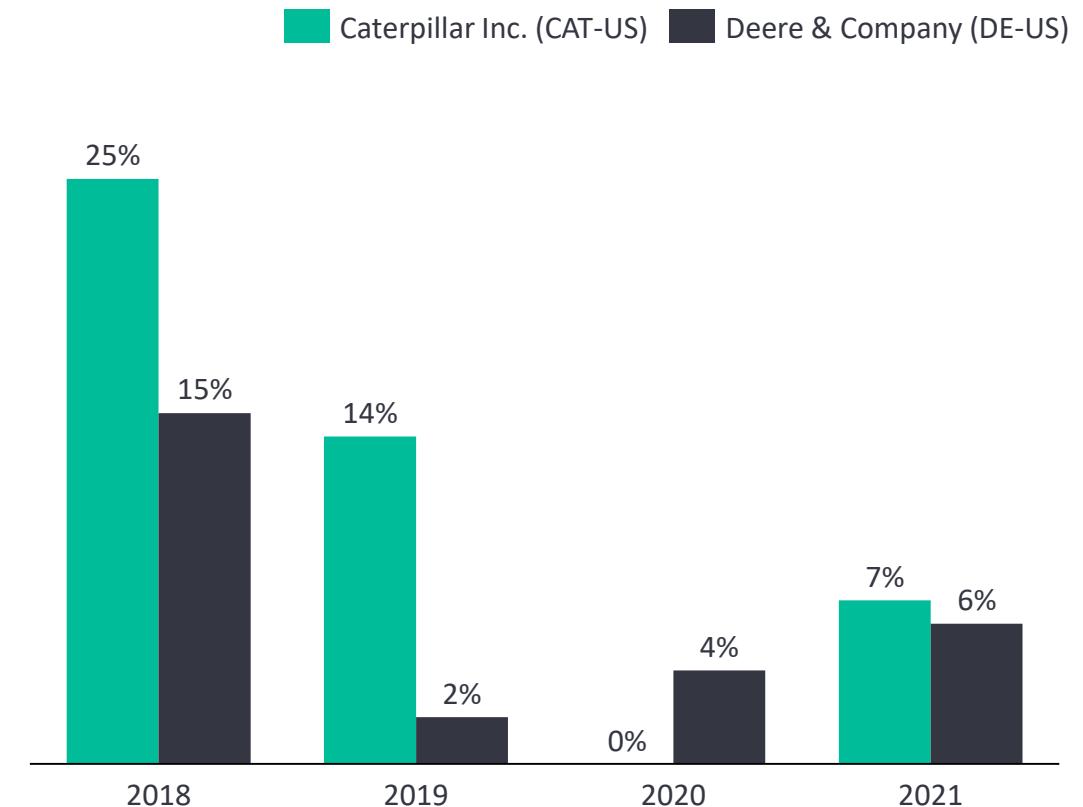
Mill units, 2018-24FC



## Equipment processing

### H&H Equipment OEM sales growth

Analyst consensus est, 2019-21FC



Source: IHS Markit / Market Insight WW,

Factset data and Analytics (14.10.19) | Analyst consensus sales growth – Fiscal years (Caterpillar – North American sales of construction and mining equipment divisions only | Deere – Global sales of Agriculture & Turf division only) (USD, y-o-y %)

# Outlook for marine terminals is solid

## Terminals

### LV export and import NA

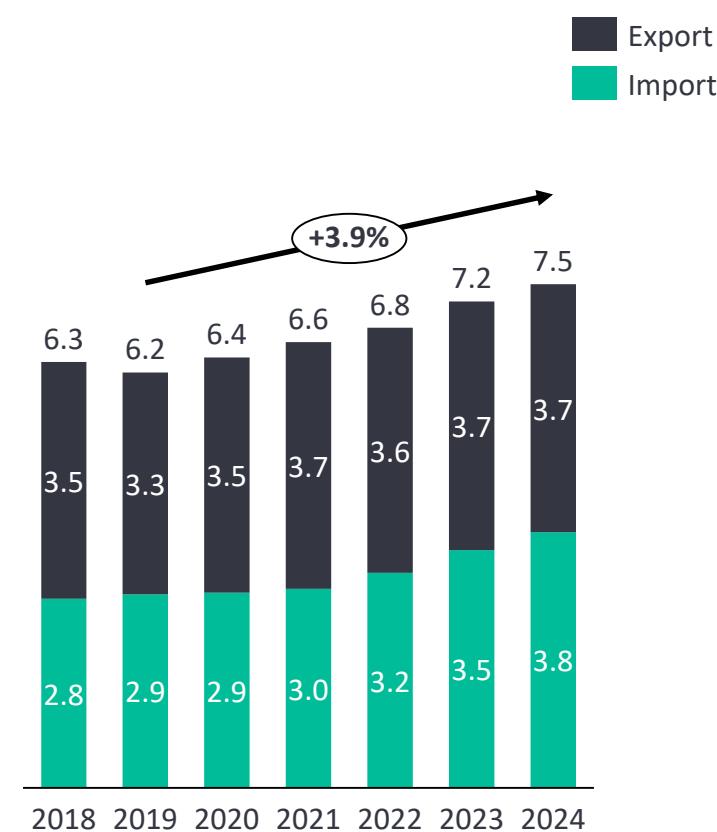
Mill units, 2018-24FC



## Terminals

### LV export and import Europe

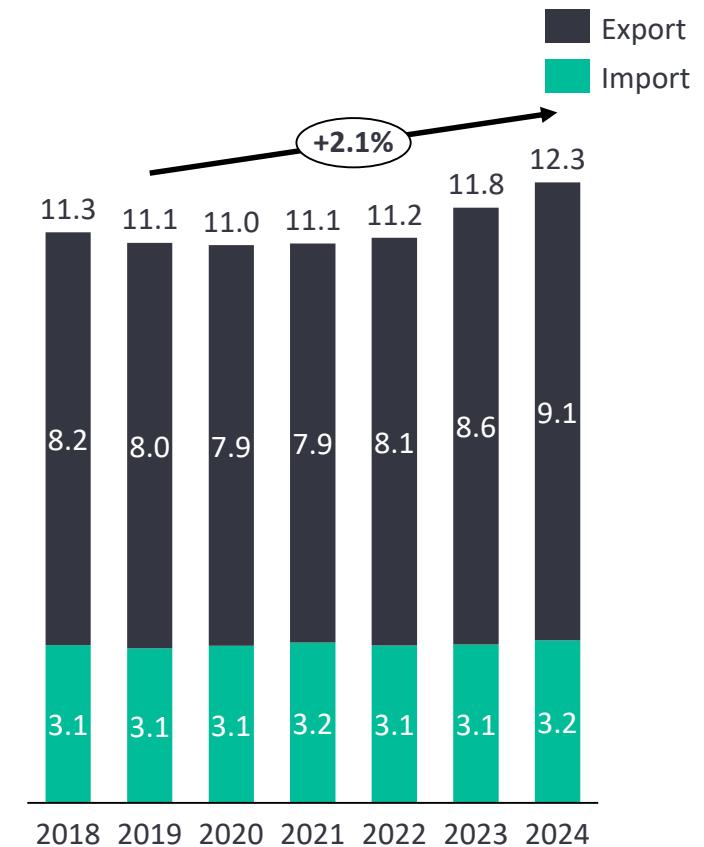
Mill units, 2018-24FC



## Terminals

### LV export and import APAC

Mill units, 2018-24FC

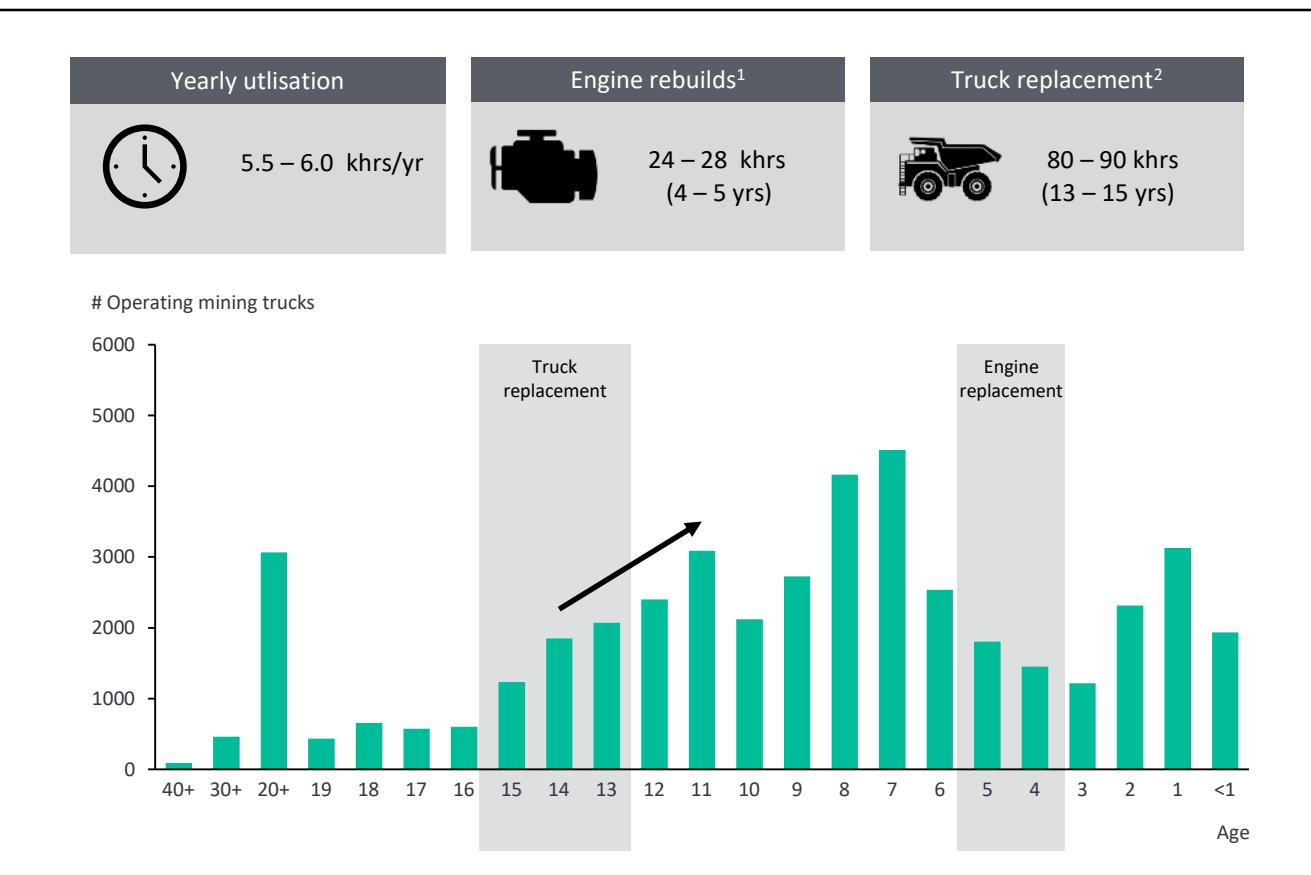


# We appear to be in the start of a Mining truck replacement cycle

- Trucks commissioned during 2007/2008 are approaching theoretical replacement age

The number of trucks that are approaching the end of their chassis life is steadily growing over the next years

Large mining truck fleet characteristics



## OEM quotes on Mining equipment replacement demand



*"(...) most commodity prices remain at investable levels (...) the end-user demand for mining equipment remains positive. And large mining trucks have further room for growth. We continue to believe we are in the early stages of a multiyear recovery in mining. However, miners are cautious due to economic uncertainty."*

- D. James Umpleby III, Chairman & CEO Caterpillar

Q3 19 Earnings Call



*"(...) the sentiment for ultra-large hydraulic excavators (over 300t) and dump trucks (payload over 150t) for major mining companies is bullish."*

Q2 FY2019 presentation (Period: Jul.- Sep.19)



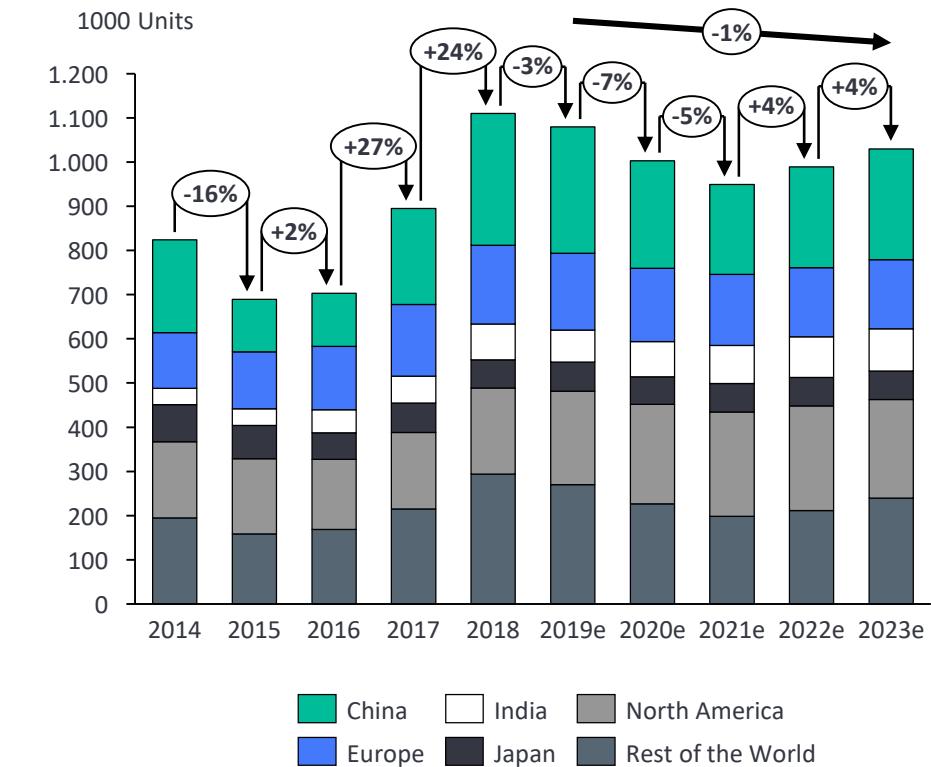
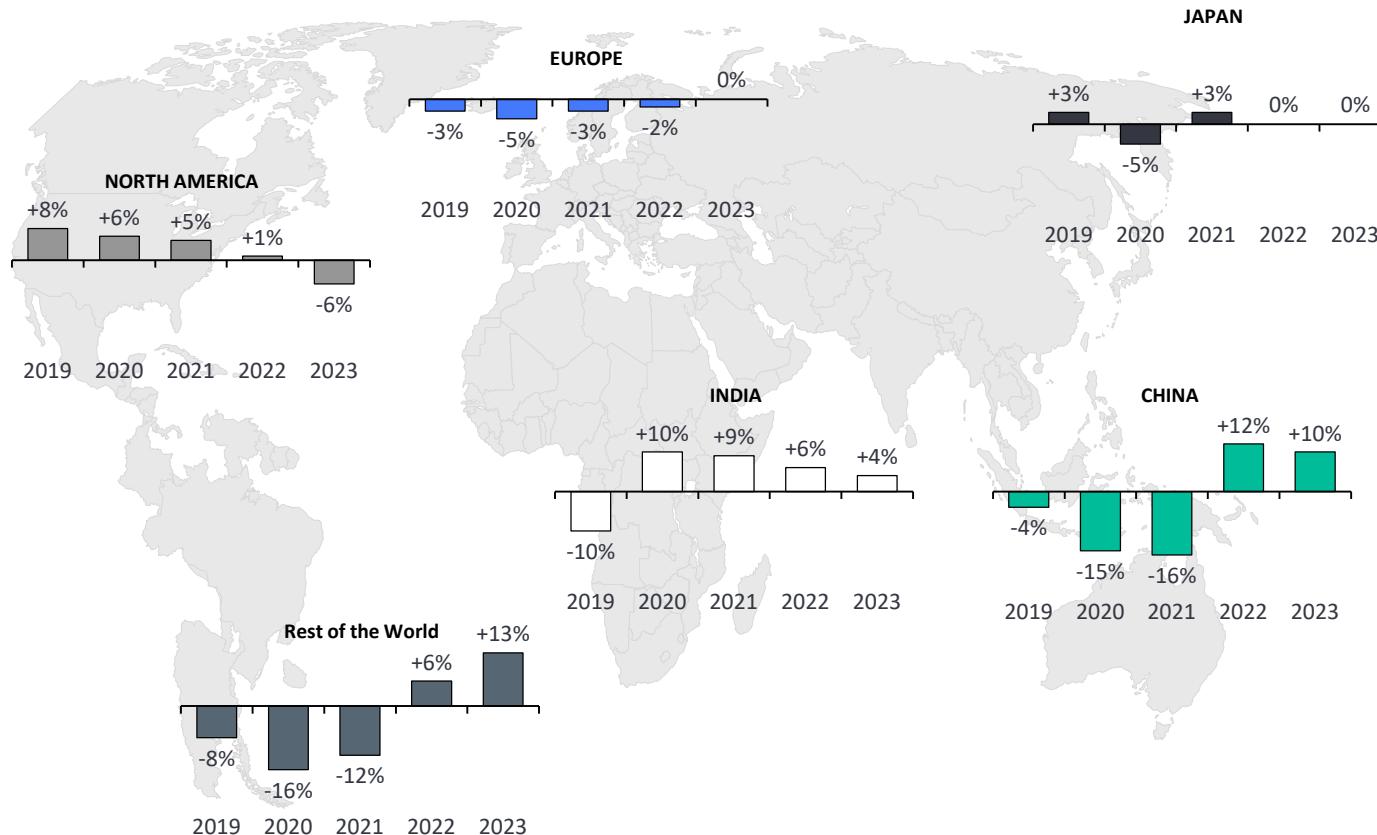
Source: The Parker Bay Company (Q3 2019) | Large mining truck (+91mt payload) fleet characteristics (Age distribution (years) and maintenance/replacement needs) (Not considering parked/idled machinery)

<sup>1</sup>The industry is currently changing truck engines at between 24 000 and 28 000 hours (every 4 to 5 years)

<sup>2</sup>Life of a truck is a minimum of 80 000 hours, but the industry is aiming to extend that to well over 100 000 hours, as improved engine technology (live digital monitoring, oil sampling, RPM limiting) and preventative maintenance is leading to extended life

# Global construction machinery demand is expected to weaken through 2021 before growing again in 2022

North American sales are believed to grow through 2022, European demand edging down, while the Chinese market is expected to once again decline strongly before improving in 2022  
 Global Sales of Construction Equipment by Region (Units)

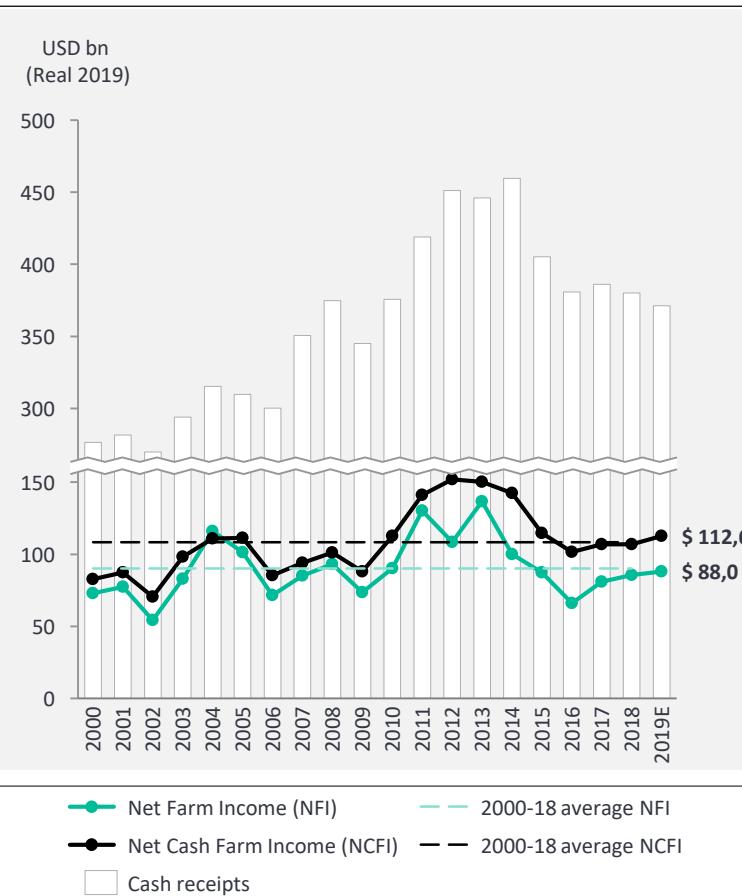


# The economic outlook for farmers is expected to be mixed across key markets

- In the US, direct government payments to affected farmers aim to soften the short-term blow of the ongoing trade war

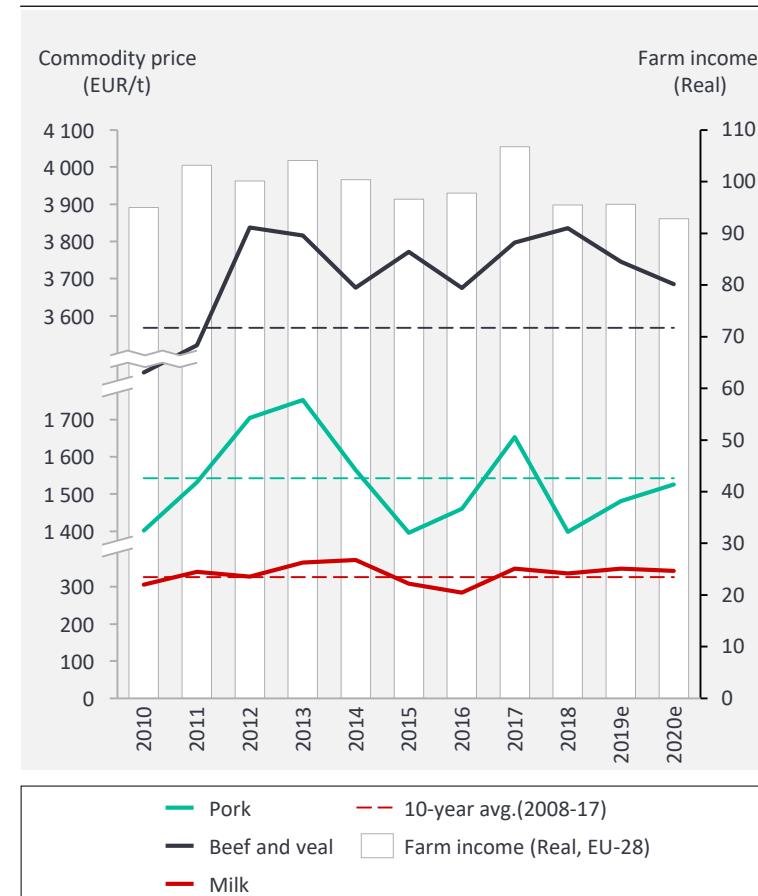
## US farm profits expected to increase slightly in 2019

US Farm Income Forecast<sup>1</sup>



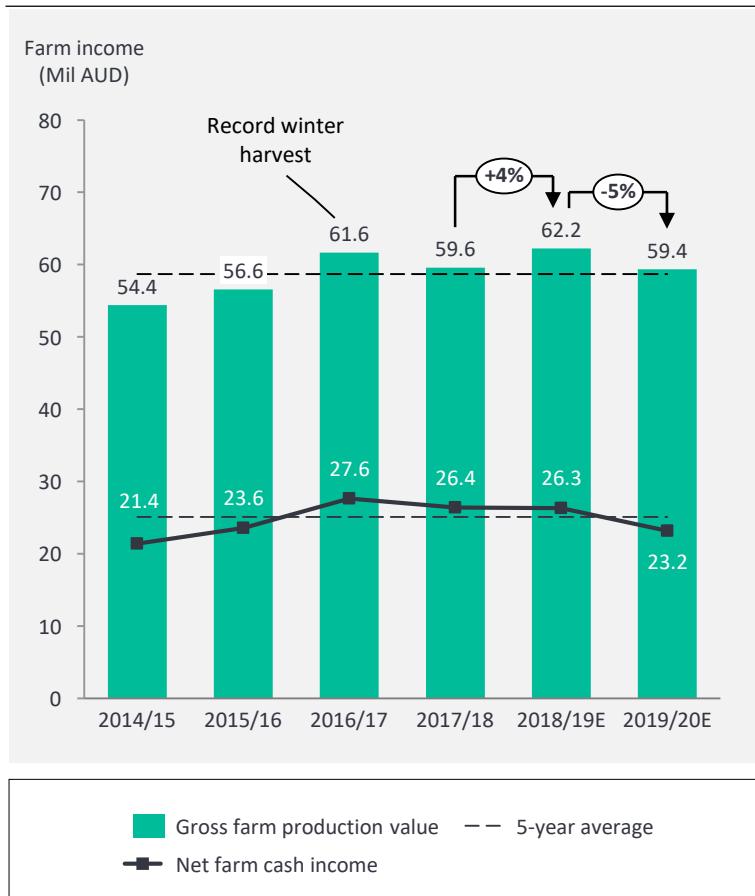
## EU farmer income is expected to decline slightly over the next 18m

EU Farm income and commodities forecast<sup>2</sup>



## Australian farm income is expected to drop below 5-year avg.

Australian Farm income<sup>3</sup>



Source: <sup>1</sup>USDA | August 2019 US Farm Income Forecast (Real 2019 USD) vs Cash receipts <sup>2</sup>EU Commission - Agriculture and Rural development | Forecasted EU Farm entrepreneurial income (EU-28 Factor income in real terms) and commodity prices (Pork/Beef/Milk) (EUR/t)

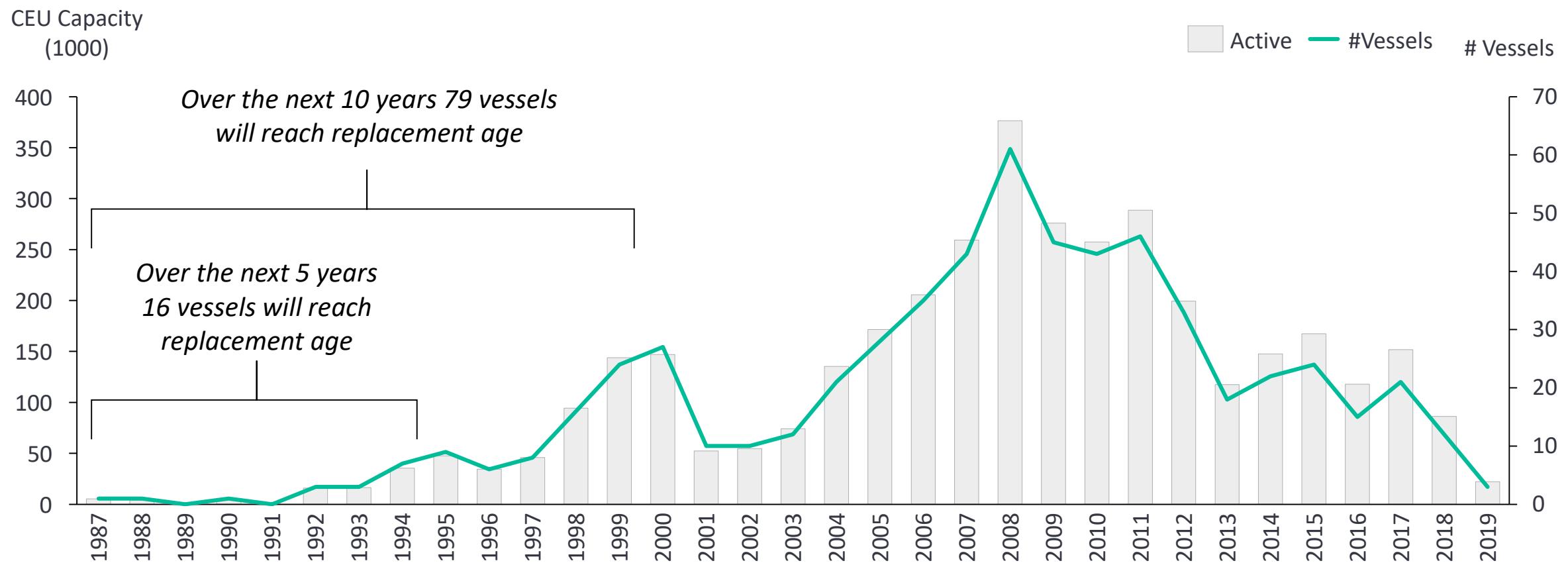
<sup>3</sup>ABARES (September 2019 Agricultural Commodities Report) | Australian farm income (Gross, Net cash) (Mil AUD)

# Recycling might pick up over the next 5 years

- Potential for upward pressure on rates

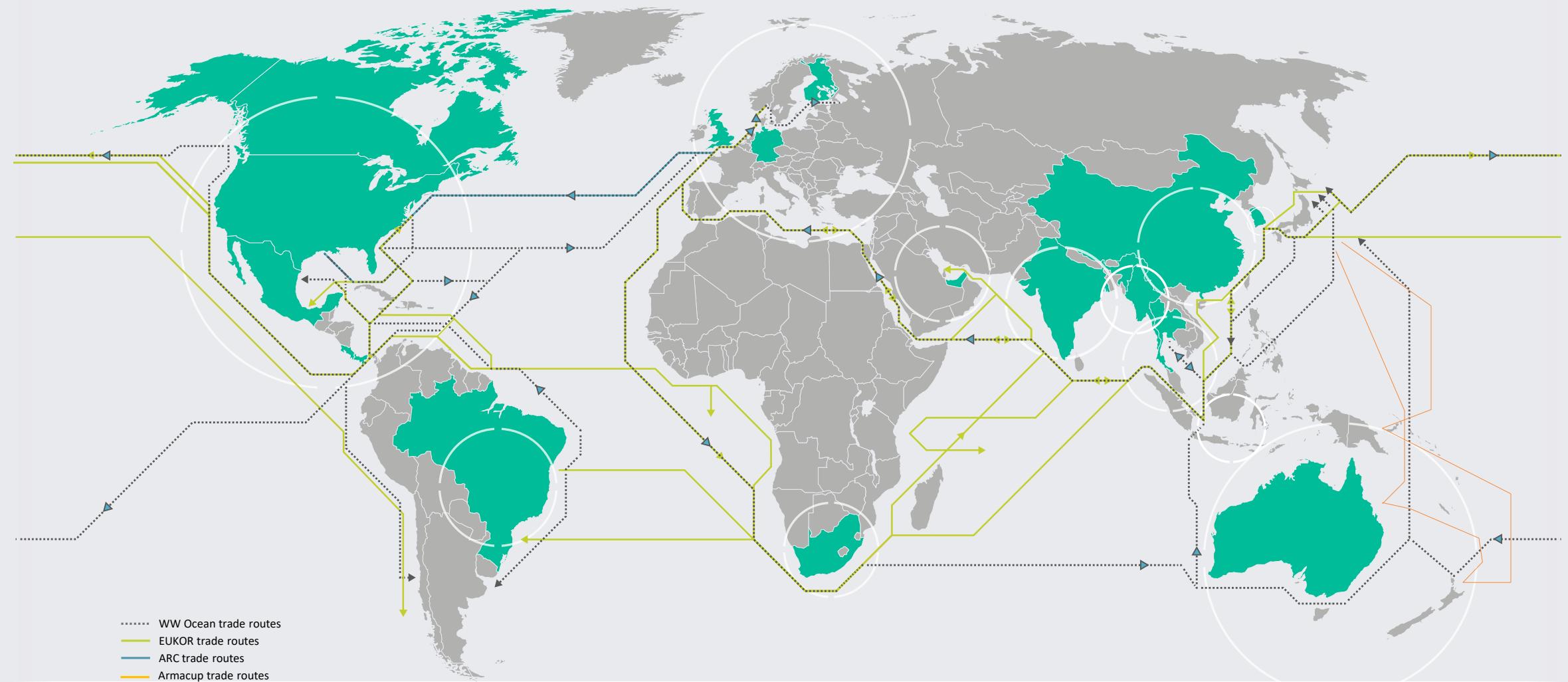
## Fleet composition by year of build

CEU capacity (>4000), Active by September 2019



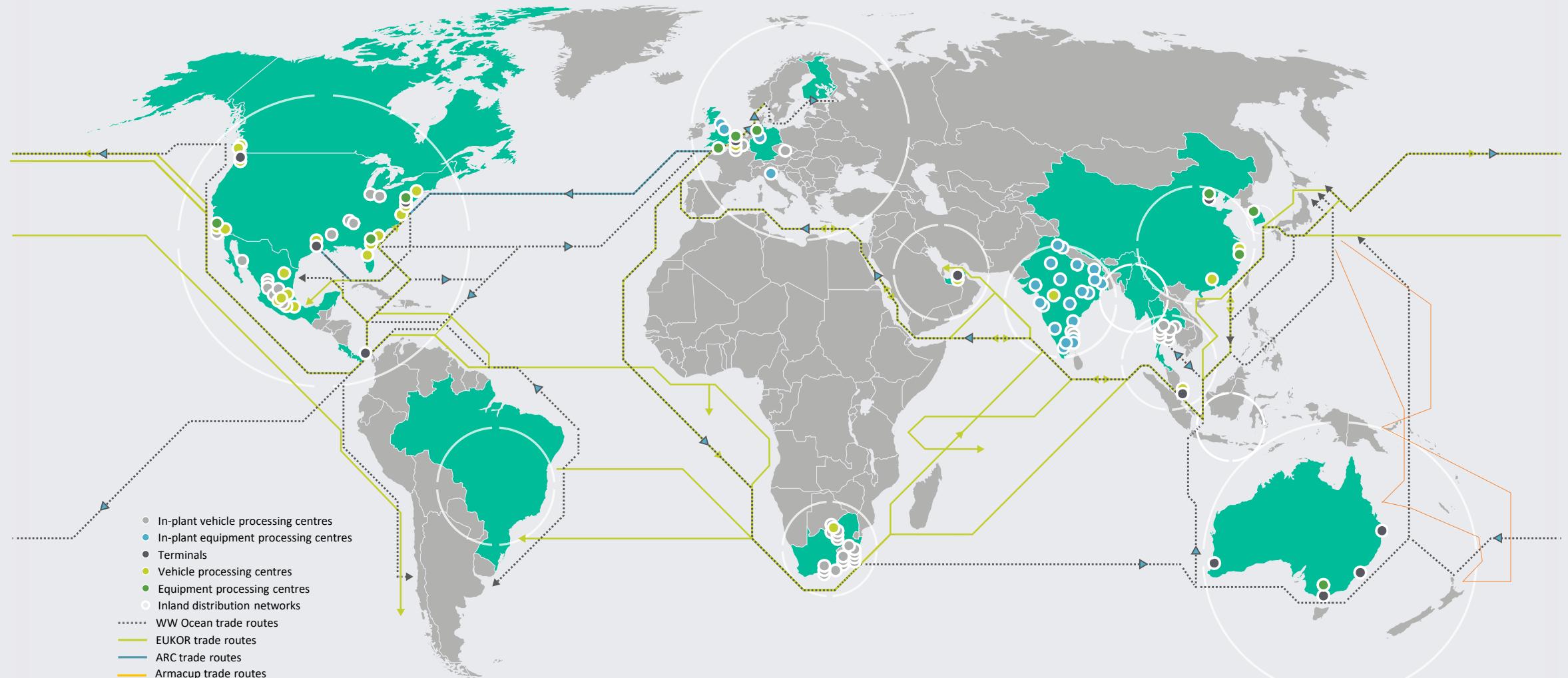
Source: Seaweb.com <sup>1</sup>capacity includes only Active vessels.

# An unrivalled and agile global RoRo network to meet changing demand...



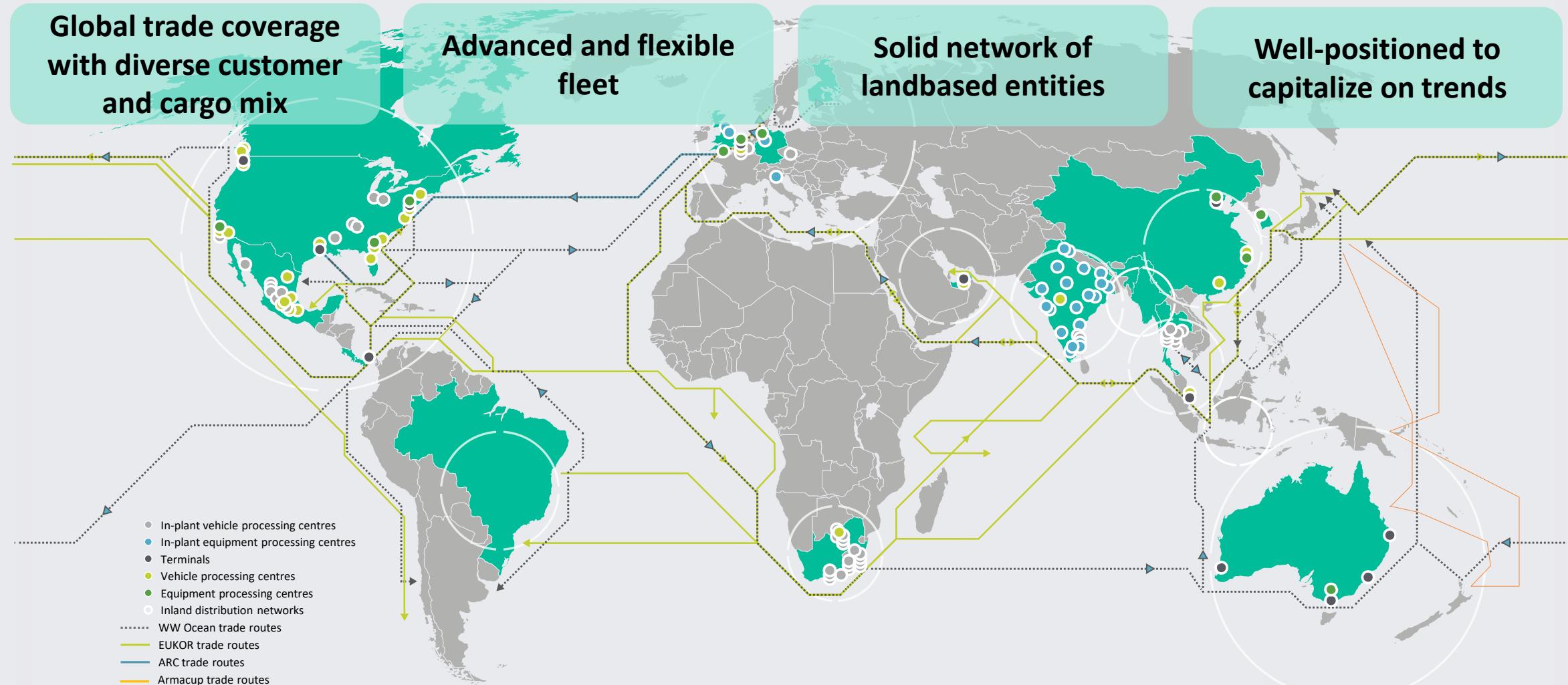
- ..... WW Ocean trade routes
- EUKOR trade routes
- ARC trade routes
- Armacup trade routes

... and a global network of Landbased entities well positioned for future growth



- In-plant vehicle processing centres
  - In-plant equipment processing centres
  - Terminals
  - Vehicle processing centres
  - Equipment processing centres
  - Inland distribution networks
- ..... WW Ocean trade routes  
— EUKOR trade routes  
— ARC trade routes  
— Armacup trade routes

Despite uncertainty in the short term we see solid development expected for the next 5-7 years and remain optimistic for horizon beyond



# Decarbonisation in shipping

Indispensable industry,  
unprecedented challenge

Roger Strevens  
VP Head of Sustainability





## IMO regulatory targets



- Relative CO2 reduction of at least 40% by 2030 compared to 2008
  - WW CO2 intensity 2008:2018 **-32%**
- Absolute reduction in total GHG of at least 50% by 2050 compared to 2008
  - Will require **zero emission vessels**

## Wider meaning...

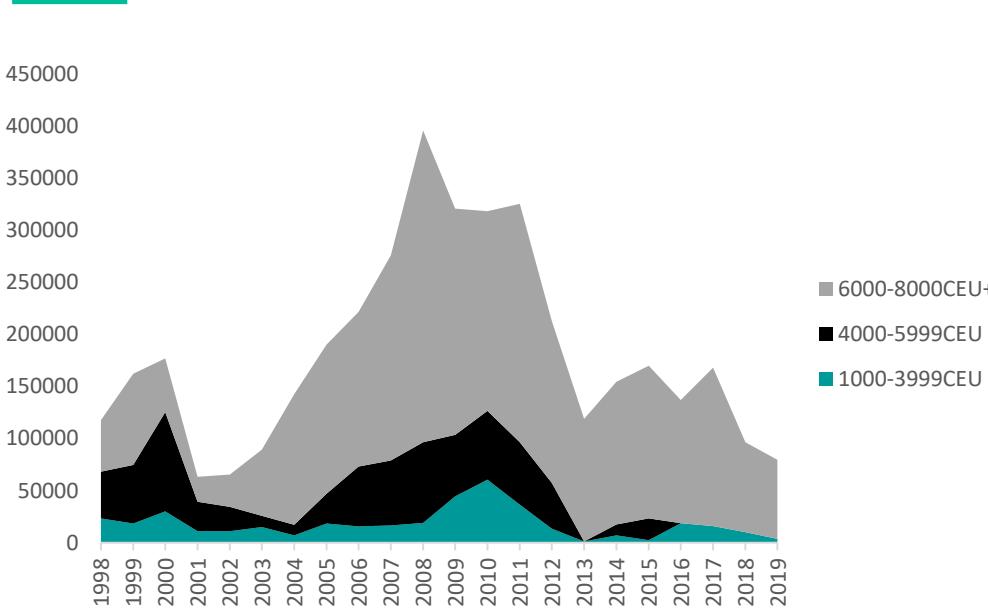
- CAPEX and or OPEX?
- Changes to service?
- Competitive landscape?
- All of the above
- Engagement advisable

Past to present

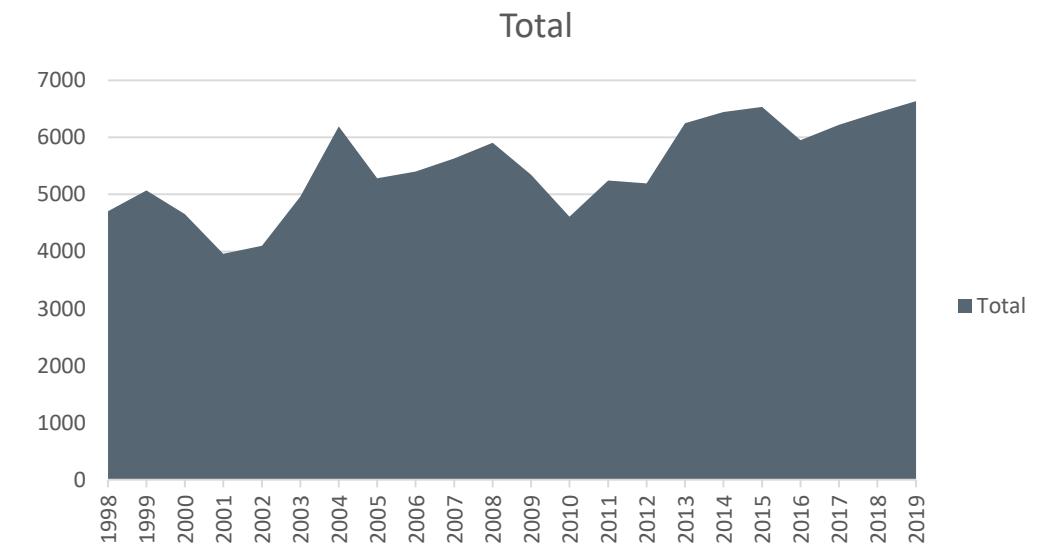


# Increase in economy of scale

New vessels have been getting bigger...



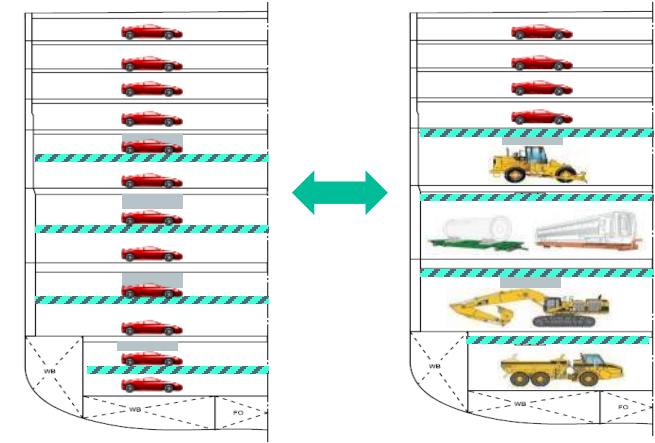
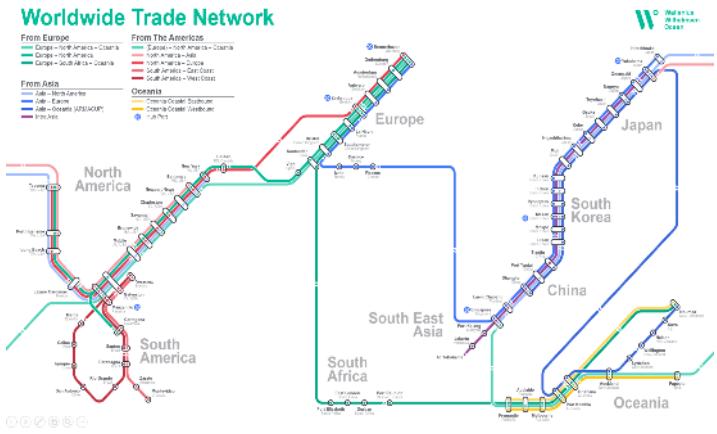
....so the fleet average has been increasing



# Panama canal expansion



# Other contributing factors



# Toward 2030...



**Digitalisation to extract efficiencies**



**Hull fouling management to reduce inefficiencies**



**No comment... for competitive reasons**

Pushing progress



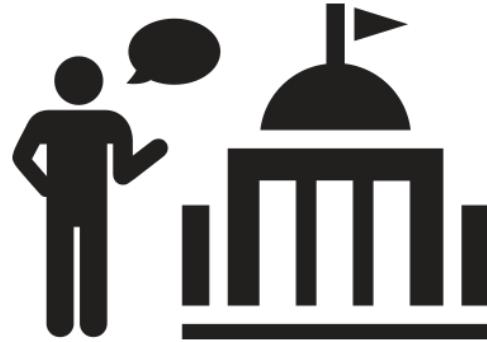
# Our approach to achieving progress



**Take the initiative** to position for the future



**Partner** to find Lean:Green solutions



**Engage** in the regulatory process



**Attract** innovators to our industry

# Progress imperatives: 3 perspectives



**Incremental reduction**  
*Business as usual*



**Step improvement**  
*Carbon neutral*

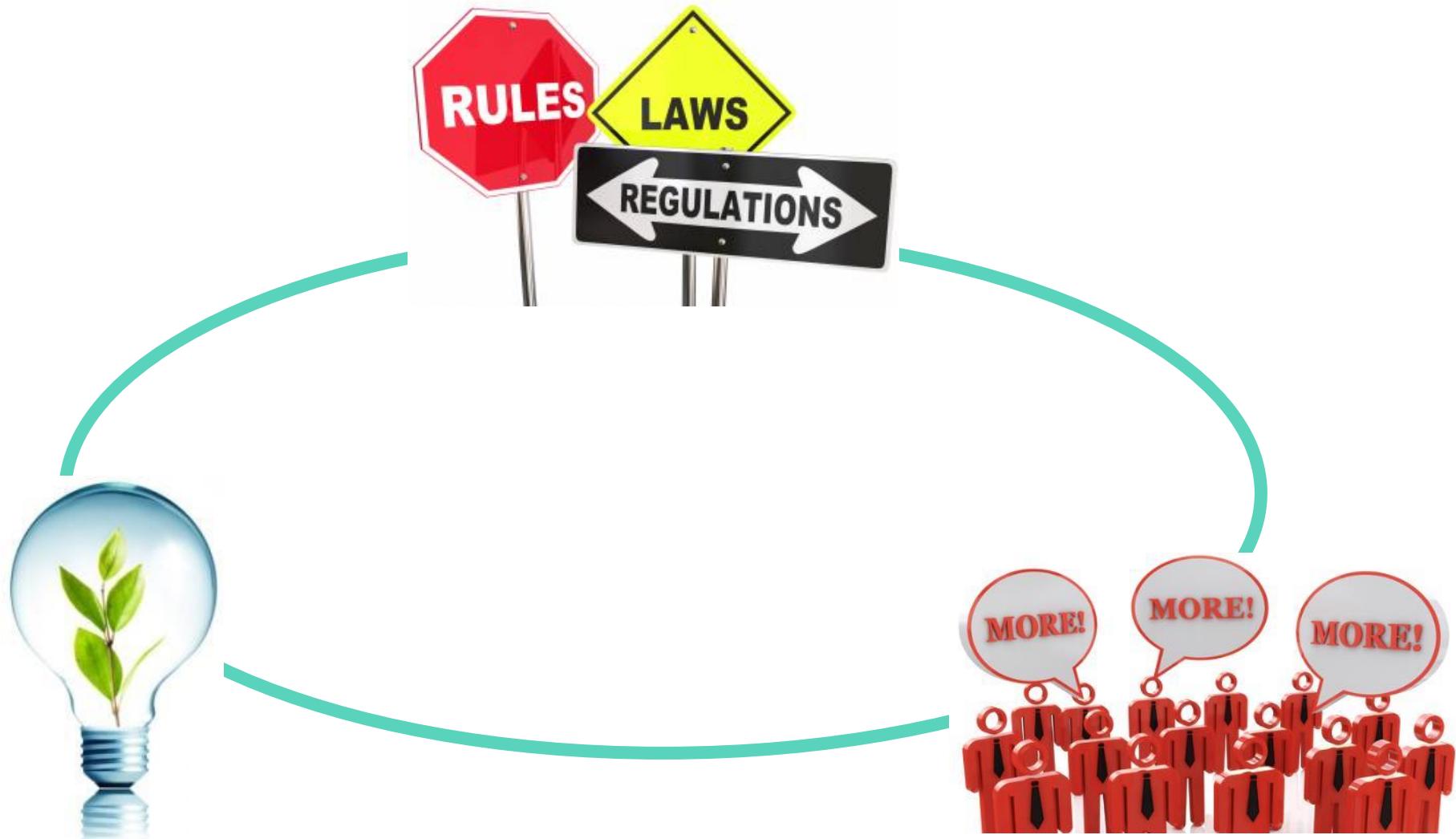


**Final destination**  
*Zero emissions*

# What makes an innovation stack up?



NB: Shifting frame of reference



# W° 2020: Next-level transparency

- Addressing climate risk - TCFD based on SASB
  - Physical and transition risks
  - TCFD: the 'what', SASB: the 'how'
- CDP: most widely used carbon reporting framework
- SBT: top-down target setting approach
  - Will inform new GHG target setting

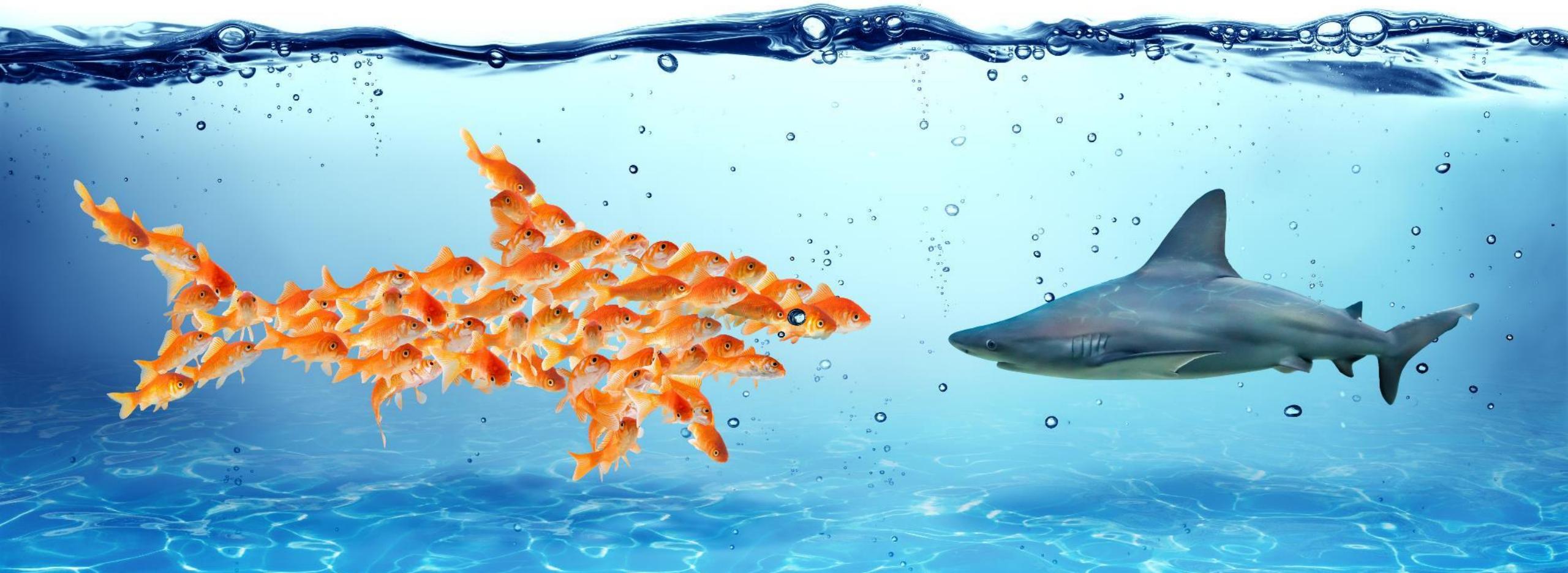




Into the future



Partnership: when the total is greater than the sum of the parts



# Wind assisted propulsion



- WPCC: Wind Assisted Car Carrier
- Design development by Wallenius Marine
- Concept feasibility assessment underway
- Conclusions expected H1 2020



UNIVERSITY OF  
COPENHAGEN



MAERSK



W° Wallenius  
Wilhelmsen



## Introducing LEO: *Lignin Ethanol Oil*

- Natural polymer, byproduct of paper production
- LEO: potential 2nd generation biofuel
  - Near carbon neutral, no sulphur
  - Heavy 'drop-in' fuel for existing fleet
- Bench-top now, test engine ca. Q4 2020

Getting to zero 2030 – we're onboard



*'Accelerating maritime shipping's decarbonisation with the development and deployment of commercially viable deep sea zero emission vessels by 2030'*

# Orcelle Award hosted by the Ocean Exchange



- In-water hull cleaning with capture
- Significant operational savings

- Forum for accelerating sustainable innovation
- Wallenius Wilhelmsen proudly sponsor
- Helping close gap to zero emissions



- Flow battery technology
- Potential 'at-berth' solution



- 2019 Orcelle Winner
- Carbon-oxide battery

## *Lean:Green #Leadershipping*

*Thank you for your attention*



# Digitalisation

Simon White  
EVP and Chief Digital Officer

Mats Amland  
VP Head of Transformation Office

## Current Digital Focus Areas

Digital Acceleration & pilots



Building the Foundation



Re-imagining the supply chain  
together with our customers



Digitalising Operations  
Energy efficiency &  
Sustainability





Digital pilots



# Current activities – Digital Pilots

- Corporate Partnership

**PLUGANDPLAY**

- Digitisation of cargo survey
- Digital Pilots initiated in the areas of
  - Cargo Risk and Biosecurity
  - Mixed reality training
  - Video AI – Safety and efficiency
  - Worker safety technology
  - Cargo measurement and yard management
- Partnerships

**Ogilvy**

**NEWLAB**

**RAALABS**



# Re-imagining the supply chain together with our customers

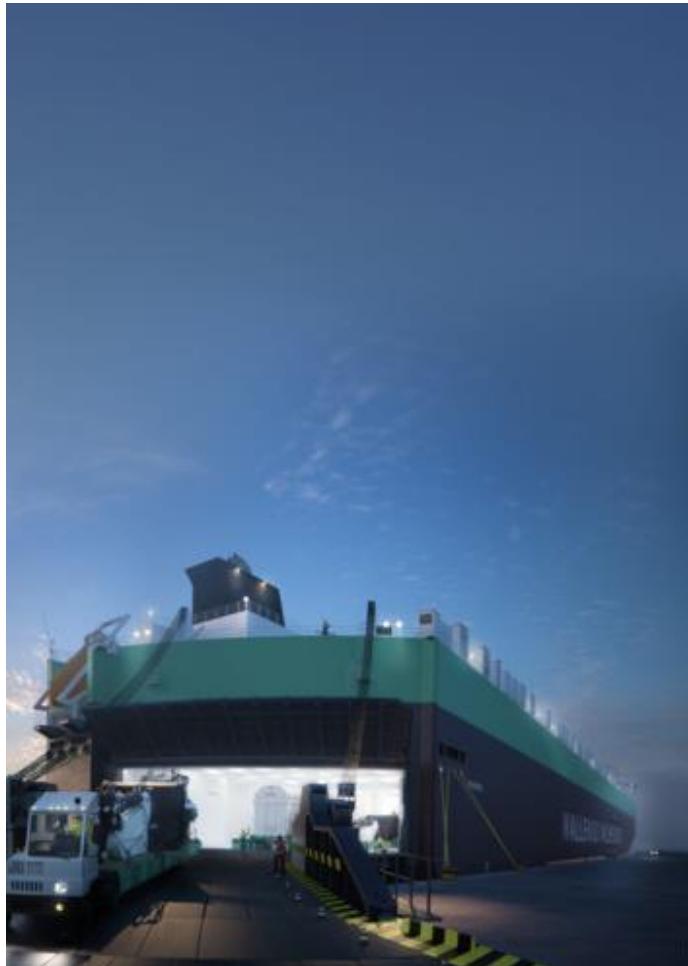
- Immediate opportunity to reduce emissions and lower costs by *removing waste* in the supply chain
- From *track and trace* to the *intelligent supply chain*
- Potential for the *connected vehicle* in the supply chain
- Digitalised solutions supporting *fleet and mobility* models

# Digitalising Operations Energy efficiency & Sustainability



W°

Data connectivity and data platform will form the basis for the digital transformation



**Application development  
AI/ML**



**Data analysis / science**



**Data platform**



**Data connectivity**



**Digitalisation**

The process of considering how best to apply digitised information to simplify specific operations.



**Digitisation**

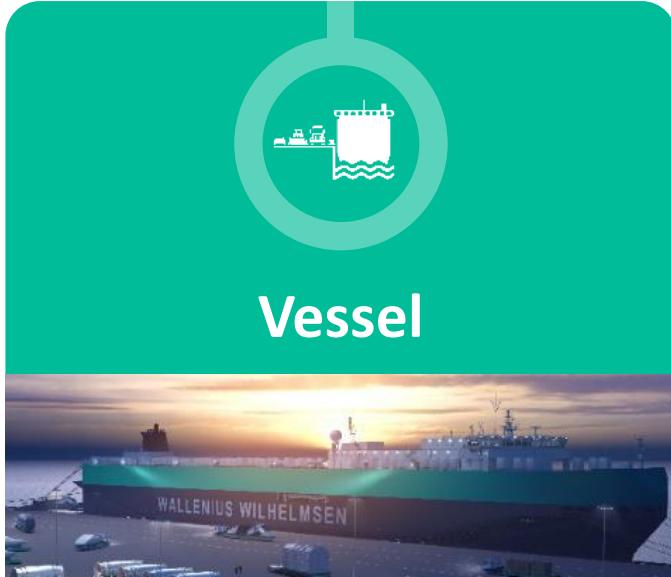
The process of making information available and accessible in a digital format.



**Digital  
Transformation**

The process of devising new business models that integrate all the digitised data and digitalised applications.

W° Vessel digitalisation has great potential to improve efficiency across vessel, voyage and cargo



#### Energy efficiency and bunker optimisation:

- Energy Management
- Fuel consumption monitoring
- Weather monitoring and routing
- Speed management
- Trim & ballast
- Hull & propeller performance
- Main engine performance
- Aux engine performance



#### Voyage follow up and optimisation:

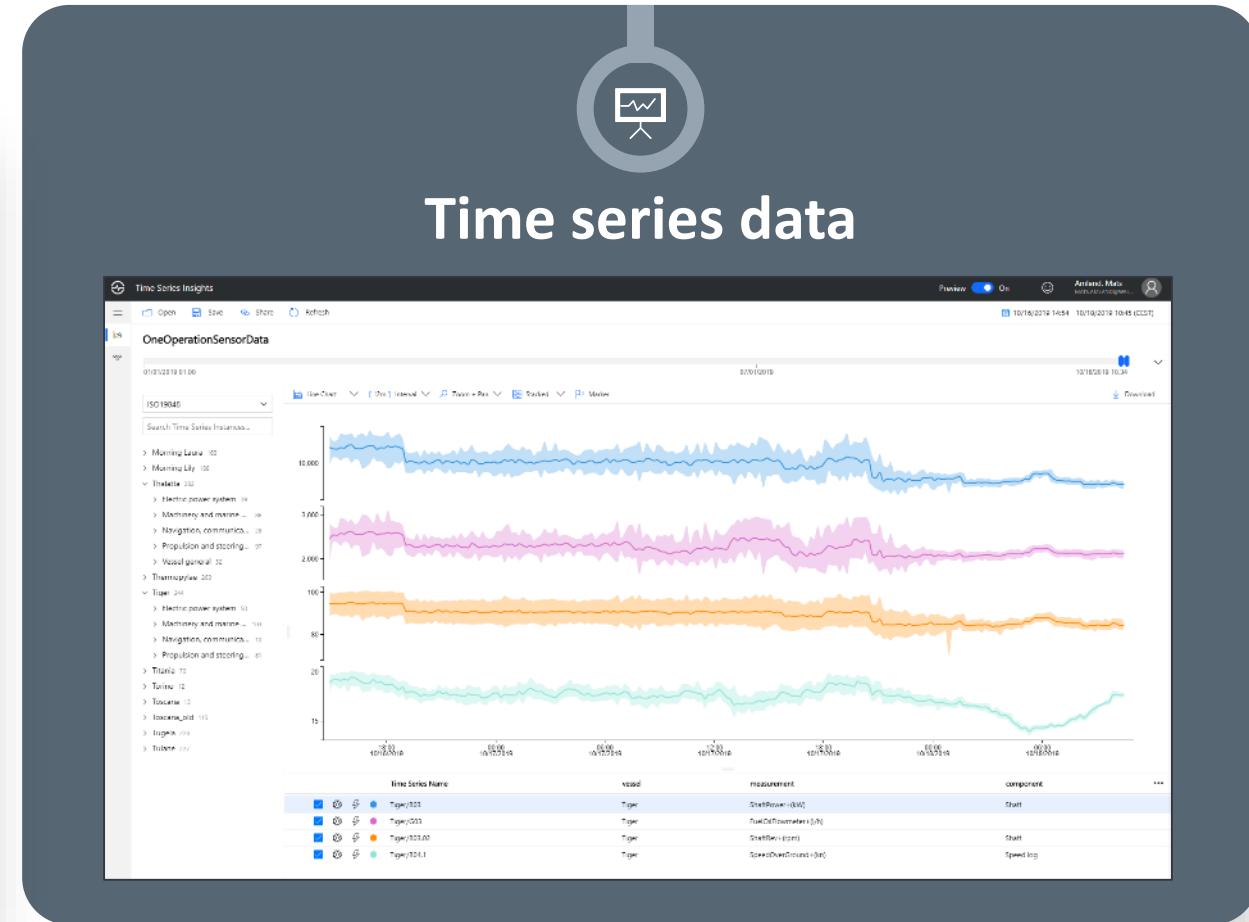
- Tonnage planning
- Bunker management
- Voyage management (Trade)
- Predictive maintenance
- Maintenance management
- Performance management



- Stowage and cargo optimisation
- EDI, Customs++
- Customer data support

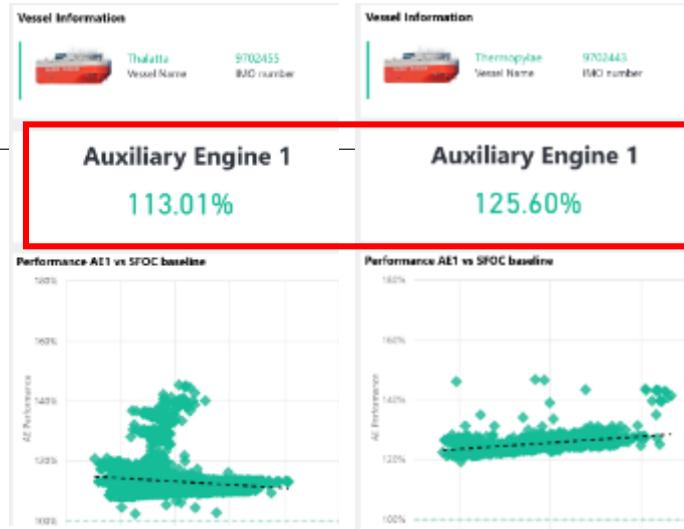
W°

High frequency data opens up opportunities through analysis and real time monitoring

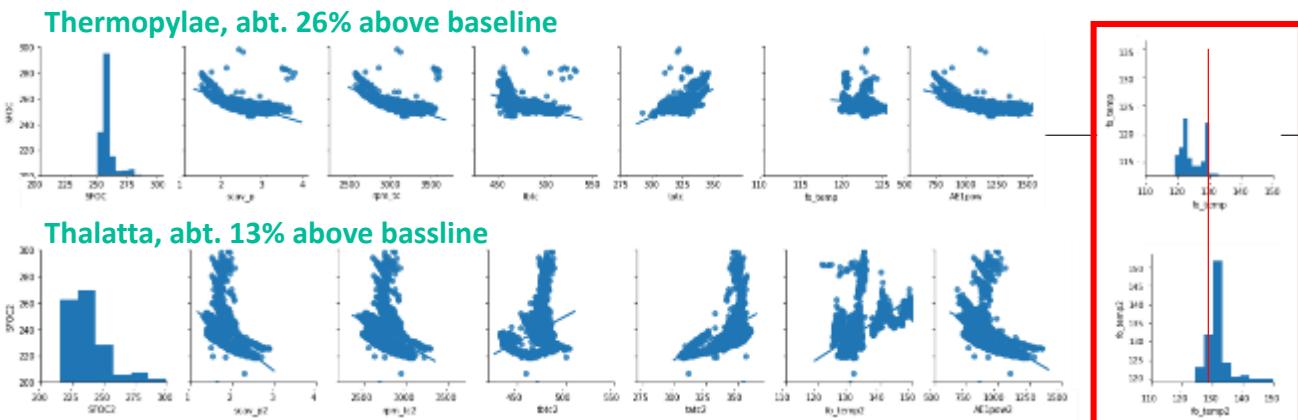


# A real-world example: finding inefficiencies based on granular data - and taking corrective action

1



2



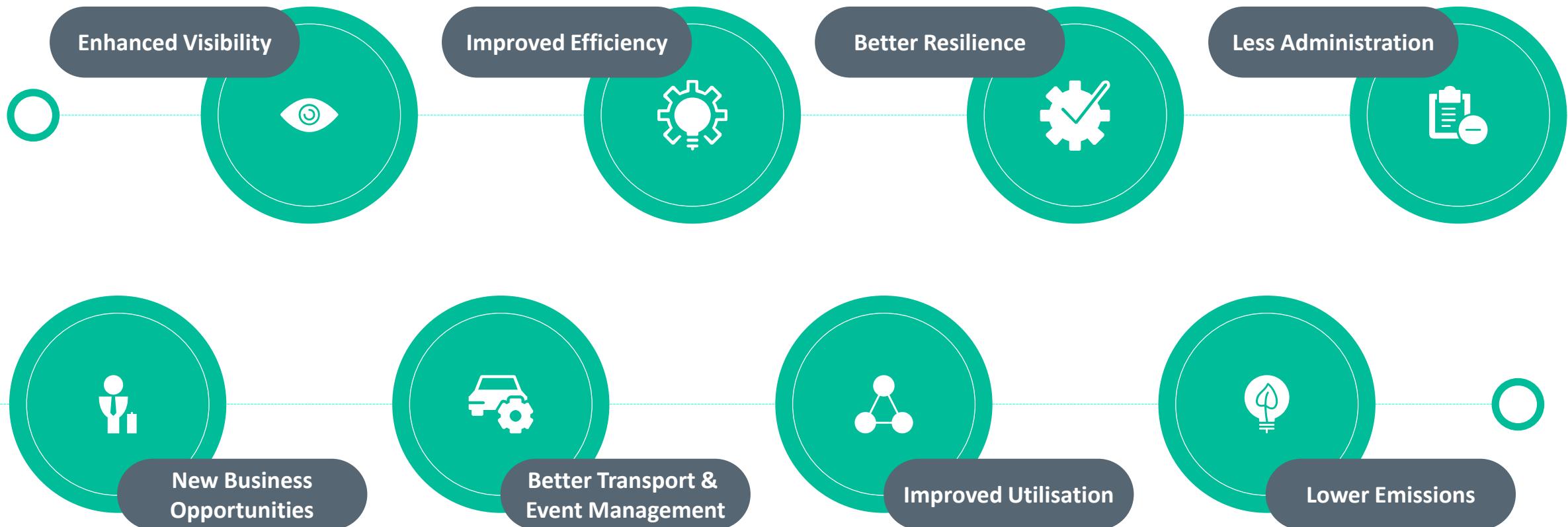
3



4



# Digitalisation benefits across the supply chain



# Q&A

# Sustainable logistics for a world in motion

