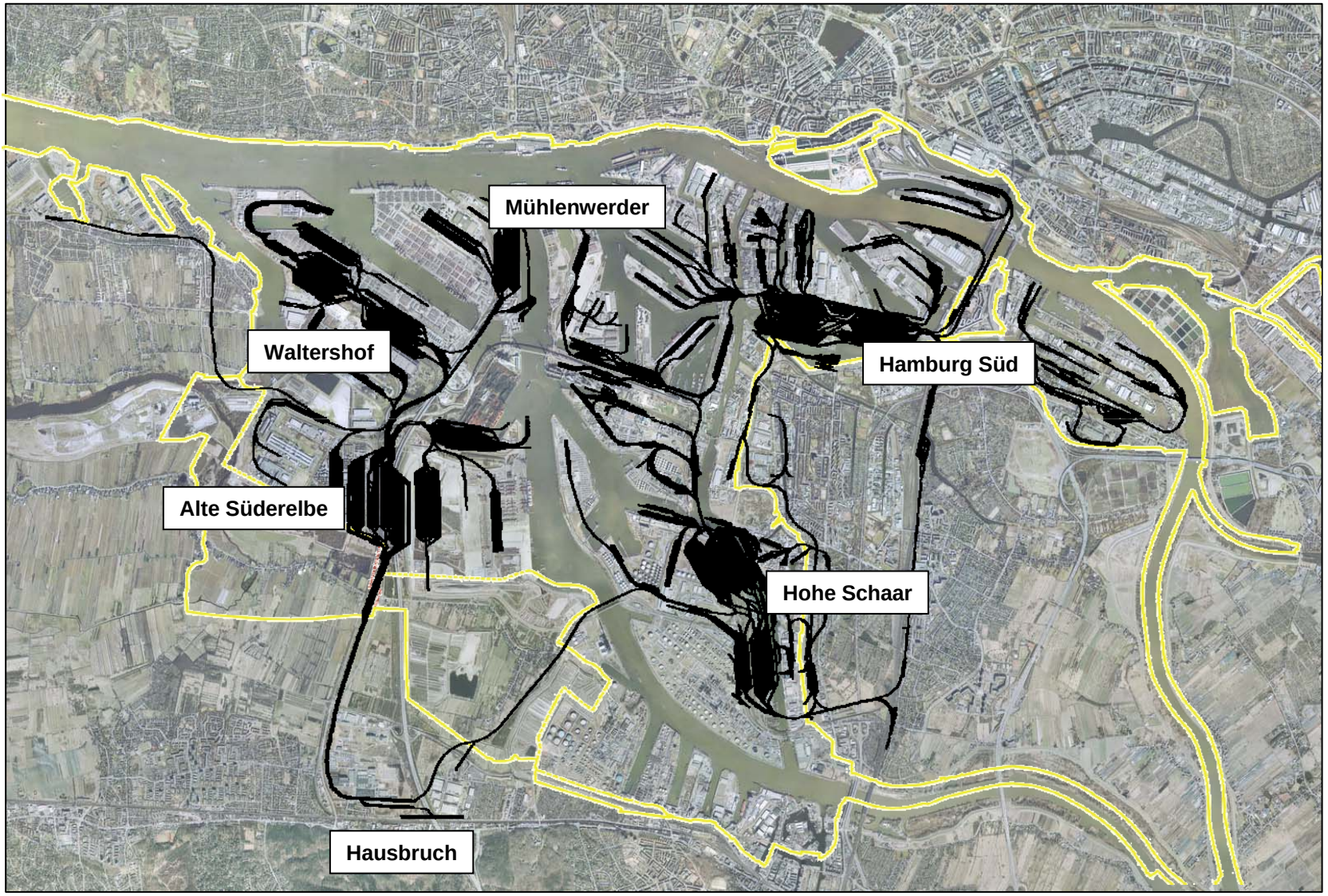
Hamburg Port Railways

Harald Kreft, Head of HPR, B-1

Hamburg Port Authority

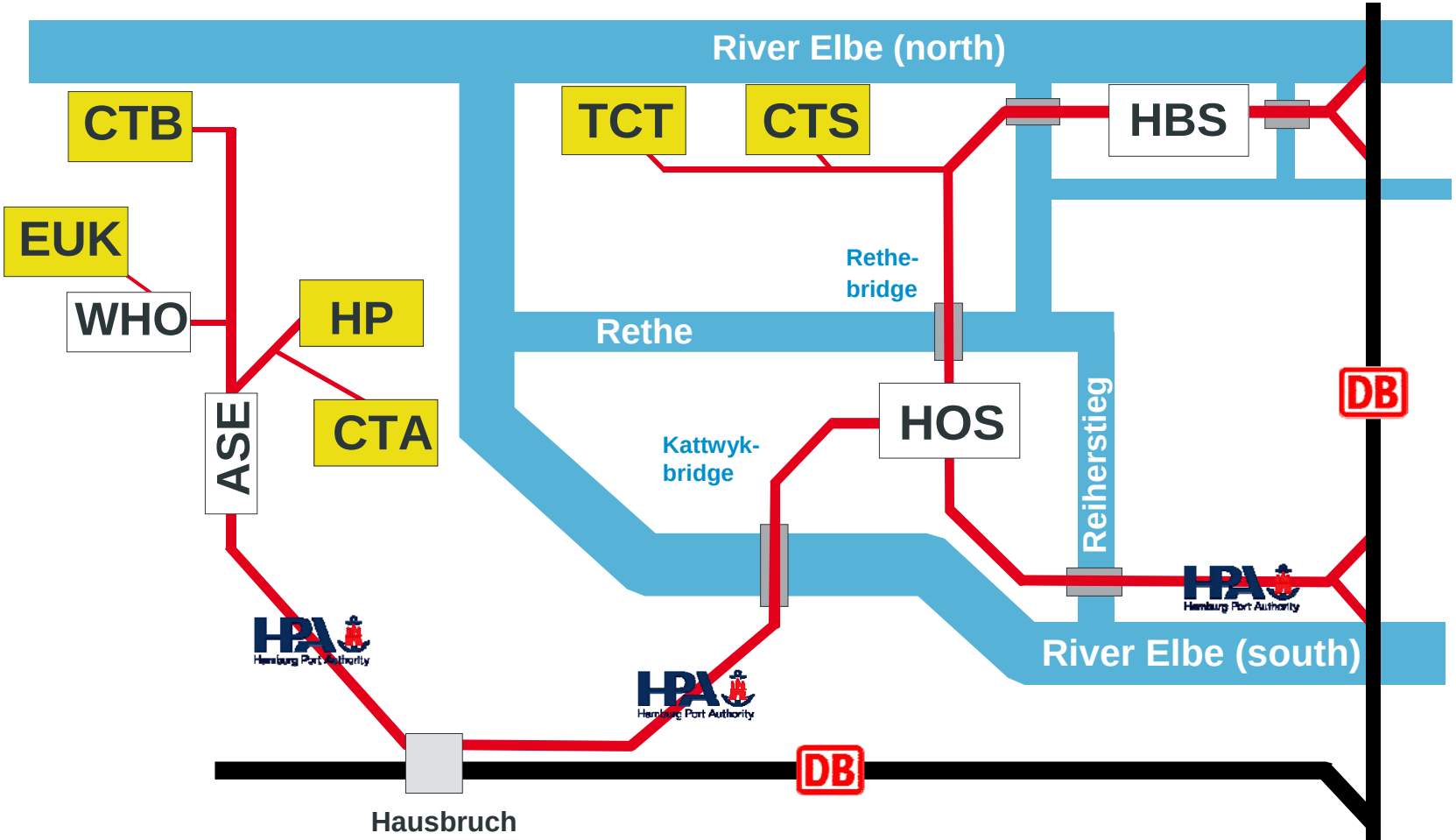
Railway infrastructure of HPR

in the Port of Hamburg



Railway infrastructure of HPR

principle sketch of the net



Statistical dates

Hamburg Port Railway

rail infrastructure	**281** (+ 289 km private sidings)
bridges	**73**
switches	**881** (+ 800 on private tracks)
switching and marshaling yards	**3** systems with **7** railway control centres
trains per day	**220**
freight cars per day	> **5.500**
rail transport companies	**57**

Liberalisation

of the rail market

yesterday

- net and transportation in charge of the HPR

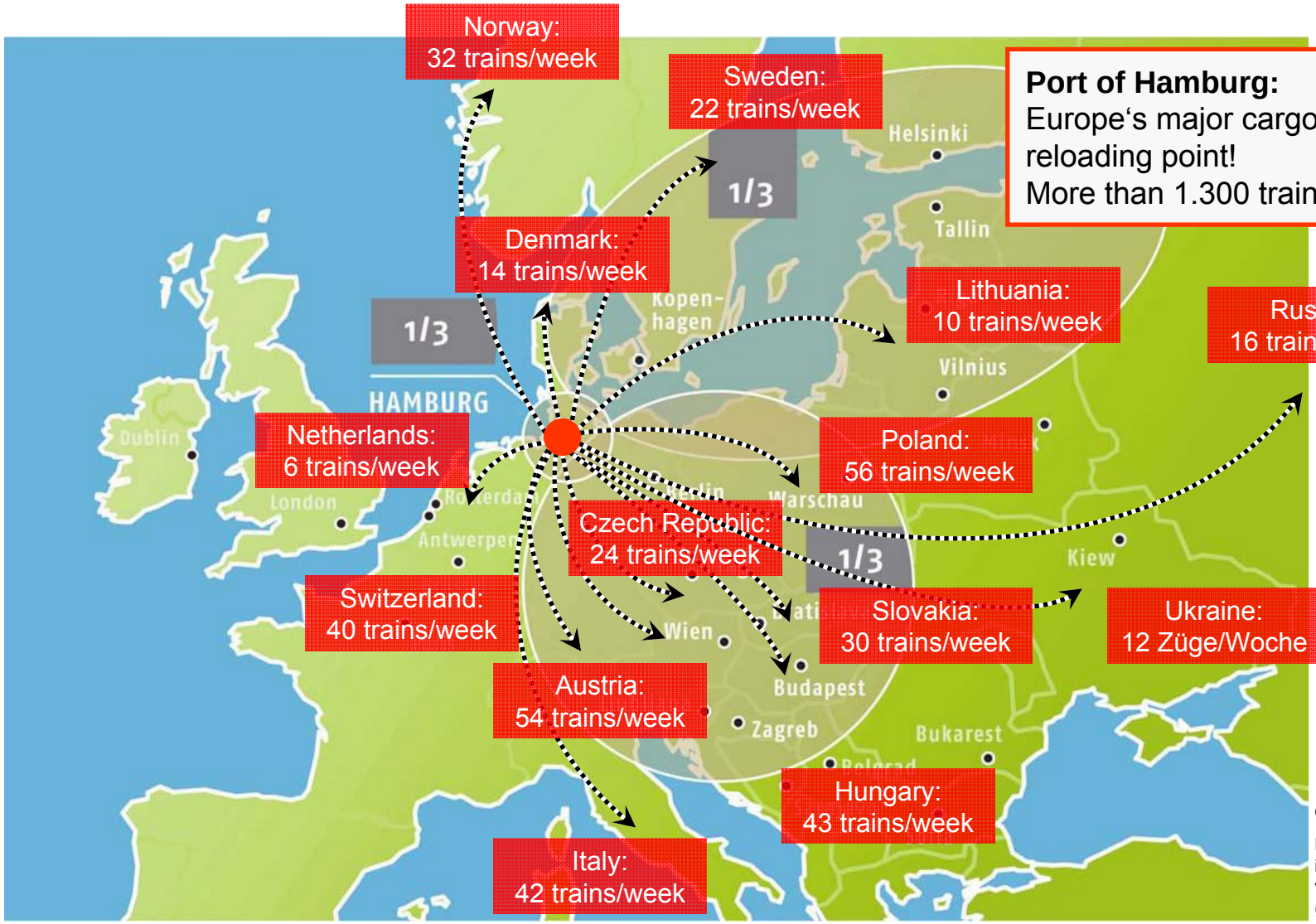
today

- only one owner and operator of the net = HPR
- many several railways for transportation

Today 57 different rail transport companies are using the infrastructure of the HPR.

Freight Transport Volume

main hinterland routes



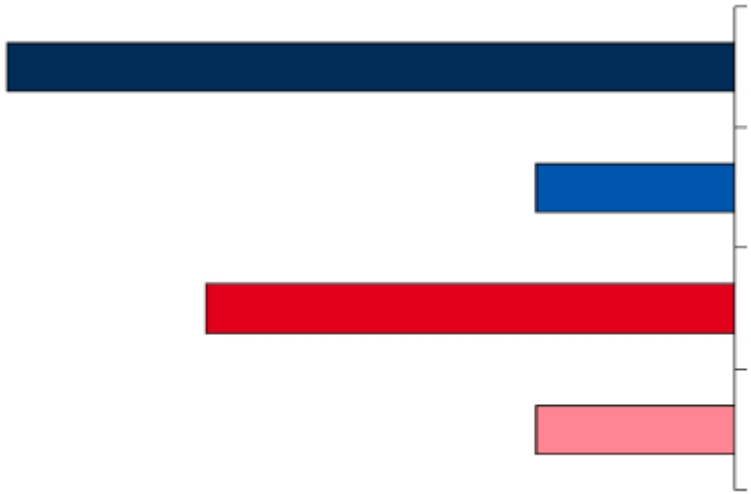
Port of Hamburg:
Europe‘s major cargo-rail reloading point!
More than 1.300 trains a week!

Quelle: HHM

Planmäßige wöchentliche intermodale Verbindungen von/nach Hamburg (Containerzüge)

Quayside railway

key data

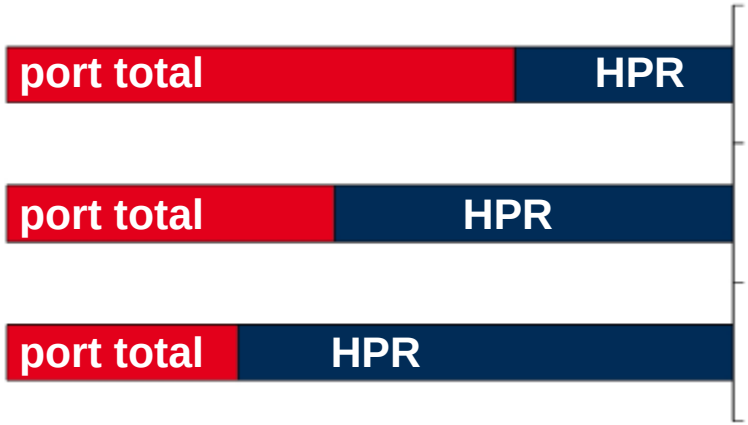


230 freigth trains every day

60 direct trains to / from Hamburg

≈ **160** trains in Railion administration

≈ **70** trains in private rail transport companies



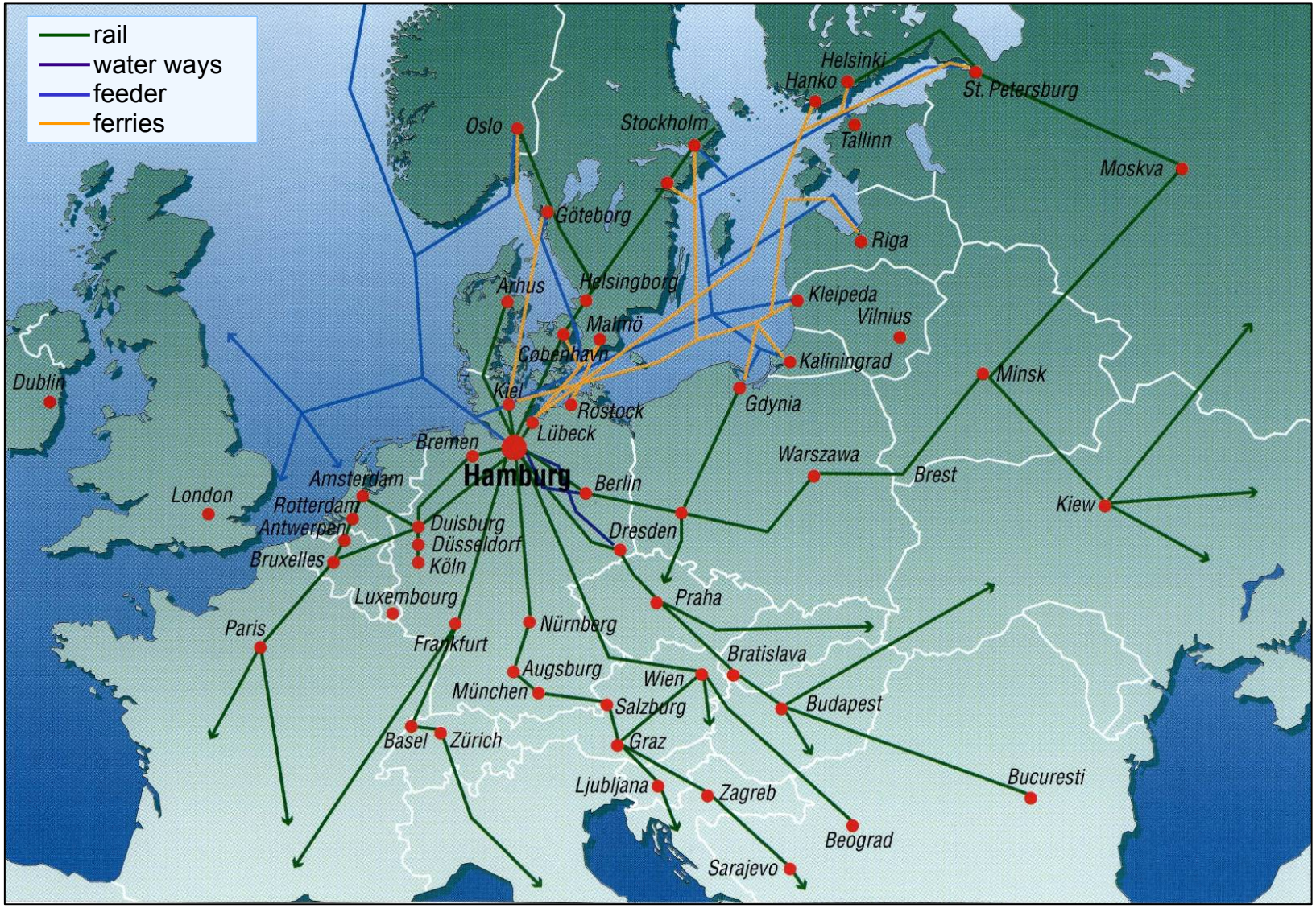
30 % total come up of the port

55 % of Hinterland transportation

75 % in long distance traffic (> 150 km)

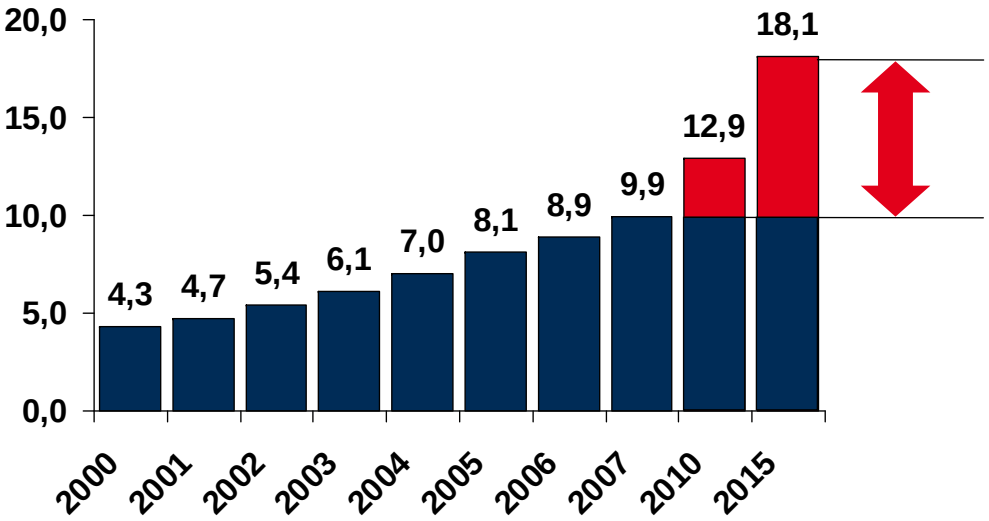
Port of Hamburg

main hinterland routes



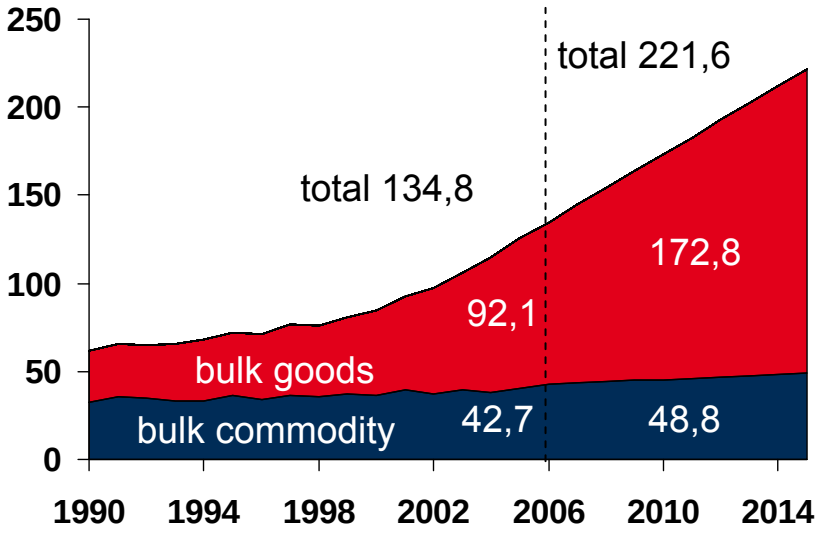
Cargo handling

Port of Hamburg total



doubling of container handling from 2006 to 2015

container handling in Mio. TEU

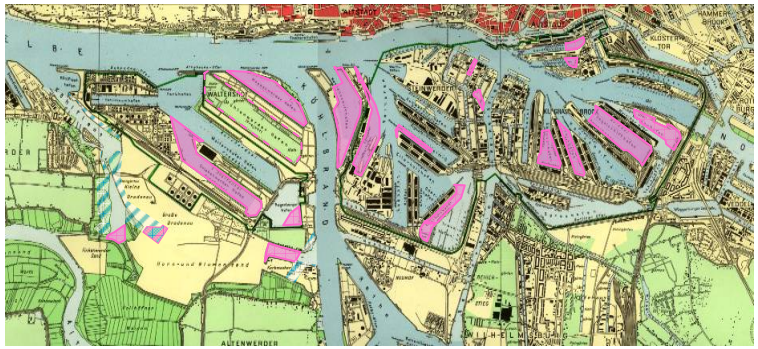


total cargo handling in Mio. t

Port of Hamburg

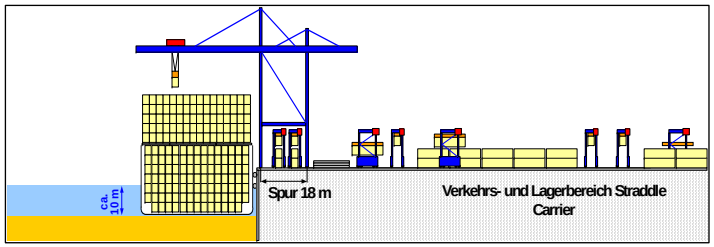
development paths

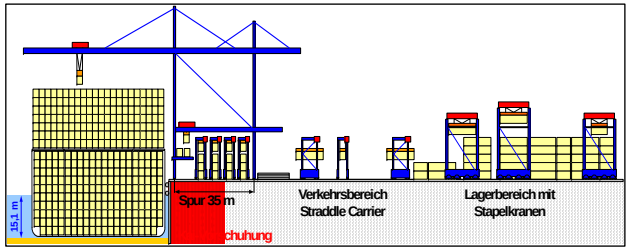
1. new handling areas are generated by redeployment of areas not being used efficiently anymore



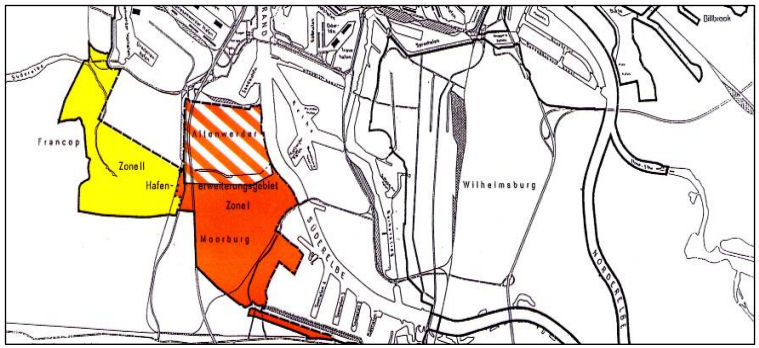
poured since 1962

2. improvement and customization of existing areas





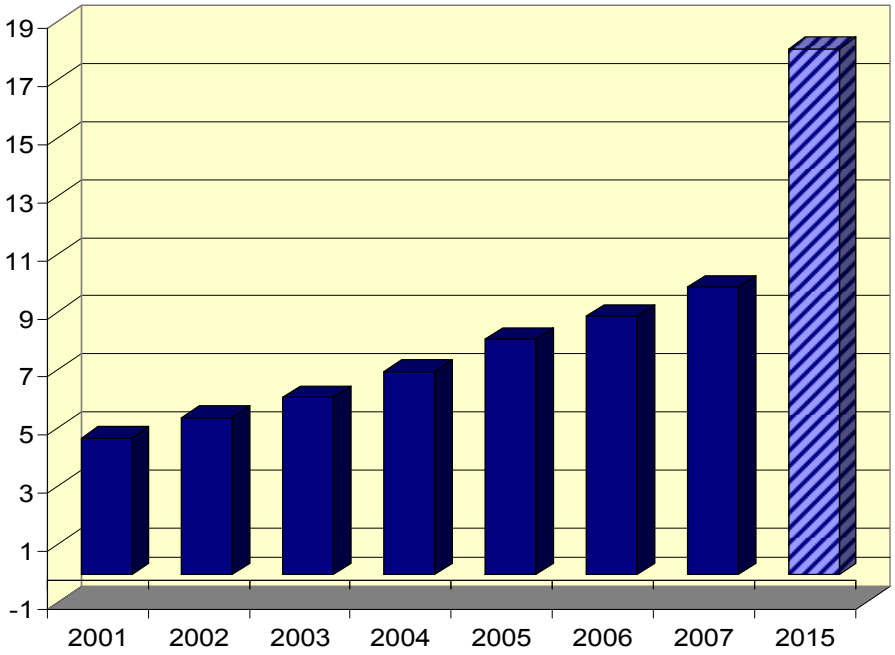
3. extension into the port expansion areas



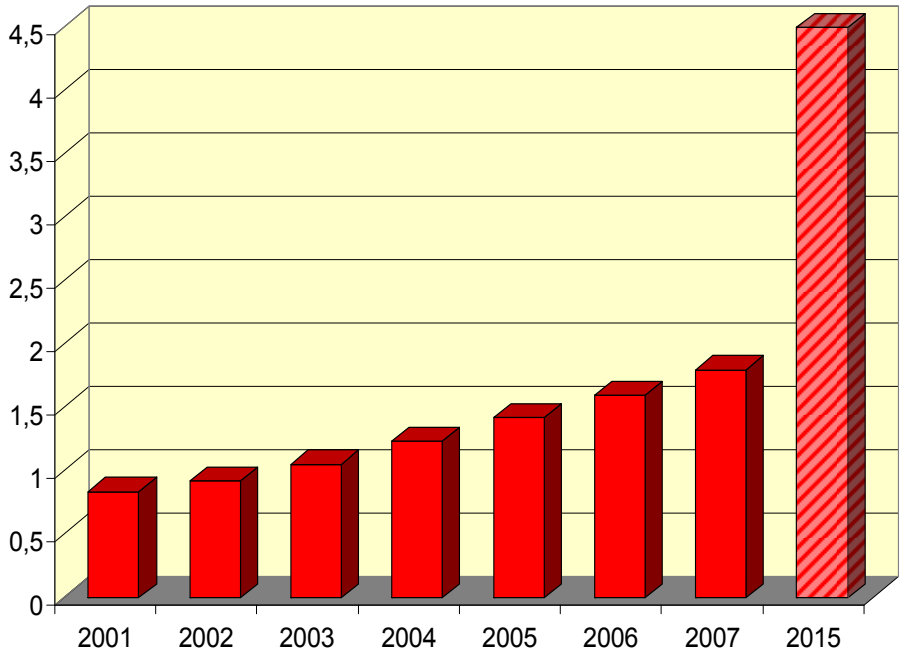
Cargo and Wagon Handling

prognosis Masterplan 2015

container transport PoH (in Mio. t)



container transport HPR (in Mio. TEU)



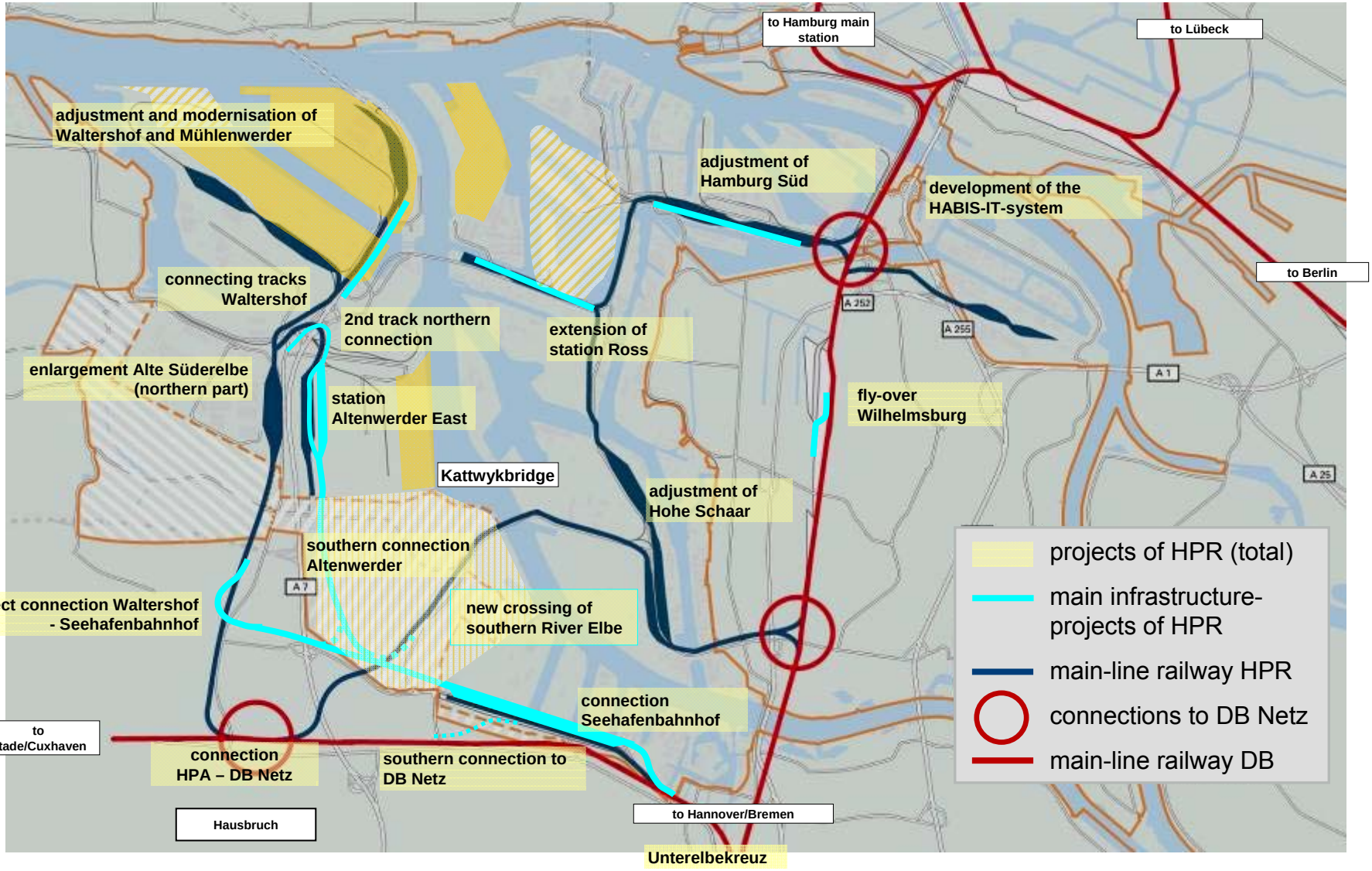
220 freight trains per day (2007) → **400 freight trains per day (2015)**

➔ doubling of container handling in total from 2006 to 2015

➔ triplication of container transport on rail from 2006 to 2015

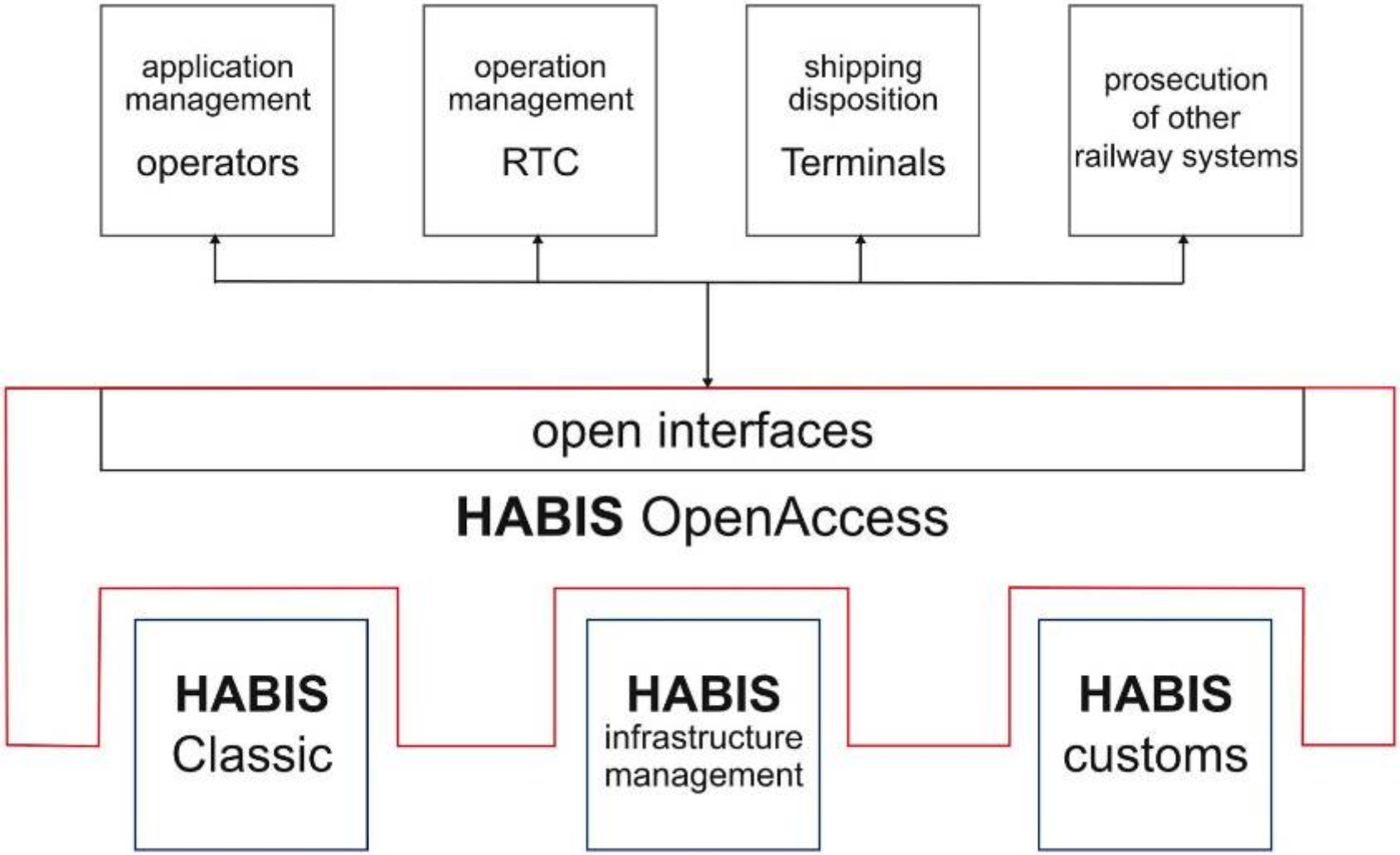
Masterplan 2015

expansion of the rail system



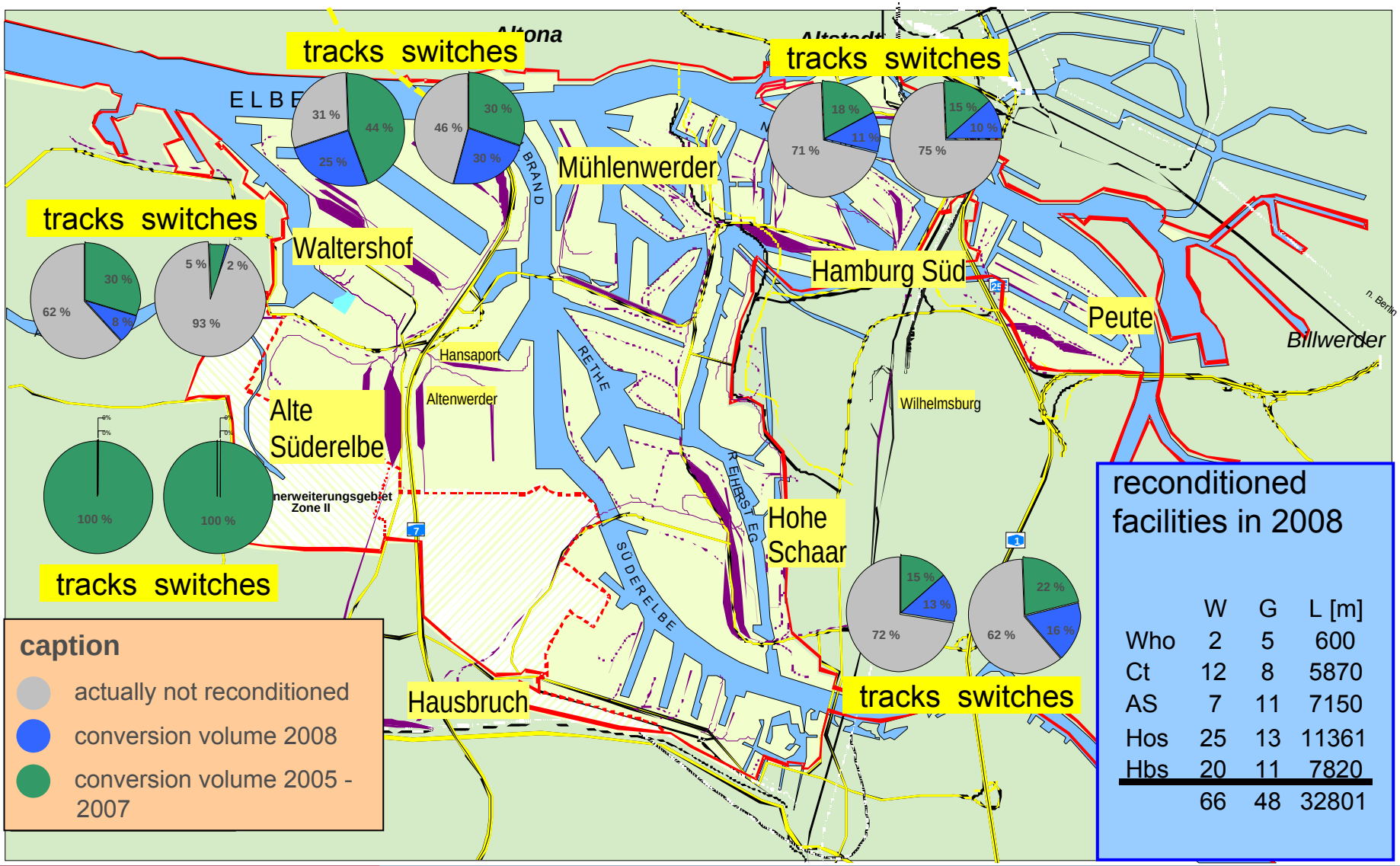
HABIS

IT-system for the Port of Hamburg and HPR



HPR

changes in the facility condition

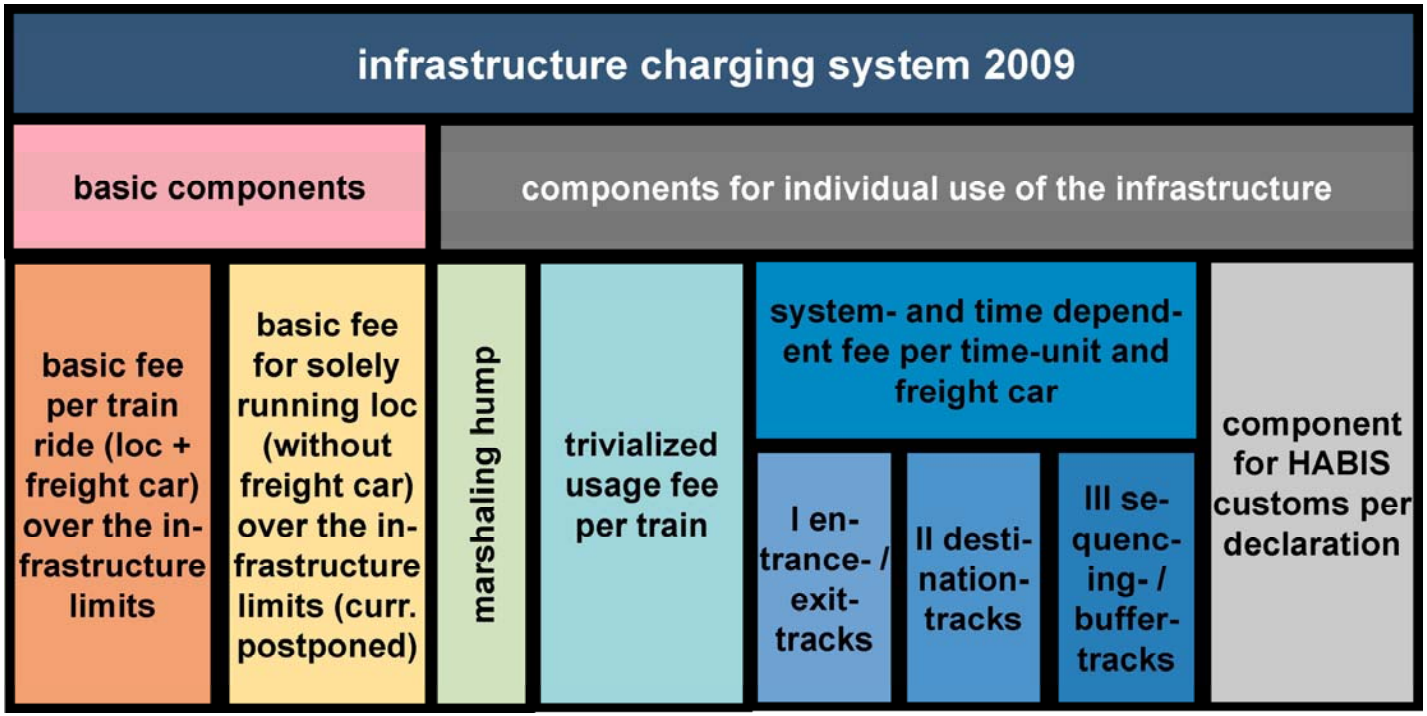


	W	G	L [m]
Who	2	5	600
Ct	12	8	5870
AS	7	11	7150
Hos	25	13	11361
Hbs	20	11	7820
	66	48	32801

Charging System

basics

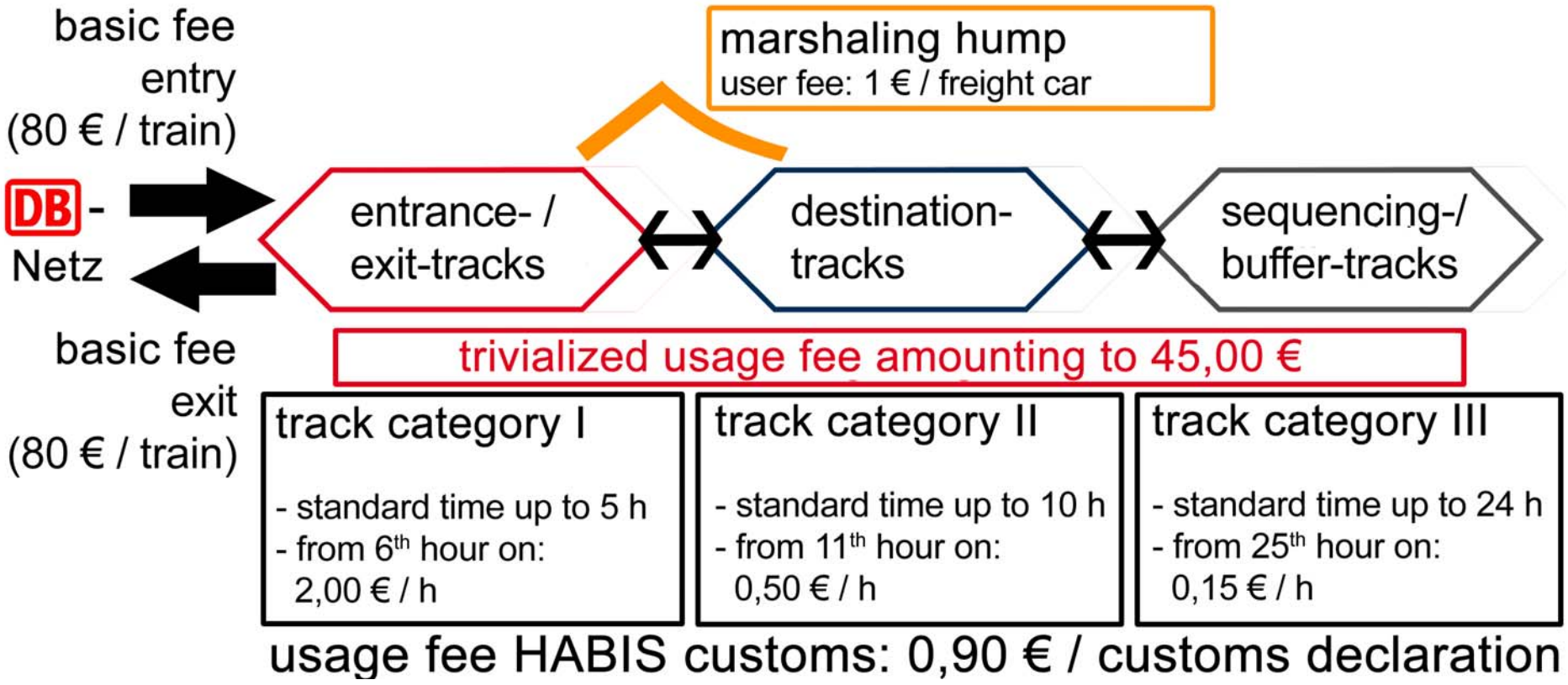
1. basic components for allocation of infrastructure
2. components for individual usage of infrastructure
   a. usage-dependent components for the use of service facilities (tracks of categories I – III, marshaling humps, customs)
   b. time-dependent components as incentive for the effective use of facilities (exceeding standing times on tracks of categories I – III)



Charging System

principals / time flow

- the use of the infrastructure incurs a fee
- if freight cars are using the infrastructure longer than the standard time, they are charged additional time-dependent fees

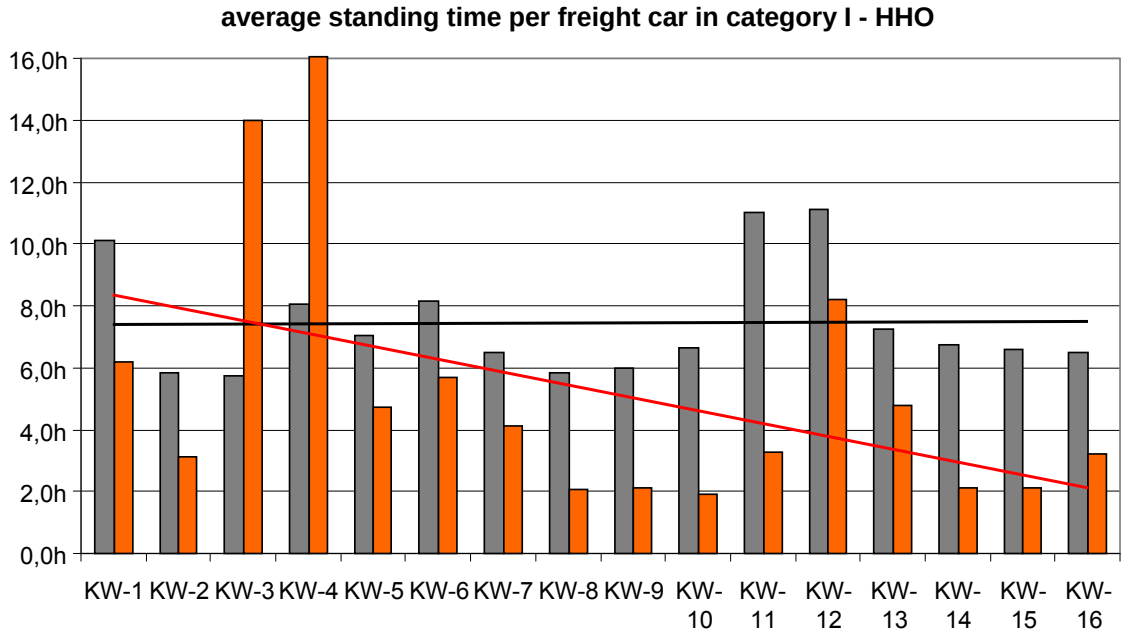


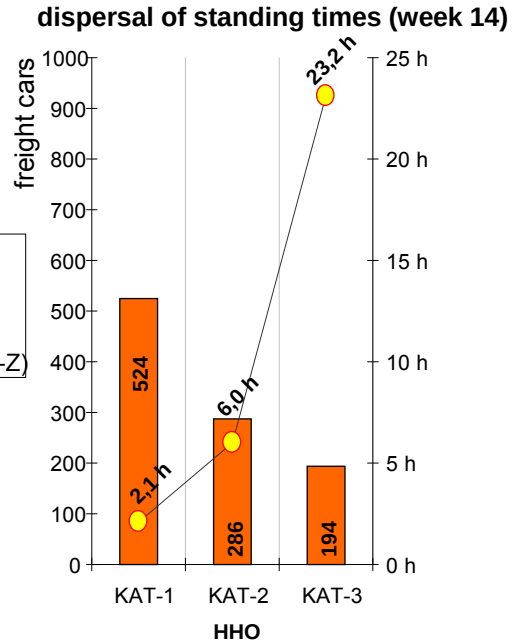
Charging System 2008

improvement approaches and potentials

RTC with obviously better development than the average

- average standing times of freight cars on category I are strongly decreasing – reach a level far below the average
- hardly ideal split-up of freight cars on all categories
  - short standing times on category I
  - categories II and III used for average and long standing times



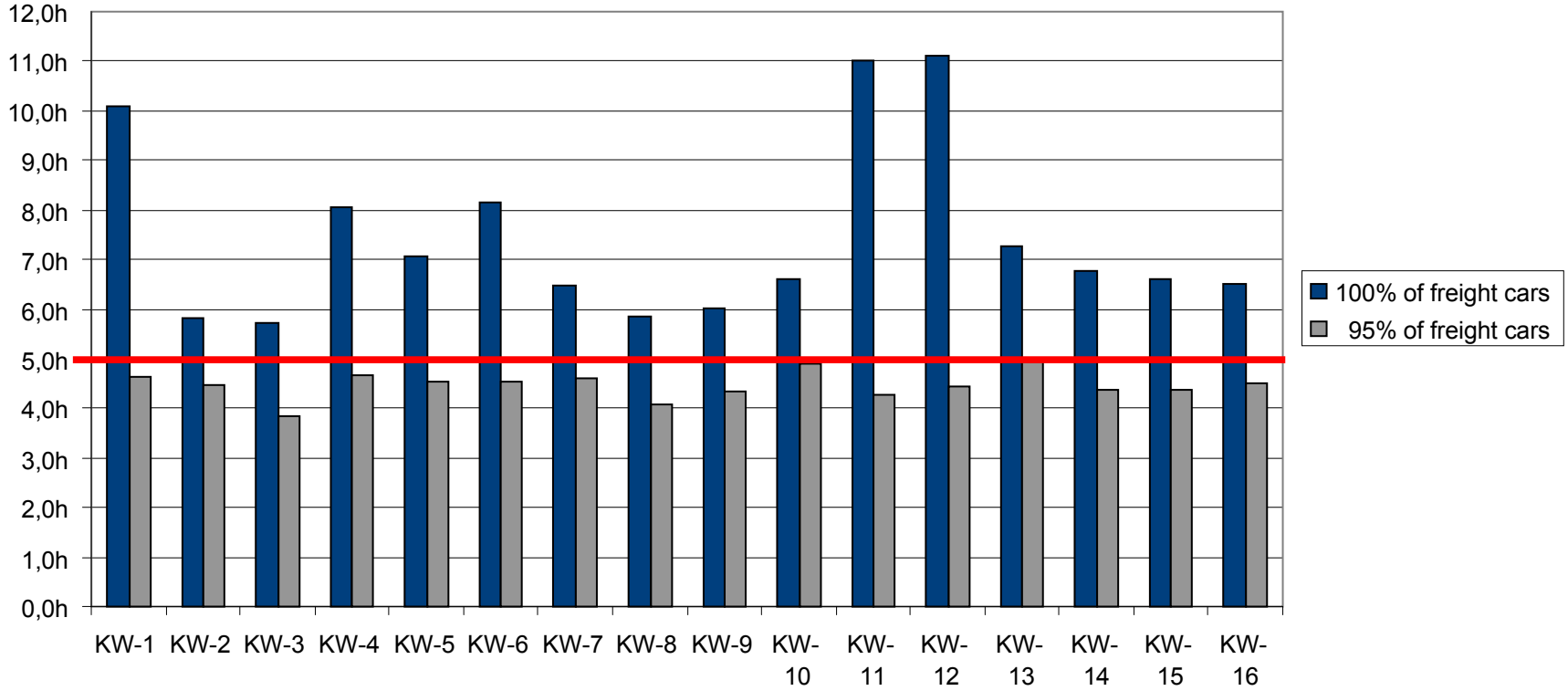


Charging System 2008

improvement approaches and potentials

adjustment of standing times from extreme timeouts

- the best 95 % of freight cars in category I reach standing times < 5 h

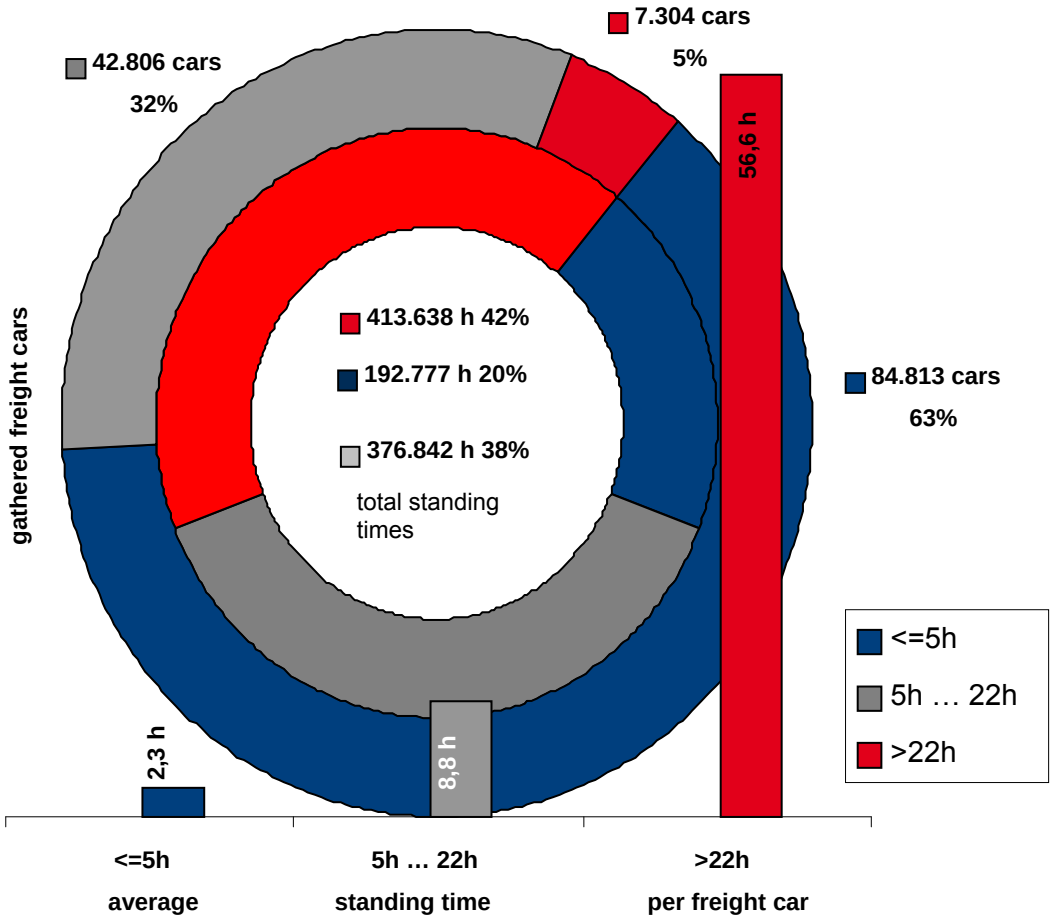


If the cycle of 5 % of the freight cars was designed like the cycles for the other 95 %, the standing times in 2009 will stick to the average.

Charging System 2008

improvement approaches and potentials

structure of standing times in track category I - HHO



- 63 % of freight cars very good (ø 2,3 h) to the standard standing time (5 h)
- share on time allocation ≈ 20 %

- heavy trial by 5 % of freight cars
- produce 42 % of temporal rail occupancy (ø 56,6 h)

- 1/3 of freight cars (32 %) reaches average timeouts
- temporal rail occupancy ≈ 38 %

Masterplan 2015

coordinated solutions and results

1. implementation stage – short-term / to be realised promptly, examples:

- three track extension Stelle/Lüneburg
- extension of Hausbruch
- outrun tracks for rail freight transport Hamburg / Berlin

2. implementation stage – realisation until 2015 necessary, examples:

- new buidling Y-Trasse Hamburg / Bremen / Hannover
- two track extension Uelzen/Stendal

3. implementation stage – long-termlang / beyond 2015, examples:

- three to four track extension Stelle/Uelzen
- extension Harburg/Lauenbrück

Thank you for your attention!

Harald Kreft
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B-1

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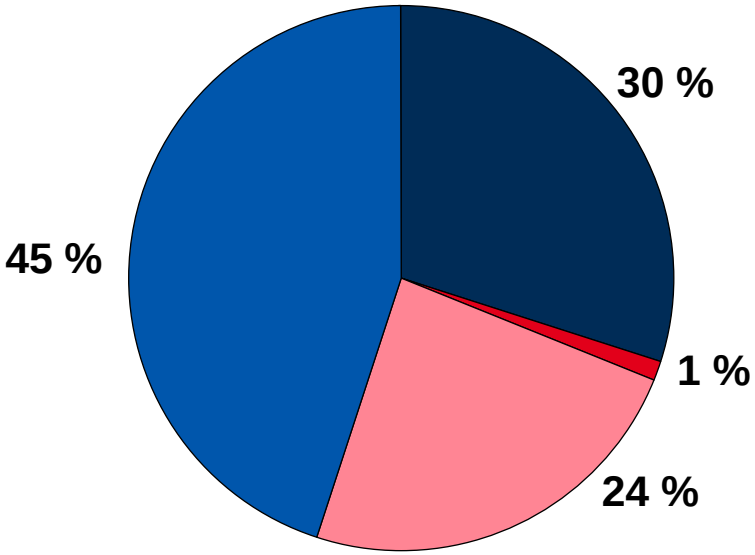
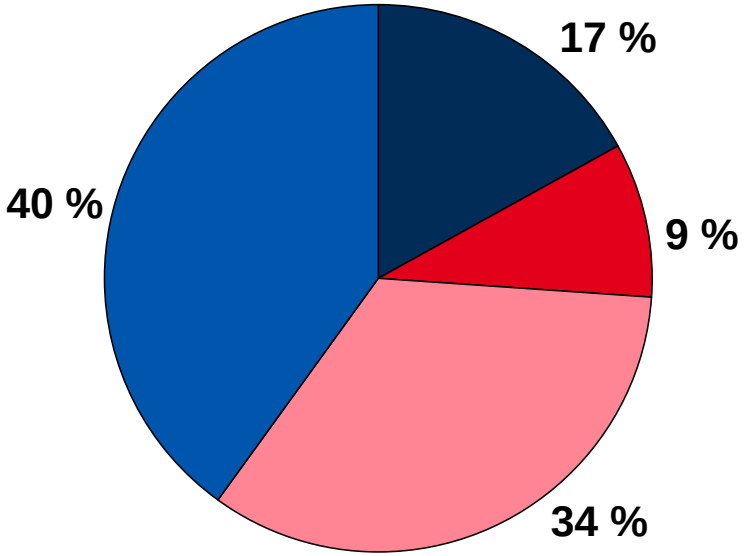
Development in Shipping

Modal Split 2007

container development (TEU)



total traffic (t)



road	➔	slightly decreasing
rail	➔	increasing
inland navigation	➔	steady
feeder	➔	slightly increasing

Port of Hamburg

multimodal logistics hub

Of 100 containers, going through the Port of Hamburg...

10 containers

are loaded or un-loaded in the port (LCL).

45 containers

are being transported either from Hamburg to the hinterland or from the hinterland to the Port of Hamburg.

(70 % by train in long distance transports)

15 containers

are being transported to the economically important area of Hamburg.

(80 % by trucking)

30 containers

are transit cargo to the area around the baltic sea or to Scandinavia.

(ca. 80 % by feeder)

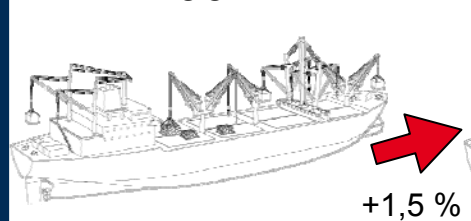
Cargo handling

reference period January – April 2007 / 2008

Port of Hamburg total

Cargo handling total

2007 2008

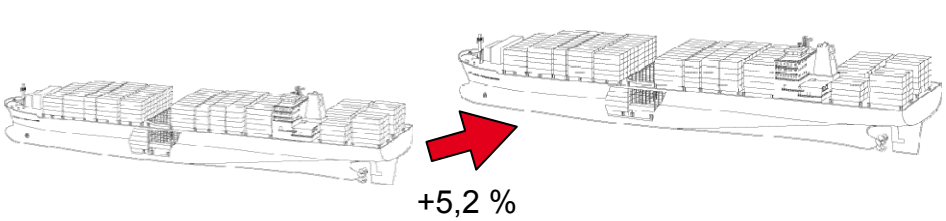


+1,5 %

46.322.809 t 47.005.968 t

TEU total

2007 2008



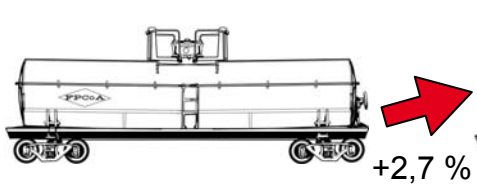
+5,2 %

3.142.023 TEU 3.306.416 TEU

Hamburg Port Railways

Cargo handling total

2007 2008

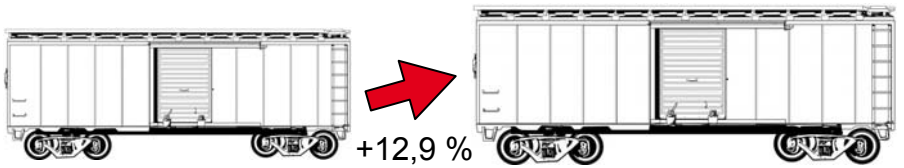


+2,7 %

12.974.592 t 13.320.700 t

TEU total

2007 2008



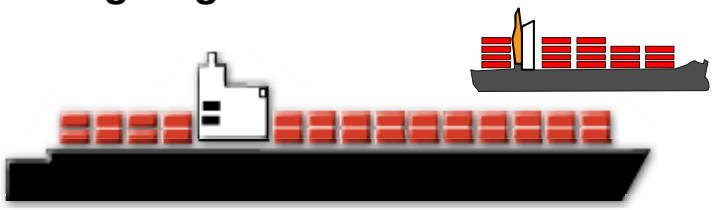
+12,9 %

571.854 TEU 645.717 TEU

Adjustment of rail share

reason: doubling of cargo handling by 2015

seagoing vessel / feeder



2006: 8,9 Mio. TEU
2015: 18.1 Mio. TEU

inland water vessel

2006: 0,1 Mio. TEU
2015: 0,5 Mio. TEU

Hafen

road

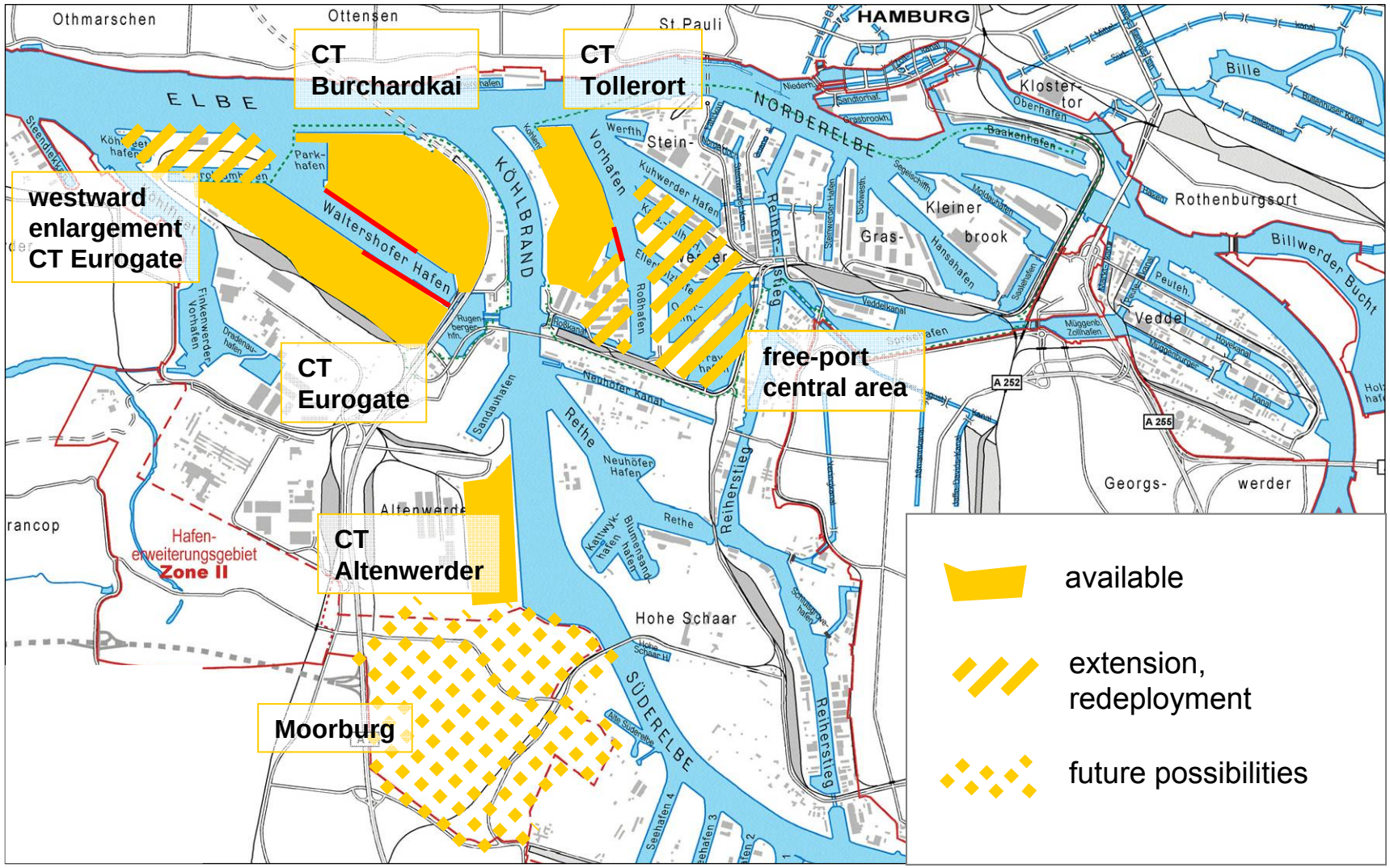
2006: 3,4 Mio. TEU
2015: 4,7 Mio. TEU

rail

2006: 1,6 Mio. TEU
2015: 4,5 Mio. TEU

Port of Hamburg

extension of terminal capacities



Organisation chart

Hamburg Port Authority