

# EQUIPMENT INNOVATIONS

boosting productivity

16<sup>th</sup> INTERMODAL AFRICA  
2016  
ANTTI HALONEN



## KONECRANES

IN A SNAPSHOT

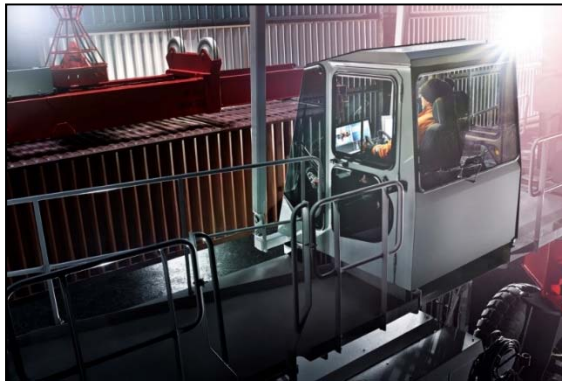
€2,126  
MILLION IN SALES  
IN 2015

600  
LOCATIONS WORLDWIDE

MAINTENANCE CONTRACTS  
450,000  
EQUIPMENT OF DIFFERENT  
MAKES



# EQUIPMENT INNOVATIONS boosting productivity



in  
INTERMODAL /  
CONTAINER DEPO  
OPERATIONS



in  
PORT OPERATIONS

# BOXHUNTER

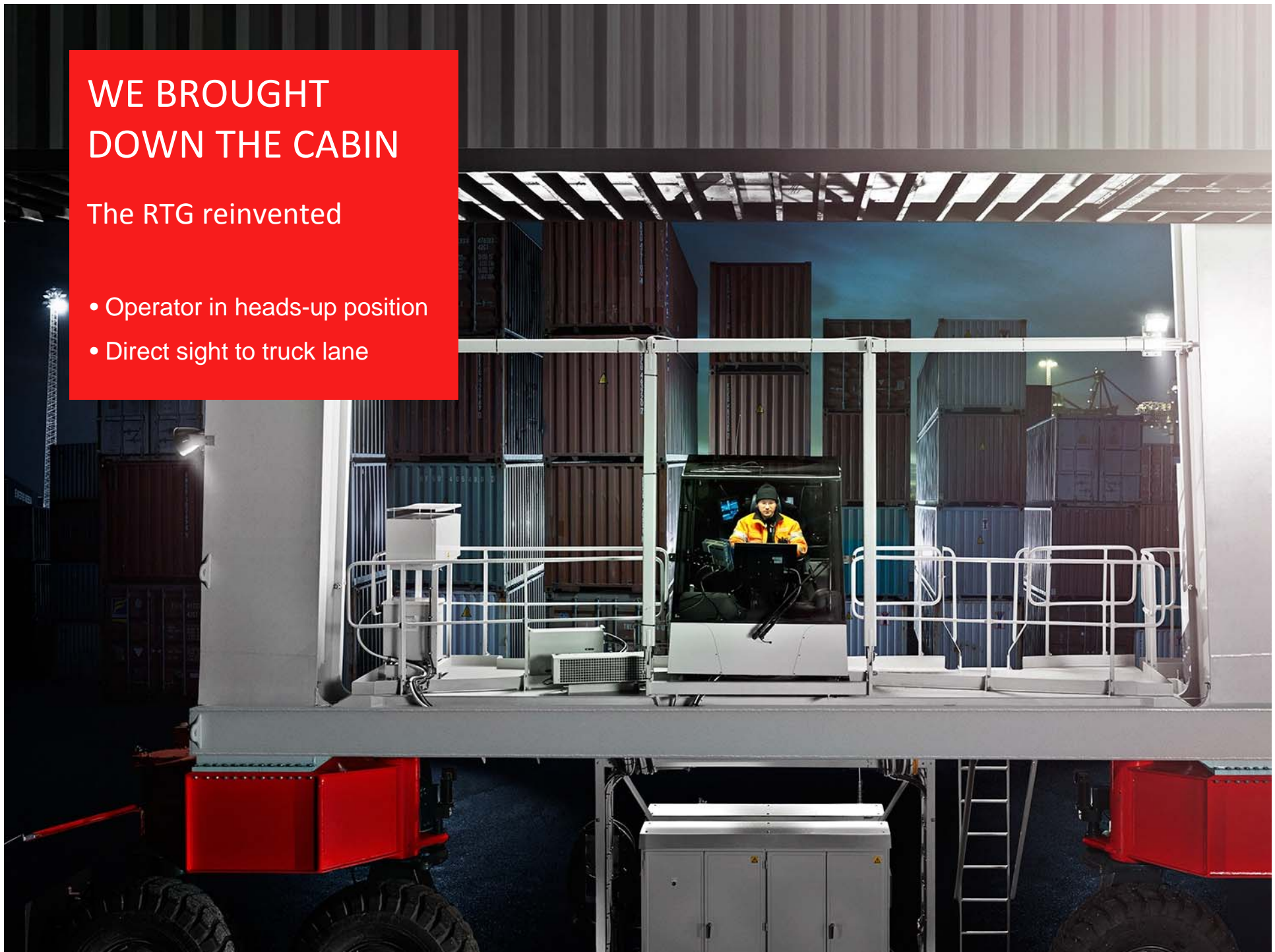




# WE BROUGHT DOWN THE CABIN

The RTG reinvented

- Operator in heads-up position
- Direct sight to truck lane



# BOXHUNTER OPERATING CONCEPT





Empty Container Handler  
8-10 TONS

KONECRANES  
LIFT TRUCKS  
CONTAINER HANDLING PRODUCTS

Reach Stackers  
Toplifter & Combi Handler  
10-45 TONS



# TRUCONNECT®

## SMART, CONNECTED EQUIPMENT

- A suite of Remote Service products ranging from periodic data reporting to real-time diagnostics, technical support and monitoring.
- Make decisions based on facts
  - Easy-to-read reports & graphs
  - Real time view
  - Portal with 24/7 access

*TRUCONNECT can be retrofitted \**



# KONECRANES STATIC WEIGHING SYSTEM

CONTAINER WEIGHT VERIFICATION  
IN THE PALM OF YOUR HAND





# YARD PRODUCTIVITY

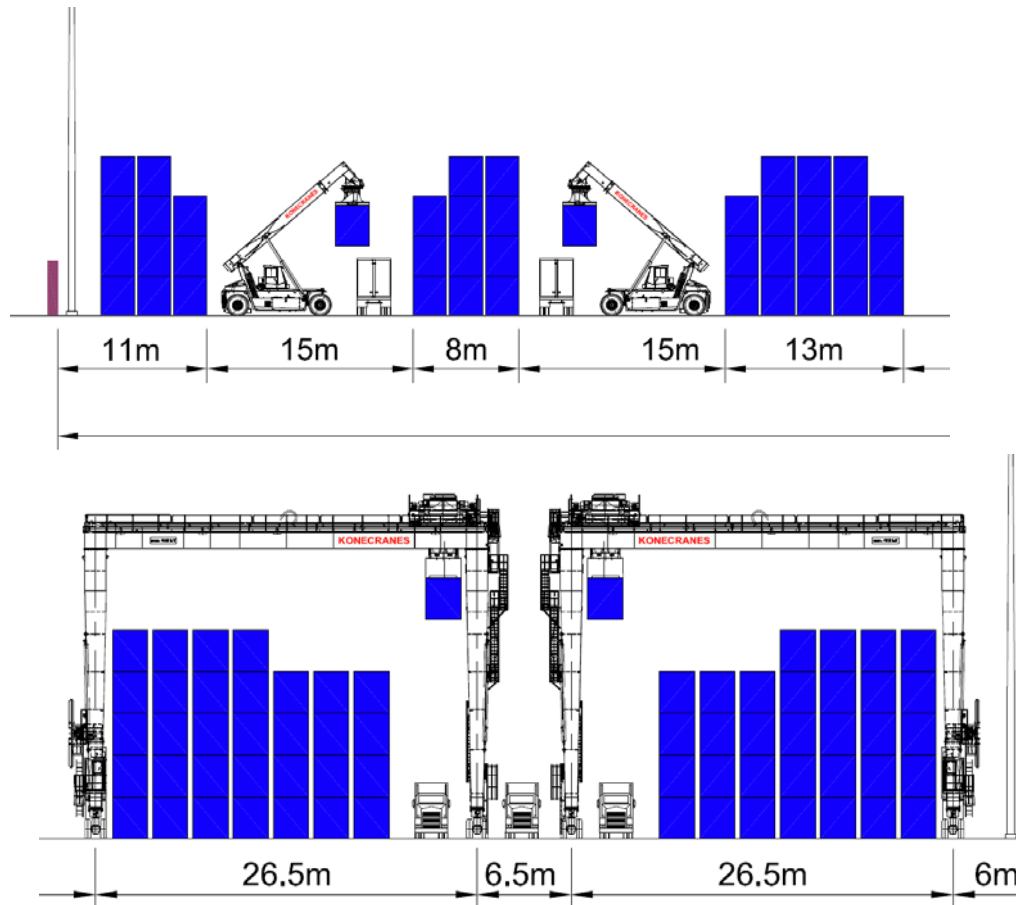
## WHEN TO CHANGE OPERATIONAL CONCEPT?



- Terminals usually only consider change of handling method, if:
  - There is volume growth and
  - the max. available storage capacity is reached or
  - the stacking height starts to lower the productivity, (truck service times, for example)
- Benefits also in maintenance and operational costs



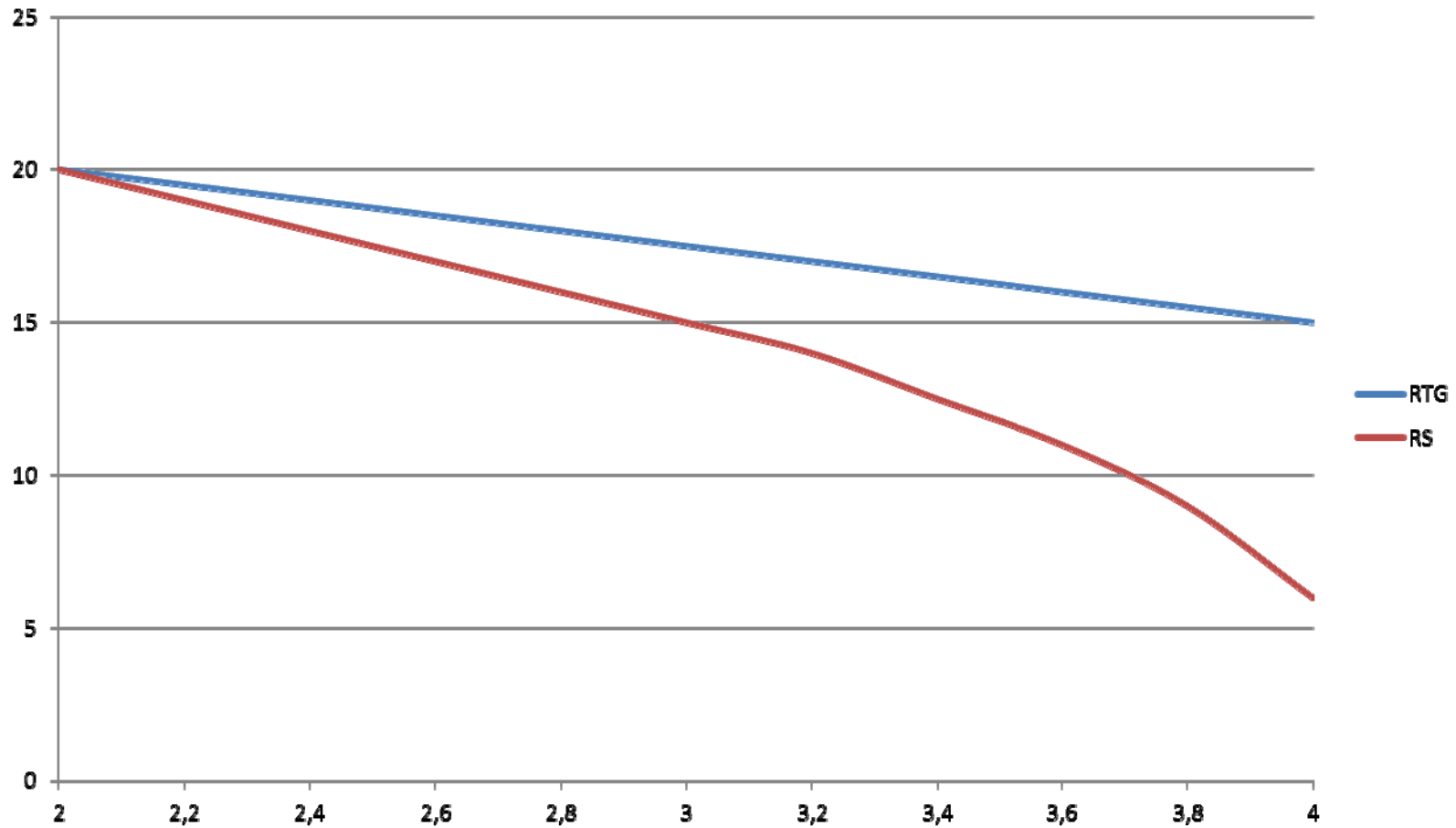
## STACKING DENSITY: RTG VS. REACH STACKER



- Reach stackers:
  - usually 2-deep stacks for import loads and 4-deep stacks for export loads
  - in average 3-high stacking
  - approx. 500 TEU per hectare
- RTG cranes:
  - usually 6+1 or 7+1 layout
  - in average 4-high stacking
  - approx. 1 000 TEU per hectare



# PRODUCTIVITY VS STACK HEIGHT





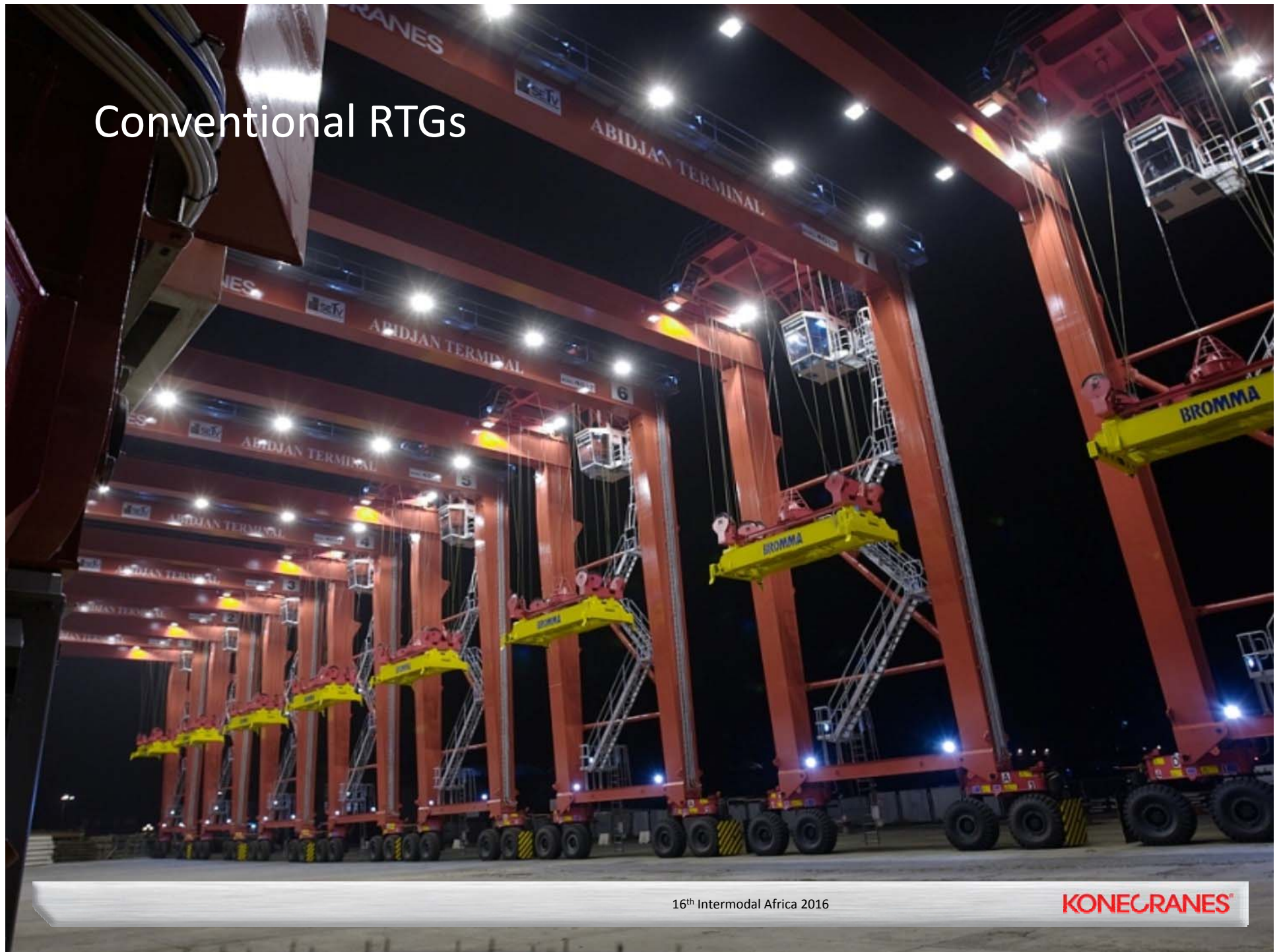


# AUTOMATED or REMOTE RTG SYSTEM

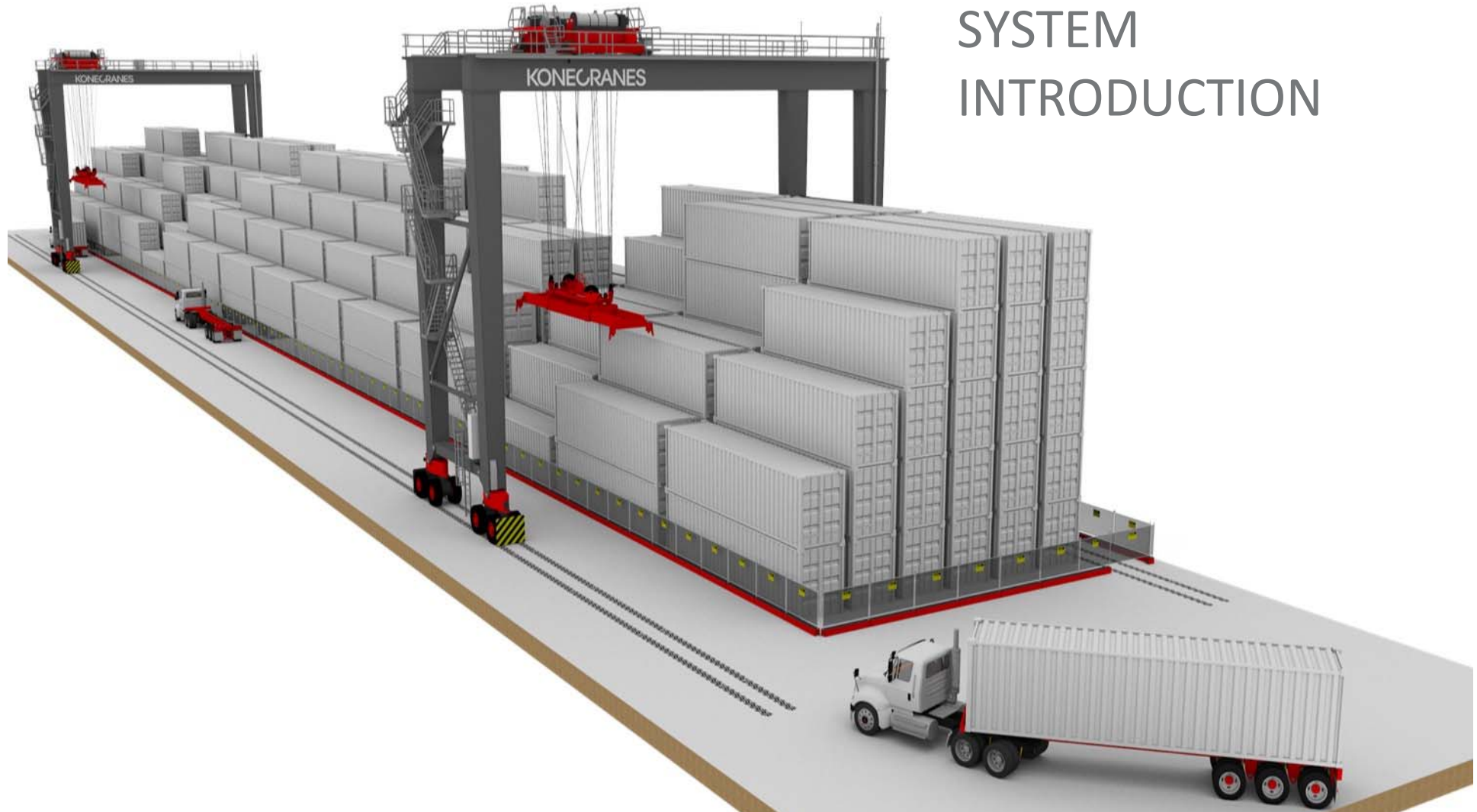
TO YOUR CURRENT CONTAINER YARD



# Conventional RTGs



# REMOTE RTG SYSTEM INTRODUCTION





# WHEN TO CONSIDER AUTOMATION

## PROS

1. **Stability** and Predictability in crane productivity, around the clock,
2. **No influence** on driver performance
3. **Longer equipment life time** due to controlled more gentle use
4. **Better controlled processes** which enables safety

## A-RTG

6. **Incremental** approach possible
7. **Adaptable** yard layouts, also in the future
8. RTG **way of operating can remain**
9. **Brown field** applicable as well as **green field**

## CONS

1. Implements more **strict traffic control** system and **safety** procedures
2. May impact on **stacking density** .
3. Civil works for ASC's



NOT JUST LIFTING  
THINGS, BUT  
ENTIRE BUSINESSES