

# PORT SOLUTIONS SET FOR GROWTH

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# AGENDA

**1** Port Solutions in 2017

**2** Demand drivers

**3** Port automation

**4** Software

**5** Port Service

**6** MHPS acquisition from Port Solutions' perspective

**7** Summary and conclusion

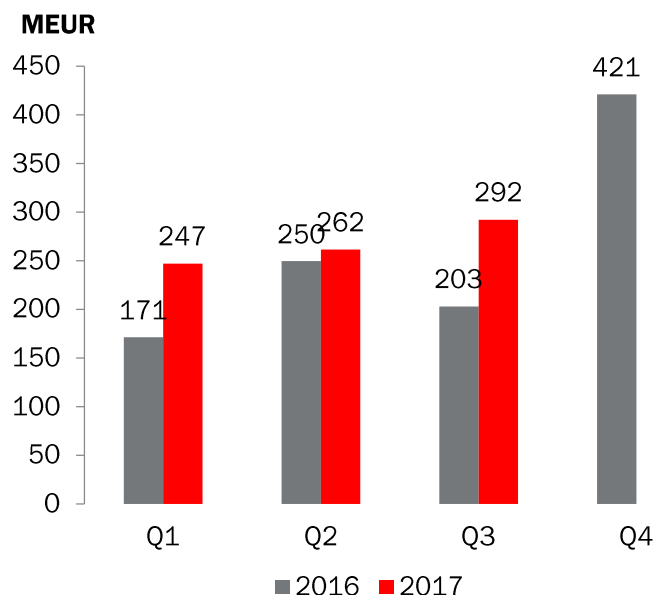


# PORT SOLUTIONS IN 2017



# ORDER INTAKE AND PROFITABILITY HAVE IMPROVED IN 2017

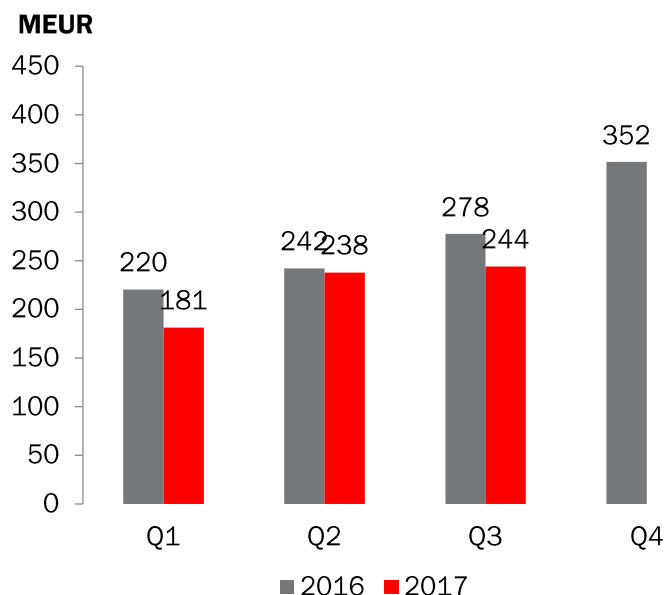
## Comparable order intake



Orders received EUR800.9m (624.1), increase of 28.3 percent in 1-9/2017

Orders grew in all regions and for the most of products and services

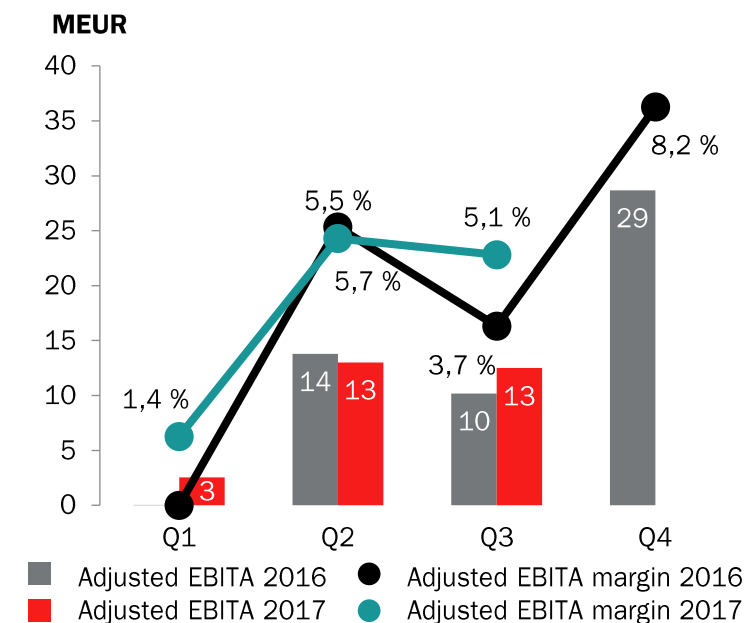
## Comparable sales



Sales fell by 10.4 percent to EUR663.2m (739.9) in 1-9/2017

The decrease related to the timing of deliveries and exceptionally high sales of certain products in the comparison period

## Comparable adjusted EBITA



The adj. EBITA was EUR28.1m (24.0) and the adj. EBITA margin 4.2 percent (3.2)

Profitability supported by cost-saving measures and improved delivery execution

# MANAGEMENT AGENDA IN 2017

**Year of  
integration**

**Securing  
topline from  
Day 1 after  
the completion  
of the MHPS  
acquisition**

**Realizing  
synergies**

**End-to-end  
profitability in  
businesses**



# BRANDING

Single brand

# KONECRANES®

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Product names:

KONECRANES®

KONECRANES®

KONECRANES®

KONECRANES®

GOTTWALD

NOELL

LIFTACE





# **PORT SOLUTIONS WIDEST AND DEEPEST OFFERING**



# STRONG MARKET POSITION WITH LEADING OFFERING



**#1**

AGV System



**#2**

ASC (ARMG)  
System



**#2-3**

Liftrucks



**#2**

Mobile Harbor  
Cranes



**#2**

RTG cranes  
and **#1** with  
Automated  
RTG systems



**#1-2**

Straddle  
Carriers



**#1**

Container  
terminal  
simulation and  
consultation



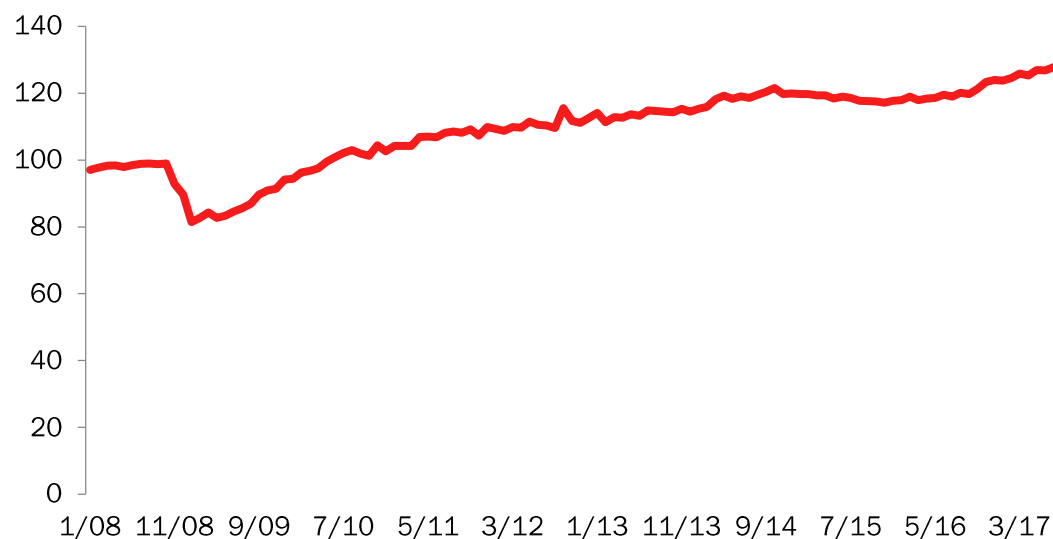


# DEMAND DRIVERS



# CONTAINER THROUGHPUT

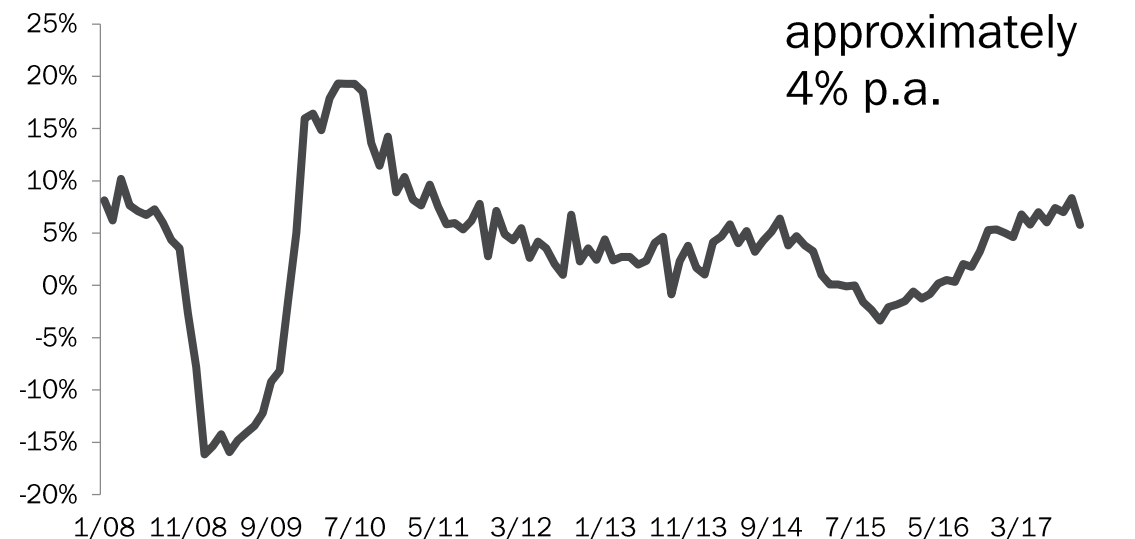
RWI/ISL Container Throughput Index



Container volumes from Asia to East Coast North America have been particularly strong year to date, as the widening of the Panama Canal has supported traffic above expectations

Volumes in Asia have rebounded on most of the trade routes after two weak years

Index change Y/Y



Expected growth approximately 4% p.a.

Volumes in the Mediterranean ports have clearly increased thanks to the improved economic growth in Southern Europe

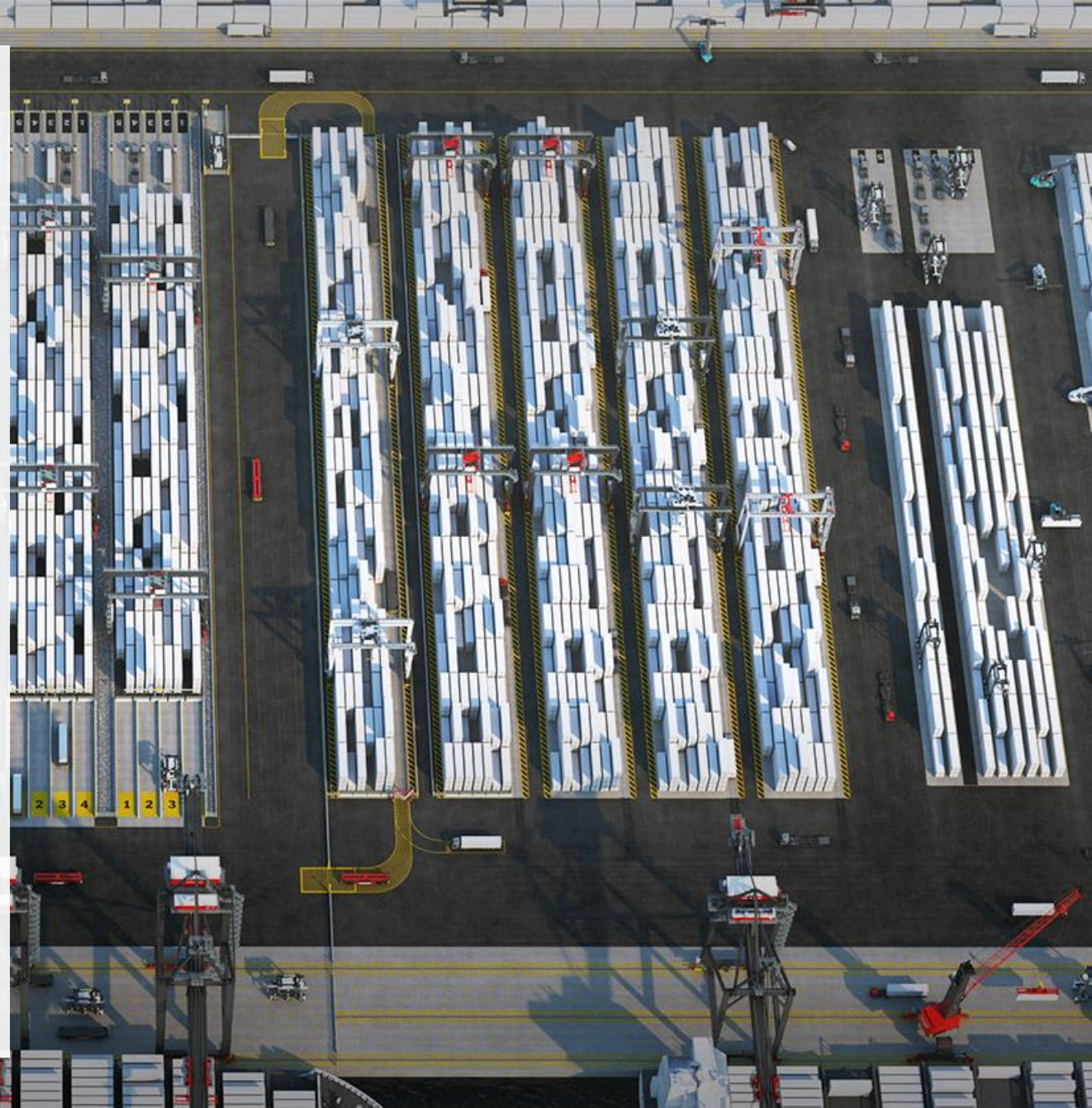
Container traffic in the Middle East has suffered from low oil prices and tensions in the region



# DRIVERS FOR FUTURE INVESTMENTS

- Traffic growth
- Replacement of assets
- Pressure to handle larger vessels
- Automation
- Environmental requirements
- Better use of existing assets (automation and upgrades, software tools)

Consolidation of container terminal operators may have negative effect







# PORT AUTOMATION



# DRIVERS FOR PORT AUTOMATION

**AUTOMATED  
OPERATIONS**

Automation is a megatrend

- Improved safety
- Improved predictability
- Higher eco-efficiency
- Lower emissions (including noise)
- Higher storage efficiency
- Better asset utilization
- Cost reduction

# OUR OFFERING FOR TERMINAL EVOLUTION

## CONSULTING

- Terminal design (simulation)
- Terminal conversion
- Implementation support (emulation)

## EQUIPMENT

- STS cranes
- MHC Mobile Harbor Cranes
- RTG, ASC, RMG cranes
- Horizontal transport
- Lift Trucks
- Automation growth path included

## SOFTWARE

- Terminal Operating System (TOS)
- Equipment Control System (ECS)
- Equipment control
- Remote operations
- Access control
- IT maintenance and support

## SERVICES

- Field service and spare parts
- Retrofit and upgrades
- Digital services, e.g. remote monitoring of equipment and operating data (telematics)
- Optimisation support (performance improvement)
- Consulting

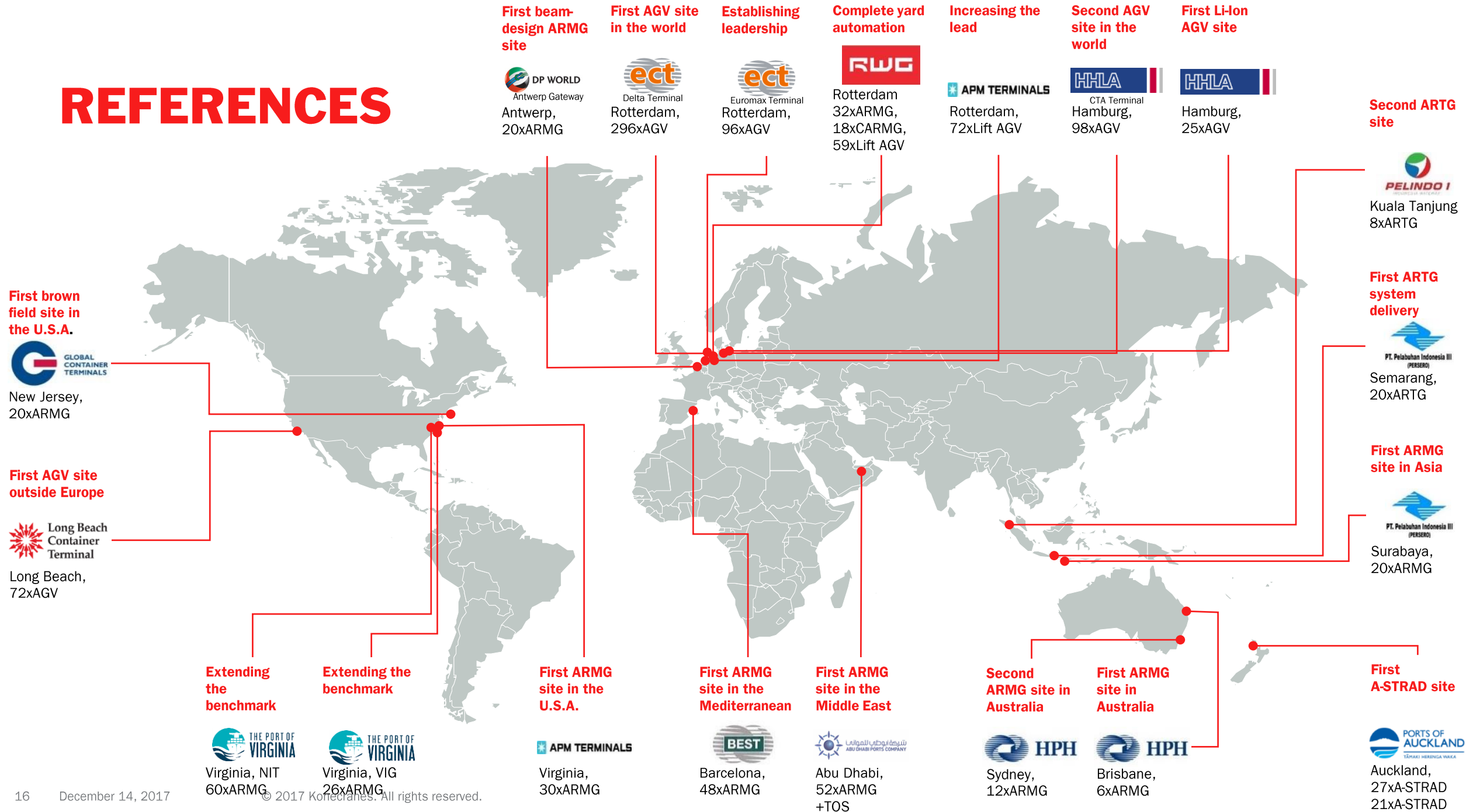




# KONECRANES POSITIONING IN PORT AUTOMATION

- TOS agnostic, open interfaces
- Optimization on ECS / Equipment level
- Konecranes automation systems: combining Konecranes and MHPS legacy systems
- Onboard automation Machine-to-Machine (M2M) communication
- Preparation for mixed manual & automated equipment operations
- TRUCONNECT® and service concepts

# REFERENCES





# BROWNFIELD AUTOMATION WILL DRIVE FUTURE INVESTMENTS

Greenfield projects

**Moderate growth expected**



Brownfield projects

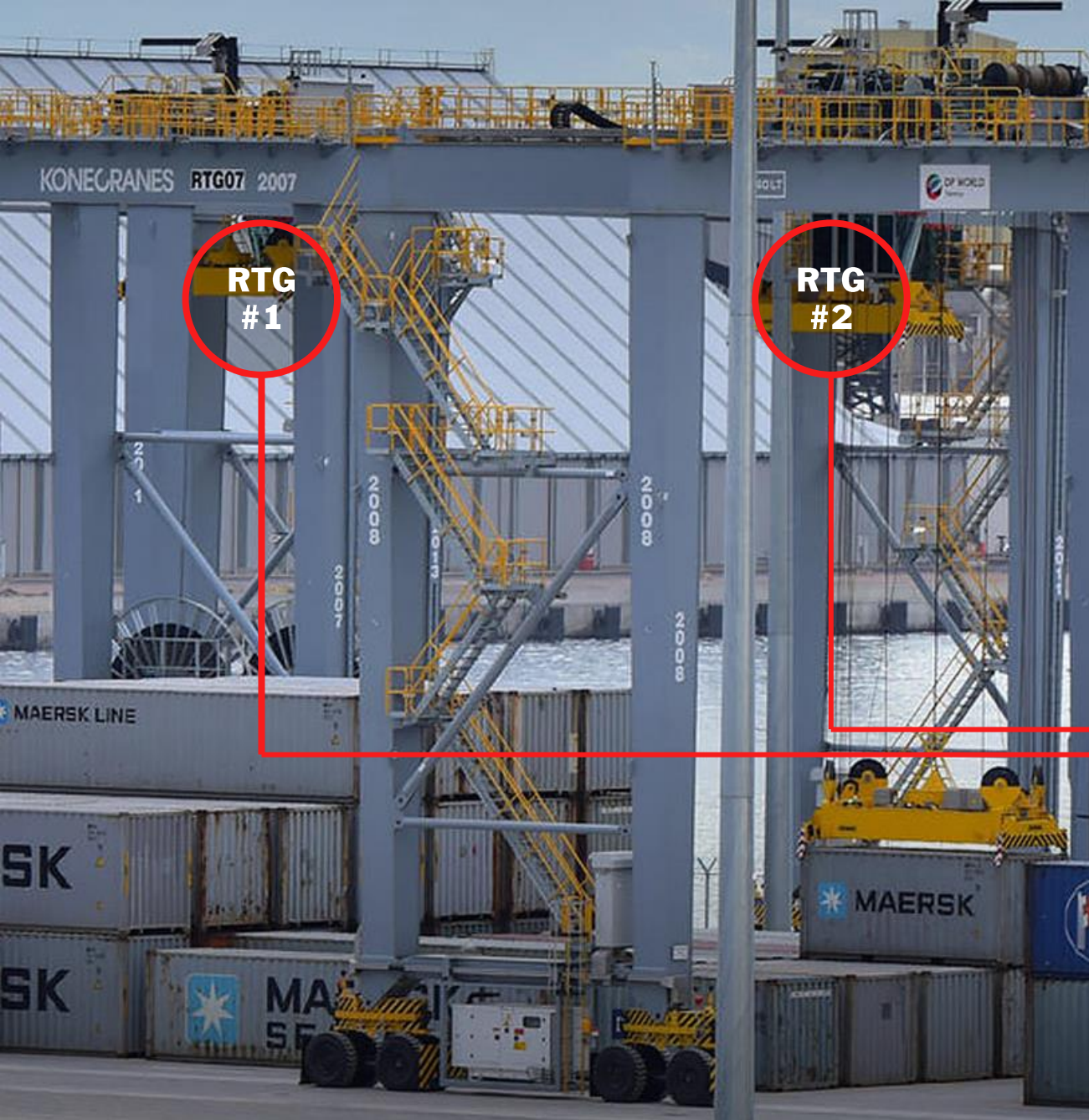
**Strong growth potential**





# AUTOMATED RTG AND HORIZONTAL AUTOMATION SYSTEMS





# BROWNFIELD AUTOMATION UPGRADE

## RTG CRANES FOR REMOTE OPERATIONS

- Remote operations starts in 2018 in DP World Turkey
- 2 Konecranes RTG cranes retrofitted for remote operations with remote operating stations







# A-STRAD COMING UP

## INDUSTRY 1ST LARGE SCALE BROWN-FIELD INVESTMENT IN STRADDLE CARRIER AUTOMATION

- Operations starts in 2019 Auckland, New Zealand
- 27 new A-STRADs + 21 retrofitted

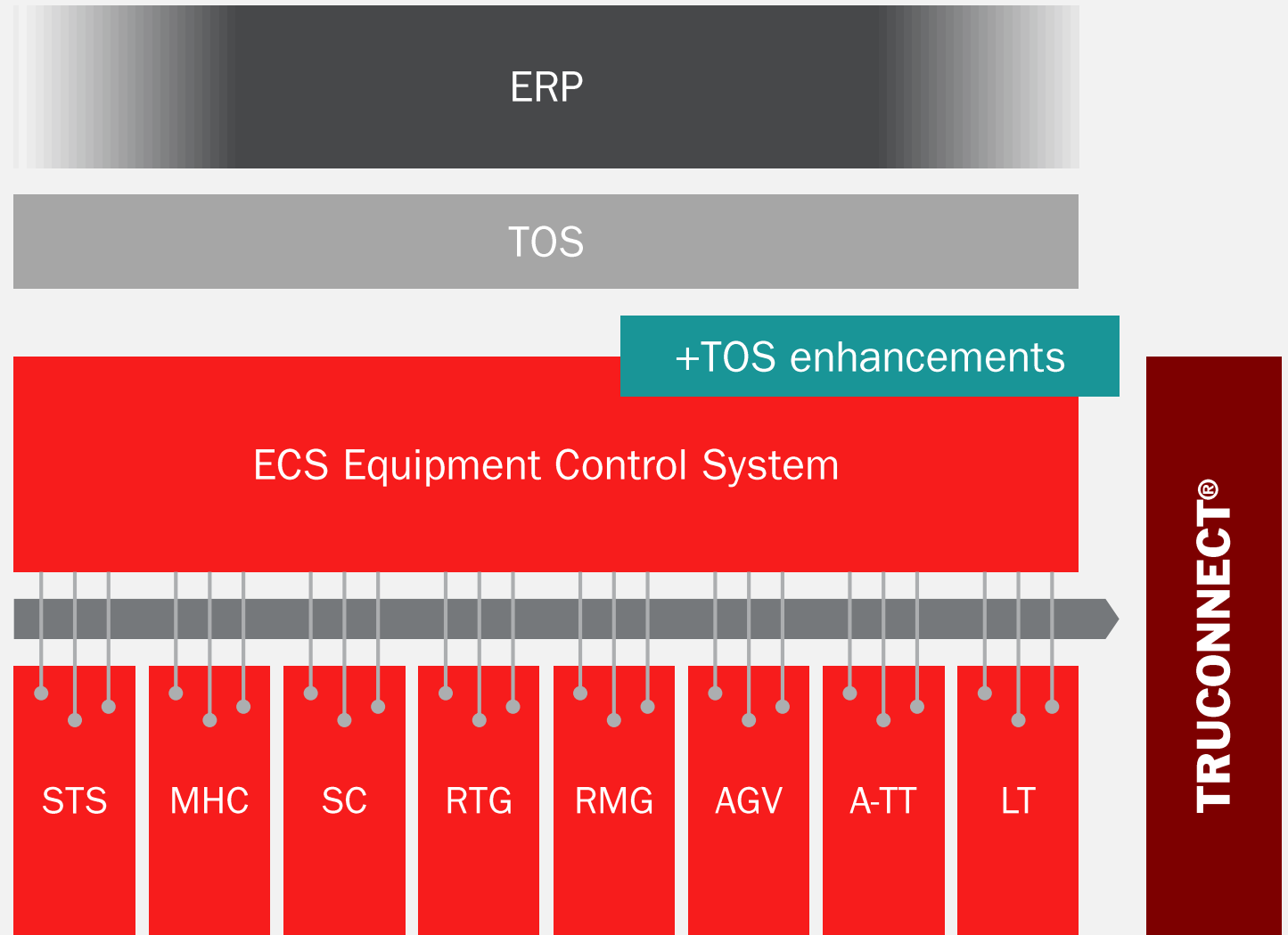
# SOFTWARE





# PORT SOLUTIONS SOFTWARE OFFERING

- Autostore Terminal Operating System (TOS)
- Open interface approach
- ECS, modular software packages with equipment deliveries
- Increasingly more software embedded in each product (Smart Features)
- TRUCONNECT® and data gathering
- Complete terminal simulation
- TOS emulation



A close-up, low-angle shot of the side of a white Konecranes vehicle. The word "KONECRANES" is written in large, bold, red capital letters along the side. Below it, the words "Lifting Business" are visible in a smaller, red, sans-serif font. A red rectangular overlay is positioned in the upper right corner of the image, containing the text "PORT SERVICE" in white, bold, sans-serif capital letters. The background shows a blurred view of a port or industrial area with some structural elements.

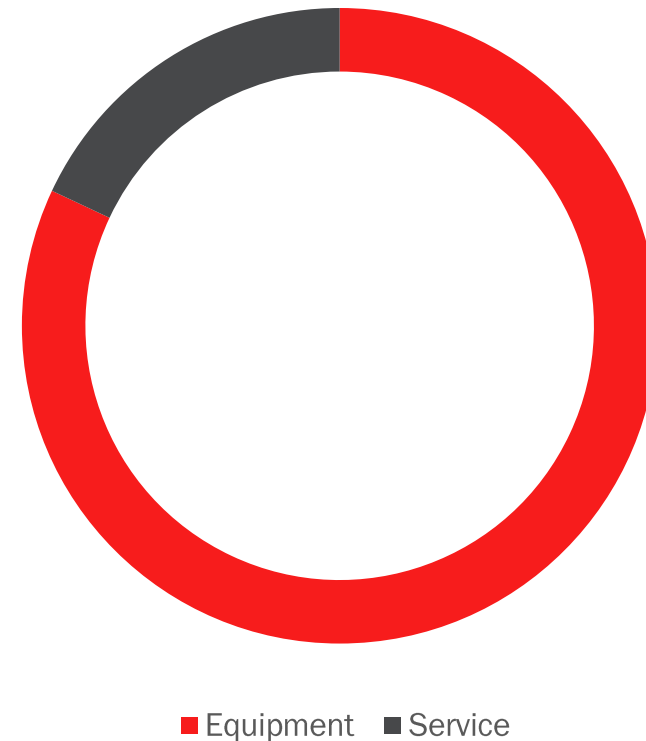
## PORT SERVICE



# PORT SERVICE GROWTH STRATEGY

- Increase in Konecranes installed base
- Konecranes global service footprint supported by TRUCONNECT® remote service
- Konecranes Service approach
- Brown field automation, retrofit for all makes of equipment
- Performance, safety and eco-efficiency enhancements
- Market opening up for maintenance contracts and field service opportunities

Breakdown of sales



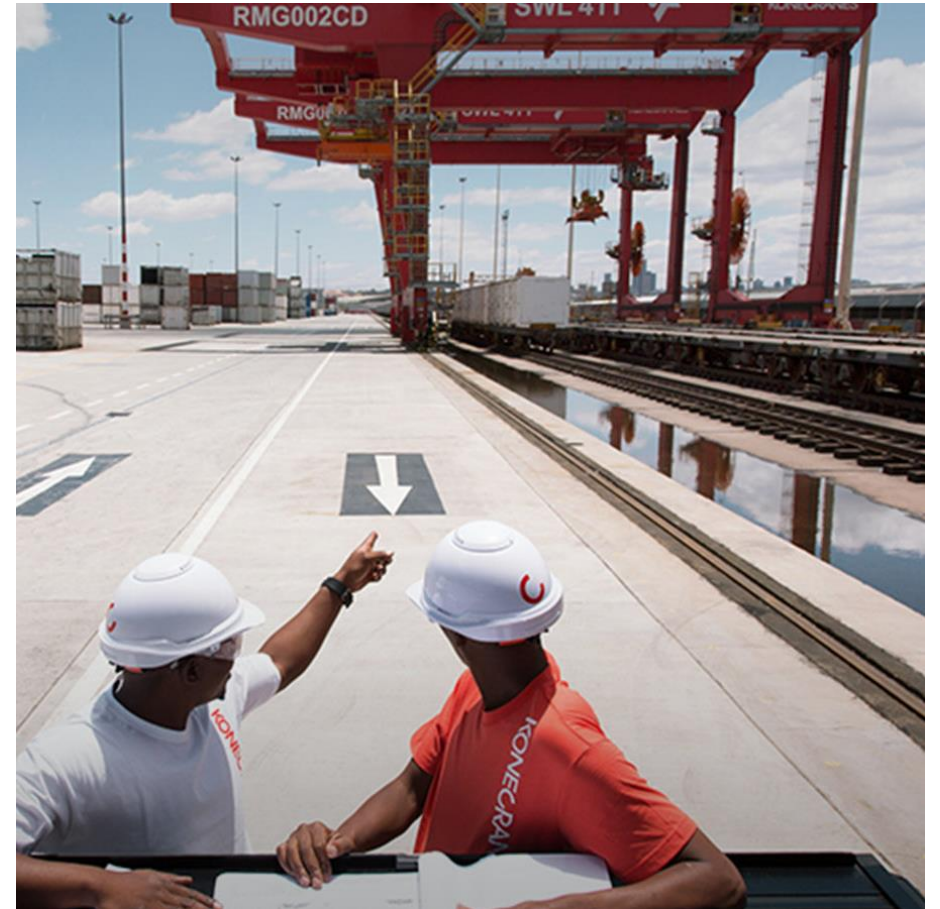


# MHPS ACQUISITION FROM PORT SOLUTIONS' PERSPECTIVE



# BUILDING BLOCKS FOR IMPROVED PERFORMANCE BASED ON MHPS ACQUISITION

- Sales growth driven by cross-promotion through global sales network
- New operating model
- Reduction of fixed costs
- Right sizing of manufacturing capacity
  - Lentigione, Italy lift truck manufacturing decided to be closed
- Product platform development
- Growth in software and service businesses





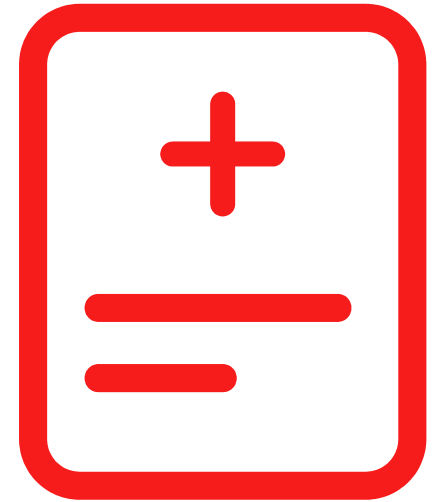


# SUMMARY AND CONCLUSIONS



# SUMMARY & CONCLUSIONS

- Market supporting growth
- Actions in place to improve profitability
- Automation and especially brown field automation a growing trend
- Software and service growth drivers
- Intergration proceeding well – widest and deepest offering





**NOT JUST LIFTING  
THINGS, BUT ENTIRE  
BUSINESSES**