



Pre-Gate-Parking (PGP)

Access management for the Port of Hamburg: truck parking outside the port area to manage access routes and times

2010 Annual Polis Conference
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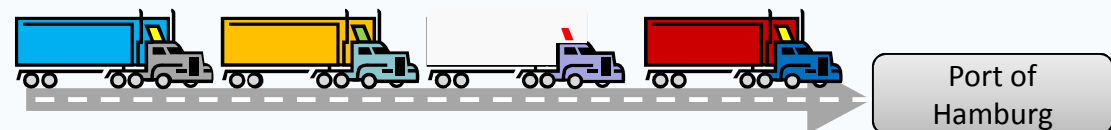
Structure

- 🚚 Motivation and objectives
- 🚚 Basic idea Pre-Gate-Parking (PGP)
- 🚚 Operating strategies
 - 🚚 A: Optional use
 - 🚚 B: Recommended use in case of problems in traffic flow
 - 🚚 C: Regular service for the Port of Hamburg
- 🚚 Sites
- 🚚 Schedule and implementation



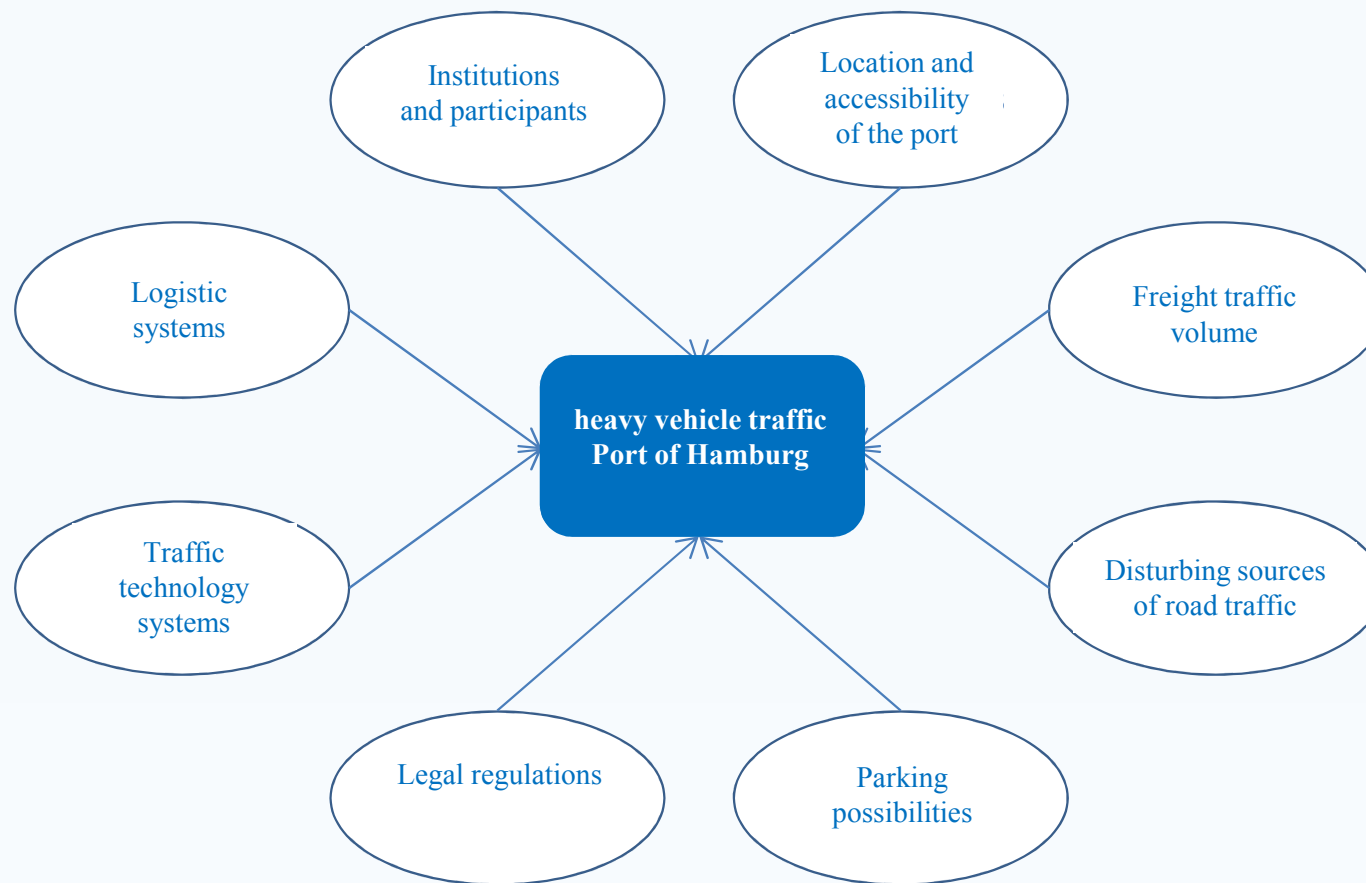
Motivation and objectives

- 🚛 reduction in number of heavy trucks
 - 🚛 on roads in the harbour area
 - 🚛 in zones which are not allowed for truck parking
- 🚛 reduction of
 - 🚛 disturbances in traffic flow
 - 🚛 truck waiting queues
 - 🚛 „time losses“ for trucks
 - 🚛 environmental impacts
- 🚛 a more regular traffic flow to the places of destination (e.g. container terminals)
- 🚛 possibilities to guide/control the approaching traffic





Basic conditions for heavy traffic in the Port of Hamburg





Basic idea Pre-Gate-Parking (PGP)

🚚 General

- 🚚 „buffering“ of heavy trucks on Pre-Gate-Parking areas in the case of capacity overload in the road network/terminals, problems in traffic flow and too early arrivals
- 🚚 focus on container transports (high grade of containerization)

🚚 Pre-Gate-Parking area

- 🚚 PGP outside the port („response time“ for gates and possibility for guiding and operating)
- 🚚 at PGP advance check-in at self-service terminals
- 🚚 check-in for rides to different terminals only once at the PGP
- 🚚 use of PGP-areas to comply with break and rest periods

🚚 Terminal gate

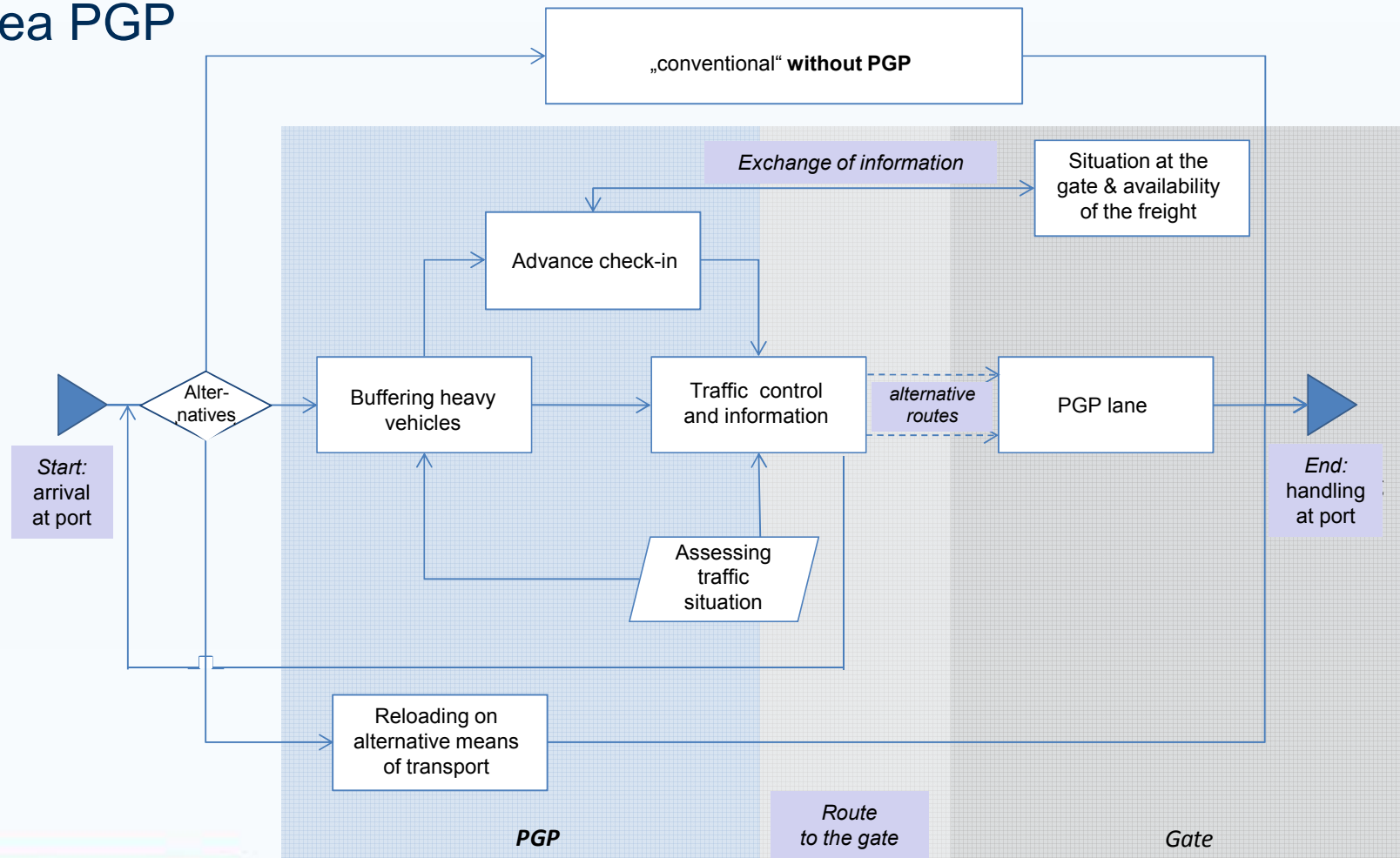
Benefits for PGP-User e.g.

- 🚚 „PGP lane“ for preferred handling of PGP users (“fast lane”)
- 🚚 „PGP lane“ also for other advance check-in drivers





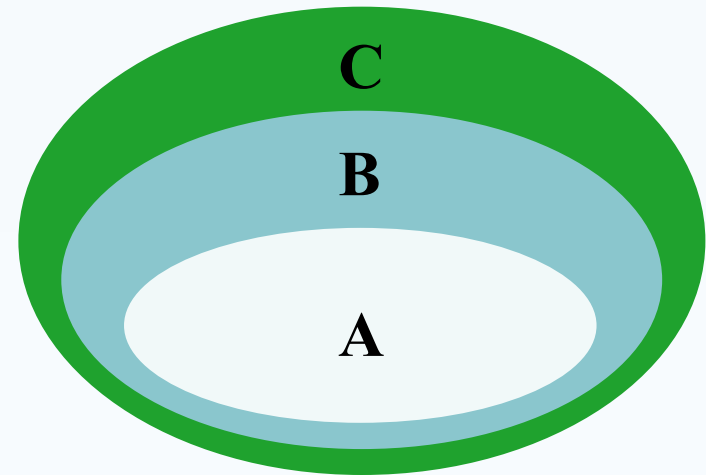
Basic idea PGP





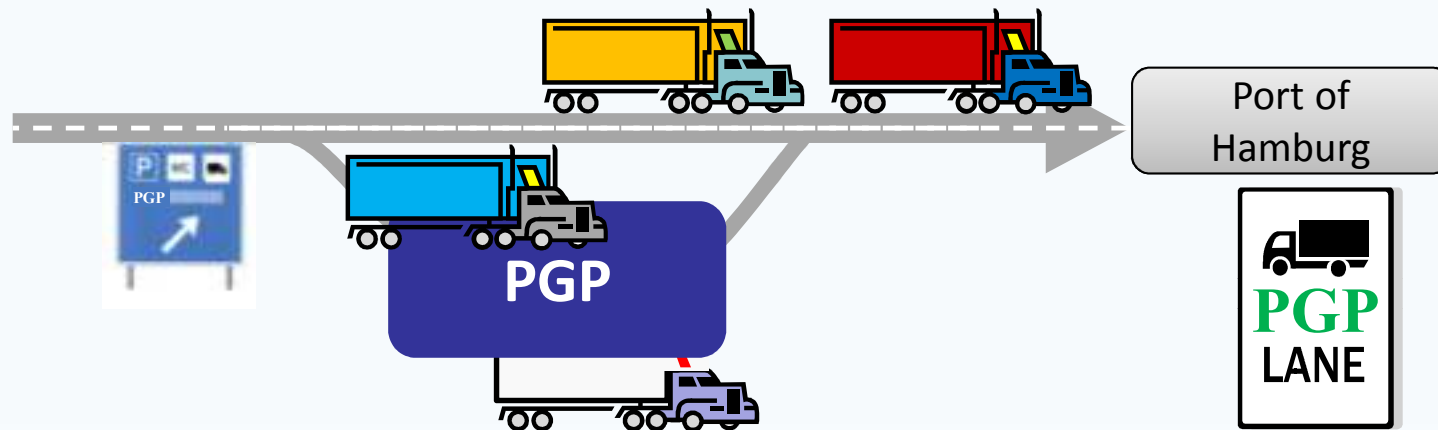
Operating strategies PGP

🚢 Operating strategy A PGP for **optional use**





Operating strategy A: Optional use





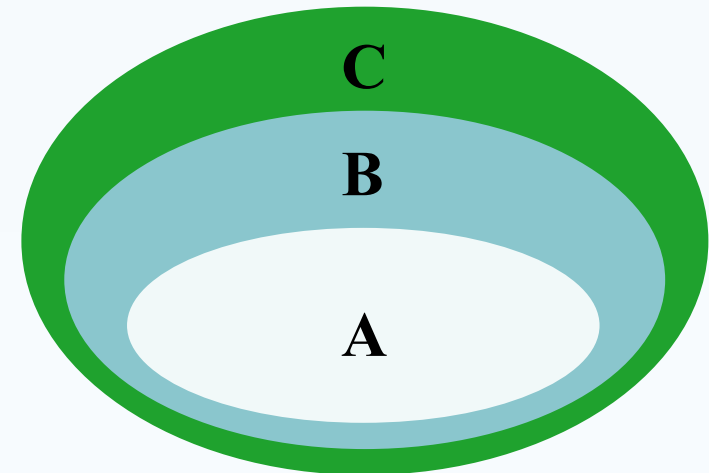
Operating strategies PGP

🚢 Operating strategy A

PGP for optional use

🚢 Operating strategy B

PGP for **recommended use** in case of temporary capacity overload of the road network, disturbances in the area of the terminals as well as exceedance of service capability in chosen places of the port





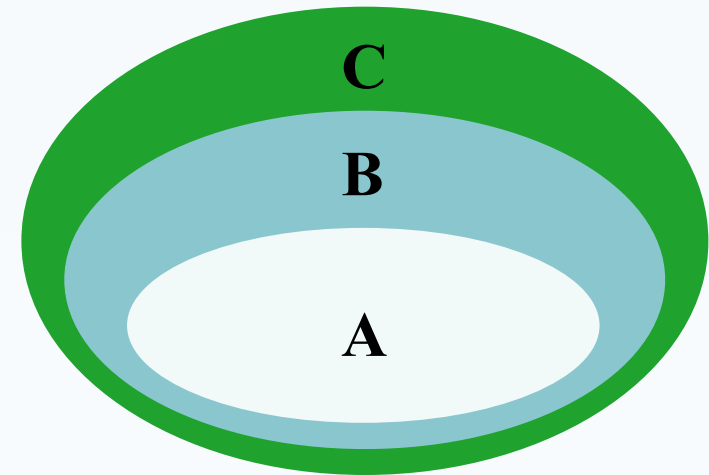
Operating strategy B: Recommended use in case of problems in traffic flow / other disturbances





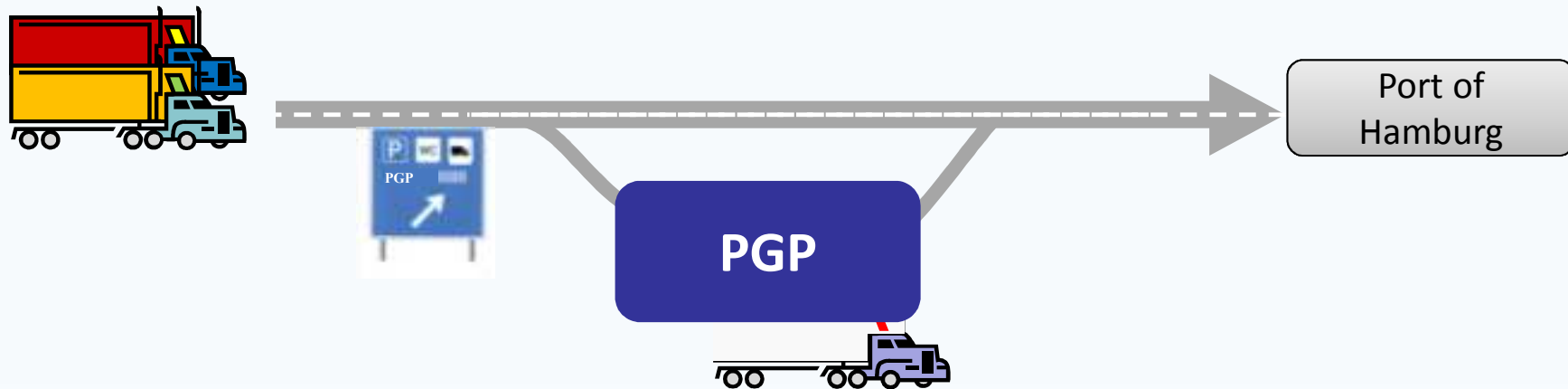
Operating strategies PGP

- 🚢 Operating strategy A PGP for optional use
- 🚢 Operating strategy B PGP for recommended use in case of temporary capacity overload of the road network, disturbances in the area of the terminals as well as exceedance of service capability in chosen places of the port
- 🚢 Operating strategy C PGP as compulsive, **regular service** for the Port of Hamburg





Operating strategy C: Regular service for the Port of Hamburg





Operating strategies – Implementation scenarios

Strategie comparison

- I. **A** →
- Various possibilities
 - Comparatively low investment cost
 - Later implementation of B/C requires intelligent preliminary planning

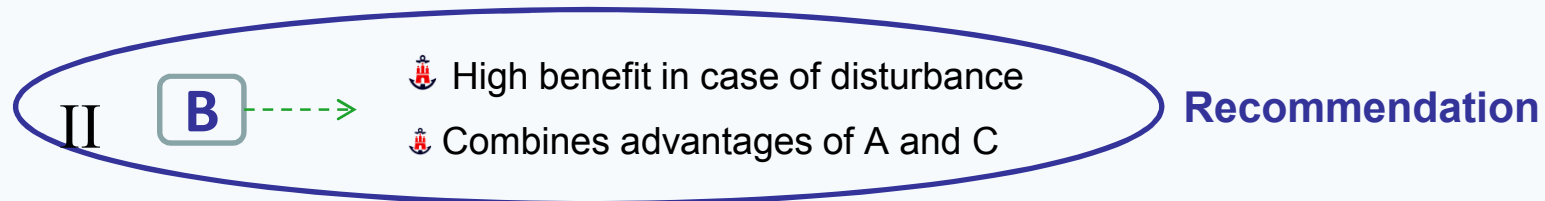
- II. **B** →
- High benefit in the case of disturbance
 - Combines advantages of A and C

Recommendation

- III. **C** →
- Various possibilities of use
 - Advantages are given as it is used by all drivers consistently/homogenously; standardized system
 - Cost-intensive initial implementation



Operating strategy B: Recommended use in the case of problems in traffic flow / other disturbances



Aspects related to conception and function

Intended purpose, data required, interaction of functional units and their connections

Technical and physical elements

Equipment technology, communication systems, technical network structure and interfaces

Aspects related to organizations and institutions

Co-operation of participating institutions and organizations, tasks and expertise

Further constructional arrangements

Areas for „Secure Parking“, connection to alternative transportation systems,...



Location of PGP Basic conditions and possibilities

🚚 Location

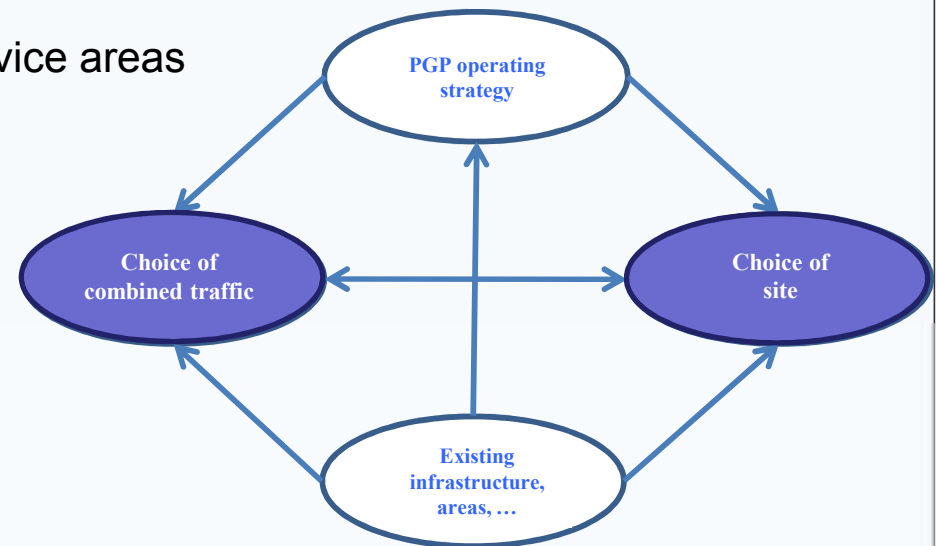
- 🚚 outside the port area
- 🚚 easily accessible via motorway / directly connected to the motorway
- 🚚 radius around Hamburg of approx. 50 km / an 1 hour drive
- 🚚 journey routes for long-distance transport (container traffic model)

🚚 Areas/locations

- 🚚 development of truck stops / motorway service areas
- 🚚 new building of Pre-Gate-Parking areas
- 🚚 proximity to existing railway tracks



🚚 Further options

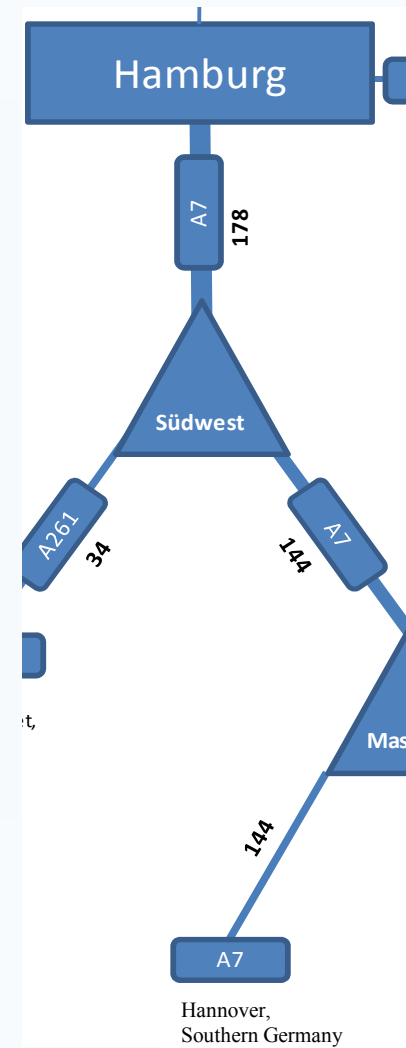
- 🚚 reservation of parking space on PGP
- 🚚 secure parking
- 🚚 connection to alternative transport systems





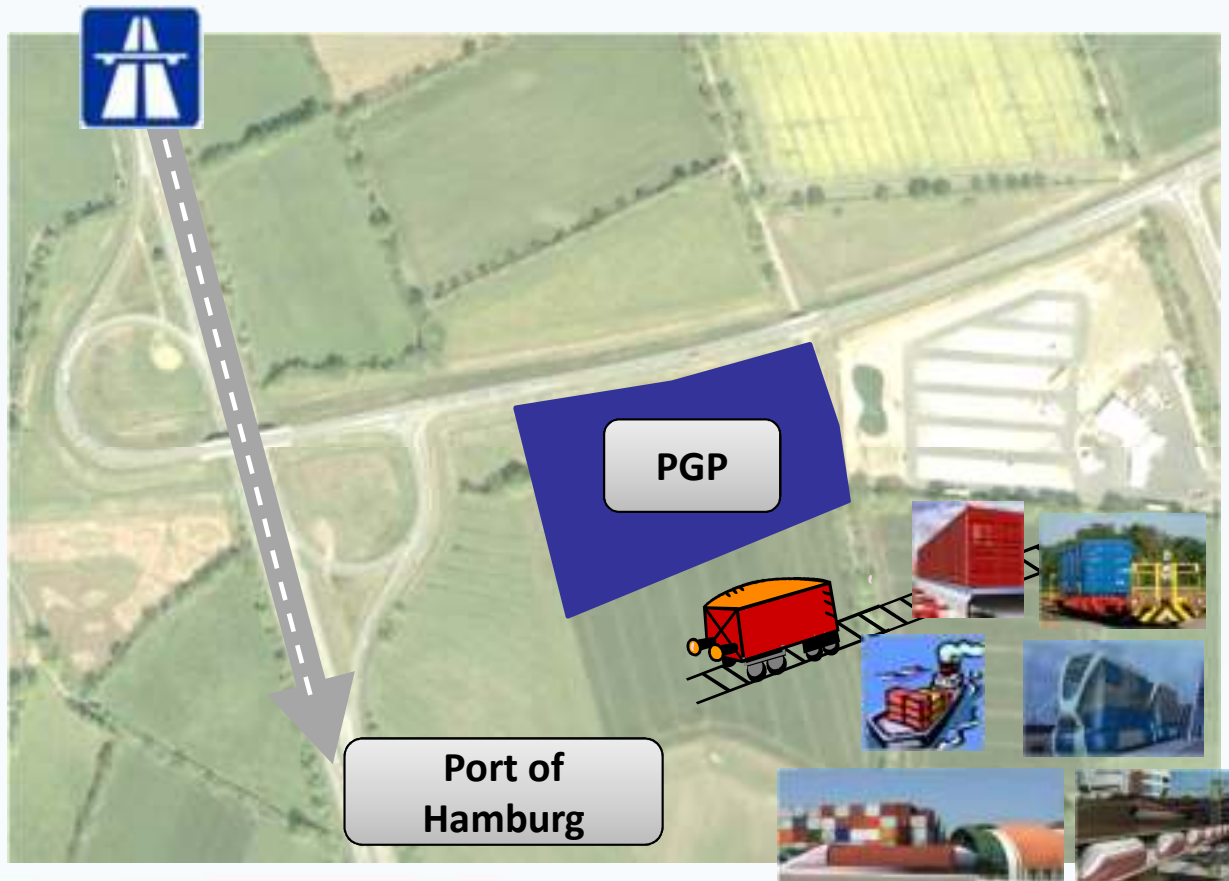
Location alternatives: PGP A7 South

-  Interchange „City A“
 (space is basically available, rail connection?, motorway service area Harburger Berge in vicinity)
-  Truck stop „City B“
 (space for development is available, service areas can be extended)
-  Motorway service area „City C“
 (development only possible to some extent, dense building)
-  Interchange „City D“
 (space is basically available, rail connection)
-  Interchange „City E“
 (only limited space available, easy accessibility)





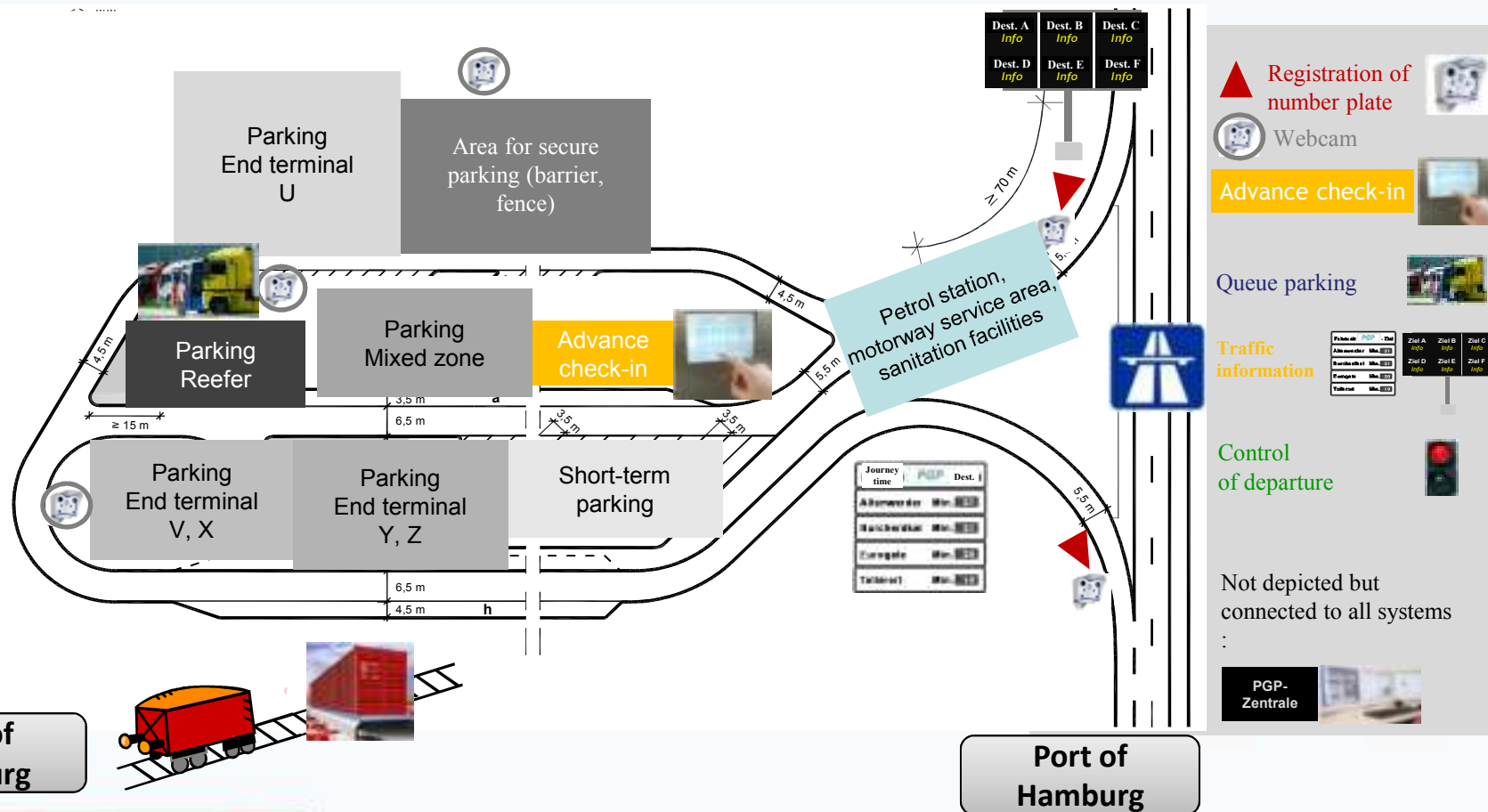
Location example: Development of truck stop „City B“ (model)



- ⚓ Easy accessibility via motorway,
- ⚓ Distance to Hamburg port approx. 35 km,
- ⚓ Space for development basically available,
- ⚓ Service area available,
- ⚓ Connection to railway or other alternative means of transport basically possible,
- ⚓ ...



Infrastructure and components of a Pre-Gate-Parking area



Port of Hamburg

Port of Hamburg



Schedule and implementation

- 🚢 Analysis of the operational requirements for a Pre-Gate-Parking area (PGP) for terminating traffic in the Port of Hamburg
- 🚢 Agreement on recommendations
- 🚢 Locating the site
- 🚢 Launching „Innovative disturbance management for the Port of Hamburg“
- 🚢 Implementation and test run



Thank you for your attention!



Contact

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