From automation to awareness

Building operational insight as the foundation of smart port operations

CASPIAN PORTS AND LOGISTICS 2025

Connecting The Middle Corridor Between the Caspian Sea, Asia and Europe

CAMCO TECHNOLOGIES

11th December 2025

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The path to automation

Rising volumes & congestion

Labor scarcity & safety pressure

Manual work = Blind spots & errors

Customer expects efficiency

Competitive advantage depends on automation

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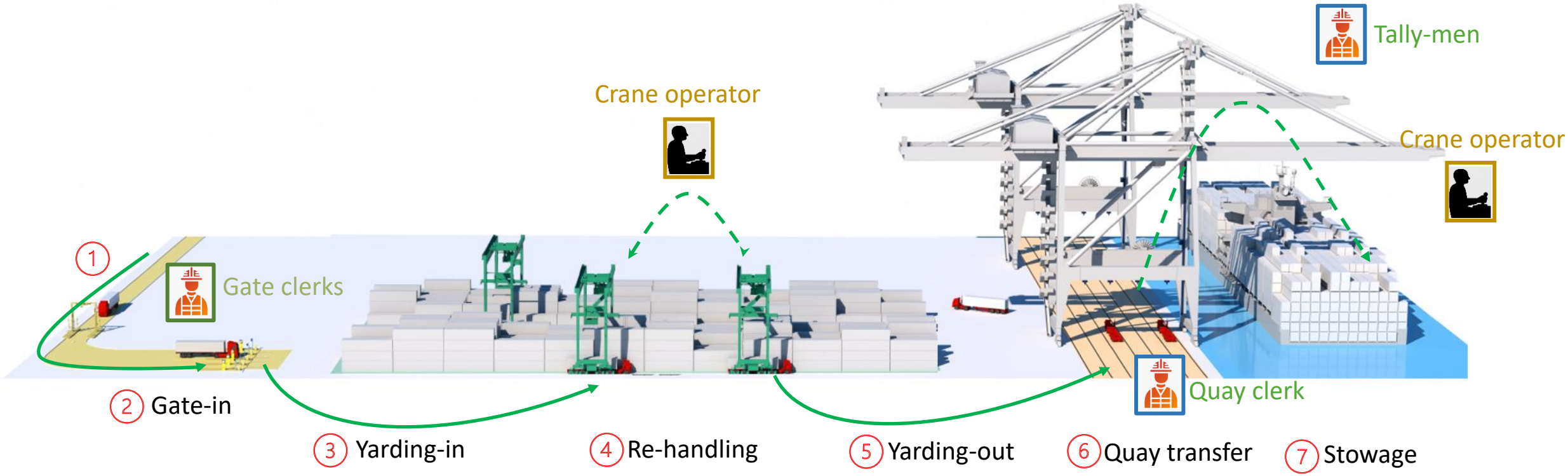
Road to vessel journey



5 single moves from road to vessel

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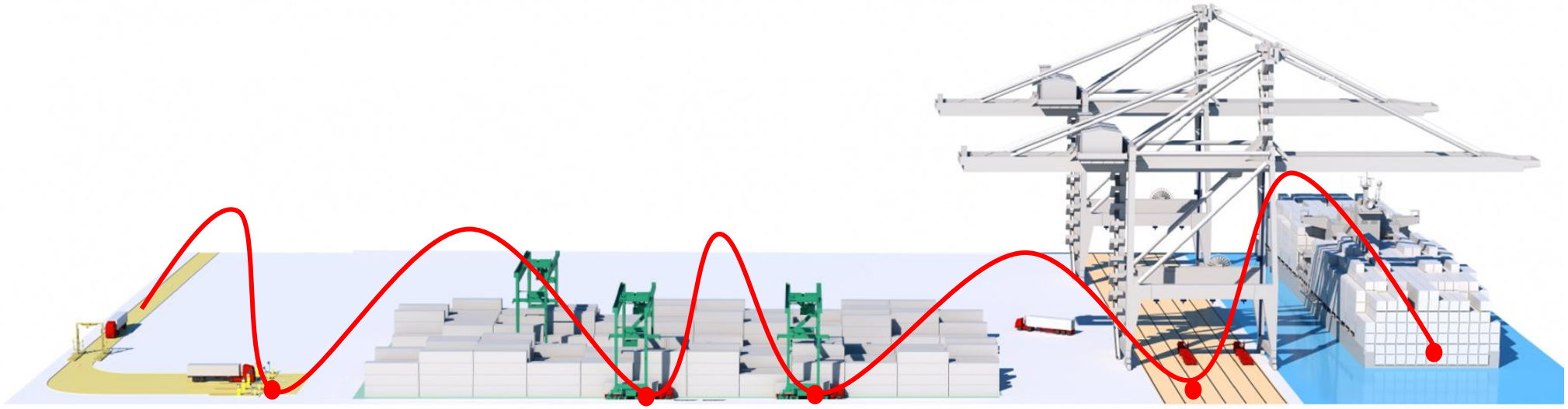
Road to vessel journey



For every single container move, two essential checks must be completed to validate it

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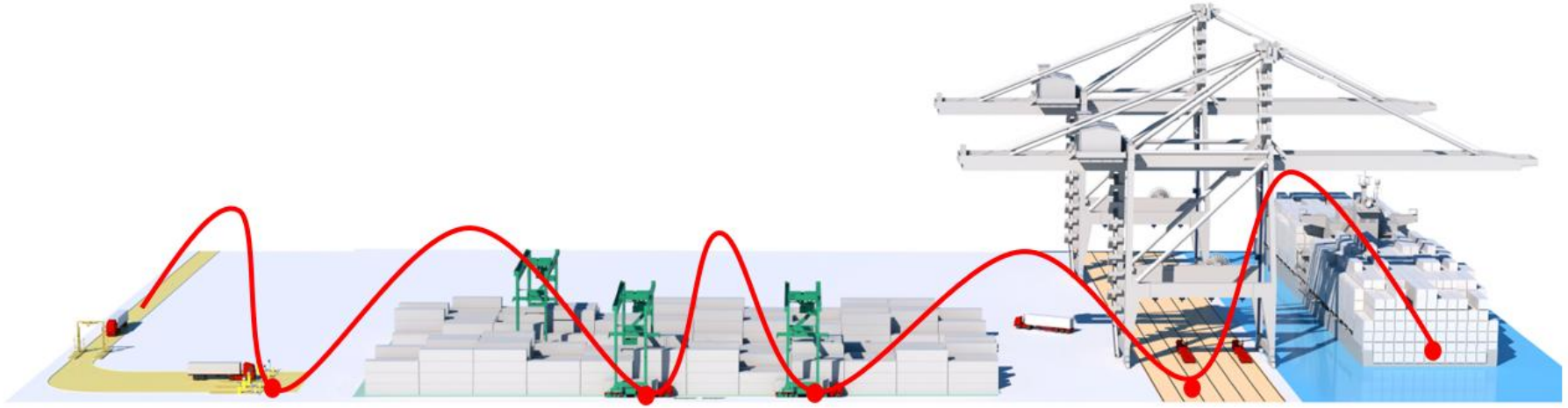
Road to vessel journey



On a manually operated terminal the TOS is blind

Instructions are digitally sent out to the TOS (handheld)
Feedback is analog, based on the human factor

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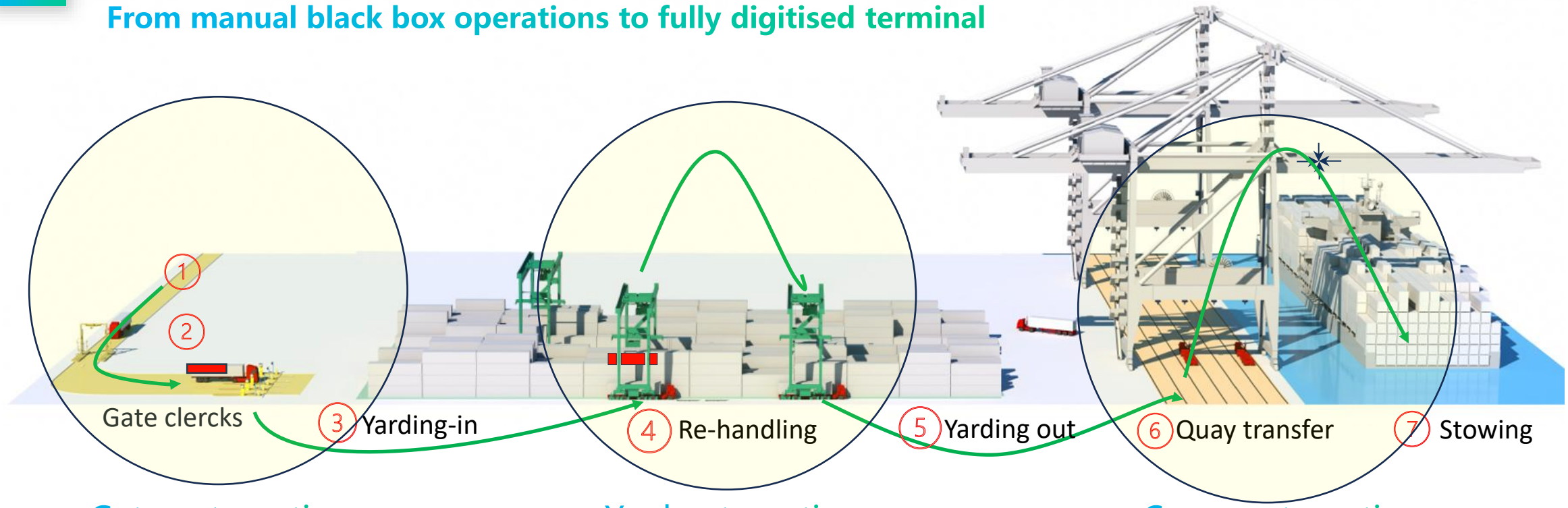
Road to vessel journey

From manual black box operations to fully digitised terminal



Gate automation

Yard automation

Crane automation

- Digitisation brings high visibility on the terminal processes
- Gate/yard/crane automation generates visual, location and timestamp data by move
- Makes TOS 100% copy of physical situation on the yard/vessel/train
- Higher efficiencies
- Less clerks on the yard, higher safety

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Camco product portfolio

RAIL AUTOMATION

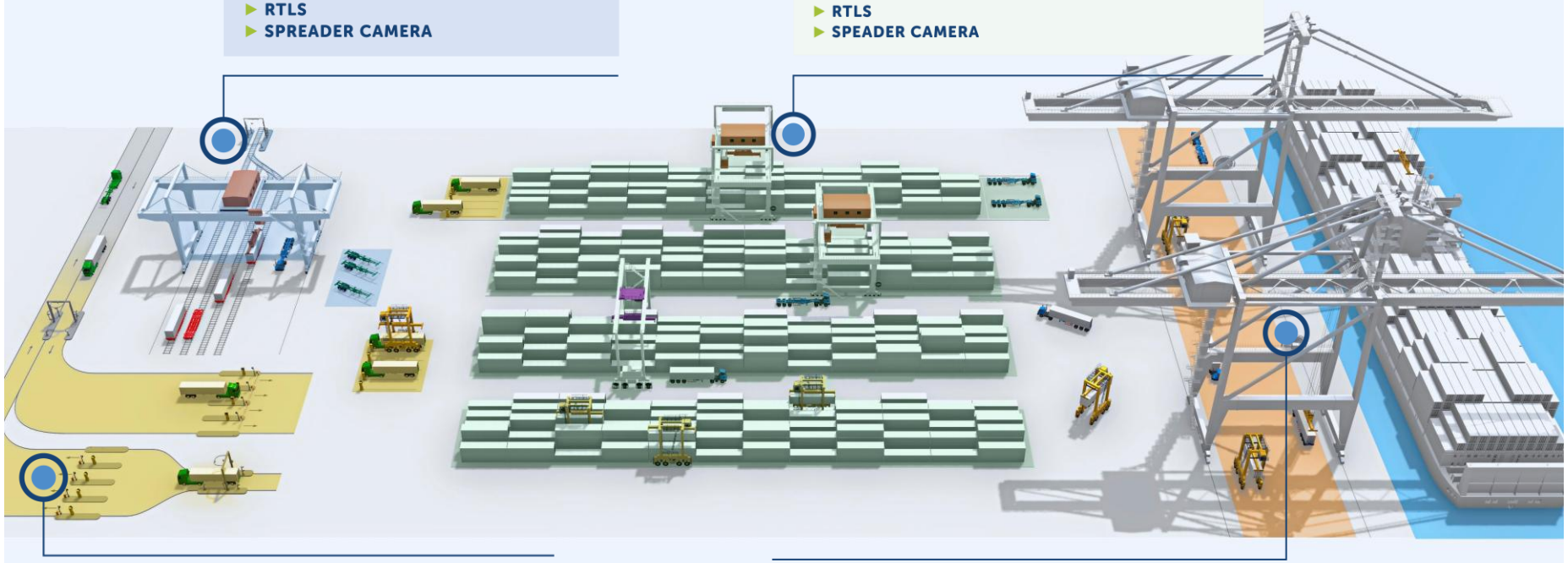
START PROCESSING TRAINS WITHOUT DELAY AND IMPROVE TRAIN TURNAROUND TIME

- **OCR RAIL PORTAL**
- **RMG OCR CAMERAS**
- **RTLS**
- **SPREADER CAMERA**

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**
- **SPEADER CAMERA**



GATE AUTOMATION

THE INDUSTRY REFERENCE IN VISION-BASED GATE AUTOMATION SOLUTIONS

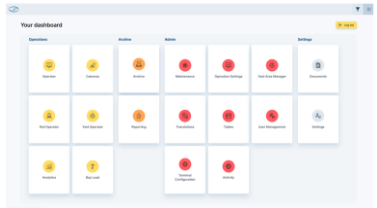
- **OCR PORTALS**
- **KIOSKS**
- **VBS + ITT VEHCILE BOOKING SYSTEM**
- **RFID**
- **WEIGHT IN MOTION (WIM)**

QUAY AUTOMATION

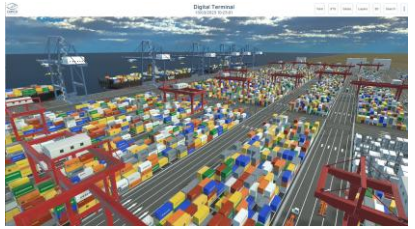
IMPROVING WATERSIDE OPERATIONS FOR A LEANER, GREENER INDUSTRY READY FOR INCREASING TRAFFIC

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

THE BRIDGE
Management by Intelligence



RT DIGITAL TWIN



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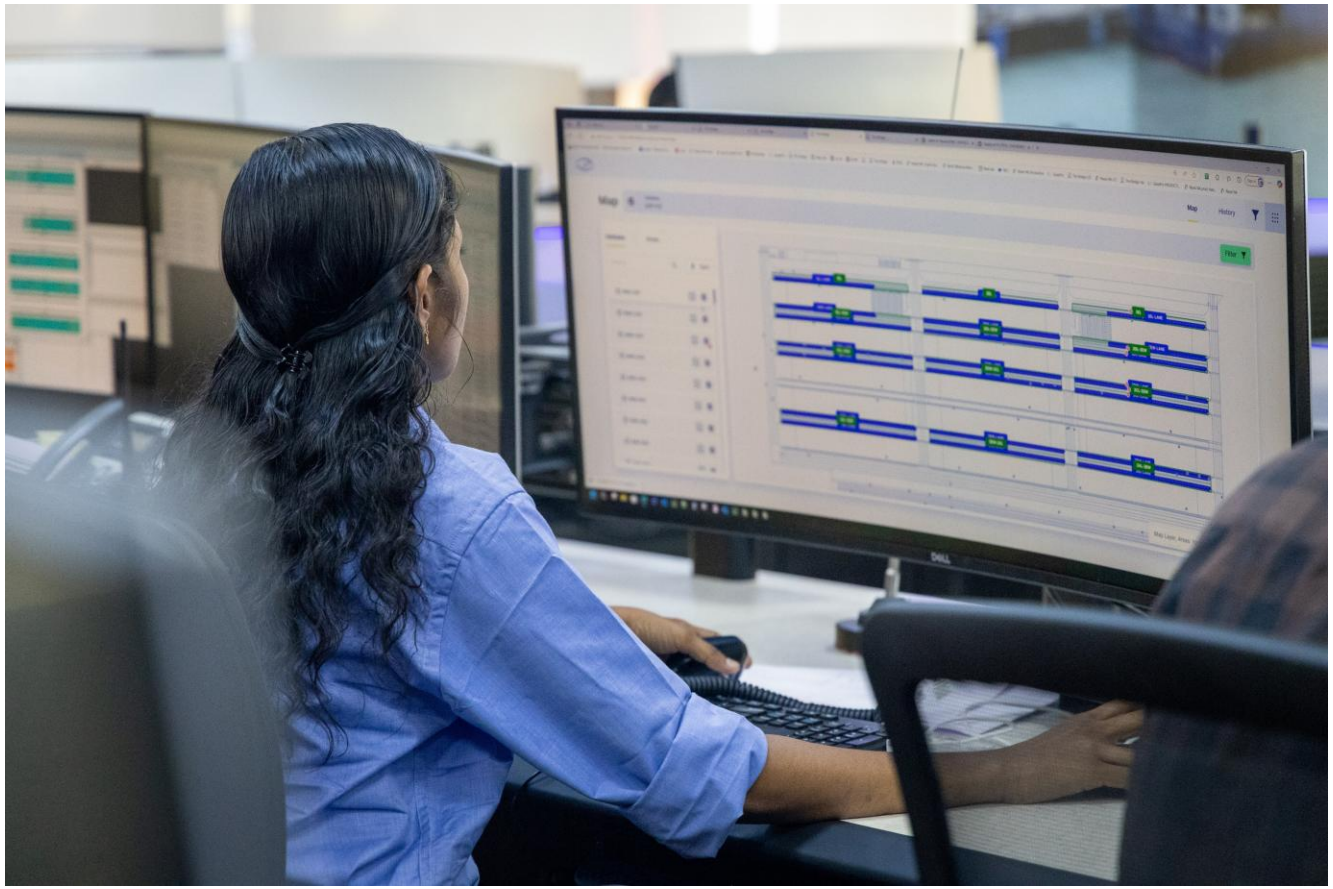
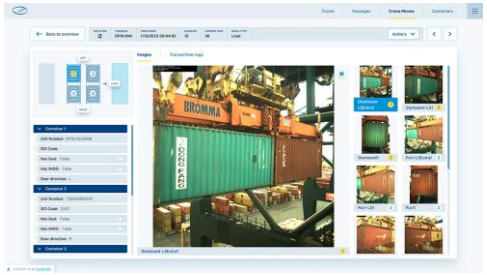
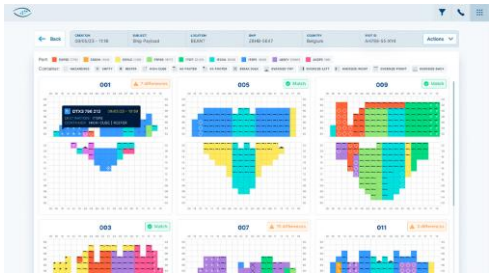
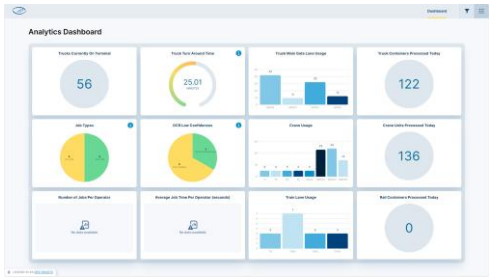
THE BRIDGE (unified platform)









Adani Vizhinjam, India

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THE TWINBRIDGE (real-time digital twin)

Adani Colombo, Sri Lanka

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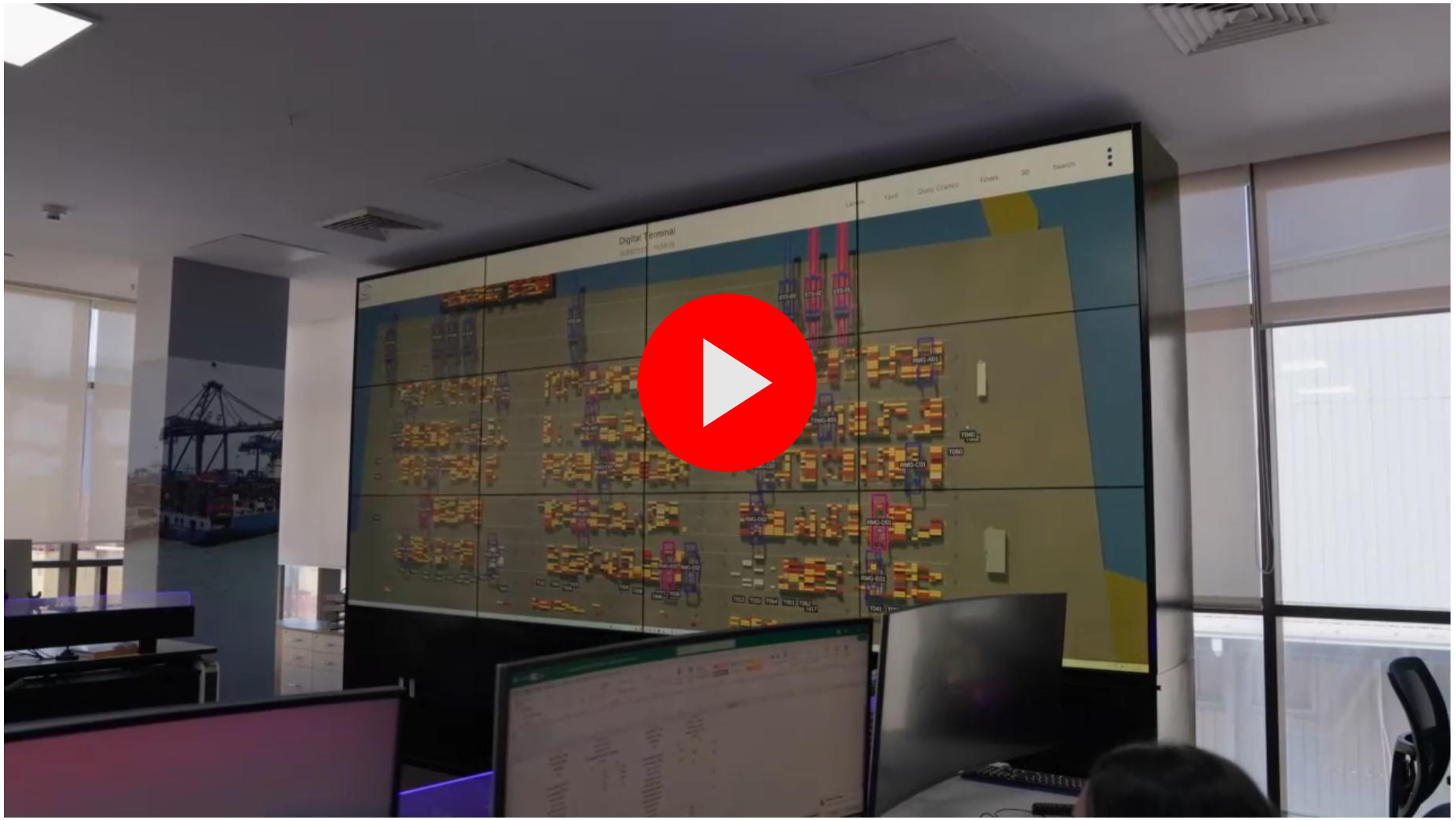
Complete awareness



Adani Vizhinjam, India

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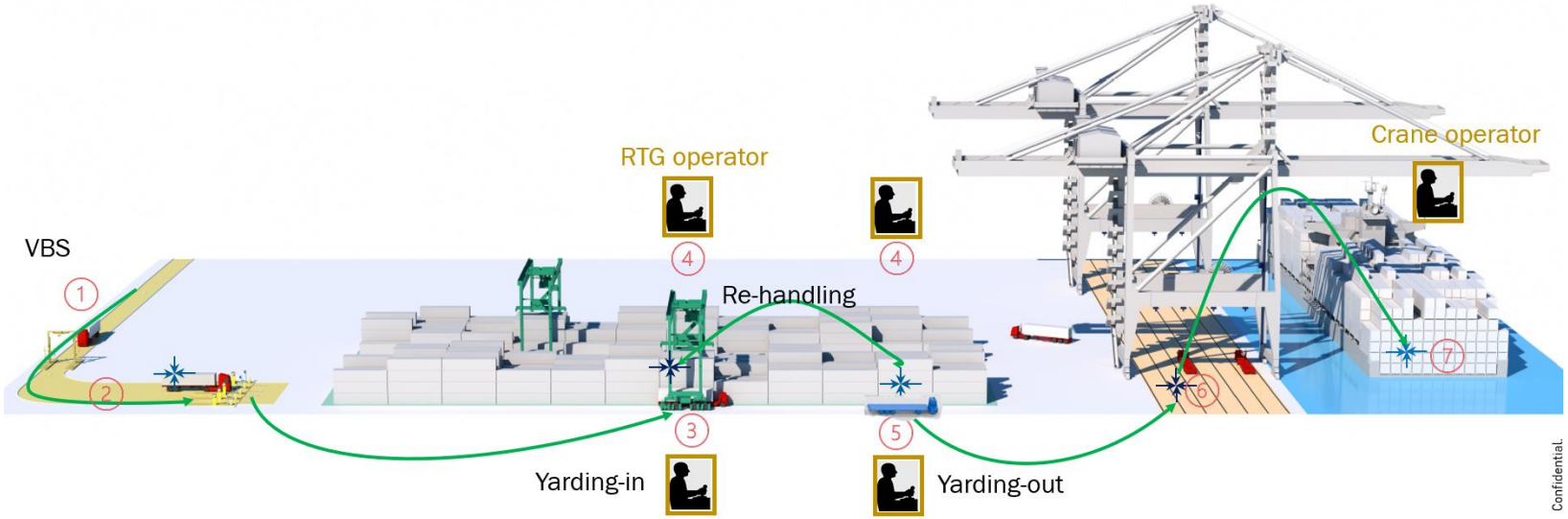
A fully digitized terminal



Enhancing productivity and efficiency

Automated checking reduces truck, train and vessel turnaround time. Faster and more accurate checking means better use of the infrastructure, shorter throughput and higher capacity.

Removing human mistakes and fraud

Providing manless access control at perimeters and validation of asset ID to eliminate the human element so common in theft, pilferage and other criminal activities.

Increasing operational control

Providing real-time visibility of an asset and its location to enable process automation and control.

Increasing safety

Ensuring the safety of personnel and equipment, typically within a facility environment.

Reducing costs

By digitalization and automation of the operation process, one can save on operational costs. Some experts project operational cost savings up to 55% with automation.

Enhancing sustainability

Offset Carbon emissions by 10% or more

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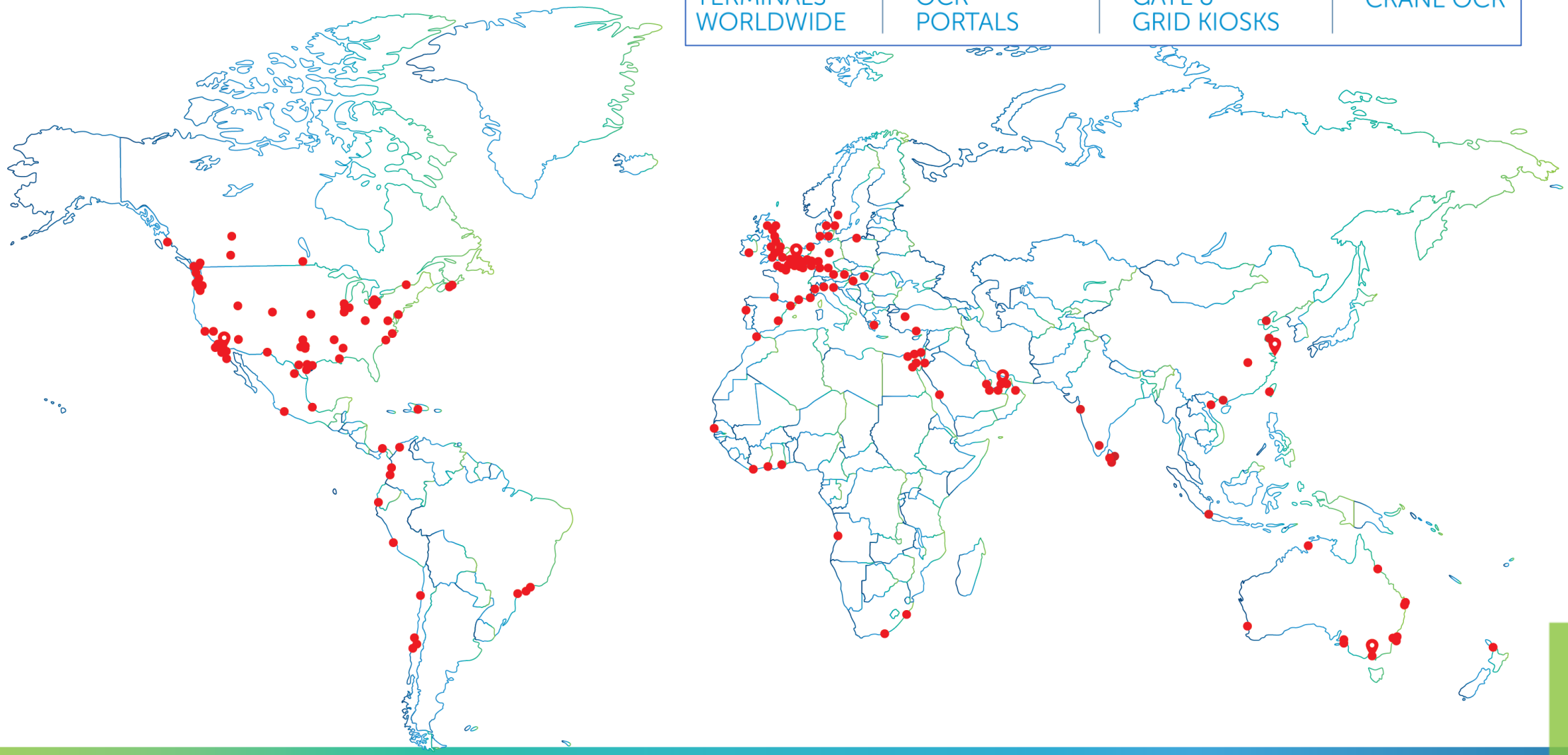
Project references

CAMCO TECHNOLOGIES

300+	700+	3000+	320+
TERMINALS WORLDWIDE	OCR PORTALS	GATE & GRID KIOSKS	CRANE OCR



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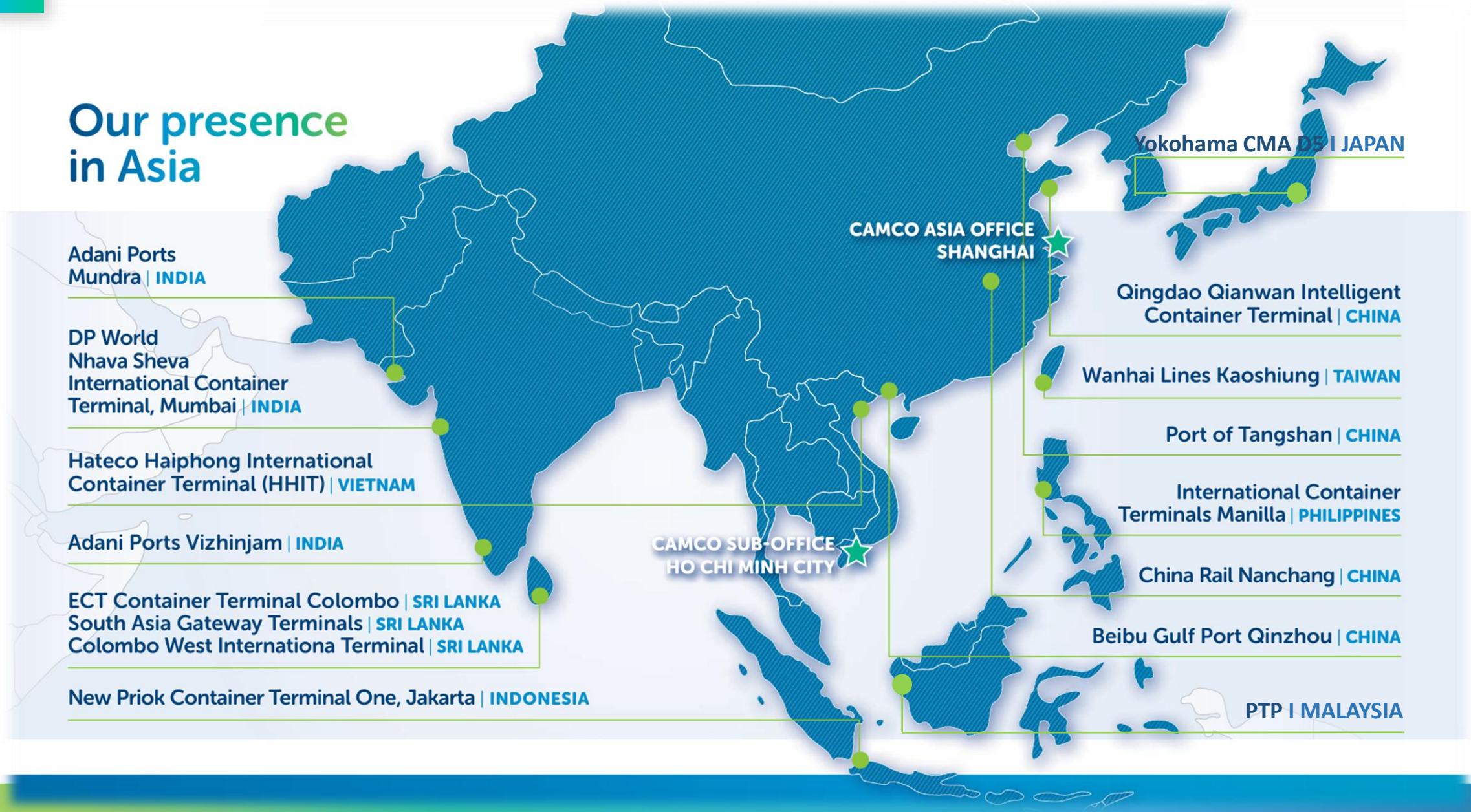
Camco in Asia

Our presence in Asia



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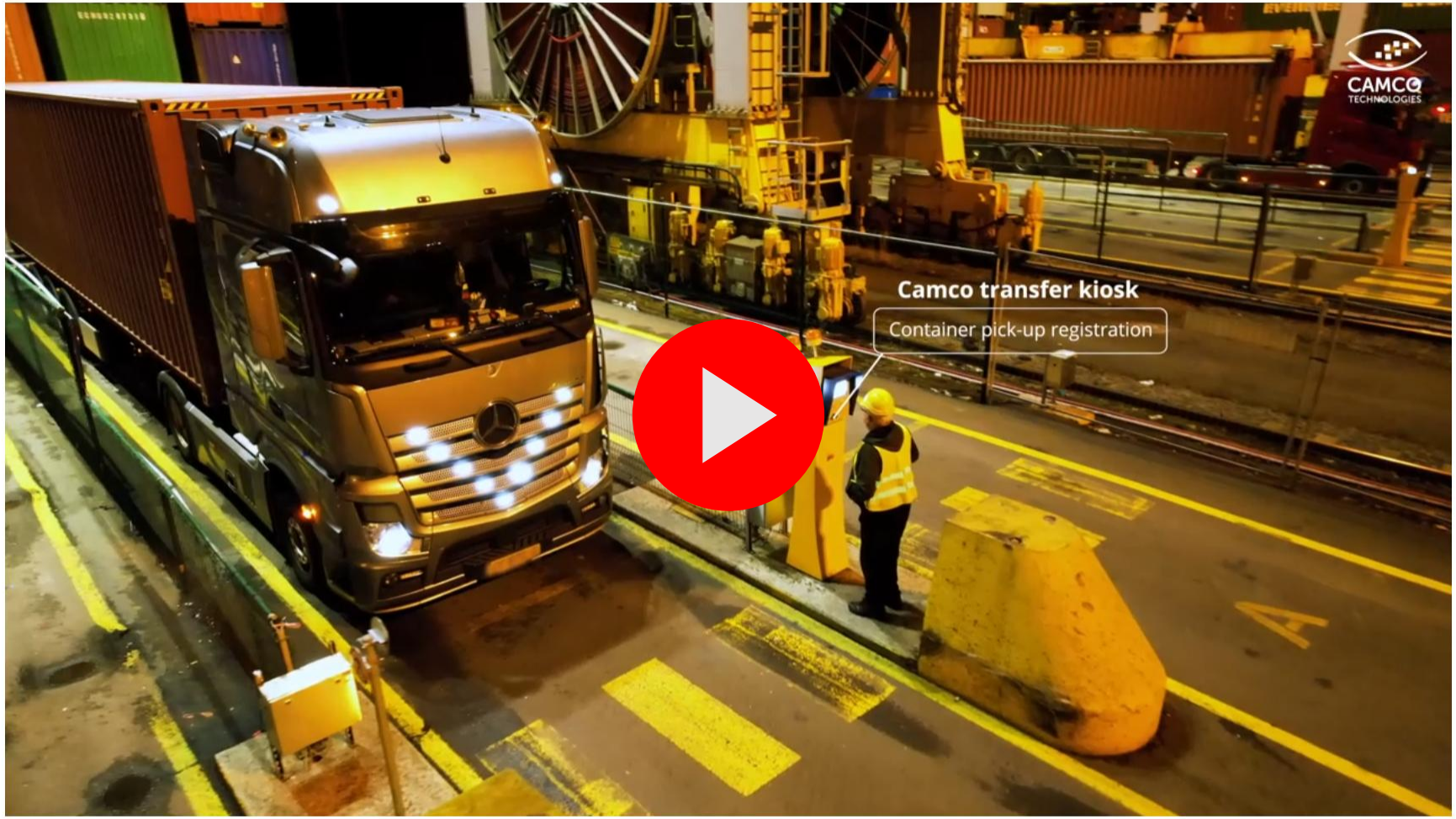
A demonstration of our technology



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From road to vessel.
We automate, you operate.

Thank you!