

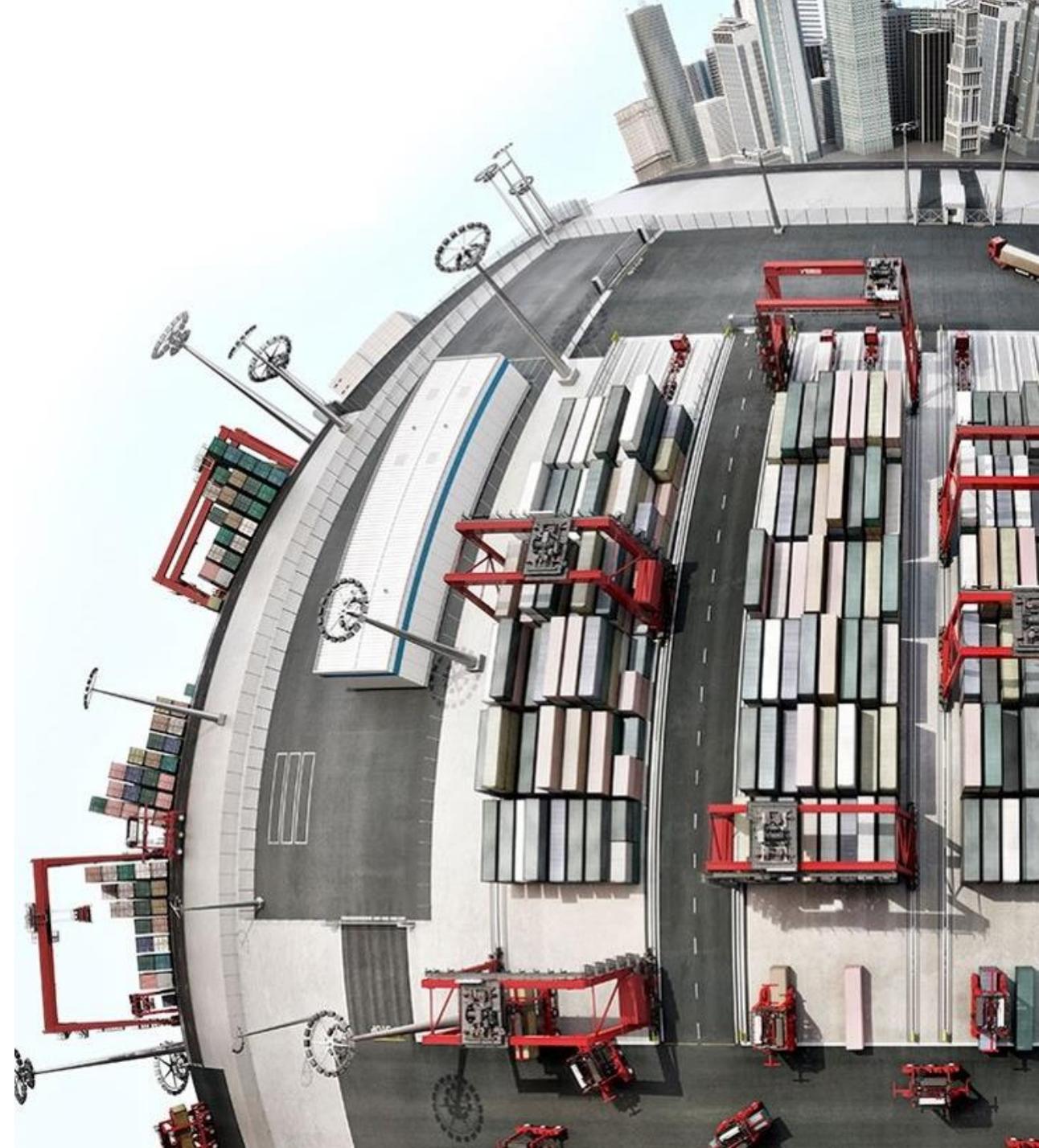
An aerial photograph of a large port terminal at dusk. The scene is filled with numerous cranes, shipping containers, and a large cargo ship docked at a pier. The sky is a deep blue, and the water reflects the ambient light. The overall atmosphere is industrial and busy.

Antti Kaunonen, President, Kalmar

# Shaping the industry through intelligent cargo handling

# Shaping the industry through intelligent cargo handling

- We have continued to improve our profitability
- Services provide the biggest medium term growth opportunity
- Industry mega trends support long term growth in automation and software
- We have a unique position to leverage our references to grow automation and software



# Kalmar in brief and results after CMD 2015



# We deliver industry leading solutions



Coordinates and optimises the planning and management of container and equipment moves in complex business environments.

Navis provides also maritime shipping solutions:

- Stowage planning
- Vessel monitoring
- Loading computer
- Route planning



The leading collaboration platform serving the needs of ocean carriers, terminals and their shipping partners.



Ensures a shared interface for all Kalmar automated equipment. Provides integrated port automation solutions including software services and a wide range of cargo handling equipment.

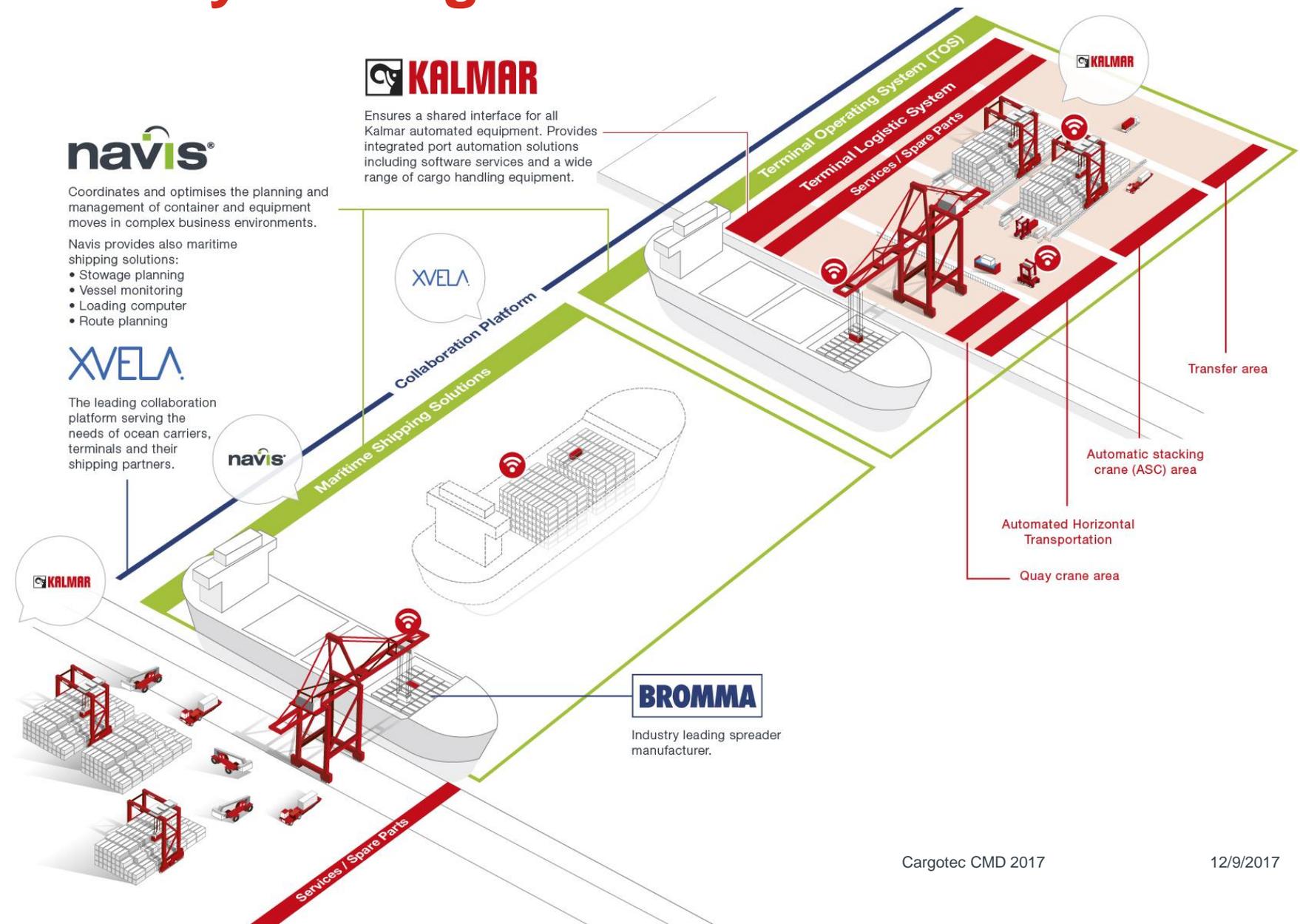


Collaboration Platform

Maritime Shipping Solutions



Industry leading spreader manufacturer.

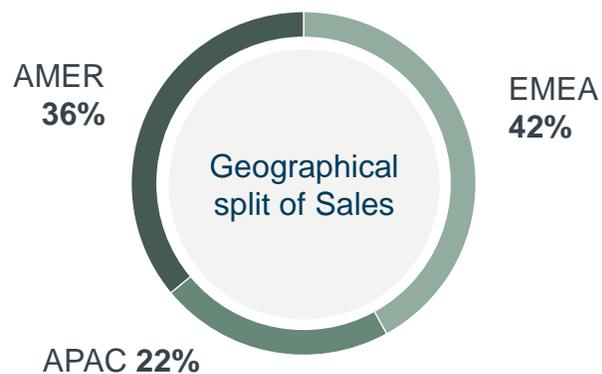


# Industry leader

Kalmar is the industry leader in terminal automation and eco-efficient cargo handling

MEUR	LTM**
Orders received	1,662
Order book	926
Sales	1,680
Operating profit*	138.9
Operating profit margin*	8.3%
Personnel	5,788

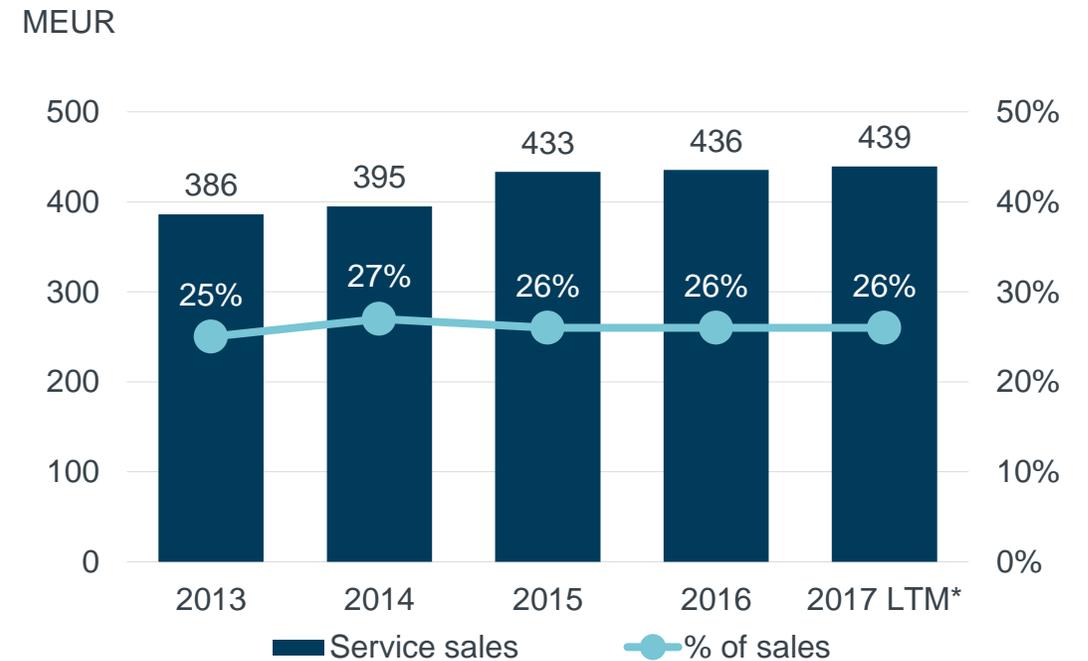
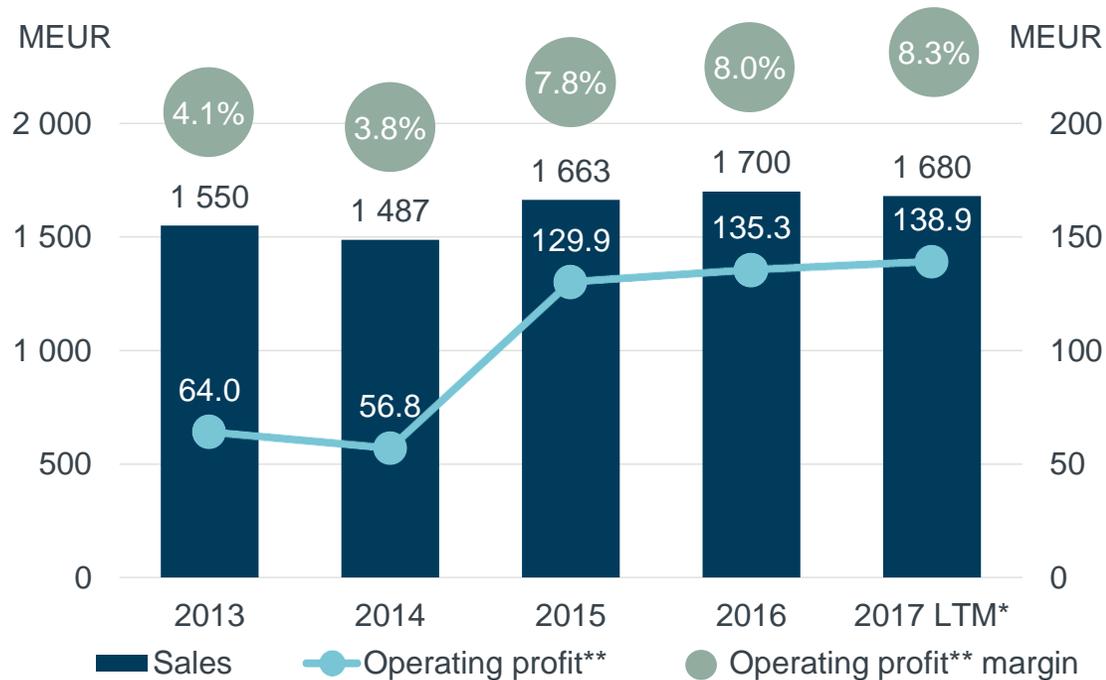
**ZERO** EMISSION SOLUTION



\*) Excluding restructuring costs

\*\*\*) LTM = Last 12 months (Q3/16 – Q2/17)

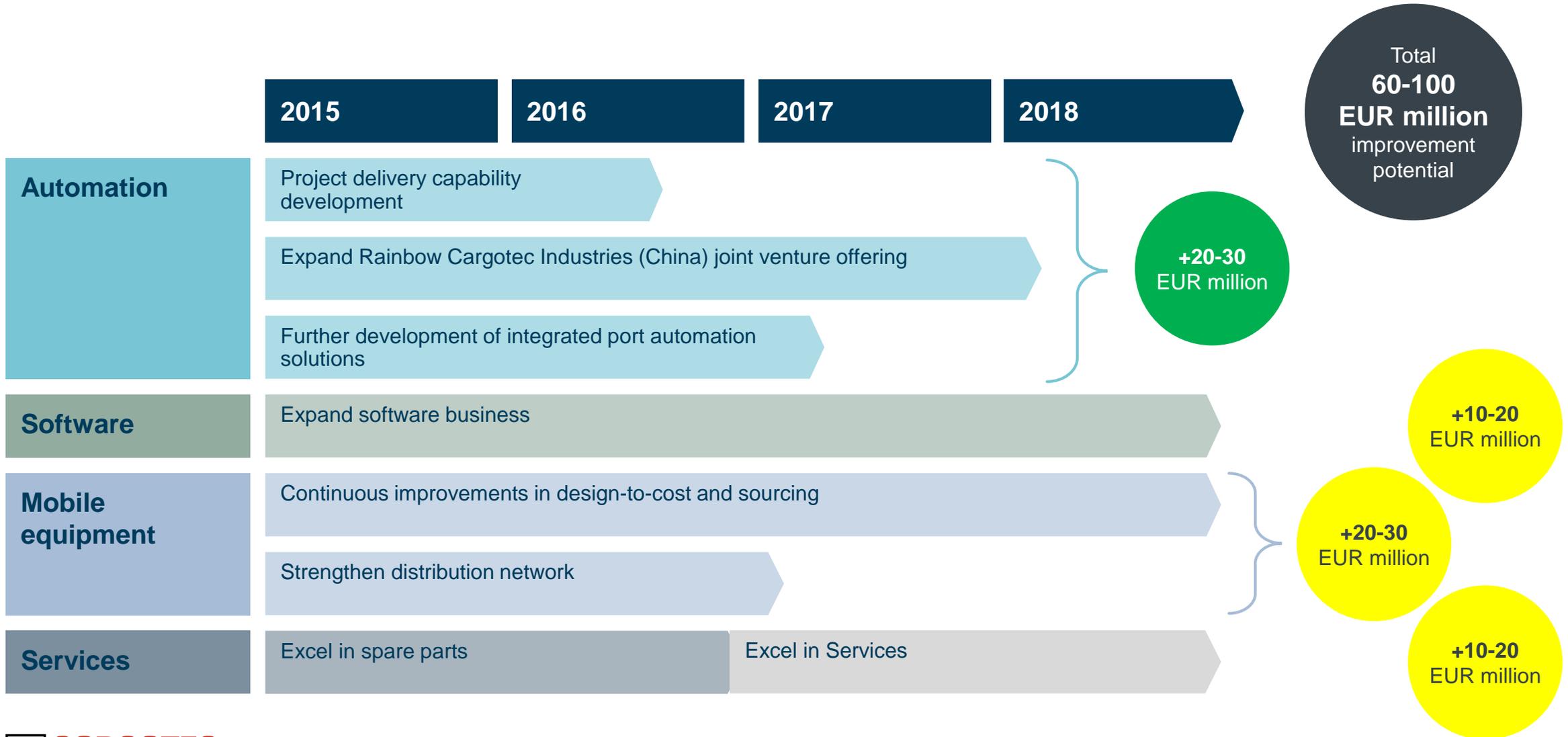
# Our profitability improvement has continued



- Improved mega-project delivery capabilities
- Software growth
- Zero emission solutions

- Market leader in China for Reachstackers and Empty Container Handlers
- Absolute € based service growth

# Our profit improvement potential 2015-2018



# Services provide our biggest medium term growth opportunity



Equipment & Projects  
**20-30%**



Software  
**20-30%**



Services  
**3-5%**

Market  
share

Market  
size

**6B€**

**0.5-1B€**

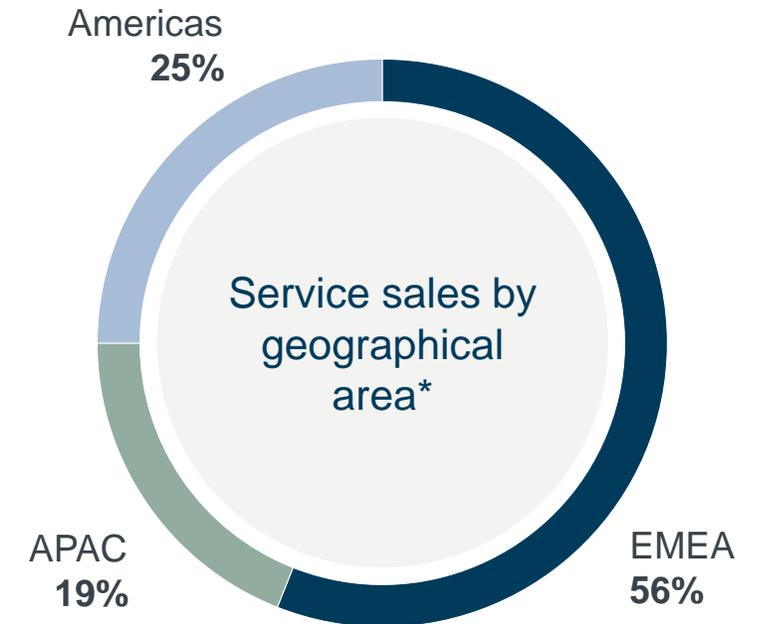
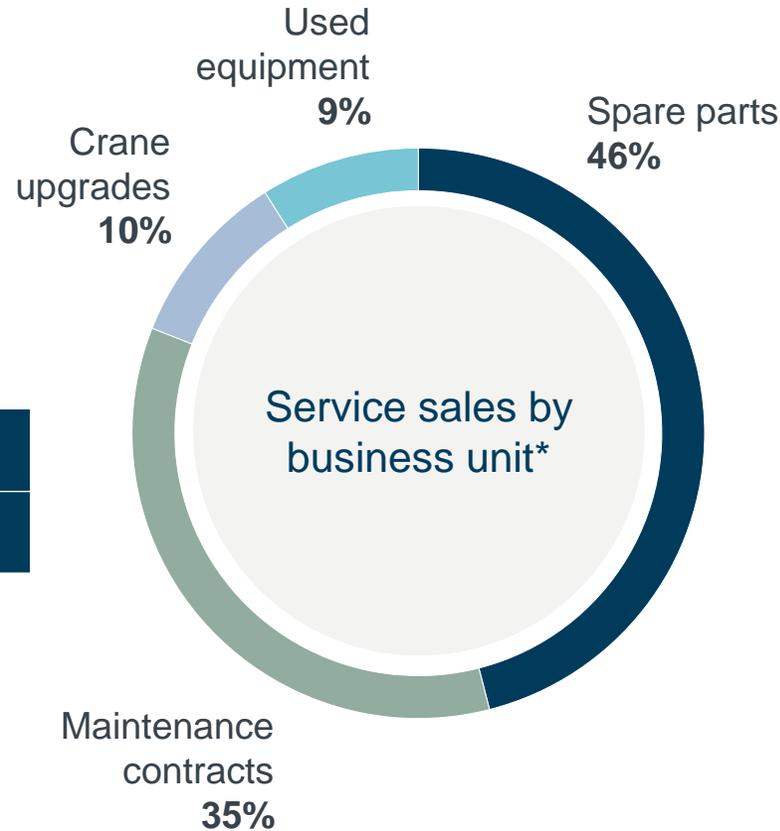
**8B€**

# Future focus on maintenance contracts

## Customer segments:

Ports and terminals,  
distribution and industrial  
handling

MEUR	LTM*
Service orders received	425
Service sales	439

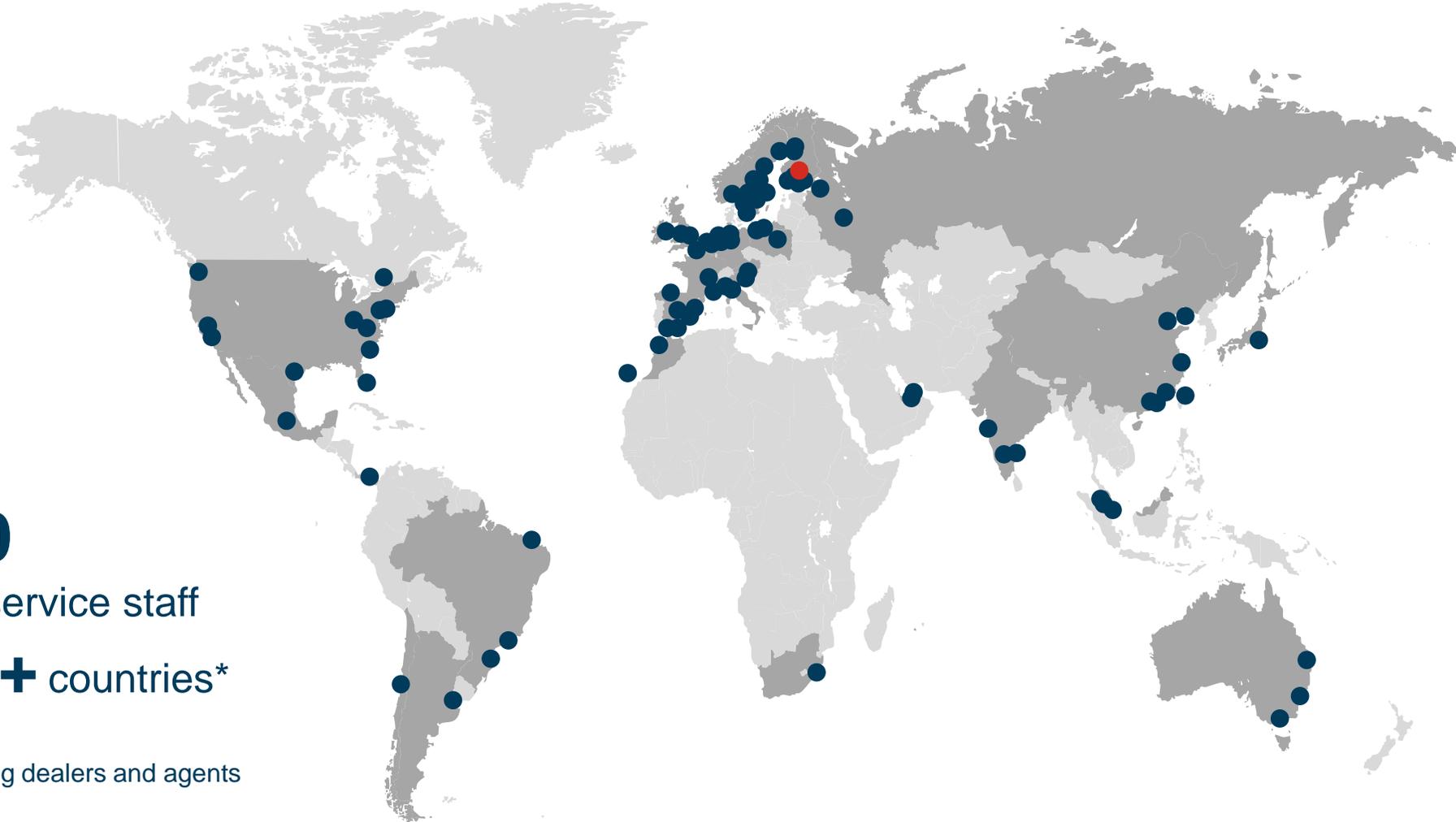


\*) LTM = Last 12 months (Q3/16 – Q2/17)

# We have the industry's widest global sales and service network to capture growth

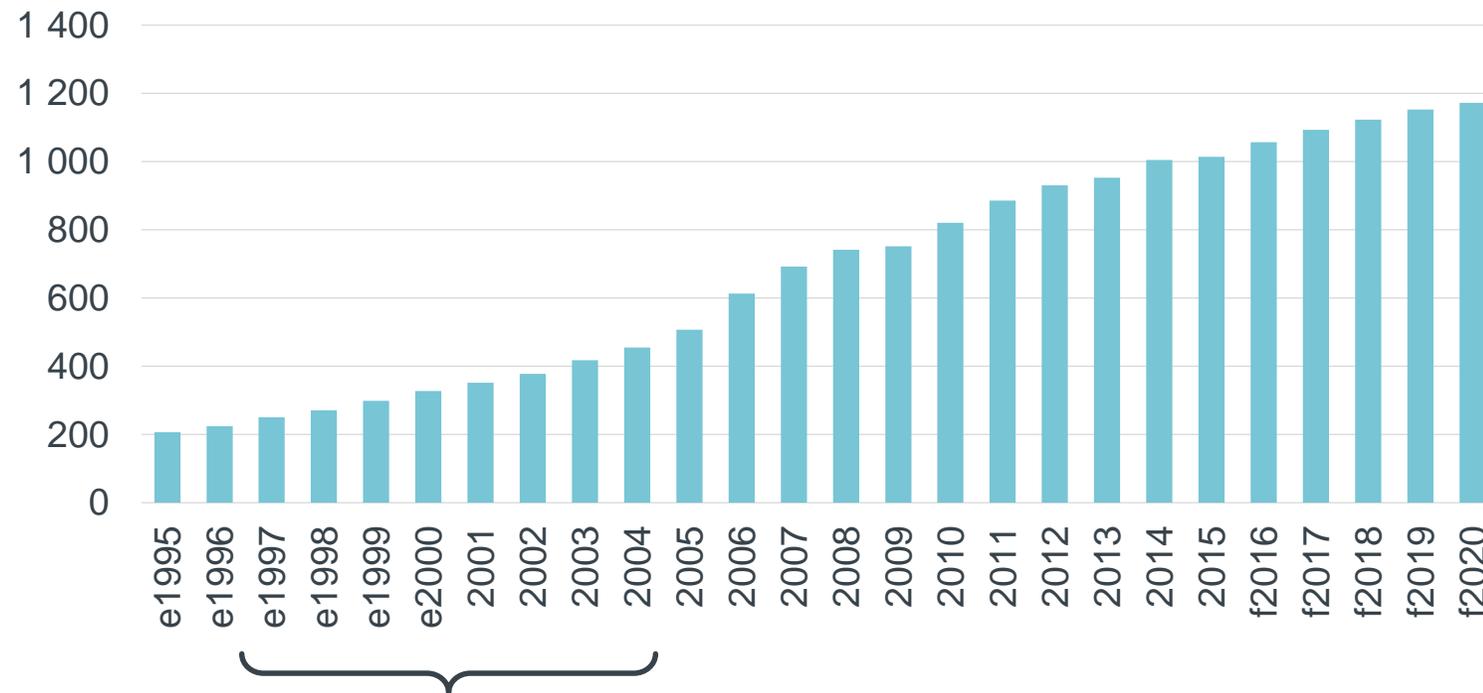
**1,500**  
Kalmar service staff  
in **100+** countries\*

\*) Not including dealers and agents



# The current replacement market size for key terminal equipment is EUR 1 billion annually and the market is expected to double in the next decade

## Total Capacity MTEU



Replacement after lifetime of equipment

The replacement market will grow in coming years, as the container terminal capacity has expanded significantly during the last two decades.

### Average lifetime of type of equipment:

- STS - 25 yrs
- RTG - 15 yrs
- SC - 8-10 yrs
- RS/ECH/TT – 8 yrs

Source: Drewry reports: Global Container Terminal Operators 2001-2016 Note: 1995-2000 capacity is estimation based on the assumption that the utilisation rate has been between 70-72% in that period. 2016-2020 forecast based on Drewry's Global container terminal operators report, published in August 2016

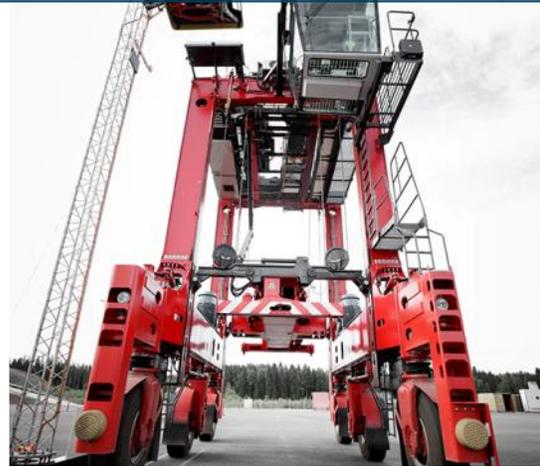
# Industry mega trends support long term growth in automation and software

## Mega vessels



Efficiency demands increase as marine transport continues to grow. Larger ships require capacity improvements from port operators.

## Sustainability



Strict emission requirements & growing concern for the environment increase the demand for more intelligent machines with smaller environmental impact.

## Industry consolidation



New alliances between shipping lines are impacting container traffic flows and setting new efficiency standards for port operators.

## Digitalisation & automation



Digital and automated solutions provide new possibilities for port operators to improve efficiency, safety and sustainability.

# Business case for automation has not changed since CMD 2015

Cost saving example in a typical automated terminal

**Indexed P&L manual terminal\***

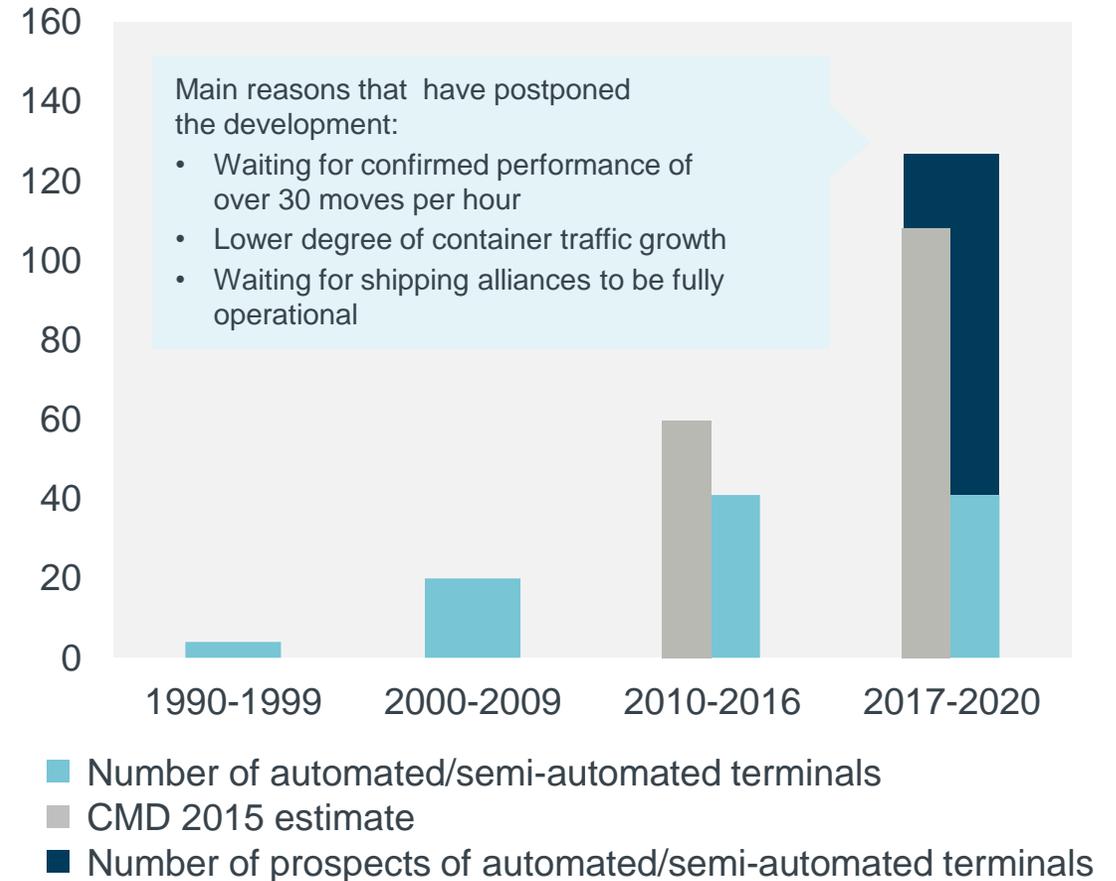
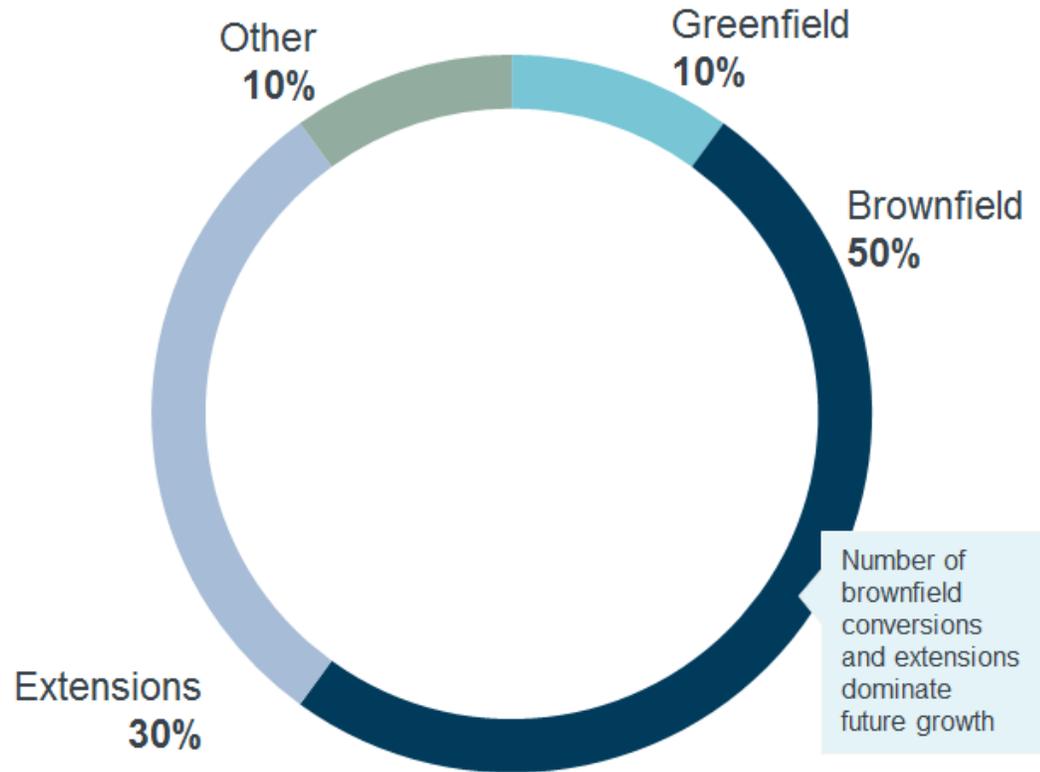
**When converted into an automated operation:**

<b>Revenue</b>	<b>100</b>			
Labour Cost	40	➔	60% less Labour Costs	16
Maintenance	8	➔	20% less Maintenance	6.5
Power & Fuel	4	➔	25% less Power & Fuel	3
IT	2	➔	50% higher IT	3
Depreciation	10	➔	30% higher Depreciation	13
Other Costs (land, overhead)	18	➔	Assuming same overheads	18
Total costs	82	➔	27% less costs	59.5
<b>Profit</b>	<b>18</b>	➔	<b>125% profit increase</b>	<b>40.5</b>

Additionally, improved safety reduces number of lost working hours, equipment damage costs and insurance premiums

\*) Typical manual operation in Europe

# Number of automated/semi-automated prospects has even grown since CMD 2015 but decisions to go ahead have been postponed



# Software solutions reduce the impact of cyclicality



# Navis Terminal and Carrier Solutions aim to reduce inefficiency and waste in the global supply chain

Planning & Execution: plan and execute all moves across terminal/  
Increases throughput and lowers cost

Analytics for better operational decision making

Capture all billable events for accurate and timely billing

Automate & improve truck turn times

Optimise container yard moves, save cost and reduce moves

Optimise vessel load and discharge across cranes

Optimise rail load and discharge processes

**€17 BILLION**  
of waste and inefficiency

Optimise vehicle routing and costs

Track vessel operational performance and environmental compliance

Optimise vessel stowage planning

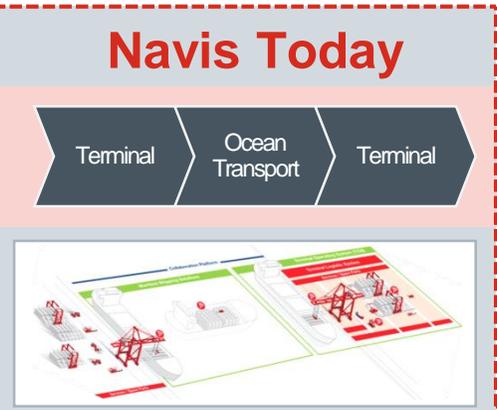
Ensure seaworthy loading of vessels

Source: McKinsey

# Navis is well positioned for further growth in the end-to-end value chain



## Navis Today



### TERMINAL & SHIPPING OPERATIONS PROCESS FLOW



Container arrives by road/rail transportation and is registered at the terminal

Container is sorted and stacked at the yard

Container is unstacked from yard and stowed on ship

Vessel pilots out of the port, sails across ocean, and pilots into destination port

Unloaded from ship onto quay crane. Containers move into trans-shipment or import/export storage

Containers sorted and stacked in the yard

Containers loaded onto rail/road transport



# VICT: Fully automated turnkey greenfield terminal in Melbourne

- 11 Kalmar AutoShuttles
- 20 Kalmar Automated Stacking Cranes
- Kalmar Automated Truck Handling
- Fully integrated Kalmar TLS with Navis N4 TOS
- System integration services

“ Through Kalmar, we will be able to leverage their knowledge and experience from similar automation projects throughout the world and get an integrated system comprising the equipment TLS from Kalmar and the terminal TOS from Navis. We believe that this approach to use a key partner for equipment and software services will help us optimise the operational performance for the future.”

**Christian R. Gonzalez**

Head of the Asia-Pacific region  
ICTSI

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