

Hafenhinterlandintegration bis zum Endkunden –  
Erfahrungen aus partnerschaftlichen Initiativen

## **Integração portuária para o interior até o cliente final – Experiências de iniciativas parciais**



**Prof. Dr.-Ing. Frank Straube**

**2ª CONFERÊNCIA DE LOGÍSTICA BRASIL-  
ALEMANHA**



**Berlin Institute of Technology  
Chair of Logistics**

# Agenda

1. Challenges within logistics networks
2. Experiences of co-operative initiatives
3. Outlook for Brazilian maritime community

# Current trade flows between European Union and Brazil

**Brazil's trade with EU**

- EU 27 is Brazil's biggest trading partner, accounting for 22,4% of its total trade
- EU 27 goods exports to Brazil 2008: €26,3 billion
- EU 27 goods imports from Brazil 2008: €35,5 billion

**Top 3 exports to Brazil**

1. Machinery and transport equipment	51,6%
2. Chemicals	19,4%
3. Manufactured goods	12,7%

**Top 3 imports from Brazil**

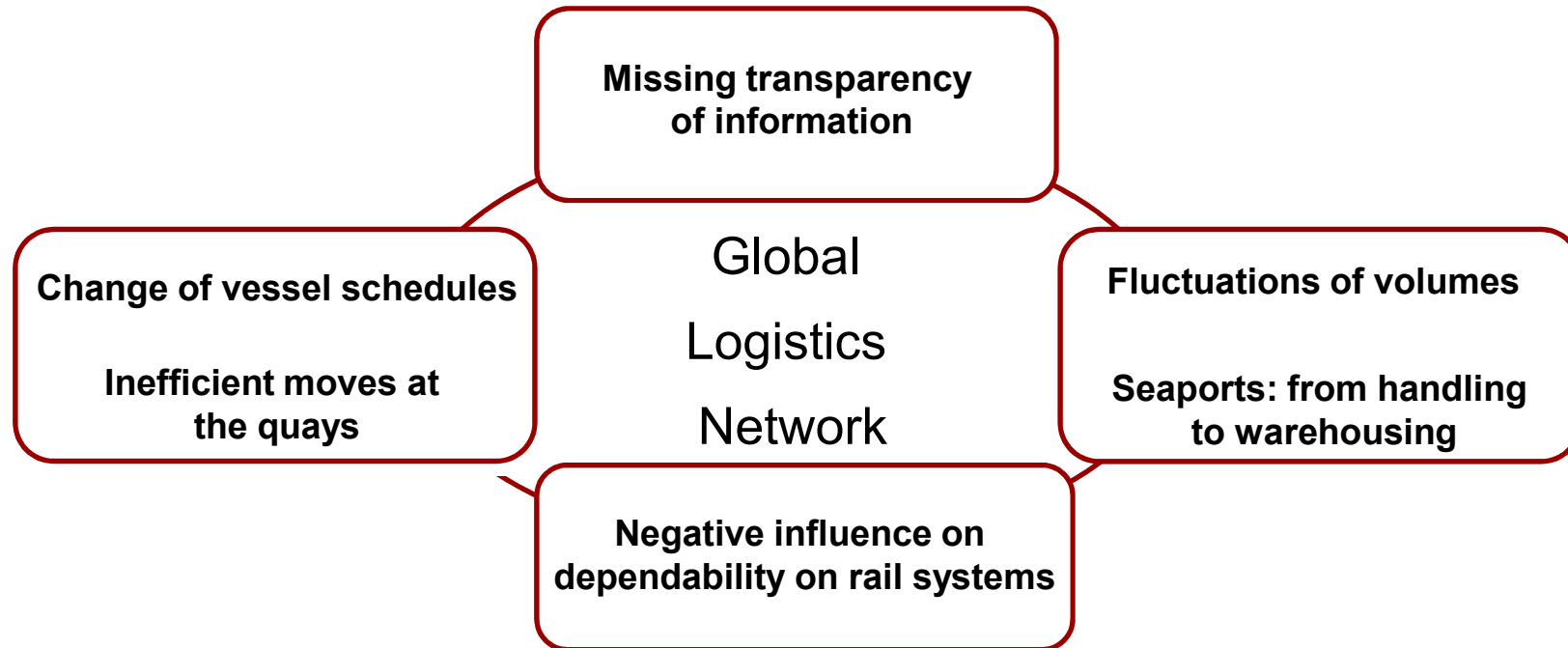
1. Crude materials	32,8%
2. Food and live animals	23,8%
3. Manufactured goods	12,6%

**Container traffic to Germany**

	2007	2008	CAGR
1. Seaport Hamburg	270.000 TEU	230.000 TEU	-14,8%
2. Seaport Bremerhaven	61.147 TEU	113.401 TEU	+85,2%

**Increasing trade flows require reliable and efficient end-to-end transport chains between trade partners in Brazil and Germany**

# Main challenges of an efficient logistics network



## Challenges for Brazilian ports

- Efficient integration of stakeholders (seaports, quay operators, transport companies and clients) along the whole transport chain
- More efficient use of infra- and superstructure capacities
- Reduction of delays in the complete transport chain (within ports and in the hinterland)

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# Collaborative Best Practices: Northern Port Conference

## Development

- Leading stakeholders of European maritime logistics network founded in 2006 a **collaborative platform** – Port Conference
- Since 2006 several **projects** have been initiated, methods of resolutions successful developed and a **great awareness** among customers, logistics service providers and authorities for the challenges in seaports and their hinterland regions was achieved

## Goals

- **Know-how exchange** on expert level
- **Improvements** in cooperation along the transport chain including all players
- Identification of major **problems** which affect the whole transport chain
- Initialization of workgroups for development & implementation of **solutions** / best practices

## Participants

- Leading companies along the **whole transport chain**:
  - Deep Sea carriers (e.g. Hapag Lloyd, Hamburg Süd, Maersk, HMM, OOCL)
  - Quay operators (e.g. BLG Logistics, Eurogate, HHLA, )
  - Sea-freight forwarders (e.g. Kühne+Nagel, DB Schenker)
  - Rail operators (Transfracht, Polzug Intermodal, Kombiverkehr )
- Port Authorities (Hamburg Port Authority, Bremenports)

## Initiators

- Deutsche Bahn AG and Berlin Institute of Technology, Logistics Division

# Topics of the established working groups

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1

## Data flow

- Cross linking of the seaports with the German hinterland
- Establishing of a continuous data flow
- Improvement of data quality
- Timely information exchange

2

## Forecasting

- Analysis of trends on sea- and land side
- Conclusions regarding the development of sea-side turnover and hinterland traffic
- Increase of the efficiency of resources through a coordinated and valid forecast (avoidance of bottlenecks)

3

## Extended Gates

- Establishment of concepts for Extended Gates
- Development of models for Extended Gates

4

## Enlargement of the terminal opening periods

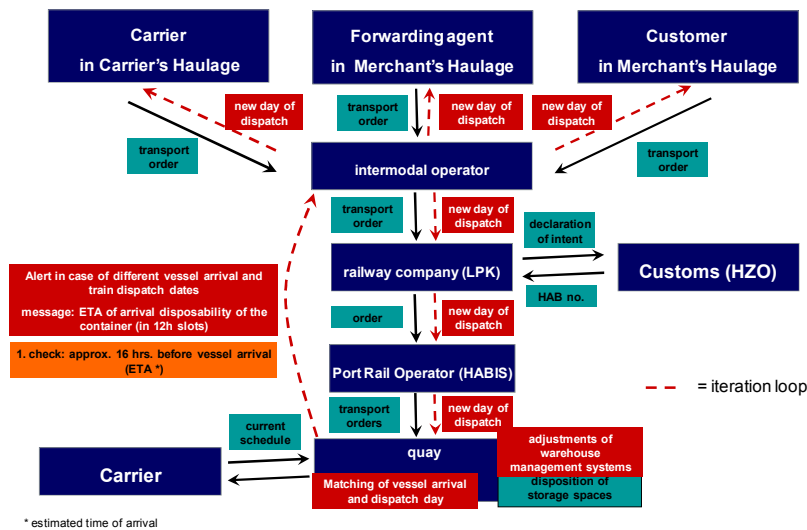
- Assessment of the need to enlarge the opening periods of the hinterland terminals
- Development of change requirements for the relevant process participants

# Implemented data flow pilot improved efficiency of the maritime transport chain

## 1 Data flow

### Results of data flow pilot

Participating companies designed **new data flows** and tested them in a real-time operations pilot



#### A efficiency and performance

- Timely allocation and re-disposition of transport capacities
- Increase of asset utilization:
  - decrease of container replacement rate
  - Decrease of train-handling time in sea terminal

#### B Reliability and quality

- Improvement of reliability and planning of transports (rail transport und last-mile trucking)
- Custom is able to inspect the orders timely

Successful test for all participants – project development of new communication and IT standards for day-to-day work

# Participants and results of the working group „Forecasting“

## Participants:



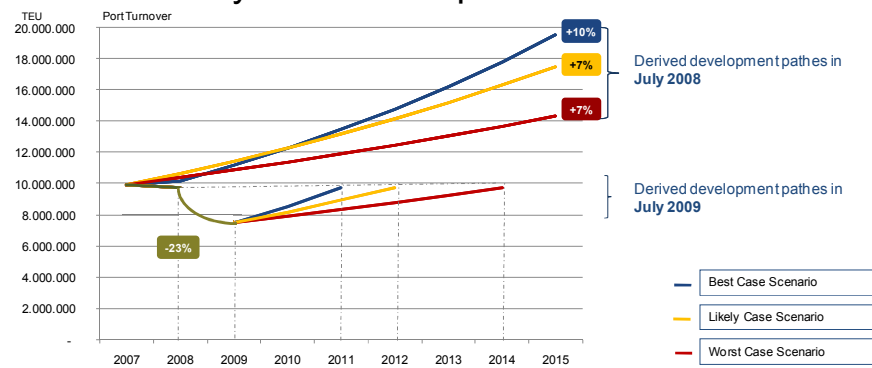
## Approach:

- Analysis of internal (partly sensitive) planning data / internal expectations of stakeholders of maritime transport chain - TU Berlin acts as an neutral intermediary, consolidating and making individual information plausible

## Results:

- Identified challenges regarding **harmonization** of stakeholders' planning approaches
- Identified possible **indicators** for a „Port Alert System“
- Derived **scenarios** for the volume recovery for the time period between 2010 and 2012

Results for scenarios with focus on seaport Hamburg



# Further development of the forum „Northern Port Conference“

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1. Realisation of the agreed measures of the working groups and further development of the improvement approach
2. Establishment of an experts' panel for the “green logistics” solutions within maritime transport networks

Despite the recent economical downturn participants of Northern Ports Conference continue the joint work on following topics:

- **Reliability** of transport networks
- **Efficiency** of processes & Costs reduction
- **Ecological sustainability** of end-to-end transport chains

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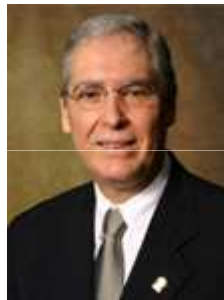
# Brazilian and German experts prepare the establishment of the first Brazilian Seport Conference



**Mr. Pedro Brito**  
Minister for Ports  
in Brazil



**Mr. Detthold Aden**  
Chairman of the  
central association  
of German  
seaports;  
CEO BLG Logistics



**Prof. Dr. Paolo  
Fleury**  
Head of Instituto  
of Logistica e  
Supply Chain



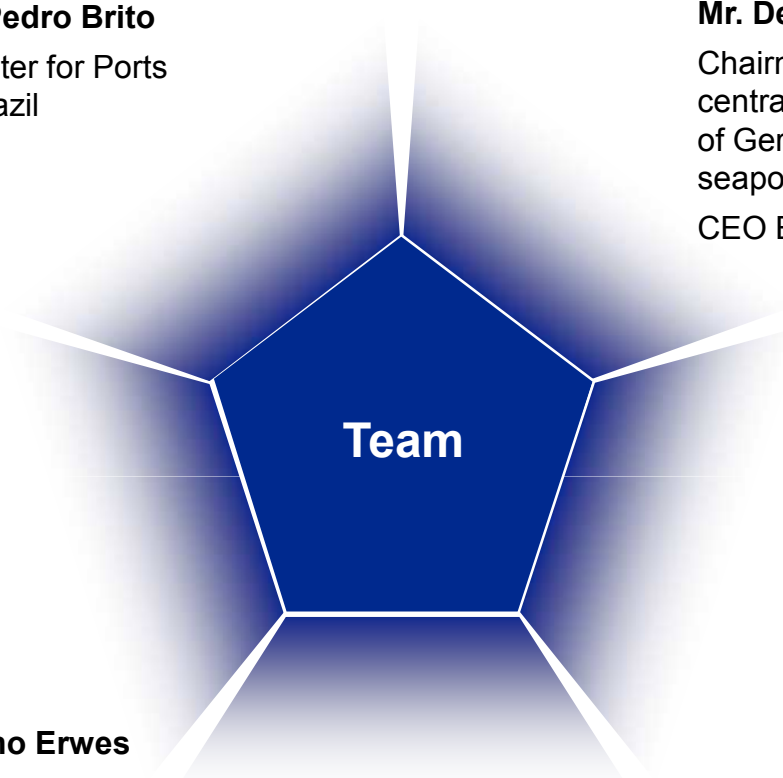
**Prof. Dr. Frank  
Straube**  
Vice-chairman of  
the board of  
German Logistics  
association



**Mr. Hanno Erwes**  
Director of  
German-Brazilian  
chamber of  
commerce and  
industry



**Dr. Ottmar Gast**  
CEO Hamburg Süd



# Collaborative platform for Brazilian maritime community

## Goals of a Brazilian Seaport Conference

- Establishment of a platform for improvement of processes within supply chains with a special focus on seaports
- Collaborative **know-how exchange** on expert level between politics, science und industry regarding current challenges within Brazilian maritime network
- **Transfer** of existing approaches / **best practises** from Europe in order to improve the reliability and performance of ports and their hinterland connections
- Joint discussion on future trends like ecological sustainability

## Universities are very important for the success of the Seaport Conferences:

- Neutral and scientific support of conferences (preparation and conducting)
- Scientific and methodical support of workgroups between the conferences
- Exchange of ideas and concepts for the mutual benefit of both the port community and the practically oriented research work of universities



# Proposal for next steps concerning the establishment of a Brazilian Seaport Conference

1. Topic identification and verification
2. Hosting of Conference
3. Attendance / supervision / monitoring of established workgroups

The set up of a team of 2 experts of **COPPED/ILOS** and 2 experts of **TU Berlin** (led by Prof. Fleury and Prof. Straube) is essential for the establishment of a Brazilian Seaport Conference and the initiation of workgroups / projects

## Recommended topics for initial working groups:

1

Optimization of processes / data flows between seaports and hinterland – deduction of pilot supply chains

2

Development of harmonized and scenario based view on forecasts of cargo-flows for sea- and land-side

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# Thanks for your attention!

# Contact

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## **Logistics Division**

Chair of Logistics

Berlin Institute of Technology

### **Prof. Dr.-Ing. Frank Straube**

Room H 9105, Secretary H90  
Straße des 17. Juni 135  
10623 Berlin

Tel. : 030 - 314 228 77

Fax : 030 - 314 295 36

E-Mail : [straube@logistik.tu-berlin.de](mailto:straube@logistik.tu-berlin.de)