

Building the Intelligent Terminal: How Technology is Transforming Terminal Performance in Panama



Colon Container Terminal
THE LOGISTICS HUB OF THE AMERICAS



CAMCO
TECHNOLOGIES



Container Terminal
Automation Conference
Americas

Panama City, Panama - February 24-25, 2026



Camco's solutions at CCT -



YARD AUTOMATION

FROM A STEP BY STEP INTEGRATION TO FULL INTEGRATION OF TERMINAL PROCESSES

- ▶ RFID RTG/RMG TRUCK HANDOVER
- ▶ VMT MANUAL / AUTO JOB STEPPING
- ▶ RTG/RMG OCR CAMERAS
- ▶ ASC KIOSKS
- ▶ RTLS
- ▶ SPREADER CAMERA

GATE AUTOMATION

THE INDUSTRY REFERENCE IN VISION-BASED GATE AUTOMATION SOLUTIONS

- ▶ OCR PORTALS
- ▶ KIOSKS
- ▶ VBS + ITT VEHICLE BOOKING SYSTEM
- ▶ RFID
- ▶ WEIGHT IN MOTION (WIM)

QUAY AUTOMATION

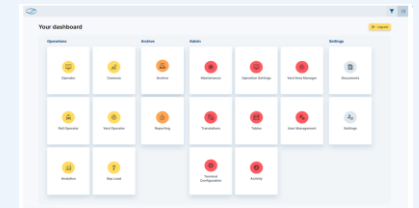
IMPROVING WATERSIDE OPERATIONS FOR A LEANER, GREENER INDUSTRY READY FOR INCREASING TRAFFIC

- ▶ OCR BOXCATCHER
- ▶ TT AND SC IDENTIFICATION AND ALIGNMENT
- ▶ BLV BAY LOAD VERIFICATION
- ▶ RTLS
- ▶ SPREADER CAMERA

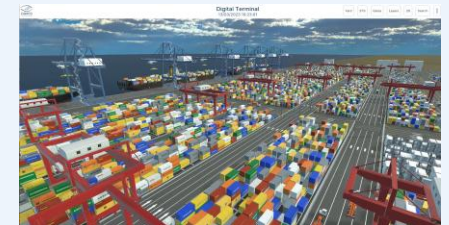
SOFTWARE

THE BRIDGE

Management by Intelligence



RT DIGITAL TWIN



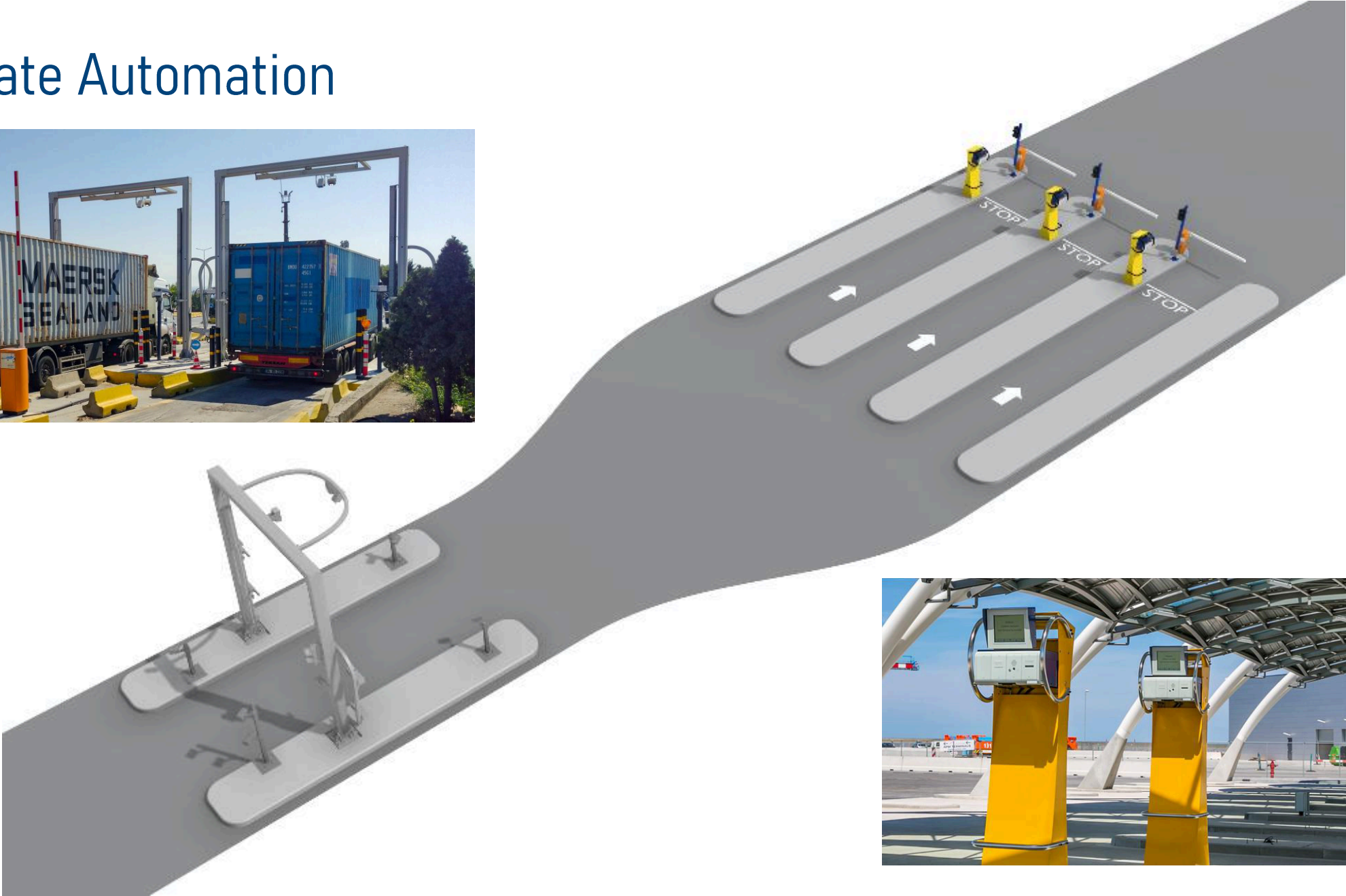


Phase 1: Automated Gate System

GOS, OCR, Kiosks, VBS, WIM
Go-Live: March 2026



Gate Automation



Line-scan camera images truck & container



Line-scan camera images truck & container



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Gate kiosks



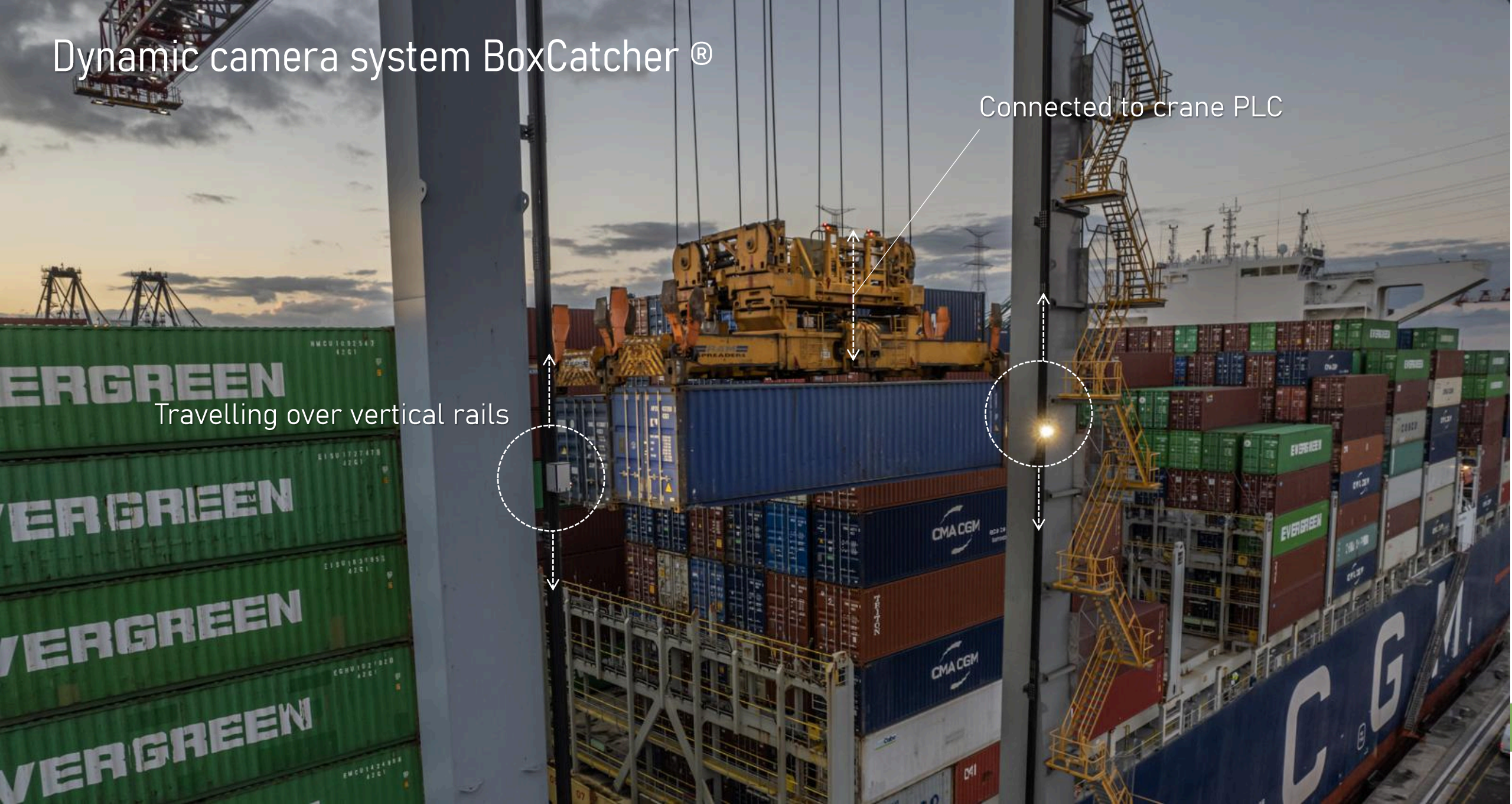


Phase 2: BoxCatcher STS Crane OCR

Go-Live: 2027



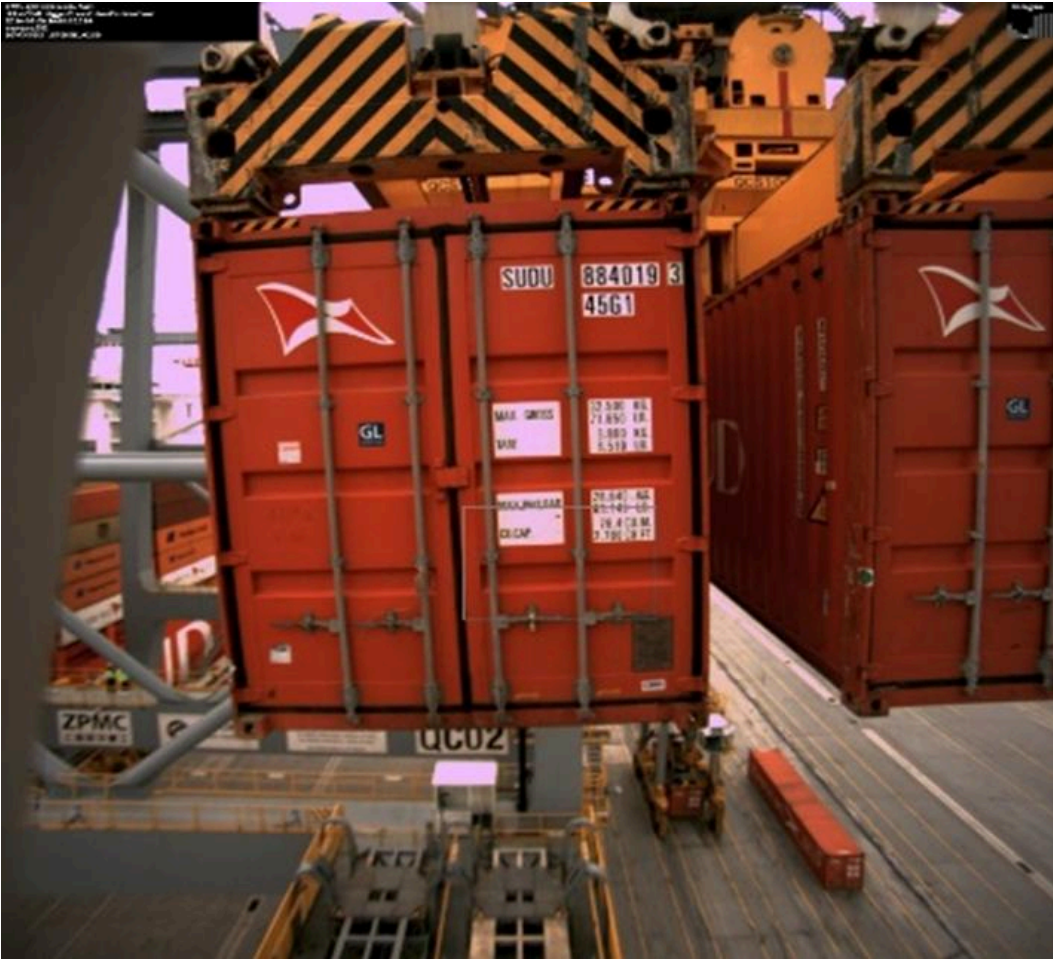
Dynamic camera system BoxCatcher®

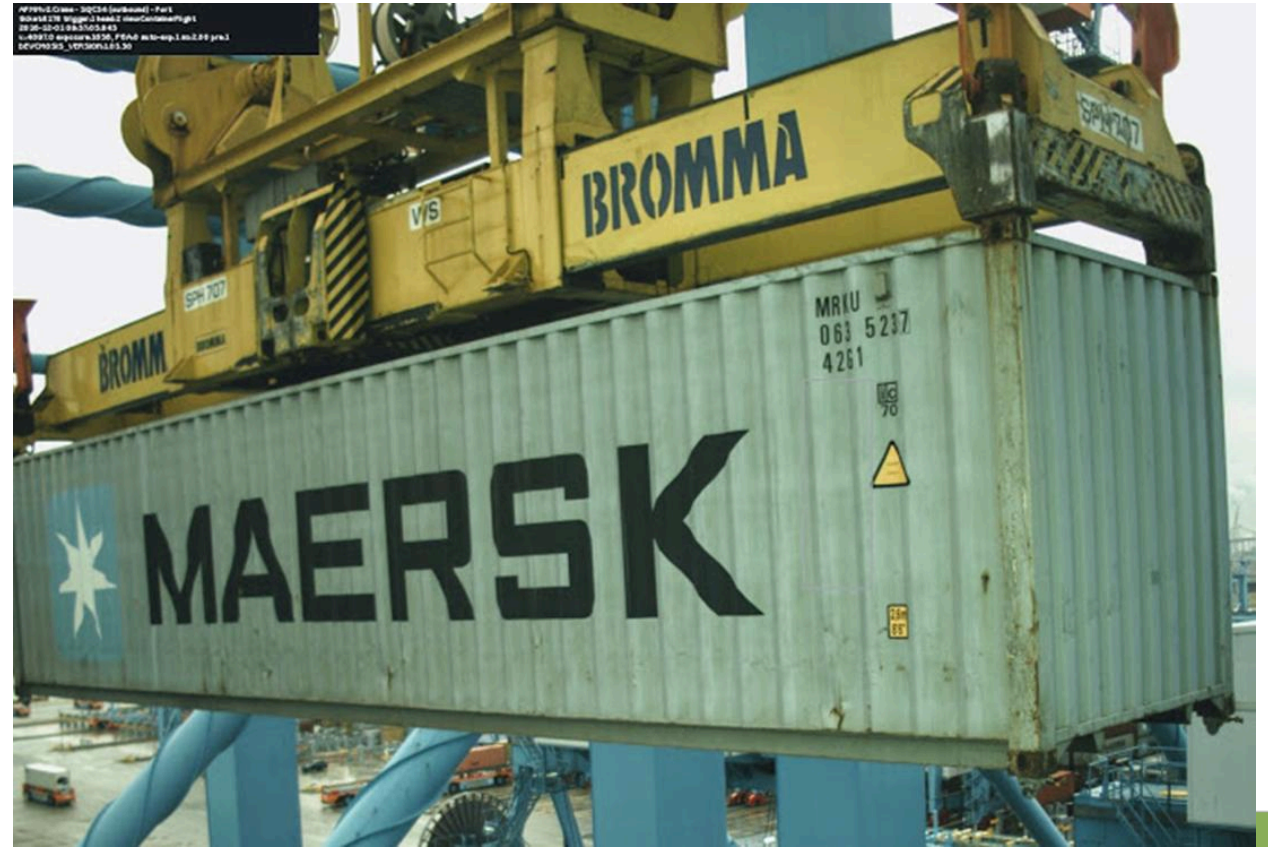


Connected to crane PLC

Travelling over vertical rails









Phase 3: RTLS

Go-Live: 2028



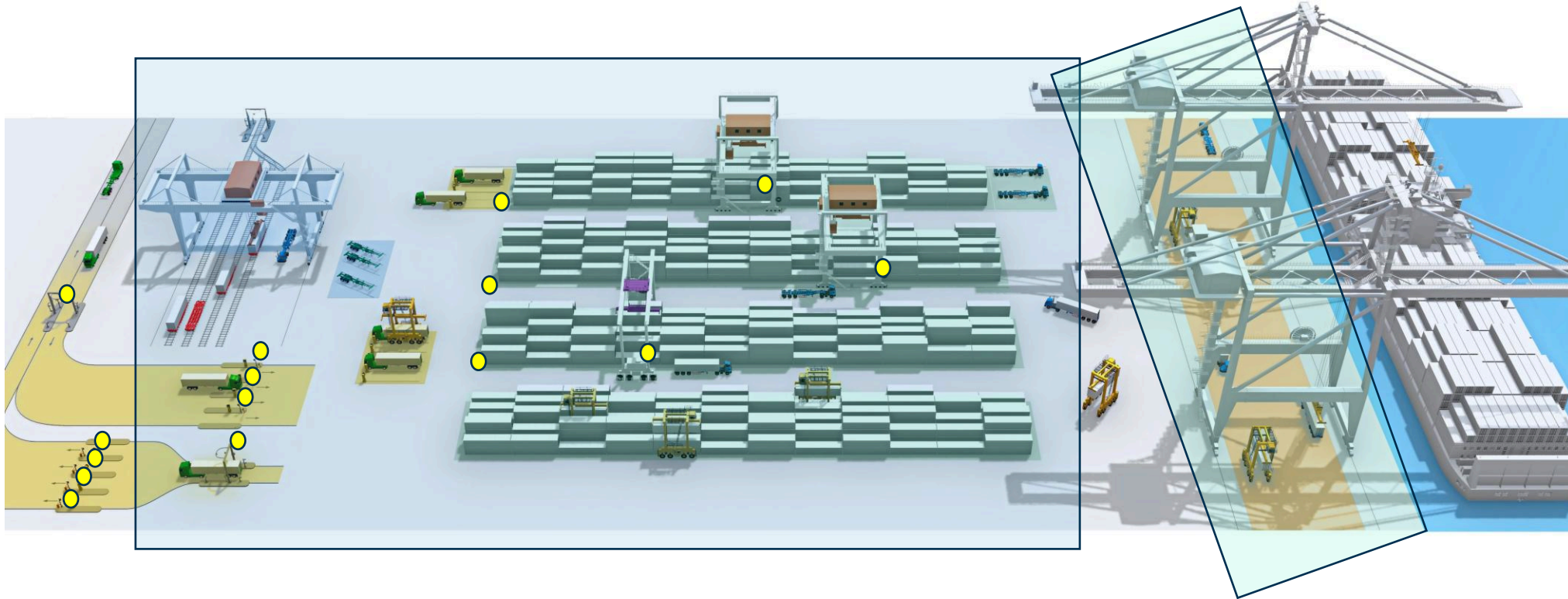
RFID



GNSS

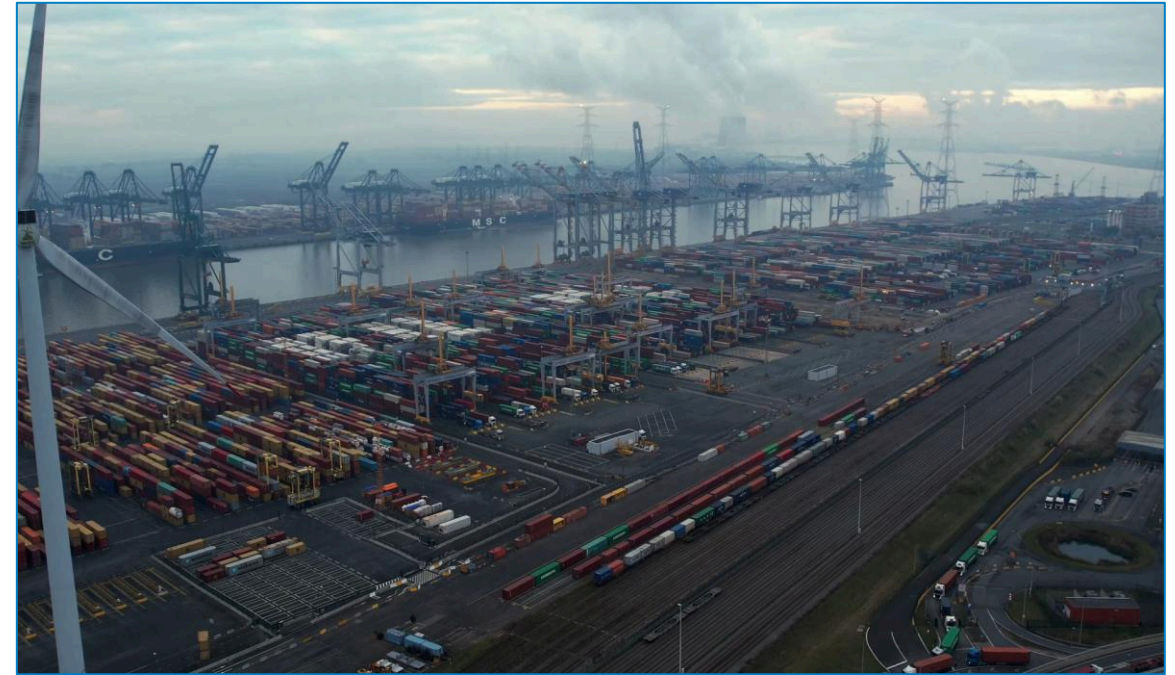
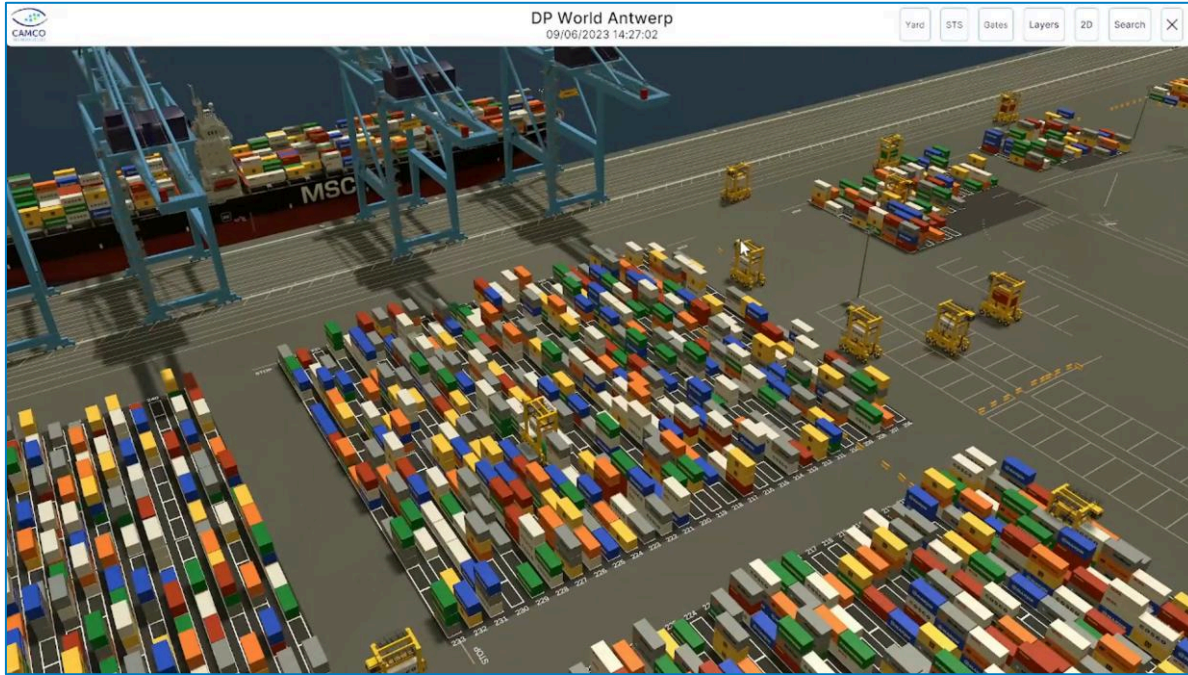


MLT/UWB



Role of a digital twin to improve the operations of terminals

TWINBRIDGE Management by Digital Twin



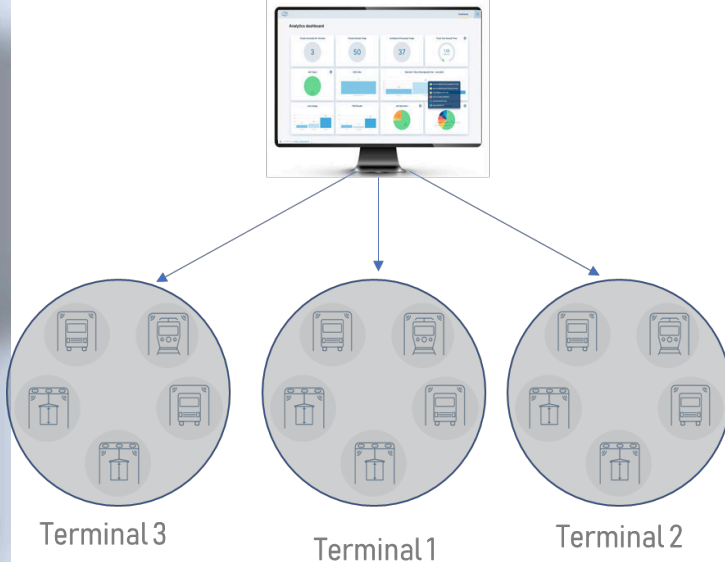
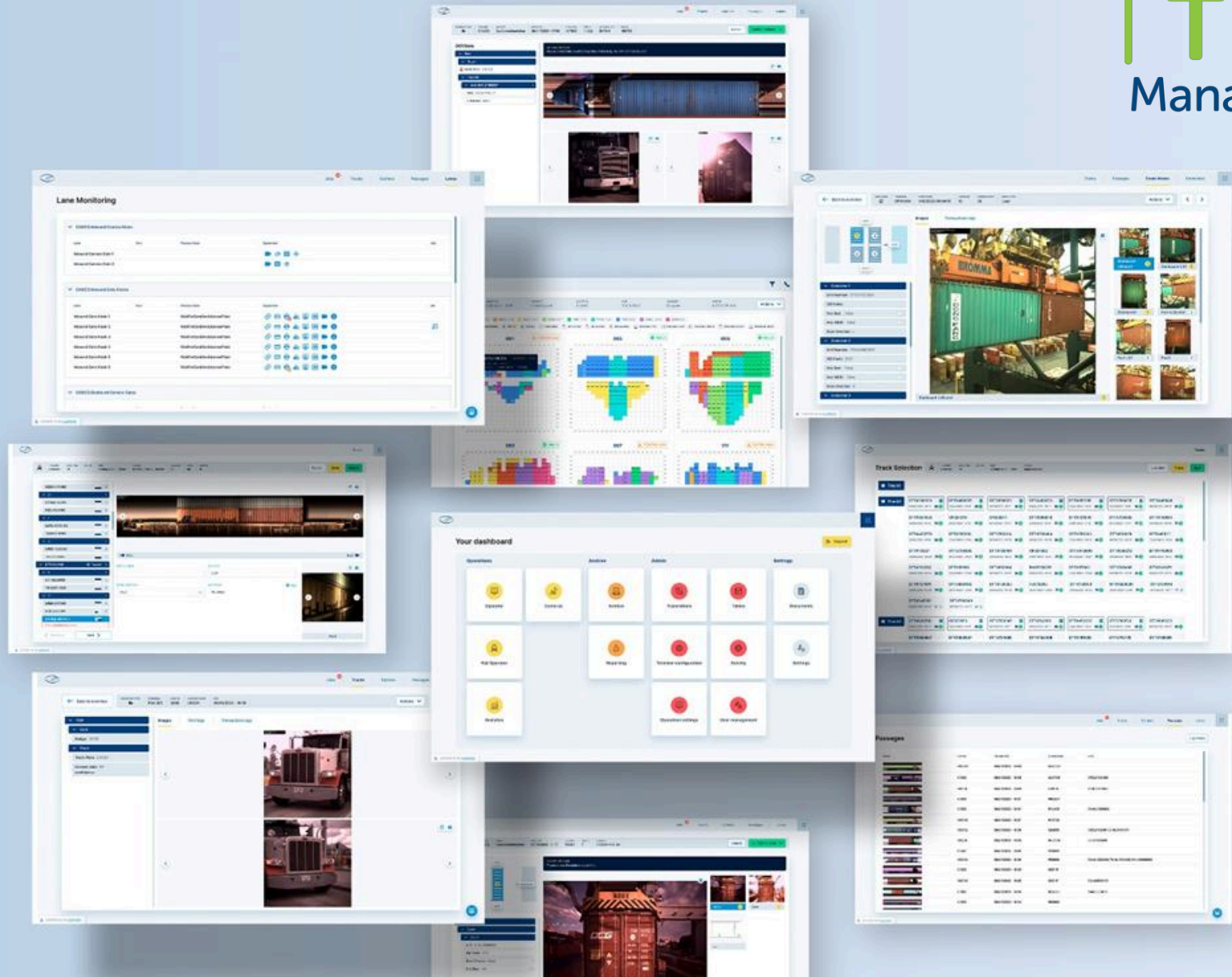
Systems	Sources	Data
OCR Systems	<ul style="list-style-type: none"> Truck & Rail OCR portals STS/RTG/RMG OCR cameras 	<ul style="list-style-type: none"> Time stamps, log files Container (ID, ISO, Seal...), truck id, wagon <u>nمبر</u> Container pictures + damage status
Yard IOT equipment	<ul style="list-style-type: none"> Gate & yard Kiosks Barriers, RFID readers Scales 	<ul style="list-style-type: none"> Time stamps, log files, VoIP logging Driver name, truck id, RFID <u>numberss</u> Kiosk processes
RTLS Location technology	<ul style="list-style-type: none"> TT's/Straddle/Shuttle STS, RTG, RMG, EH, RCH 	<ul style="list-style-type: none"> Exact location on the terminal Job promotion (via VMT) <u>Twistlock</u> status, Alignment data

Systems	Sources	Data
Telematic data	<ul style="list-style-type: none"> TT's/Straddle/Shuttle STS, RTG, RMG, EH, RCH 	<ul style="list-style-type: none"> Tire pressure, engine hours Oil/engine temperature Max speed, battery level, fuel level
Other	<ul style="list-style-type: none"> TOS VBS 	<ul style="list-style-type: none"> Stacks (yard), <u>Bapli</u> (vessel), Rail manifest (wagon/container), Truck chassis Booking number

Seamless Integration

THE BRIDGE

Management by Intelligence



Multi-Terminal
Multi-Product
Multi-Application

THANK YOU!

