ITP at Port of Rotterdam, truckparkings and beyond

Peter Vorenkamp, 19 June 2018

Port of Rotterdam

Content

ITP at Port of Rotterdam

- Overview PoR / trends and developments in port logistics
- Truckparkings in the port
- Virtual gate

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Port in figures

Port of Rotterdam engine of the economy

- Total port area 12,643 ha (net 5,978 ha)
- Total employment 180,000 people*
- Total added value ± € 21 billion (3.2% GNP)*
- 3,000 companies
- Largest port in Europe, 10th port worldwide
- Throughput 467,4 mln tons; 13.7 million TEU (containers)
- Depth up to 75 ft (= 24 m)
- Visits: 30.000 sea-going vessels
  105,000 inland navigation

Employment

* source: Erasmus University

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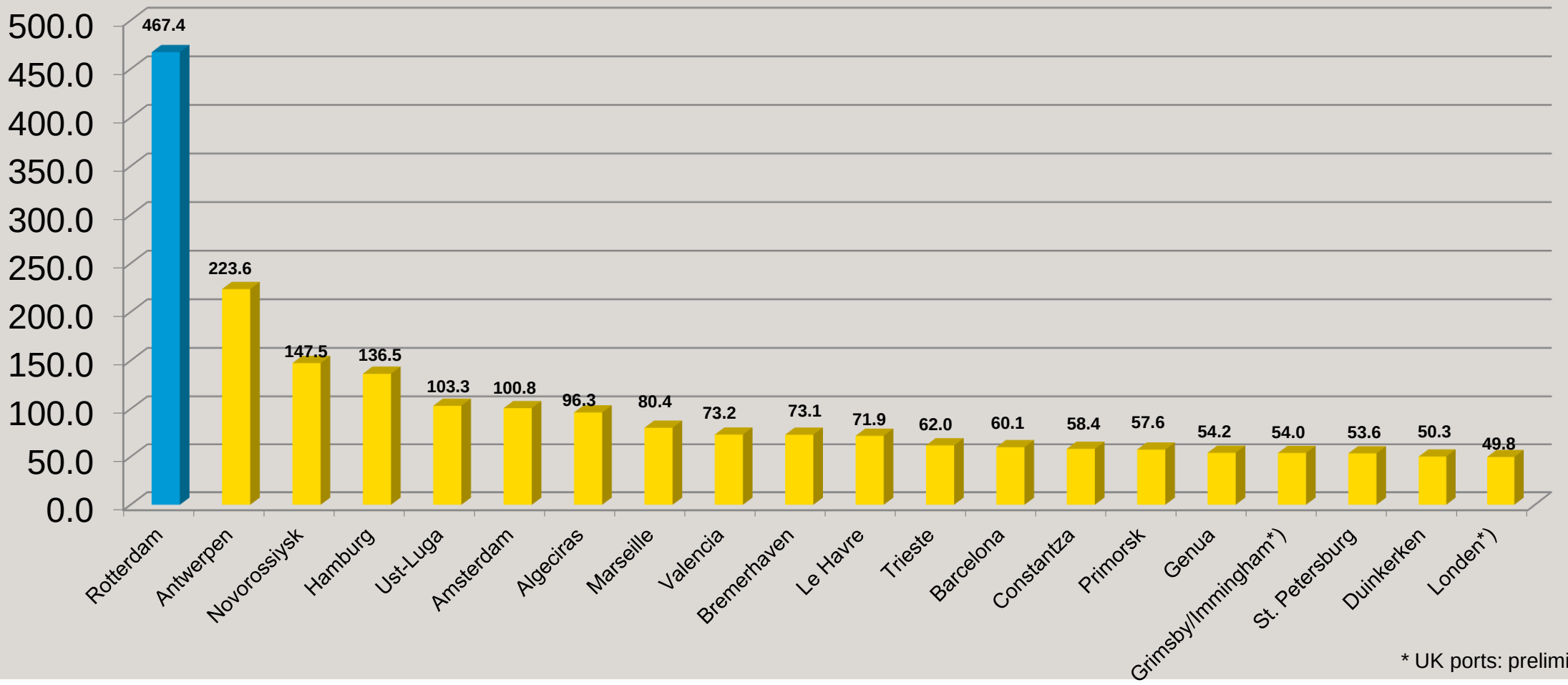
2017 – European ports (mln. tonnes)



* UK ports: preliminary figures

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Global Hub and Gateway to Europe:
500 million consumers within 24 hours reach

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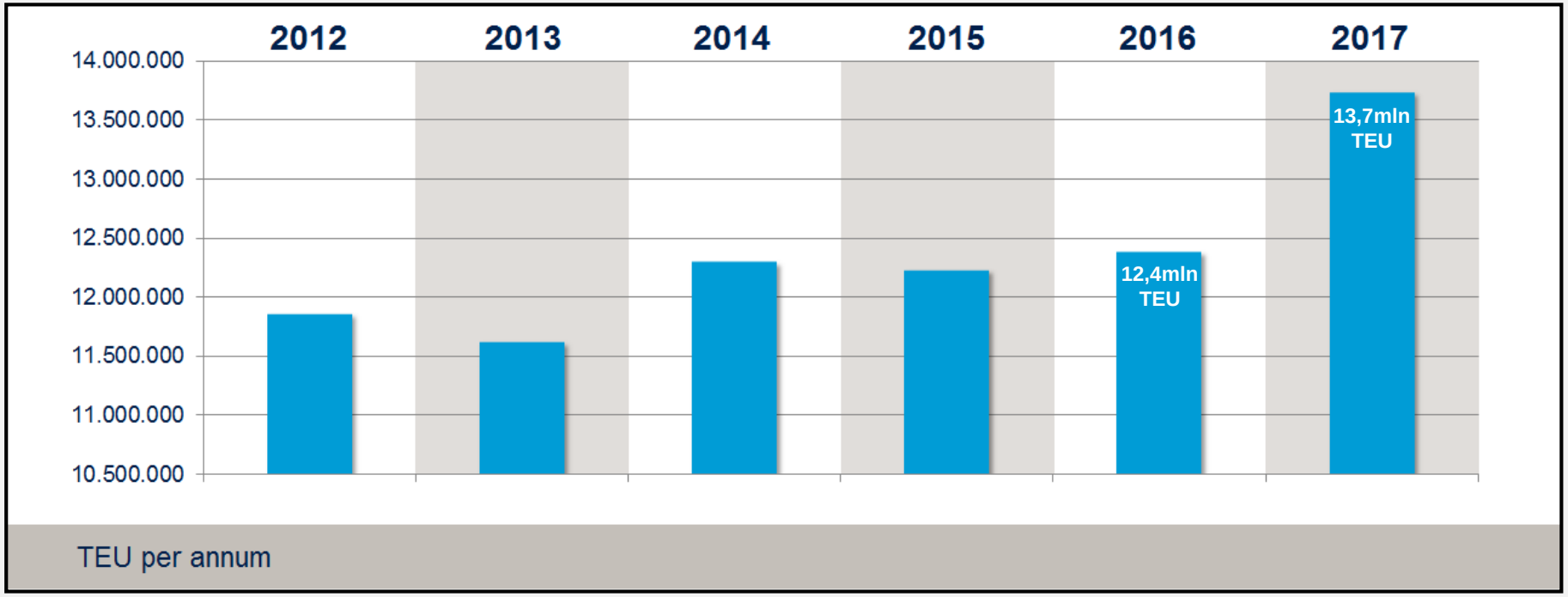
CONTAINER TROUGHPUT GROWS 10,9% in 2017

- Above market average growth
- Increasing productivity new container terminals on Maasvlakte
- Favored position in new alliances deepsea schedules and FPOC / LPOC
- Increase in shortsea volumes and sailings



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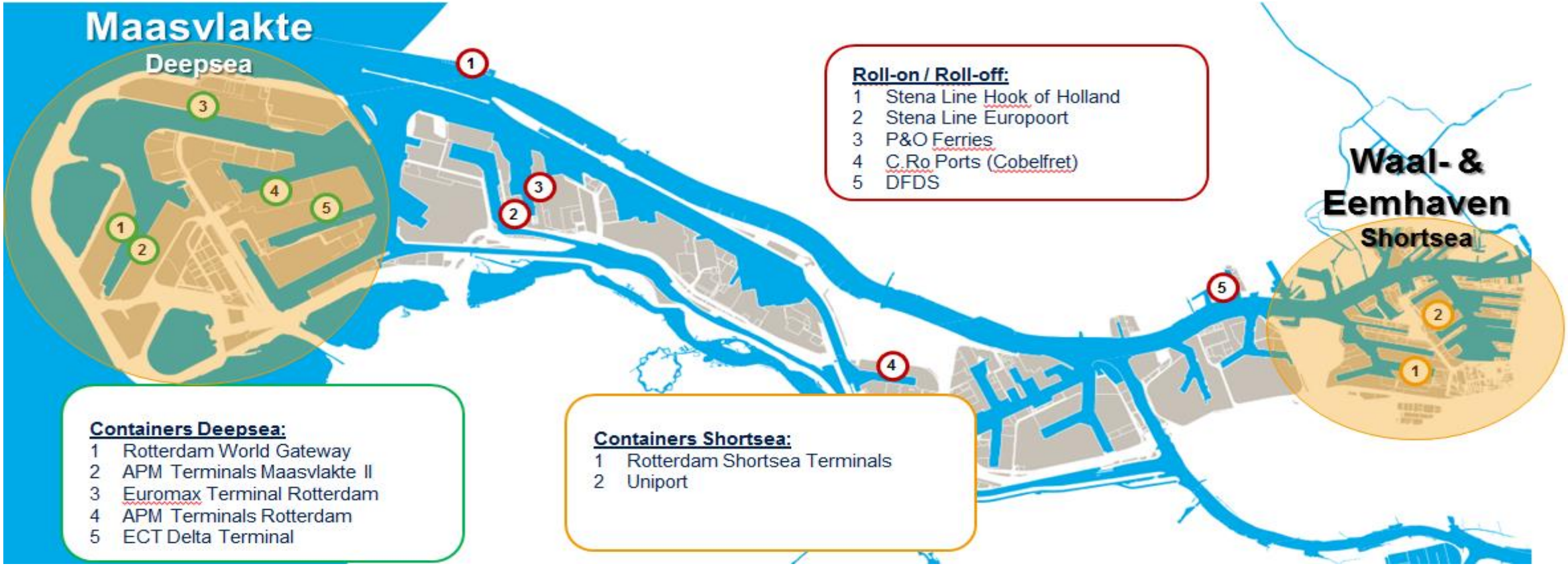
PoR is unique with its dedicated DS, Roro and SS clusters



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ACCESSIBILITY

In order to strengthen its position as Europe's largest logistical and industrial hub, the port of Rotterdam works continuously to improve accessibility. In this context, sustainable solutions are sought to optimize access to Europe by road, rail, pipeline and coastal and inland navigation.

Global Competitiveness Index 2017-2018 › Competitiveness Rankings — Home

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Select economy | 2.04 Quality of port infrastructure 1-7 (best)

2.04 Quality of port infrastructure

In your country, how is the quality (extensiveness and condition) [illegible] access to seaports) [1 = extremely poor—among the worst in the world; 7 = extremly good—among the best in the world]

#1 6th time in a row

WORLD ECONOMIC FORUM — COMMITTED TO IMPROVING THE STATE OF THE WORLD

Rank/137	Country / Economy	Score	Trend	Distance from best
1	Netherlands	6.8		
2	Singapore	6.7		
3	Hong Kong SAR	6.5		
4	United Arab Emirates	6.2		
5	Finland	6.2		

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Truckparking strategy

- Problem: parking problems at hotspots in port, overnight camping truckdrivers, congestion
- Solution #1: Regulation and enforcement of truckparking behaviour
- Solution #2: Development network of secure truckparkings in the port area
- Current status:
  - 5 truckparkings and 2 trailer parkings
  - Total of appr. 750 parking places
  - Nightly occupancy rate: 85 - 90%
  - Expansion by Q4 2019 with 200 parking places
  - Investments: appr. € 20 mln.

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Truckparkings

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Truckparkings

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Aim of the truckparking project

Aim of the project is to design and build truckparkings on time and within budget. The results should form the basis for reaching 4 success determining factors:

1) High occupancy rate with ‘port related’ truck drivers that need to rest in the port area,
2) Yield (parking fee - OPEX > 0),
3) Satisfied users and stakeholders,
4) Reduction of parking problems and congestion by enforcement of parking regulation.

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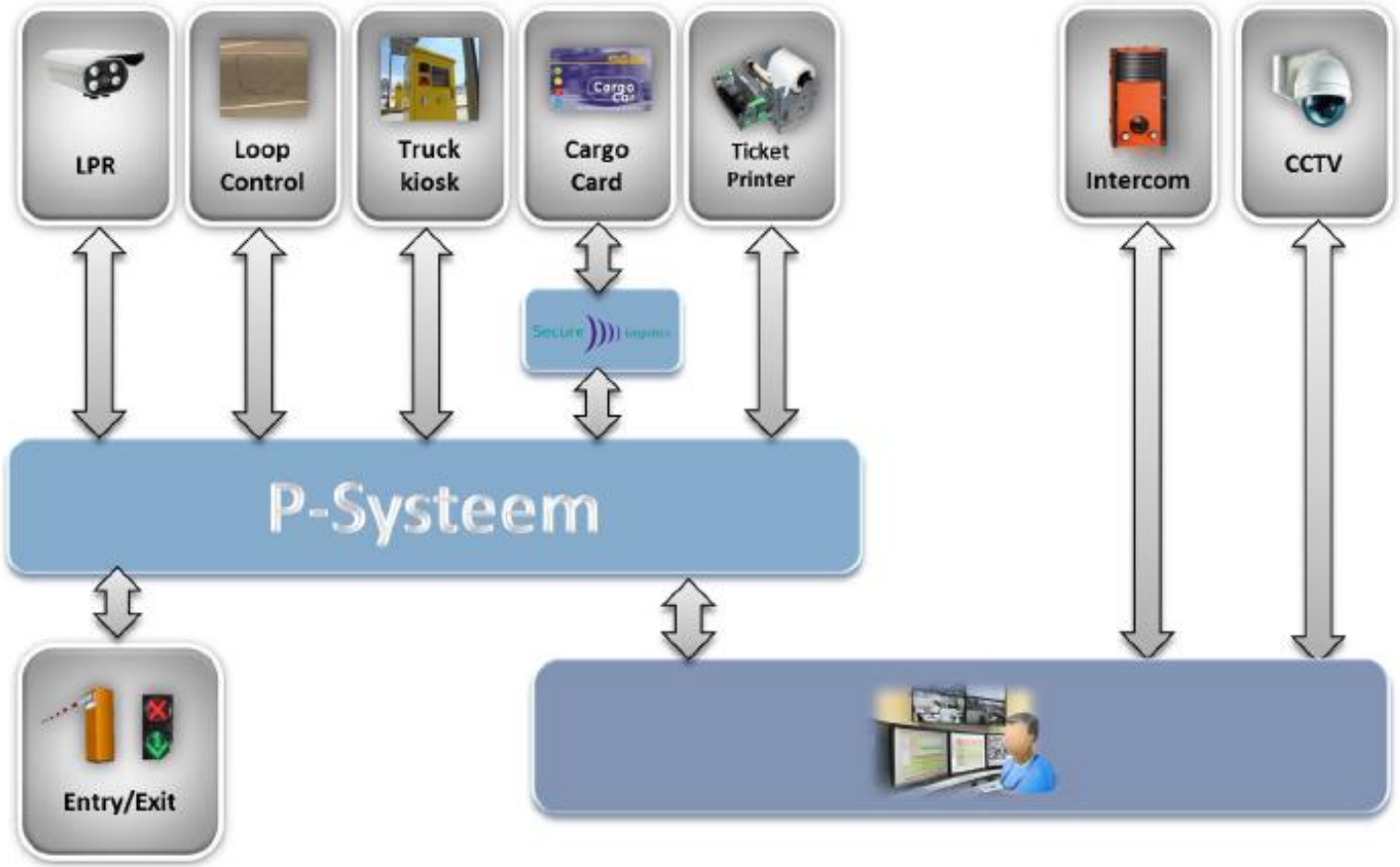
Truckparking requirements

- Parking system can be operated unmanned, automated or from a distance.
- Access control to ensure safety and security.
- Security and service levels derived from truckparkinglabel.eu.
- Fast and efficient gates with spacious parking places and maneuvering lanes.
- Quick response to malfunctions in gate and payment system.
- Clean and safe showers, toilets and waiting areas.



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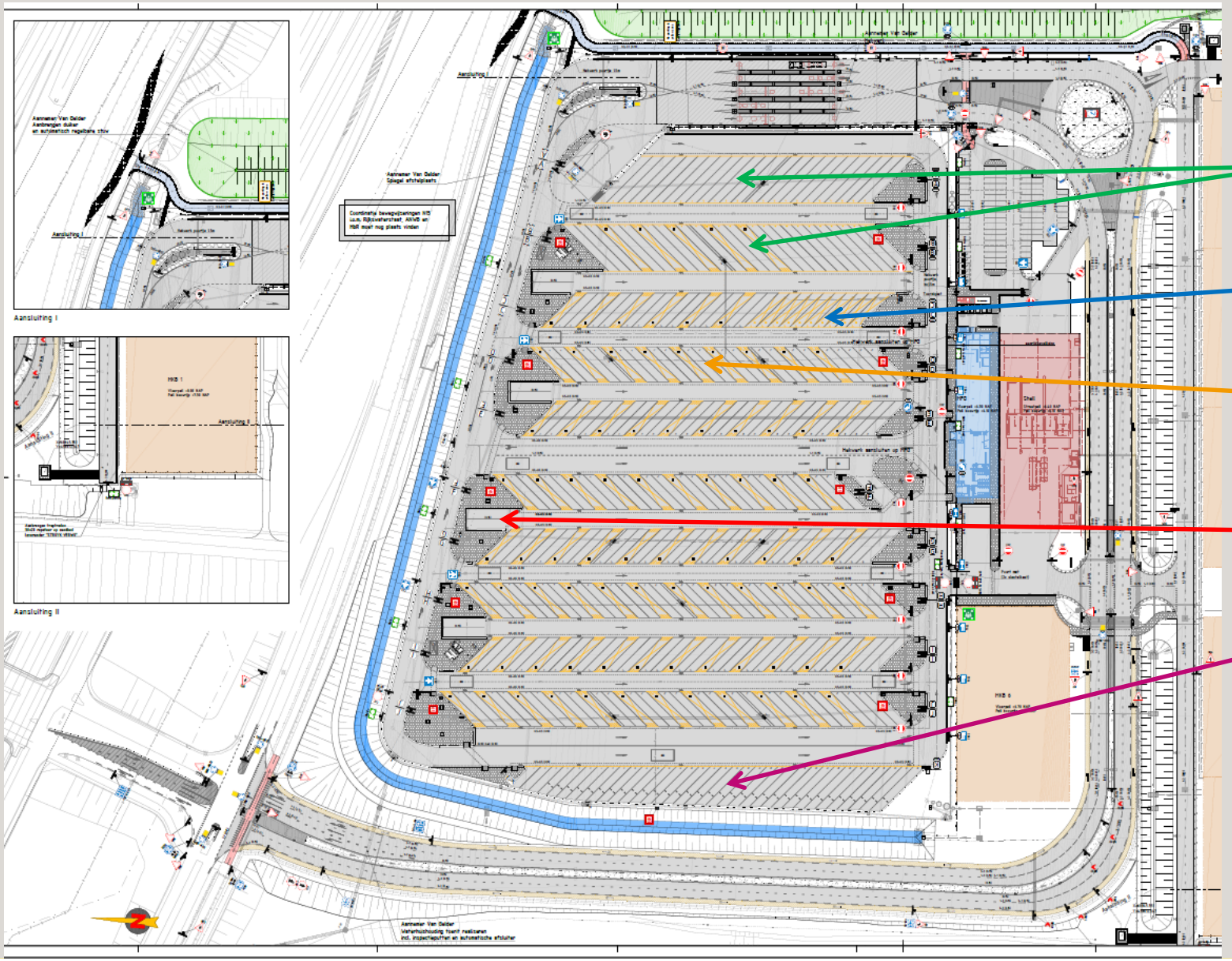
364 differentiated parking places



3-TEU trucks, 51

Reefer-containers,10

ADR, 2 zones, 87

OOG, 8

Trailers), 35

Regular: 173

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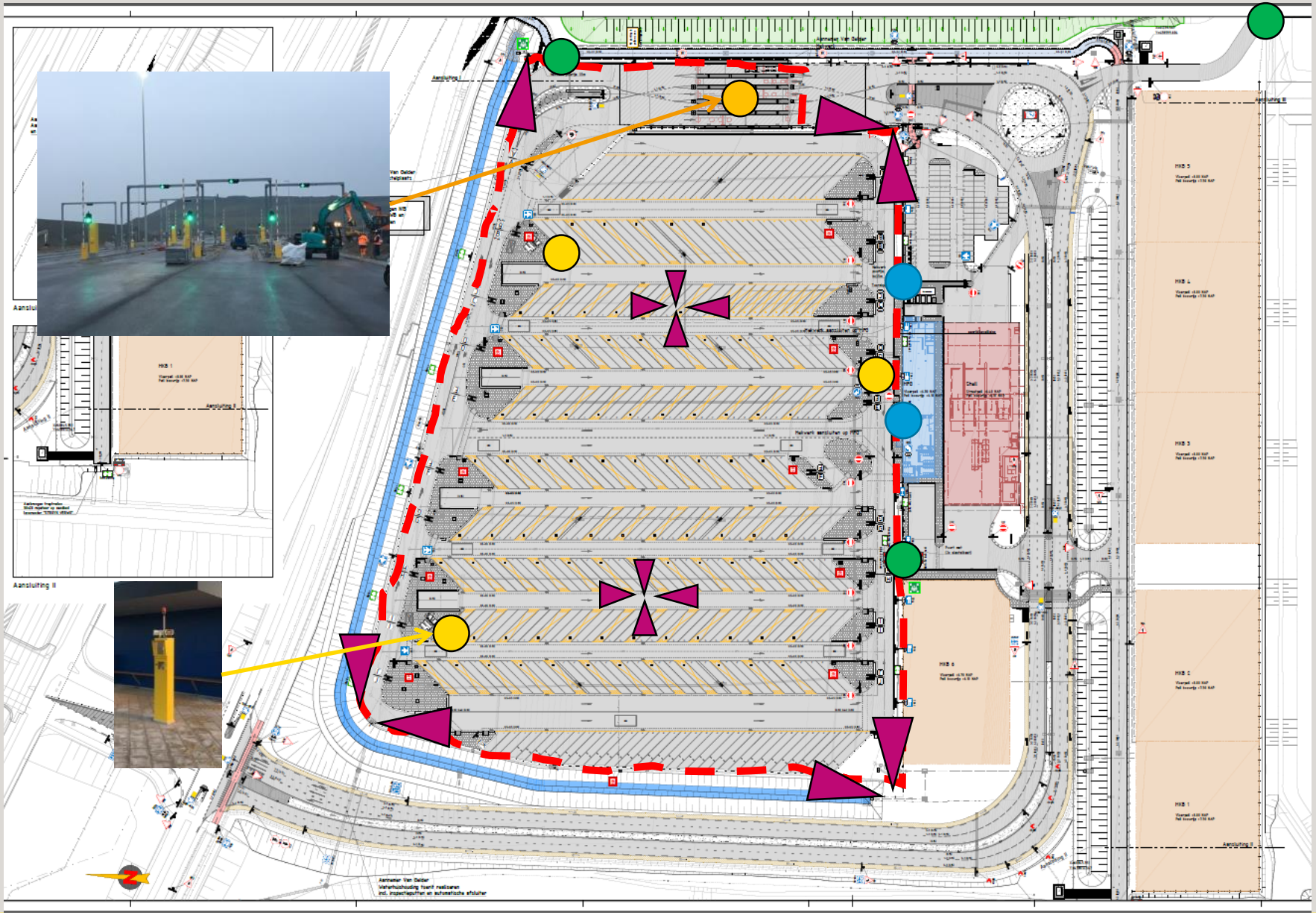
Safety & Security



Periphery

Gate

Exits

Emergency exits

SOS-pedistals

CCTV

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1 juni 2017

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October 2017

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What other possibilities do i-truckparkings have?

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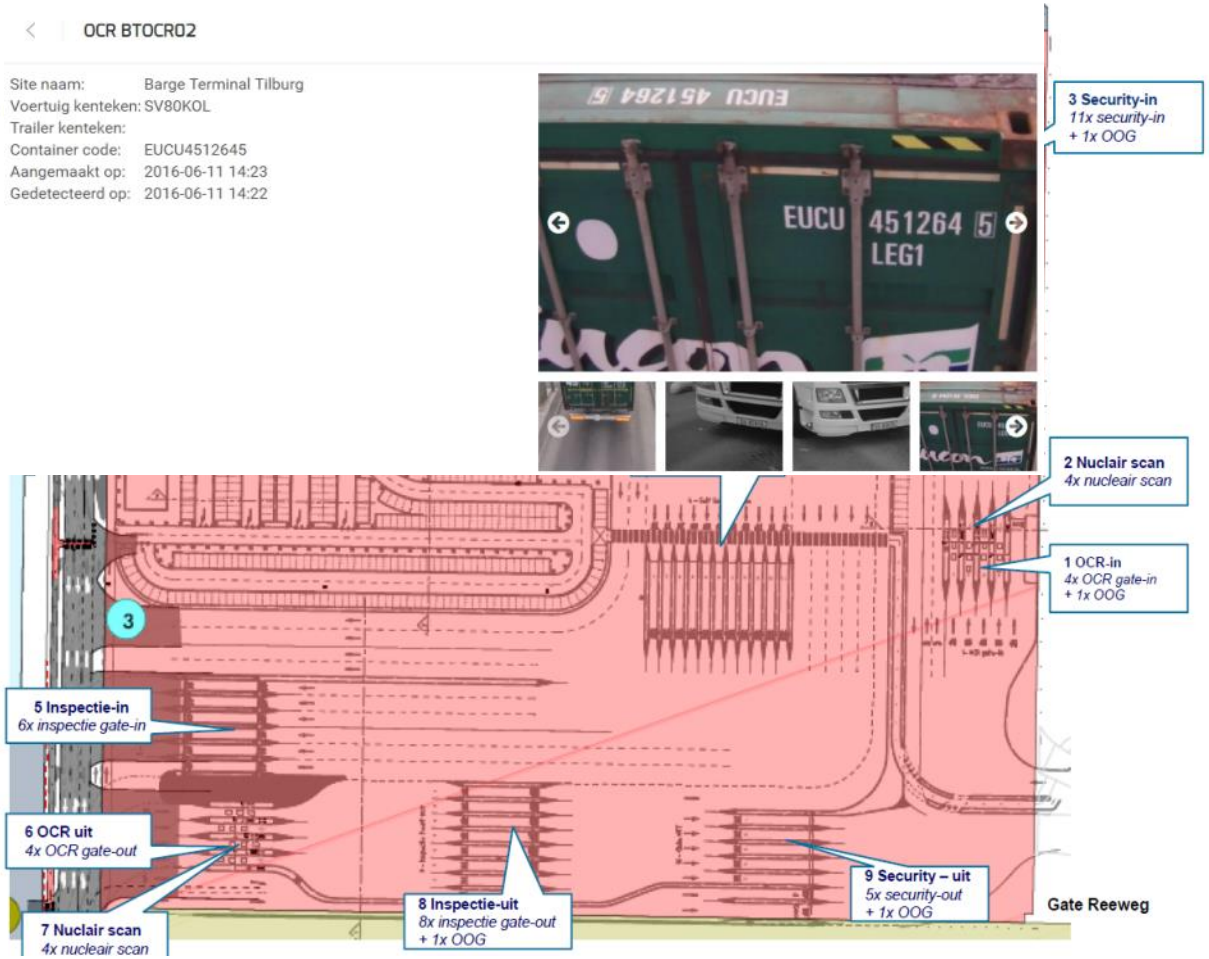
Steps in the Gate process

1. **Pre-arrival**
   - ID-card purchase and activation
   - Pre-announcement transaction details
   - Pre-announcement mission
   - Appointment
2. **Administrative-Check**
   - Driver identification
   - Driver verification (blacklisting)
   - Truck identification
   - Mission identification
   - Mission verification (booking/container/yard/custom status)
3. **Physical-Check**

- Verification reality with mission
  - Container ID
  - Condition of container (damage)
  - ADR
  - Seals
  - Reefer temp
  - Nuclear detection
4. **Buffering**



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Flow at container terminals…

Happy flow: approximately 90-95% of trucks is successful.

Trouble flow: 5 – 10% of trucks need extra time, space and attention of terminal.

Terminal gates are complex and very sensitive for congestion and stagnation.

Delays and idle time at container terminals is a major cost for trucking companies.

Is it possible to somehow use ITP's as a means to improve gate performance at container terminals?

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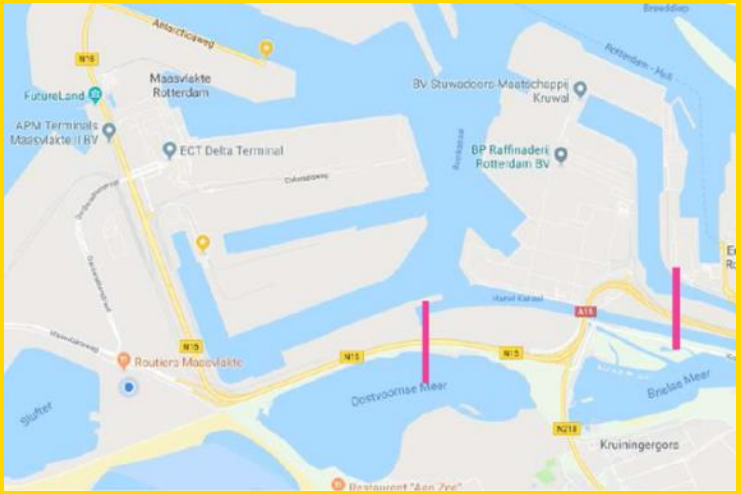
Ideas for a ‘virtual gate’



1) Remote Check In,

- Through out the port area on all platforms,
- Apps with terminal status, cargo card status, truck parking info,

2) Physical Check outside the terminal,

- Remote inspections by customs,
- Entry and exits of ITP automatically informs terminal,
- Fast lane concept for pre-checked trucks,

3) Buffering outside the terminal,

- Geofencing with app, actively informing truckdrivers to deviate to ITP in case of certain terminal/mission status. Follow up by informing truckdrivers at ITP.

4) ITP as a transfer point.

- Terminal delivers container tot ITP
- Driver picks up container at ITP

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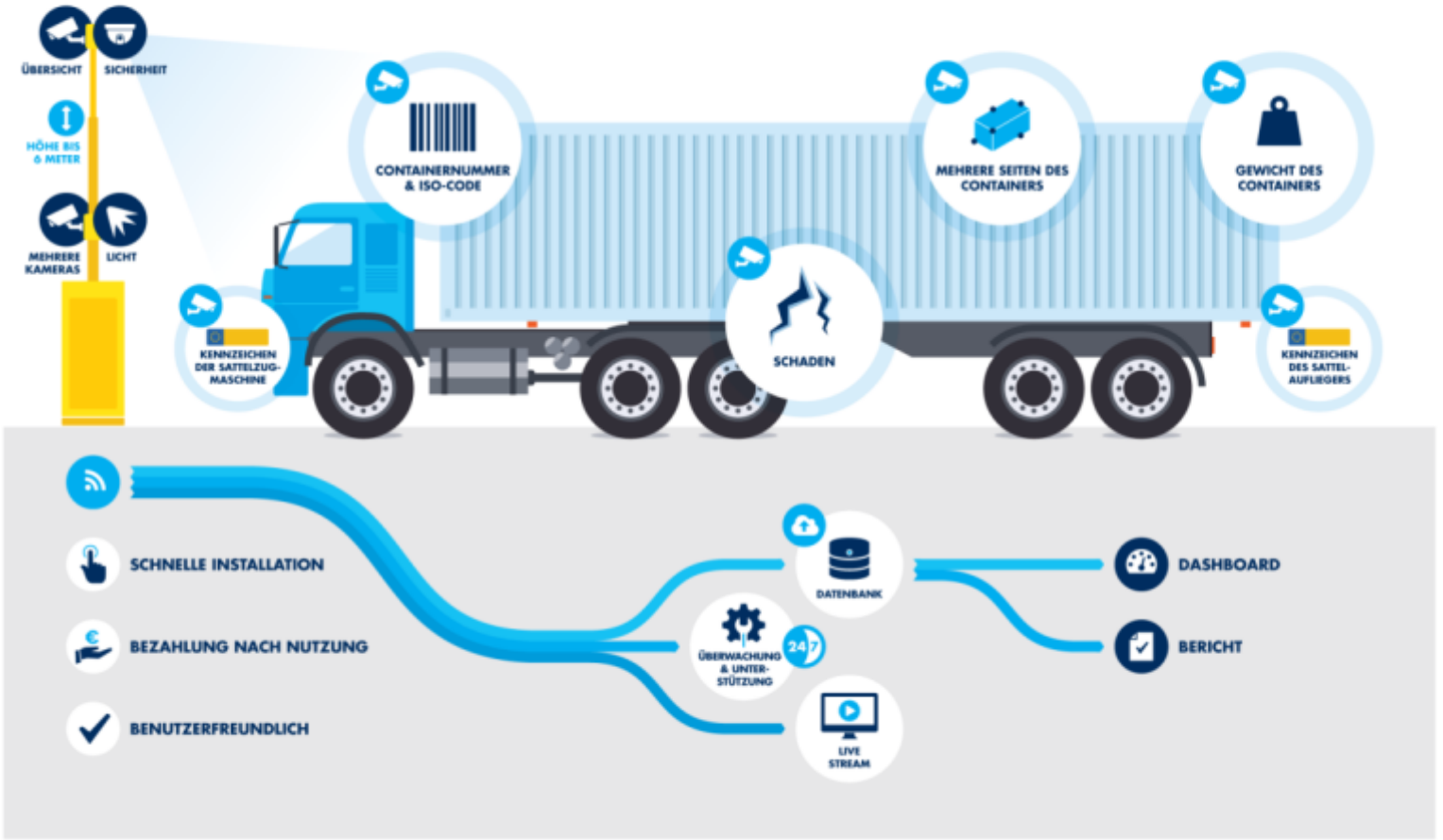
MOBILE CCR

MOBILE OCR

Ein besserer Einblick in die Logistikkette durch Digitalisierung ermöglicht eine effizientere Datenverarbeitung, schnellere Durchlaufzeiten am Terminal sowie eine bessere Planung des Transports und der Lagerung.



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Conclusions

ITPs are excellent platforms for collecting logistical data and innovating container logistics.

ITPs will become essential links of the logistics chain in ports, airports and other economic hotspots.

ITPs can improve driver welfare, reduce parking problems public road, improve efficiency at terminal gates, and reduce waiting times for trucking companies.

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