



The perception of the fehmarnbelt connection among german stakeholders

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Acronyms

A1	Autobahn 1 (Highway)
AG	Aktiengesellschaft (stock cooperation)
BMVBS	Bundesministerium für Verkehr, Bau und Stadtentwicklung (<i>The Federal Ministry of Transport, Building & Urban Affairs</i>)
B207	Bundesstrasse 207 (Federal road)
CPH	Copenhagen
DB	Deutsche Bahn
GG	Grundgesetz (Basic Law)
GmbH	Gesellschaft mit beschränkter Haftung (Limited Liability Company – Ltd.)
FB	Fehmarnbelt
FBBC	Femern Belt Business Council
FBL	Fehmarnbelt Link
FBR	Fehmarnbelt Region
FTIP	Federal Transport Infrastructure Plan
HH	Hamburg
OH	Ostholstein
SH	Schleswig-Holstein
SME	Small and Medium-sized Enterprises
TEN-T	Trans European Network – Transport

Summary

This report gives an overview of the planned improvements of the German hinterland infrastructure connected to the fixed Fehmarn Belt Link (FBL), as well as the views of the key German stake holders towards the FBL.

The German government is by the treaty and the currently enforced law in Germany for the treaty obliged to upgrade the FB hinterland infrastructure in accordance to the standards agreed in the treaty. However, the final financing plan is first expected to be in place when the planning procedures are completed.

The planning process for the hinterland road connection has been started and the construction is expected to be finish with the opening of the fixed link.

The planning process for the hinterland railway connection is also progressing but there is a discrepancy between the current planning process and the public discussion in Germany. The perception of the interviewed stakeholders supports this discrepancy and underlines the current debate regarding problems with financing the railway infrastructure, as well as regarding the priority status and timeframe for the upgrades. The railway connection is only one in a list of projects with other national and international rail projects from the German government, but has through its high priority status a guarantee for financial coverage to a standard which is in accordance with the treaty.

The lack of strong support from the German government and the regions outside the FB region results in uncertainty about the consequences of this fixed link, which extended the planning process and sets negative signals in the region.

The positions of the German stakeholders can be grouped into three types; promoter, skeptical and 'wait in see'. This grouping can help focusing future initiatives towards fostering a more positive position among the skeptical and "wait and see" stakeholders as well as support the promoters in order to overcome the "mental bridge" between Germany and Denmark.

The positions of the stakeholder furthermore underlines the fact that an upgrading of the FB hinterland infrastructure should not just be in accordance with the provision of the treaty but moreover include a parallel upgrading of the network infrastructure which guarantees the full potential use of the FBL. In order to fulfill the potential of the FFBL various bottlenecks need to be tackled as they reduce the usability, speed and capacity in the entire system. Such bottlenecks include a missing second railway track for the first 7 years after the opening of the bridge; capacity problems along the railway tracks in and out of Hamburg for passenger and freight trains; a missing electrified alternative route for freight trains eastwards from the FBL, no consideration of high-speed train tracks during new construction and electrification of railway tracks; single track Fehmarn-Sund bridge and the currently not existing extension of the A20 and A21.

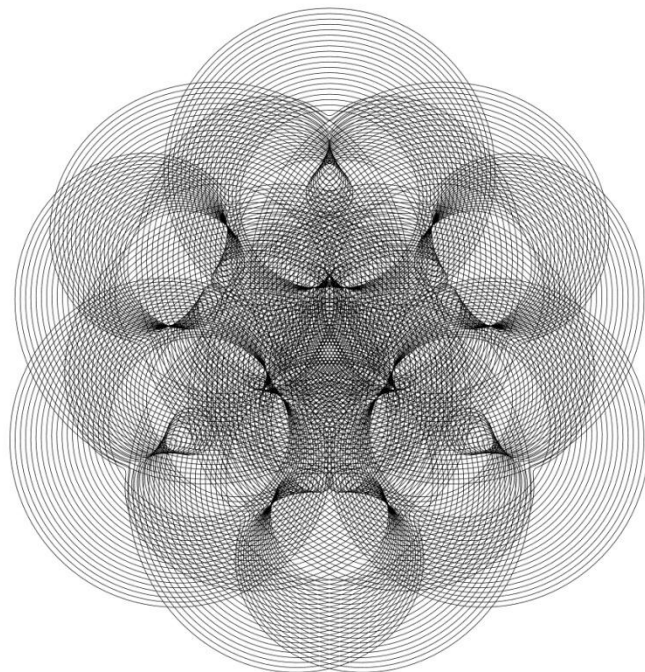
1 Introduction

On September 3rd, 2008, the Federal Republic of Germany and the Kingdom of Denmark signed the treaty for the construction of the Fehmarn Belt Link - FBL. After approval by the two national parliaments, the treaty entered into effect on the 15th of January, 2010.

This report presents the results of an interview based analysis of the institutional and organizational positions and situation in Germany, with regards to the upgrading of the Fehmarnbelt hinterland connection in Germany. The results of the study will be used to promote a balanced development of the hinterland connection in both countries and to identify, in advance, existing bottlenecks within the extended infrastructure network of the FB hinterland in order to fulfil the full potential which the FBL creates.

Therefore, this study sought to obtain an analysis of the positions of the German stakeholders towards the role of the upgrading of the connecting FB hinterland infrastructure. This included identifying possibilities and barriers for such infrastructure investments. The primary focus was set on rail and road infrastructure, which support the transport of goods, but taking into account that there is an interrelation with infrastructure for transport of persons.

The study was held by Roskilde University (also partner in the INTERREG IV B Baltic Sea Region project SCANDRIA), whom was asked to undertake this analysis by Øresund Logistics, on behalf of the NordLog project and the Femern Belt Logistic Platform.



2 What is mentioned in the treaty about the German hinterland connection

“The Federal Republic of Germany should have the sole responsibility for upgrading and financing the hinterland connections to the fixed link across the Fehmarnbelt in the Federal Republic of Germany.” (FB Treaty § 5 (2), p.6) (Femern A/S 2008 b)

According to the treaty, the upgrading of the following should be completed by **no later than opening** of FBL:

- *“the upgrading of the E47 road link between Heiligenhafen (East) and Puttgarden to a four-lane federal road (Bundesstraße)”* (FB Treaty § 5(2), p.6)
- *“electrification of the railway line between Lübeck and Puttgarden”* (FB Treaty § 5(3), p.7)
- *“the securing of a sufficient railway capacity on the single-track railroad between Bad Schwartau and Puttgarden”* (FB Treaty § 5(3), p.7)

According to the treaty, the upgrading of the following should be completed by **no later than 7 years after** opening of the FBL:

- *“upgrading of the railway line between Bad Schwartau and Puttgarden to a double-track, electrified railway line and should be ready for operation”* (FB Treaty § 5(2), p.7)

The road and railway link across the Fehmarn Sound Bridge should remain, according to § 5 in the treaty, a two-lane road and a single-track link. *“The hinterland railway connections in the Kingdom of Denmark as well as in the Federal Republic of Germany shall be constructed as part of the conventional TEN-T railway network...”*(FB Treaty § 5(3), p.7). Therefore, it can be assumed (although not particularly mentioned in treaty) that the German hinterland connection for the FBL will be constructed as such:¹

- *“electrified, double-track railway”* (FB Treaty § 2 (1), p.3)
- *“for a speed of at least 160 km/h for passenger trains and at least 120 km/h for freight trains”* (FB Treaty § 2 (2), p.3)
- *“technically designed and equipped so that the road and rail traffic using the fixed link across the Sound (Oresund) today will be able to use the fixed link across the Fehmarnbelt in the future”*(FB Treaty § 2 (2), p.3)

Nevertheless, should changes on the railway preconditions of the treaty occur *“...the Contracting States shall renegotiate the situation...”* to *“...ensure that the hinterland railway connection is upgraded in line with the demand”* (FB Treaty § 5 (4, p.7)).

¹ The same is assumed for the *“classified as a federal trunk road (Bundesfernstraße) in accordance with the Federal Trunk Roads Act (Bundesfernstraßengesetz)”*(FB Treaty § 4 (1), p. 5) is *“a four-lane road with the technical quality of a motorway”* (FB Treaty § 2 (1), p.3)

3 Institutions involved in the Fehmarnbelt discussion in Germany

On the third of September in 2008, the Federal Republic of Germany and the Kingdom of Denmark signed the treaty for the construction of the FB crossing link. After approval by the two national parliaments, the treaty entered into force on the 15th of January 2010.

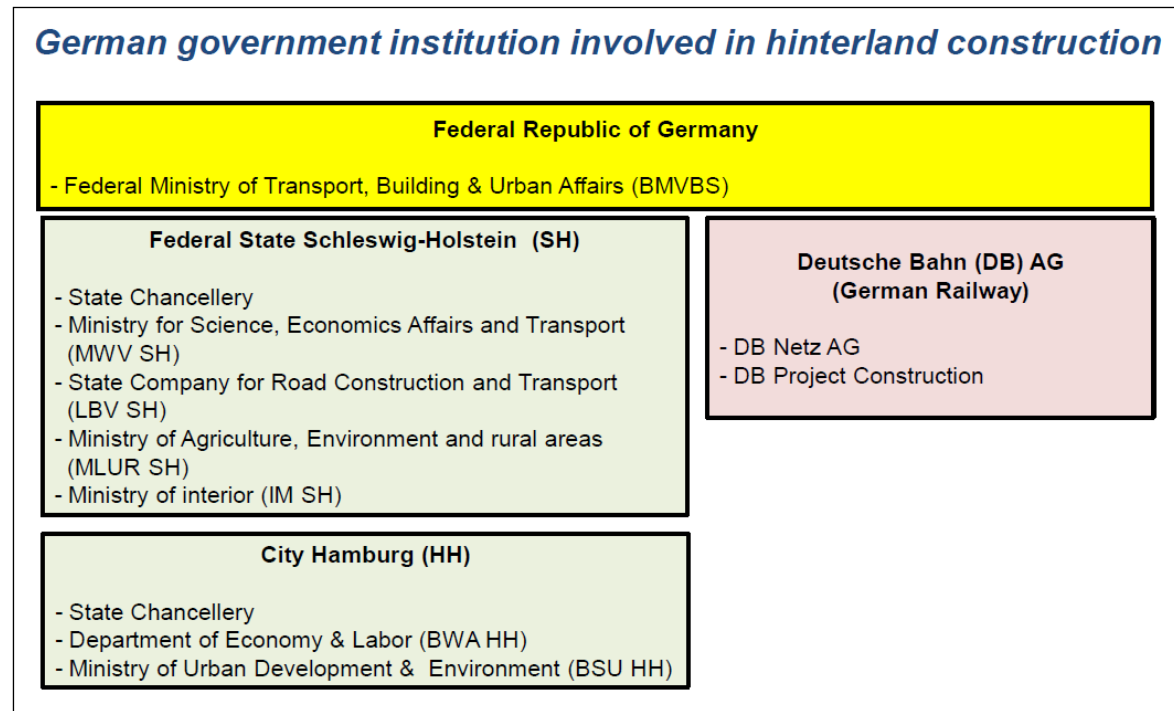


Figure 1: Overview of GE government institution involved in FB Hinterland construction (source: self made)

The figure above represents an overview of German government institutions that are involved in or are responsible for the planning of the hinterland connection. These national and regional institutions are either responsible for the planning procedure itself or have a political position wherein they can influence the planning process. For this report, interviews were held with representatives from the Ministry for Science, Economic Affairs and Transport Schleswig-Holstein; Specialist Service Regional Planning – District Ostholstein; State Company for Road Construction and Transport of Schleswig-Holstein and the Federal Ministry of Transport, Building & Urban Affairs.

The Federal Ministry of Transport, Building & Urban Affairs is the national planning institution that provides the national funding for the upgrading of the hinterland and checks if the State Schleswig-Holstein (SH) and the DB AG have undertaken the upgrading requirements outlined in the agreements within the treaty.

Cooperation's and initiatives with regards to the FBL

Femern A/S - is a company of the Danish traffic ministry which has the task to design and plan the construction of the fixed FBL (bridge or tunnel decided in 2012). The company is part of the Danish government company Sund&Bælt Holding A/S. (www.femern.com)

STRING (Southwestern Baltic Sea TransRegional Area – Inventing New Geography) – is a long-term interregional co-operation between the regions of Hamburg, Schleswig-Holstein, Zealand, the capital city region of Copenhagen and Scania ('Skåne'). It was initiated by regional politicians from Germany, Denmark, and Sweden to strengthen cooperation in between these regions (www.balticstring.net).

Fehmarnbelt-Portal - is an initiative of the Fehmarnbelt office in Kreis Ostholstein and the Femern Belt Development Fund. The website contains a wide variety of information on the Fehmarnbelt region. (www.fehmarnbelt-portal.de or www.fehmarnbelt-portal.dk)

Fehmarnbelt- Committee – this trans-border work and coordination body aligns to the existing Oresund-Committee. It consists of 20 members, each 10 by the Danish and German side. The task of the FB Committee is to observe the impact of the link construction to the regional economy and promote economic development in the Fehmarnbelt Region (wider Baltic Sea Region). (Further information's are available at: www.fehmarnbelt-portal.de or www.fehmarnbelt-portal.dk)

Fehmarnbelt Business Council (FBBC) – the FBBC was created on the initiative of the main association of Confederation of Danish Industry and the Chambers of Commerce in Hamburg and Lübeck (all members: IHK Schleswig-Holstein, Handelskammer Hamburg, UV Nord -Vereinigung der Unternehmensverbände in Hamburg und Schleswig-Holstein, Kaufmannschaft zu Lübeck, Dansk Industri (DI-organisation for erhverslivet), Dansk Erhverv, Erhvervsamarbejdet Sjælland, Deutsch-Dänischer-Handelskammer and South-Swedish Chambers of Commerce) . Their aim is to establish a professional and moderated platform for the Danish and North German economy as well as representatives from southern Sweden to support international cooperation in the Fehmarnbelt region. (www.de.fbbc.eu)

Femern Bælt Development Fund (FBD) – is a development company that disseminates knowledge and information related to the future FBL. Their goal is to coordinate regional efforts directed towards the realization of the potential for development, in particular business, education and manpower in Region Zealand and Fehmarn Region. (www.femern.info/da/Om-Fonden)

Fehmarnbelt Development Joint Venture (FDJV)

FDJV comprised a division of the Danish state-owned company, Sund & Bælt Holding A/S, and the German joint venture Fehmarnbelt Consulting. (www.fdjv.com)

Femern Belt Logistics Platform - this logistical platform has the task to establish multiple strong networks of cooperation in the logistics sector and identify cooperation possibilities in the Femern Belt region as a direct result of the fixed link expected to be ready in 2018. (www.femernlogistics.org)

Several **EU projects** have been initiated in the FBR, which are running under the program of EU-Baltic-Sea-Strategy (BSR), LEONARDO-DA-VINCI Program, European Social Fund (ESF), Eures Cross Border Germany – Denmark and INTERREG I-IV projects (overview available under www.fehmarnbeltregion.net)

4 Current status for upgrading the Hinterland connection in Germany

4.1 Current strategies and planning process

With the enforcement of the FBL treaty, the German government guarantees to upgrade the hinterland infrastructure in accordance with the provisions of the treaty. Furthermore, the establishment of the fixed link across the FB has been mentioned in the Federal Transport Infrastructure Plan (FTIP) 2003 (see text box), as a project for strengthening the transport infrastructure in Europe and which confirms to the EU TEN-T guidelines (pp. 23, BMVBS FTIP 2003). Therefore, this project has a priority status in the German infrastructure planning and the financing of this project will be covered. The final financing plan is expected when all planning procedures are completed. Additionally, the region Schleswig-Holstein is going to invest around 60 million Euros for both rail and road expansion from their own regional budget.

Federal Transport Infrastructure Plan (FTIP) 2003 (Based on BMVBS website)

... is a framework for investments and a planning instrument in infrastructure for the Federal Government but not a funding plan or program. With the FTIP 2003 the Federal Government provides the Parliament an up-to-date basis for amending the existing upgrading acts and basis for planning.

The total level of funding available for the road, rail and waterway modes for the period from 2001 to 2015 is around 150 billion Euros. A planning reserve on top of this will make it possible for planning to go ahead on projects where sizeable shares of the funding will not be required until after 2015 but which have to be planned as a whole before that date. It ensures that there is alternative potential construction work that can be performed if the realization of other projects experiences delays.

The priorities for the inclusion of evaluated projects in the FTIP 2003 are basically a result of the benefit-cost ratio, network design considerations, the status of planning and the level of investment that is likely to be available over the lifetime of the plan. The categories for "first priority" and "second priority" and further information to FTIP 2003 are available from the BMVBS website.

4.1.1 Road Connection

The federal state of Schleswig-Holstein has the mandate for the upgrading of the road construction. The Federal Republic of Germany however, is the owner of the major roads in Germany; hence they mainly provide the financial investment that is required for the upgrading of the road. The actual planning, construction and supervision of the federal road B207 between Heiligenhafen (East) and Puttgarden, is managed by LBV Schleswig-Holstein. The B207 is the extension of the existing motorway A1 from Hamburg.

Planning approval process (Planfeststellungsverfahren)

The planning approval process (PAP) after the administrative law of the federal and state government is a special administrative procedure which is carried out in e.g. infrastructure construction projects where citizens interests (e.g. private and state-supported property) are affected by the project (e.g. road and railway constructions). The difference to ordinary administrative procedures is the integrated participation of the citizens and a separate consultation process, where objections of the citizens to the project are raised (in time) and opinions of the planning authorities are discussed. The figure below presents a simplified overview of the PAP steps from the planning idea to the planning approval. The time-frame for such a process depends on the success of the consultation process which is subject to how the objections of the citizen to the plan have been integrated and altered in the plan to ensure that no further legal activities prevent the approval of the plan.

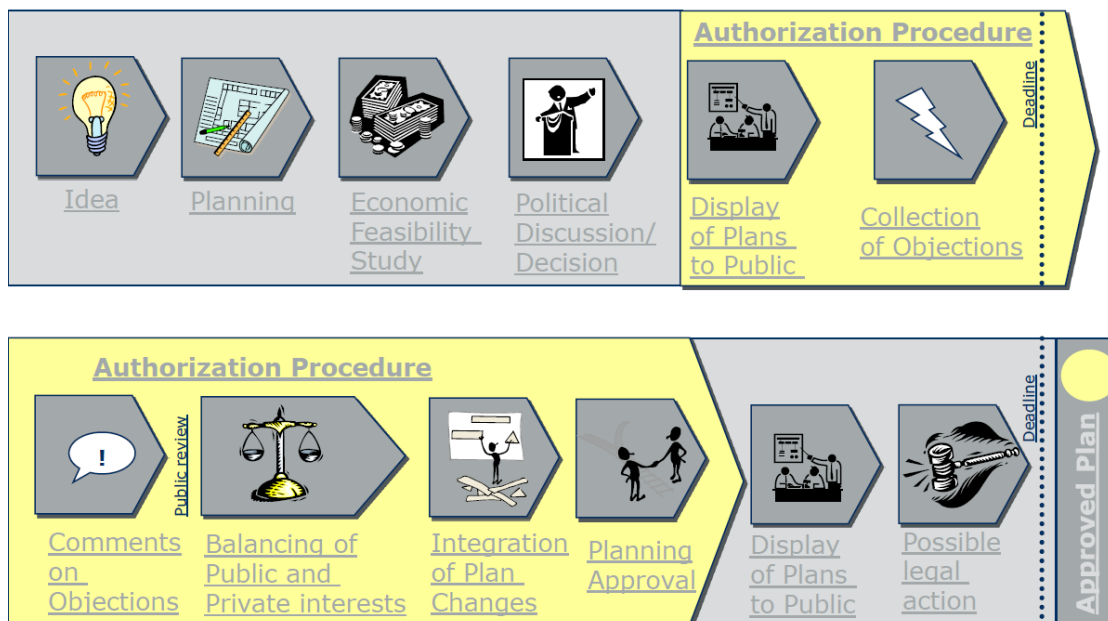


Figure 1 Simplified planning approval process structure in Germany. (Source: SSB 2009, pp.21)

The PAP's formal has comprehensive concentration effect, which means it includes and replaces all necessary individual licenses, other regularly approvals, permits or authorizations. Furthermore, the planning decision has a potential compulsory purchase ('enteignungsrechtliche Vorwirkung') that means the established plan is binding for possible subsequent expropriation proceedings.

Both in Denmark and Germany the planning authorities (Commune, Region and/or State) are in charge of and run the approval process. In Germany the final incontestable planning approval is done by the planning authority, where in Denmark the politicians make the final decision.

a. Road construction

The construction is a four-lane road with an emergency lane on both sides that can be used for maintenance service and, in case of accidents; it will be used as an extra lane. The extension of the A1 has the technical quality of a motorway, but it shall legally remain a federal road, as the local farmers need to use this road to cross-over between the island and the mainland.



Figure 2 B207 planned construction with time-frame proposal. (Source: LBV website)

b. Finance

The LBV is going to receive around 90.2 million Euros from the federal government, according to FTIP2003, for the construction of the B207 and it is categorized in the FTIP as an urgent matter project. The LBV applied for EU funding (listed in the list of priority projects TEN-T) but got rejected, and therefore has not received EU funding for the road extension.

c. Timeframe for construction

The extension of the federal road B207 to the motorway A1 from Heiligenhafen Mid to Heiligenhafen East is currently partly under construction and is expected to be finished mid 2012. The road construction from Lübeck to Heiligenhafen Mid is already finished. The other section of the A1 from Heiligenhafen to Puttgarden has been (preliminary) designed and was sent to the federal authority (BMVBS) for approval. The LBV-SH (new) expected timeframe for the hinterland road construction:

- planning permission in 2010,
- planning procedures from 2010 to 2012,
- detailed design and tendering 2012 and 2013,
- construction from 2013 on, expected to be finished end of 2015.

4.1.2 Railway connection

The railway infrastructure company DB Netz AG is the owner of the publicly owned railway infrastructure in Germany, according to the § 87e (3) GG (see Annex II) and the federal government owns the full share of the DB Netz AG (see text box DB AG). Hence, the Federal Government is responsible for ensuring the upgrading, maintenance and proposal of new construction for the federal railway network (§ 87e (4) GG). On the other hand, the DB Netz AG is responsible for the planning of the upgrading of the hinterland connection. The federal government can be seen as a subscriber, which provides the funding for upgrading.

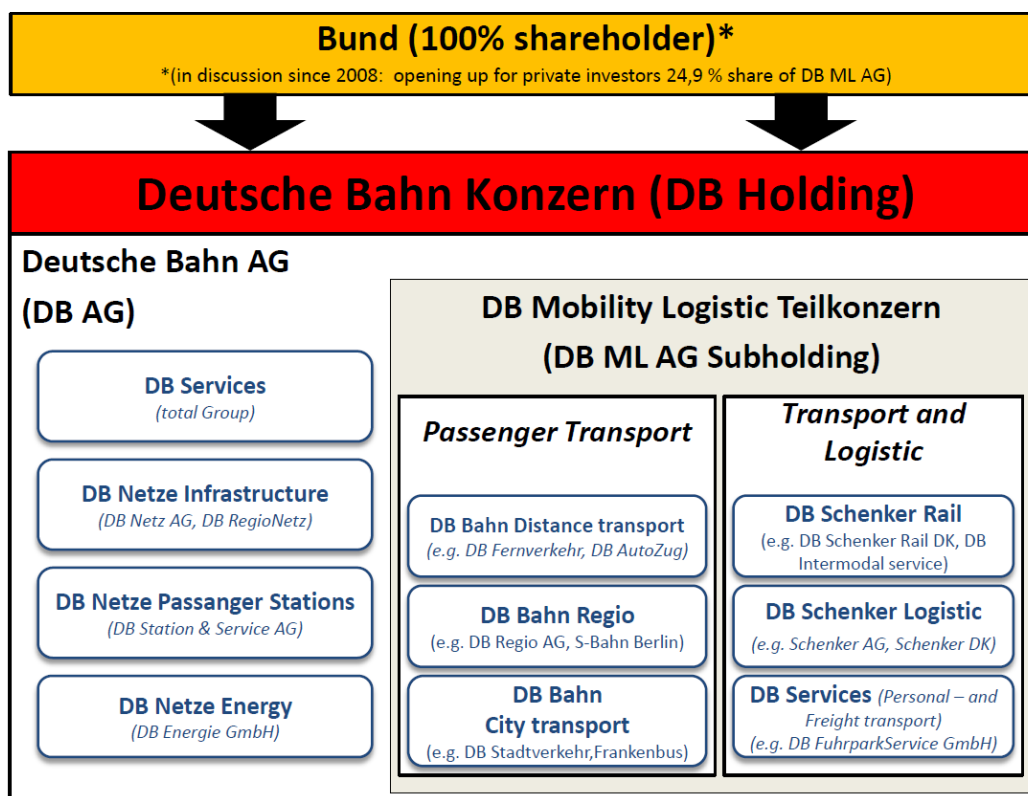
Deutsche Bahn AG

As part of the reform of the railways in 1994, the joint-stock corporation Deutsche Bahn AG (DB AG) was founded and it became the owner of railway infrastructure of the former West German Deutsche Bundesbahn (DB) and the former East German Deutsche Reichsbahn (DR). In the second stage of the reform in 1999, the DB AG was subdivided into five new joint stock corporations under: long-distance passenger transport (DB Reise & Touristik); short-distance passenger transport (DB Regio); railway stations (DB Station & Service); goods traffic (DB Cargo); and the railway system and tracks (DB Netz) (Scheele 2000). DB AG is the management holding of these stock corporations and has, according to the German law, a dual management and control structure. According to § 87e (3) in the German Basic Law (see Annex II), the Federation/Federal Government should be the major shareholder of the DB AG (possess a minimum of 51% DB AG's shares).

For the time being the federal government owns 100 percent of the DB AG's shares (see below paragraph and figure DB Holding structure). It was planned in 2008, that the first shares of the DB AG's (here 24,9% of the DB ML AG) should be available to purchase for private investors, but this was stopped due to the financial crisis and a new date has not been decided yet (expected it in 2010, see article by Ott (2008)).

DB Holding structure

For the time being the DB Holding (see DB Holding structure in figure below) consists of Deutsche Bahn AG (DB AG) and its sub holding DB Mobility Logistics AG (DB ML AG), which are managing over 500 subsidiaries. The DB AG has the following four directly managed DB Netze infrastructure divisions: Fahrweg (infrastructure), Energie (energy), Personenbahnhöfe (passenger stations) and ProjektBau (project construction). The remaining six divisions are combined under the leadership of DB ML AG.



Figur 2 Deutsche Bahn Konzern Struktur (DB Holding Structure) (Source: reconstructed from DB ML organisation structure).

a. Construction

DB AG has completed the preliminary design of the upgrading of the railway hinterland that includes an investigation of the technical feasibility. Furthermore, various variants are proposed for the expansion of the railway line. Before the actual planning procedures can start, the federal railway authority has to approve the upgraded railway line (expected in autumn 2010 maybe later).

The railway line will be electrified and depending on the available federal funds or if cost-benefit scenario proves it is more economically efficient, the two-track enhancement will take place at the same time as the electrification.

Due to cost savings, and in order to reduce land use conflicts, the doubling of the rail tracks will take place mainly on the existing path and only in some extension new railway tracks will be constructed, which suppose to run parallel to the federal road B207. The new construction along the federal road is possible because the project has an 'upgrading and new construction' investment status (chapter 7, FTIP 2003) in comparison to other railway infrastructure projects that have 'replacement and maintenance' status (chapter 6, FTIP 2003). Additionally, the federal state government of Schleswig-Holstein has now decided to precede a regional planning procedure for the German hinterland railway connection (carried out by the Ministry of interior SH as state planning institution), which could result in a proposal for other routes for the new constructed railway tracks, which are not binding for the plan approval process, but it is expected to be affiliated.

b. Finance

The federal government as the owner of the German public owned railway infrastructure (owner of DB Netz AG) provides the overall funding for the railway line upgrading. Within the preliminary design, the cost for the upgrading was estimated around 900 million Euros (without route variations, which have an expected extra cost up to 200 million Euros), which the federal government provided the funding for.

Since the FBL hinterland connection is part of the TEN-T network and listed within the TEN-T priority projects of the EU, the plan is to apply for EU funding for the construction of the hinterland railway connection. It is estimated that it might be possible to recover between 15 – 20 percent of the construction cost via EU funding.

c. Timeframe

The actual construction of the tracks should be possible within two to three years; however the most time consuming part is the planning phase. An estimated timeframe can be given as follows:

- The preliminary design is created and sent to the federal government.
- (Expect a need for a Regional Impact Assessment Procedure.)
- Preliminary planning expected to be done by 2012.
- Planning procedures are expected to begin in 2012.
- Thereafter, the planning documents will be under public inspection.

4.2 Current discussions in Germany to FBL railway hinterland connection

4.2.1 Financing

Due to the constitutional order for the hinterland connection, only construction activity, which is clearly agreed upon in the treaty, will be accepted as a high priority (also underlined under German law) and any extra investments not within the treaty will have to go through the normal system of priority setting. Hence, an upgrading of the railway tracks for high speed trains or the construction of the second railway track before 2025 are not part of the agreement; therefore not seen as high priority for this project and will receive no funding support. Nevertheless, the German government has more planned rail projects than the federal budget can cover and at the time being no governmental statement has been made that this project has a secured/reserved funding, which has lead to various discussions in the German and Danish press about the “secret delete list” of the German railway’ (see text box next page).

Financing discussion of the German railway projects

The article from the German newspaper Frankfurter Rundschau ‘Die geheime Streichliste der Bahn (*The secret delete list of the Deutsche Bahn*)’ has not only intensified the discussion in Germany on the financial coverage of the hinterland of the FBL and other railway infrastructure projects by the German government (Nr. 2 on the secret list). Furthermore it raised the concern and misunderstanding among the Danish public on this subject e.g. the reaction in the Danish magazine Ingeniøren (Bredsdorff 2010): ‘Hemmelig liste: Tyskland dropper ny jernbane til Femern-broen.’ (Secret list: Germany cancels new rail tracks to the Fehmarnbelt Bridge.)).

However, this list should not be interpreted as a final delete list for (planned) railway infrastructure projects in Germany; it is more a list of not yet financially covered projects by the German government, which the DB AG believes have no realization opportunities without further financial approval by the government. Hence without the funding by the government, the DB AG cannot carry out these projects.

This list was presented by DB CEO, Dr. Rüdiger Grube, after the inauguration of the new German transport minister, Peter Ramsauer, with the purpose to show the new minister the current problems in underfunding of the German railway infrastructure projects in Germany. DB chairman furthermore underlines, in an interview, that this cannot be a delete list because projects can only be deleted which have been committed (Köhler 2010). Nevertheless, what this list underlines is that the German government had, at the time, agreed and promised on too many railway projects without having a clear budget for it. Hence the discussion on the financial cover of the ongoing infrastructure projects has not yet an end.

4.2.2 Priority status and timeframe

The upgrading of the hinterland railway line has already been mentioned under international rail projects within the FTIP 2003 (FTIP 2003, p. 55 - Nr. 1 on list). Within the FTIP2003 there are several international and national projects listed that have a priority rating, whose construction is planned but not yet financed (see figure 3). The FBL railway project is furthermore not seen in Germany as one of the most urgent projects in comparison to e.g. the Y-axis for the connection of Hamburg, Hannover and Bremen (FTIP 2003, p. 55 - Nr. 2 on list). Hence it is undefined how high the status of the FB fixed link is among these priority projects due to heavy competition to receive funding, which has been underlined again by the Deutsche Bahn AG in parliamentary evening presentation on the 4th of March 2010 (Deutsche Bahn 2010, pp. 4 &6). Nevertheless, it is certain that with the current agreed law to the treaty with Denmark for this fixed link, this project has the highest priority to receive funding which should guarantee the construction of it.

Another point of discussion is the possible time extension of the planning process, due to the fact, that the regions cannot agree on which railway line the tracks should follow and this can take time due to the dimension of this PAP. With the current regional planning procedure the state government of SH hopes to get as a result a determination of positions from the stakeholders for a final railway line since the process includes a comprehensive and interdisciplinary balance of interest. However, a final decision is needed in order for the planning process to continue and for the plan to be proposed to the federal planning authority.

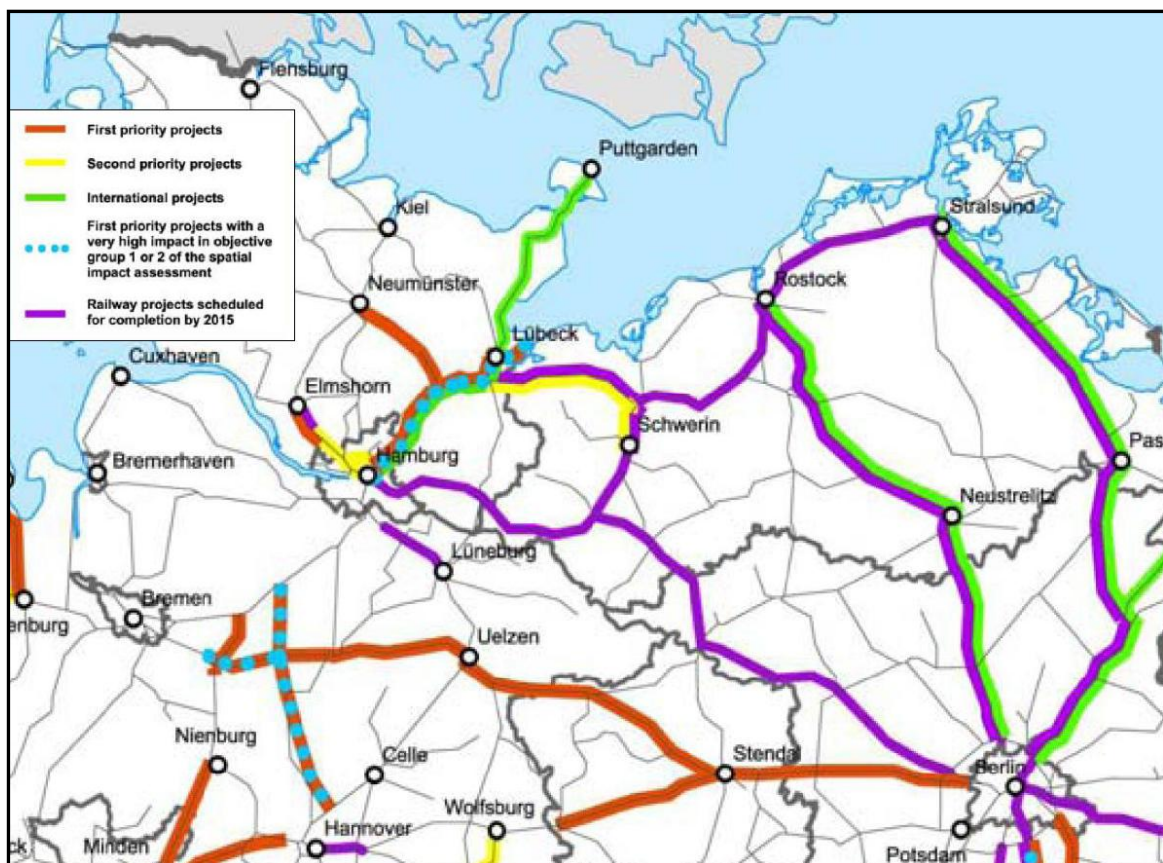


Figure 3 Federal railway infrastructure (first and second priority projects, spatial impacts, international projects)
(Source: FTIP 2003, p. 72)

5 Analyses of expected bottlenecks/infrastructure problems after 2018

The (interview and reference based) analysis has shown that with the completion of the FBL, various capacity problems for the traffic flow are expected if the assumed traffic growth with 1,7% a year takes place after the opening of the fixed FBL (pp. 17, Femern A/S 2008a). These so called bottlenecks are locations that will affect the traffic flow to and from the FBL. Hence, it is reasonable not just to upgrade the FBL hinterland, but moreover to consider a parallel updating of the network infrastructure which increases the use of the FBL, due to the possibility of failing to reach other destinations than Hamburg without interference. All locations of identified bottlenecks have been marked in the maps of figures four and five.

5.1 Road Network

1. Federal road into motorway

The B207 between Lübeck and Puttgarden is an international route between Hamburg and Copenhagen. It is part of the German road network construction and the transformation of the federal road into a motorway is therefore only a matter of sections of roads, where the agricultural industry uses the B207. Therefore, crossings of the road need to be built along with other options for farmers to reach the fields.

2. Currently non existing extension of the A20 (with Elbe-crossing by 'Glückstadt') + A22 to A28 and A21 (east bypass motorway of HH)

The B207 is the extension of the A1 and all the traffic that needs to go South-West from the FBL has to use the A1 over Hamburg, which already has frequent congestions. The planned extension of the A20 from Rostock, with the crossing of the Elbe by Glückstadt, and new construction of the A22 can establish an alternative route to the A1 over Hamburg and reduce the distance/time to e.g. Ruhr, Benelux and Western France. This extension of the A20 (also the A27) is included in the FTIP2003 and shown in figure four of project for the federal truck roads as 'Ongoing and definitely planned projects' since this is an important part in connecting the A20 and, as a 'secondary priority', the upgrading of the A22 to the Netherlands. That this extension of the costal motorway A20 will be constructed can be assumed as it has been agreed on to start a detailed planning for the A20 from Westerstede to Dorchtersen (old A22 has changed name to A20) (BMVBS 2010). Hence, this bottleneck will only appear until construction of the A20 has been finished.

Another alternative route that could avoid driving through HH is over the planed A21, which is a diversion from the A1 north of HH. All traffic eastwards HH could be guided via this motorway. The construction of the A21 is mentioned as well in the figure FTIP2003 as 'Secondary priority projects with planning go-ahead' but will not be realised.

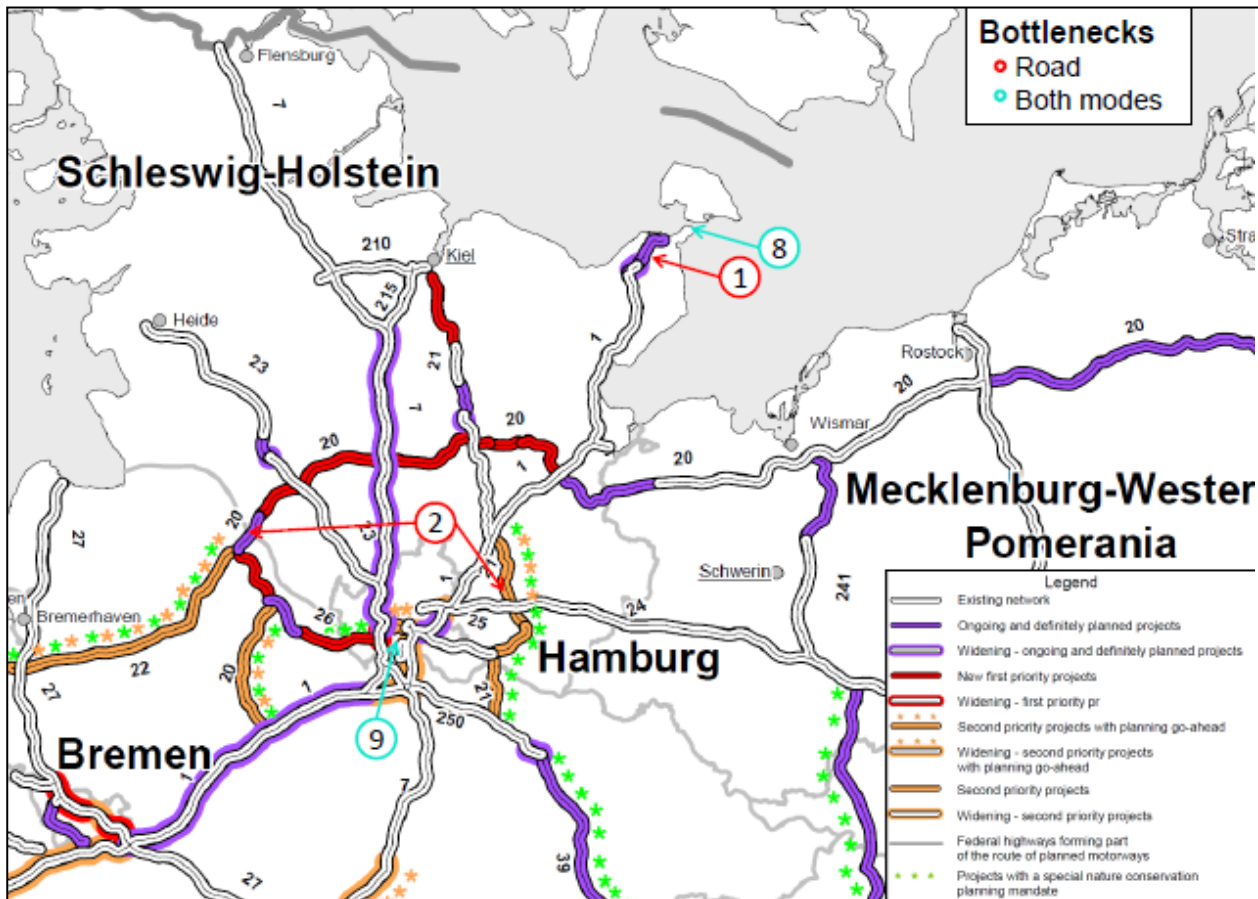


Figure 4: Federal motorways including bottlenecks for road and both modes. (Source: FTIP 2003, p. 74)

5.2 Train

3. High speed train to Hamburg and Berlin from FB fixed link

No high-speed line option is mentioned in the preliminary design because it is not expected that the demand is high enough to justify the higher cost of a high speed track. However, a journey between Hamburg and Copenhagen within less than two hours would help the metropolitan areas come together and solve a sustained switch from private cars on the train. It is currently possible to drive with a diesel driven ICE train from Hamburg to Copenhagen, but the high speed train cannot use its technical capabilities to drive with high speed along the current tracks since the railway line is too curvaceous and has too many crossings along the line².

The upgrading to a high speed train track after 2018 is difficult, because it:

- requires wider distance between tracks and higher curve radius,
- requires road crossings along track line, which means that approximately 50 tracks crossovers need to be built (the choice for an alternative track route can reduce the number of transitions),
- leads to schedule conflicts with regional and freight train use of tracks.

² Same problem exists on the Danish site of the railway line but it is planned to straighten this line.

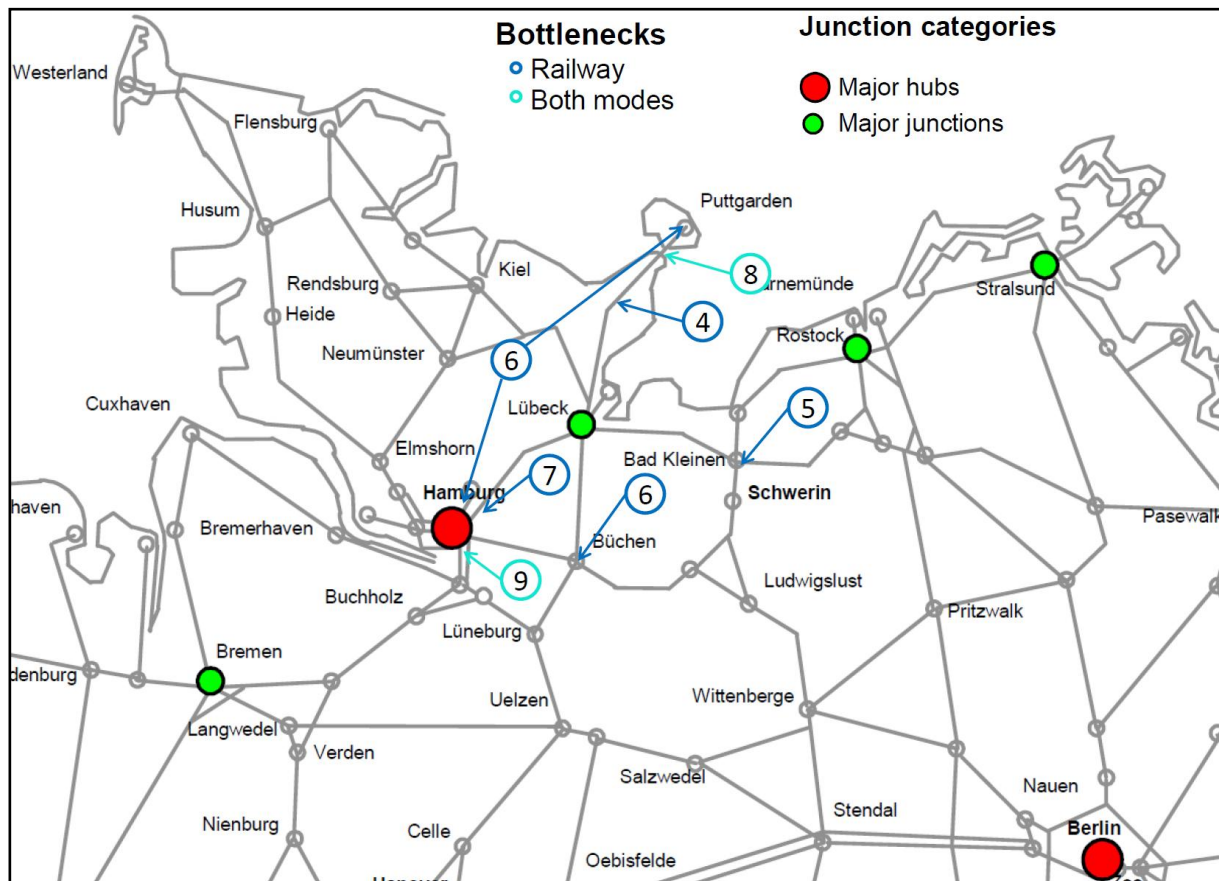


Figure 5: Federal railway infrastructure including bottlenecks in railway and both modes in FTIP 2003. (Source: FTIP2003, p. 73)

4. Two tracks Puttgarden – Lübeck before 2025

Until 2025 bottlenecks can appear if the hinterland railway track from Lübeck to Puttgarden has only two tracks, only one in some passages, along this line. It can be assumed that the different use of the tracks for regional, national and international traffic will decrease capacity and speed. Since the budget of infrastructure investments is limited and tightly planned in Germany, it cannot be expected that this problem will be solved, without extra financial support (e.g. EU funding) or political determination.

5. Train-track Puttgarden – Bad Kleinen

All rail transport with destination eastwards from the FBL could be guided over the railway line from Lübeck to Schwerin. This reduces the use of the rail tracks into Hamburg and shortens the distance for this direction.

The upgrade needed for this existing one track railway line is electrification, a curve at Bad Kleinen and if capacity use requests it, a second track. This rail line was already mentioned as planned project VDE 1 (German Unity Transport Project) and within FTIP2003 (p. 58) as a secondary priority, new rail project. Nevertheless, it has until now not received funding from the federal government.

6. Train-track Lübeck - Büchen

Improvement of the track from Lübeck to Büchen - around 50 km's of double track and electrification would significantly reduce the travel time from CPH via Lübeck to Berlin for passenger trains (Büchen is located on the Hamburg-Berlin high speed track).

7. Train-track Ahrensburg (HH – access)

From Hamburg inner-city to Ahrensburg, there is a capacity problem on the two rail tracks. Users of the tracks are; passenger traffic (local city-train goes half-hourly during the day, the regional and international trains) as well as freight traffic. All trains that come from Lübeck need to pass this track line, which causes passage wait time and an overload. The governments of Schleswig-Holstein and Hamburg are well aware of this problem and an analysis has already underlined that this rail line needs construction of a third or fourth-rail track. This aspect was mentioned in the FTIP2003, in accordance with the upgrading of the HH-Lübeck line, as number one on the list of new first priority rail projects (FTIP2003, p.55). Hence, the costs for the planning process are covered, but the financing of the construction is not clear yet.

5.3 Both modes

8. Fehmarn-Sund Bridge (Constructed in 1963; a listed building but has short expected lifetime with up to 50 years)

The Fehmarn-Sund Bridge is a bottleneck in the hinterland connection because it only hosts a two-lane road and a single-track rail. Currently a study is taking place, which tries to calculate the remaining lifetime of the bridge and if the bridge can carry the expected capacity of regular traffic from the FBL after its completion, since activities such as rail freight transport has not been taking place lately. The outcome of the study will show if reconstruction is needed. However, the details of how such a project is to be financed are not clarified.

Reconstruction solution for Fehmarn-Sund Bridge:

- a. Extension/upgrading of existing bridge. The extension is difficult however, due to the fact that the train track runs parallel to the road.
- b. Building of a tunnel-construction but the area is under environmental protection (Natura 2000).

9. HH Harbour access and shunting yard by Maschen

A large part of the rail freight transport from HH Harbour goes over the shunting yard Maschen and in periods of high activities the trains have problems moving in and out of the Harbour. Hence the capacity (within the harbour area) along this track has already reached its limits and further extension of the rail freight transport along this line (out of the harbour) could be difficult. The problem could be solved alternatively through a direct transfer of freight on train from the harbour with the new harbour south extension that transports trailer transshipment directly to the container reloading port by Billwerder or other close inland terminals.

6 Stakeholder perceptions and positions

The aim of this report was to describe positions of the German stakeholders to the upcoming fixed FBL. These positions have been assembled through personal interviews with relevant stakeholders and analysing the German printed press on this topic. Relevant stakeholders for this analysis included authorities in government and planning institutions; business associations, transport and logistics associations. The complete list of authorities interviewed is available under Annex I.

Various topics have been discussed with these stakeholders depending on their role in the FBL context. Common questions asked were e.g.:

- Existence of contact with the Danish stakeholder
- Current impression and future expectation regarding the FBL
- General impression of recognition of the upcoming FBL in a regional and national perspective
- Perceptions to the FBL

6.1 Perceptions

In general the interviewed stakeholders had a positive position with regard to the upcoming fixed connection. It was possible to identify some general perceptions, which correspond to the perceptions mentioned in the German press.

Some of the perceptions are:

- FBL is in the north of Germany and economical concentration is in the south; hence it has fewer effects from a German point of view. For Schleswig-Holstein and Hamburg, it might be an important project ('project of the century'), but is not regarded as important in the rest of Germany. Furthermore, it is only expected that FBL has a potentially used for passenger transport via railway but not for freight transport for all transport activities that has its origin in the east wards from the FBL (e.g. Berlin).
- It is not a high prestige project in Germany and has no urgent matter. For example the construction from the Y-rail track (Hamburg – Bremen – Hannover) has a higher importance.
- Some stakeholders in the tourism industry are concerned that this will just be a transit corridor and destroy the tourism in the region. Other stakeholders see it as an advantage to reach a wider range of potential guests with this international connection.
- Some of the interviewed stakeholders pointed out that the reserved behaviour of the Germans to the fixed FBL can be explained through the rather low experience in Germany in building such a fixed link in comparison to Denmark (Great Belt, Oresund Bridge). Hence, they need to see the crossing before believing it.
- On one hand the German stakeholders are impressed with the ambitiousness of the Danes to build this crossing and fully finance it, but on the other hand this also symbolises that it is a Danish project and not a German. Therefore, they do not feel responsible and do not identify with the project.

- The pricing for the crossing of the fixed FBL. Should the price for the crossing be higher than taking the ferry e.g. truck drivers will use the ferry to have a short break and to save costs (driving through the crossing includes fuel consumption). Hence, the price is going to influence to a high degree the use of the fixed FBL.
- A limited use of the completed FBL connection (bottleneck access into/out of HH) due to uncompleted extension and upgrading of the rail tracks from HH Central station to Ahrensburg until 2018.

6.2 Positions

The German stakeholder positions with regard to the upcoming FBL have allowed us to group them into: promoter, 'wait and see' and sceptical/doubt.

1. Promoter

This stakeholder has the most positive reaction to the upcoming FBL and recognises the connection as potential for the region SH but also for the rest of north Germany. The ambition of this type is to promote and underline the potentials of the regions in order to avoid that this connection is going to be just a transit corridor between CPH and HH. Moreover public rail transport organisations in Germany support the construction of the FBL because it supports a better access to Scandinavia and they hope that with this initiative to get a better recondition for the infrastructure investments in northern Germany.

They believe that the FBL can support economic development in the region, e.g. create employment, company cooperation between DK and DE and strengthen business clusters in the FB Region. The access to the Scandinavian market (internationally connected) through the fixed FBL will especially have positive economical effects for the region.

Against the perception that the tourism will be negatively affected through the construction of the FBL and the upgrading of the Hinterland; their position is that tourism will profit from the FB construction as a tourist attraction and the connection will attract one-day visitors from e.g. CPH and the Oresund Region.

2. Wait and see

The 'wait and see' type of stakeholder has in general a positive reaction with regard to the upcoming FB and they are able to see that this connection can have positive effects for the region SH. However, the list of various perceptions (mentioned in chapter 5.1) reduces their enthusiasm towards the FBL and makes them stand in a waiting position until some of these perceptions are solved and a development is predictable.

The current economical cooperation and exchange of goods between DE and DK/Scandinavia are perceptually relatively low represented in the FB Region compared to economic actives with the rest of Germany and other EU countries. Hence, such cooperation has to be developed, which can be difficult with the predominance of small and medium-sized enterprises (SME's) in the FB region, which are usually not the types of business for such cooperation. Their financial investment is limited (short time planning to survive on the market) and most of these SME's have specialised their production to supply other companies within the region or Germany. Nevertheless, the Scandinavian

market will be attractive for some industrial clusters, such as food production or energy production.

3. Sceptical /Doubter

This type of stakeholder has a negative position to the upcoming FBL and believes that there is no reason to build this fixed FBL because the ferry service is sufficient enough for the current traffic flow over the FB. They additionally doubt that the fixed FBL is going to be constructed after all and if the FBL construction takes place, they expect it to be over the set budget line and the constructions will take longer as planned.

Their position is that no increase in rail freight shipment will be expected because the different electrification and signal systems for trains in Denmark and Germany require a usage of locomotives that can drive on both sides. At the time being only a limited amount of such locomotives are operation along this railway line (will be difficult for them to cover the expected increase of freight traffic over the FBL) and the purchasing of these locomotives requires a high investment. Furthermore, they believe that the transport through waterways on Feeder ships will increase instead the transfer from road on train.

It is expected that business, transport and logistics-associations along and located close to the B207 and A1 receive a positive development with the upcoming FBL. Anyhow, it is not expected that the employment and investment situation will positively change within the rest of the FB region, e.g. due to the existing enterprise structure (SME's).

7 Conclusion

The current discussion in Germany with regards to the FBL hinterland connection, especially the railway extension, shows a discrepancy between the current planning activities of the government institutions and the actual discussion among the public in Germany. By having signed the treaty for the FBL the German government is obligated to provide the hinterland connection and has to treat it with high priority status within the federal infrastructure planning in transportation. Nevertheless, the lack of or rather vague statements from the German government leads to disbelief of the importance of this project (in terms of priority status, financial cover and construction with the given timeframe) and this encourages opponents to this project.

However, with the enforcement of the treaty, some of the interviewers were expecting a higher recognition of the FBL both in the public and in the business sector. Outside the FBR there is not much knowledge and not much interest in the FBL. The business sector in Schleswig-Holstein is oriented towards Hamburg and the other economic powerhouses of Germany, much more than towards Denmark. Hence, a mental bridge/crossing has to be built and this will probably take a longer time than building the physical bridge.

Nonetheless, a more ambitious infrastructure strategy on the German side could greatly improve the benefits of the FBL, and there are actors in Schleswig-Holstein and Hamburg (in government, business and logistics) as well as on federal level who would be in favour of this. In order to influence the decision makers, it is necessary to produce a strategy that not only documents the advantages of the different infrastructure measures, but also mobilizes actors on both sides of the FB, by involving them in the making of the strategy.

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Annex I. List of interviewed stakeholders

Government and planning institution:

1. *Ministry for Science, Economic Affairs and Transport of Schleswig-Holstein* (Ministerium für Wissenschaft, Wirtschaft und Verkehr Schleswig-Holstein, MWV SH)
2. *Specialist Service Regional Planning of the District Ostholstein* (Fachdienst Regionale Planung - Kreis Ostholstein (KOH))
3. *Senate Chancellery Hamburg* (Senatskanzlei HH)
4. *The Federal Ministry of Transport, Building & Urban Affairs* (BMVBS - Bundesministerium für Verkehr, Bau und Stadtentwicklung):
5. *State Company for Road Construction and Transport of Schleswig-Holstein* (Landesbetrieb Strassenbau und Verkehr (LBV) Schleswig-Holstein)

Business Association and Public Private Partnerships:

6. *Chamber of commerce and industry (CCI) of Berlin* (Industrie- und Handelskammer (IHK)) Berlin)
7. *CCI Lübeck and CCI Schleswig-Holstein* (IHK Lübeck, IHK SH)
8. *Logistic Initiative Hamburg* (Logistik Initiative Hamburg)
9. *The Confederation of Employers Associations in Hamburg and Schleswig-Holstein 'UV Nord'* (Vereinigung der Unternehmensverbände in Hamburg und Schleswig-Holstein – UV Nord)
10. *Lübeck Merchants' Association* (Kaufmannschaft zu Lübeck)

Transport and logistics association:

11. *Chamber of commerce Hamburg* (Handelskammer HH)
12. *Hamburg Port Authority and Hafen Hamburg Marketing* (Harbour Hamburg Marketing)
13. *Association of German transport companies* (Verband Deutscher Verkehrsunternehmen VDV)
14. *Pro-Rail Alliance* (Allianz pro Schiene)
15. *Havelländische Railway* (Havelländische Eisenbahn)
16. *Wustermark rail terminal*
17. *German Railways AG* (Deutsche Bahn AG)

Annex II. German Basic Law Article 87e [Federal railway administration]³

“(1) Rail transport with respect to federal railways shall be administered by federal authorities. Responsibilities for rail transport administration may be delegated by a federal law to the Länder acting in their own right.

(2) The Federation shall discharge rail transport administration responsibilities assigned to it by a federal law, above and beyond those respecting federal railways.

(3) Federal railways shall be operated as enterprises under private law. They shall remain the property of the Federation to the extent that their activities embrace the construction, maintenance, and operation of the tracks. The transfer of federal shares in these enterprises under the second sentence of this paragraph shall be affected pursuant to a law; the Federation shall retain a majority of the shares. Details shall be regulated by a federal law.

(4) The Federation shall ensure that in developing and maintaining the federal railway system as well as in offering services over this system, other than local passenger services, due account is taken of the interests and especially the transportation needs of the public. Details shall be regulated by a federal law.

(5) Laws enacted pursuant to paragraphs (1) through (4) of this Article shall require the consent of the Bundesrat. The consent of the Bundesrat shall also be required for laws respecting the dissolution, merger, or division of federal railway enterprises, the transfer of tracks of federal railways to third parties, or the abandonment of such tracks, or affecting local passenger services.”

³ From the IUSCOMP website: <http://www.iuscomp.org/gla/statutes/GG.htm#87e>
[Accessed 08.06.2010]

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