

# Digitalization experience in the Port of Hamburg

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# The Port of Hamburg: an open tidal port at the heart of a big city

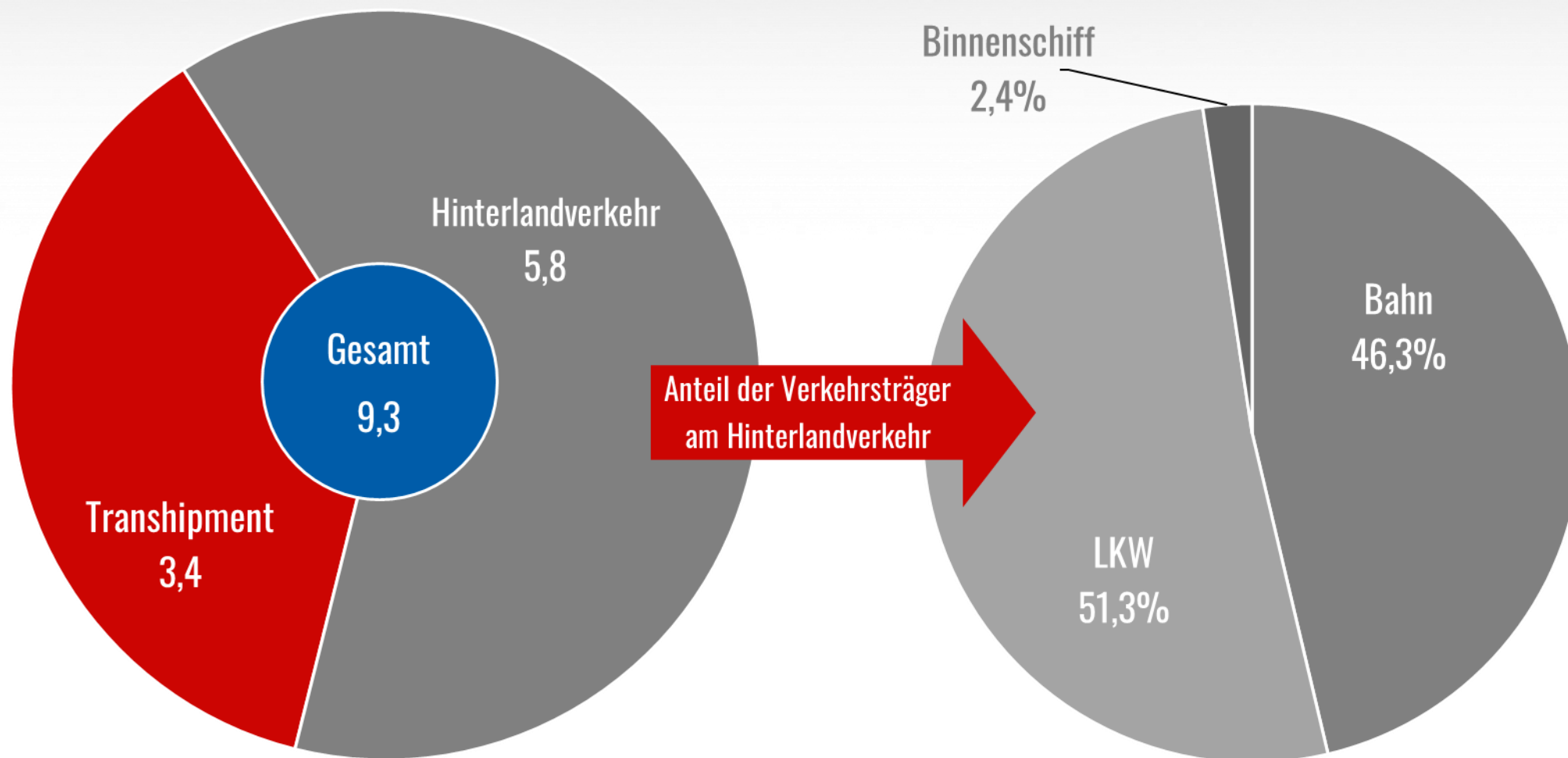
Challenging Environment of a city port requires intelligent and sustainable solutions through digitalization.



Грузооборот в 2019 году: 136,6 млн. тонн , +1,1%  
Перевалка контейнеров: 9,3 Mio. TEU +6,1%  
Площадь : 7 145 гектар

# Модальная разбивка по континентальным контейнерным перевозкам 2019

Millionen TEU

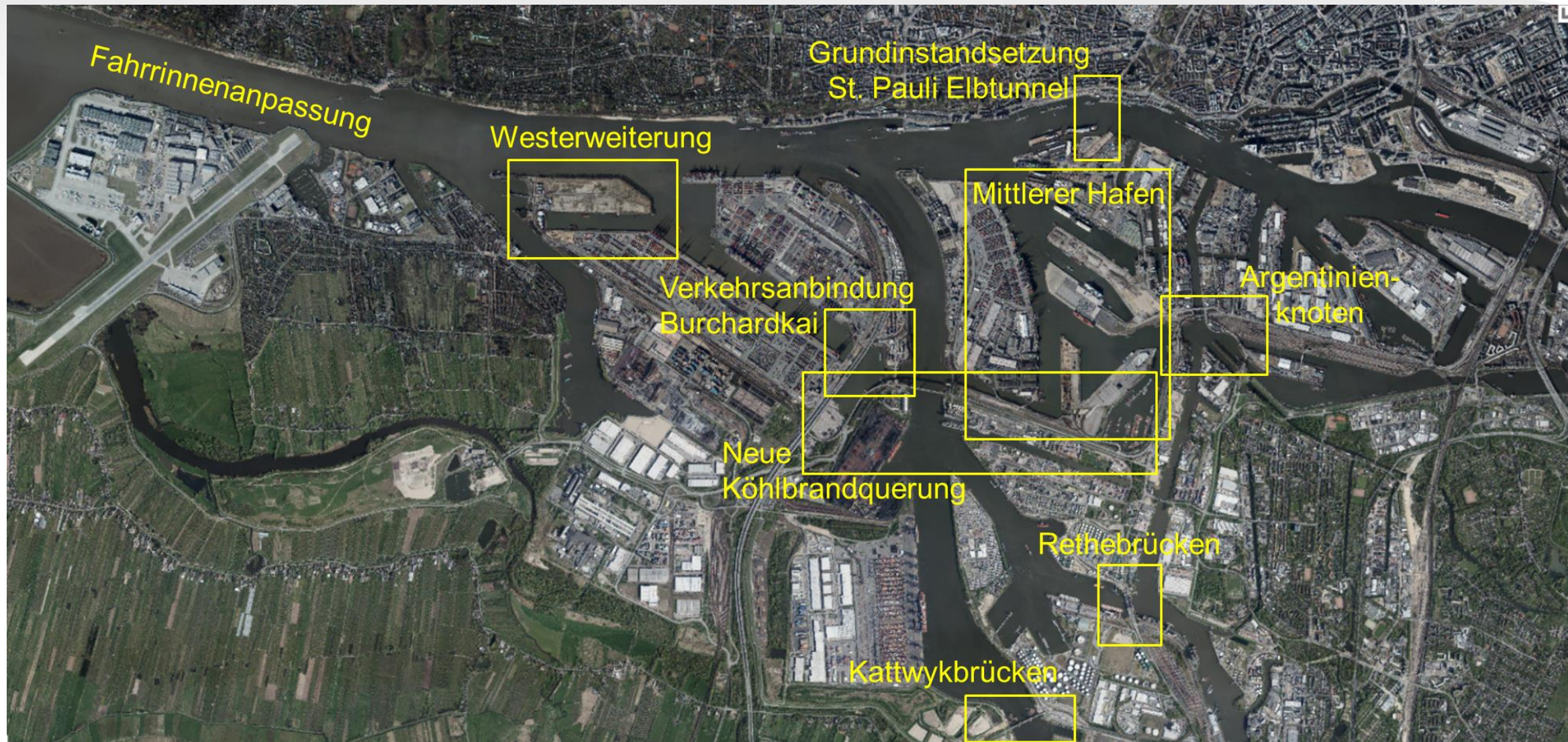


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Mögliche Abweichung in Summe durch Rundung



# Инфраструктурные проекты в порту Гамбург





# Стратегия развития интеллектуального порта



smartPORT  
**energy**

Lower energy use and environmental  
impact



smartPORT

Efficient use of energy and  
infrastructures



smartPORT  
**logistics**

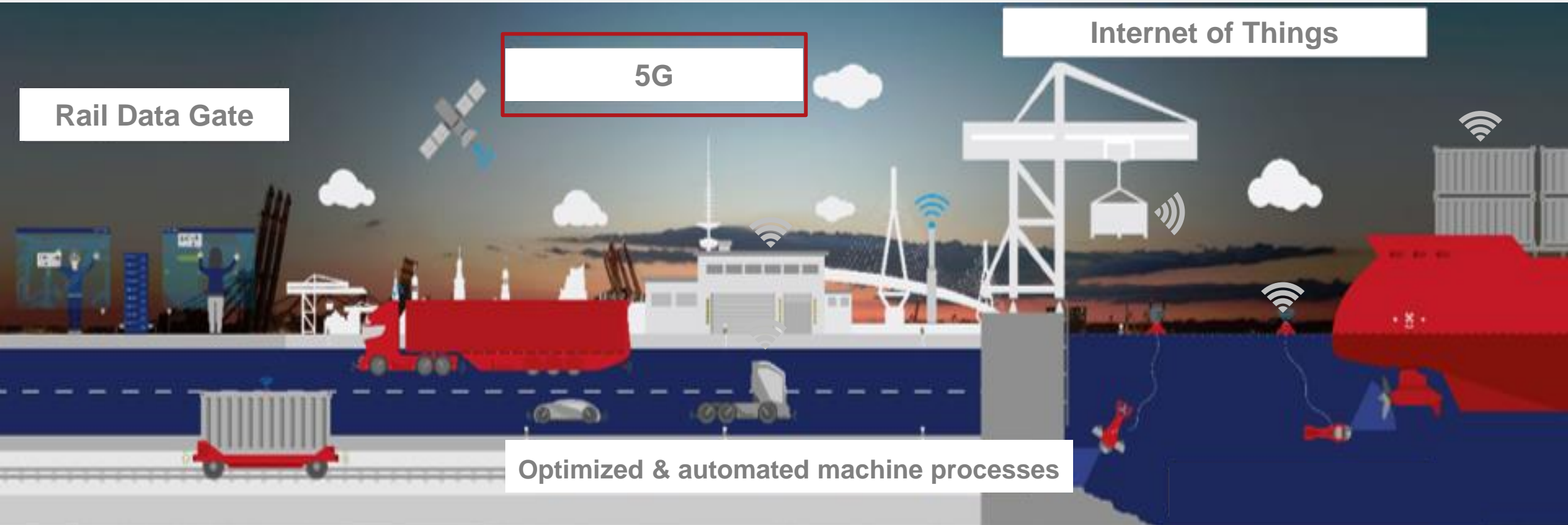
Optimized supply chain and  
transportation networks



Foto: HPA/ Christian Bruch



# Concrete applications of digital solutions to strengthen competitiveness of ports



# Optimize traffic flows through digitalization and data sharing

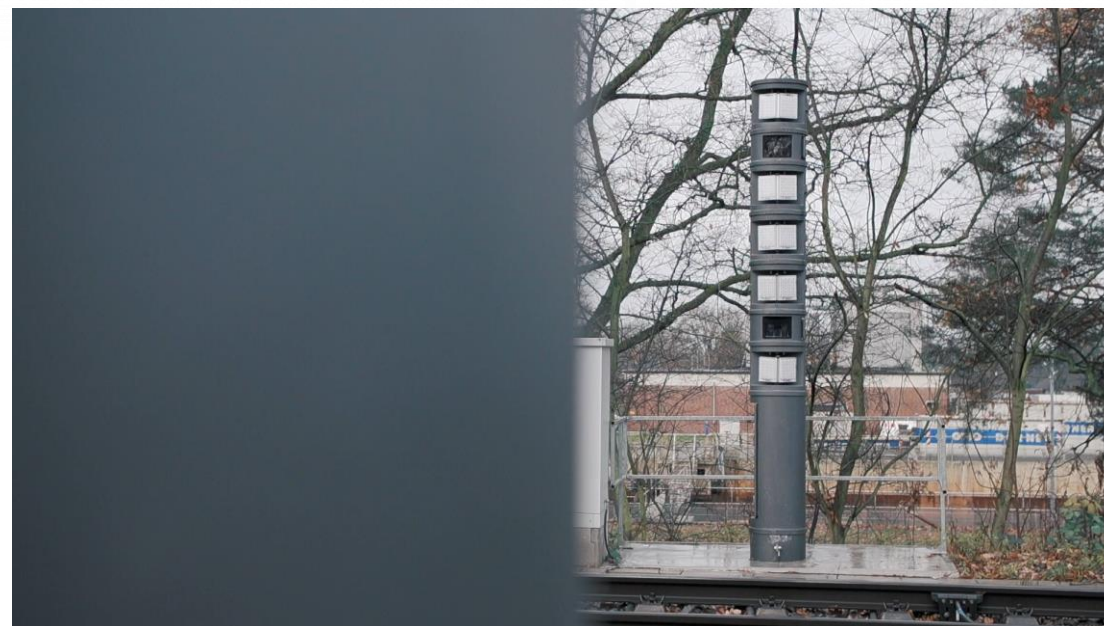
## Rail data gate: Hamburg's unique selling proposition



Synchronizing cargo data with data of hinterland traffic to achieve even greater efficiency gains.



Helps to increase our port's efficiency





# Benefits of the rail data gate

- Recognition of entry of unlicensed carriages
- Recognition of entry with wrong order of carriages
- Detection of carriages with wheel flat
- Identification of false announced hazardous goods
- Identification of overloaded carriages

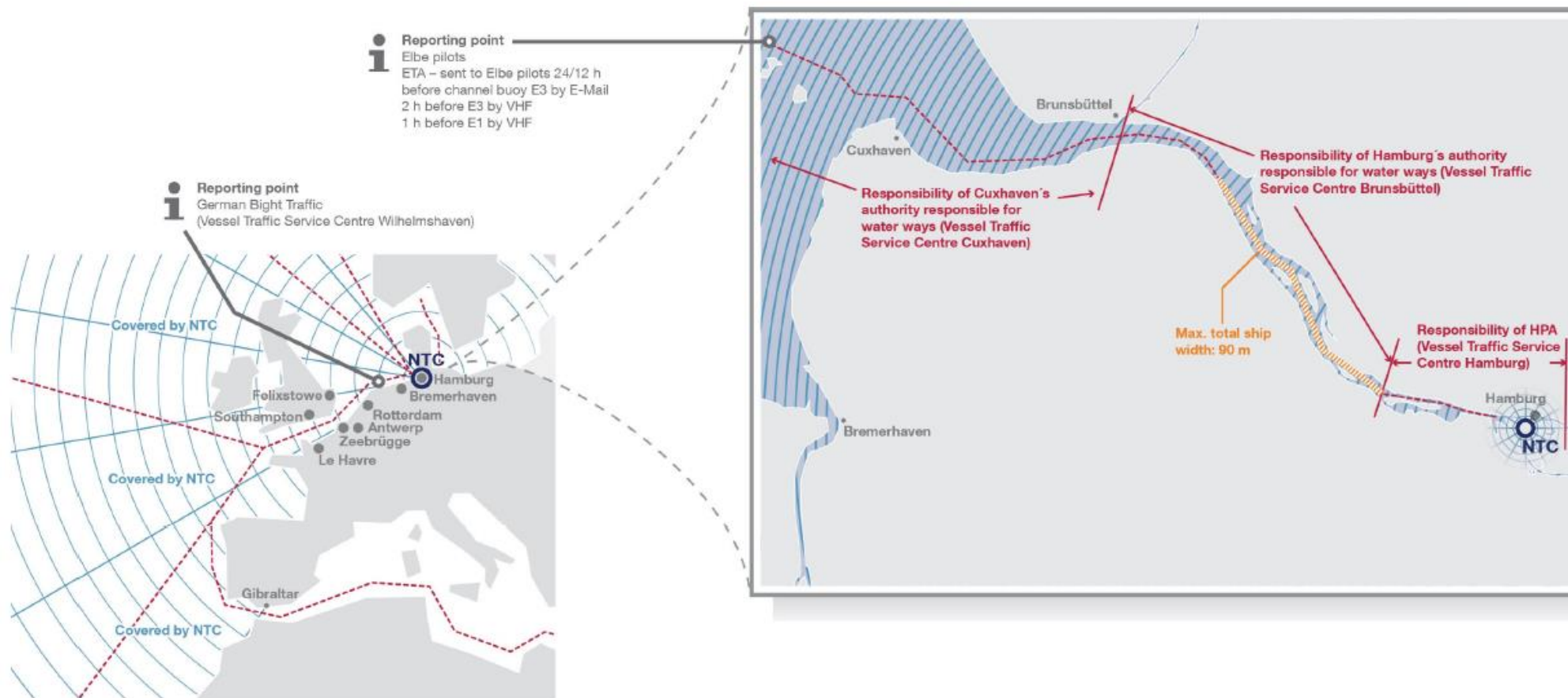




## Vessel coordination throughout Northern-Europe

NTC

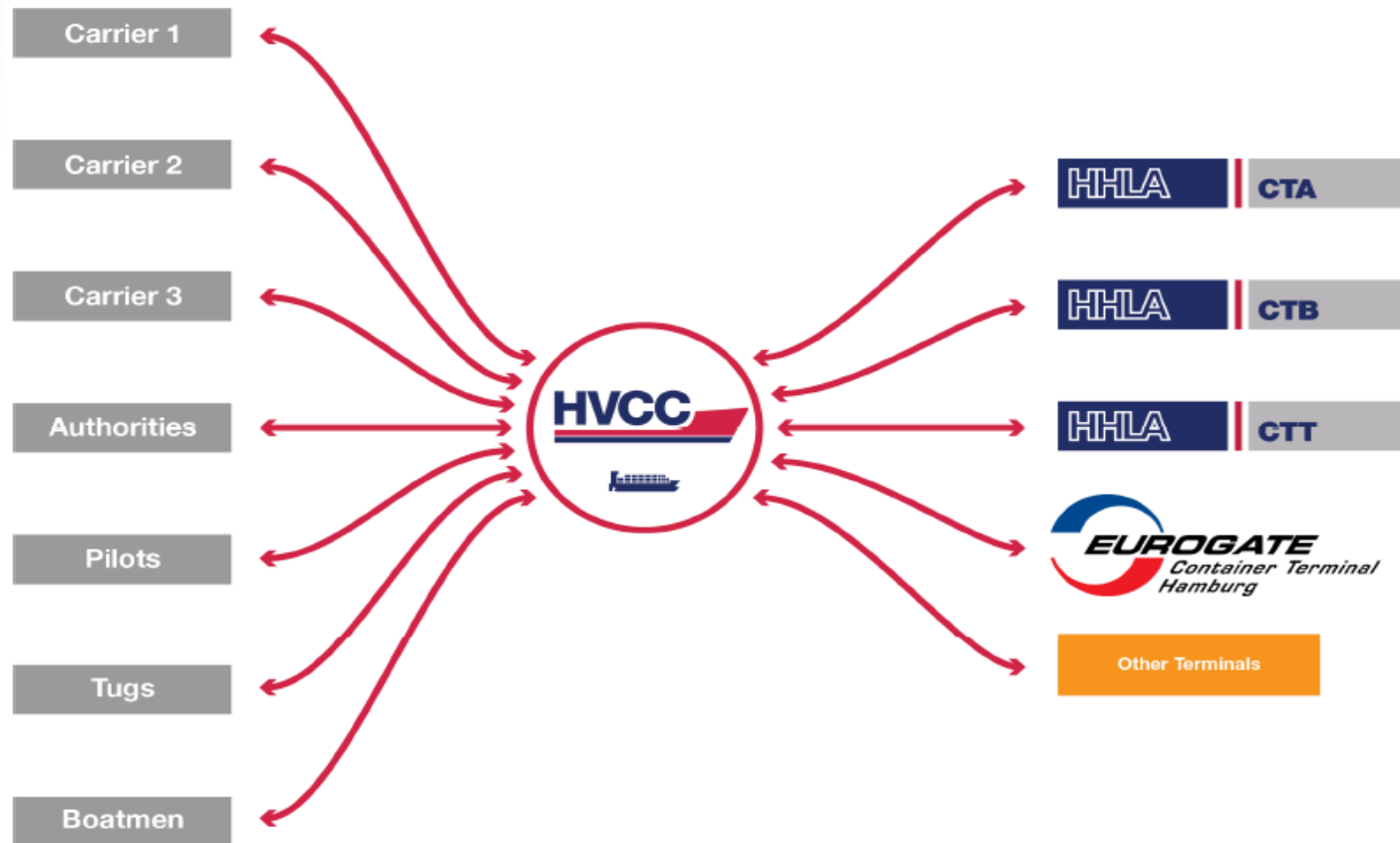
NTC's geographical focus extends far beyond sovereign jurisdiction





## FLC established port-communication platform

Optimization of vessels' port call and utilisation of terminal infrastructure



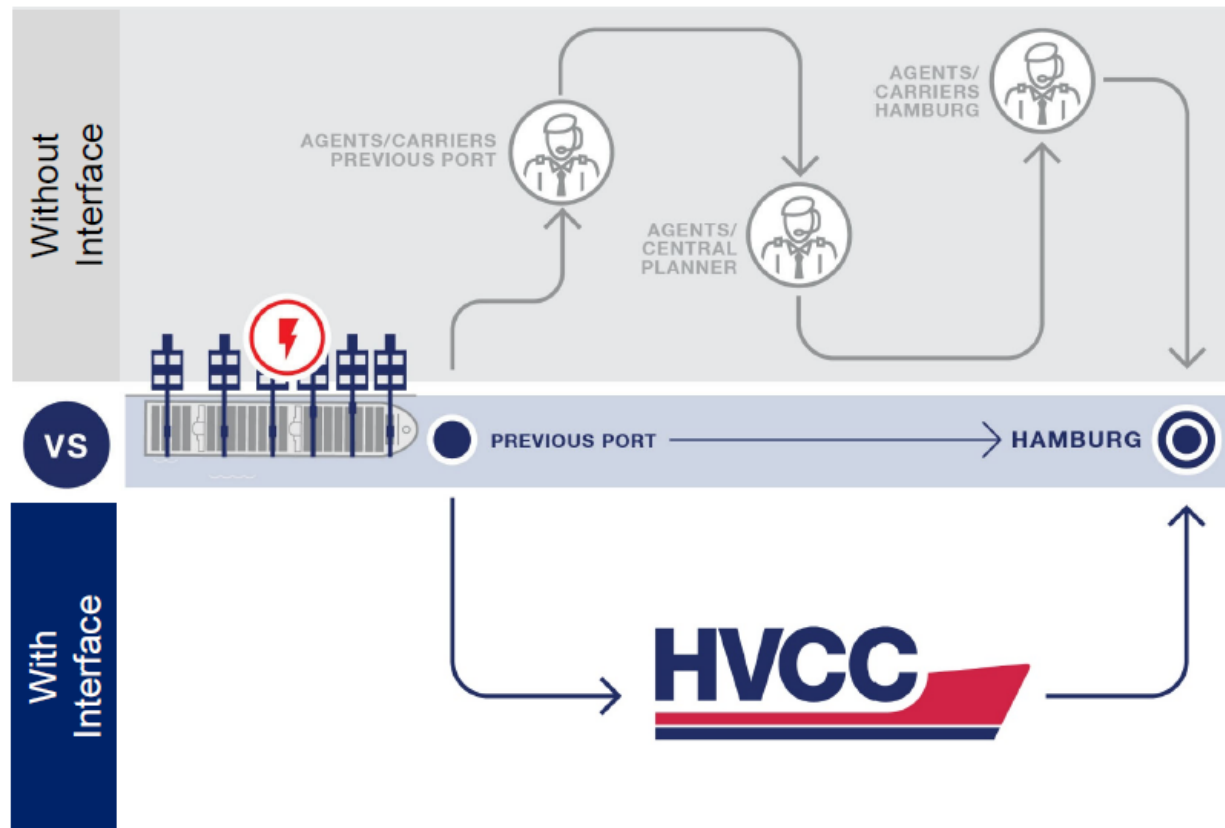
- Neutral platform and single-point-of-contact for planning of feeder vessels / barges and coordination of port calls and port rotation
- Services
  - Passage & rotation planning
  - Stow planning / Central Planner function within the Port of Hamburg
  - Any ad-hoc changes in rotation and stow planning
  - 24/7 operational
  - Coordination platform with partner interfaces and dashboard solutions



## One new feature: Direct links to previous and next ports

HVCC

Quick response in case of operational changes



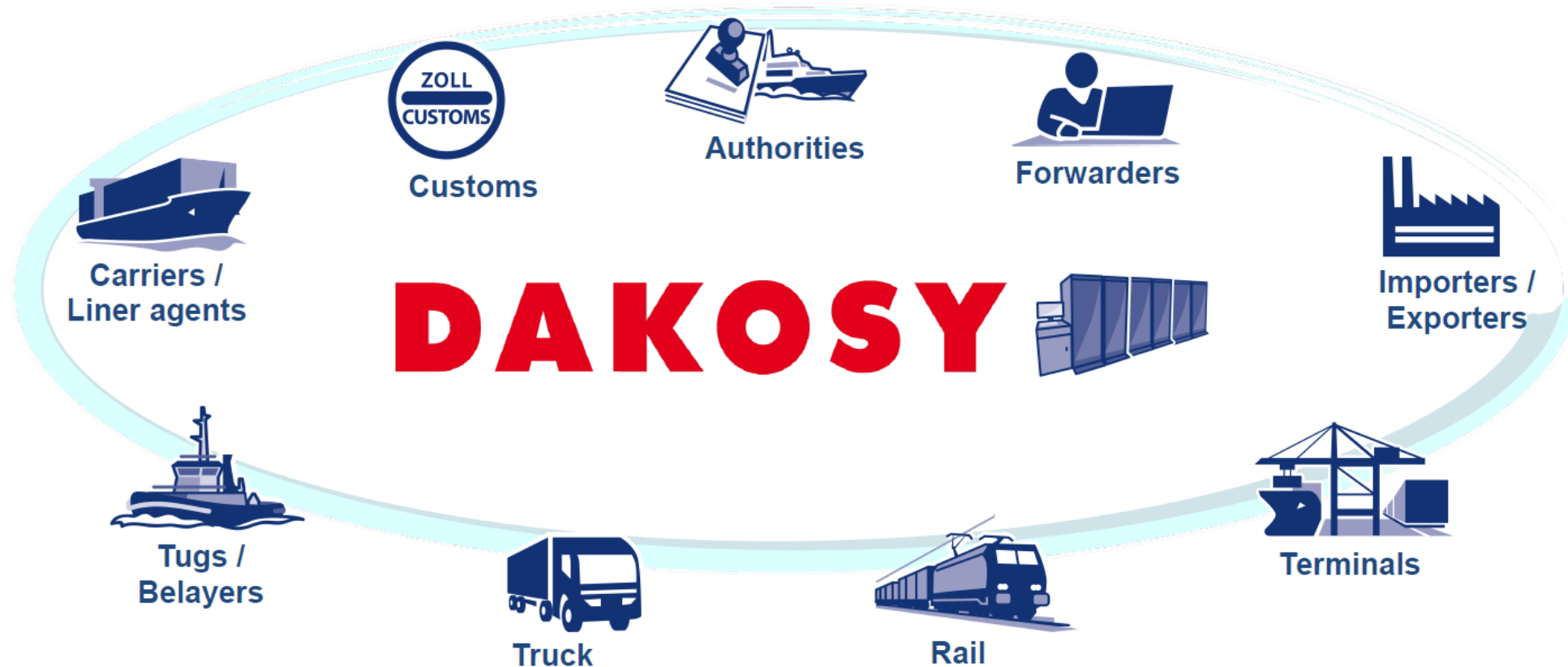
### Long communication lines

- Slow responsiveness especially outside office hours or during weekends
- Breaks in communication

### Fast responsiveness

- Use of HVCC platform via interface (e.g. Port of Rotterdam)
- Ad hoc notification to all stakeholders in case of operational changes

## DAKOSY – Port Community System Hamburg



**> 2.500  
Companies**





**DAKOSY**

## Company profile

### Facts and figures

**Management Board:** Dieter Spark, Ulrich Wrage

**Employees:** 180 employees

**Capital:** 1.53 mil. Euro

**Founded:** 1982

**Shareholders:** Seaport Industry of  
Hamburg

**Turnover 2017:** 30 mil. Euro

**Service times:** 24/7

**Locations:** Hamburg (head office),  
Bochum, Frankfurt and  
Freiburg

**Subsidiary:** CargoSoft Bremen,  
80 employees

### Shareholder structure



### Productlines



Cargo Communication

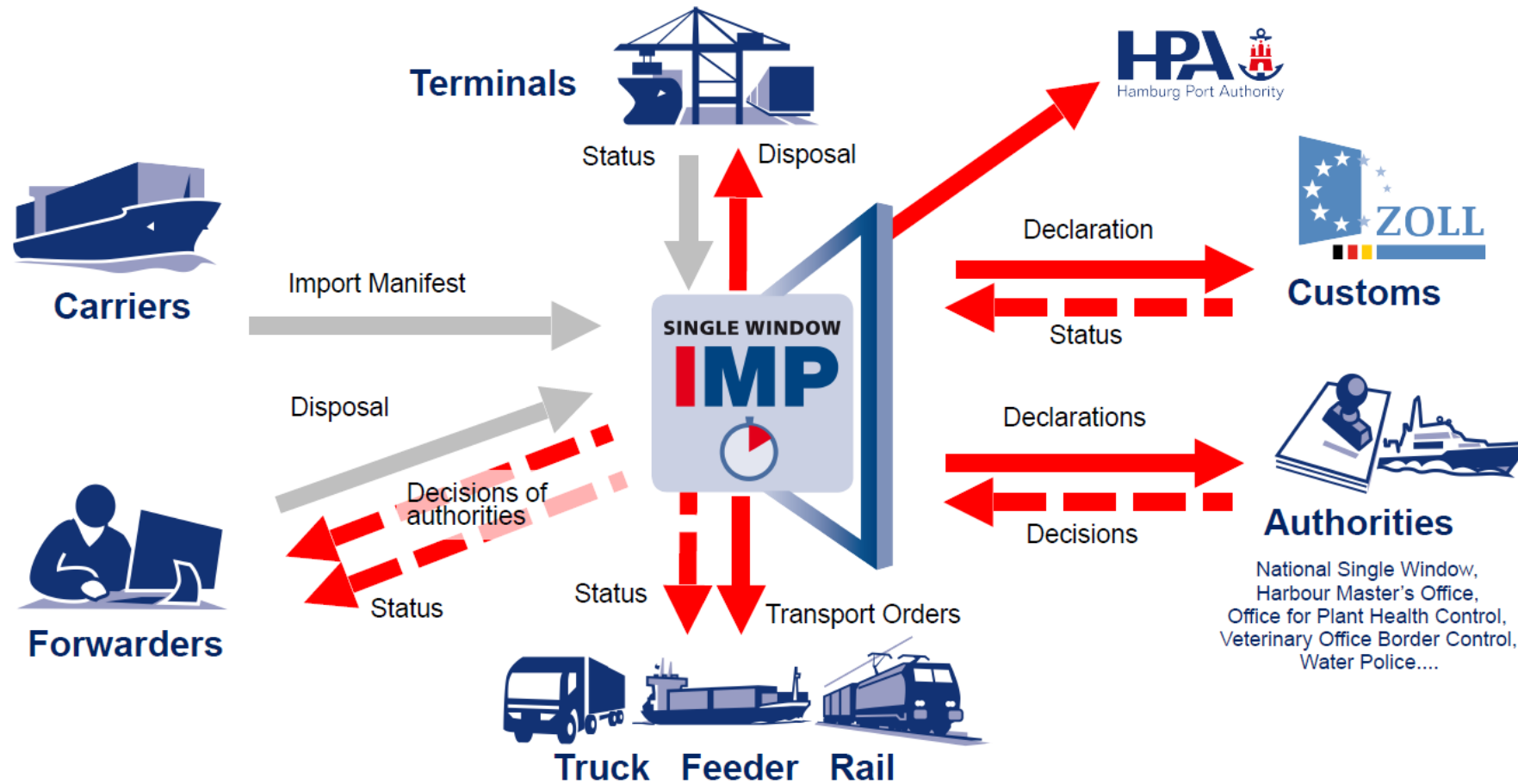


Customs



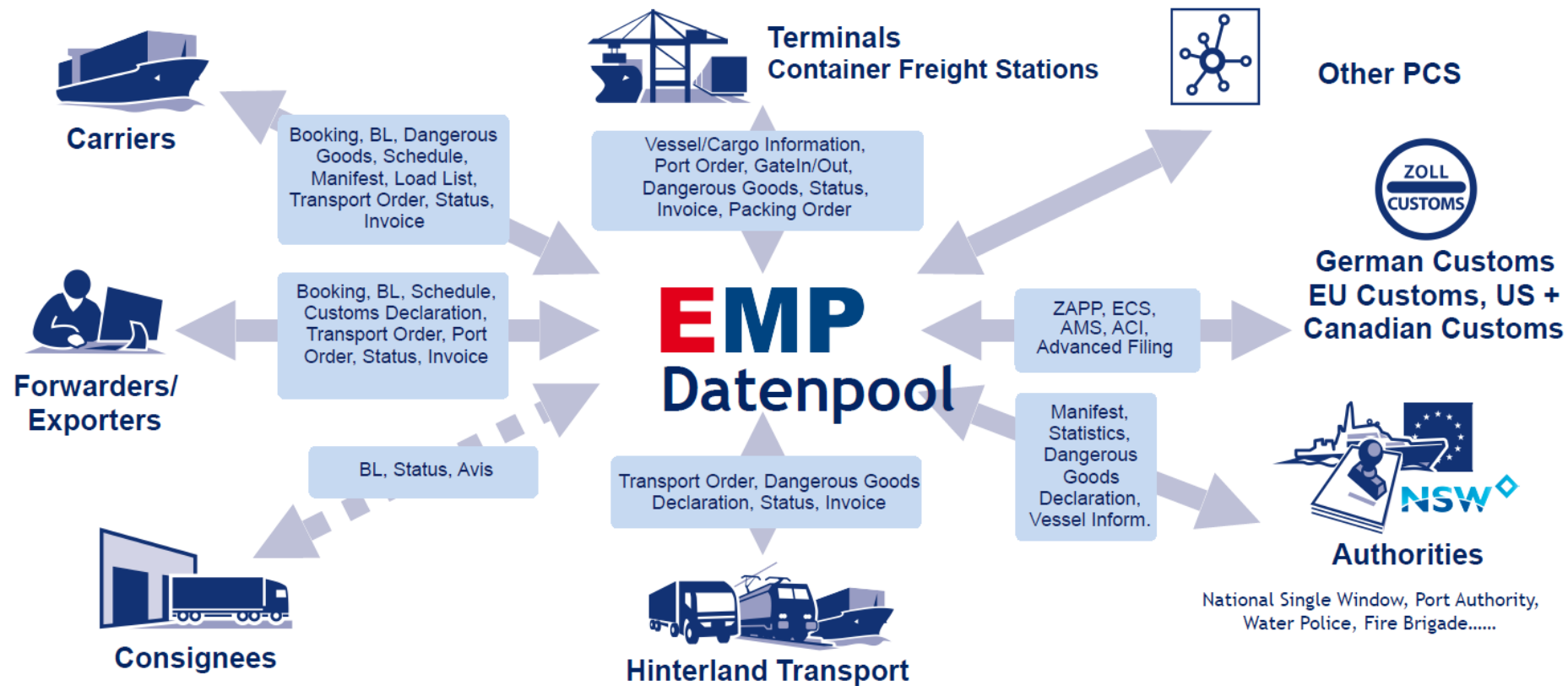
Logistics

## Process automation Import





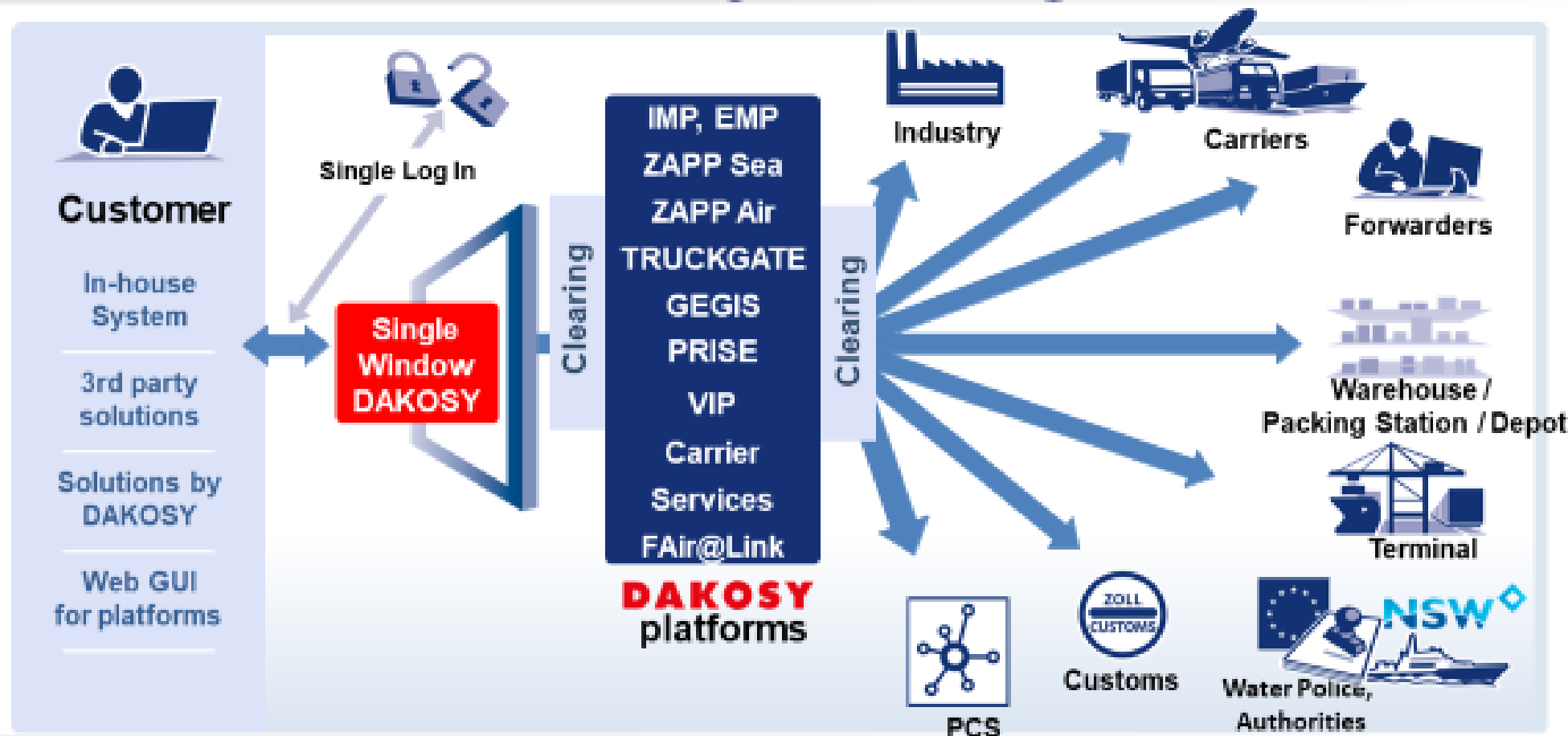
## Today → Single Window – Export Message Platform





**DAKOSY**

## How to connect to the Single Window@DAKOSY





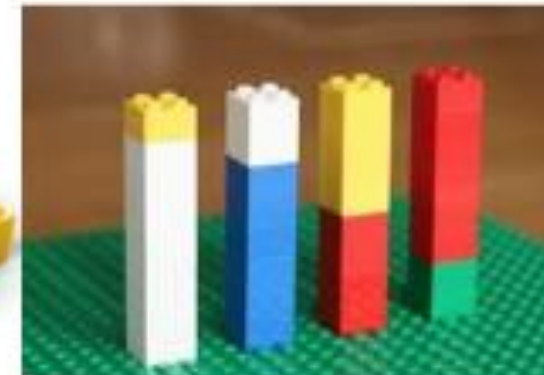


**DAKOSY**

## Need for open and interoperable global standards



**1934 Lego still works  
with Lego made in 2019  
- this is the true meaning of  
standards.**





**DAKOSY**

## Organisations working on standards

- |                  |   |
|------------------|---|
| <b>UN/CEFACT</b> | – The United Nations Centre for Trade Facilitation and Electronic Business – home of EDIFACT and UNECE Recommendations on Single Window. Covers multiple business areas from Transport to Finance |
| <b>WCO</b>       | – Home of the World Customs organisation data reference model, focuses on Customs Data Set  |
| <b>ISO</b>       | – Standards covering multiple areas and interests, over 150 technical committees  |
| <b>IALA</b>      | – Navigation and Port Call Optimisation Standards   |
| <b>GS1</b>       | – standards for retail and nowadays Port Call   |
| <b>IMO</b>       | – Home of the new IMO Data Reference Model for Ship Reporting and in future other ship and maritime related data sets   |
| <b>SMDG</b>      | – official Global User Group, recognised by the UN/EDIFACT, developing EDI-standards  |
| <b>PROTECT</b>   | – User Group of Ports and PCSs, specialised in development and standardisation of EDI-messages for DG   |