



Process Automation Solutions



Kalmar SmartPort

The most Comprehensive Platform for Terminal Process Automation in the marine industry



SmartStack



SmartTrucks



SmartFleet



SmartPath



SmartQuay



SmartRail



SmartLifts



SmartLanes

Improved Operational
Visibility

Increased Information
Accuracy

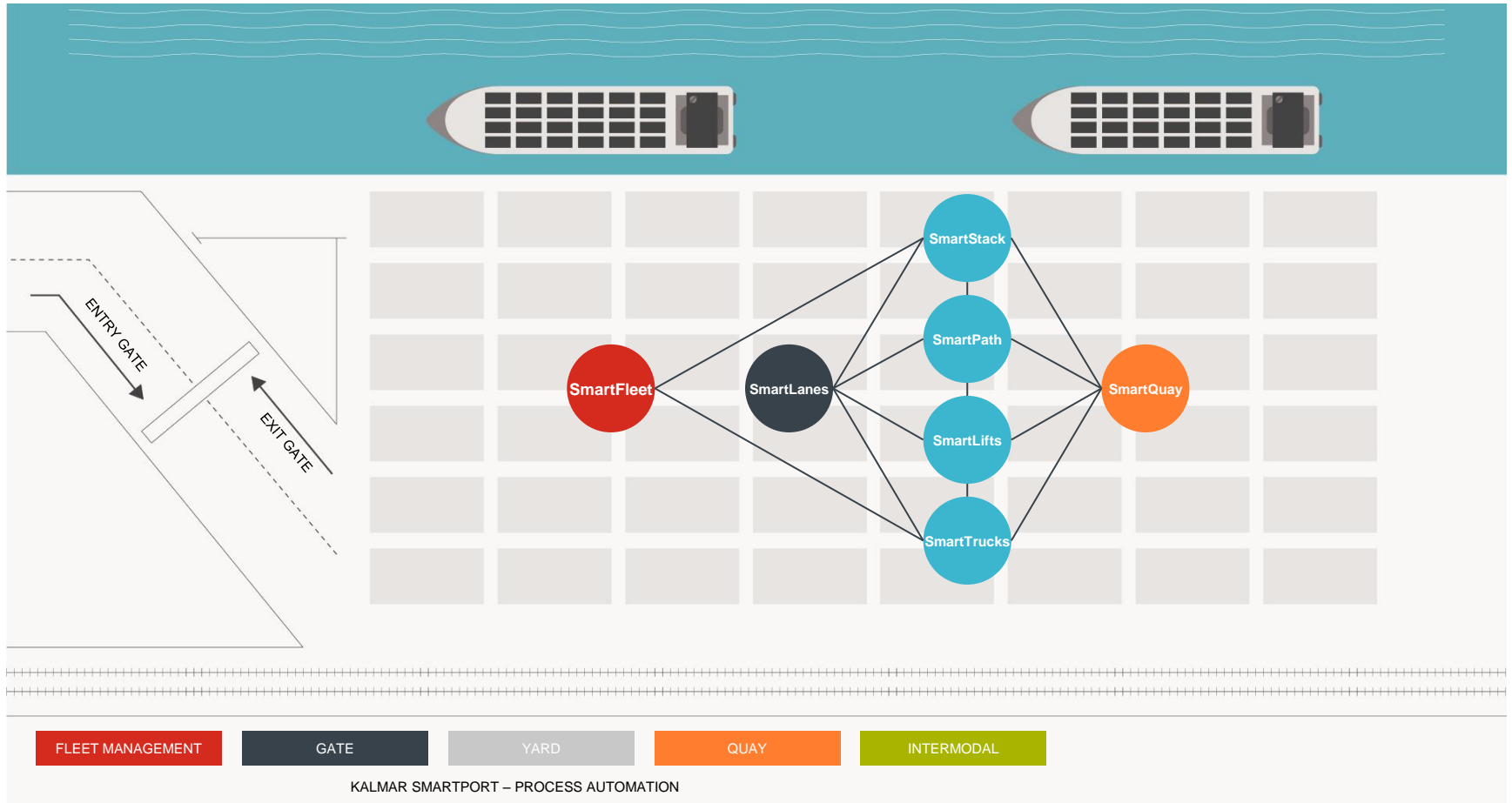
Better Asset Utilization

Information Drives Efficiency – One Example

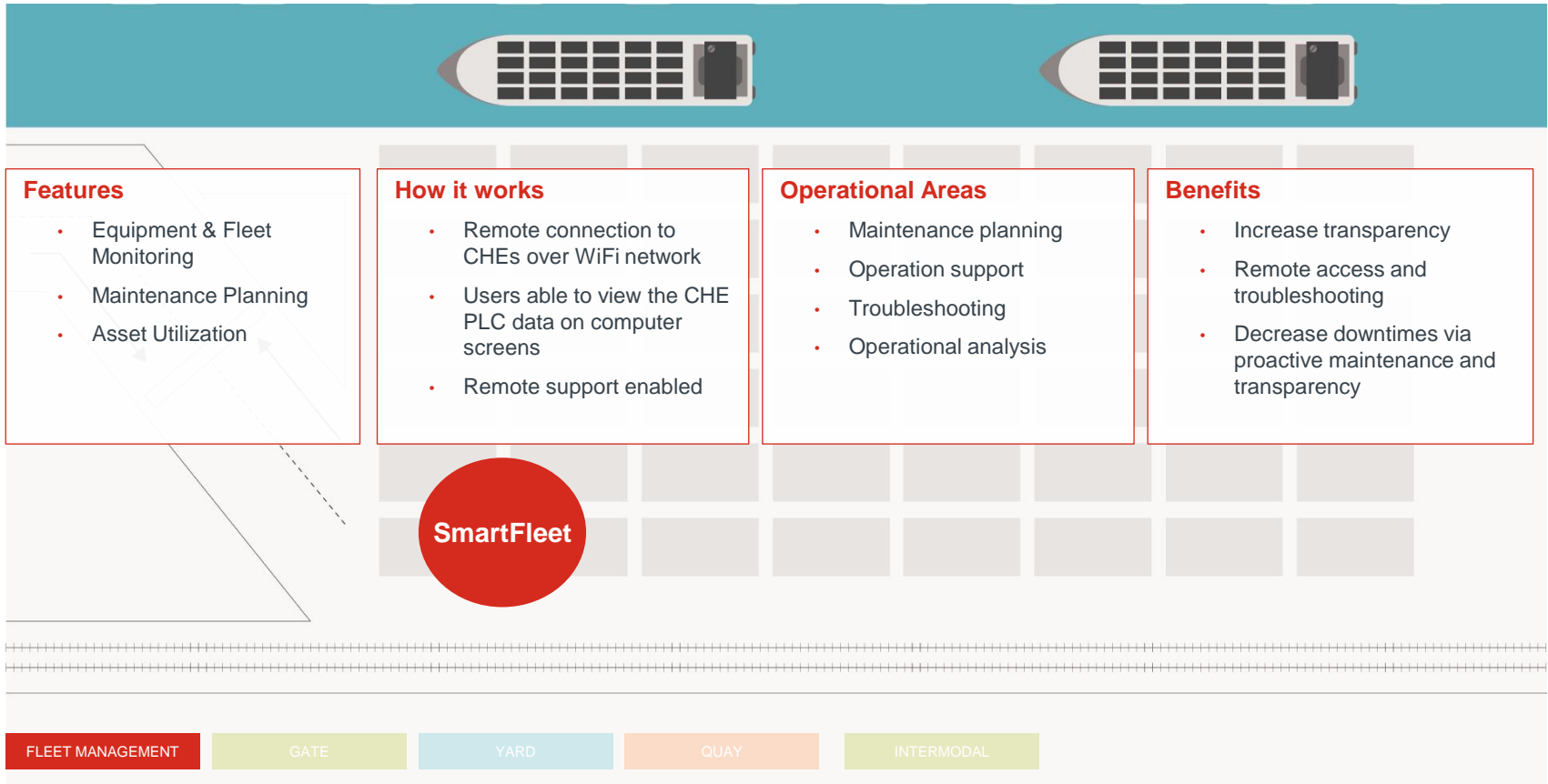
- With manual processes, it can take several seconds for a truck driver to be provided an instruction
- SmartPort process automation solutions eliminate these delays. In this example, a three second delay can quickly add up
- A 500,000 TEU terminal will have ~300,000 moves. 300,000 moves equates to 900,000 seconds. 900,000 seconds is 10.4 days of delay
- Small delays in container operations cost time and waste terminal resources and money
- SmartPort solutions can eliminate delays across all terminal operations

Kalmar SmartPort

All products in the portfolio can be integrated to unique solutions for you



Kalmar SmartPort - SmartFleet



Kalmar SmartPort - SmartFleet



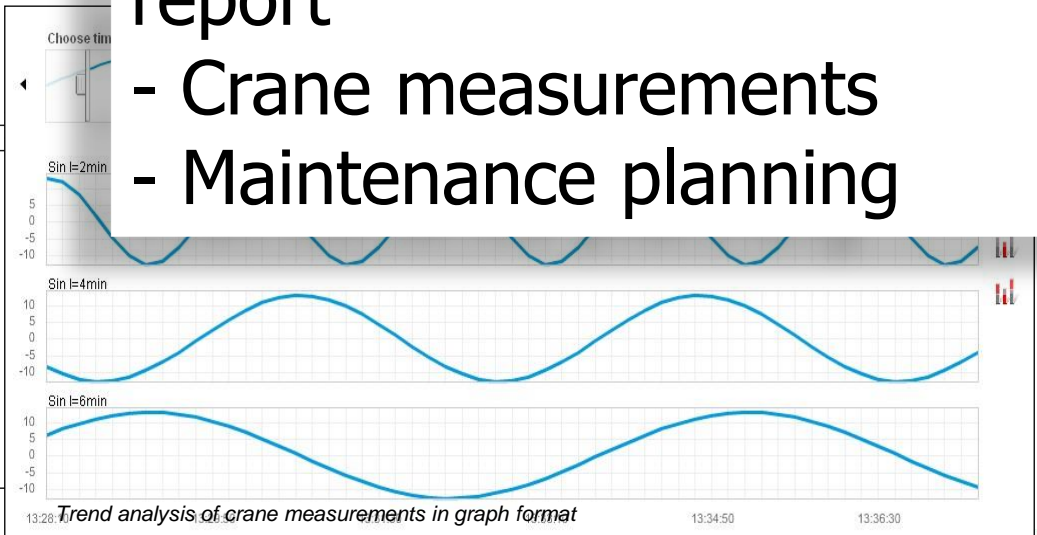
Real time CHE monitoring



- Real time CHE monitoring UI
- Alarm and event history
- Alarm counts report
- Most frequent alarms report
- Most alarming machines report
- Crane measurements
- Maintenance planning

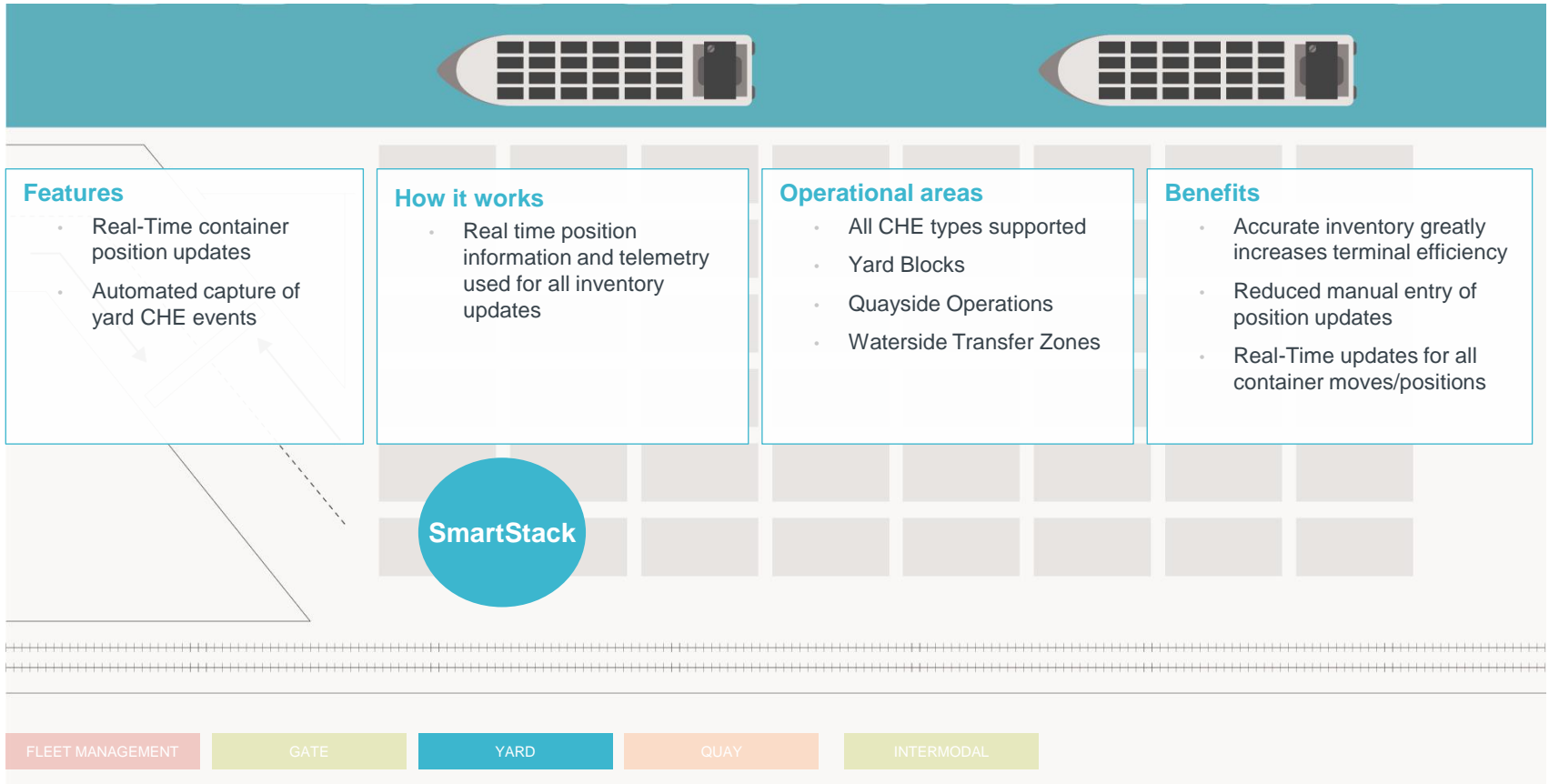
More reporting options

Status	<input type="checkbox"/> Fix_leg_abs_enc_supply	<input type="checkbox"/> Target_nominal_X
<input type="checkbox"/> fault_code	<input type="checkbox"/> Fix_leg_motor_mod_supply	<input type="checkbox"/> Target_nominal_Y
<input type="checkbox"/> Job_status	<input type="checkbox"/> Fix_leg_inv_fan_supply	<input type="checkbox"/> Slot_pos_avg_delta_X
<input type="checkbox"/> Crane_status	<input type="checkbox"/> Fix_leg_abs_enc_supply	<input type="checkbox"/> Slot_pos_avg_delta_Y
Hoist	Trolley	<input type="checkbox"/> Slot_pos_angle
<input type="checkbox"/> Act_log_pos	<input type="checkbox"/> Act_log_pos	<input type="checkbox"/> Slot_pos_last_sc_delta
<input type="checkbox"/> Act_pos [mm]	<input type="checkbox"/> Act_pos [mm]	<input type="checkbox"/> Slot_pos_last_sc_delta
<input type="checkbox"/> Target_pos [mm]	<input type="checkbox"/> Target_pos [mm]	<input type="checkbox"/> Reliability
<input type="checkbox"/> Set_value_speed [mm/s]	<input type="checkbox"/> Set_value_speed [mm/s]	<input type="checkbox"/> Measurement_used_X
<input type="checkbox"/> Actual_speed [mm/s]	<input type="checkbox"/> Actual_speed [mm/s]	<input type="checkbox"/> Measurement_used_Y
<input type="checkbox"/> Abs_enc_drum [mm]	<input type="checkbox"/> Fix_leg_laser_dist_mesu [mm]	<input type="checkbox"/> Space_to_land
<input type="checkbox"/> Abs_enc_gear [mm]	<input type="checkbox"/> Fix_leg_laser_dist_mesu [mm]	<input type="checkbox"/> Stack_height
<input type="checkbox"/> Inc_enc_motor [mm]	<input type="checkbox"/> Inc_enc_pos [mm]	<input type="checkbox"/> Truck_cabin_pos_X
<input type="checkbox"/> Inverter_1_current [A]	<input type="checkbox"/> Tilt_angle_X [rad]	<input type="checkbox"/> Truck_cabin_pos_Y
<input type="checkbox"/> Inverter_1_torque_1 [Nm]	<input type="checkbox"/> Tilt_angle_Y [rad]	<input type="checkbox"/> Truck_cabin_pos_Z
<input type="checkbox"/> Inverter_1_torque_2 [%]	<input type="checkbox"/> Inv_Torque_1 [Nm]	Communication
<input type="checkbox"/> Inverter_1_frequency [Hz]	<input type="checkbox"/> Inv_Torque_2 [%]	<input type="checkbox"/> CLKS
<input type="checkbox"/> Inverter_1_voltage [V]	<input type="checkbox"/> Inv_current [A]	<input type="checkbox"/> CPLC
<input type="checkbox"/> Inverter_2_current [A]	<input type="checkbox"/> Inv_frequency [Hz]	<input type="checkbox"/> CSPLC
<input type="checkbox"/> Inverter_2_torque_1 [Nm]	<input type="checkbox"/> Inv_voltage [V]	<input type="checkbox"/> G_crane_PLC

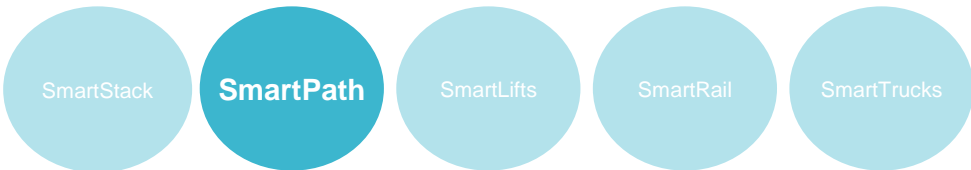
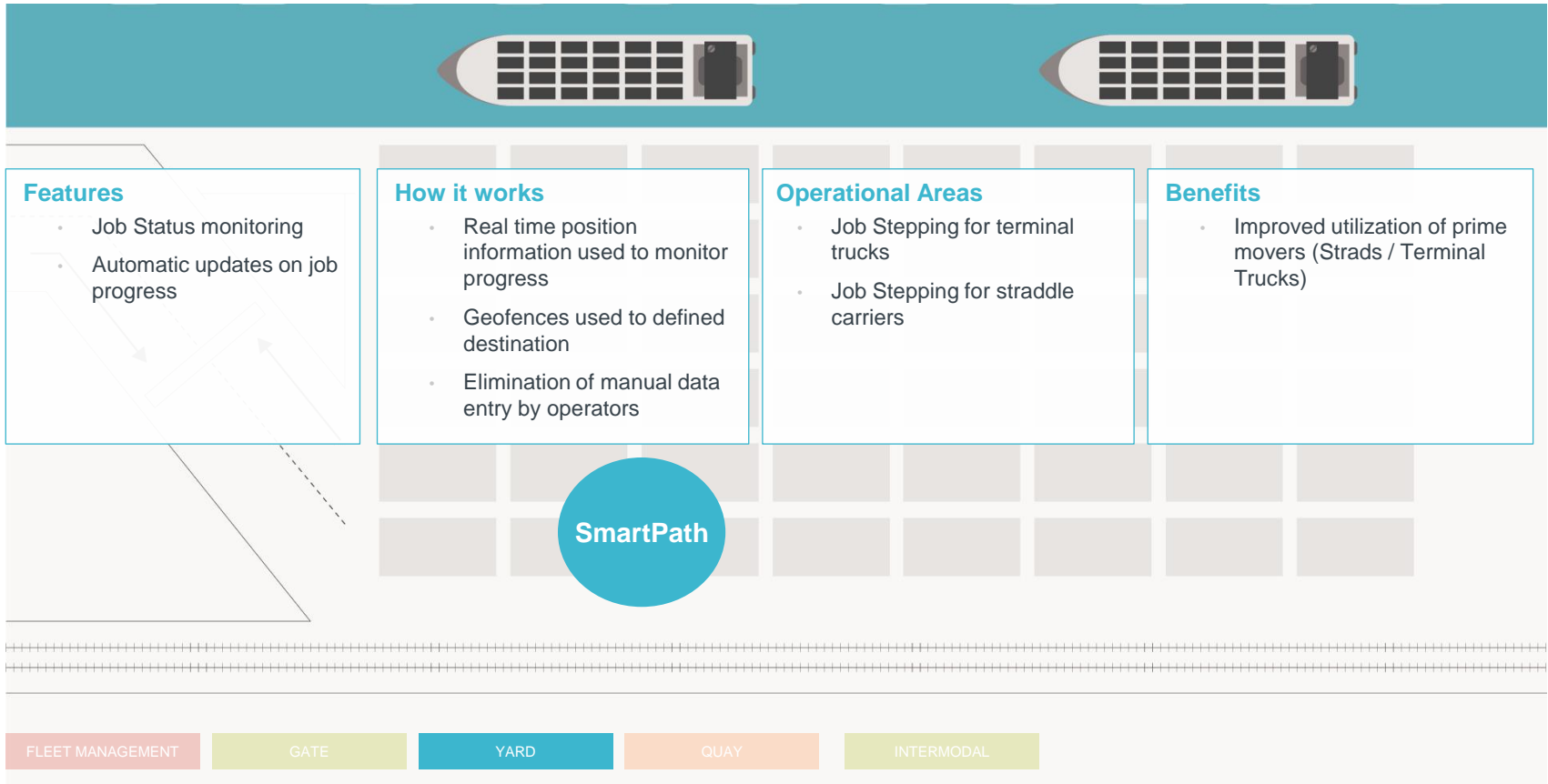


Selecting crane measurements

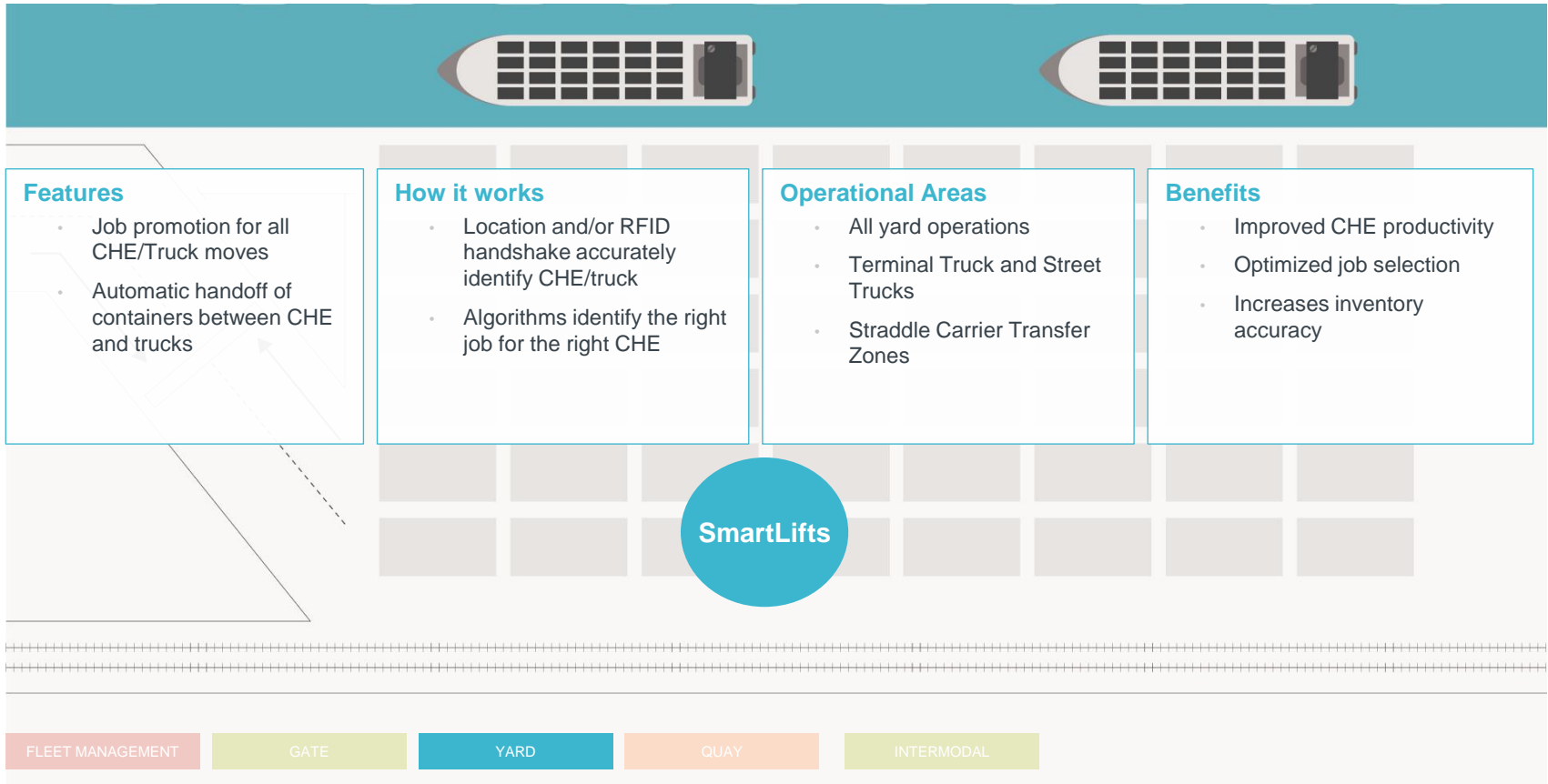
Kalmar SmartPort - SmartStack



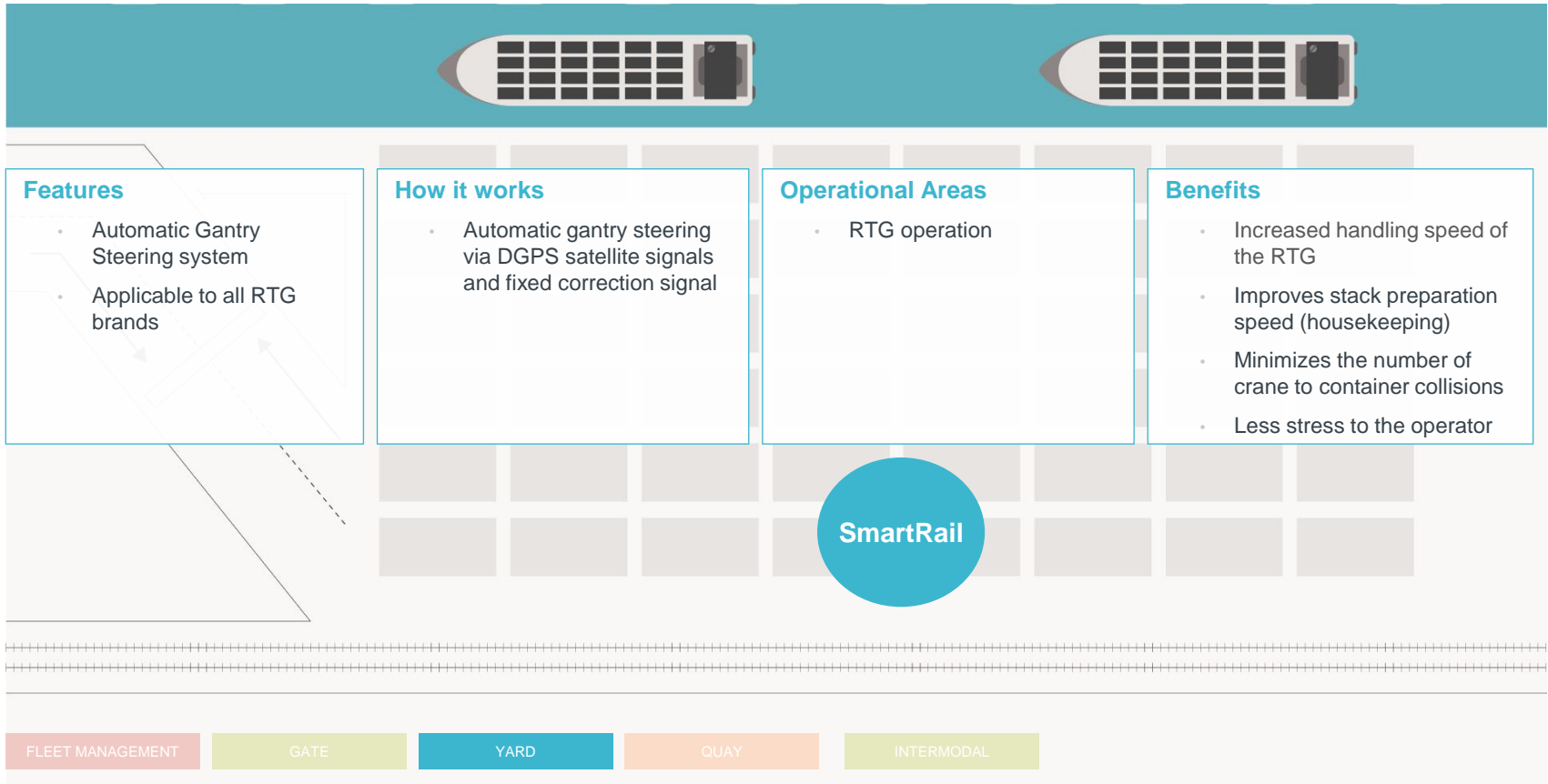
Kalmar SmartPort - SmartPath



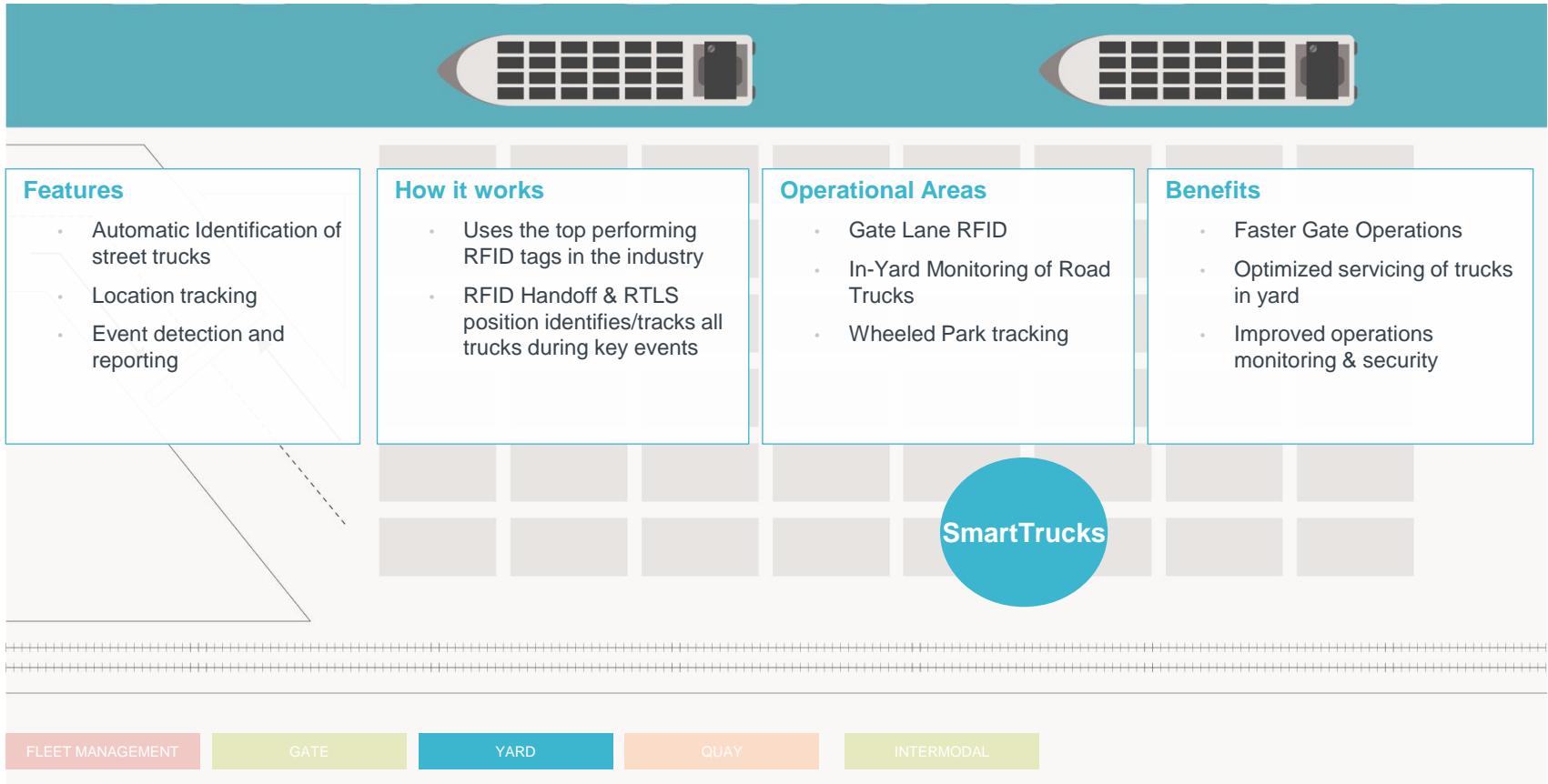
Kalmar SmartPort - SmartLifts



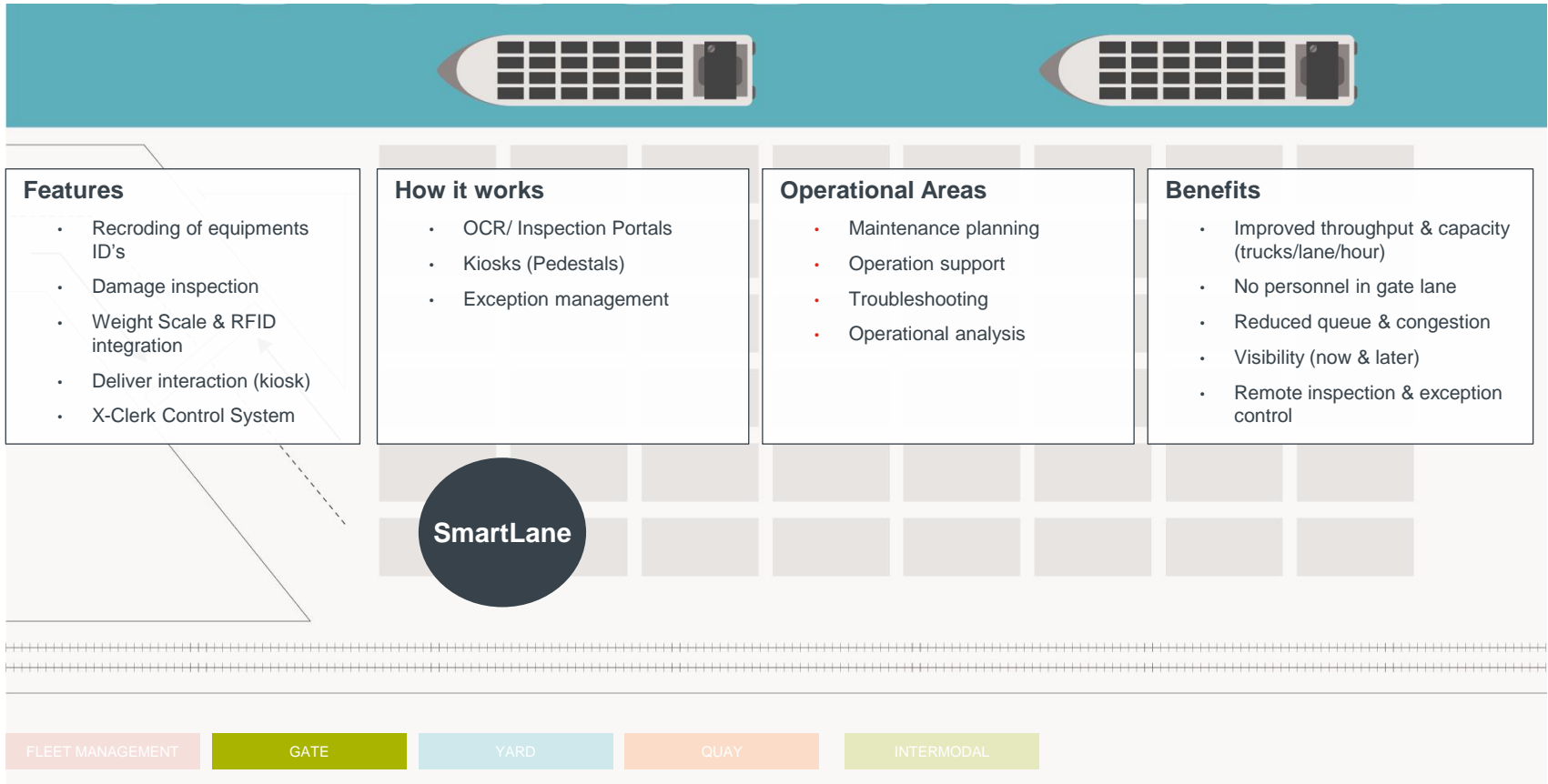
Kalmar SmartPort – SmartRail



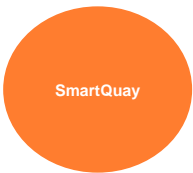
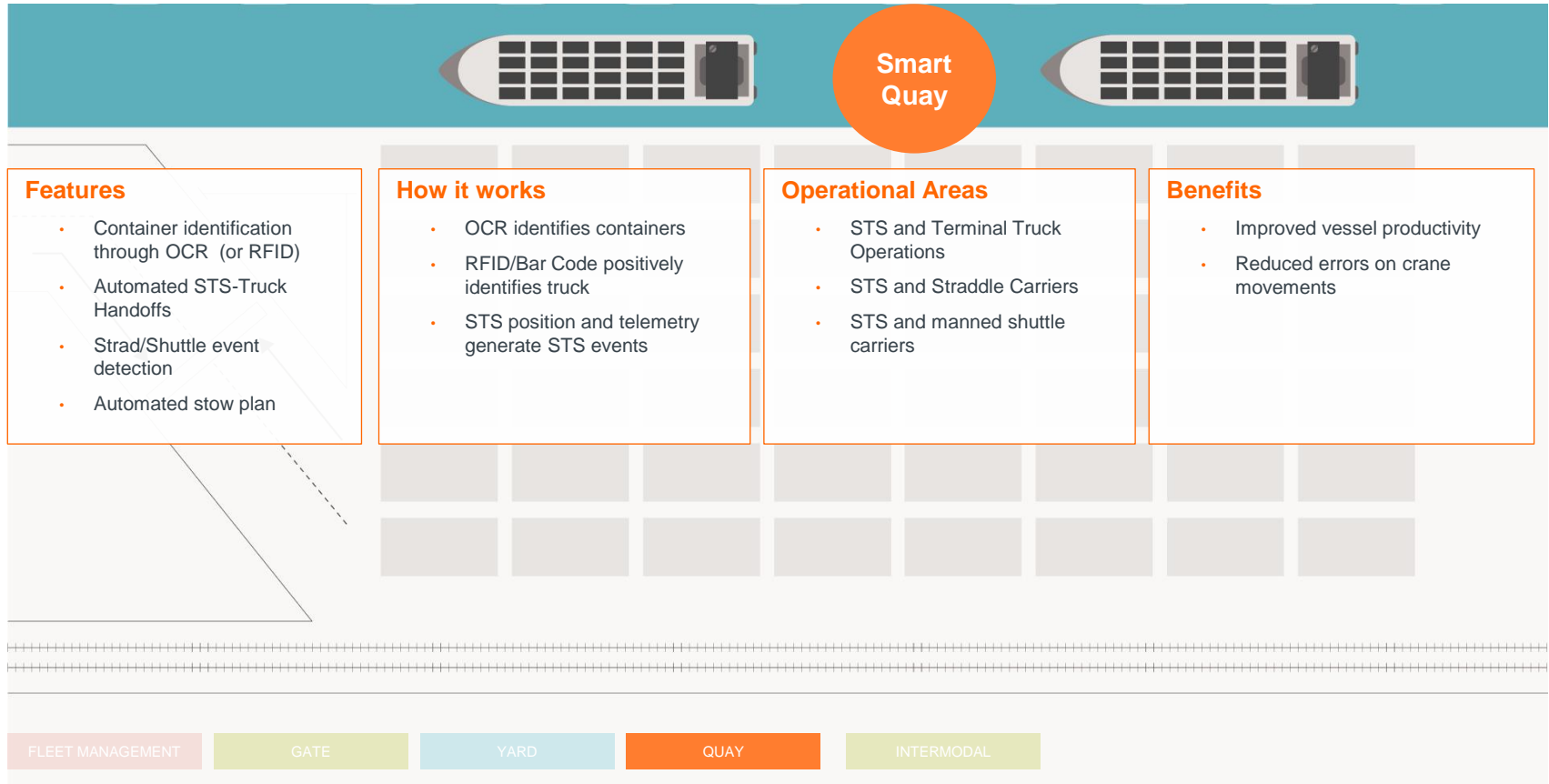
Kalmar SmartPort - SmartTrucks



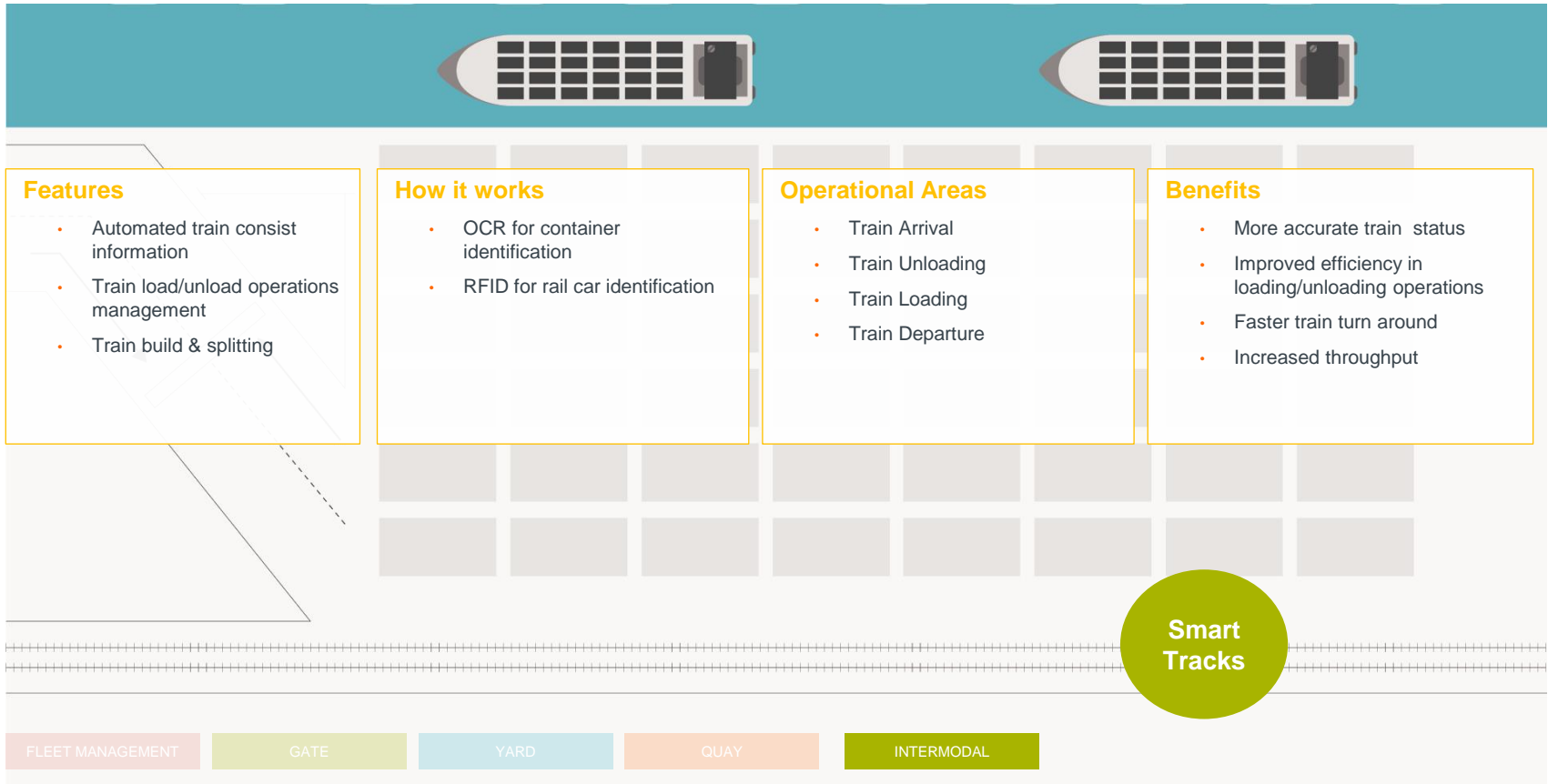
Kalmar SmartPort - SmartLane



Kalmar SmartPort - SmartQuay



Kalmar SmartPort - SmartTracks

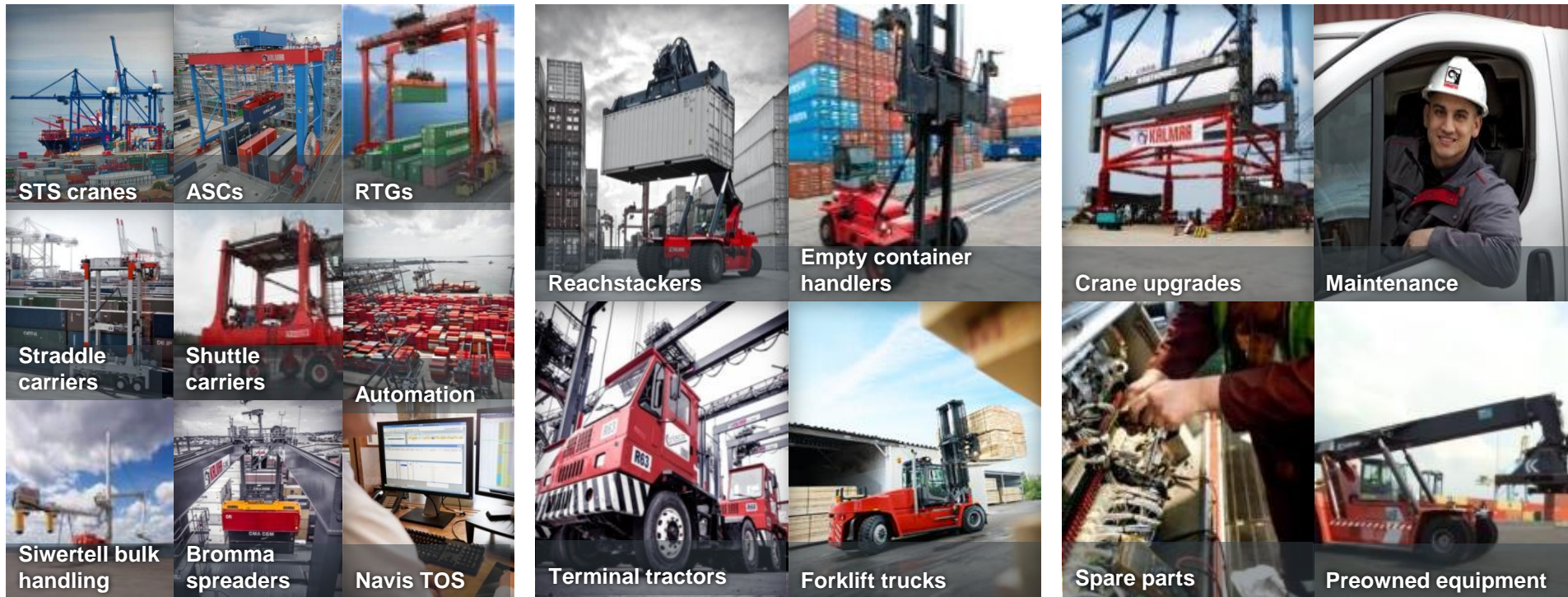




One in four container movements around the globe is handled by a Kalmar solution.

Kalmar

The market's widest product portfolio



Kalmar is the only complete ports and terminal solutions provider



Equipment

Complete set of equipment
for container and cargo
handling



Services

Global service network
Rebuilds and upgrades
Service contracting
Terminal development



Systems & Automation

Terminal operating systems
Automated equipment
Process automation

Kalmar India Sales & Service

Navi Mumbai – India HQ

Bangalore – Manufacturing

North - West Regions

- Sales & Service - Delhi
- Sales & Service – Navi Mumbai
- Central Warehouse – Navi Mumbai
- Cargotec Work Shop – Navi Mumbai
- Customer support facility in Mundra

South – East Region

- Sales & Service - Chennai/Bangalore
- Sales & Service - Kolkata
- Cargotec Work Shop - Chennai
- Regional Warehouse - Chennai



Making Your Every Move Count.