

# Rail Baltica and the development of freight traffic

a summary of some case studies

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# Background

- The main objective of Rail Baltica is to improve the transnational Integration of the Baltic Sea Region through co-ordinated infrastructure Investments and regional development.
- Brandenburg –as one of the German partners – has focused on the WP III, especially on the freight traffic
- Within the projekt three case studies on freight traffic matters have been prepared and discussed in varrious workshops .The results can be found on our special webside.

**Let us look at some results of theese case studies**

# The case studies and their main objectives

- 1. Logistic Region Berlin / Brandenburg; Freight villages– a starting point for the Rail Baltica
  - 2. Cross-border freight traffic in the area of Frankfurt (Oder) – Slubice
  - 3. Analysis of close to border and cross-border infrastructure planning in the area of the German-Polish border within the scope of transport corridors of Rail Baltica
- What are the consequences of the Rail Baltica project with respect to improvement of the freight traffic, regional and economic development in Brandenburg?
  - Cross-border traffic –, where are the benefits and problems and where are the main tasks for the regional development ?
  - What to learn from the planning process in both countries, where are the problems and where the best experiences, where are the priorities ?

# 1. Logistic region Berlin / Brandenburg

## The logistics market situation

- the fourth biggest business sector in Germany
- annual revenue of EUR 150 billion and 2.7 million employees
- Annual average growth between 3% and 10 %

## 1. Logistic region Berlin / Brandenburg Advantages

- 4 GVZ-facilities: „Berlin West Wustermark“, „Berlin South Großbeeren“, „Berlin East Freienbrink“, „ETTC Frankfurt/O“
- Geographical situation in central Europe
- Excellent net of multi-modal traffic infrastructure (rail, road, waterways)
- Potential users in a market of about 5 Mio inhabitants
- Uncomplicated legal situation (planning and permission procedures)
- Qualification of employees

# 1. Logistic region Berlin / Brandenburg

## Integrated freight traffic concept Berlin - Brandenburg

- Integrated Development of road and rail infrastructure
- Three Freight Villages at the periphery of Berlin
- Freight sub-villages in town
- Freight villages act already today as hub for international transport
- Relocation of transports from road to rail

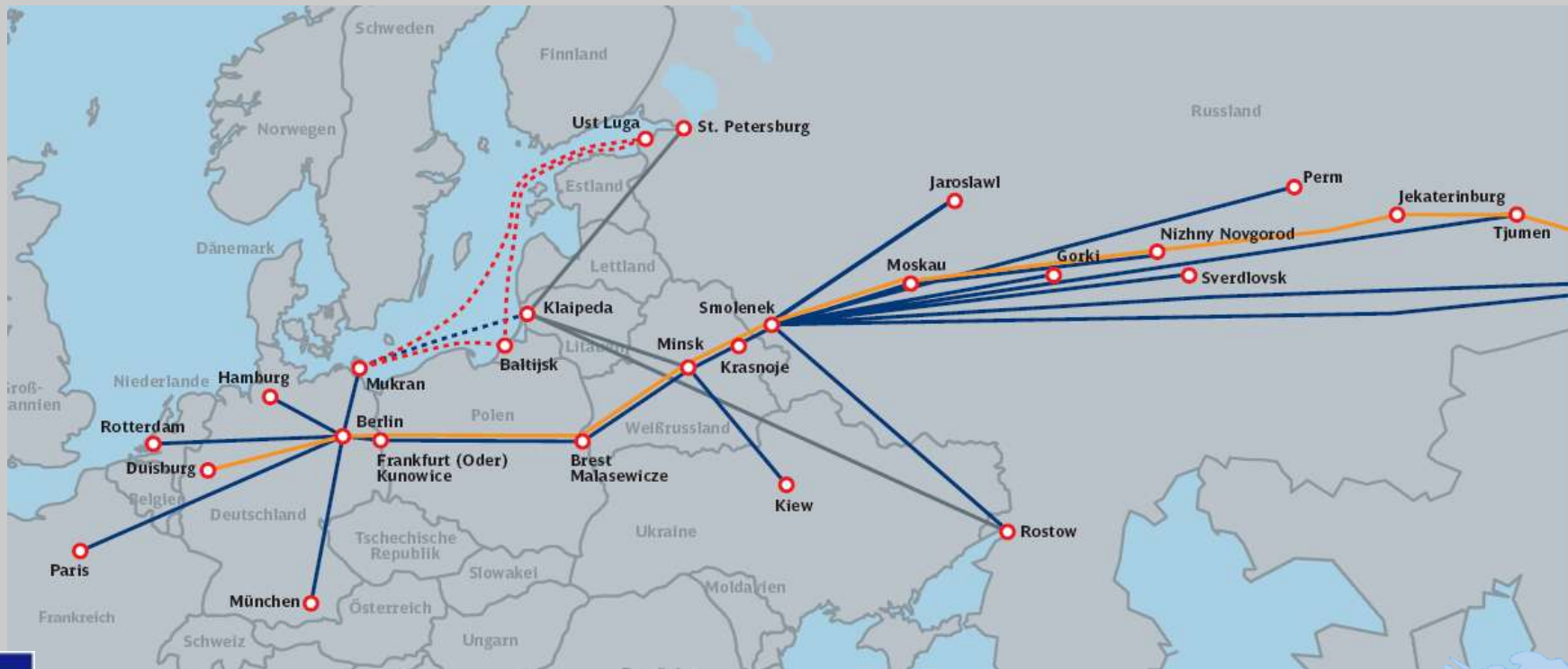


## 1. Logistic region Berlin / Brandenburg

One of our new products: Freight Train called “ Ostwind”

- 3 times a week
- Train starts in GVZ Berlin South Großbeeren and goes to Russia / Ukraina

There are good experiences at hand to be considered in the Rail Baltica project

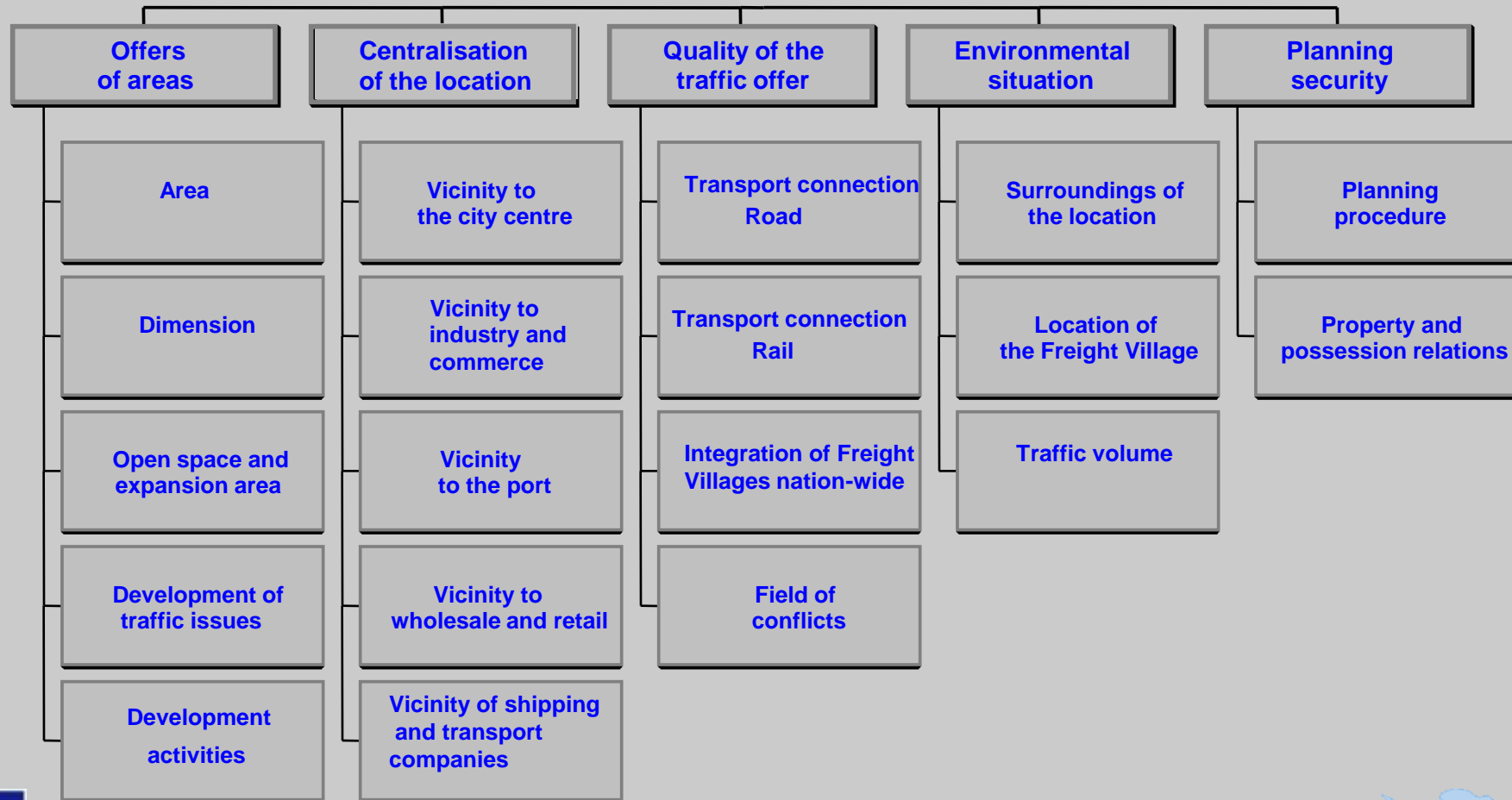


**RAIL BALTICA**

# 1. Logistic region Berlin / Brandenburg - Freight Villages

Freight Villages – planning and realisation are main tasks for the regional development

## Assessment criteria for such a Freight Village





## 1. Forecast / Respects out of the case study

### Brandenburg

- ongoing development of the excellent working freight villages (starting point of Rail Baltica)
- Marketing offensive for intermodal traffic
- Including the future airport logistic center BBI

### General

- Joint strategy for the „Rail Baltica“
- Decision on technical parameters like gauge standard and re-gauging possibilities
- Financial concept
- Transport axes from West to East have to be considered ( transport connection to the ports)
- Development of capable Freight Villages on the intersections „Rail Baltica” and the East-West-transport corridors (ports)
- Shuttle-connections with the “Ostwind” or other European connections
- Development of suitable Freight Villages in major towns



## 2. Cross-border freight traffic: Relevance and Condition of the Rail Line Berlin - Warszawa

### ▪ Characteristics

- Part of the trans European axis Benelux – Germany – Poland –Russia
- Full length with double-track, electrified (D:15 kV~; PL: 3 kV=)
- Intermittent Train Control System (PZB), despite the same systems on both sides no border crossing compatibility
- Most important rail line axis between D and PL for freight but also passenger traffic
- As from 04/07 almost continuous Vmax of 160 km/h (exceptions: Erkner – Berlin, ca. 20 km, junction of Poznań)
- Bottleneck Oderbrücke: considerable constructional defects → single-track, Vmax 50 km/h

Objective: totally new bridge with double-track, Vmax 100 km/h (cost 20 Mio. EUR), completion in 2008

Precondition: German-Polish treaty

### ▪ Special aspects in Germany

- Infrastructure freight traffic: several passing tracks (5x) with a length of 750 m (internat. standard 600 m)
- Transshipment terminal at Frankfurt/O: demand-oriented optimization (reducing tracks), connection to electronic signal-box

City of Frankfurt/O intends to take over 4 tracks as a capacity reserve for the transshipment terminal (ETTC) respectively considers to take over the whole installation to save the potential for the city

### ▪ Special aspects in Poland

- Modernisation until 2005 in the framework of an ISPA-subsidy (preparation accession to EU)
- Modernisation Rzepin railway junction (crossing with rail line Szczecin – Wrocław)



## 2. Cross-border Freight Traffic: Frankfurt/O / Słubice, the situation

### ■ Rail

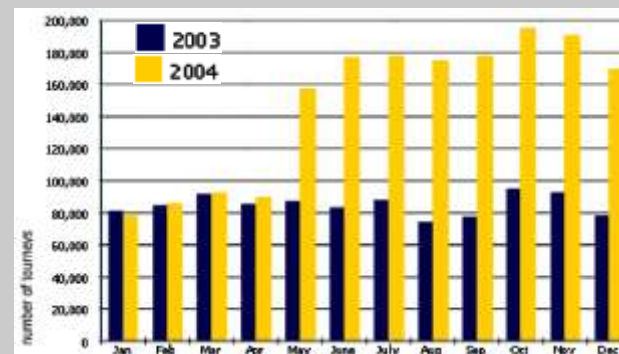
- Transportation of ca 12.5 mio. t of freight between Germany and Poland in 2005 (for comparison: Germany – Czechia ca 9.5 mio. t)
- Almost 80 % of freight goes to Germany
- Traffic via Oderbrücke: 69 freight trains, 11 passenger trains
- Connecting lines in the direction of Berlin with lower use of freight trains (56) but with a significant higher amount of passenger trains (83)
- For 2015 expectation of a significant higher demand: Oderbrücke 101 freight trains (+46 %), connecting line to Berlin 133 freight trains (+60%)
- Traffic at rail checkpoints Küstrin-Kiez / Kostrzyn and Guben - Gubin currently daily 7 respectively 10 freight trains
- Also for these rail lines expectation of a duplication of traffic (operating program 2015 after upgrading Berlin – Kostrzyn 20 freight trains daily)
- **Road**
- since Poland's accession to EU in May 2004 monthly use of checkpoint by ca 180,000 lorries
- →Augmentation of about 100%

Rail Freight Traffic 2006 / Prognosis 2015

Section	Direction Poland			Direction Berlin		
	SPFV	SPNV	SGV	SPFV	SPNV	SGV
	[ Z/d ]	[ Z/d ]	[ Z/d ]	[ Z/d ]	[ Z/d ]	[ Z/d ]
<b>OPERATING PROGRAM 2006</b>						
Berlin Stadtforst - Erkner	8	39	30,5	8	39	30,5
Erkner – Fürstenwalde (Spree)	6	38,5	28	6	38,5	28
Fürstenwalde (Spree) – Frankfurt (Oder)	6	35,5	28	6	35,5	28
Frankfurt (O) - Oderbrücke - Grenze D/PL	6	2,5	34,5	6	2,5	34,5
<b>PROGNOSIS OPERATING PROGRAM 2015</b>						
Berlin Stadtforst - Erkner	12	38	66	12	36	67
Erkner – Fürstenwalde (Spree)	12	38	66	12	38	67
Fürstenwalde (Spree) – Frankfurt (Oder)	12	38	66	12	38	67
Frankfurt (O) - Oderbrücke - Grenze D/PL	12	8	53	12	8	48

source: DB Netz AG

Long Distance Freight Traffic by Lorry 2003/2004



source:  
ETTC

## 2. Cross-border freight traffic - Analysis of Potentials: Traffic Flow (an example – we also looked at the infrastructure and other details)

### ▪ Deficiencies and Problems (Weaknesses)

- Considerable and Expensive freight checking as well as technical checking in the border station Oderbrücke (differing EDP-systems, ample inspection rules)
- Lack of multi system locomotives respectively locos and staff for the time consuming changing process in the station Oderbrücke
- Splitting of lanes at checkpoint Frankfurt (O) - Świecko (car, lorry, bus) is not optimal (long passing duration for lorries, short for cars)
- Traffic guidance systems for use of checkpoint capacities are in the whole region underdeveloped (separate guiding of cars and lorries)
- Traffic organisation in the area of crossroad A2 – N29 (causing tailbacks in the border zone)

### ▪ Attractive Attributes (Strengths)

- Concentration of dispatching processes (locational, personnel, technical) at the frontier railway station Oderbrücke
- Flexibility of use of the Freight tracks in the stations of Rzepin and Oderbrücke (signal protection from both sides)
- Moderate increase of capacity and eased checking process for freight traffic at checkpoint Frankfurt (O) - Świecko
- Improved traffic organisation in the tailback zone of the checkpoint A 12 (general speed limit of 80 km/h)

		Situation					Potential		
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## 2. Cross-border freight traffic:

### The result - Recommendation for Implementation

- **Short- and Midterm Measures**

- ***Rail Freight Traffic***

- Pushing ahead the realisation of the construction of the new Oder bridge
- Coordination of coherent freight papers and their digital handling
- Transferring the responsibility for the freight to the train operators, checking only at starting and destination locations (only samples), implementation of automated systems
- Use of multi system locomotives also for freight traffic
- appropriate division of work between the border stations of Oderbrücke and Rzepin
- Interoperability of the train control systems for the rail line Berlin - Warszawa
- Saving a perspective for the transshipment terminal in Frankfurt (Oder), possibly in division of labour with the Freight Village Freienbrink

## 2. Cross-border freight traffic: The result - Recommendation for Implementation

- **Long term measures**
  
- ***Rail Freight Traffic***
  
- Increase of capacity for the north-south-rail line Szczecin – Rzepin – Wrocław by profound modernisation works (system impact)
  
- upgrading of the rail line Berlin – Kostrzyn and developing a perspective for the rail line Cottbus – Forst – Żagań – Łódź / Wrocław (discharging impact)
  
- Saving the availability of all regional rail lines and their border clearance for the cross-border freight traffic lines on a modern level (system and discharge consequence)
  
- ***Road Freight Traffic***
  
- Realization of a new road checkpoint north of Eisenhüttenstadt including qualified accesses
  
- If necessary increasing the capacity of existing checkpoints in dependence of the impacts of liberalised conditions of use (for Schengen states)

### 3. Infrastructure planning

#### The essential goals of the study

- Overview:  
Activities in progress and planned on both sides of the border in the infrastructure area of all transport carriers
- Assessment:  
Recommended actions for the further procedure in the cross-border Cooperation
- Improvement of the communication basis

### 3. Infrastructure planning The actual planning

- The actual regional planning and State planning concepts on both sides of the border are primarily oriented to the own development. A consistent strengthening of the border zone as one, e. g. through central local function allocations, cannot be seen at present.
- Demographic development trends: Population losses on both sides of the border
- Rising motorisation; considerable increase of passenger and goods traffic
- Substantial differences in the traffic infrastructure as a result of the settlement structures ( different settlement density; different settlement structures)
- Important infrastructure projects are planned on road and rail: The expansion of the rail route Berlin-Frankfurt (Oder) and the expansion of the road route B112 (Oder-Lausitz route) on the German side. On the Polish side in particular the expansion of motorway 2 and the express highway 53



### 3. Infrastructure planning

#### Recommended actions

- The set-up and maintenance of personal contacts: The expansion of a corresponding network will decide about the success of cross-border planning projects
- Differences in the legal System and administrative set-up make Cooperation more difficult. It would principally be useful to relocate competences to regional and local political sub-divisions (principle of subsidiarity)
- The aim of the so called “Oder partnership” (Institutions, carriers, companies of both sides of the border) is to improve and reinforce the net-working of the communication structures of the administration and politics.  
The partnership will carry out a Joint lobbying towards the national governments and the European Union for important projects in order to develop a Joint economic area with the special focus on cross-border infrastructure.
- The Oder partnership should be used as an important platform for coordinating planning questions - the three working groups transport, tourism and economy form the specialist level

Thank you for your attention

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