Fehmarn Belt Business Council Conference 2010

Introducing Deutsche Bahn AG – DB Schenker and DB Netze
Current status of Railway connection Fehmarnbelt Link

Copenhagen, 14.09.2010

Deutsche Bahn AG

Ute Plambeck

Copenhagen, 14.09.2010

Agenda

Mobility Networks Logistics

Deutsche Bahn at a glance

Strategic orientation

Fehmarn Belt Connection - www.deutschebahn.com/fbq

The history of DB begins with the inauguration of the Nuremberg-Fürth line

1835 The railway era in Germany begins with the inauguration of the six-kilometer-long line between Nuremberg and Fürth

1886 Almost all railways in Germany have been nationalized

1920 after the foundation of the Weimar Republic, the eight German state railways are merged together to form the Deutsche Reichsbahn

1924 Deutsche Reichsbahn-Gesellschaft is founded

1937 After bringing the company into line with Nazi ideology, the corporate form is dissolved and Deutsche Reichsbahn is run directly by the state

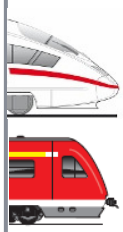
1949 Deutsche Bundesbahn is founded in West Germany. The name Deutsche Reichsbahn is retained in East Germany

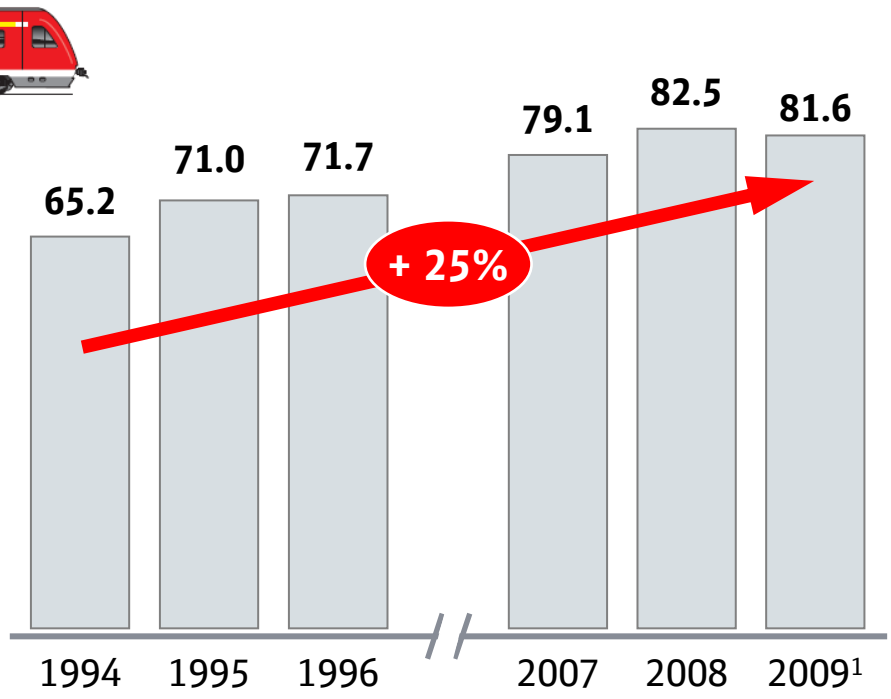
1990 under the Unification Treaty, Deutsche Bundesbahn and Deutsche Reichsbahn are declared separate special assets of the Federal Republic of Germany – Rail Reform begins

1994 DB Group is founded

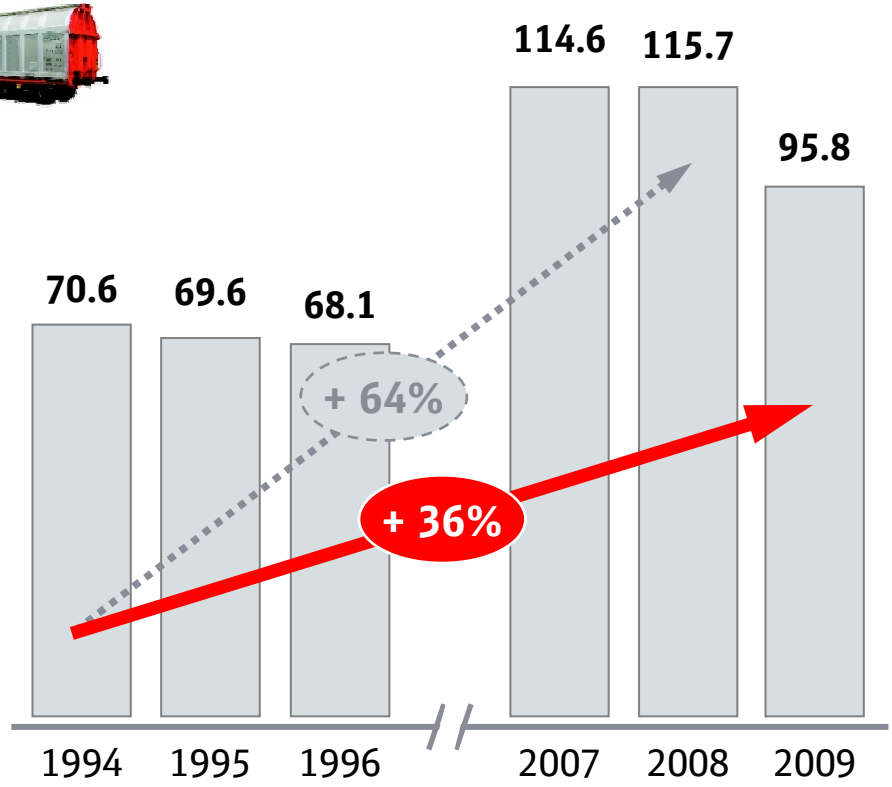
The aim of the Rail Reform, to bring more traffic to the rails, was achieved in both passenger and freight transport

Rail passenger transport performance
Germany, in bn passenger kilometers





Rail freight transport performance[2]
Germany, in bn ton kilometers



Sources: DB Group, Federal Statistical Office, BMVBS/BAG; [1] 2009 = provisional actual; [2] Up to 1998 net transportation performance, from 1999 gross transportation performance

DB has developed into a leading mobility and logistics company

DB BAHN

- 1.9 bn rail passengers per year
- 26,906 trains per day
- 800 mn bus passengers per year
- Approximately 4 mn BahnCards in circulation

Transport market

DB SCHENKER

- 341 mn tons of transported goods per year[1]
- 4,739 freight trains per day
- 484 tons per train
- 70 mn shipments in European land transport

DB NETZE

- Largest rail network in Europe
- 63,914 km rail track[2]
- 5,707 passenger stations
- 7,754 km-long electricity network
- 143.3 mn station stops per year

As of December 31, 2009 [1] Gross tons [2] Length of all tracks in km

With a total of nine business units, DB generated 30 billion EUR in revenue in 2009

DB Mobility Networks Logistics

DB Mobility Networks Logistics [1]

No. 2 Public regional passenger transport in Europe

No. 2 Passenger rail transport in Europe

No. 1 European rail freight transport

No. 1 European land transport

No. 1 Biggest rail network in Europe

Revenue (bn EUR)	**29.3**
EBIT (bn EUR)	**1.685**
Employees (’000)	**239**

DB BAHN

DB Bahn Long-Distance

Revenue (m EUR)	3,565
EBIT (m EUR)	141
Employees (‘000)	15

DB Bahn Regional

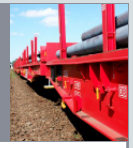
Revenue (m EUR)	6,856
EBIT (m EUR)	870
Employees (‘000)	25

DB Bahn Urban

Revenue (m EUR)	1,985
EBIT (m EUR)	100
Employees (‘000)	13

DB SCHENKER

DB Schenker Rail

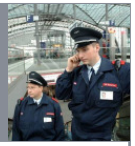


Revenue (m EUR)	4,055
EBIT (m EUR)	-189
Employees (‘000)	34

DB Schenker Logistics

Revenue (m EUR)	11,292
EBIT (m EUR)	199
Employees (‘000)	57

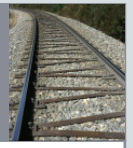
DB Services



Revenue (m EUR)	1.237
EBIT (m EUR)	125
Employees (‘000)	24

DB NETZE

DB Netze Track

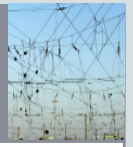


Revenue (m EUR)	4,369
EBIT (m EUR)	558
Employees (‘000)	40

DB Netze Stations

Revenue (m EUR)	1,025
EBIT (m EUR)	217
Employees (‘000)	5

DB Netze Energy

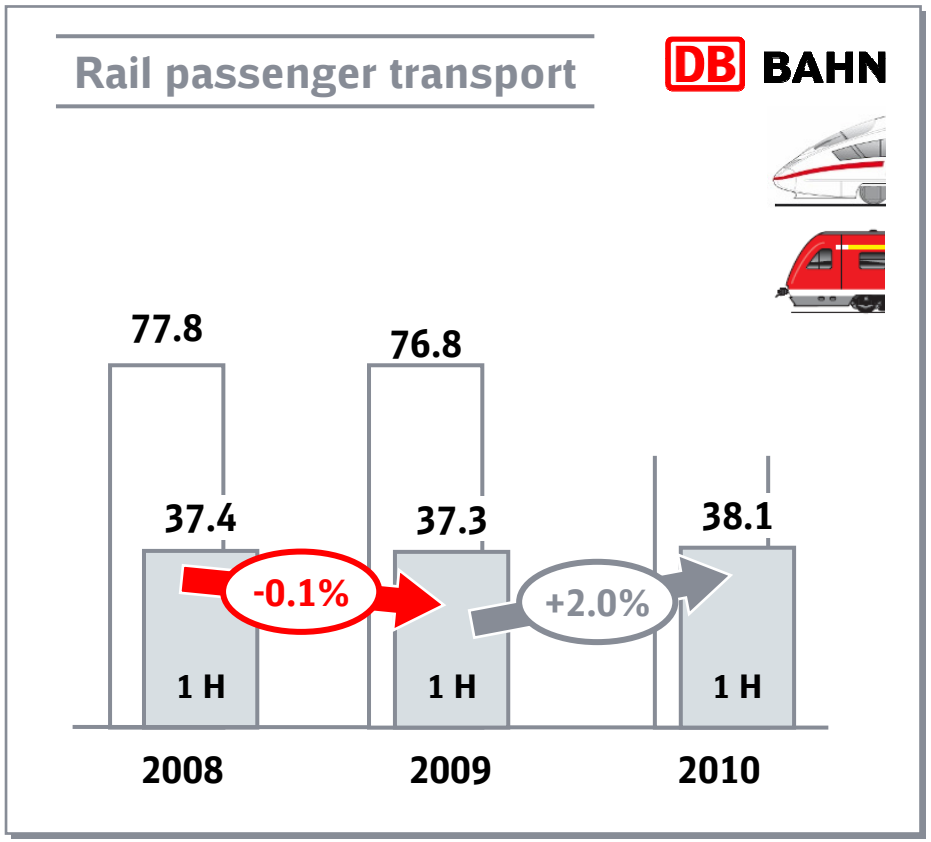


Revenue (m EUR)	2,308
EBIT (m EUR)	103
Employees (‘000)	2

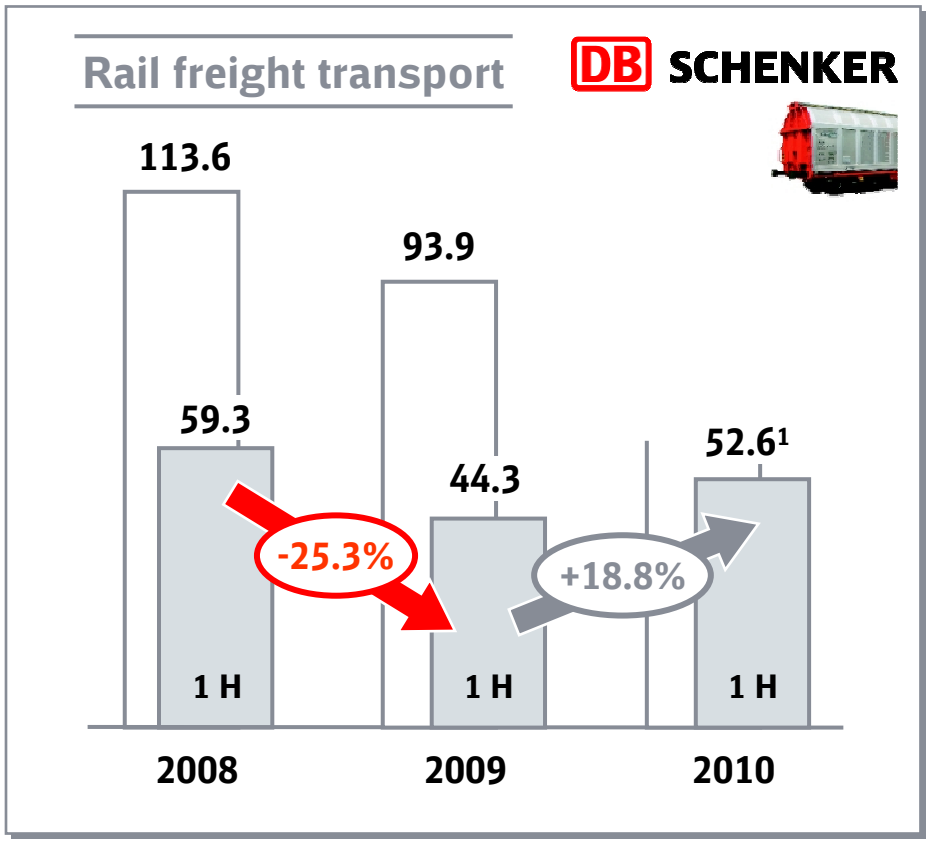
As of December 31, 2009, Revenues as total revenues; [1] Difference between the sum of the departments and DB concern result of other activities/consolidation

DB was able to increase its volumes sold in both the rail passenger and freight transport sectors during the first half of the year

Volumes sold rail – DB Bahn
in billions of passenger kilometers



Volumes sold rail – DB Schenker
in billions of ton kilometers

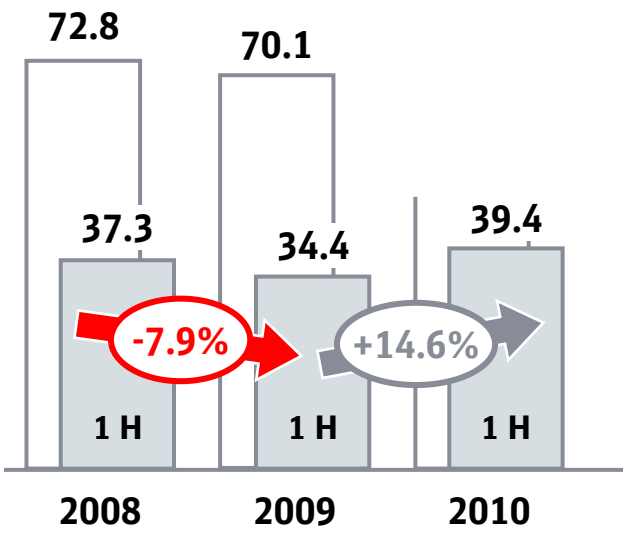


[1] Including DB Schenker Rail Polska, comparable change is +14.9%

A notable increase in volumes sold has been noted thus far in DB's land, air and ocean freight areas of business

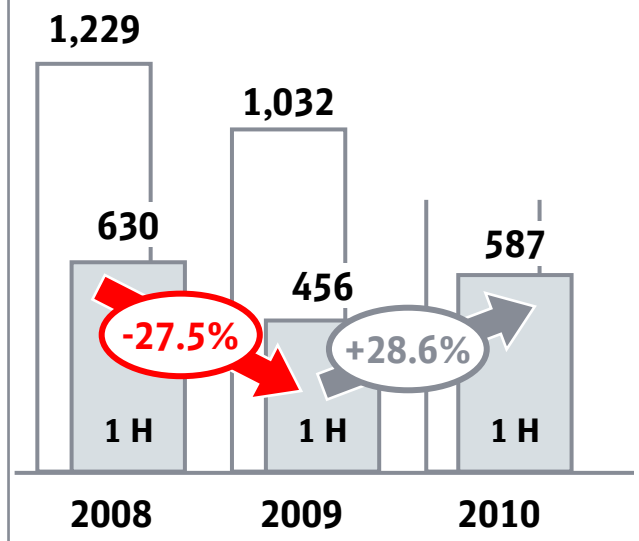
Volumes sold – land
in millions of shipments

Land transport



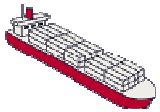
Volumes sold – air
in thousand t[1]

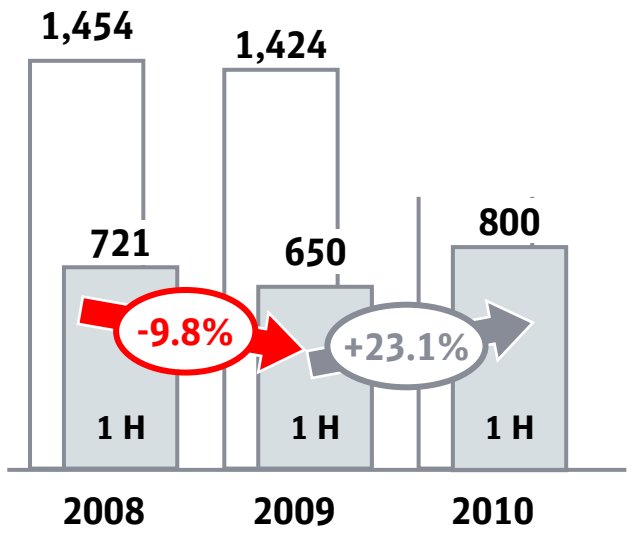
Air freight



Volumes sold – ocean
in thousand TEU[1]

Ocean freight



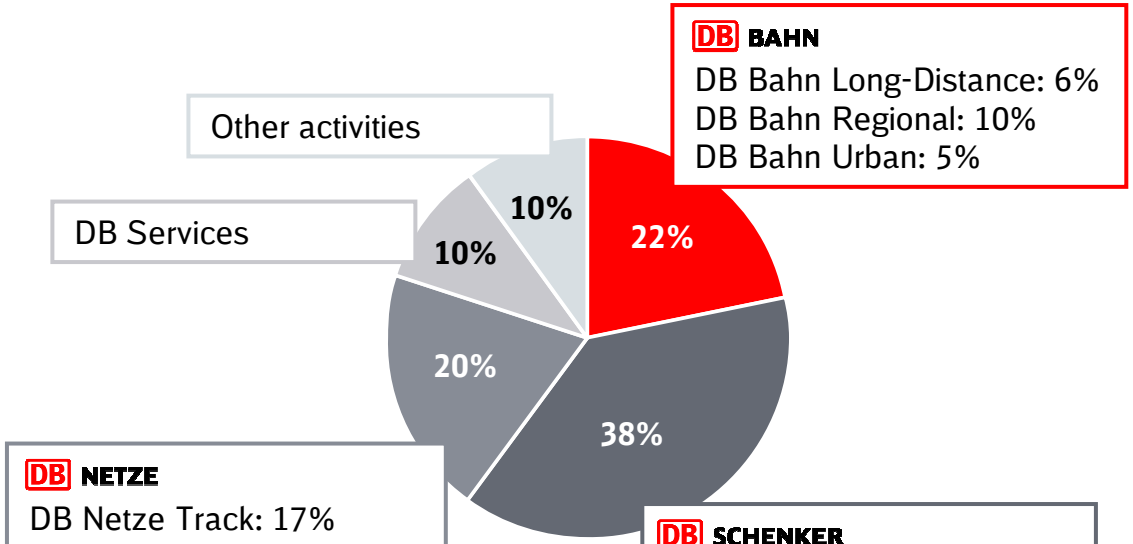


[1] Only exports taken into consideration to avoid counting figures twice

A quarter of DB's approximately 240,000 employees work outside of Germany

Employees by business unit

100% = 239,382 employees (full-time)[1]

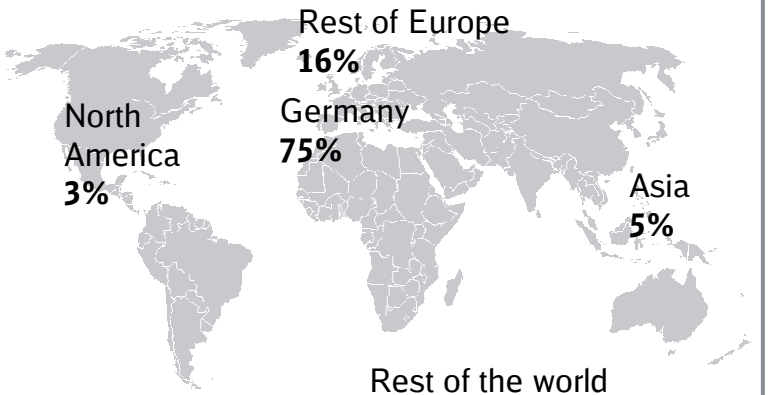


DB BAHN
DB Bahn Long-Distance: 6%
DB Bahn Regional: 10%
DB Bahn Urban: 5%

DB NETZE
DB Netze Track: 17%
DB Netze Stations: 2%
DB Netze Energy: 1%

DB SCHENKER
DB Schenker Rail: 14%
DB Schenker Logistics: 24%

Employees by region



Group figure as of December 31, 2009; employee distribution in % is rounded; difference between percentage values for business units and market category figures is due to rounding; [1] Full-time employees figure includes proportionate share of part-time employees

Agenda

Deutsche Bahn at a glance

Strategic orientation

Fehmarn Belt Connection - www.deutschebahn.com/fbq

We have advanced our core competencies beyond the railway in Germany

Passenger transport

- Evolving into an integrated mobility provider with door-to-door solutions
- Strengthening of transport networks by:
  - Cross-border long-distance services
  - Involvement in tenders and further development of existing transport in other European countries

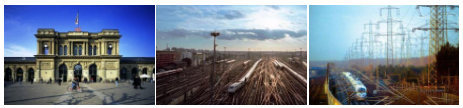
DB Mobility Networks Logistics

DB BAHN

DB SCHENKER

Railway in Germany

DB NETZE



Transportation and logistics

- Evolving into a truly European rail freight operator
- Global logistics service provider with integrated networks:
  - Expansion road-rail solutions
  - Development of special industry solutions

We align our strategy with macro trends in the transport market – they drive our growth

Mega trends in the transportation market

Globalization

- Growth in new markets in Asia and Eastern Europe
- Increasing global division of labor
- Long-term growth in global trade-flows

Climate change and shortage of resources

- Increasing awareness of climate change
- Transport sector as key source of carbon emissions
- Long-term price increases for fossil fuels

Liberalization

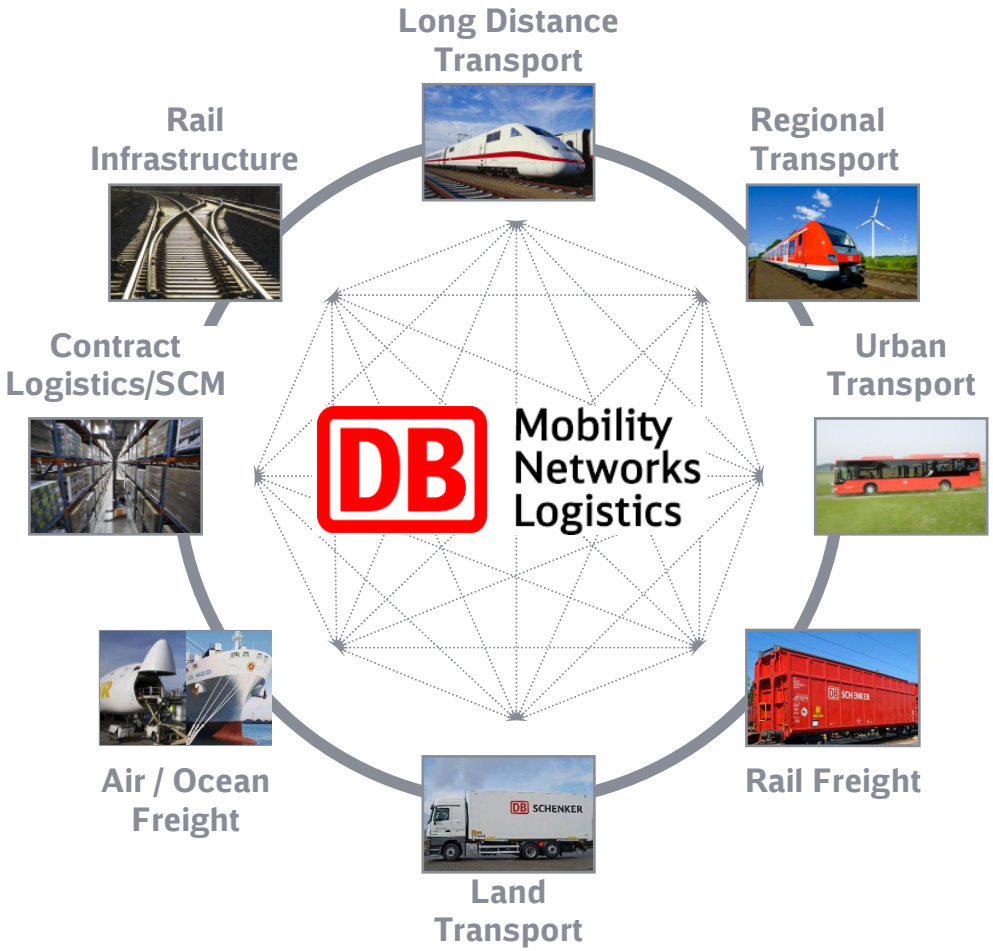
- Further deregulation of rail transport in Europe
- Increasing pressure on national budgets
- Outsourcing of public tasks

Demography

- Different regional trends – urbanization vs. rural exodus
- Increasing mobility in both working and private life
- Higher life expectancy, decreasing birth rates

DB has excellent skills in the development and operation of integrated transport networks

Development and operation of integrated networks



- **Long-Distance Transport**
  Tight, close-meshed network for fast, complete and comfortable mobility
- **Regional and Urban Transport**
  Regional and urban networks as attractive alternatives to the automobile
- **Rail Freight Transport**
  Network for cross-border transport services
- **Land Transport**
  Europe's largest and densest network for regular transport services
- **Air and Ocean Freight**
  Global network for one-stop shop logistics solutions
- **Contract Logistics / Supply Chain Management**
  Solving individual customers' logistical requirements worldwide
- **Rail Infrastructure**
  Largest and geographically most important rail infrastructure network in Europe

The aim of passenger transport is to consolidate its position in Germany and to further expand in Europe

DB Bahn's Strategic Approach

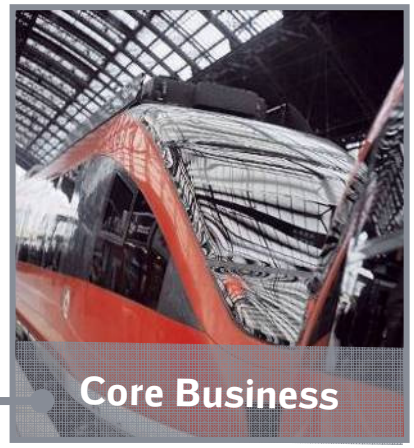
Offering mobility solutions

- Attracting new customers with innovative services and products
- Marketing travel chains

Products / Services

Further developing core business

- Safeguarding and expanding today's core business
- Increasing punctuality, quality and service



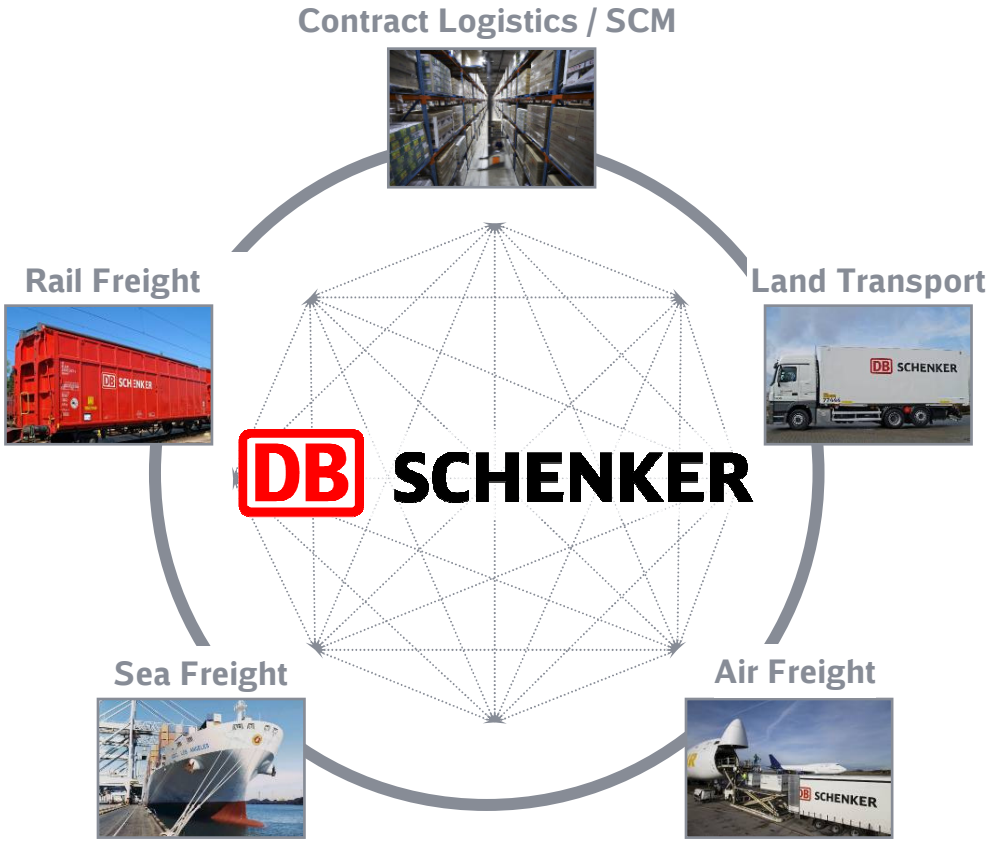
Advancing internationalization

- Expanding cross-border long-distance services
- Developing new international markets in regional transport

Markets

DB Schenker has strong networks and is globally the second largest provider of transport and logistics services

One-stop-shop logistics solutions



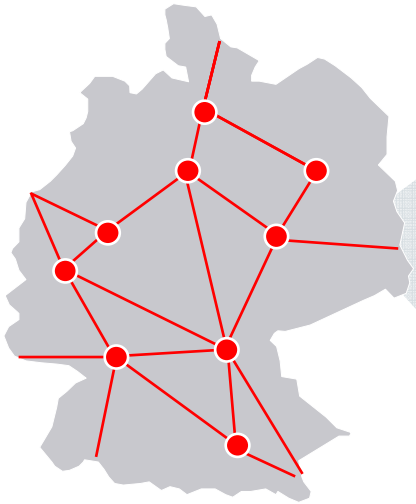
- **Rail Freight Transport – no. 1 in Europe**
  Network for cross-border transport services in Europe
- **Land Transport – no. 1 in Europe**
  Europe's largest and densest network for regular transport services
- **Air Freight – no. 2 worldwide**
  Global network for transport services
- **Ocean Freight – no. 3 worldwide**
  Global network for transport services
- **Contract logistics / SCM – no. 5 worldwide**
  Solving the logistics requirements of individual customers worldwide

A rail freight company operating in Germany has become a global transportation and logistics group

DB Mobility Networks Logistics

Until 2001

National rail freight network



3.5 EUR bn revenue

Rail freight network

Primarily **national services**

Acquisitions, organic growth

Today

Global transportation and logistics network

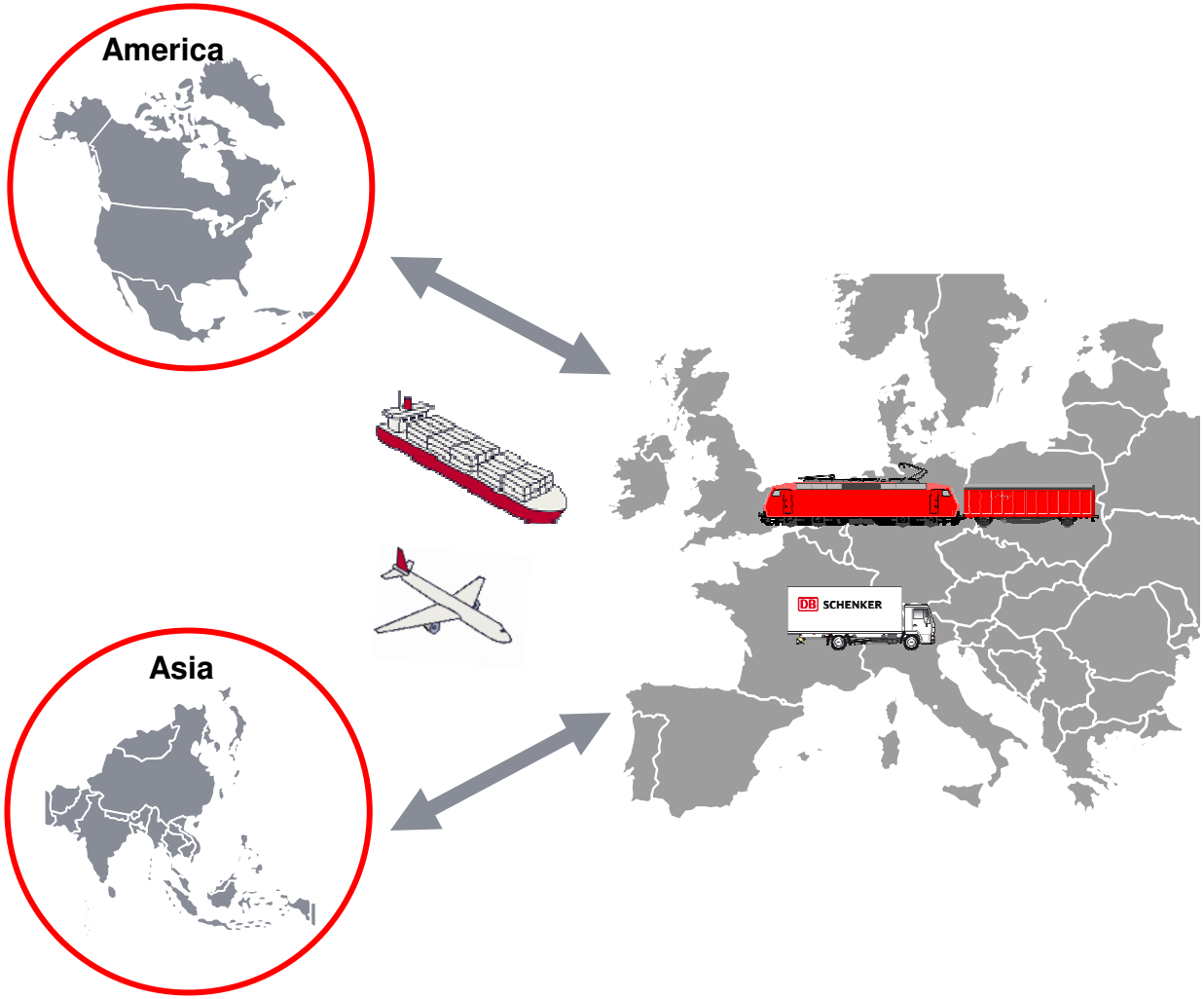
15.3 EUR bn[1] revenue

Solutions along the **whole logistics chain**

Global network with intermodal services

[1] as of: 31.12.2009

European land networks (rail/road) benefit greatly from DB's global presence

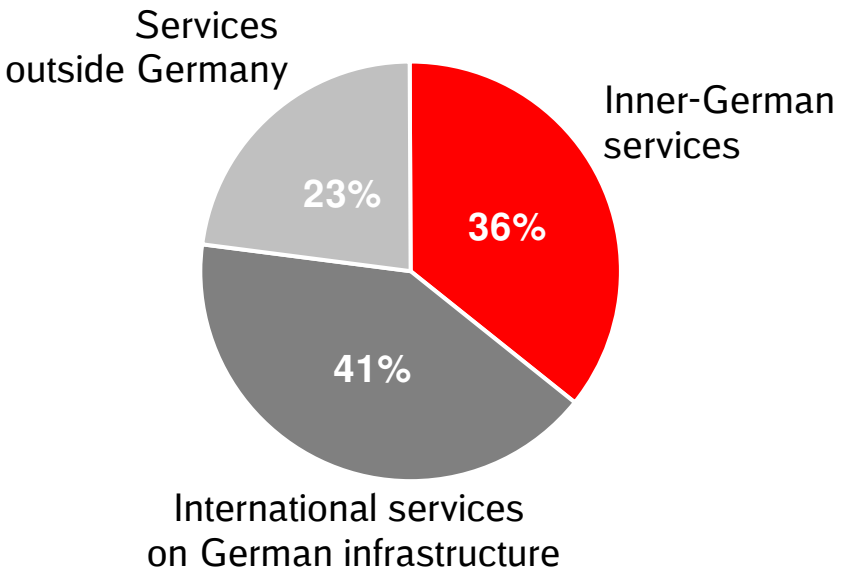


- **Linkage of European land networks** (road-rail)
  - Intermodal transport (containers)
  - Railports (single wagon transport)
- **Feeder and follow-up for air and ocean freight by road or rail transport**
  - Seaport hinterland
  - Road feeder services
- **Increase volumes of inter-European shipments**
  - By generating more business with European customers
  - Via new business with American and Asian customers

As an European provider DB Schenker Rail is well positioned in the most important European regions

64% of DB Schenker Rail's services are European

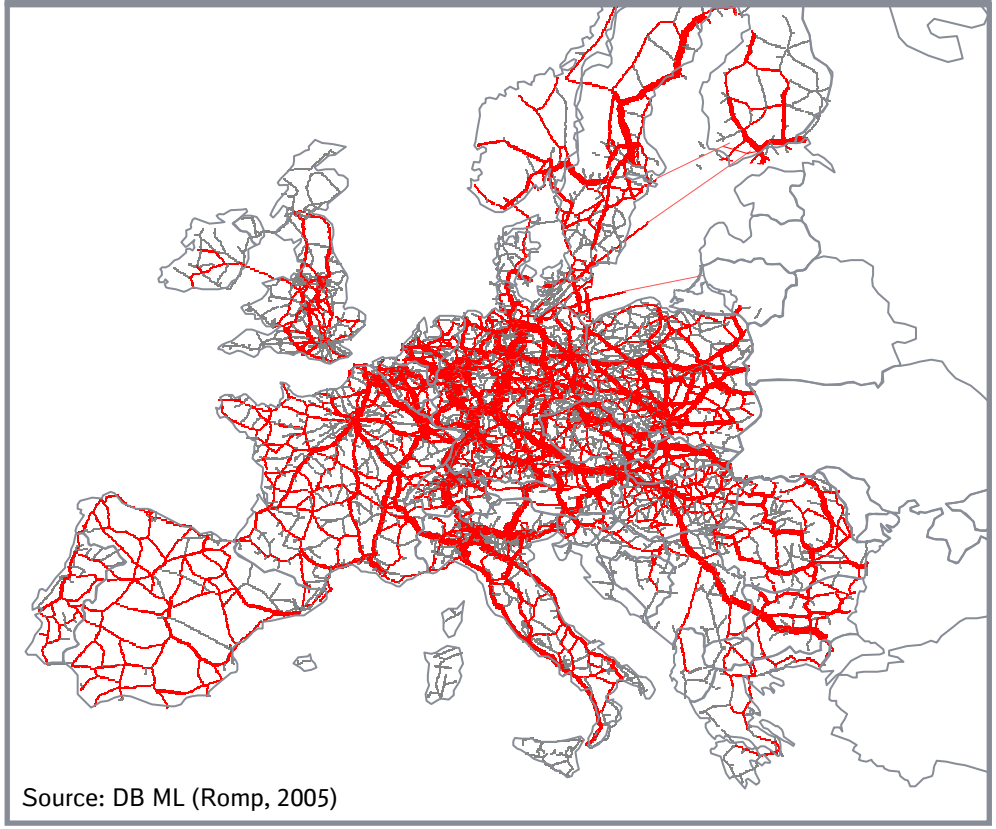
(Basis: DB Schenker Rail transport service 2009)



DB Schenker Rail rail services total 93.9 bn tkm

Traffic Volume of Europe's rail freight flows

(use of infrastructure by rail freight transport)

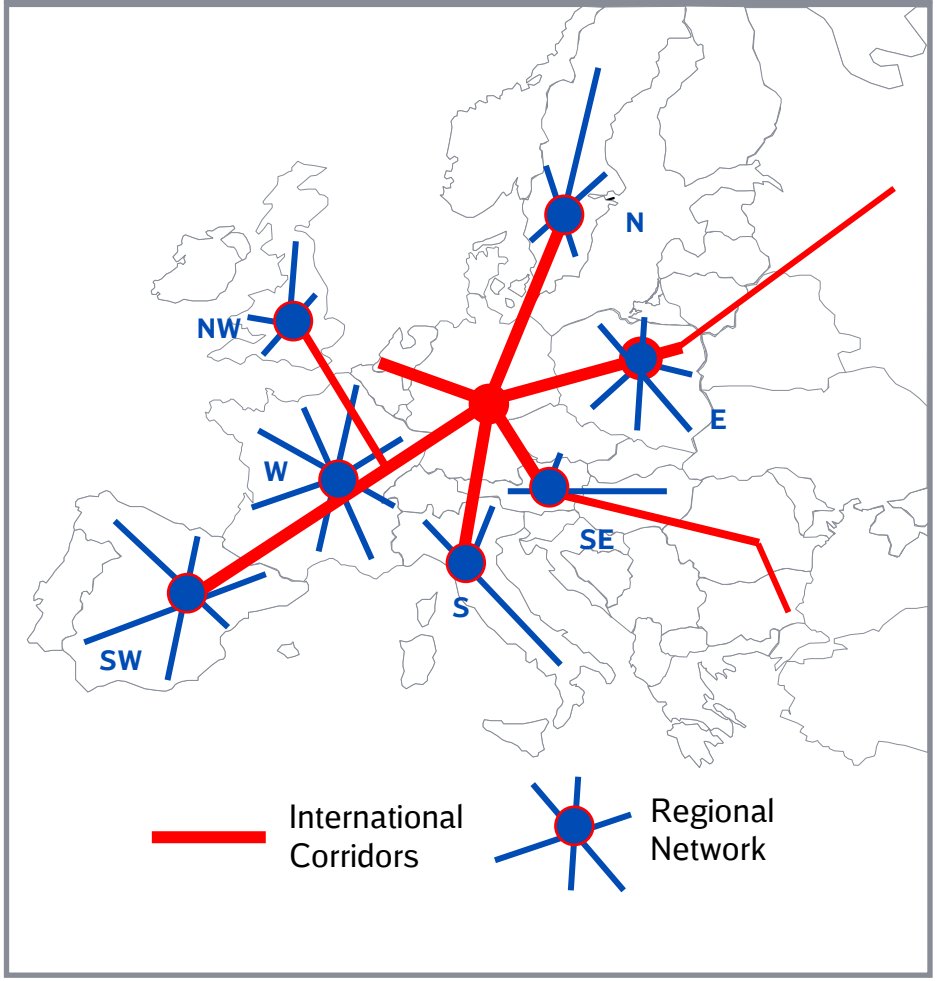


Source: DB ML (Romp, 2005)

as of: 31.12.2009

DB Schenker Rail has consistently expanded its European rail freight network along the main corridors

DB Schenker's rail freight network



Acquisitions

- **NL** NS Cargo (2000)
- **DK** DSB Gods (2001)
- **IT** Strade Ferrate del Mediterraneo (2004)
- **DE** RBH Logistics (2005)
- **CH** Brunner Railway Services (2007)
- **UK / FR / ES** EWS / ECR (2007)
- **ES** Transfesa (2008)
- **PL** PCC Rail / PTK (2009)

New companies

- **RO / BG** LSD (2000)
- **HU** LCH (2000)
- **BG** DB Schenker Rail Bulgaria (2010)

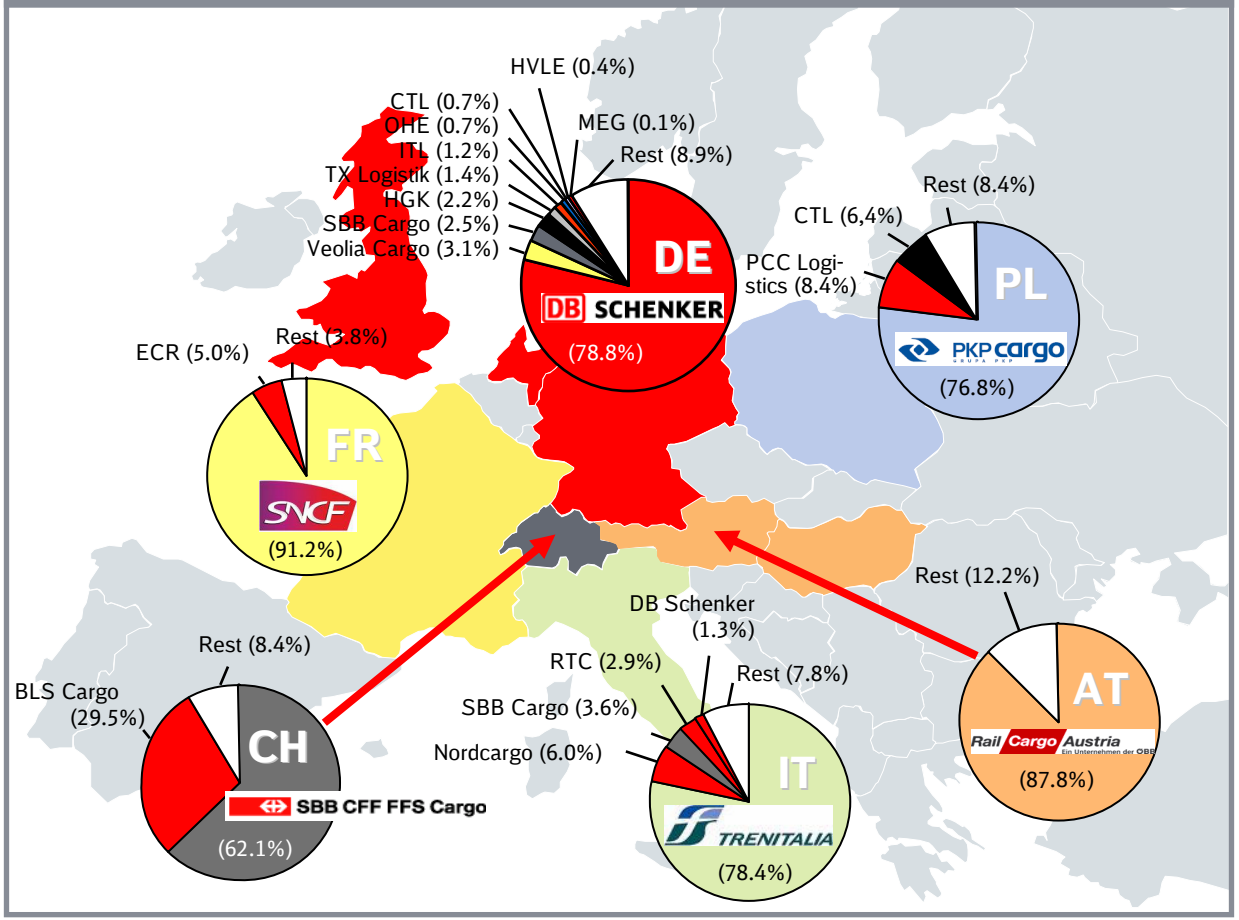
Holdings

- **BE** Cobra
- **CH** BLS Cargo
- **CN** CUIRC
- **DK / SE** DB Schenker Rail Scandinavia
- **IT** RTC and Nordcargo
- **RU** Trans Eurasia Logistics

Increasing consolidation on European markets: competition dominated by state-owned railways

DB Mobility Networks Logistics

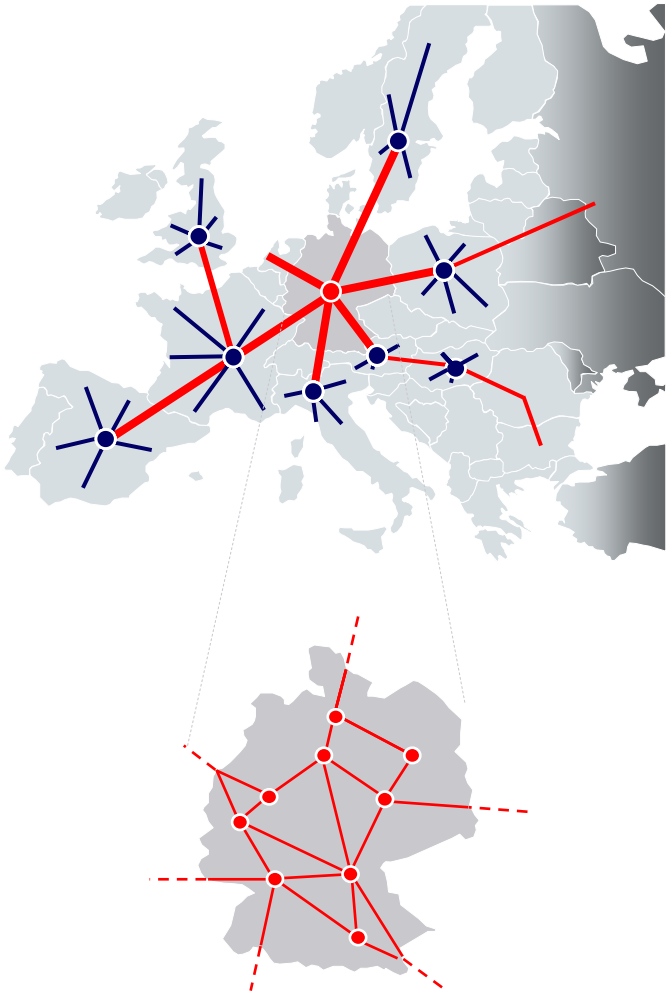
National market shares 2008
(based on ton kilometer)



Subsidiaries of **state-owned railways** are the strongest **competitors** on the European freight rail markets

Source: VDV, DB surveys based on UIC, SCI, company information, press releases, Zespół Doraców Gospodarczych TOR Spółka z o.o.

DB Schenker Rail is modernizing its national network and expanding European services for its customers



- Expansion of European rail freight service for our customers
- Streamlining of regional business models (full RU, own production, cooperation)

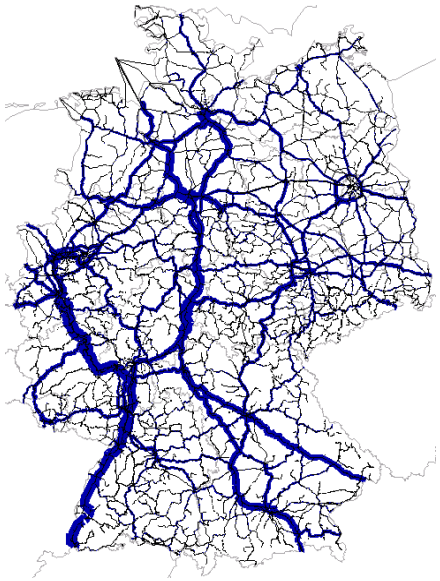
Profitable rail freight network provider throughout Europe

- Modernization of single wagon services & production network (“network railway“)
- Safeguarding competitive cost structures

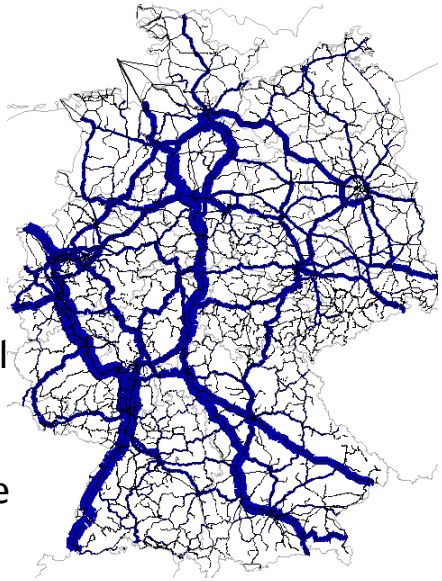
Growing traffic volumes will increasingly aggravate bottlenecks on the main corridors

- Worldwide interlinking of business relations in the course of globalisation will lead to sustained growth for freight traffic over the long terms
- The rail mode will benefit from increasing transport distances, opening of the European rail networks and the high energy efficiency of rail transport
- Increasing volumes, especially in hinterland transport to and from the European sea and inland ports, as well as cross-border transports
- The forecast re-urbanisation is expected to generate additional demand for local transport at metropolitan areas up to 2020
- Increasing demand for rail infrastructure on corridors which are already heavily congested (total growth in rail freight transport between 2004 and 2025 +65% [2])

Network usage in 2004 [1]



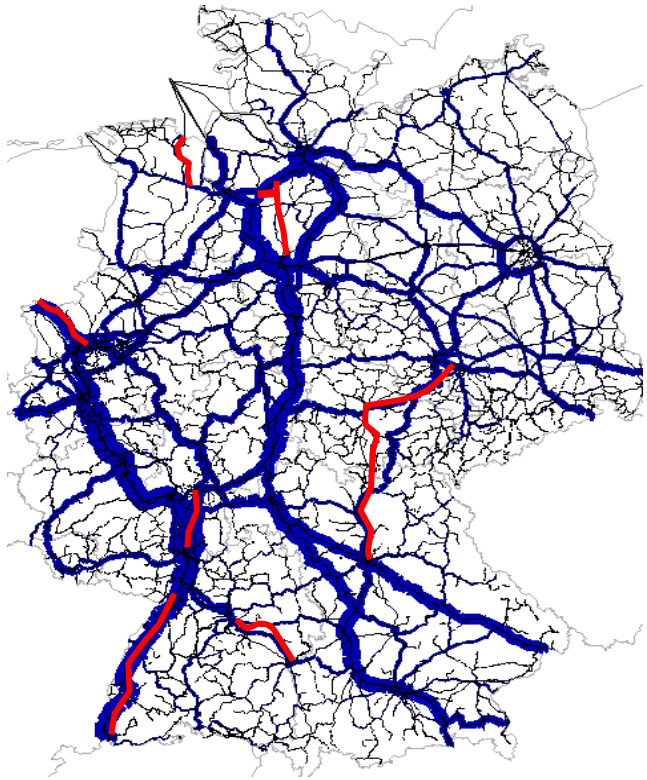
Forecast network usage in 2015 [1]



1) No. of trains per day

2) Forecast by Federal Ministry of Traffic, Building and Urban Affairs (BMVBS)

The infrastructure is being expanded along growth corridors



High levels of traffic

Expansion measures planned or under construction

- **Eliminate bottlenecks along transportation corridors** and around hubs with **high growth forecasts** for passenger and freight transport
- **Create capacity for additional north-south traffic** along alternative routes using measures from the **growth program**
- Link core German network with **international transportation corridors**
- **Expand hinterland feeder routes** to key European sea ports in order to realize full growth potential available in rail freight transport (current sea port hinterland traffic program)
- **Improve connections between sea ports and the transportation infrastructure** (expand maritime terminals, sea port hinterland transport)

Tying up a high level of funds and follow-on costs for several generations call for sustainable infrastructure management

Service life / tied-up capital – 25 years – 50 years – 75 years – 100 years

Rail vehicles

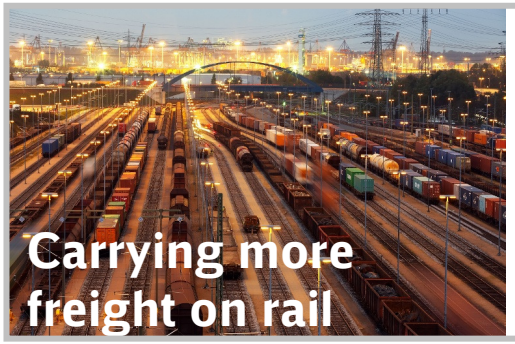
Rail infrastructure as basis of the railway system

- High capital intensity and long-term tie-up of funds
- Low flexibility in dynamic markets

Farsighted, long-term planning and actions safeguard our economic success and the success of our customers

Coordination of transport policy objectives and framework conditions with partners at Federal and Land government level

- Clear concepts for where and how infrastructure will be needed in future as a result of demographic change



- Creating planning reliability for capacity growth and projects, providing sufficient funds for capacity growth

- Fulfilling the requirements to enable clean traction current to remain affordable

Capacity expansion is vital to enable us to participate in overall freight traffic growth on rail

Our levers for expanding capacity

Increasing availability and better infrastructure utilisation

- **Technology strategy**
  We are constantly enhancing our existing technologies and promoting the development and use of new, innovative procedures
- **Process optimisation**
  Continuous improvement of our maintenance and construction site planning processes

Infrastructure upgrading based on a sustainable growth programme

- **Sustainable growth programme**
  With forward-looking solutions for freight, long-distance and regional transport which can be implemented over the short term
- **Ongoing development of network planning** (focus 2025 - 2030)
  Paying particular attention to nodes

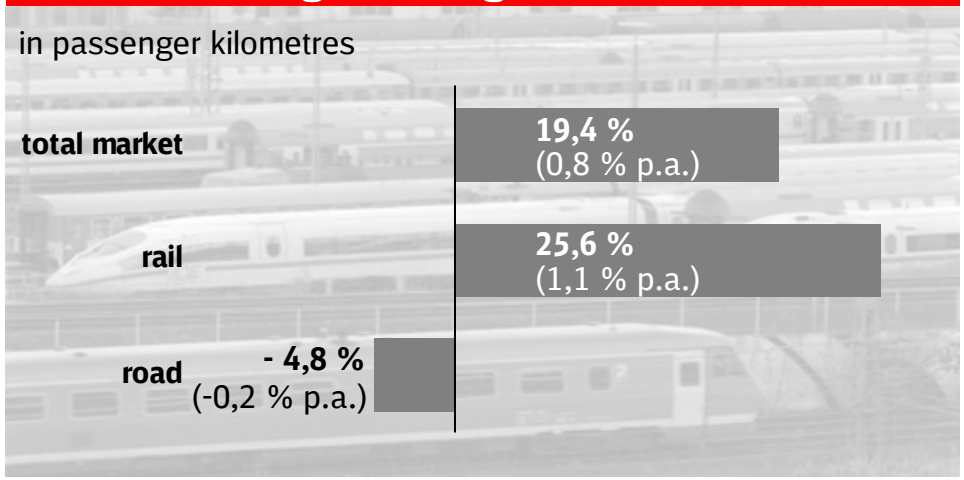
The Federal Ministry of Transport predicts that traffic volume will continue to grow also in the future - railways will benefit from that

DB Mobility Networks Logistics

Growth Programme

Development of traffic volume until 2025

Passenger traffic growth 2004-2025



- Market growth leads – especially in long-distance passenger transport – to higher capacity utilization of trains but hardly to any increase in train-path kilometres

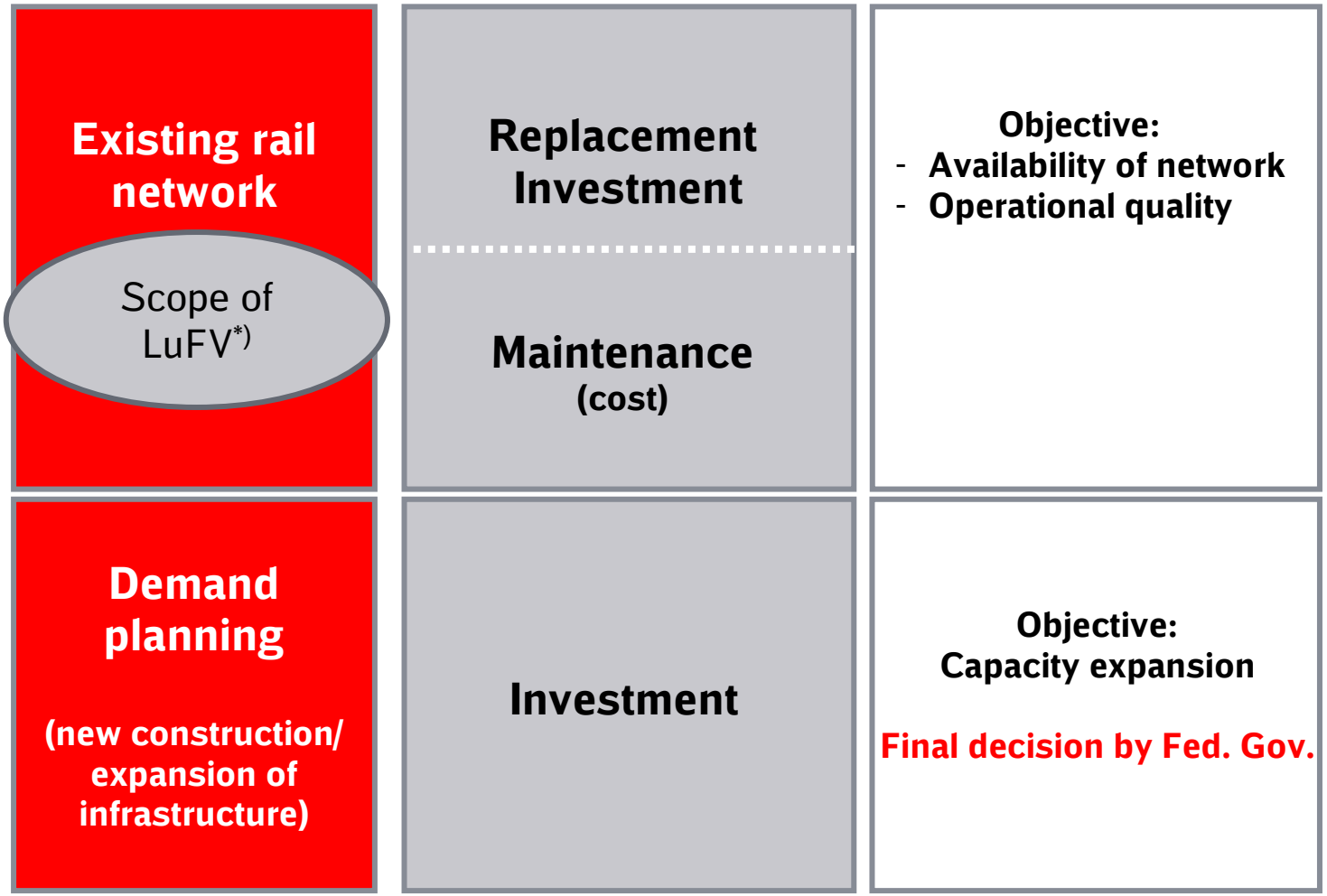
Goods traffic growth 2004-2025

- International goods traffic is growing
- Overproportionate growth of combined traffic (+129%)
- Yet modal split loss for railway is predicted

We should consistently seize growth opportunities and **enhance capacities** especially between **2013 and 2017**- it is essential to launch a **Growth Programme**

Quelle: BMVBS-Prognose 2025

Overall funding structure of federal railways



*) = Leistungs- und Finanzierungsvereinbarung (Performance and Financing Agreement)

Quelle: I.NFF 1, I.NVI 2

Separate funding of infrastructure

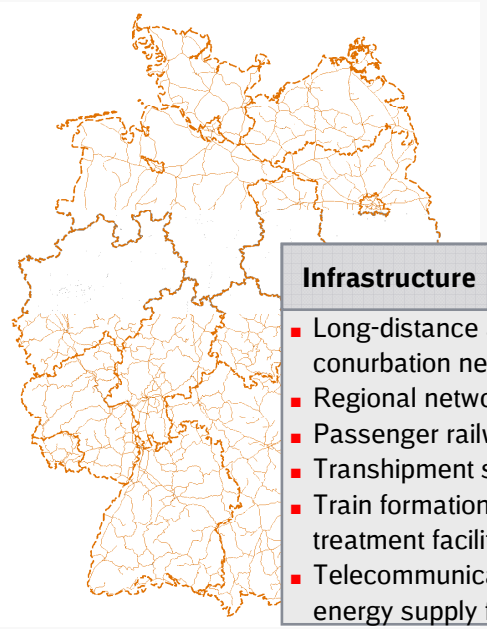
Immediate Action Programme Sea Port Hinterland Transport (SHT)	Investment	Objective: Capacity expansion Final decision by Fed. Gov.
Economic stimulus packages I and II	Investment	Objective: Capacity expansion Final decision by Fed. Gov.
Miscellaneous	Investment	Objective defined by project

The Performance and Financing Agreement (LuFV) was signed on 19 January 2009 and ensures funding sources and preservation of infrastructure quality

Existing network/ LuFV

Performance and Financing Agreement (LuFV)

Quality of the infrastructure



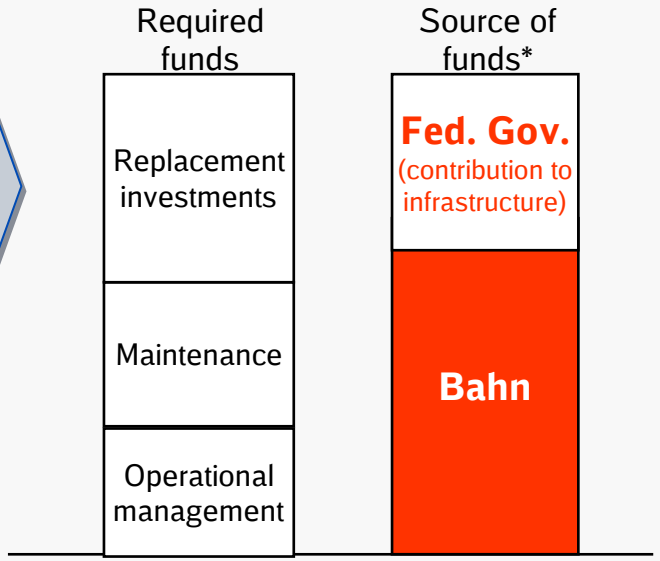
Infrastructure

- Long-distance and conurbation network
- Regional networks
- Passenger railway stations
- Transhipment stations
- Train formation and treatment facilities
- Telecommunication and energy supply facilities

The **Bahn** ensures provision and operation of infrastructure

The **Fed. Gov.** makes binding commitment to contribute to infrastructure

Required funds / source of funds



Performance and Financing Agreement (LuFV) existing infrastructure

*In addition, there are funding contributions by "third parties", especially by Fed. Gov. and Fed. States according to GVFG (Act on Financial Grants by the Fed. Gov. to improve traffic conditions in communities).

The quality promise from the Performance and Financing Agreement was fulfilled in 2009

Mobility Networks Logistics

Existing network/ LUFV

Parameter	Summary	
Theoretical loss of travel time **(DB Netze Fahrweg)**	The quality paramenter includes all infrastructure flaws that have been existing for more than 180 days. The target value set out in the agreement has been achieved.	✓
Functionality of platforms **(DB Netze Personenbahn-höfe and DB RNI GmbH)**	The quality paramenter includes platform features regarding platform height, barrier-free platform access and shelter against the weather. The target value set out in the agreement has been achieved.	✓
Security of energy supply for railways **(DB Netze Energie)**	By reference to this quality paramenter, it is assessed which impacts the use of funds will have on the intended usability of the infrastructure for electric energy railway supply. The basis are energy supply outages for which DB Netze Energie takes the responsibility. The target value set out in the agreement has been achieved.	✓
Mininum contribution to replacement investment	The agreement obliges Railway Infrastructure Enterprises to make annual replacement investments to the amount of at least 2.5 billion € per annum from federal funds, as well as additional investments to the amount of at least 500 Mio. € from own funds and to prove them. Contractually agreed evidence have been provided.	✓
Minimum contribution to maintenance	The contracutally agreed objective to prove the minimum maintenance volume has been achieved.	✓

The funds needed for new construction and expansion projects require a funding line clearly above the funds currently available from Federal Budget Funding

Required Funds

Projects to be implemented* of high priority demand, as of 2009

Annual demand for Federal Budget Funding depending on implementation period

Implementation period	Demand for funding p.a
23 years (until 2032):	1,2 billion EUR
20 years:	1,5 billion EUR
16 years (until 2025):	**1,8 billion EUR**
15 years	1,9 billion EUR

For information:
available Fed. Budget Funding p.a.: approx. 1,1-1,2 billion EUR

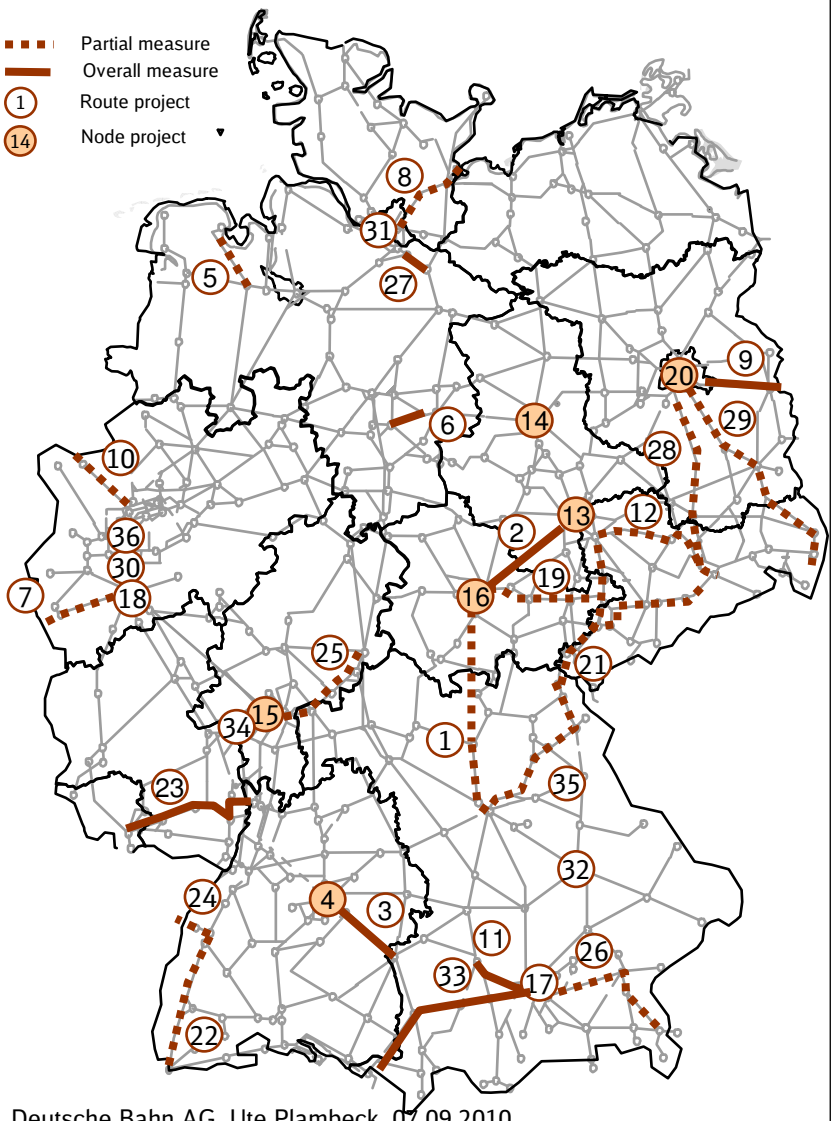
* Projects to be implemented are a subset of the high priority demand

Infrastructure

Currently, there are 36 demand plan projects under construction and/or backed up by financing agreements

Mobility Networks Logistics

Investment



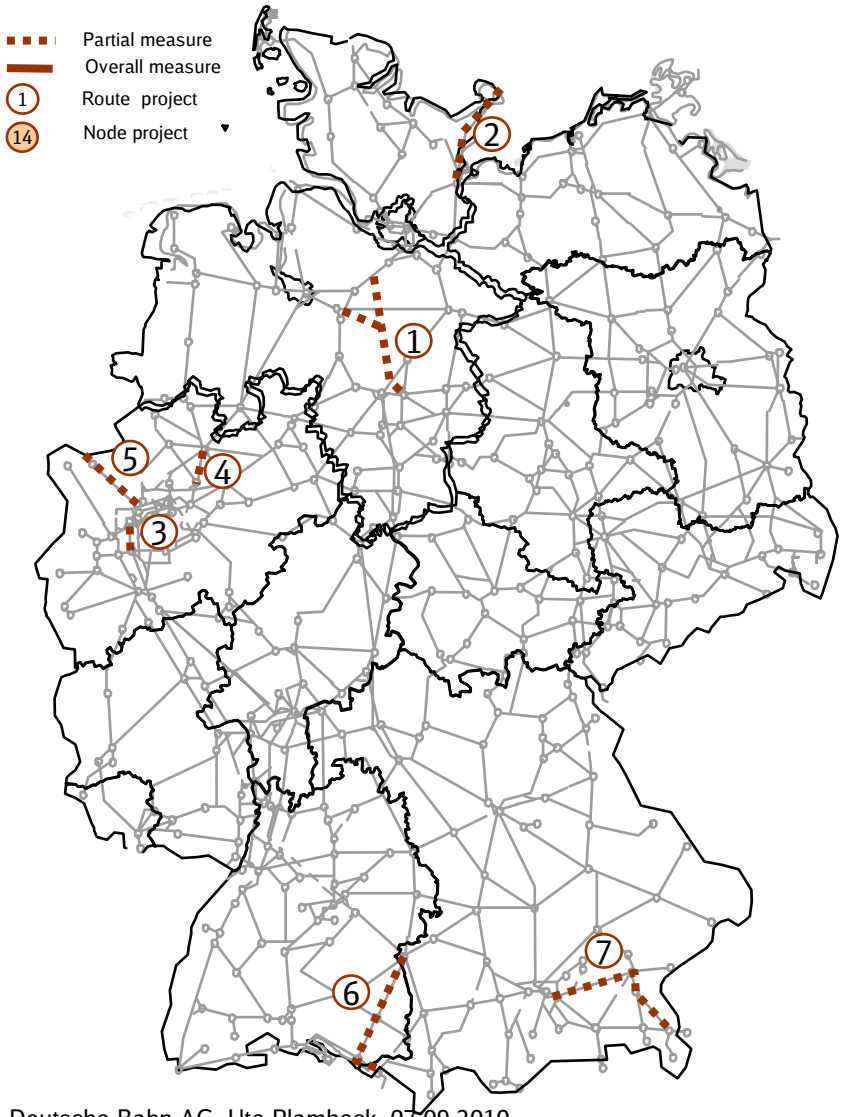
	Measures	Track section
1	VDE 8.1 Nürnberg – Erfurt	new rail line, parts of exp. Nürnberg – Erfurt (incl. parts Econ.SP)
2	VDE 8.2 Erfurt –Halle/ Leipzig	including parts of Eco. Stim. Prog.
3	ABS/NBS Stuttgart – Ulm – Augsburg	new rail line Wendlingen – Ulm
4	ABS/NBS Stuttgart – Ulm - Augsburg	Stuttgart 21
5	ABS Oldenburg – Wilhelmshaven	2nd rail line (incl. parts of Econ. Stim. Prog.)
6	ABS Löhne – Braunschweig – Wolfsburg	Hildesheim – Groß Gleidingen
7	ABS Köln – Aachen	Aachen – state boarder incl. Buschtunnel (AA III)
8	ABS Hamburg – Lübeck	double-track Schwartau – Kücknitz
9	ABS Berlin – Frankfurt/Oder	
10	ABS D/NL Emmerich – Oberhausen	electr. signal tower Emmerich, ETCS
11	ABS Augsburg – München	
12	VDE 9 Leipzig – Dresden	2nd rail line, parts of 3rd line (ESP: Weinböhla – Radebeul West)
13	Node Halle/ Leipzig	1st rail line Leipzig
14	Node Magdeburg	2nd rail line
15	Node Frankfurt/Main Sportfeld	1st rail line
16	Node Erfurt	2nd rail line (rebuild station), 3rd line (VDE 8.1/8.2 incl. parts ESP)
17	Ubf München-Riem	3rd module
18	ZBA Gremberg	
19	ABS Paderborn – Chemnitz	2nd + 3rd RS, electr. signal tower Meerane (incl. parts ESP)
20	Node Berlin	Ostkreuz, connection BBI (incl. parts Econ. Stimul. Prog.)
21	ABS Karlsruhe – Stuttgart – Nürnberg – Leipzig/Dresden	1st rail line Gaschwitz – Crimmitzschau; Hohenstein-Ernstthal - St. Egidien (Econ. Stimulus Programme)
22	ABS/NBS Karlsruhe – Basel	StA 9.1 (Schliengen – Eimeldingen; Katzenbergtunnel)
23	ABS Saarbrücken – Ludwigshafen	POS Nord
24	ABS Kehl – Appenweier	1st building phase (POS Süd)
25	ABS Fulda – Frankfurt/Main	Neuhof Station
26	ABS München – Mühldorf – Freilassing	Ampfing – Mühldorf, elec. signal tower Burghausen (Econ.Stim. Prog.), Innbrücke (Econ. Stim. Prog.)
27	ABS Stelle – Lüneburg	three-track expansion
28	ABS Berlin – Dresden	cont. 1st rail line, (Ec. Stim. Prog.: GE Brenitz – Doberlug, electr. signal tower Doberlug)
29	ABS Berlin – Cottbus – Görlitz	Königs Wusterhausen – Lübbenau (Econ. Stim. Prog.)
30	Ubf Köln-Eifeltor	3rd module (Econ. Stim. Prog.)
31	Ubf Hamburg-Billwerder	(Econ. Stim. Prog.)
32	Ubf Regensburg	Expansion (Econ. Stim. Prog.)
33	ABS München – Lindau – boarder D/A	Electrification
34	ABS Mainz – Mannheim	Northern Head Mainz (Econ. Stim. Prog.)
35	ABS Nürnberg – Marktredwitz – Reichenbach /boarder D/CZ (-Prag)	Electrification Reichenbach – Hof (Econ. Stim. Prog.)
36	Hub for combined load traffic Rhein/Ruhr	

Deutsche Bahn AG, Ute Plambeck, 07.09.2010

For another 7 projects there is funding for planning services, funding for building costs is yet to be agreed upon

DB Mobility Networks Logistics

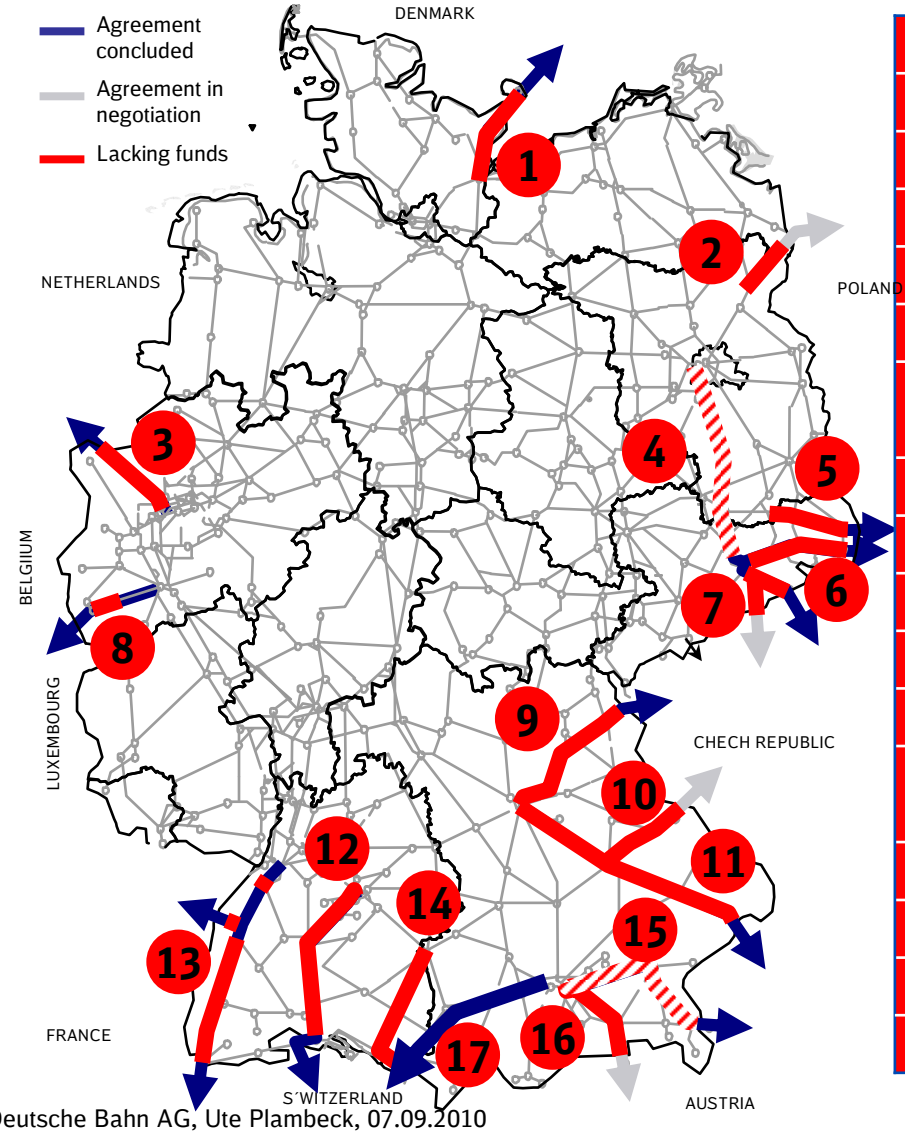
Investment



	Measures	Agreement with
1	Route to be expanded/newly built Hamburg/Bremen - Hannover	Federal Government
2	Fixed Fehmarnbelt Link	Federal Government
3	Route to be expanded Düsseldorf – Duisburg (Rhein-Rhur-Express)	Federal Government/ State
4	Route to be expanded Münster – Lünen	State
5	Route to be expanded D/NL Emmerich – Oberhausen	State/ TEN funding
6	Route to be expanded Ulm – Friedrichshafen - Lindau	State
7	Route to be expanded München – Mühldorf - Freilassing	TEN funding

The Federal Government has committed itself to the development of international railway corridors and bilateral infrastructure projects

Investment

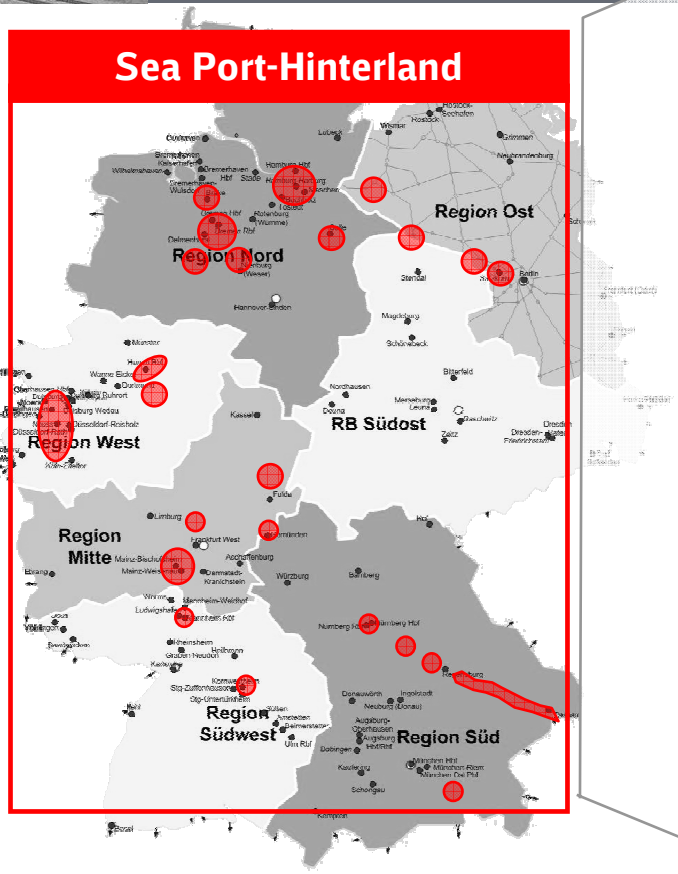


1	Electrification + double-track expansion Lübeck – Puttgarden
2	Electrification + double-track expansion Angermünde – boarder D/PL
3	Three-track expansion Oberhausen – Emmerich – boarder D/NL
4	Expansion Berlin – Dresden
5	Electrification + double-track expansion Hoyerswerda - boarder D/PL
6	Electrification Dresden-Neustadt – Görlitz - boarder D/PL
7	Expansion Dresden – boarder D/CZ New construction Dresden - Prag
8	Expansion Düren - Aachen
9	Electrification Nürnberg - Schirnding – boarder D/CZ
10	New construction Regensburg - Pilsen
11	Expansion Nürnberg – Passau – boarder D/A
12	Expansion Stuttgart - Singen
13	Expansion Kehl – Appenweier Four-track expansion Karlsruhe - Basel
14	Electrification Ulm - Lindau
15	Expansion München – Freilassing – boarder D/A
16	Expansion Brenner access route
17	Electrification + München – Lindau D/A

The Immediate Action Programme Sea Port Hinterland Transport (SPHT) will develop urgently needed rail network capacity

Investment Programme SPHT

Goods traffic



Description:

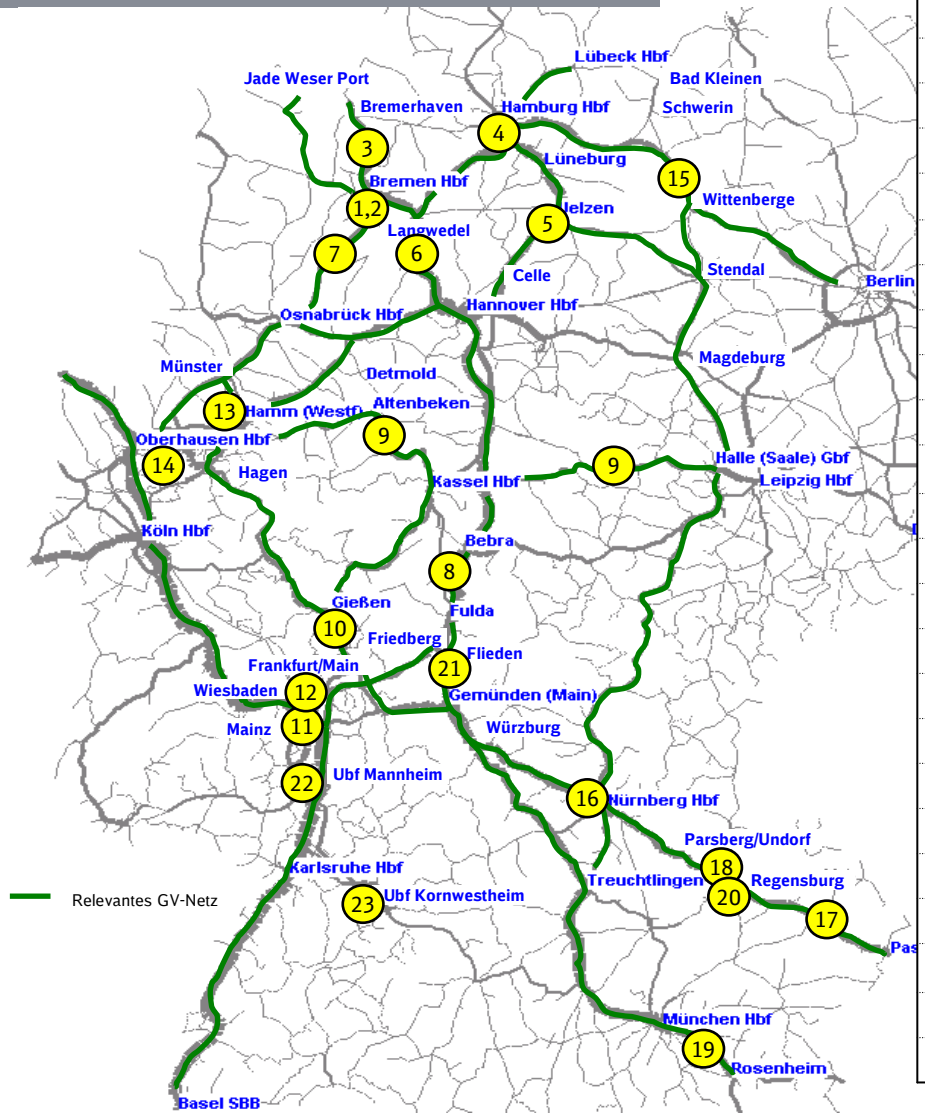
- 24 measure packages (with more than 50 individual measures) in order to be able to absorb additional traffic from sea ports and to increase main corridor capacities promptly

Customer benefits

- Development of sufficient rail network capacity for predicted additional traffic until approx. 2015
- With the implementation of these measures, a capacity of up to 140 billion tkm for goods transport is developed.

Overview of investive measures from the Immediate Action Programme

Immediate Action Programme

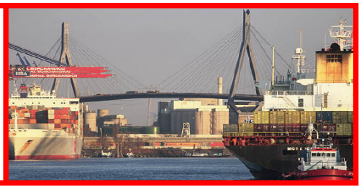


1	Node Bremen	Change connection of tracks 1-3 in South-East-Head Bremen Hbf
2	Node Bremen	Optimise track plan Bremen Hbf for add. traffic from Vegesack
3	Bremerhaven-Bremen	Eliminate at-grade platform accesses, GT, increase no. of signal blocks
4	Node Hamburg	Add. tracks, increase no. of signal blocks, parall. rail-paths, traffic hub
5	Uelzen	At-grade connection of the track coming from Stendal
6	Bremen-Hannover	Elimination of track-level platform accesses at Eystrup station
7	Bremen-Osnabrück	Additional crossover at Twistringen station
8	Bebra-Fulda	Increase no. of signal blocks, extend passing loops
9	Hamm-Kassel-Halle	Connecting curve, improve track plan
10	Gießen-Friedberg	Extend passing loops
11	Node Mainz	Optimise capacities Mainzer Tunnel and Mainz Hbf
12	Node Wiesbaden	Connecting curve Wiesbaden Ost – Mainz Kostheim
13	Hamm	Improve efficiency of Hamm node, change overlaps
14	Concept. west. Ruhr I	Improve efficiency of train-paths, new connection of ports
15	Hamburg-Berlin	Optimise no. of signal blocks, extension/new constr. of 5 passing loops
16	Node Nürnberg	Adjustment Nürnberg-Stein
17	Nürnberg-Passau	Increase no. of signal blocks between Regensburg-Passau
18	Nürnberg-Passau	Stations Parsberg + Undorf , constr. of true sided passing loops
19	München-Rosenheim	Expand overtaking station Ostermünchen
20	Nürnberg-Passau	Increase pass through speed in Hbf Regensburg > 40 km/h
21	Flieden-Gemünden	Erection of a second platform edge in the station of Rieneck
22	Ubf Mannheimer Hafen	Improve connection
23	Ubf Kornwestheim	Extend second module
24		Contextual measures

Gradual increase in rail network capacity will be achieved by various coordinated concepts

DB Mobility Networks Logistics

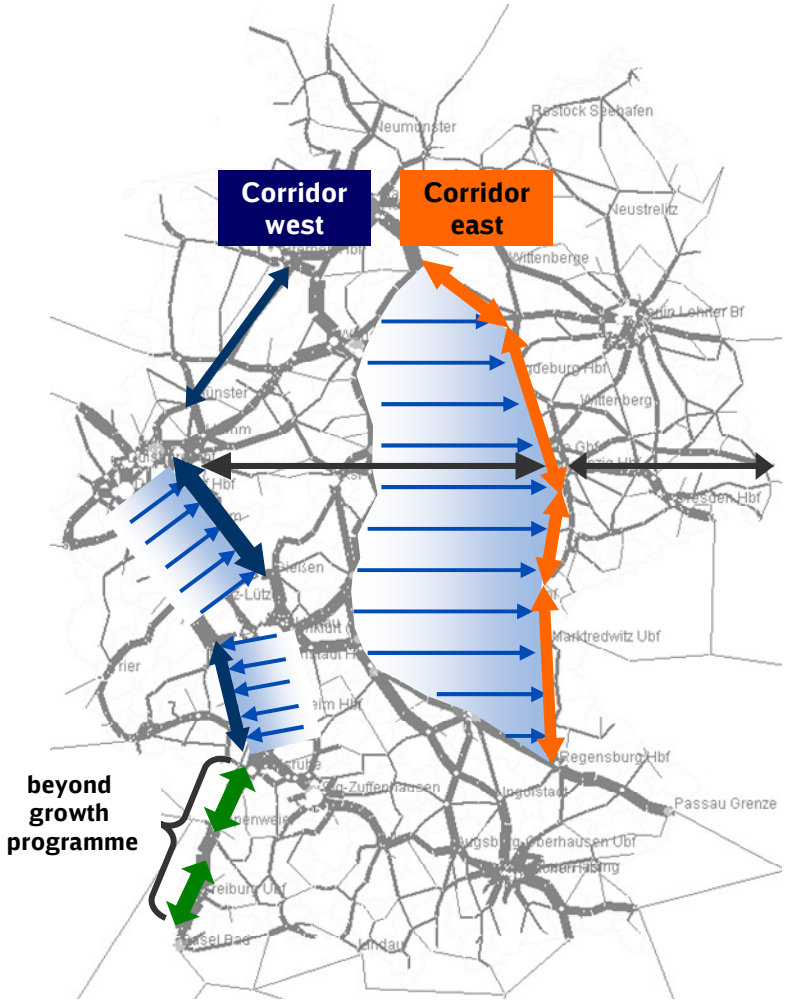
Strategic concept timeline

Time	Strategic concept		
2008	**Seaport hinter-land transport (SHHV)**	▪ **SHT measures** plus corresponding measures based on demand planning (e.g. Stelle - Lüneburg)	
2013 / 2015	**Wachstums-programm (Growth programme)**	▪ **Alternative routes**, plus corresponding measures based on demand planning ▪ **Measures at nodes** ▪ **Increasing** track capacities for **regional traffic** at nodes	
2017 / >2020	**Bedarfsplan perspective**	▪ **Focus freight**: Y-line, Karlsruhe - Basel ▪ **Focus passenger**: Stuttgart – Ulm, VDE 8.1/8.2, Rhine/Main – Rhine/Neckar	
2025/2030	**New network concept**	▪ Defining a **target status** with focus on 2025/2030	

Source: I.NVI/ I.NVF/ I.NVK

Implementation of Growth Programm is necessary in order to provide capacity according to demand by 2017

Growth Programme – Approach and Elements



Basic Approach

- **Eliminate** expected **capacity bottlenecks by 2017**
- Expand alternative routes according to demand and take off load of big nodes

Core Elements

- **West-Corridor** ↔
  - Ruhr-Sieg must absorb traffic Bremen - Mannheim and Emmerich/Hagen - Würzburg
  - Alsenzbahn must take off load of track section Bingen - Mainz
- **East-Corridor** ↔
  - Steer additional traffic North-South to Passau/Munich via eastern axis
  - Uelzen – Stendal double-track
  - Electrify Reichenbach - Hof - Regensburg
- Extend **passing** and **maintenance loops** in junction stations to **750m**
- **Node measures for goods and passenger traffic** in order to increase capacity

Agenda

Deutsche Bahn at a glance

Strategic orientation

Fehmarn Belt Connection - www.deutschebahn.com/fbq

Railway connection Fehmarnbelt Link

Project profile

Traffic objectives:

Adequate connection of Fixed Fehmarnbelt Link to German railway network according to State Treaty.

Measures planned according to State Treaty:

- Double-track expansion between Bad Schwartau and Puttgarden (without Fehmarn Sound Bridge, starting up with one track in 2018, commissioning of both tracks in 2025)
- comprehensive electrification Lübeck Hbf – Puttgarden by 2018

Alternatives according to preliminary draft planning:

- Alternative 1A: upgrade of existing train-path for 160 km/h with slight railway line improvements and by-passes around Neustadt and Oldenburg
- Alternatives A/E: additional by-passes of Baltic Sea towns to the east and west of motorway

Project Parameters:

length of rail route:	88 km
planned speed:	160 km/h
estimated cost* (planning and development cost) alternative 1A:	1 Bn. €

Railway-Hinterland connection of Fixed Fehmarnbelt Link

Mobility Networks Logistics

Planning stage

Planning basis

Premises	State Treaty between Federal Republic of Germany and the Kingdom of Denmark 1. Building phase first track electrified by 2018 2. Building phase double-track expansion by 2025
Mandate by Federal Ministry of Transport	most economic solution v = 160km/h (without tilt technology) with necessary railway line improvements trans-european high-speed rail-system
Basis	Demand Plan Project (financed by Fed. Budget funds) Fed. Act on the Expansion of Railway Lines (BSchwAG) Fed. Act on Railway Crossings (EKrG)

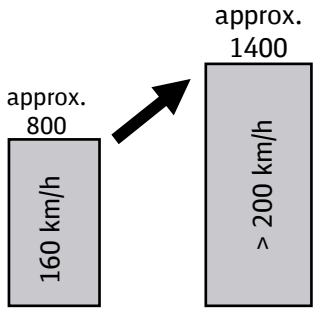
Quelle: DB Projektbau GmbH, 03/ 2010

Current planning is based on a railway design for v_{max} = 160 km/h

Mobility Networks Logistics

Speed

cost leap



required investments (million Euros)

price level 2009

An increase of speed would lead to a cost leap:

- new rail-path necessary
- elimination of all railway crossings necessary

an increase of speed
> 200 km/h
is not fundable.

planning basis

Planning Agreement
DB Netz AG – BMVBS
for vmax = 160 km/h

Railway- Hinterland connection of Fixed Fehmarnbelt Link

Further procedure

Current status

- **Currently, the regional planning procedure (Raumordnungsverfahren-ROV) by the Federal State of Schleswig-Holstein is underway**

- **In the context of assessing the projects of the Federal Traffic Route Plan, train frequency**

  - Passenger traffic

    Short-distance passenger traffic
    - track section Bad Schwartau - Neustadt(Holst) 26 trains per day and direction
    - track section Neustadt(Holst) - Fehmarn 8 trains per day and direction

    Long-distance passenger traffic 11 trains per day and direction

  - Goods traffic 39 trains per day and direction

  in the direction to and from Denmark was reappraised in coordination with the Ministry of Transport in Copenhagen

- **Adjustment of current preliminary draft planning and impacts on time line are not yet measurable**

- **Corresponding results have to be awaited to start the next planning phase/plan approval!**

Quelle: DB Projektbau GmbH, 03/ 2010