

Study on permitting and facilitating the preparation of TEN-T core network projects

Annex 4 – Case studies

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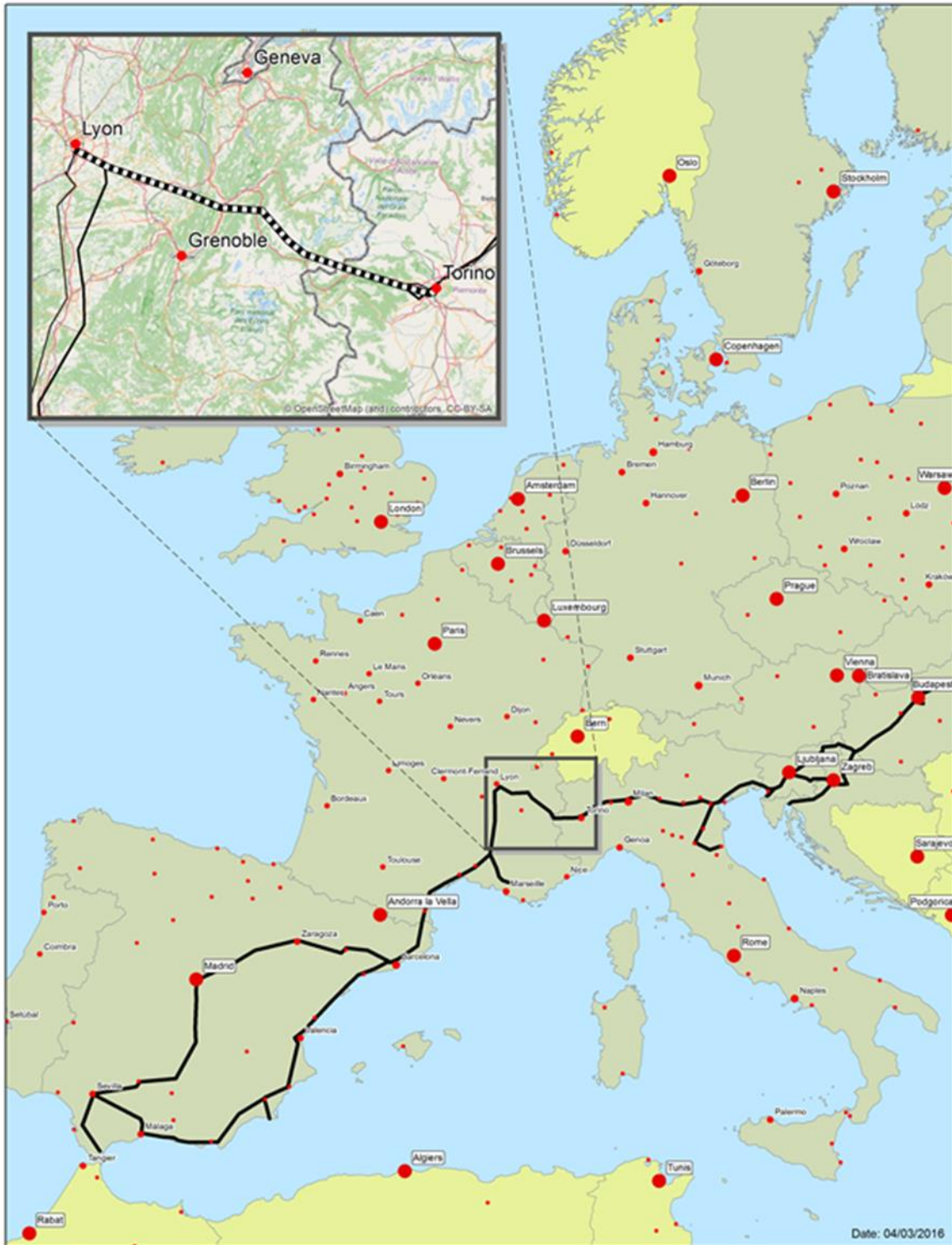
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1 CASE RAILWAY CONNECTION LYON TURIN (VAL DE SUSA)

Railway connection Lyon Turin (Val De Susa)



1.1 PROJECT DESCRIPTION

The new railway link Lyon-Turin, totalling 270 km, is part of the Mediterranean Core Network Corridor and constitutes the core of the Lyon-Ukrainian border high capacity rail axis. The 1,638 km railway axis from Lyon to the Ukrainian border is the main east-west passage south of the Alps, connecting the Iberian Peninsula with the eastern part of Europe and beyond.

This railway link comprises the 57 km long cross-border base tunnel, which starts at St-Jean-de-Maurienne (France) and exits in the Valley of Susa (Italy), replacing the existing line from 1871. It also comprises the access routes from Lyon and Turin. The new base tunnel will be dug at the base of the mountain between 570 and 474 m above sea level. It has a ‘*plain profile*’ with an almost flat line, allowing important energy savings, as well as optimum reliability, speed and safety of transport both for passengers and for freight. Civil works on the access routes and the base tunnel itself have not yet begun.

Lyon Turin Ferroviaria (LTF), a binational company under the responsibility of the Intergovernmental Commission (IGC), was the public developer of the cross-border section from 2001 to 2015. LTF was responsible for the preliminary studies (traffic, economic, legal and financial, technical, safety, environmental...) and building the exploratory tunnels, which allowed both governments to decide the specific rules for the tunnel and the cross-border section. Progress on the base tunnel, however, differed between France and Italy. While, in France, construction of the base tunnel has been authorised and the three access tunnels on French territory have been built, in Italy, preparation of the construction site for the La Maddalena exploratory and access tunnel near Chiomonte only began in June 2011 and finished in March 2012.

In February 2015, Tunnel Euralpin Lyon Turin (TELT) was appointed as the new public promoter responsible for building and running the cross-border section. The building phase will start in 2017.

France and Italy, together with the EU, are funding most of this Lyon-Turin connection. Almost EUR 1.194 billion was committed to LTF for the preliminary works between 2001 and 2014, of which 40% was funded by the EU. For tunnel build itself, 60% will be funded by France and Italy, at a rate of 25% and 35% respectively, under to the intergovernmental agreement of January 2012. The EU has confirmed additional funding of 40% under the new financial regulation (2014-2020) of TEN-T. The costs of the cross-border section (base tunnel, two international train stations and the two interconnections with the historic line) have been certified at EUR 8.6 billion. The total cost of the whole new railway link Lyon-Turin is estimated at EUR 26 billion.

1.2 TIMELINE – KEY MILESTONES

1991-2001: Early developments

- The Convention of Salzburg was signed in November 1991, aiming to reduce the risks and environmental impact of intra- and trans-alpine transport. Here, the Mont d'Ambin base tunnel was first suggested.
- The Lyon-Turin rail link was made a priority project by the European Commission in December 1994.
- The first **Franco-Italian Intergovernmental Agreement** for the construction was signed in January 2001, setting out the procedure for the first phase of the project, the so-called ‘shared part’. The agreement established a Developer (LTF-SAS).

2002-2014: Preliminary studies and geographical surveys

- In April 2002 excavation began on the first access tunnel at Modane.
- In March 2003, work began at Saint-Martin-la-Porte.
- In October 2005, work began La Praz.
- In 2006, the Italian PM formed a technical committee *Osservatorio Tecnico* (Observatory) to investigate the problems connected to the TAV project. Mario Virano, formerly a member of the pro-TAV committee, served as President of the committee.

- In 2008, the Observatory Phase I ended, with a proposed new alignment in the Susa valley.
- The Observatory continued two further phases of technical work with representatives of all interested parties. The third phase concluded on 30 June 2010 with the handover of the preliminary project to the authorities, for the line on Italian territory up to Turin. In the fourth phase – from July 2010 onwards – the Observatory developed a plan for phased works, i.e. postponing the construction of the Orsiera tunnel in the Susa Valley in favour of connecting the new railway line with the historic line at Susa. It also developed a cost-benefit analysis.
- The EU postponed the deadline – from May to June - for the Italian government to resolve all outstanding matters prior to the beginning of the works. These discussions were central to the provision of European funding to the project. Such was the pressure to begin works, that the building sites in the Valley were protected by the security forces throughout that year. Despite a clear majority in favour of the project, a small yet determined group of opponents continued to stage violent protests throughout the summer of 2011, leaving 200 police injured. Criminal and civil liability charges were brought against the demonstrators and are still pending in the courts and tribunals of Turin.
- In January 2012, the second Franco-Italian Intergovernmental Agreement on base tunnel funding was signed, modifying the previous agreement. To-date – since the signing of the 2012 Agreement – the only two municipalities actually affected by physical changes (from the project itself and the ensuing construction sites) are Chiomonte and Susa:
 - Chiomonte is the location of the Italian descending shaft, which will become one of the four access points of the base tunnel for safety and rescue purposes (the other three are in France).
 - Susa will serve as the exit/entrance point for the base tunnel on the Italian side and will host the Italian construction site for the main works. This site is established on an area already housing an Autoporto and a Drive Safe driving track.
- In September 2012 legal protocols, including increased precautionary anti-mafia measures, was signed with trade unions in Turin.
- In November 2012 the survey gallery excavation at La Maddalena started.
- In November 2014, the Order of Service was given for work to begin in Saint-Martin-La-Porte.

2015-2029: Construction phase

- In February 2015 in Paris, French secretary of state for transport, Mr Vidalies, and Italian infrastructure and transport minister, Mr Lupi, signed an amendment to the 2012 agreement thus paving the way for the launch of the definitive works on the cross-border section. This third **Franco-Italian Intergovernmental Agreement** approved the established Public Developer, Tunnel Euralpin Lyon-Turin (TELT), successor of LTF, controlled equally by Italy and France.
- On 8 March 2016, a supplementary protocol was signed by French president, Mr Hollande, and Italian prime minister, Mr Renzi, authorising the release of EUR 8.4 billion in funding for the initial stages of construction. The protocol, which is expected to come into force at the end of 2016, sets the foundations for procurement and includes provisions to minimise the risk of mafia infiltration of contracts for the construction of the cross-border section of the route. Under this agreement, the EU is expected to meet 40% of the total project cost, with the Italian government committing 34.74% and the French government 25.26%. The EU has already committed EUR 813.8 million to the project through the Connecting Europe Facility (CEF), equivalent to 41.1% of the EUR 1.9 billion allocated to construction works before 2019. The ratification of this supplementary protocol by the French and Italian governments will enable TELT to begin tendering for construction contracts.
- The building phase is due to begin in 2017, with an expected finish date of 2029.

Key project milestones	Original planning/timing	Real or currently estimated planning
Start of preliminary studies	2002	2002
Start of geographical surveys on French side	2002	2002
Start of geographical surveys on Italian side	2002	2012
Technical and environmental studies	2002-2009	2010-2016
Start of procurement phase	2010	2016
Start of building phase	2010	2017
End of building phase	2018-2020	2029

The initial plan was realistic. If the lack of support on the Italian side could have been assessed better beforehand, then the schedule would probably have had taken this into account.

1.3 ANALYSIS

The **main barriers in the authorisation processes** were twofold.

The French and the Italians took very different approaches to public participation and transparency. **On the French side, public participation took place early in the project planning phase, leading to greater transparency and acceptance of the project** by the local municipalities. Despite this, since the 2012 public interest inquiry on access to the proposed base tunnel, some opposition to the project is gaining momentum in France.

In his article ‘The Assertion of French Opposition to the “Lyon-Turin” Rail Link: a Conflict Between Liminality and Intermediate Spatiality’, the geographer Kevin Sutton summarises the differences, saying that the: ‘principle of usefulness is foremost in France while, historically, the principle of responsibility has been the driving force in Italy’. He states that the Italian ‘No Tav’ opposition, located in the Susa Valley since 1994, denies the legitimacy of the administration. In France, however, the legitimacy of administrative and political leaders has not been questioned, with Court of Auditors’ reports used on numerous occasions by the opposition.

Italian efforts to involve the local citizens in the planning process came only in 2006 after significant opposition from the local population in the Italian Susa Valley, organised under the ‘No Tav’ banner. They claimed that the current railway line was sufficient for the volume of traffic and that the construction of the line would have a negative environmental, economic and social impact on the local area. This opposition caused considerable delays at different stages of the project, i.e. the alignment was changed and a downsized project was proposed by the Italian Government in 2012.

The **complex legal framework for procurement applied in both Member States** gave rise to prolonged discussions between France and Italy on the implementation of the European Directive 2014/25/EU of 26 February 2014 on Procurement.

Specific measures to prevent criminal infiltrations of public procurement was one of the key points of discussion, given their different implementations of European law.

The project has also demonstrated a number of **good practices**.

Between 2001 and 2015, three Franco-Italian Intergovernmental Agreements were signed, allowing both parties to negotiate cross-border agreements.

The first **Franco-Italian Intergovernmental Agreement** for construction was signed in January 2001.

First Franco-Italian Intergovernmental Agreement for construction (2001)

This agreement set out the procedure for the first phase of the 'shared part' project. The agreement established a Developer (LTF-SAS), equally owned by RFI (Rete Ferroviaria Italiana) and RFF (Réseau Ferré de France). LTF was responsible for this first phase, including studies and preliminary works (the building of three access tunnels in France and the survey gallery of Maddalena in Italy; French legal rules apply on the French side and Italian legal rules apply on the Italian side). Under this agreement, the two governments were required to harmonise the rules applied to the works during this first phase.

The second **Franco-Italian Intergovernmental Agreement** on base tunnel funding was signed in January 2012. This agreement modified the previous agreement.

Second Franco-Italian Intergovernmental Agreement on base tunnel funding (2012)

According to this second agreement, the new name of the shared part is the cross-border section. The shared part now refers to a section from Montmélian (in France) to Chiusa San Michele (in Italy), including several tunnels with two tubes, a section in the open air, and junctions with a historical railway line and annex works. The cross-border section has become, under the agreement, one element of the shared part. This agreement defines how the cross-border section is to be achieved. A Public Developer, controlled by both France and Italy, has succeeded LTF. This Public Developer is considered a contracting entity within the framework of European law, and is responsible for delivering the project, including supervision of the contracts for design, build and use of the cross-border section. As the Public Developer's head office is located in France, the project, including the execution of works, supplies and services contracts stipulated by the Public Developer to carry out its tasks, are subject to French legal rules, provided they are compatible with European law (especially Directive 2004/17/EU). National rules which are more restrictive than, or contrary to, European law, do not apply to these contracts. Disputes over the delivery or performance of these contracts falls within the competence of the French administrative courts, while disputes about technical issues fall within the competence of the arbitration tribunal as outlined in the agreement. This tribunal will rely on French public legal rules, provided that they are compatible with European law.

The Public Developer maintains two systems of governance: a contracts commission and an evaluation commission, in order to ensure that the legal rules for public procurements contracts are respected. The contracts commission is composed of 12 independent experts appointed by Italian and French governments for a renewable five-year period. This commission verifies the grounds for exclusion of candidates before every tender decision.

The evaluation commission is formed with six members of the contracts commission, appointed after tenders are received. The commission examines the tenders and issues an opinion on the awarding of public contracts. These measures of control safeguard the issuing of project-related contracts, and reinforce the detection of infiltration attempts by criminal organisations, e.g. mafia.

The third **Franco-Italian Intergovernmental Agreement** was signed in Paris on 24 February 2015. This agreement approved the established Public Developer, Tunnel Euralpin Lyon-Turin (TELT), successor of LTF, controlled equally by Italy and France.

Large construction works, such as those related to the future Turin-Lyon high-speed railway, were identified in the public sphere as large-scale projects with a **high risk of potential diversion of public funds or infiltration by organised crime**.

In 2012, the Italian and French press reported on inquiries over rigged bidding, followed by a 2014 investigation that revealed connections between the 'Ndràngheta, an Italian organised crime network, and one of the companies in charge of building the tunnel. In 2015, the European Anti-Fraud Office (OLAF) undertook an examination of the project amidst the allegations of links with the Italian mafia and major cost overrun (estimated by the French Court of Auditors to have risen from EUR 12 billion in 2002 to EUR 26.1 billion in 2012). This investigation is particularly focused on whether or not the project has been subject to fraudulent activities and any impact this may have had on the budget

provided by the EU.

Given the risks of corruption and infiltration by organised crime in public procurement, the 2015 Intergovernmental Agreement states that French and Italian governments must ensure that the Public Developer, TELT, imposes ‘severe’ contractual regulations to combat the risk of mafia infiltration. These contract regulations and measures will be inspired by the Italian rules, but will remain compatible with European law¹. They are the first anti-mafia cross-border regulations in Europe.

Third Franco-Italian Intergovernmental Agreement establishing TELT

The Public Developer is considered a contracting entity under Directive 2014/25/EU and is the infrastructure manager of the cross-border section according to Directive 2001/14/EU. The Public Developer must be considered a public undertaking, according to European law. This agreement states that French and Italian governments must ensure that the Public Developer imposes extremely ‘severe’ contractual regulations, to combat the risk of mafia infiltration. This regulation must be approved by the intergovernmental Commission.

This specific measure - to fight against the risk of mafia infiltration in the project – stems from concerns raised by project critics about the high risk posed by the cross-border nature of the project, and the lack of formal anti-filtration rules in the French legislation. While, on the French side, the reality of such a risk is questionable, it is indisputable on the Italian side, especially in that area of the Piedmont Region. Past evidence suggests that, in Italy, criminal organisations may hack public procurement processes.

The lack of public consultation and communication on the environmental and public aspects of the project caused significant problems and delays in the early 2000s. Since 2010, the new Public Developer, TELT-SAS, has taken steps to improve public involvement, treating **communication as a key aspect**.

Public consultation through the ‘Observatory for the Lyon-Turin rail link’

The ‘Observatory for the Lyon-Turin rail link’ was set up by the Italian Government in 2005 to foster dialogue with stakeholders in the Susa Valley region. Over one hundred meetings with stakeholders took place, resulting in the 2008 proposal of a new alignment of the route through the Susa Valley.

This was followed by further work on the remaining technical issues and the development of a phased approach to the construction works by postponing the construction of a second tunnel and connecting the new line with the old historic line at Susa. By 2013, a clear majority of the local population supported the project.

According to a TEN-T investment study carried out in 2014, a delay of 10-15 years is under discussion². Considerable stakeholder opposition, together with technical issues, have driven multiple re-designs of the project, with no exact data available on cost over-run. Over the past 20 years, the estimated investment cost has continuously increased, although comparisons should be done cautiously, given that the size and scope of the project has also increased (e.g. further elements were added, such as new tunnels, new stations, etc.) and decisions made earlier than 2010 were built on preliminary plans and estimates of investment costs³.

¹ In French law, the code of public procurements, Article 43, refers to exclusion grounds from public procurements. However, these provisions are less restrictive than in European law. In contrast to France, Italian measures can appear more restrictive than European law.

² <http://www.europarl.europa.eu/studies>.

³ The cost is estimated by the French Court of Auditors to have risen from EUR 12 billion in 2002 to EUR 26.1 billion in 2012.

1.4 CONCLUSIONS

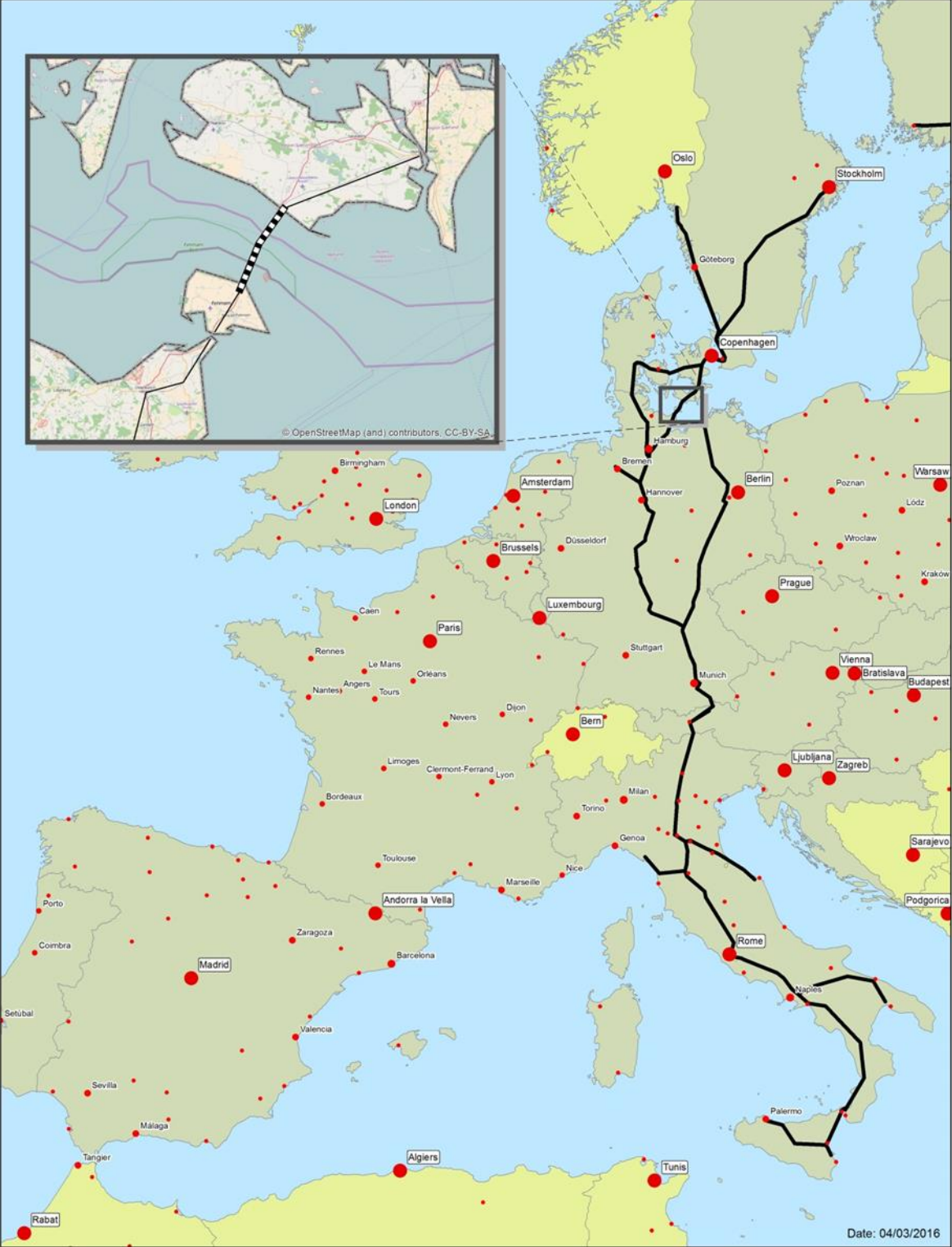
A key challenge is that the main benefits of TEN-T projects are often realised at EU level, rather than national, regional or local levels. A strategy to factor these benefits into national, regional or local decision-making and permitting is essential to counter 'not-in-my-backyard' attitudes, such as those evident in the Lyon-Turin rail project. Ineffective handling of local concerns in the early stages of this project led to significant delays. A broader, more comprehensive public consultation is needed to offset the growing resistance to large transport investment projects. Such efforts will also improve the project decision base and thus the implementation decisions. Participation is an ongoing process, which should start before the project decision is made and continue after the formal approval (permitting phase) of the project.

Differences in implementation of European law at national level can lead to significant delays in the signing of international agreements on procurement. Guidance on the applicability of the EU Public Procurement Directive to cross-border projects would be useful. In addition, the drafting of guidelines for international agreements - based on the European Directives for Procurement - would be valuable in limiting debates between Member States and the resulting delays.

The implementation of contractual regulations (whether obligatory or as an ethical code of good practice) combatting corruption and infiltration by organised crime in public procurement, is also useful in avoiding delays during the construction phase of cross-border projects.

2 CASE FEHMARN BELT FIXED LINK

Fehmarn Fixed Link



2.1 PROJECT DESCRIPTION

The Fehmarn Belt Fixed Link aims to create a direct fixed link between the Danish islands of Lolland and Falster, part of the region of Zealand and the German federal state of Schleswig-Holstein, providing an alternative to the ferry between Rodby (Denmark) and Puttgarten on the Fehmarn Island (Germany). The central segment is the **18 km long Fehmarn Belt tunnel**, running between Rodbyhavn on Lolland and Puttgarten on Fehmarn, featuring two double-lane motorway tubes with an emergency lane and two rail tubes with electrified rail tracks. The project also includes improvements to related rail links in Denmark and Germany. It is expected to stimulate economic development in the Baltic Sea region of Denmark and Germany, with estimated passenger and freight traffic of 3.3 million vehicles and 30,000-35,000 trains a year⁴, helping to relieve congestion on the Great Belt route across Denmark, and on the rail network in particular. Once in place, the Fehmarn Belt Fixed Link will reduce travel time between Copenhagen and Hamburg by approximately one hour, with travel times for freight transport reduced by two hours. In terms of road infrastructure, it can be seen as a missing link, although there are alternative road and ferry solutions. The Fehmarn Belt Fixed Link is designed to reduce travel time rather than adds necessary capacity on the road network, as well as solving some physical bottlenecks such as ‘missing filling stations’ (i.e. the inability to fill the ‘right’ type of fuel along the corridor).

The railway axis Fehmarn is an extension of the Oresund fixed link and the Nordic Triangle road and rail links, and is a key component in the main north-south route between central Europe and the Nordic countries.

The infrastructure is solely owned by the Danish State and realised by Femern A/S, a subsidiary of Sund & Baelte Holding A/S. The *state guarantee model* includes the establishment of a state-owned company responsible for the planning, design, funding, construction and operation of a major infrastructure project.

Construction costs will be user-financed according to the *Danish state guarantee model*, meaning that the company's revenues comprise user payment via tolls for passage across the fixed link. Toll setting and railway charges will primarily be driven by the need to ensure an appropriate repayment of the company's debt. Levels of the tolls and charges are most likely to be set by the Danish Minister for transport with recommendations from Femern A/S.

The total construction cost of the Fehmarn Belt connection is expected to be DKK 55.1 billion in 2015 years prices (approx. EUR ~~5.4 billion~~), while the Construction Act includes an estimate of the total construction costs for the Danish landworks of DKK 9.5 billion in 2015 prices (approx. EUR ~~4.5 billion~~). EU funding in the amount of EUR 589 million was granted to Denmark. The project is expected to be paid in full after 36 years of operation. This includes the financing of the Danish railway facilities’ upgrade and expansion from Rødby to Ringsted.

2.2 TIMELINE – KEY MILESTONES

1992-2008: Early developments and preliminary studies

- In 1992, the Danish Transport Minister and his German counterpart agreed to initiate feasibility studies on a fixed link. These studies were carried out from 1995 to 1999.
- In 1999, the Danish and the German Ministries of Transport presented a feasibility study of eight different proposals for the technical design of a Fehmarn Belt link and the related costs of the project.
- In 2004, the Danish and German Ministers of Transport signed a **joint declaration**, stating

⁴ Project description, INEA website: <https://ec.europa.eu/inea/en/ten-t/ten-t-projects/projects-by-priority-project/priority-project-20>

their commitment to a fixed link across the Fehmarn Belt.

- In 2005, the Danish Prime Minister and the German Chancellor agreed on an **initiative for the construction** of a fixed link across the Fehmarn Belt, giving a mandate to the Transport Ministries in both countries to develop financing models.
- In 2007, the Danish and German Ministers for Transport signed a **declaration of intent** on establishing a fixed link across the Fehmarn Belt.
- In September 2008, the Danish and German Ministers for Transport signed the **State Treaty on the establishment of a fixed link across the Fehmarn Belt** between the Danish island of Lolland and the German island of Fehmarn.
- In December 2008, the **EC allocated DKK 1.5 billion (EUR 5 million)** to support the Fehmarn Belt project from 2007-2013 to undertake the necessary studies and preparations.

2009-2016: Planning of the works / preparatory studies

- In 2009 the Danish parliament adopted the **planning legislation** for the Fehmarn Belt link.
- In 2010 the Danish Parliament's Budget Committee **extended the planning budget** for the Fehmarn Belt Fixed Link from EUR 161 million to EUR 254 million.
- In February 2011 the Danish political parties supporting the project declared an immersed tunnel to be **the preferred technical solution**, based on the November 2010 recommendation from Femern A/S.
- In June 2011, Femern A/S' recommendation to locate the production site for the tunnel elements in Rodbyhavn on the Danish side was accepted by the Danish government. The Budget Committee of the Danish Parliament again **extended the planning budget** for the Fehmarn Belt Fixed Link. Femern A/S **started to prepare the tender process** for the constructions, and to plan a Vessel Traffic Service (VTS) system to monitor shipping during the construction phase. The planning budget amounted to EUR 376 million.
- In 2012, Femern A/S initiated the **pre-qualification process for contracting companies** for the four main contracts, thereby initiating the tender process for the constructions.
- In May 2013, **nine international construction consortia pre-qualified to bid** on the four major construction contracts for the Fehmarn Belt tunnel.
- In June 2013, the **Danish EIA report** for the fixed link across the Fehmarn Belt was published, with a consultation period running from that date until 20 September 2013.
- In August 2013 the bidding process started.

- In October 2013, Femern A/S submitted an 11,000-page **application for planning** approval of the Fehmarn Belt tunnel in Germany to the German plan approval authority. In May 2014, the German approval authority initiated the **public consultation** for the **application** from Femern A/S. For one month, citizens and interest groups could access the documents and submit their suggestions and objections.
- In September 2014, seven **major consortia were pre-qualified** to tender for the Fehmarn Belt tunnel's electrical and mechanical installations and for the installation of the electricity sub-station.
- In November 2014, the **Construction Act** for the Fehmarn Belt tunnel and the associated Danish road and rail connections was published for **public consultation**, together with an addendum to the EIA for the fixed link (coast-to-coast). The **public consultation** ended on 5 January 2015.

- In February 2015, Germany and Denmark submitted a **joint application for EU grants** for the construction phase of the Fehmarn Belt tunnel to the European Commission.
- In April 2015, the Danish Parliament adopted the proposed **Construction Act** for the fixed link across the Fehmarn Belt and the Danish landworks.

2016 – Current state of play

- Delays in regulatory approvals in Germany have delayed the likely completion of the project

from 2022 to 2028.

- On 29 February, Femern A/S submitted an update of the 11,000-page application for the plan approval in Germany to the independent approval authority in Kiel. The updated application replies to the about 3,000 objections and comments that has been put forward by the public, the authorities and organizations in 2014 and 2015.
 - On 4 March 2016, the Danish political parties supporting the Fehmarn Belt link mandated Femern A/S to appoint the preferred bidders for the main tunnel contracts, intending to enter into conditional contracts by mid-May 2016.
 - On 30 May 2016, Femern A/S signed conditional contracts with the two winning consortia for the four major civil works contracts. The four contracts cover dredging of a tunnel trench in the Fehmarnbelt, land reclamation of the coast of Lolland and Puttgarden, construction of temporary work harbours, building the tunnel element factory, immersion of tunnel elements to the seabed and construction of portals and ramps on the Danish and German side. Construction work can begin when the German construction permit is in place.
- On 13 June 2016, Femern A/S and LBV Lübeck applied for approval of the updated project application. The new public hearing was open for objections from the general public from 12 July 2016 until 26 August 2016. Circa 12,000 objections were submitted within the deadline.

Key project milestones	Original planning/timing	Real or currently estimated planning
Feasibility studies on a fixed link (by Danish and German Transport Ministers)	1995-1999	1995-1999
State Treaty on the establishment of the Fehmarn Fixed Link (signed by Danish and German Transport Ministers)	2008	2008
Adoption of planning legislation by Danish parliament	2009	2009
Preparation of the tender process by Femern A/S	2011	2011
Publication Danish EIA report	2013	2013
Start bidding process	2013	2013
Submission application Plan Approval in Germany	2014	2014
Adoption Danish Construction Act (by Danish Parliament)	2015	2015
Plan Approval (Germany)	2015	2017
Start construction	2016	2018
Completion project	2022	2028

The major delaying factor was the delay in the regulatory approval in Germany. The procedure provides extensive public consultation and, taking the public opposition in Germany into account, the original planning of this cross-border planning seemed somewhat optimistic in retrospect.

2.3 ANALYSIS

The Fehmarn Belt Fixed Link is a **prominent example of a challenging cross-border project**.

The problems experienced, and their underlying causes, stem from delays in the authorisation procedure in Germany, both as a result of public opposition, and also effects of the interpretation of the Water Directive. The **delays in the approval procedure on the German side are the main concern**, as this cross-border project cannot start until approvals are granted on both sides. As is customary, works in Denmark were delayed pending the granting of the required approvals in Germany, where a **lot of public opposition** remains.

The project is subject to a extremely lengthy and complex planning and approval procedure. Both countries have their own legislative framework for permitting. While guidance documents were issued on foot of international (ESPOO) and EU legislation outlining how to deal with cross-border impacts,

these were **not mentioned by either Member State during the interviews for this report.**

The procedures in the two countries are markedly different, and have not been aligned for this project.

In Denmark, the approval process was reasonably smooth. The EIA of the Fehmarn Belt link was approved by the Danish parliament in the form of a *Construction Act* in April 2015. As part of the EIA process, the Ministry of Transport conducted a number of public consultations, with all stakeholders (the general public, the authorities, NGOs and companies) given the opportunity to give feedback on the EIA aspect. Questions and comments raised were answered in consultation reports prepared by the Ministry of Transport. Based on the EIA and these consultation reports, the Ministry of Transport drafted the *Construction Act*. An *Implementation Report* was also prepared, describing the implementation of the project in practice, including considerations made for nature during the construction and operational stages.

Approval on the German side has been delayed. These types of projects are usually approved in Germany through a regulatory approval process - including the technical project, alignment and environmental impacts - resulting in an overall building permit. Under German law, only a German authority can apply for project approval for motorways on German territory. Femern A/S therefore applied for the railway, while LBV Lübeck applied for the road section, an application running to some 10,000 pages, with more than 200 plans and drawings.

Compared to Denmark, the procedure in Germany is longer, with numerous public consultations and hearings. Public participation is equally important in Denmark and Germany and, while both comply with the EIA Directive and the Aarhus Convention, their processes differ. The Danish process ends with a Parliamentary decision of final approval, with the law resolving conflicts of interest. This process is known and has a controlled timeframe. Germany, by contrast, has a purely administrative procedure, meaning that one round of participation and approval may not be enough. The number of updates to the original application is – now so large that the German hearing authority has deemed it necessary to do a second participation round/hearing and a full update of documents, a procedure that started in 2016 will take another two years. The original timeline was approval in 2015, with construction to start in 2016. Now, however, the approval date is set for 2017, with construction to start in 2018. Stakeholders also highlight the likelihood of court cases leading to suspension of a decision, suggesting that completion of the project is likely to be delayed from 2022 to 2028.

The consequences of new jurisprudence on permitting legislation and on permitting procedures cannot always be anticipated, creating major obstacles in finishing a project on time and within the original budget. The stakeholders in this case fear that the Court of Justice of the European Union (CJEU) ruling (case C-461/13) on the Water Framework Directive (see box below) will affect this project. As a consequence of this court ruling, the stakeholders fear that the EIA procedures are likely to become more exhaustive, requiring more time and money on the part of the project developers. The second participation round in Germany will include a full 600-page report on the Water Framework Directive, compared with the original 60-page report.

Despite considerable delays to the project, the plan was on track to be approved in 2017, however, this jurisprudence will likely be delayed by two years, until 2019-2020. An additional problem is that **the planning of the procurement procedures and contracts run in parallel with the plan approval. Project delays will also incur costs related to the delayed procurement and tendering processes,** which will take two to three years. According to the stakeholders consulted, this legal unpredictability carries the risk of rendering bids invalid, which must be balanced with the need to retain contractors in order to not lose any further time.

CJEU ruling of July 2015 on the interpretation of the Water Framework Directive (Case C-461/13)

A request has been made for a preliminary ruling concerns the interpretation of Article 4(1)(a)(i) to

(iii) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (the Water Framework Directive) in proceedings between Bund für Umwelt und Naturschutz Deutschland eV (German Federation for the Environment and the Conservation of Nature) and Bundesrepublik Deutschland (the Federal Republic of Germany) concerning a scheme to deepen various parts of the River Weser in the north of Germany, intended to enable larger container vessels to call at the German ports of Bremerhaven, Brake and Bremen.

The CJEU had to decide on the meaning of the Directive, concluding on 1 July 2015 that its ultimate objective was to achieve ‘good status’ of all EU surface waters by 2015. The Court ruled that Article 4(1)(a)(i) to (iii) of Directive 2000/60 must be interpreted as meaning that the Member States are required — in the absence of a derogation — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water, or where it jeopardises the attainment of good surface water status, or of good ecological potential and good surface water chemical status by the date laid down by the Directive. In addition, the concept of ‘deterioration of the status’ (Article 4(1)(a)(i)) of a body of surface water must be interpreted as meaning that there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the Directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. Stemming from this judgment, the German court is now bound to interpret various development projects on the River Weser as causing deterioration, unless the derogation article is used.

This ruling is likely to have implications for any future deepening projects at EU Ports, as well as for other projects on water bodies, e.g. the Fehmarn Belt Fixed Link.

A second court case arose from a legal challenge, in 2015, to Femern’s proposed model for public financing of the planning, construction and operation of the project. Although the EC has confirmed that the plans comply with the European state aid rules, the European Court of Law in Luxembourg still received a **complaint from one of the stakeholders** about the Commission’s approval of public funding – see box below.

Approval of public financing for the Fehmarn Belt Fixed Link

Denmark’s proposed model for public financing of the planning, construction and operation of the Fehmarn Belt rail and road tunnel to Germany complies with EU state aid rules, the European Commission announced on 23 July 2015.

The Commission decided that it did not need to ascertain whether public financing for project promoter Femern A/S constituted state aid within the meaning of EU rules, because this would in any case be permitted as supporting an important project of common European interest (PCI). Support for the road and rail connections at the Danish end of the 19 km tunnel would not involve state aid, as these would be an integral part of the transport network, and thus public financing would not distort competition or affect trade between Member States.

The European Court of Law in Luxembourg has, however, received a complaint from Stena Line in respect of the European Commission’s approval of public funding for the Fehmarn Belt Fixed Link between Denmark and Germany. The shipping company claimed that the decision is discriminatory and does not comply with EU state aid regulations. Stena Line’s complaint was based on a series of ‘obvious errors’ allegedly made by the EC with respect to the duration of, and need for, subsidies. Stena Line further stated that the decision would encourage the Fehmarn Belt Fixed Link operator to offer low prices and thereby distort competition.

The Fehmarn Belt Fixed Link case demonstrates **some good practices** in stakeholder communication – in the context of preparing for (coming) authorisation procedures - and procurement.

A key challenge in this project is to factor EU level benefits into national, regional and local decision-making and permitting, helping to alleviate ‘not-in-my-backyard’ attitudes. **Concerns about local**

impacts have been handled relatively well in the Fehmarn Belt Fixed Link project. The promoters invested heavily in stakeholder communication, engaging all interested parties early in the process, including holding open days for local stakeholders. The cost-benefit analysis included local benefits (jobs, economic activity), although not yet in terms of a consolidated description or evaluation. Compensatory measures were also factored in⁵. A well-developed project website is publicly available, where Femern A/S has collected all of the material relating to the EIA approval in Denmark (<http://vvmdocumentation.femern.com>).

The political stakeholders involved believe that no cross-border coordination mechanism is necessary for procurement, as tendering is conducted under the European Public Procurement Directive. The Competitive Dialogue (created by the 2004 Public Procurement Directives as a more flexible solution for public authorities awarding contracts for complex infrastructure projects) procedure from the 2004 Sectors Directive was used. This procurement procedure allows for a higher degree of flexibility when it comes to aligning approval processes and procurement processes, including handling delays, as well as encouraging technically better bids and more competitive prices. No specific national procurement regulations apply to the procurement procedures in this case study. The project promoters used the **European legislative procurement framework, together with FIDIC standards**, and were satisfied with both.

Completion of the project is likely to be delayed from 2022 to 2028, due to delays in regulatory approval in Germany. Initially estimated at seven years, as of Spring 2016 it seems likely that the planning and preparation phase will take 9-11 years, after which time construction work can start.

A two to four year delay before construction starts amounts to a EUR 50 million cost, or more, to the client company.

2.4 CONCLUSIONS

Feedback from the project stakeholders suggested that the existing guidelines on managing and synchronising permitting procedures in a cross-border context (without violating the subsidiarity principle) – were insufficiently helpful for this type of project.

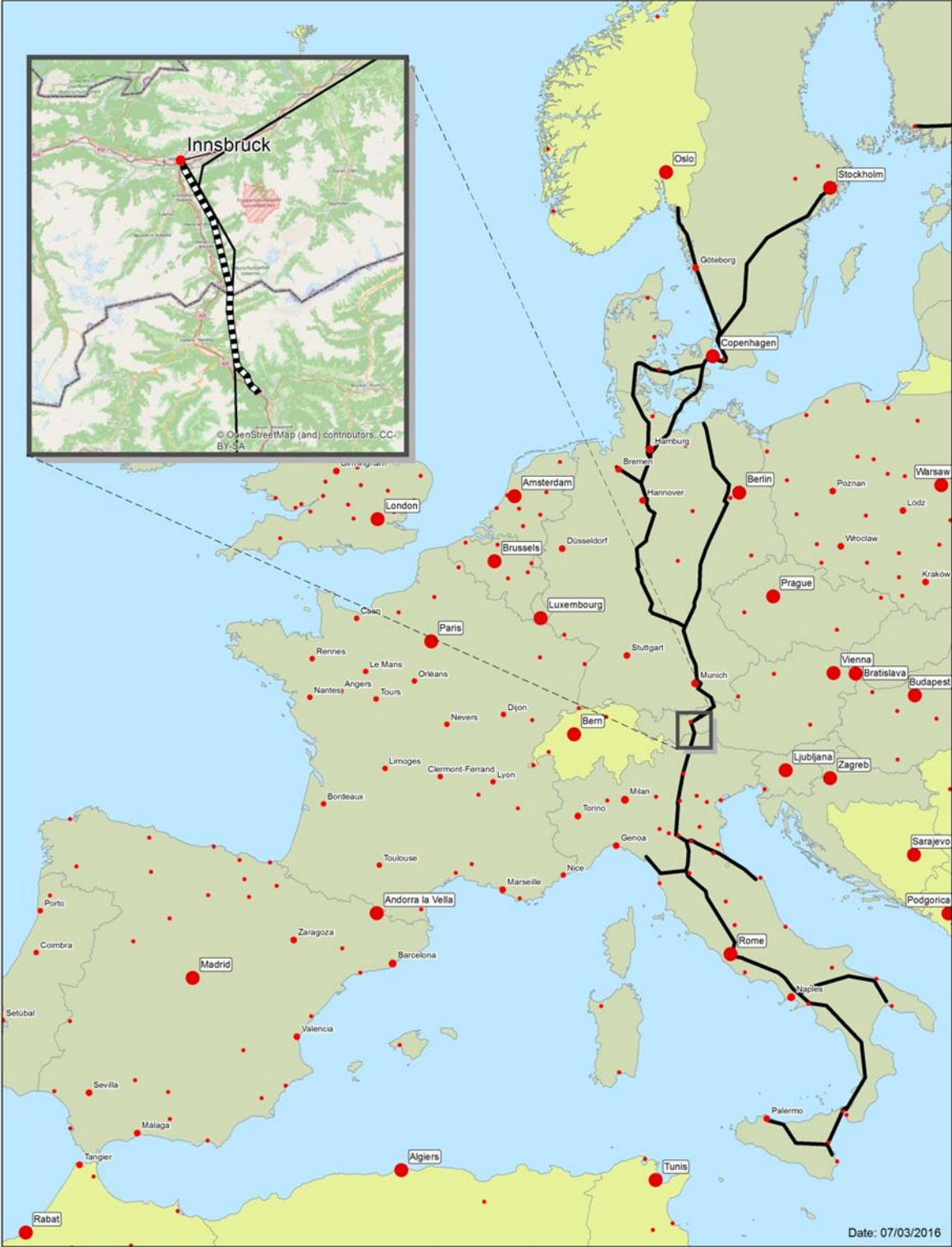
Extensive communication and engagement with all stakeholders early in the process is a key success measure for complex and challenging cross-border projects. Publicly available webpages, open days, etc. are excellent tools to involve local and national stakeholders and minimise public opposition.

The use of the European procurement legislation framework is recommended in this type of project, particularly in combination with tailored FIDIC standards, to avoid cross-border procurement issues.

⁵ Some are proposed in the application document but are subject to the upcoming hearing therefore no specifics can be given.

3 CASE BRENNER BASE TUNNEL

Brenner Base Tunnel



3.1 PROJECT DESCRIPTION

The Brenner Base Tunnel (BBT) is an important missing link in the Scandinavia-Mediterranean TEN Corridor from Helsinki to Valletta, Malta. The EU is promoting the expansion of this transnational multimodal corridor as a high priority.

The BBT is one of two centrepieces (together with the Fehmarn Belt Fixed Link) of the Scandinavian-Mediterranean Corridor. A horizontal railway line running through the Alps between Tulfes/Innsbruck in Austria and Fortezza in Italy. The BBT ends in Innsbruck in the existing railway bypass tunnel, which ends in Tulfes. The BBT is intended primarily for freight transport, allowing a modal shift of traffic from road to rail. Passenger trains can also travel through the tunnel. The virtually horizontal tunnel will eradicate the difficulty of dealing with the steep slopes on the existing Brenner railway line, which is over 140 years old. The 64 km cross-border tunnel through the Alps will thus remove a major bottleneck for both freight and passenger transit between Austria and Italy.

The BBT is the main element of the new Brenner railway from Munich to Verona. It consists of two rail tunnels, each equipped with a single track, meaning that train traffic through the tubes is one-way. The distance between the tunnels is 70m for almost their entire extension. Near the portals, this distance decreases to approximately 4m. The two main tubes have an internal diameter of 8.1m, and are connected at regular 333 m intervals by cross tunnels which will serve as escape routes in emergency situations. An exploratory tunnel will be located 12m below the two main tunnels. This exploratory tunnel, with an inner diameter of approximately 5m, will be driven prior to the construction of the main tubes to provide information on the geological and hydrogeological composition of the rock, thereby minimising both construction costs and risks. The exploratory tunnel will be completed along the main tunnel's length and, once the main tunnel is operational, will be used for drainage and service.

Four construction sites are currently in operation, two in Austria and two in Italy. The first phase (1999-2003) consisted of the preliminary project and assessment; in the second phase (2003-2010) the project was finalised and the EIA carried out; the second part of phase II (2007-2013) was the exploratory section; with the building phase starting in 2011. The construction work and the railway outfitting of the Brenner Base Tunnel should be completed by 2025. After that, there will be a year of test operations. The tunnel will become fully operational in December of 2026.

In 1999, the Austrian and Italian Ministers of Transport established a European Economic Interest Group (EEIG), known as BBT EEIG, to plan the project. On the 16th of December 2004 it became *Galleria di Base del Brennero – Brenner Basistunnel BBT SE*. This is a European public limited company (plc) for the construction of a railway tunnel between Austria and Italy. At the request of the Republics of Austria and Italy and the EU, BBT SE is planning and building the Brenner Base Tunnel.

The projected costs for the Brenner Base Tunnel are estimated at approx. 8.7 billion EUR (based on 2013 prices).

The BBT is being financed to a large extent by the European Union. Between 2015 and 2020, the EU will bear 50% of the costs for studies, planning and construction of the exploratory tunnel (approx. 303 million EUR). For the construction of both main tunnel tubes 40% are co-funded by the EU (almost EUR 880 mio). The remaining sum (about 60 % of total costs) is covered equally by the Italian and Austrian governments.

3.2 TIMELINE – KEY MILESTONES

1994 - 1999: Early developments

- In December 1994, at the European Council Meeting in Essen, the Brenner axis became No. 1 on the list of TEN-T priority projects.
- In 1996 planning began for the first construction phase of the new railway line in the Lower

Inn Valley. July 1996 saw Decision No. 1692/96/EG of the European Parliament, with a list of the 14 projects chosen by the European Council on December 9th and 10th in Essen: TEN – Axis Nr.1: High-velocity combined transport on the North-South Brenner axis from Munich to Verona.

- April 1999 saw the Decision of the Austrian and Italian Ministers for Transportation concerning the establishment of a European Economic Interest Group (EEIG, EWIV, GEIE) to plan the BBT. In December 1999, BBT EEIG began the Planning Phase 1 for the tunnel.

1999-2003: Preliminary project and assessment

- On 12 September 2001, the White Book of the EC for TEN-Projects was published, with 14 priority projects, including the BBT.
- In April 2002, under Austrian railway law, the new railway line in the Lower Inn Valley - about 40 km between Kundl and Baumkirchen – was approved.
- In April 2003, there was a common declaration of the Austrian and Italian Ministers for Infrastructure and Transportation.
- September 2003 saw the Memorandum in Rome: Planning phase II for the BBT.

2004-2010: Final project

On 30 April 2004, the State Treaty – Vienna: Agreement between Austria and Italy to build the Brenner Base Tunnel was signed.

- 2004 also saw the shareholders' agreement between Austria, the Austrian Land of Tyrol and RFI (Italy) and the establishment of the European Company *Galleria di Base del Brennero - Brenner Basistunnel BBT SE* from the Brenner Basistunnel EEIG (December 2004).
- In December 2004, the province of Bolzano (Alto Adige) and the Inter-Ministry committee for economic planning (CIPE I) approved the preliminary project and the environmental study.
- In March 2006, the Italian company *Tunnel Ferroviario del Brennero – Finanziaria di Partecipazione (TFB)* was set-up, which holds the Italian share of 50% of BBT SE.
- In May 2007, the *Brenner Corridor Platform (BCP)* was set-up, coordinated by Mr Van Miert of BBT SE, and including the appropriate Ministries of Germany, Austria, Italy, the regions of Bavaria, Tyrol, the provinces of Bolzano, Trentino and Verona and the three railway companies DB, ÖBB with BEG and RFI.
- On 19 February 2008, the EU reserved EUR 786 million for studies and works for the BBT.
- In February 2008, the final project plan and documentation was completed for the declaration of environmental compatibility. These were submitted in Austria on 18 March 2008 and in Italy on 31 March 2008.
- In May 2009, a Memorandum with Brenner Action Plan 2009-2022 was signed in Rome. This Memorandum of Understanding was developed by the Brenner Corridor Platform and includes 50 measures (each with a timeframe and an entity responsible) to pursue a modal shift from road to rail. The main aim of the platform is an integrated transport policy for the Brenner Corridor, including the implementation of measures that promote efficient use of the cross-border rail connection between Munich and Verona, enhance the necessary modal shift and protect the alpine environment.

The following milestones were significant:

- In May 2009, the Austrian Parliament gave financial approval for the infrastructure programme, including the BBT.
- In June 2009, the Austrian Bundesrat gave financial Approval for the infrastructure programme, including the BBT.
- In June 2009, a framework agreement was established with seven universities.
- In July 2009, within the framework of the infrastructure programme, a contract to build the BBT was established between OBB-Infrastruktur AG and the Ministry for Infrastructure, Innovation and Technology (Austria).
- In July 2009, the Inter-Ministry Committee for Economic Planning (CIPE II) in Italy approved the project.
- In October 2009, the Mules access tunnel was completed.

- In December 2009, Austria gave EIA approval for the BBT.
- In November 2010, the Inter-Ministry Committee for Economic Planning (CIPE) in Italy approved financing for the BBT.

2007-2013: Exploratory section

- In August 2007, construction began on the first section of the exploratory tunnel between Aica and Mules.
- On 20 August 2008, mechanised excavation of the Aica exploratory tunnel began in Italy, over 10.5 km, with a double-shield tunnel boring machine (6.3m in diameter).
- July 2010: Start of construction on the Ahrental access tunnel (Austria) - 2.4 km, cross-section 120m², excavated by blasting.
- April 2011: Start of excavation works on the Wolf I construction lot (Steinach am Brenner, Austria) - logistic tunnels Saxen tunnel and Padaster tunnel.
- September 2011: Start of excavation of the Ampass access tunnel (Austria) - 1,350 meters in length, cross-section 35m², slope 10%, excavated by blasting.

2011-2026: Construction phase

- On 18 April 2011, the most important decision for the BBT was taken, when Austria and Italy agreed a total project cost of EUR 7,460 million (costs as at 1 January 2010). This agreement paved the way for main construction works on the base tunnel, the so-called Phase III, to be carried out by the project promoter BBT SE.
- In 2011, the building phase started.
- In 2016, full construction of the main tunnels will begin, with an estimated finish date of 2025.
- The tunnel will become fully operational in December of 2026.

Key project milestones	Original planning/timing	Real or currently estimated planning
Preliminary project and assessment	1999-2003	1999-2003
Technical and environmental studies	2004-2010	2004-2010
Exploratory section	2007-2013	2007-2016
Procurement phase main tunnels	2015	2016
Construction phase	2011/2016-2025	2011/2016-2025

Whether the nine years, until the planned opening of the BBT, are sufficient to implementing all of the works to be completed on the access routes or not is largely a question of the funding available.

3.3 ANALYSIS

Although generally recognised as a good example of a cross-border infrastructure project, some **barriers** were encountered **in its authorisation processes**.

Funding was the main bottleneck in both Italy and Austria, given the economically difficult environment. In view of the serious budgetary limitations in both countries, **progress was slower than planned.** The impact of the economic and financial crisis led to budgetary adjustments, reducing the total investment from both countries by EUR 330 million. The bulk of the saving has been achieved by shifting activities from the period 2012-2016 to the period 2016-2025, with technical measures, such as optimised construction methods, providing the rest. Despite these austerity measures, the date of completion (2025) and the beginning of operations (2026) were confirmed by both governments.

Public opposition to the project has not been significant. Some associations asked for construction activities to stop in order to open a public debate (stating that many information meetings and presentations simply justified choices already made). In addition, a referendum on the future of the

line was proposed, but gained no political support. **The meetings of Prati di Vizze (South Tyrol) and Trento (Trentino) can be considered a partial exception.** This municipality was chosen as the location for a 3.7 km secondary tunnel to transport material, access the main tunnel and for a 500,000 m³ deposit. Citizens of Prati di Vizze were particularly critical of the original project and, after an official petition, an information meeting and vigorous protests, forced approval of a variation of the project in 2008, which saw the deposit moved from Prati di Vizze to Mules and Steinach. This event received little publicity but, in an August 2013 interview, the Italian Ministry of Infrastructure viewed it as a successful participatory outcome, *'The method adopted for the BBT is excellent: involvement of the municipalities and population, quality of the project, collaboration between institutions'* (Source: *An approach to manage conflicts in the construction of new transport infrastructures: the case of the Brenner HS/HC railway line*).

As described below, cooperation among the key stakeholders', and public engagement and communication, together with the procurement conditions, can be seen as **good practices in this case.**

The **European coordinator set up the so-called Brenner Corridor Platform (BCP)** in 2007. The three Member States (Austria, Germany and Italy), the five regions (Bavaria, Tirol, Alto Adige, Trento, and Verona), the railway and highway companies and the European Commission are represented in the BCP. It guarantees an integrated approach for the Brenner Corridor, including both road and rail, and going beyond the mere development of the infrastructure project to put in place a strong cooperation between all partners involved. This integrated approach offers a solution to the exponential increase of road traffic by reducing bottlenecks and congestion, while respecting environmental standards, such as air quality and noise levels. The Platform developed short, medium and long term proposals, ranging from infrastructure improvements, management of train slots, handling at terminals and interoperability issues, to policy proposals. The BCP operates as follows:

- **Participation:** The BCP has two plenary meetings each year, at which working groups (each of which meets throughout the year) present progress reports. The coordinator can invite other interested parties to the meetings as observers, for example EIB, business operators, the secretary of the Alpine Convention. Academics and consultants do not participate in the meetings unless there is a specific need, but they have performed several studies related to the corridor, and for BBT SE.
Currently, business representatives (e.g. rail operators, intermodal/combined transport operators), citizens or environmental groups are not invited to participate.
- **Accountability:** The BCP is based on the Common Declaration of 2009. Representatives pay their own costs and no specific accountability is required.
- **Powers:** The BCP has no official power. While the development of the corridor is in the interest of the Commission, but there is no legal framework within which to demand action.
- **Communication:** Clear and coordinated communication is a key aspect of creating good, trusting working relationships among those working on the project.

In 2009, a Memorandum of Understanding was signed and the 'Brenner Action Plan 2009-2022' was developed by the BCP containing 50 measures to pursue a modal shift from road to rail. The BCP created 10 specific working groups to implement this Action Plan in an integrated way. The Autonomous Province of Bolzano and Province of Tyrol, the governing bodies of the territories involved in the project, support the project, which is a source of reassurance for the citizens of these regions. The Brenner Action Plan 2016, annexed to the new Memorandum of Understanding on the Brenner Corridor, was presented at the TEN-T Days in Rotterdam in June 2016.

The impact of management structure on corridor development⁶

⁶ Transport Corridor Management Structure, VTT Technical Research Centre of Finland and UTH (University of Thessaly), 2014.

The BCP has considerable influence on the development of the Brenner Corridor. To-date, the Commission uses it as a tool to amplify the development of different sections and strategic initiatives, and when the tunnel is completed, it will have an impact on modality.

The BCP works well, allowing the relevant stakeholders to share and present their progress on the project. It also acts as a forum to share information and promote shared working.

The Memorandum of Understandings and the Action Plan are central to the success of the BCP, providing for concrete commitments, responsibilities and timetables to be agreed and signed. Success factors are the political and personal commitment of stakeholders, as well as the participation of key people from different areas and levels.

In the future, care should be taken to maintain the enthusiasm of BCP participants, to avoid a decline over time. Currently, the management structure is under review, with the aim of clustering the ten working groups into six. Administrative and professional support would help to organise meetings and monitor the work of the working groups. Currently, stakeholders work for the BCP in addition to their daily duties, creating resource constraints, despite high levels of commitment and motivation. A permanent secretariat would improve communication and increase the awareness and development of the BCP.

From the earliest phases (preliminary planning), public involvement and communication were key aspects of the realisation of the BBT project. The following actions supported engagement with the public:

- Organisation of information-oriented and topic-specific evenings and meetings.
- Set-up of information points.
- Organisation of events.
- Close contact with the media.
- Participation in conferences, fairs and events to reach the widest possible number.
- Constant responding, with provable data and facts.
- Monographs several times a year.
- Weekly tours of the construction sites.
- Consistency of behaviours and actions with commitments made.
- Regular visits from the Coordinator and all stakeholders, including the local mayors along the Brenner Corridor.

A European Company (a type of limited company) was set up within the EU, having a single, trans-national establishment charter and single, trans-national management protocols. On 16 December 2004, the governments of Italy and Austria decided to establish the *Galleria di base del Brennero Brenner Basistunnel - BBT SE* as such a European Company. **Procurement and construction framework conditions were followed throughout the project, according to the legal European framework** (see box below).

- 2005 – 2011 Austrian Procurement law.
- 2011 – 06/2015 Italian Procurement law.
- June 2015 – 2026:
 - Procurement law: Italian law to be applied to works carried out in Italy.
 - Austrian law to be applied to works carried out in Austria.
- June 2015 – 2026: for works to be carried out in both countries as a part of the same contract, the Procurement law applicable to the headquarters of the company shall be used. With headquarters in Bolzano, Italian law will therefore be applied.

European Directives on procurement and the BBT

Directive 2004/17/EC of 30 April 2004 does not include any regulations governing cross-border projects. Therefore, BBT SE's shareholders decided to proceed as follows:

Shareholder agreement Article 4.3 - 'BBT SE, as the contracting authority, will tender and

contract for all further services concerning engineering, construction and any other services required for the construction of the Brenner Base Tunnel, as prescribed by the tender law applicable to the company's headquarters, which is located in Bolzano'.

Directive 2014/25/EU of 28 February 2014 - Article 57, §5:

'Where several contracting entities from different Member States have set up a joint entity, including European Groupings of territorial cooperation under Regulation (EC) No 1082/2006 of the European Parliament and of the Council or other entities established under Union law, the participating contracting entities shall, by a decision of the competent body of the joint entity, agree on the applicable national procurement rules of one of the following Member States:

- a) The national provisions of the Member State where the joint entity has its registered office;*
- b) The national provisions of the Member State where the joint entity is carrying out its activities.'*

These new provisions on cross-border procurement made the following approach taken by BBT SE possible:

Shareholder agreement Article 4.3, amended on June 16th 2015:

'BBT SE, as the contracting authority, will tender and contract for all further services concerning engineering, construction and any other services required for the construction of the Brenner Base Tunnel, as prescribed by the tender laws applicable in the countries in which the works shall be carried out.

For works to be carried out in both countries as part of the same contract, the tender law applicable to the headquarters of the company shall be used; said headquarters are located in Bolzano, as prescribed by the State Treaty mentioned in the premises'.

BBT SE was very proactive in using this new provision, adopting it before the Directive had been transposed in either Member State, and applying the more stringent (Italian) rules for activities carried out in both Austria and Italy under the same contract.

The following good practices in procurement can be identified:

- Specifying which legal regulations are mandatory for each of the two countries.
- Using the most stringent criteria to select contractors, with technical-economic and ethical criteria.
- Defining a tender regulations' model and a model contract agreed by both countries (for example via a declaration from the IGC), and ensuring that these conform to the pertinent European Directives, including the regulations mentioned above.
- Including the option to formulate the contract documentation in English, allowing for the materials to be equally accessible to each side.
- Providing for recourse to international arbitration to solve controversies concerning project execution.

According to a TEN-T investment study carried out in 2014, the financial investment costs for the BBT project were occasionally reviewed and adjusted⁷. The two most recent and major revisions took place in 2006 and 2010 (exact amount unknown). Institutional and financing problems have delayed the planning and exploration process. Whether the nine years until the planned opening of the BBT are sufficient to implement all works on the access routes is largely a question of available funding.

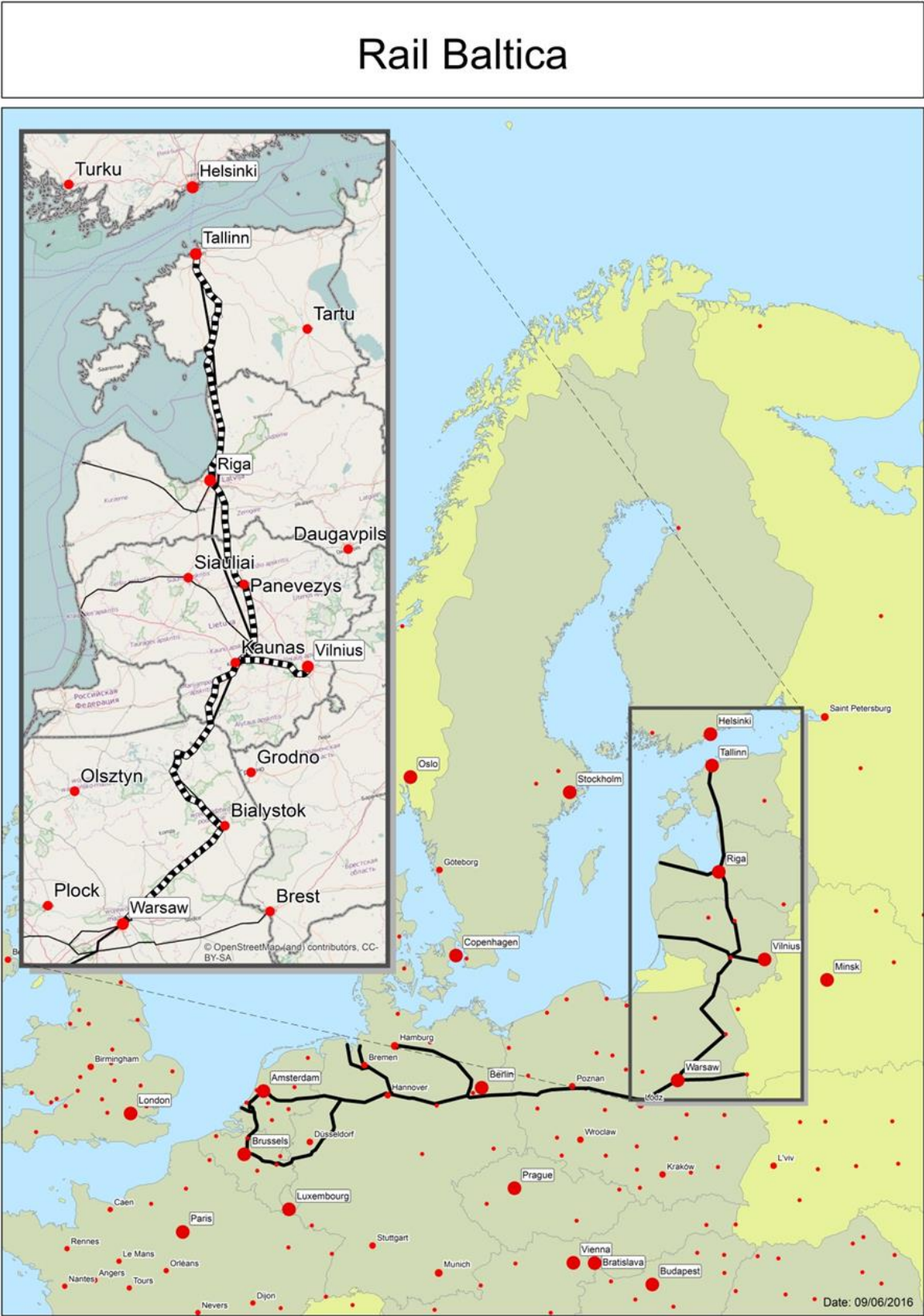
3.4 CONCLUSIONS

The decision-making process make all relevant information on the project phases publicly available in order to encourage local stakeholder involvement and minimise opposition. The integration of

⁷ <http://www.europarl.europa.eu/studies>.

different points of view early in the process develops common ground and shared decisions, increasing support for the project and contributing to quality assurance and smoother implementation. From an economic perspective, this reduces both the cost and the timeframe involved.

4 CASE RAIL BALTICA (INCLUDING THE WARSAW-BIALYSTOK LINK)



4.1 PROJECT DESCRIPTION

4.1.1 Rail Baltica

Rail Baltica, part of the North Sea-Baltic Core Network Corridor, is a strategic rail project linking five EU Member States, Poland, Lithuania, Latvia, Estonia and Finland. It is the only rail connection between the three Baltic States through Poland to the rest of the EU. To the north, Helsinki is connected by ferry services across the Gulf of Finland which can form a ‘bridge’ to the countries of the Nordic Triangle (PP12). This route indirectly includes Finland, as Finnish and Estonian partners are investigating the idea of building an underwater tunnel connecting Tallinn and Helsinki by train.

Historically, transportation in the Baltic countries has been linked on an east-west axis. Most rail freight traffic originates from Russia, with rail organisations in all three Baltic countries largely servicing that market. The Baltic rail system, however, is incompatible with mainland European standards, as rail transport services use a 1520mm gauge. There is a consensus within the EU that the three Baltic countries should be fully integrated into the wider European rail transport system.

The length of the current track is approximately 1,200 km by the most direct existing route from Tallinn to Warsaw. A variety of track and operating systems are in use: single and double track, electrified and non-electrified (of which single track non-electrified is the most common system). The line passes through a variety of terrains, from urban areas such as the cities of Bialystok, Kaunas and Riga, to rural areas such as the Podlaskie region of northeast Poland and southern Lithuania, and northern Latvia and the south of Estonia. ‘Rail Baltica’ also connects three major Baltic seaports: Helsinki, Tallinn and Riga and has a short rail connection to a fourth – Klaipeda.

This project encompasses a new railway track with European standard width (1435mm) to provide fast, environmentally friendly rail transport traffic between the Baltic States and the rest of Europe. The route spans Tallinn-Pärnu-Riga-Panevezys-Kaunas to the Lithuanian-Polish border, including a connection from Kaunas to Vilnius. The railway is intended for three types of transportation: high-speed trains running between the Baltic States, freight trains and national connections between newly built stations.

The Rail Baltica project in the Baltic States has two stages:

- The first stage focused on upgrades of the existing 1520mm gauge lines and included a 1435mm gauge single track line from the Polish border to Kaunas, Lithuania. This line was built alongside the existing 1520 mm gauge line, and was completed in October 2015 at a cost of EUR 380 million.
- The second stage consists of building of a new European standard width (1435 mm) railway line along the alignment defined in the 2011 AECOM feasibility study. The study phase is still ongoing, with a cost-benefit analysis of the global project along the entire track to be completed by the end of 2016. Construction is due to begin in 2018, with an estimated cost of EUR 3.68 billion.
- It has been agreed that a connection from Kaunas to Vilnius will be added to the North-South axis.

In 2014 the Rail Baltica Joint Venture of the three Baltic States, called *RB Rail SA*, was founded. Its principal activities are designing and building the railway route of Rail Baltica (second stage), and marketing the line internationally.

Overall, the Rail Baltica budget in the Baltic States is around EUR 5,9 billion, with EU support of up to 85%.

4.1.2 Warsaw-Białystok link

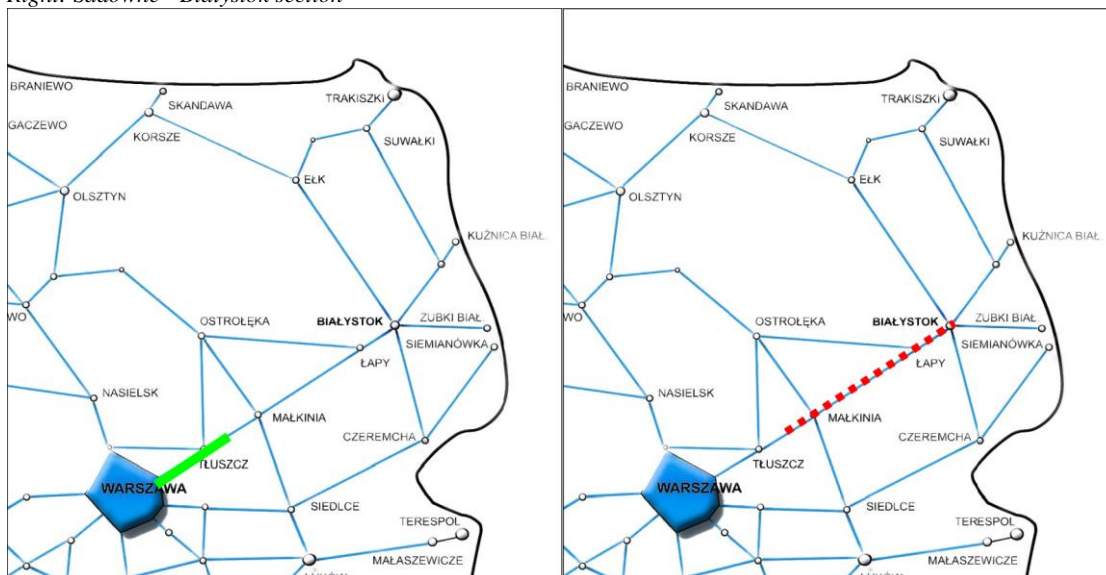
The railway section Warsaw-Białystok - situated in the Mazowieckie region of eastern Poland - is part of Rail Baltica (and thus part of the North Sea-Baltic Corridor). The upgrade of this section is part of a major modernisation programme, boosting rail capacity and the provision of sustainable transport. The main goals for the modernisation of the Polish element of Rail Baltica include the adjustment of the rail infrastructure to the regulation of Directive 2008/57/EC on the interoperability of the rail system within the Community, improving the line capacity and connections between international traffic, increasing the efficiency of traffic control systems, upgrading environmental protections for the railway line, increasing the safety of dangerous freight transport, increasing the maximum speed in some sections, and building two new level crossings.

The project comprises the modernisation of two sections of the E75 railway line: (1) the Warsaw Rembertów - Zielonka - Tłuszcz (Sadowne) section (66.5 km), and (2) the Sadowne - Białystok section (106.7 km). The ongoing modernisation project includes the construction of two new tracks at section Zielonka - Wołomin Słoneczna (intended for suburban traffic) and the modernisation of existing railway lines. Second stage modernisation (2016-2020) includes the rebuilding of mainline tracks, railway stations provided with full equipment and new engineered structures, modernisation of level crossings and railway traffic control systems, etc. Building permits are expected to be granted this year for the Sadowne – Czyżew section. For the Czyżew - Białystok section, a decision on environmental conditions will only be granted after a nature inventory later in 2016.

The total project value is EUR 644.4 million, of which EUR 491 million is EU-funded.

Figure 1 - Rail Warsaw-Białystok

Left: Warsaw Rembertów - Zielonka - Tłuszcz (Sadowne) section
Right: Sadowne - Białystok section



4.2 TIMELINE OF KEY MILESTONES

4.2.1 Rail Baltica

2003

- In October 2003 the project Rail Baltica was included in the list of the priority projects in the proposal submitted to the European Council by the EC.
- In April 2003 the Rail Baltica International coordination group agreed to apply to two EU

funds for further development of Rail Baltica:

- Interreg IIIB – for regional development
- The Cohesion fund – to research infrastructure development, with Interreg IIIB project results to be used in the analysis of revenues and expenses.

2005

- In March 2005, the EC launched a tender for the Cohesion fund Rail Baltica project pre-feasibility study.

2006

- 2006 saw EU negotiations on the financing of the project, with the Coordinator encouraging the partner countries to negotiate cross-border agreements - or Memoranda of Understanding (MoU) - for the three borders concerned. These agreements would facilitate the allocation of TEN-T funds for border section development. During 2006-2007 agreements have been made between Poland and Lithuania, Lithuania and Latvia, Latvia and Estonia.

2007

- By the end of July 2007, proposals for funding of six projects under the TEN-T (2007-2013) were submitted Estonia, Latvia and Lithuania, consisting of one works proposal and one study proposal from each country. The three works projects cover the reconstruction of the three cross-border sections (the upgrade of existing lines as part of Rail Baltica 1 were not included). The three proposals for study projects covered investigating the construction of a new European standard gauge line on the north/south axis from Tallinn to the Lithuanian/Polish border.

2010

- In April 2010, the Transport Ministries of the three Baltic States initiated a Feasibility Study for the European gauge Rail Baltica from Tallinn to the border of Lithuania and Poland.
- In June 2010, the Ministries of Poland, Lithuania, Latvia, Estonia and Finland signed the *Rail Baltica MoU*, in which they committed to support the overall development of Rail Baltica.

2011

- On 10 November 2011, at a meeting in Tallinn, the Prime Minister's Council of the Baltic Council of Ministers issued a Joint Statement welcoming the Commission's inclusion of the Rail Baltic corridor Tallinn- Pärnu-Riga-Kaunas-Warsaw in the pre-identified projects' list of the Core Network. The Prime Ministers:
 - Declared the importance of completing the preparatory phases and starting the construction of the new Rail Baltic standard gauge (1435mm) railway line during the next EU Financial Framework 2014-2020.
 - Agreed that a Joint Venture would be established between Estonia, Latvia and Lithuania by the end of 2012 at the latest.
 - Agreed to start spatial and regional planning. To this end, they tasked their respective national authorities with preparing and implementing the planning, including adjustments to routing solutions in order to ensure real connections between the key nodes and efficient use of both the new and the existing transport infrastructure.
 - Agreed that the EU financing for the project should be allocated outside of the national cohesion fund envelopes, with EU co-financing of around 85%.
 - Invited Poland to partner the full implementation of the new Rail Baltic corridor.
 - Reaffirmed the intention to finish construction works and start preparations to operate interstate passenger trains on the existing railway infrastructure by 2016.

2012 - 2025

- In 2012, following the Declaration of Ministers, each country appointed representatives to a special Task Force to oversee the project and to establish a Joint Venture.

- In October 2014, a Joint Venture was set up. This constituted political agreement to move ahead with the project to build the new line.
- In 2014, detailed technical studies were undertaken, including an EIA and economic calculations.
- On 5 December 2014, the Prime Minister’s Council of the Baltic Council of Ministers issued a Joint Statement reiterated the importance of implementing the Rail Baltic/Rail Baltica as fast conventional double track 1435 mm gauge electrified railway line with the maximum design speed of 240km/h on the Route from Tallinn through Pärnu-Riga-Panevezys-Kaunas to Lithuanian-Polish border as proposed by AECOM study with a connection of Vilnius-Kaunas as part of the Route.
- On 16 October 2015, the 1435mm line constructed during the first stage of Rail Baltica officially opened. This first section is a 1435 mm gauge single track line from the Polish border to Kaunas, which has been built alongside the existing 1520 mm gauge line from the former break of gauge at Šeštokai, which has also been upgraded. The overall cost of this part was EUR 380 million. On 28 October 2014, the three Baltic States signed an agreement, founding the Rail Baltic Joint Venture of the three Baltic States, ‘RB Rail’. The venture is responsible for designing and building the railway route and overseeing its international marketing.
- **In 2017**, land acquisition is scheduled to begin.
- In 2018, the technical design will be completed and the construction process will start.

In 2025, the construction of the fast conventional double track 1435mm gauge electrified railway line Tallinn-Pärnu-Riga-Panevezys-Kaunas-LT/PL border with a connection of Vilnius-Kaunas, is planned to be finished. By 2030, an estimated two million passengers and nine million tons of cargo will be transported along the line.

Key project milestones	Original planning/timing	Real or currently estimated planning
Feasibility study	2010	2010
Technical studies, EIA and economic studies	2011-2014	2016
Land acquisition	2017	2017
Completion of technical design	2018	2018
Construction phase	2018-2025	2018-2025

The existing political differences remain a cause for concern, increasing the risk of delays. As the project is in its starting phase, many technical, political, and financial barriers still remain to be overcome, making it unclear whether the nine years until the planned opening are sufficient or not.

4.2.2 Warsaw-Białystok link

2001

- In 2001, the project began as an ISPA preparatory project.

2006

- In 2006, as part of the ISPA project, agreement n° FS 2002/PL/16/P/PA/008-01 Technical assistance in preparing project ‘Modernisation of rail Line E 75, section Warszawa – Białystok – Sokółka’ was set up (EUR 955,360).

2007-2012

- In 2009 and 2011 EIA Decisions on the Warszawa - Sadowne section were issued, as a result of changes both to the project and to Polish regulations.

2015

- In 2015, works finished on the Warsaw Rembertów-Zielonka-Tłuszcz (Sadowne) section and

started on the Sadowne-Białystok section.

2016-2020

- By 2020, works will be completed on the Sadowne-Białystok section.

4.3 ANALYSIS

4.3.1 Rail Baltica

The project began in the early 2000s and experienced a number of barriers, particularly as a result of differences in the three Member States' economic, environmental, regulatory, technical and political processes, which considerably delayed authorisations for the project.

Government debt in the Baltic States was an important economic constraint, exerting pressure on decisions about the necessary minimum of 15% co-financing by each of the Baltic State authorities. Further risks stemmed from the different currencies used by each of the Baltic States at the start of the project. In January 2011 Estonia joined the Euro zone, with Latvia and Lithuania joining in 2015. (*Source Rail Baltica, AECOM, 2011*).

Environmental constraints have impacted the process in four key areas: noise, emissions, protected territories and sustainability targets. As the route of the railway line lies in ecologically valuable areas, a detailed EIA was necessary, together with the participation of environmental organisations. This offset delays relating to environmental opposition.

The key regulatory constraints that continue to impact Rail Baltica are the bureaucracy of planning at national, regional and municipal levels, the process of land expropriation, and setting tariffs for freight and passenger service. (*Source: Rail Baltica, AECOM, 2011*):

- The time taken to complete the planning process is different in all three countries but in the worst case could take over seven years. The designation of a project as one of 'national interest', used in some European countries to fast-track the planning process, does not exist in the Baltics.
- The process of land expropriation can only be started once the plans justifying the need for the land have been approved. Each country has a well-defined expropriation process and while there is no overall defined timeframe, in Estonia the process can take between two and two-and-a-half years.

A key aim of the project is the elimination of technical barriers, including the construction of a standard gauge line. The strong transport and economic links between the Baltic States, Finland, Russia and other former Soviet republics, previously added weight to the maintenance of the Russian track gauge.

Political barriers to the development of transport infrastructure on the North-South axis in the Baltic States arise from differences between EU level transport policy aims and those of the Baltic States. The European preference for a balanced transport system of south-north and east-west axes is in contrast to the historical priority given in the Baltic States to national networks and west-east transport links. The individual states, too, have different transport policy objectives. Some examples of the difficult political process are the following:

- Rail Baltica is a complex and politically sensitive project, taking several years to engage the partner countries and to negotiate its future implementation. The Joint Venture was established only after lengthy discussions.
- The three governments have had great difficulty in reaching a consensus on the project, particularly after Lithuania reversed its decision to exclude Vilnius from the route.

Delays resulting from the inclusion of Vilnius in the network

Discussions on the preferred route continued until the middle of 2013, when the (previous)

Lithuanian government announced that it wanted to include Vilnius in the project with a 100 km branch from Kaunas, reversing its earlier decision to exclude the capital. Identifying a solution to include Vilnius created a significant delay, with the Estonian government expressing concern that the change would jeopardise EU funding for the project. As a compromise, it suggested that Vilnius be added in a future phase, a proposal rejected by the Lithuanians.

Lithuania's Deputy Minister for Transport, Mr Arijandas Šliupas, claimed that the Vilnius link could be vital to the business case for the overall project, 'Vilnius plays a major role in closing the gap between the figures in the Aecom study and the figures that are required to reach the minimum level of viability'⁸.

Šliupas stressed the inclusion of Vilnius, asking that the Lithuanian government be given the time to study the conclusions of the initial Aecom report before committing to the branch. 'The study only gave us a conceptual line for the route and stated that further cost-benefit analysis was needed to define the precise route', he said. 'This is the stage where all major elements have to be considered and included to ensure Rail Baltica is economically viable. We also have to ensure we are in line with the EU Roadmap to a Single European Transport Area, approved in 2011, which clearly states that the core network must ensure efficient multimodal links between EU capitals. The previous analysis was perhaps too general and too early to really consider the value of the Vilnius link.' He went on to say that, 'The implementation of this project very much depends on the level of funding the CEF can provide. We will have to consider in the national contribution to the project that there will be non-eligible costs, which might come to a significant amount, and we will need to budget for these. The joint venture company will answer a lot of these questions as it clarifies the scope of the project.'

A joint agreement was eventually reached, with Vilnius to be connected by a 1435mm line to the Rail Baltic north/south axis at Kaunas, thereby ensuring that all Baltic capitals and Warsaw are connected in the same network, in line with the Shareholder Agreement of the Joint Venture RB Rail AS.

- The Joint Venture agreement required significant discussion and negotiation, particularly with respect to the 'boundaries' of this partnership, i.e. the limits of responsibility of the joint venture. Discussions also centred on contracts issues, such as responsibility for procurement for the project.

The organisation set up to plan and implement the project, RB Rail AS, demonstrates **good practice** in this case. Estonia, Latvia and Lithuania each established national Holding Companies which are Shareholders in the Joint Venture, RB Rail AS. The three countries will each hold a 33.3% share in the new company, with each State providing RB Rail with EUR 650,000 in start-up capital. To support the share-holding Member States, the Joint Venture is fully responsible for coordination, implementation and facilitation of the Rail Baltic project.

The Joint Venture provides an opportunity for centralised procurement. This process is underway and is carried out by the Joint Venture in line with EU Procurement regulations.

As the project is in its starting phase, no specific delays in permitting procedures or cost over-runs have yet been encountered. The contracting scheme was signed by all partners on 6-7 October 2016, but major decisions about contracts are still yet to be made and the project is falling behind schedule. The main reason for this is the inability of the 3 countries to pool resources. In a meeting on 7 September, the 3 states agreed on the further procurement model⁹ and the responsibilities in the

⁸ <http://www.railjournal.com/index.php/main-line/governments-edge-towards-consensus-on-rail-baltica.html>.

⁹ The Baltic states decided to divide all the procurements into three groups – procurements organized by the joint venture only, consolidated procurements implemented by the joint venture, and procurements implemented by national companies under the joint venture's supervision.

implementation of the Rail Baltica project. This should be a turning point in cooperation among the Baltic states to continue working on the project.

4.3.2 Warsaw-Białystok link

The Warsaw-Białystok project also experienced some **barriers in the authorisation processes**. Opposition from protesters, together with bidders' appeals, delayed the tender procedures.

Obtaining a final decision on environmental conditions for the Czyżew – Białystok section was also a source of difficulty, as the proposed route passes through a protected Natura 2000 area. A detailed assessment was necessary, along with the participation of environmental organisations in the procedure. In attempts to balance transport policy goals with sustainable development, environmental issues are increasingly important in transport investment projects. The Baltic area, and the north-eastern part of Poland, in particular, is an environmentally sensitive area, making it a key issue in the development of TEN-T corridors in the Baltic area. Risks include:

- Refusal to grant complete building permits.
- Delays in obtaining a location decision and/or an environmental decision.
- Increased costs arising from differences between the planned programme of works and the demands of local authorities.

4.4 CONCLUSIONS

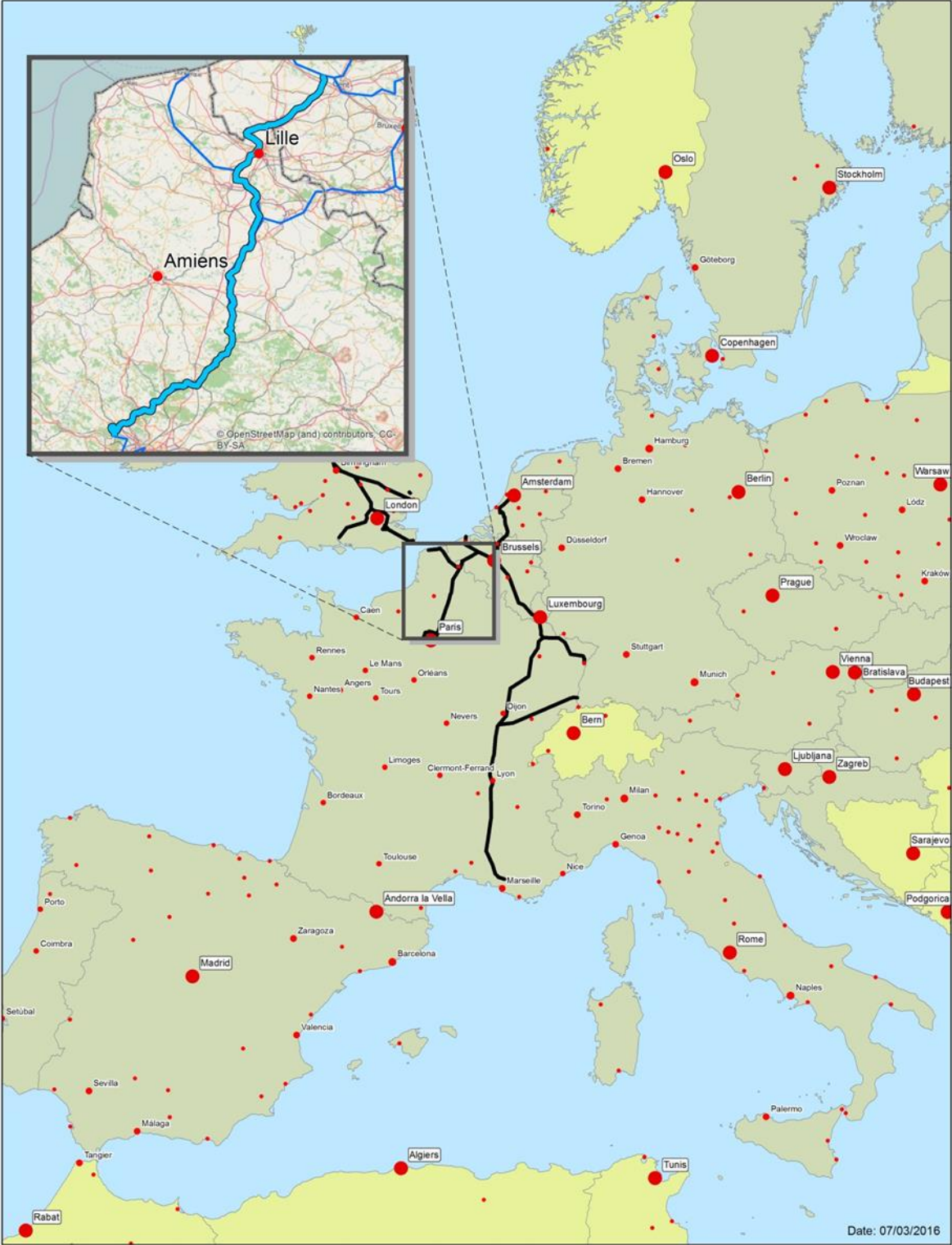
Realisation of the Rail Baltica project depends on many factors. The major problem is divergence of infrastructure priority objectives between the Member States involved, as the national transport interests and strategies do not always match, even if the basic principles of comprehensive, multimodal, integrated economic and regional policies are shared. Ministries of Transport often favour domestic transport markets and the needs of the national key players.

Addressing these differences through the establishment of the Joint Venture, Rail Baltica SA is an important step. Existing political differences remain a cause for concern, increasing the risk of delays, and offering the opportunity for EU initiatives and instruments to overcome barriers at local and state level.

Finally, large parts of the project area are situated in protected natural areas, creating potential environmental conflicts. As environmental issues are closely related to social factors, comprehensive and early public involvement is necessary to ensure the success of the project.

5 CASE SEINE – SCHELDT

Seine - Scheldt



5.1 PROJECT DESCRIPTION

The ‘Seine-Scheldt link’ - the Seine-Scheldt inland waterway network and cross-border section between Compiègne and Ghent - will connect the Seine basin with the Scheldt basin. A new canal will be constructed between Compiègne and Cambrai on French territory, together with navigability improvements between Deûlémont and Ghent (mainly in Flanders, Belgium) allowing class Vb on the waterway.

The Global Project is the development of the Seine-Scheldt network, of which a key project is Priority Project 30, inland waterway Seine–Scheldt, as listed in Decision 661/2010/EU of the European Parliament and of the Council.

The Seine-Scheldt link is a European priority project which consists of the construction of a wide-gauge inland waterway link between France, Belgium and the Netherlands in order to provide an operational link between the seaports and inland ports of northwest France and Europe. The project is located in the heart of the North Sea Mediterranean Corridor and directly connected to three other Core Network Corridors.

The Seine-Scheldt waterway is a key project for the implementation of the North Sea-Mediterranean multimodal corridor (TEN-T programme). In a joint declaration between the EC, the Walloon region, Flanders, the Netherlands¹⁰ and France on 17 October 2013 in Tallinn, the partners committed to boosting strategic waterway projects by strengthening the existing coordination mechanisms for the implementation of the inland waterway sections. They agreed to maximise the co-funding opportunities offered until 2020 by the Connecting Europe Facility (CEF), fully integrating these projects with those for other modes of transport in order to fully develop the multimodal aspect of the corridor. The Seine-Scheldt waterway has been identified as one of the five priority high European added-value projects in the frame of CEF. It will allow the concentration of freight in push-tows carrying up to 4,400 tonnes, while, at the same time, providing high-capacity access to the northern seaports and a catchment of more than 60 million people.

The main works of the Seine–Scheldt project are the construction of a new canal, Seine–Nord Europe, in France and the improvement of the waterway network between Paris and Ghent. In Flanders (Belgium) several construction works have been carried out since 2007, mostly in the northern part of the project, i.e. on the Ghent Circular Canal. The project will not only help to alleviate serious road congestion which affects the north-south economic axis, but will also open up a new European freight corridor between Le Havre, Paris, Dunkirk, Antwerp, Liège and Rotterdam/Amsterdam.

- In Belgium, the upgrading of the Seine-Scheldt connection to Class Vb will take place along two main axes: (1) Class Vb21 via the Borderlys and the Lys River between the French border and the town of Deinze, the diverting canal of the Lys, the canal from Ghent to Ostend and the Ring Canal around Ghent as far as the canal from Ghent to Terneuzen; and (2) Class Va via the Upper Scheldt from the French border with Wallonia, the connection to the Ring Canal around Ghent and the Upper Sea Scheldt to Antwerp. Some bridges on the axes will require elevation and the locks will have to be modified.
- In France, the main waterway bottlenecks are related to the gauge of the connections between the three basins of the Seine, the Scheldt and the Rhône. The most advanced project is the Seine-Scheldt, with its main component, the Canal Seine-Nord-Europe.

The project investments for the Seine-Scheldt inland waterway network cross-border section between

¹⁰ New maritime lock in Terneuzen: the canal between Ghent and Terneuzen is a major shipping connection for both maritime and inland navigation. The canal, with an overall length of 32 km, has 15.4 km on Belgian territory and 16.6 km in the Netherlands. The lock compound in Terneuzen is experiencing a capacity problem, and this proposed Action concerns the studies for the construction, management and maintenance of a new maritime lock there. The Flanders (BE) and Dutch governments signed an agreement relating to this in March 2012.

Compiègne and Ghent aim to eliminate the main bottlenecks, and concern the following three sections (cf. Project 2007-EU-30010-P):

- Seine-Ghent (New canal Seine–Nord Europe in France and Recalibration of Lys River Deûlemont-Halluin FR59, Belgian River Lys BE16-17, Canal Roeselare-Lys BE27).
- Condé-Pommeroeul to Sambre (BE42).
- Upper Scheldt (Upper-Seascheldt and Southern Ghent Ring Canal BE47).

Total project costs covered by this Decision are EUR 503.5 million, of which the EU contribution is EUR 176.5 million.

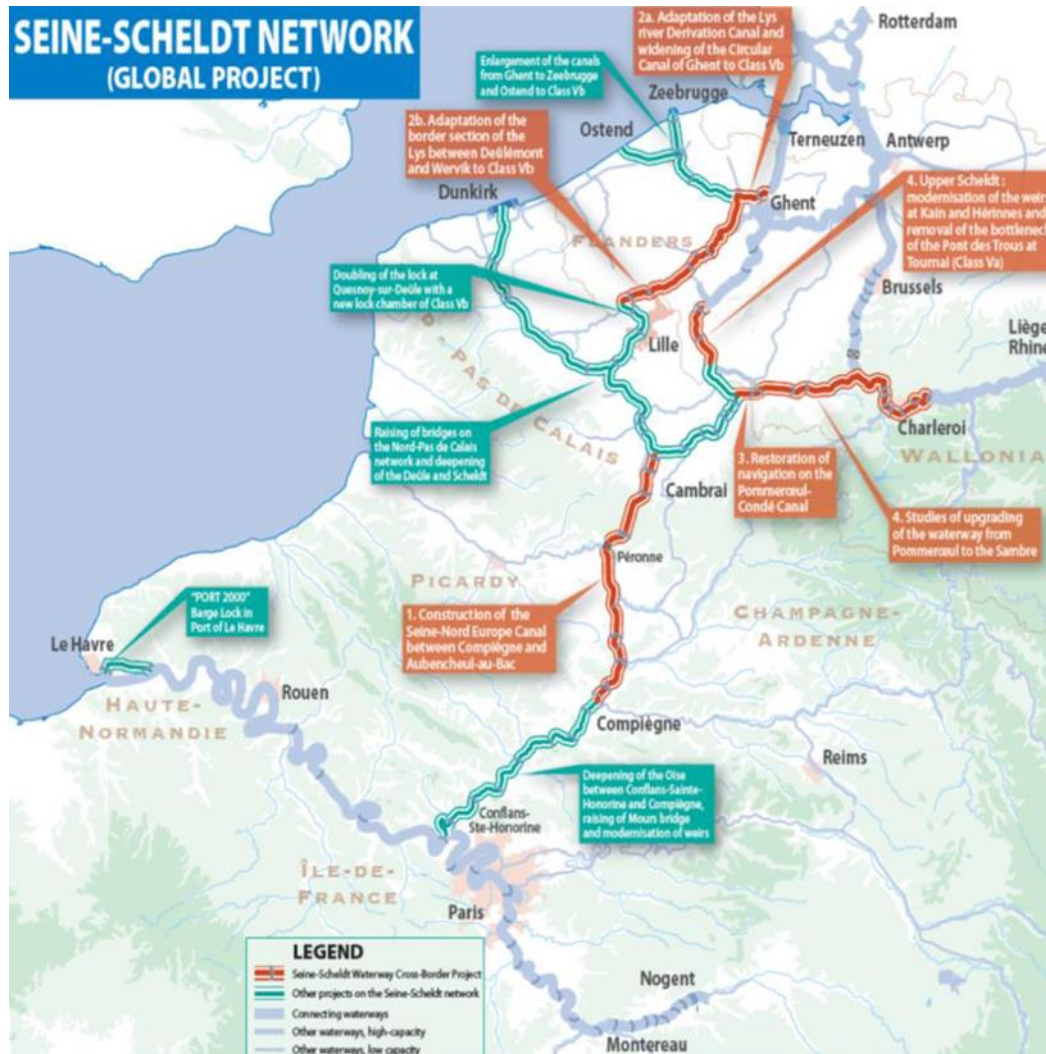


Figure - Seine-Scheldt network (Project 2007-EU-30010-P is shown in brown)

The scope of this case study focuses on two sub-projects: (1) Seine-Nord Europe Canal in France and the Lys River, and (2) Upper Scheldt River projects in Flanders.

5.2 TIMELINE – KEY MILESTONES

(1) France : Seine-Nord Europe Canal

2003 – 2009: Early developments and preparatory studies

- Since 2003, the French Inter-Ministerial Regional Planning and Development Committee (CIADT) has listed the project as a priority project, with France, Flanders and Wallonia

working in close collaboration.

- In 2004, the project was listed as a priority by European TEN-T.
- In 2007, France, Flanders and the Walloon Region submitted a joint request for an EC grant. EUR 420 million was allocated to Seine-Scheldt by the EU (TEN-T 2007-2013). The **PPP Contract** scheme was selected and summary design approval (**preliminary design**) granted.
- 2008 saw the signature of agricultural protocols for land reserves, **Public Utility declaration**, the start of archaeological operations and signing of the agreements for land acquisition. A decision was also taken to develop the platforms in separate contracts, coordinated by the PPP.
- **In 2009, the Call for Tender** was launched (PPP contract), bids were submitted (Vinci Concessions and Bouygues TP) and the **Seine-Scheldt Intergovernmental Commission (IGC)** was set up between the three governments to facilitate the preparation and implementation of the project.

2010 – 2016: Start of the works

- In 2010, the **Seine-Scheldt European Economic Interest Grouping (EEIG)** was established between VNF, SPW and W&Z to coordinate project finances and research and procedures, and to harmonise pricing conditions on the cross-border section and the traffic management systems. The EEIG was also to oversee the start of the **preliminary works**.
- In 2011 the PPP procedure was initiated.
- In 2012, as a consequence of an important budget over-run and the economic crisis, the PPP was suspended. The economic situation led to highly elevated costs for the private contractors. The change of the French Government (2012) and the associated changes in political priorities, together led to the suspension of the ongoing PPP-procedure.
- Between 2012 and 2014 the project was re-engineered to a 32 km long section, leading to a 10% reduction of the capital cost and 20% reduction of the operating costs.
- In 2013 the government decided to undertake the project as a public works' owned project, including the creation of a dedicated 'Project Company' comprising the French State, VNF and local authorities participating in the financing of the Seine-Nord Europe canal.
- In 2013, the TEN-T Programme for the 2014-2020 period was established, succeeding the former programme. The revised (extended) Belgian project and the revised project Seine-Nord Europe Canal were granted the maximum CEF co-financing: 50% EU co-financing for studies, 40% for cross-border inland waterway works.
- June 2014-February 2018 sees the European procurement process for awarding of Technical Assistance contracts for the programme, design, construction and commissioning phases of the project.
- In June 2015 the contract for the works was awarded to the European group SETEC (FR)/Royal Haskoning (NL), with the aim of awarding the Engineers contract on the first section in early 2016.
- In July 2015, the EC decided to **finance EUR 980 million for Seine-Scheldt**, for the 2014-2020 financing period, with a level of 50% financing for the studies and 40% financing for the works, the larger part for Seine-Nord Europe.
- At the end of 2015 there was a **public enquiry** on the re-engineered section, following a local consultation in 2014-2015.

(2) Flanders (Lys River and Upper Scheldt River projects)

1996-2012: Early developments and preparatory studies

- **In 1996, a cost-efficiency analysis** of infrastructure works on Lys and Upper Scheldt – established a preferred route on the Lys River with a Vb capacity of 4,500 tonnes.
- In 2005, the **Intergovernmental Committee (IGC) Seine-Scheldt** was established. Negotiations/agreements took place on common aspects, such as characteristics of the links, modalities for implementation, operational aspects.
- In 2006, the Flemish Government issued a decision on the **integrated plan for inland**

waterway works between the French border and the access to the Scheldt-Rhine delta (locks, bridges, river profile, platforms, ecological river works).

- In 2007, the Flemish Government issued a decision on the implementation in the period 2009-2016, application for financing by the EC (TEN-T), common implementation by France, Flanders, the Walloon Region (and the Netherlands).
- 2008 saw a further Decision of the Flemish Government for establishing an Intergovernmental Commission, a **Seine-Scheldt European Economic Interest Grouping (EEIG)** between VNF, SPW and W&Z and signing of the agreement on the financial plan of the application for financing by the EC (TEN-T). The project was also allocated project financing by the EU (TEN-T 2007-2013), with 20% financing for Flanders.
- In September 2009, the **EEIG** (France-Walloon Region-Flanders) was established.
- In 2010, an **EIA of the Deepening and local widening of the rivers Lys and Common Lys, Lys Diversion Canal** was undertaken. Also in 2010 was the Decision of the Flemish Government 17 December 2010 - Mandate to The Flemish Waterways and Sea Canal Agency for Coordination of an Integrated Plan Seine-Scheldt. A Steering Committee was set-up, together with Administration Nature and Forest (500 ha waterborne terrestrial nature) and Flemish Land Agency (Agricultural Impact Report and Landbank), as was a Consultative Group.

2013-2025: start of the works

- In 2013 works started at Wervik to widen and deepen the River Lys (Flemish side).
- 2015-2016; Design of recalibration works and new bridge at River Lys at Menen (different alternatives considered in coordination with VNF, city of Halluin...).
- 2017: Start of major works for recalibration of inland waterway River Lys.
- 2018: Works planned.
- 2023-2025: Operational project phase.

Key project milestones	Original planning/timing	Real or currently estimated planning
<i>Seine-Nord Canal France</i>		
Preliminary design, Decree Public Utility, land acquisition	2006-2009	2006-2015
Detailed design	2012-2013	2015-2018
Tendering (PPP-procedure 2012, Tender procedure 2017-2018)	2009-2012	2009-2018
Construction phase	2009-2015	2018-2023
<i>Flanders: Lys River and Upper Scheldt River projects</i>		
Preliminary studies	2005-2007	2005-2007
SEA	2008	2008
EIA	2009	2010
Design, permitting, land acquisitions	2009-2010	2015-2017
Construction phase (recalibration of waterway/inland navigation)	2011-2016	2018-2024
Construction phase (river restoration)	2011-2016	until 2027

The start of the construction phase of the Seine-Nord Canal France has been delayed by 8-9 years, mainly due to changes in the project concept (budget) and changes to procedures. Given the scale and the type of works taking place (water works), the project is relatively vulnerable to contingencies which could cause delay (archaeology, hydro-geology, and civil works, etc...).

The planning of the recalibration works of the Lys River is realistic, although the EIA/permit procedure in France has yet to be completed. Changes resulting from the procedure, where they occur, could possibly result in project changes and the resumption of procedures in Flanders.

5.3 ANALYSIS

In both projects a number of issues emerged.

Common Lys River project (cross-border FR/BE).

Cross-border projects experience additional complexity from differences in organisation, time schedules for procedures and languages among the countries concerned. Cross-border waterborne projects are, generally, more complex than road and rail projects.

Waterways such as the Seine-Scheldt are often multi-purpose, with functions beyond transport. Complementary functions that can experience problems due to changes in the physical infrastructure are: water supply, water management (groundwater regulation function, protection against floods), biodiversity, recreation and tourism. This increases the number of stakeholders and the likelihood of conflicting interests.

National boundaries follow river courses, meaning that the cross-border environmental impacts of water rehabilitation works occur along the whole length of the common border. Different procedures between the countries can trigger additional complexity. In the Common Lys River project, different procedures and phasing of EIA and permitting in France (where EIA follows the design) and Flanders (where design follows EIA) created a considerable gap between authorisations in both countries. In Flanders, the EIA and Water System Impact assessment is carried out at the start of the detailed design process (end of pre-design phase). In France the (detailed) EIA is carried out at the end of the design process and integrated into the public consultation file (*'dossier d'enquête publique'* - Procedure of Public Consultation, France, Decree of 21 September 1977)¹¹. As part of this procedure, project drawings, the EIA, safety studies and other information related to regulations, are introduced at the start of consultations with the public, with authorities and institutions (a procedure taking six-and-a-half to seven months). For authorisation of infrastructure changes to border rivers between two countries, this could represent a large difference in the time schedule for implementation between the two countries (time necessary for detailed design, EIA, public enquiry, decision). In the specific case of the Common River Lys between France and Flanders (section between border and Menen), the time gap between authorisations within the two countries was up to three years. In Flanders, an SEA was carried out and approved in 2007-2008 for the Seine-Scheldt project. This SEA covered the overall project works for recalibration of the River Lys, based on a predesign study. Following the more detailed design, from 2009 onwards, an EIA and several Exemptions from EIA have taken place, related to project works in different sections or infrastructures.

Additional complexity arising from different procedures in both countries can be seen in the following:

- EIAs in both countries contain common information (description of the actual situation, impact assessments, cumulative impacts, etc.). A time gap between procedures and the drafting of documents in both countries means that one country can delay the procedure in the other.
- Mitigation measures need to be coordinated cross-border. Mitigating measures that arise from an EIA in one country can affect environmental impacts in the other country. In Flanders, the mitigations measures proposed in the EIA only become final when decisions have been taken by the permitting authorities.
- Due to the time gap between procedures, public consultations on project activities in one country can go ahead (even cross-border), some years before they start in the other country.

¹¹ For the development of large infrastructure projects (like the Seine-Nord Europe), the EIA is integrated into the public consultation file (preliminary design) before the public utility declaration is decreed.

- When both countries designate a common contractor (which may be desirable for water rehabilitation works on both sides of a river section), the time gap between authorisations in both countries means that the timing of works is determined by the last country to issue permits.
- The responsibility for the river recalibration works in most of the river sections (on both sides of the river bed) rests with the Belgian Government. The responsibility for the bank protection works on the French bank rests with the French Government (Agreement between the French Republic and the Kingdom of Belgium, 3 February 1982). This means that authorisations will be required in both countries before the works in a river section can go ahead.
- The responsibility for the river recalibration works on the Common Lys River is assigned to one of the three partners (Flanders, Walloon Region, France), who each have responsibility for one of the three river sections. Each partner is responsible for the design of works at both sides of the river bed and the bank protection works at both sides. Costs are equally divided between both countries, with the exception of expropriations, mitigation measures imposed by the countries or regions, compensations, earthworks of polluted soils, etc. (Agreement between the French Republic and the Kingdom of Belgium, 3 February 1982¹²). Design works are delegated to the leading partner, while the SEA/EIA and permitting application –which are strongly interrelated with these design documents - are implemented according to regulations in the separate cross-border countries. The French authorities applied one comprehensive EIA for their Deûle and Common Lys river projects, which can be considered to have delayed the project. Works in a river section are integrated into one tender, which is the responsibility of the leading partner for that river section. Again, this means that permits and authorisations in both countries must be obtained before the works can go ahead. Another example of the complexity of coordination of permitting procedures is shown in the subproject of the bridge on the Lys River at Wervik. For the river section Wervik-Menin (which is the responsibility of Flanders) a building permit was obtained based on a pre-design study of 2003. A public consultation file was then obtained in France in 2006 for heightening the bridge at Wervik. Due to project changes (necessity of a new bridge adjacent to the existing bridge instead of upgrading the existing bridge in order to offset expected traffic problems), new permits had to be granted. After changes in the national legislation on permitting in France, an EIA for the Lys River works as a whole has now started. The French authorisation procedures (permitting and EIA) for the river recalibration works in the Common Lys River sections, are still ongoing, with the works to heighten the bridge at Wervik on hold until the French EIA is finished and a new permit granted.

Between 2008 and 2015, several agreements were reached between Belgium and France on EIA and the different design status of the works at the time of preparing the permitting applications. These agreements resulted in a complex and time-consuming coordination process.

While, in general, the country with the longest permitting procedure will determine the overall timing, the planning process also had to anticipate any opportunities for:

- Undertaking processes in parallel, where possible.
- Synchronising process steps.

¹² The convention on improvement of the River Lys (1982) is dated and should be reviewed. The Common River Lys between Deûlémont and Menin is subject to a Convention (3 February 1982) between France and Belgium concerning improvement of the River Lys. Works for improving the river should always be taken in collaboration between the two countries. Each country is responsible for river works in well-defined river sections (river section crossing of Wervik-Flanders – dredging and quays at both sides of the river). The Convention (1982) should be reviewed, as the agreement was made in the context of a canal gabarit of 1350 tonnes, instead of the actual 4500 tonnes.

Stakeholders also highlighted additional complexities in the planning and implementation of this waterborne infrastructure:

- Regular budgetary reviews and additional studies can increase costs and delays, e.g. archaeological studies (heritage value of locks on the River Lys). The cost of the archaeological studies required for the building permit reached EUR 4 million, compared with the budget for the works of EUR 10 million. The archaeological study took two years, and were unpredictable (as were issues like heavy soil pollution). Although not a key factor in this case, the financing for these unexpected project investments can be onerous and unbalance the preliminary project cost-benefit results.
- The rehabilitation plan of the Border Lys River between Wervik and Deinze (2008) contains important works for natural rehabilitation of the river borders. In total 500 ha of new wet nature area will be created. The nature development was part of the plan from the beginning, as it was studied in the 2008 SEA. The Landbank set up in the framework of the project cannot, however, offer sufficient compensation area to the farmers, whose protests have delayed the execution of the nature development works. A proposal to postpone the development of 200 ha of nature development area until a later planning stage was not accepted by the nature organisations. Although in the early stages of the project, the river restoration works (wet terrestrial nature development of 500 ha in the agricultural-intensive region of Wervik-Deinze) gained broad acceptance for the project, they are now heavily opposed by the agricultural sector.

The management structure of the Seine-Scheldt project consists of:

- An IGC, which supervises all matters concerning the construction and operation of the Seine-Scheldt project, on behalf of the three governments involved. It coordinates discussions between the public services of the three governments and has a permanent surveillance and control function (in terms of implementation, financing, operating conditions).
- The EEIG, which is responsible for developing proposals on for example harmonising transport tariffs, coordination of studies, environmental procedures and works, communication with the EC, etc.
- The design studies and works are coordinated at the level of the individual countries or regions (France: VNF, Wallonia: SPW, Flanders: W&Z).

The current project management structure for carrying out the design and permitting applications is, arguably, suboptimal. In view of the highly interdependent procedural steps in the cross-border countries (design, public and stakeholder consulting, mitigation measures, permitting, budgeting of design and procedural activities, control of works, etc.) and the large complexity of environmental implications, a **'dedicated project design team'**, consisting of **task force experts from each the Member States working in one location**, is necessary. The operational and spatial distribution of the project team resources has resulted in coordinating activities that are too 'ad hoc'. As each important adjustment step in the project progression must go through budgetary approval by each Member State or regional authority, valuable project time gets lost unnecessarily.

The issue of state aid was also raised. The main activities of W&Z are non-profitmaking. CEF-financing (directly managed by the EC) is not considered as state aid, while ERDF is, and should be notified as such to the EC. The decision period of one year is long, in project terms. Stakeholders stated that a parallel procedure for approval of financing (ERDF) and state aid notification/decision would be more efficient and should be investigated.

Seine-Nord Europe Project (F)

One main cause of delay in this project was the suspension of the ongoing PPP-procedure and the

project re-engineering between 2012 and 2015. This delayed the project time schedule by at least two-three years. In addition to the the project budget over-run (caused by high elevated costs for private contractors, as a result of the economic crisis), the change of French Government in 2012 led to suspension of the PPP-procedure. This demonstrates the vulnerability of such projects to changes in political priorities.

This case has highlighted the differences between juridical instruments such as a ‘Treaty’ (Seine-Scheldt Terneuzen Flanders-the Netherlands) and a ‘Cooperation Committee’ (Seine-Scheldt Lys Flanders-France). A Treaty may be a better instrument for cross-border cooperation in large transport projects, as it protects them from changes in political priorities. A ‘Treaty’ also addresses significant issues of rights and obligations of the parties, the adoption of general rules, and achieving targets and objectives. Treaty signatures are usually sealed and they normally require ratification. Treaties are executed through official legal channels that commence with negotiations, before the treaty is signed by authorised signatories and then endorsed by the president of a State or his/her representative. Finally, the parties exchange instruments of ratification after approval by the respective legislative (regulatory) authorities, rendering it ready for implementation. Its creation of binding obligations between nations makes it very suitable for these types of strategic projects. ‘Cooperation Agreements’, by contrast, are less formal and deal with a narrower range of subject matter than treaties. They are typically used for instruments of a technical or administrative character, which are signed by the representatives of government departments but are not subject to ratification.

A good example of the simplification of authorisation procedures is the integrated procedure in place in several Member States. Its objective is to synchronise reviews in order to have a concurrent review. It would have, therefore, relevant gains in time allocations, as well as more coordinated permit reviews by different authorities.

In the context of modernisation of the environmental legislation and simplification of administrative procedures, several Member States have introduced a streamlined review process or unique procedure. Here, certain procedures are combined, with some of the required authorisations being integrated. In France, a pilot experiment has been implemented (Ordonnance n° 2014-619 du 12 juin 2014 relative à l'expérimentation d'une autorisation unique pour les installations, ouvrages, travaux et activités soumis à autorisation au titre de l'article L. 214-3 du code de l'environnement). The objective is to facilitate the coordination of reviews and authorisations, allowing them to be agreed and realised more efficiently, or in parallel. This ‘streamlined’ authorisation procedure often relates to decisions on water legislation (WFD), protection of Natura 2000 sites and species, legislation on forests, etc. The streamlined or coordinated review process ideally leads to one environmental analysis that satisfies the needs of all agencies with a role in proposing or approving a project.

In the specific case of the Project Seine-Nord Europe, a thorough process of stakeholder involvement was implemented by the project promoters in order to create and maintain their support. All stakeholders, whether directly or indirectly involved, were consulted. A Consultation Committee was established in October 2004. Originally, 215 institutions were involved, of which a large proportion were farmers. By the end of this involvement process, several years later, more than 1100 institutions were involved. The project promoters paid special attention to the nature and complexity of information, ensuring that it was adapted according to the knowledge and interests of the relevant stakeholders. They were also careful to respond to specific complaints with information on the mitigation measures. Project promoters engaged in active communication (with stakeholders and reviewing authorities), creating opportunities for concerns and issues to be raised early in the review process, when solutions could be identified. Common checkpoints in synchronisation were: scoping procedures, purpose and needs of the project, alternative screening (identification of a reasonable range of alternatives), draft EIA, and compensatory mitigation.

Large river systems, such as the Seine-Scheldt, are highly complex, multidimensional, dynamic ecosystems and thus are much more than just longitudinal channel networks. Understanding their high ecological complexity requires comprehensive observations and management, a holistic approach that

is required by the EU Water Framework Directive (which covers natural background conditions (hydro-morphology), ecological status, relations and exchange processes with adjoining ecosystems, pollution, disturbance of habitats by navigation, etc.). Given the complexity of the system, an **upfront integrated planning approach and anticipating river data gathering and management** would be more appropriate, if possible with the involvement of stakeholders and review authorities. Instead of preparing permit applications on a project-by-project basis, in conjunction with impact assessments which often contain ‘knowledge gaps’, an upfront integrated planning approach would shorten the authorisation process and reduce the risk of litigation, etc.

A similar programmatic approach could be followed for frequent and recurring activities (such as maintenance dredging and knowledge of environmental impacts) that require permits.

TEN-E Projects of Common Interest (PCIs) benefit from accelerated permit granting procedures (e.g. through a binding three-and-a-half-year time limit). According to the stakeholders consulted in the framework of this project, it would be advantageous to introduce a similar fast-track procedure for TEN-T projects.

Design-Build-(Maintain-Operate) is generally considered a good PPP procurement instrument for large infrastructure works, encouraging the use of innovative solutions in the project design. For the case of the Canal Seine-North Europe, the economic crisis led to highly elevated costs for the private contractors, which, together with the 2012 change of government in France, resulted in the suspension of the ongoing PPP procedure.

Although the PPP procedure was suspended at an early stage in the Seine-Scheldt project, attention should still be paid to an important disadvantage of design-build. From the point of view of permitting and regulatory procedures, Design-Build is not a particularly effective method. It works best when the contractor is given maximum freedom to innovate, however, this is at odds with the certainty required for permitting conditions. Using the Design-Build method for these types of large-scale projects poses a planning risk. As final permit acquisition only occurs after the contract has been awarded to the Design-Build Contractor (permit applications are based on its final design), this creates uncertainty and the possibility of delays in permitting or due to contract renegotiations. Since the Design-Build Contractor is assigned permitting and mitigation/compensation responsibilities, this concern and uncertainty of permit acquisition will be shifted to the post-procurement phase. In the opinion of one of the stakeholders, time delays for contract negotiations and review of permits after the contracting of large infrastructure works, can take two to three years. However, in general, faster execution of works through PPP contracting makes up part of this lost time.

5.4 CONCLUSIONS

Different procedures and phasing of EIA and permitting in France and Flanders (design following EIA in France, versus EIA following design in Flanders) cause a time gap in authorisations for the Lys River project between the two countries. Given the complexity of waterway systems, an upfront integrated planning approach and anticipating river data gathering and management would improve efficiency. Running processes in parallel and synchronising process steps is also necessary.

Cross-border countries using permitting procedures with different phasing of EIA, public consultation, decisions on mitigation measures, and decisions on budgetary reviews of the project design and works, need very accurate planning. Here, again, parallel processes and synchronised process steps would dramatically increase efficiency. A ‘dedicated project design team’, consisting of task force experts from each of the Member States involved, all working in the same location, would overcome these challenges. The lack of this type of dedicated resource can be identified as a weakness of the project management structure of the Common Lys River project.

The ‘unique procedure’ which exists in several EU Member States is a good means of simplifying

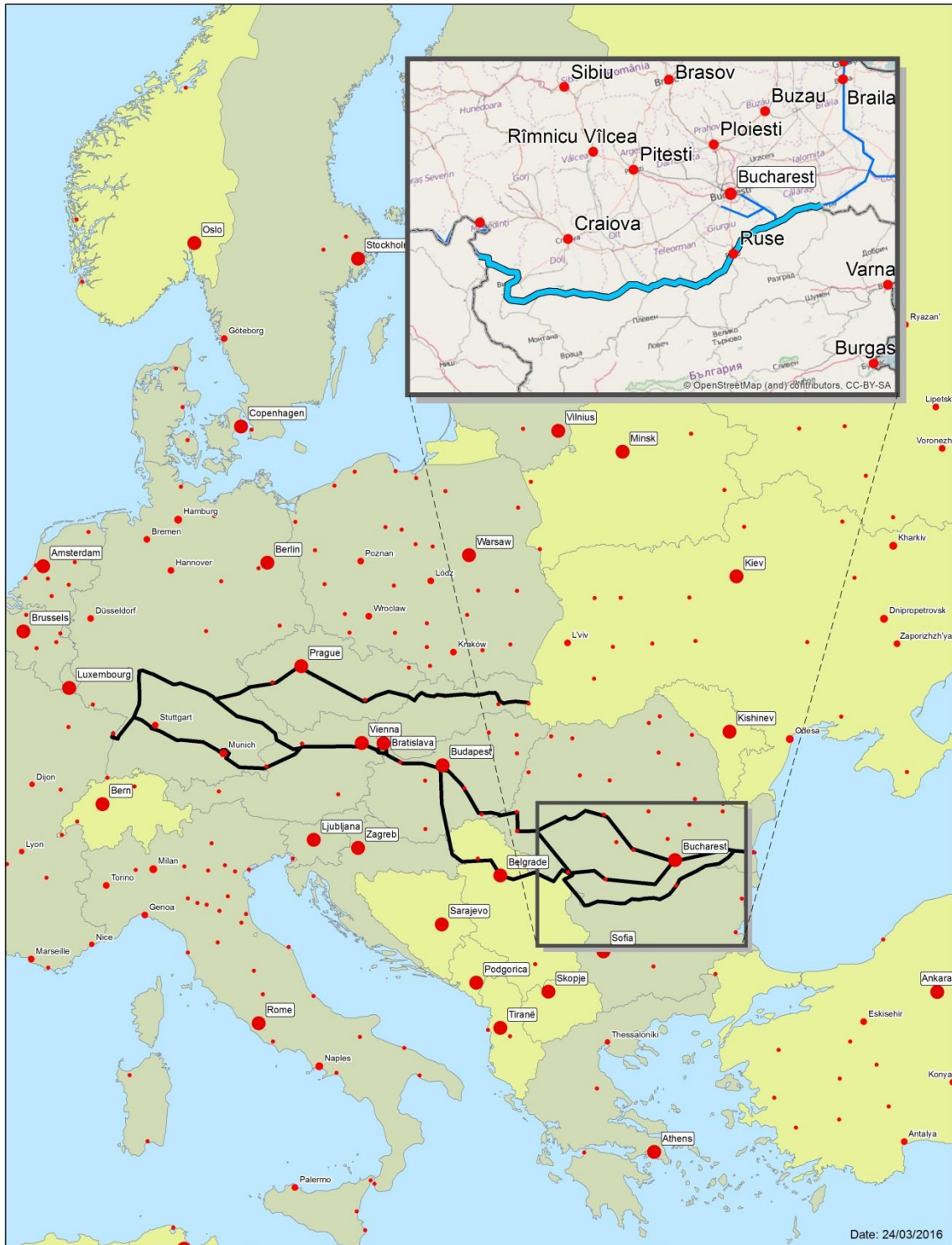
authorisation procedures. This type of synchronised review process ideally leads to one environmental analysis that satisfies the needs of all agencies with a role in proposing or approving a project.

There are differences between juridical instruments such as a ‘Treaty’ (Seine-Scheldt Terneuzen Flanders-The Netherlands) and a ‘Cooperation Committee’ (Seine-Scheldt Lys Flanders-France). The binding nature of a treaty is probably more suited to these types of significant cross-border projects.

The decision on state aid after notification for examination creates budgetary uncertainty, often for several months. Stakeholders suggest that a parallel procedure for financing (ERDF) and state aid notifications/decisions, would greatly reduce this uncertainty.

6 CASE DANUBE – COMMON SECTION BULGARIA-ROMANIA

Danube - Common section Bulgaria-Romania



6.1 PROJECT DESCRIPTION

The common Bulgarian-Romanian section of the Danube River is 471 km long. This section of the river is one of the most well-preserved natural sectors and is characterised by riverbed width, shallows, numerous islands, and intensive morphological processes. Characteristics for the common sector are:

- Frequently shifting riverbed with little predictability.
- Hazardous ‘banks’ underneath the water level, at times rendering river navigation impossible due to sand and sediments pushed by the river.
- Direct influence of the Iron Gates I and II on water quantities and the annual volume of sediment discharge in the upper Bulgarian-Romanian sector.
- Increased erosion and negative effects on the banks and riverbed due to reduced water flow and decreases in suspended sediments.
- Frequent fairway alteration due to the great changes of river sediments in shoal sections and the critically low water levels in 2011.
- Considerable seasonal water level variation (about eight metres).

The Danube River in Romania and Bulgaria is an important connection between the Black Sea and western countries on the Danube and the Rhine. In the summer–autumn period, however, the water flow decreases considerably in this river section, rendering navigation difficult. In the main branch of the Danube, the minimum depth for navigation is not met everywhere, resulting in dangerous navigational conditions and economic uncertainty about this transport route. The reasons for these differences relate mainly to morphological and hydrological phenomena. The project for improvement of navigation conditions on the Bulgarian - Romanian common sector of the Danube is part of a wider Danube navigability project to improve the connection between the Black Sea and western countries on the Danube and Rhine rivers. This project aims to improve the navigability of the Danube river in response to the needs of the national transport policy of Romania and other countries, as well as the countries’ international commitments.

The Lower Danube is a very complex river sector due to hydrological and geomorphological parameters. It is also an environmentally sensitive area, supporting many Natura 2000 sites. The navigation conditions on the river are very dynamic.

Several projects and actions have been – and are - dedicated to improving navigability of the Danube, and more specifically to the common Bulgarian-Romanian section of the Danube (which is a TEN-T core network project on the Rhine-Danube Corridor):

- A feasibility study was carried out in 2007-2011, but the environmental approval was never granted.
- A gap analysis was carried out in 2013 and the ToR for the Fast Danube project were prepared.
- The Fast Danube project (2015-2018) is still ongoing.

In **2007-2011** a **feasibility study** was carried out (at a cost of EUR 2.58 million from ISPA and state budget). The project *Rehabilitation and improvement of navigation conditions (river training works) on the common Bulgarian-Romanian section of the Danube* was carried out as a common Romanian-Bulgarian feasibility study project, with about 38 bottlenecks identified in this section¹³. Water and land measurements were carried out during the feasibility study on the entire sector, as well as water analysis based on mathematic modelling. All critical points were analysed, with measures proposed to offset the negative effects in each case. A technical draft feasibility report was finalised in September

¹³ River training works are those constructed to train the river, with the objective of guiding and confining the flow of a river channel in a defined course and controlling and regulating the river bed configuration for effective and safe movement of floods.

2008, outlining 38 critical sections, of which 29 required training works and/or dredging in order to improve navigation conditions. The final technical feasibility report was drafted in 2009. On the basis of this report the Romanian and Bulgarian competent authorities were to decide on the technical variant of the project. The overall feasibility study was to be completed in 2011. Neither country, however, initiated procedures for obtaining environmental permits or launched their planning and execution phase. (See the analysis chapter for further discussion.)

In 2007, a commitment structure European Grouping of Territorial Cooperation (EGTC) was established, intended as a single point at which to prepare and implement the project and to operate the maintenance dredging works afterwards. In practice, nothing came of the EGTC until 2013, when Bulgaria renewed its interest in this approach.

A **gap analysis** was carried out by JASPERS in **2013**. The feasibility study - including both its technical/engineering and economic analysis – was screened by JASPERS, which examined the current study to establish if it was fit for purpose. The study was thoroughly reviewed in terms of:

- Analysis of the existing situation, problem definition, objective setting.
- Definition, analysis and comparison of the project alternatives, including modelling.
- Demand (traffic), economic and financial analysis.
- Providing the information required for the Appropriate Assessment (AA) and the EIA.

The competent authorities in Bulgaria, Romania, the EC (DG Environment), etc. were consulted as part of this analysis. The project implementation options (e.g. separate detailed design/construction versus design & build contract) were reviewed and an analysis of institutional/project management options was carried out, including the option of EGTC.

Terms of References (ToR) for gap filling services were subsequently prepared and contracted by the Romanian government. A funding application to CEF was prepared in 2014 and the ‘Fast Danube’ project was launched. The CEF Action **Fast Danube** (Ref. *2014-EU-TMC-0297-S*) **2014** aims to accelerate the removal of an existing bottleneck along this cross-border section of the Danube by identifying the works needed to achieve stable navigation capacity all year round. It is part of a Global Danube Fairway Project to implement the Fairway Rehabilitation and Maintenance Danube Master Plan. This Fairway Maintenance Master Plan is drawn up as a supporting document to the meeting of the Transport Ministers of the Member States on the banks of the Danube. It highlights the national needs and short-term measures to effectively harmonise the waterway infrastructure parameters along the entire Danube and its navigable tributaries. The Fairway Project also provides for yearly dredging interventions. The CEF Action consists of four activities, from the completion of the EIA and building permits’ documentation to the drafting of the tender designs for future works. The CEF Action is a precondition for the implementation of any physical interventions to improve the navigability of the Bulgarian-Romanian Danube common section.

To-date, the Fast Danube project progress is as follows:

- The project officially started in November 2014.
- The public procurement procedures for the technical services (feasibility study, EIA, AA, permits) were launched. The offers received will be evaluated in April 2016.
- In the period mid 2016 - mid 2018 these studies will be carried out before environmental approvals are granted by the Romanian Water administration and the Bulgarian Waterway Agency.
- In December 2018, the studies of the Fast Danube project should be finalised, with the technical design and engineering works due to start in 2019.

The total budget for the Fast Danube project is EUR 5.2 million

- Approximately 99% from the Romanian Water administration (of which 85% is financed by CEF/INEA and 15% by the Romanian government).
- The remaining 1% (or EUR 30,000) from the Bulgarian Waterway Agency (of which 85% is financed by CEF/INEA and 15% by the Bulgarian government).

6.2 TIMELINE – KEY MILESTONES

2007-2011: Feasibility study

- In 2007, the Romanian Ministry of Transport contracted technical assistance for the preparation of a feasibility study. This study defined and analysed six alternatives for the improvement of navigation conditions.
- In November 2011 the final draft of the feasibility study report was completed, and the ‘optimised alternative’ was selected at the recommendation of the consultant. However, uncertainties remained in respect of the AA conclusions. No Environment Agreement was reached in Romania and Bulgaria, as the environmental authorities in both countries considered the report on impact on the Natura 2000 sites incomplete. The proposed solutions therefore needed to be reviewed.

2013: GAP analysis

- In July 2013 JASPERS carried out a gap analysis, reviewing the AA, EIA, feasibility study and CBA. They consulted with the competent authorities in Bulgaria, Romania, the EC (DG ENV), etc., reviewed the project implementation options and analysed the institutional/project management options, including the opportunities for the EGTC.
- In 2013-2014, ToR for *gap filling* services were prepared and contracted by Romania. The AA, EIA, CBA, and feasibility study were revised, and the selection of the preferred alternative was reconfirmed.

2014-2018: CEF Action Fast Danube

- In 2014, a funding application was prepared. The CEF Action ‘Fast Danube’ (2014-EU-TMC-0297-S) aims to accelerate the removal of an existing bottleneck along this cross-border section of the Danube by identifying the works necessary to achieve stable navigation capacity all year round.
- In October 2014, the final version of the ToR/Technical specifications was drafted.
- On 19 November 2014 the tender documentation was published.
- In July 2015 the funding application was approved.
- By 2018, all studies within the ‘Fast Danube’ project will be completed.

Key project milestones	Original planning/timing	Real or currently estimated planning
Feasibility study "Rehabilitation and improvement of navigation conditions on the common Bulgarian-Romanian section of the Danube"	2007-2011	2007-2011
Start Public procurement procedures	2011	2014
Evaluation bids	2013	2016
Environmental impact assessments (EIA, AA)	2013	2016-2018
GAP analysis (screening feasibility study) by JASPERS	2013	2013
Launch of the CEF Action "Fast Danube" (completion of the Environmental Impact Assessment and building permits documentation to the drafting of the tender designs for future works)	2014	2014
Obtainment Environmental permits/approvals	2014	2018
Start planning phase	2014	2018
Start execution phase	2015	2020

It does not seem to entirely unusual that a project concerning a cross-border Danube section - involving two newer EU countries and which is a natural reserve with sensitive and valuable natural areas which are subject to more stringent laws and regulations - faces some challenges regarding procedures and authorizations. The current planning, envisaged in the Fast Danube project, seems to be realistic and feasible if the required procedures are met - including stakeholder consultations.

6.3 ANALYSIS

Two main issues complicate projects on the common Bulgarian-Romanian section of the Danube:

- The Danube is a natural reserve, making the environmental aspect particularly important. Sensitive and valuable natural areas are subject to more stringent laws and regulations. Projects in or near such areas must consider the impact of stricter legislation on their timing and planning.
- As a cross-border section, two countries are involved, adding complexity to the project. The legislation and requirements for permitting are different in both countries, as are their administrative systems.

The report of the 2007-2011 feasibility study was **not mature enough**, at the time, to deliver the results envisaged (i.e. obtaining environmental permits to launch the planning and execution phase). Subsequent analysis showed that, during the project preparation, insufficient consideration was given to the complexity and cross-border aspects of this major project. The project experienced substantial delays and many issues:

- There was considerable discussion with nature conservation NGOs about the impact of the works on Natura 2000 sites. Some of the stakeholders interviewed here believed that the Romanian authority underestimated the impact of the project on habitats and species protected by EU legislation, e.g. the Danube as the migration route of the sturgeon towards the Black Sea.
- This is a cross-border project, with transboundary effects. The Romanian authority, however, launched the EIA (and other) studies by itself. The initial EIA was carried out in accordance with Romanian national law. Again, the stakeholders stated that there was insufficient EIA-expertise available in the department at that time, leading to the underestimation of environmental issues. The EIA and AA were later upgraded by a Bulgarian consultancy, in accordance with the environmental procedures in the Bulgarian legislation. The final environmental studies budget totalled the cost level of all other feasibility studies.
- While the Bulgarian Waterway Agency was represented in the Steering Group for the project, the Bulgarian environmental authority was not, although it needed to approve the EIA. Not all stakeholders that should have been involved were represented in the Steering Group, which damaged consultation and the flow of information.
- Three versions of an EIA were drafted during the project. A first EIA was drafted in English and then translated into Romanian. Bulgaria and Romania have different requirements (e.g. in Bulgaria the non-technical summary is included in the EIA report, while in Romania it is not included there).
- At the beginning of the project, the EC organised a consultation round with NGOs on the initial EIA. This was well received by the majority of the NGO's, who took a positive view of their involvement at the early stages of the project. Later, when the project stalled, a consultation was held with the local representatives of international Romanian and Bulgarian NGOs. Stakeholders said the meeting took the form of an expert panel, focusing on information exchange rather than real consultation.
- Initially there was no budget for site visits, although a local consultancy carried out some site visits at a later stage of the project. Stakeholders deemed this too late to collect data for the AA.
- Some stakeholders interviewed believed that the project was, in fact, more of a 'plan'. They claimed that the study should have been carried out through an SEA rather than an EIA with a building permit immediately pending.

The final feasibility study report was completed in February 2011, while the draft EIA and draft AA report were issued in September 2011. The feasibility study defined and analysed six options to improve navigation. The preferred option, the 'Optimised Alternative', was selected in 2011, on the recommendation of the feasibility study but without taking into account the AA conclusions. Both the Romanian and the Bulgarian authorities declined the application for consent because the impacts on

the Natura 2000 sites were unacceptable.

The documentation finalised in 2011 was subjected to an external review to identify gaps and make recommendations for the implementation of the Project. The **gap analysis** found that the Preferred Project Design must be developed as part of a procedure where the assessment of impacts on the Natura 2000 sites is conducted in conjunction with the Project Design. This procedure should document the means by which impacts on Natura 2000 sites will be avoided, minimised and/or mitigated. It must be developed in collaboration with the relevant nature protection authorities in Romania and Bulgaria, in order to ensure the input of appropriate knowledge to the Preferred Design.

The gap analysis also stressed that substantial work must be undertaken in order to establish the Preferred Project Design and to provide the required documentation for the different design options examined. This work must be based on a critical sector approach, to balance the technical possibilities for improving navigational needs of the river against the requirements for protecting Natura 2000 sites, as well as considerations of costs.

The **CEF Action Fast Danube (2014-EU-TMC-0297-S)** was launched in November 2014 to accelerate the removal of an existing bottleneck along this cross-border section of the Danube by identifying the works needed to achieve stable navigation capacity all year round.

In the context of this Action, measures have been taken to streamline the project process and avoid making the same mistakes.

This CEF project is a common undertaking for both the Bulgarian and Romanian governments. The Romanian Waterway administration coordinates the project and is responsible for the tendering etc., in close cooperation with the Bulgarian Waterway Agency.

Obtaining environmental approval remains the main risk. In view of this, Romania is to develop a procedure to streamline the environmental approval procedure of both Bulgarian and Romanian administrations, a considerable challenge given the differences in their national legislation.

In the framework of the **Fast Danube** project, specific actions aim to smooth project progress:

- A risk assessment was carried out at the start of the project to anticipate possible problems later on. When the project evolves further and the identified risks arise, the usefulness of this assessment will become clearer.
- A proper coordination body was set up: a steering committee at which the Romanian and Bulgarian Ministries of Transport are represented, together with the Romanian and Bulgarian Ministries of Environment and Nature, the Romanian Ministry of EU Funding, and the Bulgarian and Romanian port administrations.
- An advisory body was also created, in which a variety of stakeholders (e.g. NGOs) are represented.
- Accurate mathematic models (e.g. sediment information and hydrologic parameters) were developed to collect the required information for the AA.
- There is a lot of political support for the project at all levels.
- Careful attention is being paid to extensive communication, e.g.:
 - At the start of the project the local and regional authorities were consulted, with surveys used to collect as much useful and correct information as possible in order to find an optimal technical solution that is also environmentally friendly.
 - Workshops were organised with local stakeholders to explain the objectives of the project. These stakeholders will also be involved later, when they will be informed about the solutions and results in all phases.

In the next phase of the study, these practices and actions will be assessed for their merit as good practices.

Other key issues were also raised by the stakeholders interviewed in the scope of this case:

- The main challenge is to **set up and maintain a ‘long-term structure’ – with a mandate in both Bulgaria and Romania - as a stable basis to develop and carry out the project at all stages** (preparation, procurement, construction, maintenance). Coordination is crucial in projects where constructions are built on the basis of two contracts and procurement procedures, and the creation of such a structure could have facilitated preparation and implementation of the project.
- Commitment of funding is crucial, with ongoing allocations required by both countries for maintenance dredging works on a large scale (estimated at approx. EUR 5 million/country/year). These post-construction dredging works are necessary to ensure that navigability projects are sustainable in the longer term while taking environmental issues into consideration. No such commitments currently exist.

The duration of the planning and preparation phase was initially estimated at four-five years (2007-2011). As of Spring 2016, preparations are still ongoing. . All studies within the project Fast Danube should be finished in 2018, with works to start after that.

6.4 CONCLUSIONS

A project needs to be mature enough before implementation, in order to avoid loss of initiative and stalling.

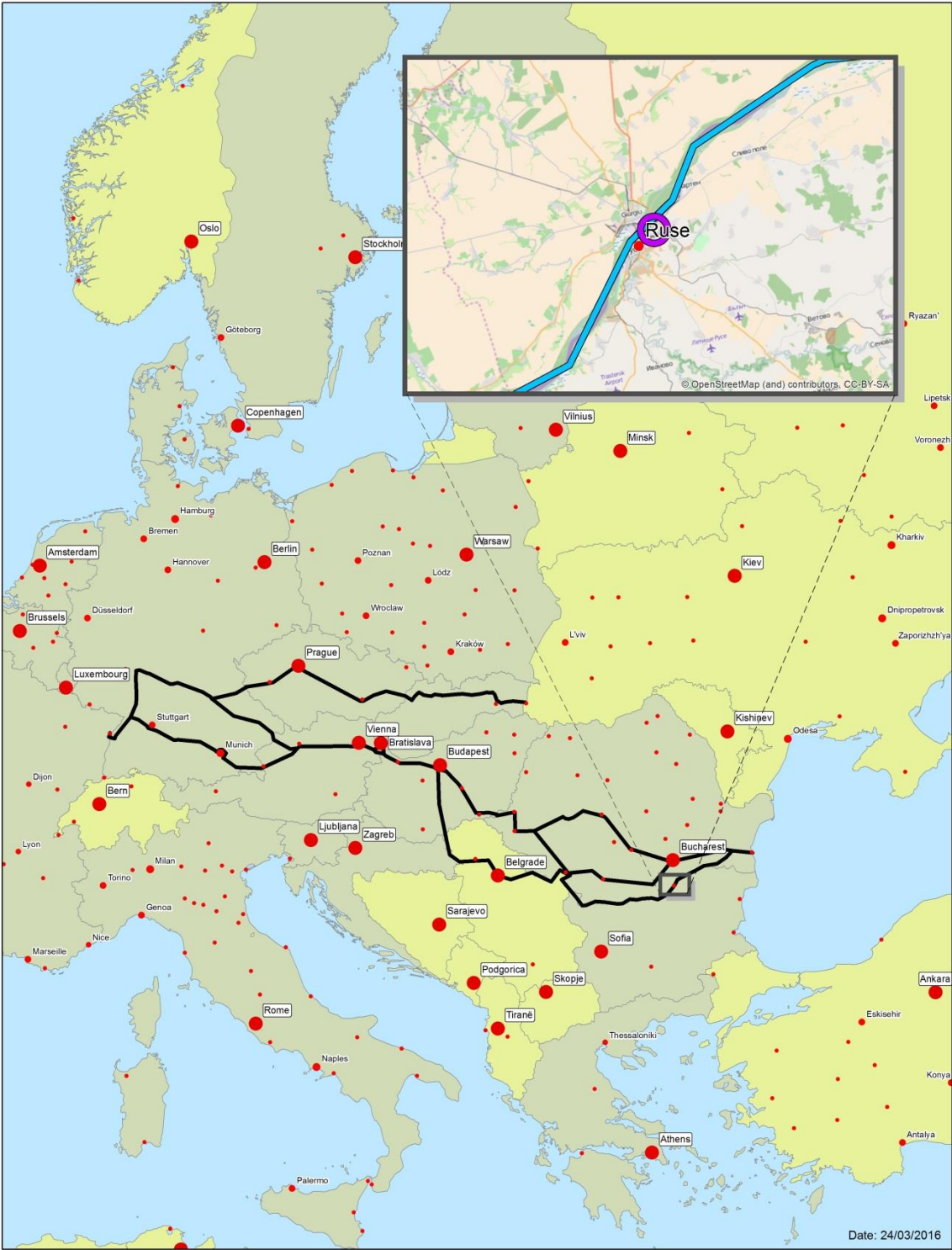
Project preparation and planning need to take account of the complexity and the cross-border aspects of major projects, particularly its impact on the timing of authorisation procedures within the applicable nature legislation.

Continuous – and cross-border – engagement, communication and cooperation with stakeholders is of the utmost importance from the earliest stages of the project.

Setting up a solid cross-border project organisation would greatly facilitate project progress. For this project, the main challenge is to set up and maintain a ‘long term structure’ – with a mandate in both Bulgaria and Romania – as a stable basis to prepare, develop and carry out the project in all of its stages.

7 CASE LIQUIFIED NATURAL GAS (LNG) TERMINAL IN RUSE (DANUBE)

LNG terminal in Ruse (Danube)



7.1 PROJECT DESCRIPTION

The LNG terminal pilot deployment in Ruse is one of the outputs of the CEF sponsored ‘LNG Masterplan for Rhine-Main-Danube’ (2013-2015).

The LNG Masterplan for Rhine/Meuse-Main-Danube project functions as a cooperation platform for authorities and industry stakeholders. It is coordinated by Pro Danube Management and the Port of Rotterdam Authority and brings together 33 project partners from 12 European Member States and one associated partner from Switzerland. The project is co-financed by the EU (TEN-T), receiving a grant of more than EUR 24 million. The activities are carried out in clearly defined areas. Framework and market analyses examine the current LNG implementation, regional markets’ situation, LNG sourcing scenarios and identification of pioneer customers. Existing and emerging technical concepts for LNG engines, tanks and equipment are reviewed, and various operational concepts for LNG bunkering, (un)loading and other safety related topics are also being developed. As part of the regulatory framework activity, the project contributes to modifications of necessary regulations to enable LNG on inland waterways. New vessel and terminal concepts are in development, with some being implemented as pilot deployments. Finally, the knowledge gained from the project will assist in creating a comprehensive strategy for the deployment of LNG as fuel and cargo. In the future, Bio-LNG and liquefaction of stranded conventional gas fields will contribute to a balanced and secure supply.

The deployment of the LNG terminal Ruse in Bulgaria as part of this LNG Masterplan brings the first permanent LNG supply to the Danube region. Due to the lack of nearby LNG import terminals, more complex supply chains are needed, resulting in higher costs and smaller market potential. Various sourcing options were analysed, including routes from North-Western Europe, the Black Sea/Eastern Mediterranean and from the Caspian region. LNG can be transported by (i) trucks, which is already being done but is costly and environmentally critical over long distances, (ii) inland vessels, but regulatory framework needs to be finalised and sufficient base load of LNG demand generated, or by (iii) rail, which is economically and ecologically better than road transport, although adequate terminal infrastructure is lacking.

The project in Ruse developed in response to the enlarging LNG market in the world, requiring the opening of big terminals to third parties, and the need for diversification of the gas supply in Bulgaria. The project began with the intention of refuelling the Danube ships with cleaner fuel. Then, later, it became clear that shore terminals could be very useful for supplying the hinterland with LNG, which would require a good gas distribution network. The main elements of the project were:

1. Planning the size of the terminal.
2. Evaluating the best equipment for the terminal.
3. Negotiating with equipment suppliers.
4. Preparation of the idea and technical project plan.
5. Receiving all necessary permissions.
6. Negotiations for the construction phase.
7. Construction, commissioning and start-up.
8. Establishing a sustainable supply chain.

This case covers a pilot deployment of an LNG terminal in the port of Ruse in Bulgaria. The terminal includes a bunker station for inland vessels and truck loading, storage for LNG, a peak shaving unit, a truck fuelling station and a pontoon for future fuelling of inland vessels. This is the first LNG terminal in the Danube region, with a capacity of 1,000 m³ (4 tanks of 250m³). The terminal is situated at km 485 of the Danube.

The conceptual & preliminary design, together with planning permission, was ready in 2014, as was the detailed Site Development Plan & HAZID. The civil works started in February 2015 and the pilot deployment was due in October 2015. After a delay, it is now expected to be ready in April 2016.

The total duration of the project (from its conception to the construction of the terminal and the evaluation of the equipment) is four years.

The total cost of the project is estimated at EUR 2.7 million, of which 50% is financed by EU grant aid and 50% is financed by the project promoter.

Due to the difficulties in sourcing LNG in the Danube region, the project promoter will ship in some initial volumes in LNG ISO containers via the Bulgarian seaport Burgas. The LNG containers will then be transported to Ruse by LNG fuelled trucks, creating a unique multimodal LNG supply chain.

7.2 TIMELINE – KEY MILESTONES

2012: LNG Masterplan

- In 2012 the LNG Masterplan for Rhine-Main-Danube was launched, including the pilot deployment of the LNG terminal in the port of Ruse in Bulgaria.

2013-2014: preparation pilot project LNG terminal

- In December 2013, after complex negotiations, the planned LNG terminal and facilities received positive statements from the authorities responsible for Natura 2000 sites and Water Management in Ruse and Sofia.

2015-2016: Construction Terminal

- Civil works began in February 2015.
- In 2015, changes in the national legislation led to the postponement of the final civil construction permit, which was issued in September 2015. Pilot deployment was expected in October 2015 but was delayed until April 2016.

Key project milestones	Original planning/timing	Real or currently estimated planning
LNG Masterplan (framework LNG Terminal Ruse)	2012	2012
Positive statements from the involved authorities (environmental permit, fire safety, water and technical permissions)	2013	2013
Start civil works terminal	2015	2015
Completion civil works terminal	2015	2016
Pilot deployment	2015	2016

The delays in this case were minor. Changes in the national legislation (2015), leading to the postponement of the final civil construction permit, were inevitable. The project progress seemed to be realistic and achievable.

7.3 ANALYSIS

The project experienced some **difficulties in the permitting process**.

The permitting procedure started with a negotiation phase with the national authorities. Firstly, a ‘preparatory document’ was drafted by the project promoter, specifying the project idea. The national authorities took one month to evaluate the document. The project promoter then prepared the SEVESO paper for the relevant national authority/administration, in order to gain a SEVESO approval. Following this, the project promoter prepared a document describing the technical phase of the project, e.g. the standards they would use to build the terminal (see below). This document was sent to all relevant national administrations in Sofia (i.e. fire safety administration, environmental administration, water (supply) administration, technical supervising agency, and SEVESO

administration) for approval. With little direct contact between these different national administrations, the project promoter facilitated contact between them in the context of this project, thereby avoiding possible delays. Once all of these administrations had approved this document and granted environmental, water, technical and fire safety permissions, the project promoter applied to the local authority for a building permit. Building and exploiting the terminal requires a complex permit, and obtaining permission and approval from the authorities took most of the planned time.

There is **no national Bulgarian legislation regulating LNG terminals**, and the national Bulgarian administration is in favour of centralising the entire authorisation process for such projects. Initially, the project promoter discussed the project with the local water authority with a view to starting the authorisation process at that level. As there is no specific legislative framework in place in Bulgaria, the national Ministries were responsible for all authorisations, e.g. environmental permit, fire safety permit, etc., with no decisions delegated to local level. This barrier was somewhat offset by the strength of local support for the project, with local authorities seeing the benefits of increased new business and turnover for the region. When interviewed, the project promoter stated his belief that centralisation slows down permitting procedures and hinders the development of this type of infrastructure. Authorisation procedures, he believed, would be easier at local level, which is closer to business. A case can also be made, however, for a centralised permitting procedure for projects of this type. This case required several authorisations, which usually require specialist knowledge more likely to be found within a centralised authority. If local authorities were to be made responsible for issuing permits, they would require support from the national authorities in the form of training and assistance (either regularly or on request), guidance for issuing and handling permits, preparing standardised permitting formats and enabling networking and cooperation amongst regional/local authorities.

While there is EU legislation and standards for LNG terminals, these are not yet implemented and applicable in Bulgaria (they are likely to come into effect in April 2016). To avoid a delay in waiting for implementation of the EU legislation, the project promoter instead was guided by American standards, which feature clear descriptions of terminal building, and Italian guidelines. Foreign suppliers provided their assistance in sourcing useful guidelines and standards used in other countries. The preliminary authorisation phase of the project took one year, because of the missing Bulgarian legislative framework.

The project promoter in this case has a lot of experience with LPG and CNG infrastructures. The legal authorisation framework for LPG and CNG infrastructures is – in contrast to the lack of legal framework for LNG – established and well developed in Bulgaria. The local authorities are involved and, according to stakeholders, the process is smooth, without undue loss of time or money.

Bulgaria does not have a very well developed gas distribution network for LNG or LPG, and the project promoter wants to develop the LNG bunkering in the country and its supply on the lower Danube, as well as increasing the use of environmentally friendly fuels. The existing fleet is old, however, creating a gap between the possibilities afforded by the LNG terminal and the reality of the existing fleet. The economic crisis, together with insufficient financial means/funding prevent the Bulgarian government from undertaking initiatives to encourage expansion or retrofitting of the existing vessels.

According to the stakeholders interviewed, the Bulgarian (and Romanian) government seems to favour road transport (trucks). This creates a barrier for the project, making it difficult **to switch mode to inland water transport**.

Binding terms and deadlines in the permitting and administrative procedures are not respected by national administrations. This is the result of a high workload (because of the centralisation of all the permitting procedures) and also a halt on the issuing of permits one month either side of an election).

Some of the stakeholders consider EU environmental legislation to be too complex and lacking clarity.

They point to the lack of knowledge in some countries, which creates **legal uncertainty**, and has a negative impact on infrastructure projects.

Situating the permitting authority at regional or local level has advantages and disadvantages. It is not easy for local authorities to deal with new types of projects - e.g. LNG terminals in inland ports - as they are not always familiar with European legislation, or lack understanding of its application in practice. For this reason, the Action Plan paid close attention to this issue in its guidelines and recommendations: e.g. **striving for maximum harmonisation** so that not every local authority (which are mostly responsible for permitting) has to ‘reinvent the wheel’, e.g. establishing safety distance measures. Fully harmonised EU regulations are not possible because the local contexts in which local authorities operate are too diverse. Only information and guidelines are of real practical use.

The project promoter reported that a **Bulgarian investment company**, *InvestBulgaria Agency (IBA)* can issue certificates to speed up investment projects¹⁴. IBA is a government institution providing information, contacts and project management support to potential investors. Its services include administrative support with permits, and the project promoter in this case stated that he would consider obtaining such a certificate should he undertake another project of this type.

The project ‘**LNG Masterplan Rhine-Main-Danube**’ was officially closed on 31 December 2015. The Masterplan included a list of 83 actions and measures proposed by the consortium. Some of these specifically address the regulatory and permitting issues that create barriers.

A detailed breakdown and description of these measures and actions is provided in the chapter ‘*Actions catalogue with measures*’ of the ‘LNG Implementation Strategy & Recommendations’ of December 2015. The consortium has taken steps to implement these actions and measures.

LNG Masterplan Rhine-Main-Danube

The LNG Masterplan Rhine-Mail-Danube contains a list of 83 actions and measures, some of which specifically address:

1. *The regulatory framework / ‘Governance and legislation’, e.g.:*
 5. *Harmonise port regulations at European level:*
 - *Provide guidelines at European level for LNG-related port operations in inland ports.*
 - *Align port regulations for LNG bunkering with relevant (policy) regulations.*
 6. *Provide guidelines for more harmonised spatial planning of LNG bunker operations in inland/maritime ports:*
 - *Develop harmonised guidelines for land use planning for all bunker scenarios.*
 - *Include external safety conditions and nautical conditions in spatial planning processes for LNG bunker locations.*
 - *Include LNG bunker suitability map in port by-laws.*
 7. *Clarify and harmonise risk assessment.*
 8. *Support the industry to set rules and standards for LNG bunker stations and vessels:*
 - *Provide a European best practice guideline for permission of onshore/floating LNG bunker facilities.*
 - *Provide European regulation for construction and operation of LNG bunker pontoons.*
 - *Provide European regulation for construction and operation of LNG bunker vessel.*
 - *Develop cross-national guidelines for permission/accreditation of LNG bunker vessel operators.*
 9. *Ensure safe and efficient LNG bunkering and (un-)loading:*
 - *Elaborate harmonised bunkering standards and checklists for all bunker scenarios*

¹⁴ <http://www.investbg.government.bg/en>.

(STS, TTS, TPS).

10. Improve emergency response knowledge of local authorities.

2. ...

3. 'Awareness':

1. Increase awareness of the socio-economic and environmental benefits of LNG:

○ *Define and execute public information campaigns on socio-economic and environmental benefits of LNG.*

2. Inform on safety requirements and standards for LNG infrastructure and operations:

○ *Create and regularly update knowledge base and disseminate to relevant stakeholders.*

○ *Foster exchange of real-life experiences.*

3. Ensure implementation of Action Plan of LNG Masterplan:

○ *Create an organisational structure to coordinate the implementation of LNG Masterplan and implement measures.*

The completion of the project was slightly delayed from 2015 to 2016. While the duration of the planning and preparation phase was initially estimated at two years, changes in the national legislation in 2015 led to the postponement of the final civil construction permit until the end of September 2015.

7.4 CONCLUSIONS

The transposition of EU LNG legislation into national law is necessary to provide a legal framework for these types of projects and to facilitate the permitting phase of LNG terminal projects.

The use of foreign standards can provide benchmarks where a national legal framework is lacking.

A 'Masterplan' can be a good framework to facilitate new types of infrastructure projects such as inland port LNG terminals.

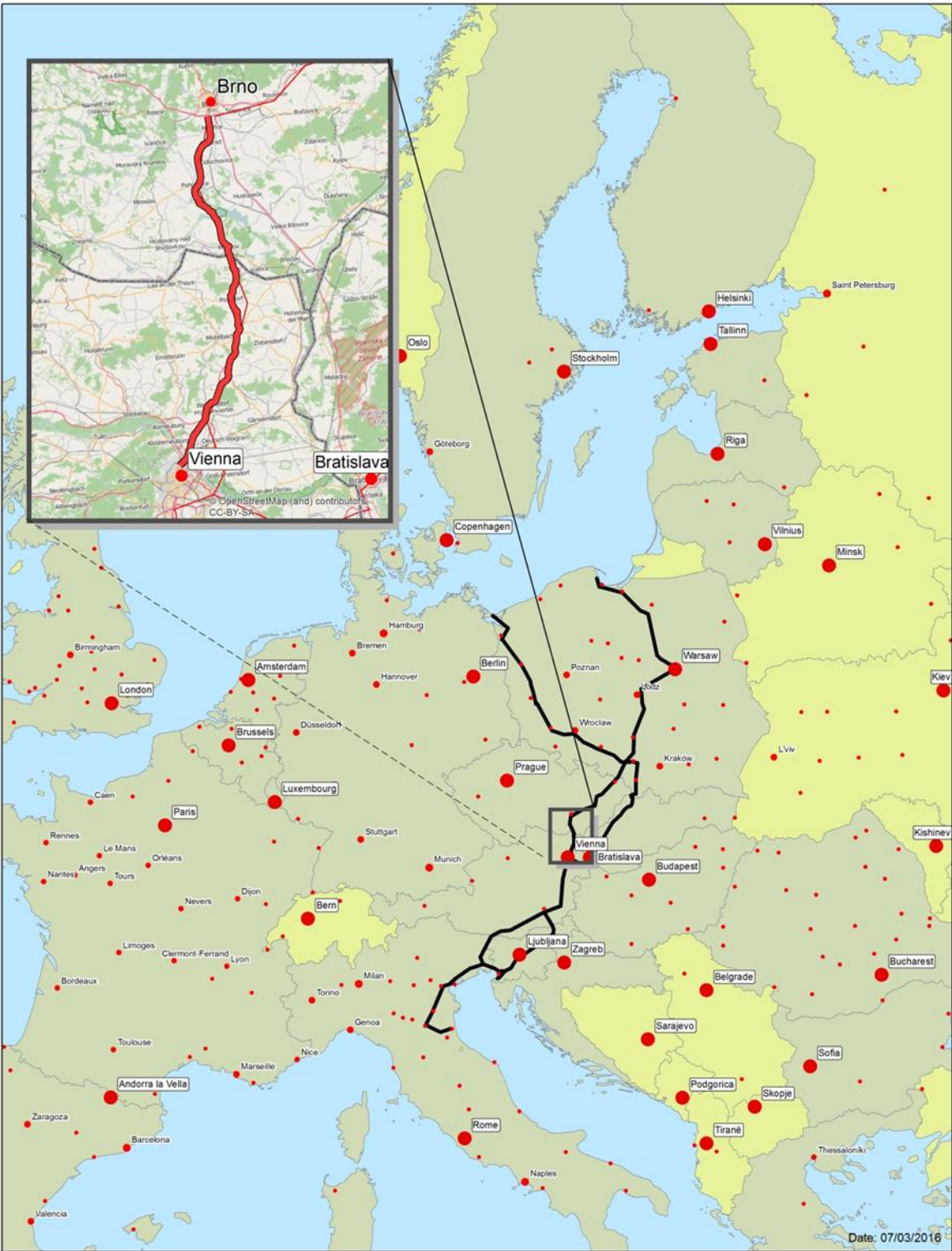
According to the project promoter, local authorities should have more responsibility for permitting. In view of its location in harbour, regional and local authorities become important partners during the implementation of the project, particularly given the lack of interest from the public. However, for large scale river infrastructure works, much depends on the resources, capacities and experiences available at regional/local level in dealing with issues of stakeholder involvement, large scale public consultation, etc. Authorisation processes usually require specialist knowledge, which is more commonly found in centralised procedures managed by a centralised authority. If local authorities are to be made responsible for issuing permits, they should be supported to do so by the national authorities.

Binding terms and deadlines in the permitting and administrative procedures should be respected by national administrations.

Where available, the use of project support from national government-supported investment companies should be encouraged and facilitated for project promoters.

8 CASE ROAD BRNO-VIENNA

Road Brno-Vienna



8.1 PROJECT DESCRIPTION

This road project concerns the upgrading of the cross-border section AT/CZ (A5/R52) Wien-Brno to an express road in order to alleviate a bottleneck in the cross-border section between Austria and the Czech Republic (A5/R52) Wien-Brno. The Brno-Vienna motorway proposes to connect the south Moravian capital Brno (in the Czech Republic) and the Austrian capital Vienna, by construction and upgrading of the existing R52 in the Czech Republic and the A5 motorway in Austria. The distance between the two regions is approximately 110 km.

The Brno-Vienna motorway is part of the **TEN-T (Baltic Adriatic Corridor) priority project (PP) N° 25 Motorway axis Gdansk–Brno/Bratislava-Vienna**. PP25 involves four Member States: Poland, the Czech Republic, Austria and Slovakia. Its western branch passes through Brno, the second largest city of the Czech Republic, on its way to Vienna (950 km), while its eastern branch passes through Zilina, site of Slovakia's automotive production, to the country's capital Bratislava (890 km). It involves the construction of a new two-lane motorway in both directions. The motorway projects are included in the respective national development plans of the four Member States. Works have already started on most sections and some subsections in all four countries are already complete.

According to a 2009 treaty between the Czech Republic and Austria, the connection Brno-Vienna is to be completed as an expressway and continuous connection between Brno and the Austrian A5 North Autobahn at Drasenhofen, leading to Vienna. Works entail the construction of the R52 expressway in the Czech Republic (to be extended to four lanes) and the A5 motorway in Austria, and their connection at the state borders (Mikulov in the Czech Republic and Drasenhofen in Austria).

In the Czech Republic, the route south of Brno to Pohorelice is complete. The remaining section, from Pohorelice to the border in Mikulov, crosses an environmentally sensitive area, making construction unlikely to start for some time. No planned end date has been communicated for the works. The R52 has not been funded by the EU Cohesion Fund 2014-2020.

The existing R52 expressway currently goes from Modrice, about 7 km south of Brno, to Pohorelice (a section of 19 km). From Pohorelice, ordinary road n° 52 runs further south to the border with Austria at Mikulov (a section of 22.5 km). This road will be upgraded.

Given the uncertainties associated with the R52, the Austrian Government has outlined a phased project implementation for the A5 Nord Schrick-Drasenhofen-Border between Austria and the Czech Republic. In the first phase, the section Drasenhofen-Border will only be completed as a two-lane road by the existing route, with an upgrade to motorway by 2018.

The R52 section via Mikulov was included in the Breclavsko regional land use plan adopted by the South Moravian Regional Assembly in 2009. However, the planned motorway route via Mikulov runs through Natura 2000 sites and nature reserve area. Environmental NGOs and municipal authorities have built up serious resistance to the projects, both politically and legally. The public (affected groups, individuals and NGOs) participated in most of the EIA permit proceedings, appealing against the EIA and subsequent decisions. They claim that an alternative route could use the existing D2 Highway from Brno to Bratislava via Breclav and then continue to Reinthal in Austria (an extra 15 km).

On the Austrian side, the route will connect to the A5 near Drasenhofen, running via Poysbrunn and Schrick to Vienna (section Poysbrunn-Border: 16 km; section Schrick-Poysbrunn under construction: 25 km).

The project budget is as follows:

- A5 Construction Schrick-Poysbrunn (EU ID AT303), 25 km, 2x2 lanes: EUR 324 million.

- A5 Construction Poysbrunn-Border AT/CZ 1st Part Drasenhofen bypass (EU ID AT307), 5 km, 2x1 lanes: EUR 54.5 million.
- A5 Construction Poysbrunn-Border AT/CZ 2nd Part Poysbrunn-Drasenhofen section (EU ID AT308), 9 km, 2x2 lanes: EUR 91 million.
- R52 Construction Pohorelice-Mikulov: project costs unknown with routing uncertain following appeals against the EIA.

8.2 TIMELINE – KEY MILESTONES

1999-2015: Early developments and preparatory studies

Negotiations between a Czech-Austrian group of experts in the Czech town of Valtice on the route.

- In 2001, a **common decision (Czech Republic-Austria)** was taken on the project, with an international study for route R52 / A5 prepared by the Austrian side.
- The initial study proposed **five possible routes**. This was reduced to three and agreement was reached on expressway R52 in section Pohorelice – Mikulov. The ‘Breclav alternative’ was rejected.
- In 2002, the **Austrian act was updated** and the route of the A5 motorway specified as route Grossebersdorf-Wolkersdorf-state border Drasenhofen.
- In 2005 both countries signed a Memorandum on cooperation during preparations and construction of the connection between the Austrian A5 motorway with the Czech expressway R52 on the Czech-Austrian state border.
- In May 2005 the Czech Ministry of Environment **approved the EIA opinion** for the R52.
- In 2006, the route of expressway R52 was included in the **Zoning Development Policy** (Land Use Plan) of the Czech Republic, by a governmental decision.

Environmental concerns were raised by NGOs in both countries, due to the crossing of a Natura 2000 area in the Czech Republic. **Legal action was taken by NGOs** against the Brno-Vienna motorway through Mikulov/Drasenhofen on the basis of a lack of alternatives considered, lack of cumulative environmental impact assessment (slicing of EIA proceedings), the use of incorrect data, and lack of transboundary assessment.

- In November 2006 construction of the R52 corridor was included the **Zoning Development Policy** of the Czech Republic. The **SEA procedure** was carried out after the issuing of the EIA opinion for R52. The plan was approved, but later annulled by the courts.
- Between 2006-2007, the Austrian EIA Proceeding took place of the Road A5 Nord-Autobahn-Sehrick-Drasenhofen (both road sections were assessed as a single project: Sehrick-Poysbrunn 25 km and Poysbrunn-Drasenhof 9 km).
- **Transboundary procedure** (Convention Espoo).

For the purposes of **development consent procedures**, the R52 (whose whole length is 22.5 km) was divided into three sections. In May 2007 (almost two years after submitting the positive EIA statement) the development consent procedure for the first section (Pohorelice-Ivan) began. Following **objections by various citizen groups and municipalities** against the alignment with the Drasenhofen/Mikulov border crossing point, the Czech Minister of Transport asked the Austrian Ministry of Transport to instead consider a **border crossing at Breclav/Reintal**. A new version of the Czech Government Transport Programme (Operational Programme Transport (OPT) 2007-2013) indicated that the R52 would not be funded until 2013, with no EU funding expected for this road.

- In 2009, an **intergovernmental agreement** was signed between the Czech Republic and Austria to connect expressway R52 to motorway A5 Nordautobahn at Mikulov/Drasenhofen. The agreement gave a completion date of 2014.

- Czech ecologists, however, still insisted on the alternative eastern route, connecting Brno and Vienna via Breclav (Czech Republic). In November 2009, the **Supreme Czech Administrative Court** ruled against a Regional Land Use Plan that included the proposed route of the R52 highway.
- Also in 2009, the **EIA of the section Schrick-Poysbrunn was authorised**, first instance decision in November 2009 (Federal Minister for Transport, innovation and Technology BMVIT-312.505/0007-II/ST-ALG/2009).
- In December 2009, the two countries made a **joint declaration in the European Parliament** on the European and common regional importance of the motorway axis Gdansk-Brno-Vienna (TEN-T project n° 25).
- In 2010-2011, the representatives of the South Moravian Region decided on the **Regional Zone Plan of the South Moravian Region**, stating: *the Regional Zone Plan of the South Moravian Region laid down details on the corridor of capacity road R52 Pohorelice - Mikulov - Drasenhofen / Austria (E461), as defined in the 2008 Zoning Development Policy of the Czech Republic, by defining the D65 corridor of the four-lane expressway R52 Pohorelice - Mikulov - border CR / Austria including parallel supporting roads to ensure direct service in the areas concerned (civil structure with public benefit).*
- During a 2010 Austrian evaluation of major infrastructure projects, it became clear that the Czech Republic could not execute the project by 2015. To avoid high investment costs without the guarantee of a ‘motorway’ connection at the Czech border, a two-step strategy was developed in Austria.
 - A5 North A: EIA/road approval for Schrick-Poysbrunn (new motorway, four lanes, villages bypassed).
 - A5 North B: phase 1: Drasenhofen bypass, 5 km, 2x1 lanes.
 - A5 North B: phase 2: Poysbrunn-Drasenhofen (15 km stretch of road, 2x2 lanes including Drasenhofen bypass and upgrading 2 km of existing road trajectory north of Drasenhofen to the border).

The construction of the A5 from Schrick to the Border AT/CZ was confirmed in the National Interurban Road Program 2012-2017.

- In 2012, a **Supreme Court judgment** repealed the Regional Zone Plan of the South Moravian Region (essential for the construction of all sections with the exception of the Mikulov bypass). It was confirmed by the Supreme Administrative Court’s decision that the construction of R52 is being prepared in contradiction with the law, by neglecting to make a strategic assessment of alternative routings for the road between Brno and Vienna. The EIA procedure has only be made for the single corridor Pohorelice - Mikulov/Drasenhofen. The court also confirmed that the proposed R52 corridor as a quality road connection with Austria complied with the Zoning Development Policy (judgment 1 Ao 7/2011).
- On 12 June 2013, the Czech government approved the **Transport Policy of the Czech Republic 2014-2020**, its fundamental conceptual document for the transport sector in the Czech Republic. A positive **SEA statement** had earlier been issued on this policy on 13 March 2013.
- From 2013 to 2015, **Project EIA and Permit Proceedings took place in Austria** for the A5 Nord Poysbrunn-Border AT/CZ Phase 1 (for the phased project approach, a new EIA was necessary: due to the new project characteristics other environmental impacts would occur due to different traffic intensities e.g.).. In April 2015, EIA and Permit approval was granted for A5 Nord Poysbrunn-Border AT/CZ.
- From 2014-2016, the **Regional Zone Plan** of the South Moravian Region is being updated.
- 2016-2017 will see the A5 Construction Schrick-Poysbrunn.
- Between 2016 and 2018, A5 Construction Drasenhofen by-pass (A5 Nord Poysbrunn-Border AT/CZ Phase 1) will take place.

Key project milestones	Original planning/timing	Real or currently estimated planning
Planning phase (Austrian Act, EIA/Zoning Development Policy Czech Republic)	2001-2006	2001-2006
EIA Austria	2006-2007	2006-2007
Development Consent Procedure Czech Republic	2007	
SEA and updating of Regional Zoning Plan Czech Republic	-	2013-2016
EIA/Permit Approvals Austria (new, phased project)	-	2013-2015
Building permits and Detailed Design Czech Republic	2006-2007	2018-2022
Tendering Austria (phased)	2008	2015-2017
Tendering Czech Republic (phased)	2008	2018-2023
Construction Austria	2010	2016-2018
Construction Czech Republic	2010	2018-2027

The actual planning is realistic, but the implementation, of a number of road sections, depends upon the approval of the updated Regional Zone Plan of the South Moravian Region (expected sometime in 2016).

8.3 ANALYSIS

The project has been delayed by four years, based on the project finish date of 2014 given at the beginning of the development consent procedure in 2007. This delay stemmed from unresolved environmental problems on the Czech site and legal appeals in both countries. The actual planning for the A5 Drasenhofen by-pass gives a completion date of 2018, while no actual planning is in place for the Czech site. These delays have created economic uncertainty and driven up financing and construction costs.

Despite agreement from both governments on the motorway route in the 2009 Treaty, and the completion of construction on several road sections, the project remains uncertain. This has led the Austrian Government to develop a phased project implementation for the A5, of which a phased A5 without any connection to the Czech border at Mikulov, is under construction.

There has been a lack of appropriate and coordinated planning of the project in both Member States. Deficiencies in project promotion are numerous and conflict with the EU guidelines for TEN-T development, the EIA Directive (alternatives and transboundary assessment) and the EU Habitats and Birds Directives (alternatives)¹⁵.

- The early phase of strategic project planning was not conducted on a sound basis. The 1999 negotiations that selected the border crossing at Mikulov did not use objective criteria for optimal network design and assessment of alternatives. No conclusive evidence for the necessity and financial feasibility of the project (and its alternatives) has been produced, and doubts about the financial feasibility of the project remain. Expert studies commissioned by the Czech Roads and Motorways Directorate in 2006 and 2008 confirmed that the Brno-Vienna connection has insufficient traffic intensity to be economically viable in any of the proposed variants. Despite this lack of evidence, construction was planned, apparently due to

¹⁵ REGULATION (EU) No 1315/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (22). Projects of common interest for which Union funding is sought should be the subject of a socio-economic cost-benefit analysis based on a recognised methodology, taking into account the relevant social, economic, climate-related and environmental benefits and costs. The analysis of climate-related and environmental costs and benefits should be based on the environmental impact assessment carried out pursuant to Directive 2011/92/EU of the European Parliament and of the Council (1).

the lobbying of land owners around the planned construction site. Prime minister at that time stated in the Czech parliament in June 2009: ‘A decision on the motorway you are asking about was taken by the government on the 9th of June this year after very complicated negotiations. At the end, both lobby groups will be satisfied. First, the one which has bought land under Mikulov as well as the second that bought land under Breclav.’

- The Czech Supreme Audit Office has strongly questioned the proceedings that promoted the project, given the lack of evidence of economic feasibility. The environmental impact of the plan was not assessed in a SEA procedure pursuant to the SEA Directive. In the Czech Republic, the EIA final opinion was issued prior to approval of the land use plan. Although not directly breaching the EC law, this confuses the logical order of the SEA and EIA procedures¹⁶. In Austria, no SEA took place, and there has been a lack of EIA for real route alternatives, despite the fact that such alternatives exist and the chosen option will generate excessive traffic in a Natura 2000 and Unesco World Heritage Site. An alternative to the Drasenhofen/Mikulov border crossing is Reintal/Breclav, using the existing D2 motorway and building a link to the Austrian border near Breclav.
- Both Member States need to coordinate their planning and assess the alternatives for connecting the A5 motorway to the Czech Republic. The current approach of slicing the EIA and permit proceedings into several sections contradicts the EIA Directive.

Environmental concerns were raised by NGOs in both the Czech Republic and Austria, as the planned route crosses a Natura 2000 site in the Czech Republic (Special Protection Area Pálava and Nové Mlýny (Bird Habitat Areas and Nature Reserve) and priority Site of Community Interest (pSCI) Pálava-Podluzí) which could be threatened by the construction of the R52 motorway between Pohorelice and Mikulov. NGOs appealed against the permits for the A5 (AT) as well as the R52 (CZ), citing the splitting up of the EIA and permits in different road sections, lack of assessment of route alternatives, lack of trans-border assessment and conflicts with the Birds and Habitat Directives. Despite public consultation, an EIA appeal and a nature protection appeal have been submitted to the Commission.

A major complaint against the EIA permit for the A5 Northern National Highway project in Austria is based on (*Justice and Environment, 2013*) ‘**salami-slicing**’, whereby the construction of the A5 was planned in three sections, each of which underwent a separate EIA procedure (contrary to the EIA Directive requirement to carry out EIA for the whole project). The EIA proceedings were carried out on one section of the A5 Northern National Highway, so the assessments of harmful air pollutants, emissions etc. referred only to territorial limited effects of the whole project.

Other complaints are based on:

- **Climate Change** considerations have not been adequately assessed within the EIA, with no serious evaluation of alternatives. The first instance authority did not adequately evaluate the likely impacts of the project on climate, providing only superficial and inconsistent assessments like ‘climate change effects remain low’ or ‘limited climatic impacts are restricted to the area around the traces’.
- **Effective access to justice.** The Austrian EIA Act provides for a different procedure for high-speed railway lines and motorways. Under this procedure, appeals go to the Administrative Court, which acts according to different procedural rules than the Independent Environmental Tribunal (the second instance for all other EIA procedures). Lodging a complaint with the Administrative Court does not guarantee suspension of works, as was the case here (cp. VwGH 08.06.2010, 2010/06/0001 – 11).
- Since approval of the ‘*EIA opinion*’ in 2005, administrative procedures for the required permits for the R52 road have started. However, apart from three decisions on exceptions from

¹⁶ The routing plan was approved before the SEA Directive entered in force in 2011.

conditions for protected species (one later cancelled by the courts), no valid permit has been issued. In the meantime, two regional and two local land use plans in which the R52 road had been included, have been annulled by the courts (*Justice and Environment, 2013*).

Complaints against the permits for the R52 (Pohorelice-Mikulov) high-speed road project in the Czech Republic are based on (*Justice and Environment, 2013*):

- **Failure to assess all aspects of the project, especially its indirect effects (Article 3 of the EIA Directive) and cumulative impacts.** The impact of the road construction and resulting traffic on the overburdened area southwest of Brno has not been assessed, nor have the impacts of the project been assessed in combination with the impacts of the other traffic structures (high-speed road R43 and extension of the D1 motorway). Heavier traffic interference on the Lednice-Valtice UNESCO cultural heritage area as a result of building R 52 has not been considered. This is contrary to Articles 3(5) and Annex IV of the EIA Directive, under which the assessment must identify, describe and assess in an appropriate manner, both the direct and indirect effects of a project on human beings, fauna, flora, soil, water, etc.
- **Failure to assess alternatives (Article 5(1) and 5(3) of the EIA Directive).** In the EIA process, while partial 'sub-variants' (all in Pohorelice-Mikulov corridor) have been assessed, there was no assessment of a real alternative for a highway type connection between Brno and Vienna. This is contrary to Article 5, paragraphs 1 and 3 and point 2 Annex IV of the EIA Directive (especially in relation with interference with Natura 2000 areas).
- **No trans-border assessment (Article 7 of the EIA Directive).** As the R52 forms part of the Brno-Vienna connection, the project must have, in the sense of Article 7 paragraph 1 of the Directive, a significant effect on the environment of a neighbouring Member State – Austria. The Czech Ministry of Environment, however, did not carry out a trans-border assessment and did not comply with the requirements of the EIA Directive on trans-border projects (e.g. Article 7, §3 and §4).
- **‘Salami-slicing’ of the project.** For the purposes of development consent procedures, the R52 (its whole length is 22.5 km) was divided into three sections. The practice of ‘salami-slicing’ aims to get development consent for less problematic sections of the project (and begin construction work), thereby securing consent for the more problematic section.
- **Conflict with the Birds Directive and Habitats Directive.** No real alternatives for a highway type connection between Brno and Vienna were assessed in the EIA process for R52. This is significant, given that the R52 would affect SCI Musovsky luh and the bird habitat areas of Pálava and Nové Mlyny. Non-assessment of the alternatives represents a breach of Article 6 paragraphs 2, 3 and 4 of the Habitats Directive and Article 4 §4 of the Birds Directive, under which a project with negative implications for Natura 2000 sites can only be carried out in the absence of alternative solutions with less of an impact on these sites.
- **Non-cohesion of SEA and EIA processes and conflict with the SEA Directive.** The construction of the R52 corridor was included in the land use plan for the Breclav region, approved in November 2006 and later annulled by court. By issuing the EIA opinion for R52 before the land use plan was approved, the Ministry of Environment undermined the logical order of these two procedures, with the result that real alternatives for a highway connecting Vienna and Brno were not assessed in any of these plans. In the SEA procedure, the authorities argued that the ‘positive’ EIA opinion removed the need to assess alternatives.

Legal decisions on the permit proceedings for the project have revealed structural flaws, finding that several key areas of EIA received insufficient attention. The inadequacies were most marked in the evaluation of key impacts, consideration of alternatives, and public consultation.

The project is a typical example of **earlier ‘decided policy options’** (whereby the route was included in the regional land use plan at the start of the TEN-T project) being used in permitting procedures,

while legal procedures have meanwhile undergone changes. The plan was not subject to an SEA, as it became legally binding before the SEA Directive (Directive 2011/42/EC) entered into force. This meant that the ‘decided-policy’ was investigated at project level (EIA), but **alternative solutions** that would now be assessed at a more strategic level, **were possibly neglected**.

The EIA process for the R52 section formally started before the accession of the Czech Republic to the EU, with the ‘announcement of the project’ on 29 January 2003 and accession of the Czech Republic to the EU on 1 May 2004). Decisions on routing and selection of alternatives were made even earlier than that. Court appeals against the decisions are based, therefore, on the SEA and EIA Directives and the Birds and Habitats Directive, which apply to the project. Given that the EIA started before accession to the EU, the routing alternatives for the project should have been assessed by both countries in the 2005 EIA 2005 and the conclusions on the best possible routing incorporated into the 2006 land use plan.

From a technical point of view, the project development has been relatively successful, albeit with some lessons to learn. There is a particular need for early and transparent public participation, assessment of alternatives and a clear project definition prior to the project decision. A technical guideline, including detailed examples of good coordination and integration practices for design and assessments of cross-border river works, would be very useful for projects of this type.

Development consent procedures for main road projects are fundamentally different in the Czech Republic and Austria. In the Czech Republic the development consent procedure consists of four main steps: EIA final statement - land use permit - building permit - final operation approval. By contrast, in Austria, no SEA-procedure applies to Federal Roads, and the detailed project design is followed by the EIA road approval. For this project, therefore, there was no SEA procedure nor any assessment of economic needs and alternatives to the A5 Motorway. While the procedure was completely in line with both EU and national legislation, it contributed to problems later in the process.

The construction permitting procedure for Federal Roads has, as a consolidated development consent procedure, proven very successful in Austria. The major advantage is the consolidation of permit proceedings where the applicant submits to one overall proceeding for an EIA permit comprising all relevant project permits. This is efficient for all parties. The First Part of the concentrated Approval Procedure (for which the competent authority is the Federal Minister for Transport, Innovation and Technology (Article 24(1) and 2 of the EIA Act)) comprises environmental compatibility under the EIA Act, specification of the alignment under the Federal Roads Act, approval of forest related work under the Forest Act, approval under the Road Tunnel Safety Act, and approval under the Water Act. The Second Part of the Concentrated Approval Procedure (Provincial Government) comprises approval under the Nature Conservation Act, approval for secondary road crossing under the Provincial Road Acts, and additional permissions required by regional law.

The scope of cross-border cooperation between neighbouring countries goes beyond agreeing threshold criteria and the point at which the road will cross the border. It should be viewed as a cooperative venture, specified in terms of intended recipients, timeliness, frequency, content, format and delivery. Formal supporting agreements, regular reviewing, coordination of procedural steps, debriefing, and exchange visits are important in smooth implementation of projects.

There were **difficulties with the transboundary assessment (EIA)**. The Vienna-Brno highway has two national parts, each of which has a significant effect on the environment of both Member states. According to Article 7 of the EIA Directive and the Espoo Convention, each of these parts should have been subject to a trans-border assessment. This requirement, however, was not fulfilled. In the Czech case, no such assessment was required of the project promoter, despite the fact that, in the initial (screening) stage of the EIA procedure, the Austrian Ministry indicated its willingness to participate, and Austrian administrative bodies, municipalities, and NGOs all sent their comments. On

the Austrian side, only one of six EIA permit proceedings, dealing with the section of the project closest to the border, was officially reported to the Czech Republic, at which point the Czech Ministry expressed its wish to participate. Austria sent the project documentation to the Czech Republic, but only in German, thus the project was not presented to the public in the Czech Republic, as required by Article 7(3) of the EIA Directive (Justice & Environment, 2006).

In completing transboundary assessments in cross-border Member States, translation of official documents is complex, open to legal uncertainty (quality of translations) and costly, according to the project promoter. In practice, EIA reports are often a few hundred to a thousand pages, or more.

In addition to deficiencies in the strategic project assessment, management of the project (transboundary assessment, translations, public involvement), would have been more efficient if a cross-border company (EEIG or similar) had been established. The **cross-border coordination** in this case was implemented through ‘bilateral working groups’ that met and informed each other on a regular basis.

Problems with procurement - tendering procedures

In Austria, for sections of the A5 North project a ‘Functional Tender’ procurement was originally applied. This is a type of PPP-procedure for complete project realisation (design-build-maintenance), based on a functional specification of measures describing the objectives and performance of the project, as well as the technical, organisational, financial and legal framework conditions. In order to take advantage of the creativity and technical experience of the applicants, no fixed solutions for the implementation are given. **This procedure received insufficient interest from applicants and was abandoned**, most likely because of the high financial risks for contractors.

Good practices in the project were:

- EIA permit proceedings for Federal Road projects are more consolidated in Austria than in other EU countries. The Austrian **EIA Act** (*Umweltverträglichkeitsprüfungsgesetz, UVP-G*) is at the same time both the environmental and construction permitting procedure. It determines in its Article 3 that all acts that contain conditions for the permitting of a project must be applied and decided on during the single EIA proceeding (**consolidated development consent procedure**). The outcome is thus one single permit decision covering all relevant permitting issues for a specific project, including the construction permit. Construction activities may therefore begin immediately after it has been issued. This construction permitting procedure has proved very successful in Austria and is very well received by all stakeholders, particularly for its efficiency. These concentrated permit proceedings are an example of good practice. Even with this time-saving procedure, the approval process for large infrastructure projects in Austria is still considered too long by the project promoter, due to the complexity of procedures and legal uncertainty. In the specific case of the A5 North, the EIA permitting procedure took five years. The change in the procedure (to phased project A5 North A and B), in response to the procedural situation in the Czech Republic, took an additional two years.
- In Austria, provincial authorities, or districts, were **involved at an early stage of the EIA**.

8.4 CONCLUSIONS

Transport planning should be based on objective criteria of goal setting, optimal network design and planning assessment. These aspects were seriously neglected in the strategic phase of this project. Early planning, in order to avoid vague project motivations, should include cost-benefit estimations and assessments of alternatives. The use of harmonised standard models and methods for strategic assessment of transport plans should become a condition for co-funding of TEN-T projects.

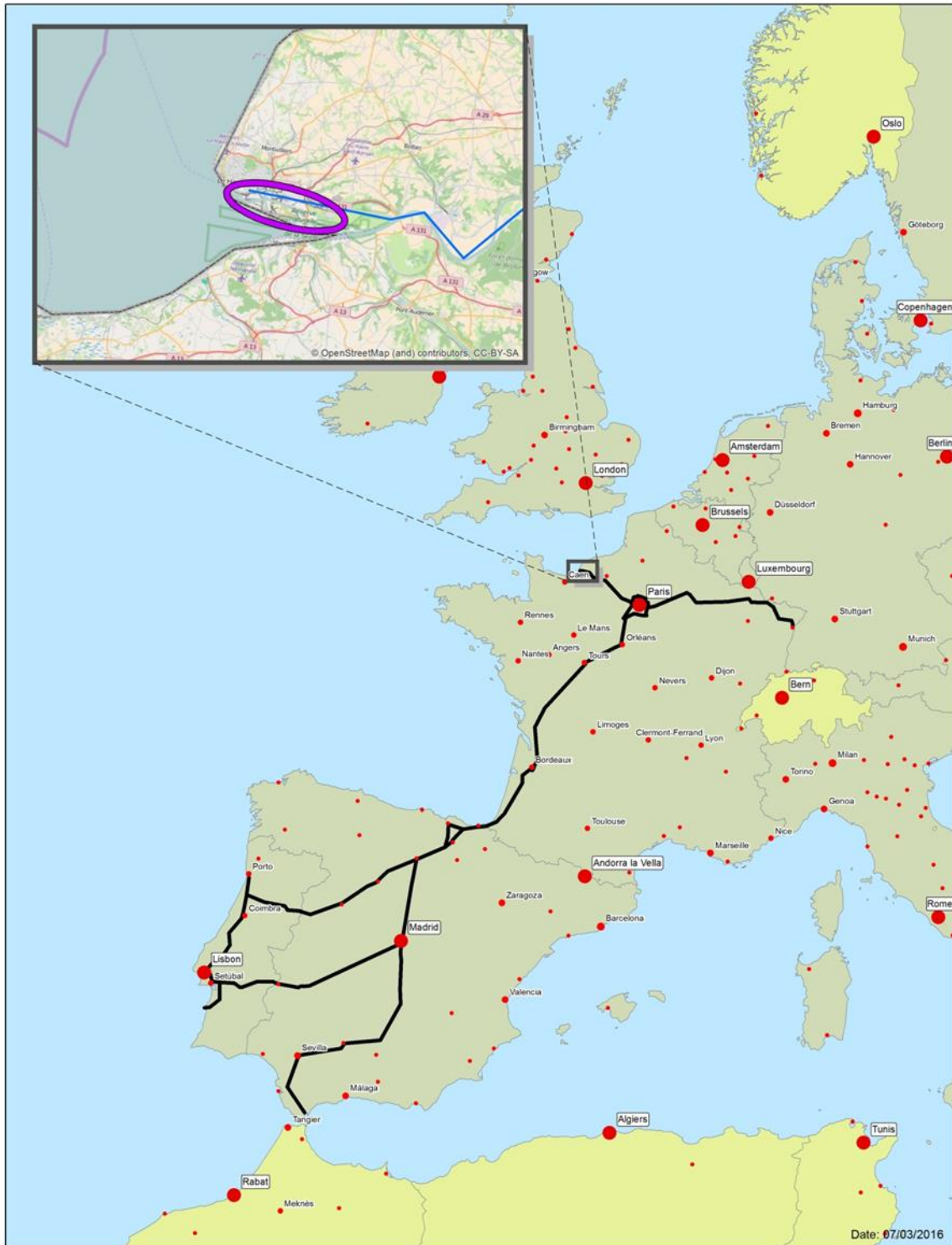
Projects can be very sensitive to rapidly changing policy and planning contexts. Here, a lack of stable

and consolidated legislation (new relevant legislation came into force after the plan started, changing policy context after the accession of the Czech Republic to the EU) created legal uncertainty. The project is a typical example of earlier 'decided-policy options' (where the routing was included in the regional land use plan at the start of the TEN-T project) being used permitting procedures, despite legal procedures having undergone changes. The project promoter should have been given the opportunity to conduct an assessment of routing alternatives as part of the EIA (2005), before the chosen routing was included in the land use plan, especially taking into account the growing public opposition at that time. Projects that are introduced for TEN-T co-funding should show proof of maturity in clear goal-setting and preliminary scoping of alternatives.

Public consultation should invite comments from interested parties before formal plans are finalised, as well as throughout the process. This would improve decisions and broaden the range of possible alternatives. A further problem here was the lack of scoping/assessment of potential impacts of alternative routings on protected areas (Natura 2000, Unesco World Heritage sites) in the early planning phase.

9 CASE LE HAVRE PORT 2000

Le Havre 2000



9.1 PROJECT DESCRIPTION

Port 2000 is an expansion project for Le Havre Port, integrated into a Natura 2000 estuary. It is a core network project on the TEN-T Atlantic corridor.

The main focus of this case study is the TEN-T project 2012-FR-91069-P, related to the connection of the multimodal terminal:

- To the port rail network, and thus to the national rail network, by electrified rail link, accepting trains of up to 1,000 metres in length.
- To the large gauge waterway system by a quay capable of simultaneously berthing two pushed convoys 200m long (5,000 tonnes).

This project, which started in 2013, was funded by the TEN-T programme 2007-2013, and is part of a global project to develop a multimodal platform- industrial collection/distribution system - for the port of Le Havre, designed to develop the performance of mass overland transport modes of containers in order to increase their modal share and expand the hinterland of the port. The multimodal project, which covers an area of 60 hectares, will increase the productivity of the transport chain for rail and waterway modes in Le Havre¹⁷.

The total budget for the project (development of the whole multimodal platform) was EUR 137 million. The TEN-T subsidies (10% of EUR 24 million) were only used for a part of the project, namely the railway and inland waterways' connections. This TEN-T project was completed in April 2015. The connections will not be fully operational until Spring 2016 due to organisation problems with the IT system.

In addition, the case study also refers to, where relevant to understand the context, past infrastructure developments in the port of Le Havre, and in particular the construction of Port 2000. Port 2000 was built in two phases (2002-2006 for the main works and 2007-2011 where three additional terminals were built. See timeline below). The first phase of the works received €49.5 million in European funding, mostly from the ERDF (47 million), complemented by TEN-T (€2.5 million) and Life-Nature (€0.5 million) funding. In addition, the EIB granted €140 million to the project¹⁸. The construction of Port 2000 has essentially been covered in this case studies as regards the compensation measures taken in the Natura 2000 area.

9.2 TIMELINE – KEY MILESTONES

1995

- The French President called the extension of the shipping capacities of the Port of Le Havre for container traffic a *Project of major public interest*.

2002-2005

- In January 2002, dredging and dike construction works started and were completed mid-2005. The principal works included dredging approximately 50 million m³ of gravel and sand, and the realisation of 10 km of dikes, including two caissons on both sides of the entrance of the new port. A global sediment management plan, including beneficial use of dredged materials, was applied to the project.

2006

¹⁷ Information on Project 2012-FR-91069-P is available on the website of INEA: <https://ec.europa.eu/inea/en/ten-t/ten-t-projects/projects-by-country/france/2012-fr-91069-p>

¹⁸ European Commission, Press release IP/06/405, Community aid for Le Havre port modernisation, 30 March 2006.

- In 2006, a new basin called *Port 2000* was opened, making Le Havre the first French port for containers. The first berths have an allowable draught for vessels of 14.5m in all tidal conditions and back-up areas with an average depth of 500m.

2007

- In the summer of 2007, the second phase of Port 2000 started, with the construction of 2,100m of additional quay. These were handed over in 2011, giving Port 2000 three terminals:
 - The Terminal de France, operating since 2006, now equipped with three berths totalling 1,050m of quay.
 - The *Terminal Porte Océane* (TPO) operating since late 2007, equipped with two 350m berths or 700m of quay in total.
 - The TNMSC terminal, operating since 2012, equipped with four berths i.e. 1,400m of quay.

2008-2009

- In early 2008 the French government announced a stimulus package to improve the performance and competitiveness of major French ports and allow them to take advantage of the significant development in international sea trade. A wide consultation then took place between the Government and all trade unions and professional organisations.
- On 4 July 2008 a law was adopted, under which several decrees were issued on 9 October 2008. The *Grands Ports Maritimes* (Major Seaports) then replaced the *Ports Autonomes* (Independent Port Authorities).
- In early 2009 the governance of the port authority was radically modernised to better meet the challenges of large ports. A Supervisory Board, Port Development Board and Management Board were created, with responsibility for strategic projects and setting priorities for the years to come.

Traffic from Port 2000 is hindered by the lack of a direct waterway link between the basin and the canal of Tancarville North of the port. Connections from the port to the canal and the Seine were carried either by sea (North and South routes) on specially designed inland waterway vessels which can navigate on the sea over short distances, or with the help of a rail shuttle. A multimodal terminal is required, which will also be able to improve railway connectivity to Port 2000

- In 2012, the TEN-T project - concerning the rail and river connections for the Havre multimodal platform was established.
- In March 2013 the project started on time and was expected to reach its objectives and results as planned.

Key project milestones	Original planning/timing	Real or currently estimated planning
Start planning Port 2000	1994	1994
Condemnation by ECJ for insufficient habitat protection	1996	-
Beginning of Port 2000 construction	1996	2000
End of construction Port 2000	2000	2005
Launch TEN-T project "Development multi-modal platform (rail and river connections)"	2012	2012
Start TEN-T project	2013	2013
Completion TEN-T project	2015	2015
Operationalization connections TEN-T project	2016	2016

The planning of the specific TEN-T project was realistic. The delays arising at that time and from that dispute do not seem abnormal, considering the long-running dispute between the EC and France, on the obligation to designate large parts of the Seine estuary as SPA lying behind the planning of the

Port 2000 project at Le Havre in the mouth of the Seine estuary. Nowadays, these issues can be better taken into account in the planning.

9.3 ANALYSIS

Obstacles encountered during the realisation phase of the TEN-T Corridor project Port 2000 are described below.

The permitting phase lasted longer than expected because:

- All of the works (total multimodal platform and connection works) were permitted at the same time, which took nine months longer than originally expected.
- The site is situated next to a Natura 2000 area. Although a comprehensive impact assessment was completed, the Port was asked by the French authority to improve the impact assessment study for protected species and Natura 2000 aspects to ensure there would be no negative impact on the natural reserve.

Behind the planning of Port 2000 lies a long-running dispute between EC and France on the obligation to designate large parts of the Seine estuary as a Special Protection Area (SPA)¹⁹. The EC considered France to have reserved too large an area for future industrial development and not enough for conservation purposes. In spite of a significant extension of the SPA of 17,320 ha in 1997, France was mandated by the CJEU to present better propositions in March 1999. The Court concluded that, particularly with respect to the extension of the port of Le Havre, France had given too much weight to economic aspects and too little to other considerations. The port impact on the estuary is undoubtedly significant. During the development of the project, the impact of the new port infrastructures led to the adoption of environmental compensatory measures under the Birds and Habitats Directives - due largely to the pressure from NGOs and the EC - including ecological options and engineering operations such as the construction of artificial islands for birds and marine mammals, the preservation of an important biodiversity site and the restoration of mud-flats.

This case shows the impact of the lack of early environmental planning on the delivery of infrastructure projects. Reference should be made here to the historical background to the lack of protection of the Seine Estuary. The Port of Le Havre is situated on the mouth of the Seine estuary. Plans for massive port expansion started in 1994, including the compensation measure of identifying a large new SPA. This did not, however, compensate for the valuable habitat zones that would disappear due to the port developments. The plan also failed to propose adequate measures to protect species in the Natura 2000 area. The scheme was therefore rejected by the Commission. French authorities subsequently decided to develop an integral ecological management plan for the estuary, resulting in the development of compensatory measures under Article 6(4) of the Habitats Directive. An agreement was concluded with the EC on the ideal site for the birds, together with its preservation and protection through legal measures. Restoration measures for the estuary are now under the supervision of a Scientific Committee.

The port had to assess the impact on the species protected by the Natura 2000 site. The evolution of these species, however, were also dependent on external factors (especially for migrating species) and the port found it difficult to define appropriate compensatory measures that would have sufficient influence.

Key success factors in this TEN-T project Le Havre Port 2000 were:

The Port did not submit its proposal for CEF support until after it had received permission for the project (including stakeholder consultations). It therefore scored well on the criterion

¹⁹ SPAs are sites established throughout the EU under the Birds Directive. These sites are part of the Natura 2000 network and provide conservation measures for European species and habitats of particular importance.

maturity and no court cases or claims took place.

Before and during the TEN-T procedure, the project promoter maintained regular **contact with the EC (DG Move, DG Environment and INEA) in order to stay informed and better understand** the requirements, as well as to directly report problems. Participating in TEN-T days and consulting the information documents from DG Move and INEA were viewed as very useful.

The Port undertook a **survey of EU legislation in order to avoid conflicts between national and EU legislation**. This allowed the Port to follow EU legislative procedure and anticipate upcoming legislation. While the French government has not yet transposed all EU law on the Marine Environment into national legislation, the Port of Le Havre is obtaining more information to be prepared.

In early 2009, a **new governance structure - the Supervisory Board, the Port Development Board, and the Management Board – was created**. This ensured a continuous focus on economic, commercial and environmental goals. The Development Board is a new body comprising all the economic, social and collective actors, including territorial authorities and approved environmental protection associations, who are consulted on strategic and structural projects.

The Port Authority has made efforts to build a permanent dialogue with EU services. Two people are designated liaisons with the different EU authorities. The Port Authorities within the Seine regions (Rouen, Le Havre and Paris) are also represented in Brussels to strengthen the relationships with the EU institutions. The Port Authority is convinced that permanent dialogue facilitates the implementation of the project.

Stakeholder consultation and involvement was handled well in this case. In the reports submitted to DG Environment - in the context of the environmental assessment - the Port Authority described stakeholder meetings and input, thereby creating an official report of every meeting with stakeholders. The port also finds open or informal discussions with representatives of different associations very useful. The creation of the Development Board helped with stakeholder consultations, as NGOs and different representatives of port activities are also members of that Board.

The EU Maritime Spatial Planning (MSP) Directive

In July 2014, the EU adopted the Maritime Spatial Planning Directive, which then came into force in September 2014. It created the world's first legal requirement for countries to create transparent planning-at-sea systems and to cooperate with their neighbours to make that happen.

EU countries are now required to transpose the Directive into national legislation and appoint competent authorities by 2016. The implementation of MSP in Member States' jurisdictional waters must be achieved by March 2021.

The Directive focuses on four objectives linked to the legal bases (environment, fisheries, maritime transport and energy). Member States can add additional sectors. This ensures that all activities are equally covered and that all stakeholders' interests are considered. The Directive does not impose planning details or management objectives, which should be decided by Member States. However, it requires that MSP is implemented in all EU waters and facilitates cross-border cooperation. This will be achieved through common minimum requirements and timeframes.

The duration of the planning and preparation phase of the TEN-T project - concerning the rail and river connections for the Havre multimodal platform - was initially estimated at two years. The TEN-T project was completed in April 2015, nearly one year later than expected. The project preparation studies of the TEN-T project were carried out in-house and did not affect the global project budget.

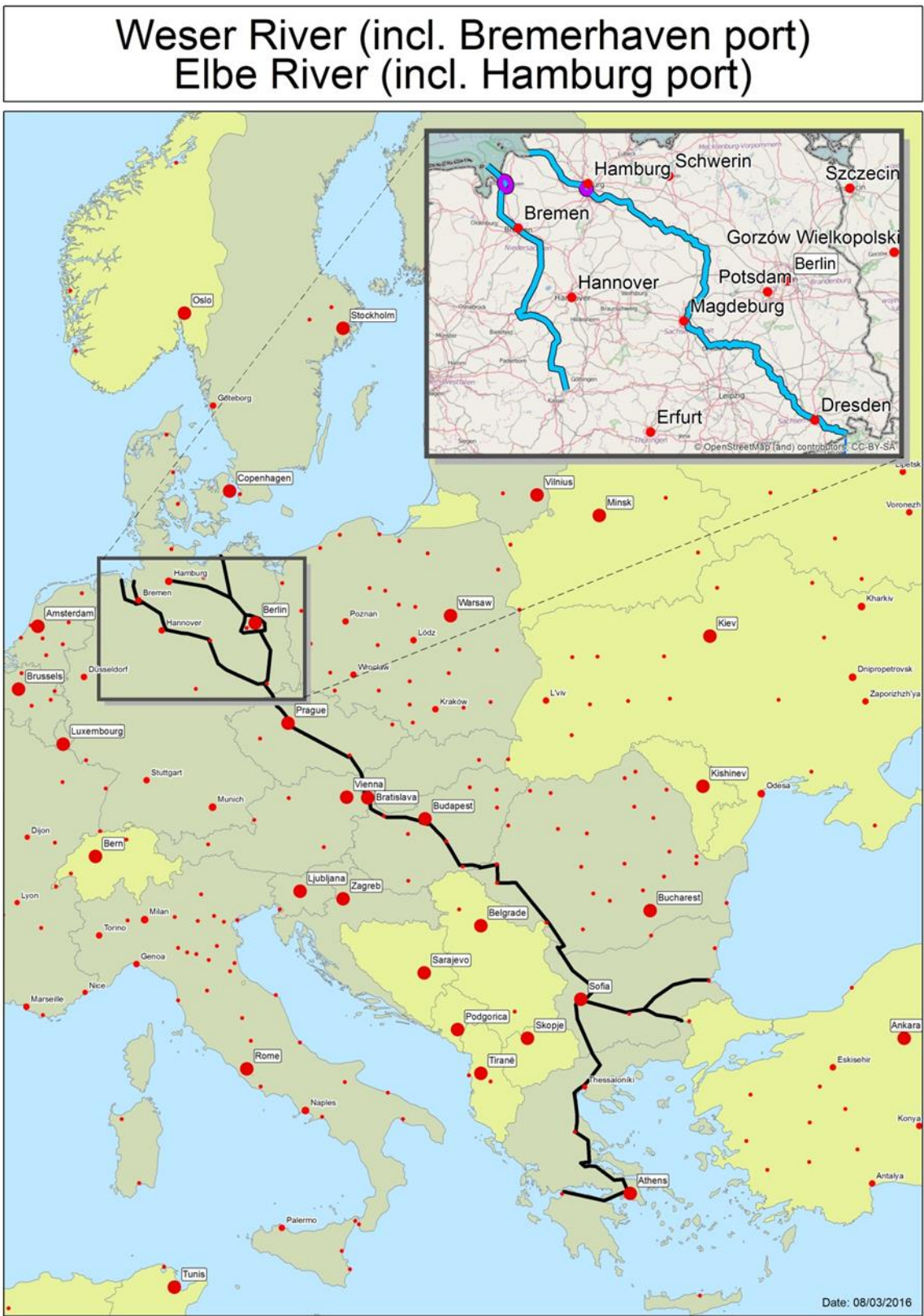
9.4 CONCLUSIONS

This development of Port 2000 demonstrates the importance of having an early public debate and multidisciplinary studies, but also the substantial aspects of complying with the Birds and Habitats Directives in the early phase and having a sound environmental management and planning of these areas.

Regular contact with the funding entities of the EC, in order to gather information and better understand requirements, can facilitate the project process. This proved an advantage in this TEN-T project, as did proactively examining the existing applicable legislations and monitoring new upcoming legislations, to anticipate legal issues and changes.

As evidenced here, the creation of a project-specific and well-functioning governance structure by the project promoter is invaluable for successful project set-up and follow-up.

10 CASE WESER RIVER, INCLUDING BREMEN AND BREMERHAVEN PORT ACCESSES, AND ELBE RIVER, INCLUDING HAMBURG PORT ACCESS



10.1 PROJECT DESCRIPTION

Permits are required for several of the actions and projects related to the deepening of the Weser and Elbe Rivers and the hinterland connections and expansions of the ports of Hamburg and Bremen-Bremerhaven – both core network projects on the North-Sea Baltic, Scandinavian and Orient East-Med Corridors.

The main project for the Port of Hamburg is the deepening of the Elbe, launched in 2002 and still ongoing. The growth plans for the port are constrained by a scarcity of land, requiring ongoing discussions about land use. The Port of Hamburg has many (potential) projects in the pipeline (e.g. the construction of two new terminals, replacement bridges, railway projects, investments in inland waterway hinterland connections).

The Weser deepening project started in 2000. It was given highest priority in the national transport development plan in 2003, and granted permission with the right of immediate dredging from 2011. To-date, 16 years after the project started, court proceedings are ongoing before the Federal Court of Justice and the CJEU.

In the Bremen port area more specifically, TEN-T co-funded infrastructure projects are also ongoing:

- Investment in a new working vessel.
- One railway project to upgrade the rail terminal in Bremerhaven, with extension and electrification of railway tracks at Kaiserhafen.

The Elbe River is one of the major waterways in Europe, with its lowermost part, the Lower Elbe, of particular economic importance. Hamburg is the biggest metropolitan area along the river and its port is the second biggest in Europe, the 14th biggest worldwide. The port of Hamburg is more than 100 km away from the mouth of the Elbe River into the North Sea, with the increasing amount and size of ships destined for Hamburg putting pressure on the river. Several artificial deepening steps have been undertaken, with another planned in 2002. It was, however, temporarily stopped after opposition by nature conservation associations.

The Weser River has been deepened several times. The increased flow velocity and tidal range, however, eroded the riverbed, requiring regulation by artificial weirs and dykes. Since then, both the Lower Weser from Bremen to Bremerhaven, and the river mouth to the North Sea, the so called Outer Weser, have been dredged several times to improve navigability. Currently, another deepening, an ‘adaptation of the Weser channel to developments in shipping traffic’ is planned (WSV 2011), although this has been challenged before the Federal Administrative Court on the grounds of the environmental consequences of dredging and an altered flow regime. The case has been referred to the CJEU to interpret the Water Framework Directive.

10.2 TIMELINE – KEY MILESTONES

2000 - 2002

- In 2000, the decision was taken to deepen the Weser River.
- In 2002, the decision was taken to deepen the Elbe River.

- **2015 - 2016**The CJEU decision in case C-461/13 in 2015 could hinder expansion at the German ports of Bremen and Hamburg.
- As of 2016, neither deepening project has started.

Key project milestones	Original planning/timing	Real or currently estimated planning
Launch "Weser deepening project"	2000	2000
Status of "Highest priority in national transport development plan"	2003	2003
Permission immediate dredging for further deepening	2007-2009	2011
Court proceedings initiated against the Plan Approval notice - German Federal Administrative Court	2012	-
CJEU decision in case C-461/13	2014	2015-2016
Start dredging works	2016	2018 (or later)
Launch "Elbe deepening project" - application for further adaptation of the "Lower and Outer Elbe shipping Channel"	2002	2002
A set of feasibility studies (technical feasibility, environmental risk study, economic CBA)	2003-2004	2003-2004
Preliminary consent (German Federal Government) to the Development Plan	2004	2004
Start preparation Plan approval procedure / EIA	2006	2006
Objections in the framework of the Plan Approval/EIA	2007	2007-2010
German State Lower Saxony approval deepening Elbe river	2008	2012
Court proceedings initiated against the Plan Approval Notice - German Federal Administrative Court	2012	-
Ruling German Federal Administrative Court against the deepening of the Elbe (suspension of the deepening plans)	2013	2014
CJEU decision in case C-461/13 (cf. Weser river)	2014	2015-2016
Start dredging works	2016	2018 (or later)

The originally planned deepening (early 2000s) of the Weser and Elbe were not unrealistic, especially when the previous deepening actions are taken into account. It is indeed likely that the work will start only after 2018.

10.3 ANALYSIS

Stakeholders involved in port infrastructure projects in Germany reported struggling with the **large number of (environmental) regulations** that sees different local and regional environmental authorisations required. According to these stakeholders, European environmental regulations, particularly the WFD, are considered difficult to comply with when designing and implementing an infrastructure project.

The deepening of the Elbe project demonstrates the biggest concern of the Hamburg Port Authority with regard to authorisation procedures and processes for its infrastructure projects.

The Elbe has been deepened eight times before, with this planned deepening being discussed for more than 10 years. Stakeholders reported that the documents required for the former deepening actions counted only a few hundred pages, while planning of port infrastructures now requires documents (for EU and national agencies) of up to several thousand pages. This higher administrative burden – reflecting the increasing demands of environmental legislation and new environmental standards - increases the planning costs for promoters.

This case highlights the challenges arising from the EU legislation and its implementation at national level. A legal case is pending, having been brought before the Federal Administrative Court in Leipzig and the CJEU case C-461/13. The 2012 approval/planning decision of the city of Hamburg has been challenged by environmental organisations/NGOs, who argue that any detrimental change to a body of water, even without a change of status class, constitutes deterioration (i.e. the status quo theory) and

that the WFD obligations were not taken into account.

The port authorities emphasise that they do not have problems with the legislation itself, and that they consider compliance and solutions that are satisfactory to stakeholders to be very important. **They state that an uncertain and unclear legal framework makes the design and implementation of projects difficult, with long legal procedures and delays seeming inevitable.**

In 2002, when the decision was taken to deepen the Elbe, the economy was booming and it was hard to predict that ships entering the port would become so huge in five years. On the other hand, the economic crisis of 2007-2008 was not predicted, nor was the EU Russian embargo. Now, there are some signs that ships will become smaller again. **With these fast changing trends and economic landscapes in the port sector, planning and implementation of projects must be able to react quickly to these changes.** Responses are made difficult by the legal uncertainty created by the planning procedures of (port) infrastructure projects in Germany. This is also the case for the Weser River, whose project started in 2000. Despite being the highest priority in the national transport development plan in 2003 and receiving permission with the right of immediate dredging from 2011, it is as yet the subject of legal cases before the Federal Court of Justice and the CJEU. The Port Authority highlights that the ship dimensions for the Weser project was an 8,000 TEU container carrier. Now, however, 20,000 TEU carriers are the new market standard.

Stakeholders also drew attention to the legal uncertainty and delays associated with the WFD for important oil and gas, coal, petrochemical and renewable energy projects. In Germany, the right to legal action for environmental institutions (among others) creates considerable difficulties and delays for project promoters.

The (permitting processes of the) deepening projects of the Elbe River and the Weser River may be further delayed by a CJEU ruling of July 2015 (see box below). The consequences of this ongoing legal dispute will be unclear; as new CJEU rulings become part of the regulatory framework, the planning procedures must take into account the changing regulatory framework, again leading to delays and increased costs.

CJEU decision in case C-461/13 – impact of dredging the Elbe River and Weser River

The German ports of Hamburg and Bremen wanted to dredge rivers to make it easier for new large container ships to reach them, in response to intense competition from the ports of Rotterdam and Antwerp. Ports have argued that dredging is in the public good as it creates jobs and greater economic activity in their cities. But German environmental protection association BUND complained that a project to dredge the River Weser in Bremen would cause excessive damage to water quality and marine life.

The Federal Administrative Court in Leipzig adjourned the proceedings by the BUND and NABU environmental associations against the plan approval for dredging the lower and outer stretches of the River Elbe until the CJEU in Luxembourg reached a decision on the interpretation of the Water Framework Directive.

The 7th division of the Federal Administrative Court, which is responsible for waterways law, ruled against the expansion of the River Weser under the Water Framework Directive after objections from environmental associations. With its decision of 11 July 2013 (BVerwG 7 A 20.11), the Federal Administrative Court presented the CJEU with a range of questions concerning the Water Framework Directive's so-called prevention of deterioration and requirement for improvement (cf. press release No. 47/2013 from 11 July 2013; EuGH C-461/13).

The CJEU's decision is prejudicial to the proceedings on the dredging of the River Elbe because the referred questions can also be raised here. The referred questions' relevance to the decision is still

valid as a result of the first supplementary resolution passed on 1 October 2013. In the supplementary resolutions, the respondents have supplemented the plan approval dated 23 April 2012 with the authorisation of a precautionary exception to the management objectives for the bodies of water affected. The ‘review of assistance’ employed is not sound, however, as the criteria applied to evaluate the supposed deterioration in the state of the water are not sufficiently defined in the supplementary resolution, nor is its factually reinforced meaning presented in a comprehensible manner.

A five-day hearing took place in July 2014, at which the German Federal Waterways Engineering and Research Institute’s expert opinion was presented in respect of the plan’s effects on tide levels, flow and sedimentation rates, traffic requirements and the review of alternatives, as well as the extent to which protected animal and plant species (e.g. Elbe water dropwort, twait shad, maraena whitfish, red knot) may be affected. The 7th division also deliberated on the other points of conflict. According to its preliminary assessment, the plan approval is, indeed, burdened by various shortcomings as regards its EIA Directive and Habitats Directive assessments. These shortcomings can be addressed, however, and will not lead to the revocation of plan approval, either individually or as a whole.

The Court ruled in favour of the NGO, clarifying several definitions with respect to what constitutes deterioration within the meaning and purpose of the WFD.

The main conclusions of the Court were:

- Article 4(1)(a)(i) to (iii) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy must be interpreted as meaning that the Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the Directive.
- The concept of ‘deterioration of the status’ of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as meaning that there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the Directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. However, if the quality element concerned, within the meaning of that Annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i).

The CJEU ruled, in July 2015, that damage to water quality must be considered when authorities approve river dredging to expand ports. This could hinder expansion at the German ports of Bremen and Hamburg. A key driver of the adverse CJEU decision was an overly conservative interpretation of the WFD and the use of derogations. The EU’s highest tribunal raised the standards for the approval of port dredging projects which could harm marine life, saying more consideration must be given to the potential damage to water quality and marine life.

German courts must now make a decision on dredging project applications using the new judgment.

The European Court of Auditors (ECA) believes that there is a lack of ‘port planning’ (i.e. the planning of which goods are to be transported/imported through which ports) in Germany, and it is in favour of a redirection of goods to other foreign EU ports. However, not all ports support obligatory port planning, believing that it will hinder competition between ports. Chinese importers, for example, may choose Rotterdam instead of German ports. Germany refuses any artificial redirection of goods, believing that market forces are the adequate correctives for market failures.

While state aid is not a particular issue in this case, there is an **intense discussion around state aid in ports**. Currently, every single project needs to be notified, which takes time and money. The website of DG Com shows about 50 different case-by-case decisions on the port sector for many different

countries, with no estimated time of decisions. Given the complexity of the notification process, almost all European port authorities or other entities responsible for ports seek support from consultants for the notification process and communication with national and EU representatives and institutions. A normal project may incur costs of at least EUR 100,000 for this practice. On the basis of the ports' own experiences, notifications take a minimum of six months. Stakeholders are in favour of **clear rules/guidelines** to help them through this process.

No State aid guidelines for ports exist. An EU study 'State Aids to EU ports' - was published in December 2011 with the following recommendations:

- There are problems with the existing rules for the review of state aid for the infrastructure and/or superstructure of European seaports.
- The rules require review, or a set of guidelines in order to be adequate.

The ports' stakeholders stated the lack of guidelines results in everything being notified, in order to be certain of compliance with state aid rules.

ESPO supports the request for more clarity on state aid to port infrastructure, stating the need for:

- A pragmatic, predictable and stable environment for port authorities allowing them to develop, together with all parties involved (public authorities, private investors, etc.), a long-term strategy for port investments, thus limiting the legal uncertainty that might result from the case-by-case approach of the Commission.
- Reduced administrative burden and shorter timeframes.

The EC proposed issuing a set of state aid guidelines more than 10 years ago, however the considerable differences between European ports and port systems (e.g. public ports in France and Italy; private ports in the UK, etc.) meant that these were never created²⁰.

Frequent changes to procurement rules is not necessarily a problem. According to the port stakeholders, **the problem is that procurement decisions are often not accepted by the market players, with the custom developing of the second best bidder challenging the decision of the contracting authority.** This problem may, in some cases, be solved through negotiations and subcontractor arrangements, in itself a resource-intensive practice. Another issue is the discussion of the port package concerning procurement: the EC does not decide what must be built by private or public sector.

Port stakeholders reported that the experiences from the WFD show that all potential uncertainties in the application of the **Maritime Spatial Planning Directive** must be avoided. One such issue is the underwater noise from ships, with stakeholders stating their belief that future regulations should not impair international and short sea shipping. Shipping lines can and should adapt to new regulations but market conditions need to allow investments.

The duration of the planning and preparation phase of the last deepening project of the Elbe was initially estimated at eight years. The decision was taken in 2002 and, as of 2016, the project has not yet started, meaning a preparation time of at least 14 years. The Port of Hamburg reported that it is difficult to calculate the increase in planning costs, although it can be assumed that these costs have increased as the project duration has increased.

The duration of the planning and preparation phase of the Weser adjustment project was initially estimated at five to seven years. The project preparations started in 2000 and continue to-date, 16 years later. There was no fixed or calculated project planning budget, as much of the necessary work was done by public servants from the Water and Shipping Directorate. Many consultants were brought

²⁰ It will be difficult to find a one-size-fits-all approach. There is a difference between ports and airports (cf. the Court judgment in the Leipzig-Halle airport case where it was decided that *'the construction of airport infrastructure is an economic activity and that public funding of infrastructure necessary for the operation of the airport alleviates the costs that the airport operator would normally have to bear and therefore constitutes State aid.'*

http://europa.eu/rapid/press-release_MEMO-11-191_en.htm

in for specific topics like morphology, hydrology, bird species, fishes, reptiles, butterflies, soils, salt concentration, tidal currents, economic issues, etc., with the numbers increasing as the work grew. Expensive lawyers were necessary at later stages of the project. Currently, all of the consultants are once again working on actualisations of their studies or on in-depth analysis of specific issues. The Port of Bremen estimates the overall planning costs to-date at EUR 3 million at least.

10.4 CONCLUSIONS

The WFD brings specific constraints and adds costs to dredging projects. A recent CJEU ruling on the deepening of the River Weser in Germany determined that the concept of ‘deterioration of the status’ of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as meaning that there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the Directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. However, if the quality element concerned, within the meaning of that Annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i). Damage to water status must be considered when authorities want to approve river dredging to expand ports or upgrade navigability of rivers, which could hinder expansion at ports or rivers²¹. The effects of this legislation can delay project approval and increase costs through additional impact assessments. Of particular concern is the fact that impact assessment for ecological effects in marine waters may be very difficult, given the dynamic environment. The assessment in estuaries and the marine environment is complex, which should not necessarily be a reason to block decisions, but which could lead to further delays in the approval process.

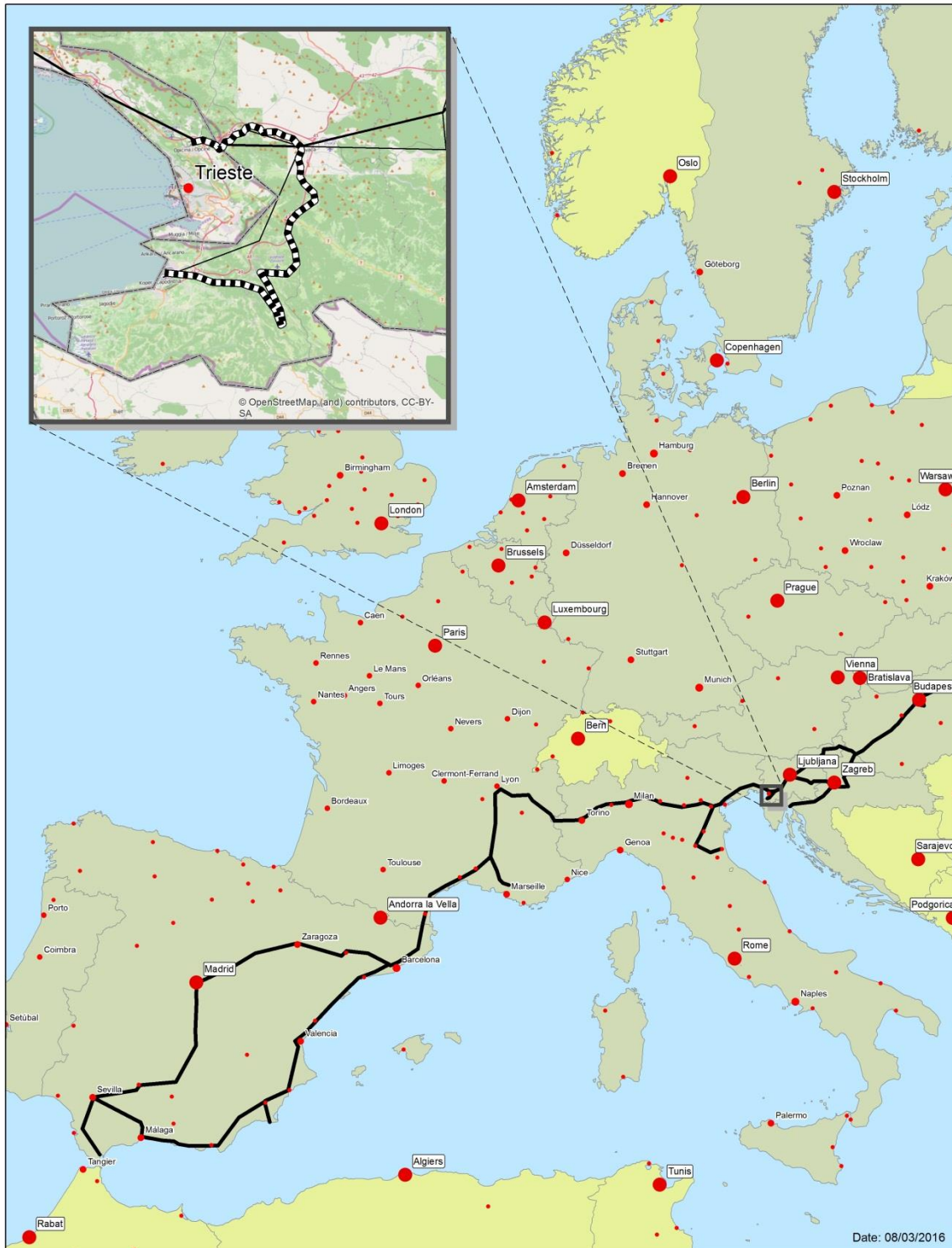
The ECA’s opinion on the lack of port planning in Germany could be investigated in more detail in the light of this study. Since not all ports are in favour of introducing obligatory port planning - because they fear losing their competitiveness – further investigation is required, as is consultation with the stakeholders concerned.

This case also demonstrates the need for port specific guidelines on state aid for financing port infrastructure.

²¹ Projects can go ahead only when there is an exemption that allows deterioration - provided certain conditions are met, i.e. the project serving a legitimate public interest such as ports and navigation.

11 PROJECT CROSS-BORDER SECTION TRIESTE-DIVACA-KOPER

Cross-border section Trieste-Divaca-Koper



11.1 PROJECT DESCRIPTION

The cross-border railway line **Trieste (IT) – Divaca (SI)** is one of the missing links on the Mediterranean Corridor (3,000 km), comprising a rail axis running from Lyon, France to the Hungarian-Ukrainian border. It passes through four Member States, France, Italy, Slovenia and Hungary. The section is 100% non-compliant with regard to the Trieste-Divaca maximum axle load. The project is part of the Baltic-Adriatic corridor.

The existing interconnection between Italy and Slovenia is a dual-track rail line though Bivio d'Aurisina (on the Venice-Trieste line) - Villa Opicina (connected with a secondary line to Trieste Campo Marzio)-Sezana-Divaca (along the Koper-Ljubljana line). The total length of this connection between Bivio d'Aurisina and Divaca is around 34 km.

- On the Italian side, the interconnection between Italy and Slovenia is a double track electrified rail line (15 km) with a maximum gradient of 15% and maximum speed of 80 km/h.
- On the Slovenian side, the 19 km long line Villa Opicina-Sezana-Divaca (along the Koper – Ljubljana line) is a double track electrified rail line, with speed limits of 75 km/h at the cross-border section (*Baltic-Adriatic Core Network Corridor Study. Draft Final Report November 2014*).

The project development envisaged a new line. At a regional level, the project is very significant, as this new line will help to relieve road freight traffic congestion through the Alpine region²².

The railway line aims to capture a significant part of the traffic through Adriatic ports, namely Trieste and Koper. On the European scale, the new line will interconnect the freight traffic originating in Portugal and Spain with that of Central and Eastern Europe, thus increasing the potential for economic growth.



Figure 2 - Figure: Railway section Trieste (IT) - Divaca (SI); [Villa Opicina (IT)-Sezana (SI)] (Source: LeighFisher Based on TENtec)

Slovenia is also planning the construction of a new railway line between its cargo port Koper and Divača. The implementation of the new **Koper-Divača** line is important to Slovenia in view of

²² Currently there are no passenger train services operated on the Italian side between Bivio d'Aurisina and Villa Opicina. The line is used by freight trains (between 15 and 20 trains daily, according to an EU SETA study).

international railway freight transport, linking the cargo port of Koper with the hinterland. Slovenia believes its sole sea port in Koper should not only be connected with the east, as envisaged by new TEN-T plans, but also with Central Europe. The modernisation of the existing rail track Koper-Divača is in the implementation phase, with works now finished. Project documentation and studies have been prepared for a second track, to be funded from the TEN-T budget. The new railway is believed necessary to maximise the transport capacity of the railway line from Koper to the junction in Divača, to increase reliability of the railway, to increase traffic safety and to shorten travel times. The standards for the core network are expected to be implemented by 2030.

11.2 TIMELINE – KEY MILESTONES

Trieste-Divaca section

2007-2016: Early developments and ongoing preparatory studies

- In 2007, at the initiative of the TEN-T Coordinator, an Intergovernmental Commission (IGC) was set up between Italy and Slovenia for the Trieste-Divaca section.
- On 17 July 2007, Italy and Slovenia signed a ‘protocol of agreement’ on the cross-border section between Trieste and Divaca, **with work scheduled to begin in 2013**.
- On 30 August 2008, the TEN-T project 2007-EU-06030-S Cross-border Railway Line Trieste/Divaca. Started. The project had a budget of EUR 101 million for a feasibility study, preliminary design, project management and coordination by EEIG, and definitive design, of which the EU contributed EUR 51 million. The project end date was stated as 31 August 2013.
- The Central European Initiative (CEI) financed a **Strategic Study for the Development of Pan-European Corridor 5 (Priority Project No 6)**. The Study evaluates the economic, social and environmental impacts of PP6, paying specific attention to a proposed new rail link between Trieste and Divaca. The Study concluded that the **social, economic and environmental benefits would significantly exceed the risks and negative impacts**.
- Between 2009 and 2011, **two alternative solutions (Coastal and Upper Corridor) were assessed**. Several years of studies and discussions were required before a routing was agreed.
- In 2010, France, Italy, Slovenia and Hungary signed a Memorandum of Understanding (MoU) at the TEN-T Days 2010, reiterating their commitment to the completion of PP6. In 2010, the Mid-Term Review (MTR) concluded that the **action could not be achieved by December 2013, indicating 31 August 2015 as a more realistic end date**.
- In 2011, the issue of the alignment of the routing was finally resolved. Beneficiaries (Italy and Slovenia) agreed on a new alignment, the so-called **Upper Corridor alignment (Aurisina/Nabrezina - Villa Opicina/Opcine – Divaca - Sezana)** known as the ‘**high corridor**’. The preliminary design for the high corridor would be developed by the new project promoter.
- In 2013, delays in the project led the Commission to revise its earlier decision to allocate nearly EUR 51 million to studies relating to the project. A revised figure of **EU funding of EUR 34.6 million** was made available for studies until the end of 2015.
- In May 2012, a **European Economic Interest Group (EEIG)** was set-up for the Trieste-Divaca corridor.
- In June 2012, the **National Spatial Plan** of Slovenia was started.
- July 2012 **saw the First Modification of the EU Co-Funding Project**. Project activities were delayed due to uncertainties on the alignment and unsatisfactory cooperation between Italy and Slovenia, requiring revision of the project schedule. Both countries presented updated implementing plan, with the following activities due by the end of December 2015:
 - Feasibility study of the high corridor required additional activity for implementation.
 - Preliminary design.
 - Project management and coordination by the EEIG required additional activity for its implementation.

- Final design.
- On 1 October 2012, the **EEIG** was set project management and supervision tasks, closing out the issues of its statutes and financial contributions which had prevented it from operating up to that point.
- In October 2012, the Preliminary Design tender was launched in Slovenia.
- In October 2012, the TEN-T action was officially modified, with the project scope and TEN-T support reduced from EUR 101.4 million to EUR 68 million.
- In May 2013 the **EEIG** was set up.
- In October 2013 the contract for preliminary design documentation in Slovenia was signed.
- During 2013 and 2014 the TEN-T Action was further delayed by difficulties in setting-up the EEIG and getting the required approvals and permits from the local authorities. It became clear that only the feasibility study (Activity 1) and the preliminary study (Activity 2) could be fully completed within the eligibility period.
- In 2014, the results of a **new transport forecast** carried out by the Italian Infrastructure Manager (RFI) and adopted by the Italian-Slovenian IGC, it became clear that there was **insufficient transport volume to build a new line**. The coordinator of the Action (EEIG Trieste-Divaca) decided:
 - To further postpone the preparation of the Definitive Design as the current traffic scenarios would justify the construction of a new fast railway line only after 2050.
 - To proceed with a study to evaluate different scenarios for **upgrading the existing line** to comply with TEN-T interoperability requirements and standards.
- In May 2014, a request for a **second modification was submitted**. The request covered the change of scope of Activity 4, with the suppression of the Definitive Design and its replacement with a Study **to evaluate different scenarios for upgrading the existing Trieste-Divaca line**. The Study would pave the way for the compliance of the existing line with the compulsory TEN-T interoperability requirements and standards. The cost of the Action was reduced from EUR 69.25 million to EUR 10.39 million, with the corresponding EU contribution reduced from EUR 34.6 million to EUR 5.2 million.
- In August 2015 the Slovenian National Spatial Plan proposal was completed and submitted in October 2015.
- In October 2015, preliminary Italian and Slovenian designs were completed.
- By the end of 2015, the study of different scenarios for upgrading the existing line was completed and is now awaiting approval. With no further financing for the EEIG, it is proposed to be dismantled.

Divaca—Koper section

1996-2016: Early developments and ongoing preparatory studies

- In 1996 the Austria Rail Engineering GmbH and SZ-Projektivno podjetje conducted an eligibility study for the Ministry of Transport and Communications, which found that the capacity of the Divaca-Koper single-track line should be increased.
- In 2005 Slovenia adopted the Decree on the National Site Plan for the second track of the single-track line on the Divaca-Koper section.
- In 2007, the Amendment of the Slovenian Decree on the National Site Plan changed from a single-track to a double-track line.
- In 2010, Italy withdrew its intention to link the second track with the port of Trieste.
- In 2014, the Slovenian Environment Agency issued a partial environmental consent.
- In 2014 Slovenia issued the Decree Amending the Decree on the National Site Plan for the Second Track of the Divaca-Koper Railway Line. The Slovenian Environment Agency issued a supplementary decision to the environmental consent, thus covering the whole route of the

new line.

2015

- In January 2015, the project design for a building permit for the construction of the entire second track on the Divaca-Koper line was submitted to the Slovenian Ministry of the Environment and Spatial Planning.
- In 2015, Slovenia adopted several decisions on future activities in respect of the implementation and financing of the project of the second track between Divaca and Koper.
- In February 2015 the Slovenian Ministry of Infrastructure submitted two applications for European co-funding to implement projects on the Divaca-Koper section.
- Slovenia appointed an inter-ministerial working group to prepare a set of public-private partnership (PPP) forms for the construction of the new rail link between Divaca and Koper.

- Also in 2015, the Slovenian Ministry of Infrastructure obtained a building permit for the construction of 1.2 km of the second track of the Divaca-Koper line, functioning as the main track of the Koper freight station.
- In 2016 Slovenia adopted several decisions on future activities in respect of the implementation and financing of the project of the second track between Divaca and Koper.

Key project milestones	Original planning/timing	Real or currently estimated planning
Trieste-Divaca section		
Feasibility Study and Preliminary design (additional railway line)	2008-2013	2008-2015
Changes in Project Definition: upgrading of existing railway line	-	2014
National Spatial Plan review	-	2015
Design for upgrade of existing line	-	2015-2016
Dismantling of EEIG	-	2016
Divaca-Koper section		
Decision on the Plan (second railway track)/National Site Plan/Environmental Consent		2005-2014
Building Permit	2015	2015
Construction	2015-2019	2015-2019

The current planning for the construction of the new second railway track, between Divača–Koper, is realistic.

11.3 ANALYSIS

The Trieste-Divaca project has fallen considerably behind schedule, as the works were originally scheduled to begin in 2013. The delay in 2011 (compared to the timing agreed between Italy and Slovenia in October 2010) was further exacerbated by the lack of cooperation between the two countries following the de facto resignation of the former Slovenian Government in September 2011. The Executive Design was, at that time, announced to start after 2015. However, in 2015, a study was carried out of different scenarios for upgrading the existing line instead of building a new line. This study was validated by the EEIG and is awaiting approval in 2016. Compared to the original planned works start date, therefore, the project is four to five years behind schedule.

Three key causes of delay in the project execution could be detected:

- Uncertainties on the demand/market forecast and economic feasibility.

- Uncertainties on the alignment. The public consultation showed negative outcomes in the region Friuli-Venezia-Giulia (IT) particularly in view of the geological and environmental impacts problems in the karst region, which could inflate the construction costs.
- Unsatisfactory cooperation between Italy and Slovenia. Nonetheless, the project is included in both governments' infrastructure plans.

The key factor in this delay is the **uncertainty about the demand/market forecast and economic feasibility**. A number of railway sections in Trieste-Divaca border region are characterised by capacity issues related to the mix between passenger and freight trains (Mediterranean Core Network Corridor Study Final report, December 2014), and congestion on the Trieste-Divaca border section is expected in the medium-long term. The planned doubling of the rail line was intended to increase the available transport capacity, and its integration with the existing network and the main trading hubs (freight, ports and airports) would allow for optimal use of the two lines.

In 2014, after six years of preliminary design study and on the basis of the results of a new transport forecast (carried out by the Italian Infrastructure Manager (RFI) and adopted by the Italian-Slovenian IGC on 29 October 2014), it became clear that there would be insufficient transport volume to build a new line. The coordinator of the TEN-T Action (EEIG Trieste-Divaca) decided to proceed with a study to evaluate different scenarios for upgrading the existing line to comply with the TEN-T interoperability requirements and standards. Specific questioning of the EEIG-members about the reason for not considering an upgrade of the existing rail track in the early (strategic planning) phase of the project, didn't reveal an unequivocal answer. *“The EEIG Italy-Slovenia was established in 2013. From this date the EEIG has rescheduled its activities also taking into consideration the delay of other infrastructure projects related to the rail corridor system, due to the lack of permits, impact on territories and little funding, which affected the uniform development of the railway line. Furthermore, in this way the EEIG is in line with the strategic guidelines of the members, which highlight the need to improve by all possible resources the actual lines, increasing their level of capacity, before build new ones”*.

A combination of decreased transport forecasts carried out by the Italian Infrastructure Manager (RFI) (2014), inflating project costs due to unexpected technical difficulties and environmental problems with the chosen routing (karst region), budgetary problems (and low funding levels) led the EEIG decide in 2014 that building a new line could only be justified after 2050.

A Strategic Study on Pan-European Corridor 5, prepared by the British consultancy Scott Wilson and financed by the CEI in 2009, analysed the economical, social and environmental impacts of PP6 and concluded that the social, economic and environmental benefits will significantly exceed the risks and negative impacts. Special attention was given to the proposed new rail link between Trieste and Divaca. The study analysed different scenario's within 3 territorial settings: local, national, whole Corridor 5).

According to the SEETAC (South East European Transport Axis Cooperation)-WP5 “Mobility Report in the SEETAC Study Area (Central European Initiative, Trieste 2012), the infrastructure development up to 2020 would generate a significant improvement of main efficiency indicators of rail SEA transport system, with major improvements of transport capacity of more than 10% along the PP6.

The development of the section appears hindered by scarce traffic figures that leave little hope for large investments in new infrastructure other than upgrading existing lines. Due to the changed transport forecasts of 2014 and the inflated project costs, it seems that the need for additional transport capacity (and a new rail track) became much less urgent and the results of both forementioned studies, actually have partly lost topical value.

The planning and appraisal phases of the project seem to have suffered from the lack of a clear transport development strategy and the absence of a clear analysis, a proper public debate or

consultation process. The Corridor 5 has been conceived as a High Speed/High Capacity railway project, hosting both heavy freight trains and high speed passenger trains through the provision of two parallel tracks in each direction. Due to the absence of compact metropolitan areas in the region, the minimum conditions to justify the realization of a HS railway corridor for passengers are not met. The project can be justified for the region, by the presence of the ports of Venice, Trieste, Koper. To be effective a railway corridor would require efficient seaports and inland terminals acting as gateways and hubs for freight flows. Although in 2007 the Italian Ministry of Infrastructure and Transport elaborated a plan for »Strategic Territorial Platforms« in the northwest and northeastern borders of Italy, as a result of political cycles and government alternations, and the economic crisis, the plan has been progressively dismissed.

This case study shows the particular need for early and transparent public participation, assessment of alternatives and a clear project definition prior to the project decision. Here, the absence of a dedicated cost-benefit analysis was a serious shortcoming in the project plan, with no measurement of economic benefits or European added value in either the early project phase or the EC co-funding application. Moreover, different interests and lack of coordination at the international level between Italy and Slovenia have continued to postpone the achievement of the project.

The EEIG's decision to change to another project alternative has important procedural consequences: the Slovenian National Spatial Plan and the preliminary design studies on the new alignment- agreed by both beneficiaries in 2011 - are no longer valid (until at least 2050). At least four years were lost between the decision on the alignment in 2011 and pre-design for upgrading in 2015.

The project faced **difficulties in the choice of route because of technical difficulties and the environmental impacts in karst geology areas**. The route for the new railway and the extreme sensitivity of the environment in the region along the route was considered by the EEIG to be the main barrier in the original project cycle, with the route under evaluation for a long time.

A number of **political/institutional issues arose in this project**, with collaboration between the two countries proving difficult. From the initial phase of definition and investigation of the alignment alternatives onwards, each of the member states showed a strong preference for one of the different alignment alternatives, depending on the possibilities to integrate the corridor with their own local-regional context (airport, ports). In the initial phase (2008-2011), before the EEIG has been established, different alignment proposals were under discussion. At the end of June 2011, Italy and Slovenia decided on one optimised alignment for which the new project promoter (EEIG) elaborated the preliminary design. It runs through the karst highland in places where the presence of underground caves is comparably lower compared to the 2008 solution.

An EEIG was set up in 2012 (Rete Ferroviaria Italiana S.p.A. (IT) and Ministry of Infrastructure (SLO)), which served as the project promoter. Its statutes were signed in May 2013, having been delayed mainly by two changes of government in Slovenia.

Infrastructure projects in cross-border sections often involve a high financial burden despite having lower political priority than domestic projects. Here, two countries with often diverging priorities were required to cooperate, for which there were no predefined structures. Undoubtedly the new railway infrastructure in the region has a high economic importance for the port of Koper (Slovenia). The new Koper-Divaca line will enhance the capacity of the port in Koper, ensure a better link to the interior of Slovenia, while the cross-border railway line towards Italy provides a better link to the wider European area.

11.4 CONCLUSIONS

The planning and implementation of the project (as well as many other sections of the Mediterranean Corridor) shows criticalities or mistakes at its conception phase. It neglected the territorial differences (spatial planning related to ecological values, economic values...) as well as underestimated if not

misrepresented the transport situation and possible evolutions in a period of economic downturn.

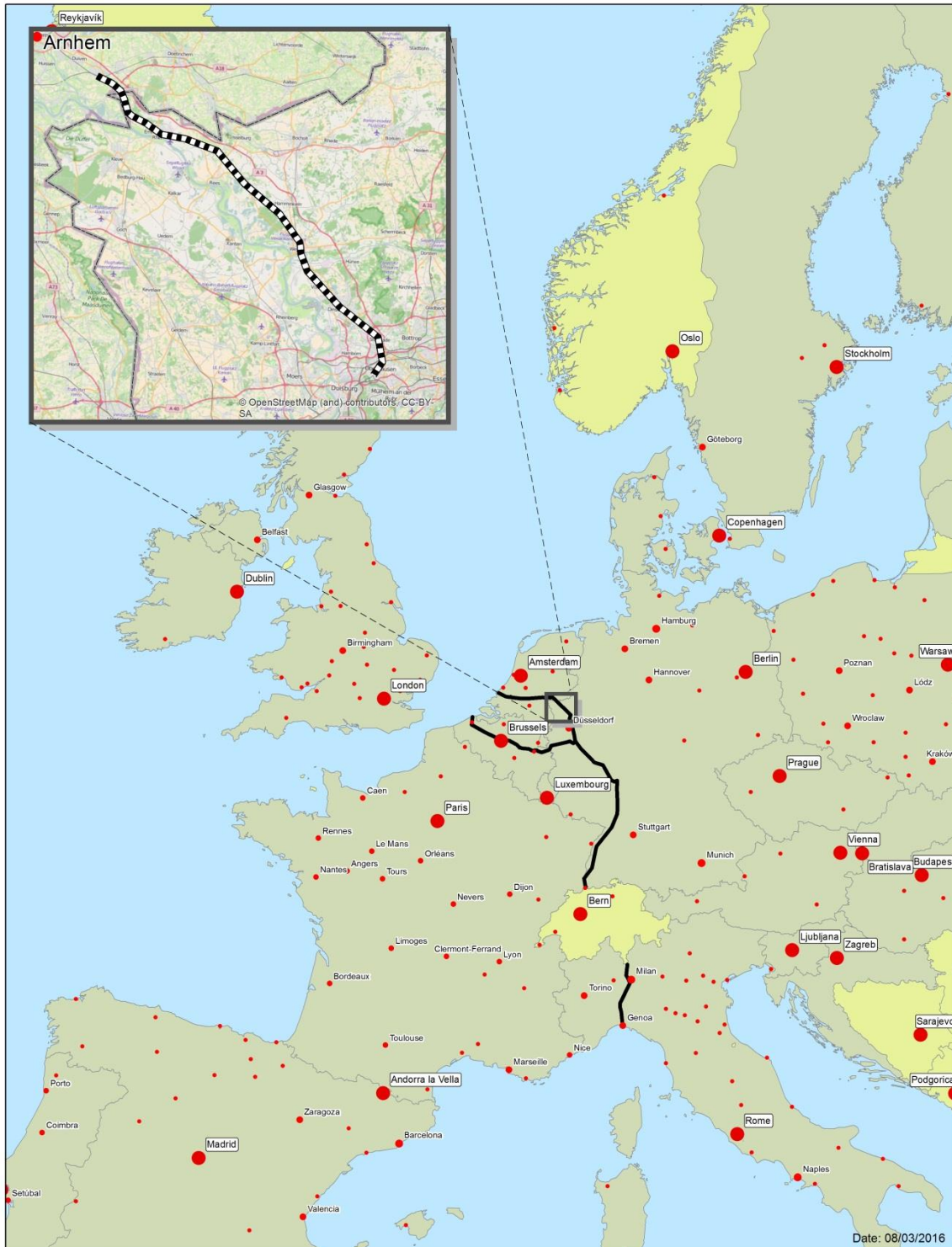
The project seems to have been interpreted too much as a part of the European corridor railway infrastructure with high speed capacities for passengers and high capacity for freight transport, but independently of the spatial structure of the territory traversed. It can be assumed that a stronger “bottom-up” evidence in the project, with a systematic effort to open new perspectives and opportunities for the interested territories at the different scales (cities, regions), would be a valid strategy to pursue a more effective project approach to infrastructure planning.

The accuracy of the demand forecast (identification of the relevant economic patterns and trends and the fundamental drivers of demand) is key to any economic feasibility study. In the case of transport infrastructure, particularly railways, demand is determined by the linkage of potential markets to the railway, the integration of existing networks and main trading hubs, and thus the expected routing of the infrastructure planned. For the Trieste-Divaca project, the different investment cost of alternative routings presented an additional economic feasibility factor.

Cross-border countries often have conflicting priorities and these may be exacerbated by changes of government (twice the case in Slovenia) and associated changing political priorities. Also in Italy, as a result of political cycles and government changes and the economic situation, the transport plan of “Strategic Territorial Platforms” has been dismissed. This makes that the “utility of the corridor” and the synergetic effects for the cities and regions have diminished.

12 PROJECT RAIL ZEVENAAR-EMMERICH-OBERHAUSEN

Rail Zevenaar-Emmerich-Oberhausen



12.1 PROJECT DESCRIPTION

One of the cross-border sections on the international freight railway Rotterdam-Genoa (Italy) requiring upgrades is Zevenaar-Emmerich-Oberhausen (75 km, cross-border between the Netherlands and Germany), as the infrastructure cannot cope with increasing rail traffic.

Rail Zevenaar-Emmerich-Oberhausen is part of one of the seven main branches of the Rhine-Alpine Corridor, i.e. the branch Köln – Düsseldorf – Duisburg - Nijmegen/Arnhem – Utrecht – Amsterdam (270 km).

In order to provide sufficient capacity on the existing double track line, a third track will be built between Zevenaar and Oberhausen via Emmerich to accommodate the expected increase of international freight and passenger trains on the Rhine-Alpine corridor. The corridor runs through the so-called ‘Blue banana’, which includes major EU economic centres such as Brussels and Antwerp in Belgium, the Randstad region in the Netherlands, the German Rhine-Ruhr and Rhine Neckar regions, the Basel and Zürich regions in Switzerland, and the Milan and Genoa regions in Northern Italy. The Corridor encompasses some of the world's largest ports, such as Rotterdam, Amsterdam, Antwerp and Zeebrugge, which function as entry and exit points to the corridor and stand at the crossroads for multiple modes. The railway between Rotterdam (the Netherlands) and Genoa (Italy) is one of the most important international freight railways of the Rhine-Alpine Corridor. Geographically, the most prominent bottlenecks along the corridor occur at cross-border sections and around urban nodes.

The two cross-border sections studied are characterised as follows:

- Dutch section: 3 km long, between the connection of the Betuweline to the existing double track line in Zevenaar and the German border. The project activities comprise the selection of the most suitable location for the third track between Zevenaar and the German border by means of an EIA, design and implementation of the third railway track, including adjustments to existing bridges, switches and connection to the German third track, and design and implementation of the 25 kV overhead line, including its energy supply system.
- German section: 72 km long between the German border and Oberhausen. The project activities comprise the capacity improvement of Emmerich station, removal of 55 level crossings, design and construction of a new third track between Oberhausen and the Dutch-German border, and construction of a double track line for the rail section between Oberhausen-Sterkrade railway station and Grafenbusch.

The project has the following components:

- Constructing a third track (equipped with 25 kV overhead line voltage traction systems).
- Constructing of noise barriers.
- Upgrading of stations.
- Constructing or modifying overpasses and bridges.
- Replacing level crossings with flyover crossings.

12.2 TIMELINE – KEY MILESTONES

Germany

1992-2001: Early developments

- **The Treaty of Warnemünde** between the Ministry of Transport of the Federal Republic of Germany and the Ministry of Transport of the Kingdom of the Netherlands was signed, with a view to improving German-Dutch rail freight transport and rail passenger traffic.

2002-2013: Planning phase

- In 2002, a Planning Agreement was signed between the Federal State (Germany) and the county of North Rhine-Westphalia (NRW). Under this agreement, the Federal State would pay for 64% of the infrastructure cost (at that time estimated to be EUR 895 million).
- Agreement on financing of noise barriers by the county of NRW.
- In 2003, the German **Federal Transport Infrastructure Plan** included the ABS 46/2 Emmerich – Oberhausen project.
- In 2004, German stopped the project for financial reasons.
- In 2007, there was a declaration of intent between the Ministries of Transport of Germany and the Netherlands (decision on the implementation of the third track).
- In 2008, the **Pre-Design Phase** was completed. Public information events were held, presenting the alternatives for noise barriers, construction of the third track and engineering work.
- In 2009, the procedure for **first planning approval** began, with the **Developed Design Phase** starting in parallel.
- In 2010, changes to the Federal Transport Infrastructure Plan (*Bundesverkehrswegeplan*) led to the adjustment of predicted train numbers and an associated re-adjustment of the calculation for noise and vibration.
- Also in 2010, changes to Federal Environmental law (*Bundesnaturschutzgesetz*) led to the adjustment of planning application documents.
- Between 2011 and 2013, all **12 planning approval procedures** began.

The project has been divided into 12 sections, the first of which are undergoing the plan approval procedure, including public participation. The proposed plans foresee 47 km of new track, 74 km of noise protection walls and the replacement of 55 level crossings by 38 new/adapted bridges (DB Projektbau 2011, 2012).

- In 2012, the Solid State Interlocking Emmerich was commissioned (with separate financing, secured in 2005).

In 2013, an Agreement of Financing with the Government of Germany, and an Agreement of Financing with the county of NRW took place. The cost of the investments are estimated at EUR 1.5 billion, with the agreement stating that the German Federal State would cover EUR 746 million and the Lander of NRW EUR 450 million. DB would cover a large share of the remaining investment (Tenta 2013).

- 2013 also saw the **First Public Disclosure** (Section Oberhausen).
- By the end of 2013, **the plan approval process had started for all 12 sections**.

2014-2022: Construction phase

- Construction of three Bridges in Voerde, Hamminkeln and Praest (Commissioning in 2015/16), with four **public disclosures**.
- In September 2015 the **first planning approval granted** in September (Oberhausen). A legal appeal against the planning approval was filed by the City of Oberhausen.
- In 2016, **construction work began** for the voltage changeover in the cross-border section, together with the first closures of tracks and commissioning (DB Netz and ProRail).
- **Further Public disclosures** will continue until 2017.

- The project is expected to be completed in 2022.

The Netherlands

1985-1996: Early developments

- In 1985, preliminary investigations into the future of west-east transport in the Netherlands were undertaken by the Van Bonde commission.
- 1996 saw the final decision by the Netherlands to build the new freight railway line connecting the port of Rotterdam with the Dutch-German border at Zevenaar-Emmerich. This line was dubbed the Betuweroute.

1998-2008: Works - Dutch part

- Work on the Dutch part of the track (Betuweroute) began in 1998 by the NS.
- By mid-2007, the railway was finished, after a delay of two years. The Betuweroute was put into normal operations on 16 June 2007. The new freight route connected the port of Rotterdam with the Ruhr and southern Germany, joining the existing line in Zevenaar.
- By December 2007, problems with safety equipment, and the unfinished German connection, meant that traffic remained light.

2009-2016: Preparation works - German part

ProRail started the **Planning Procedure for the Third Rail Track between Zevenaar and the German border**.

- From 19 September 2012 until 31 October 2012 **public consultation took place** on the **Routing Decision (Design)** and EIA Third Track Zevenaar-German Border (routing plans and mitigating measures).
- In July 2013, the German Federal Government, the state of NRW, Deutsche Bahn and other parties signed a EUR 1.5 billion funding agreement to upgrade the 73 km Emmerich-Oberhausen segment. Improvements included laying a third track to remove bottlenecks, removal of level crossings, renewal of electrical equipment, installation of ETCS and building of noise attenuating walls.
- From 18 July 2013 until 28 August 2013, **public consultation took place on the Routing Decision (Final)** / Comments of Interested Parties for the Third Track Zevenaar-German Border (routing plans, mitigating measures against vibrations).
- **In 2015 the Final Routing Decision** was contested in court. However, the Council of State rejected the appeal, leaving the Final Routing Decision in force and allowing ProRail to continue the procedure.
- The demolition of two houses began at Babberich (the only houses to be removed).

2017-2018: Works - German part

- The works for the third track are expected to start in 2017 and continue into 2018.

Key project milestones	Original planning/timing	Real or currently estimated planning
Planning and financing	2002-2004	2002-2006
Pre-design	2006-2008	2006-2008
Planning approval procedure first section Germany	2009-2010	2009-2015
Planning approval procedure other 12 sections Germany	2009-2010	2012-2016
EIA/project approval procedure The Netherlands	2011-2012	2012-2013
Construction Phase The Netherlands	2012-2013	2017-2018
Construction Phase Germany	2010-2013	2016-2022

The actual planning for the construction phase is realistic.

12.3 ANALYSIS

Despite the 1992 joint Dutch-German agreement on improvement of the German-Dutch rail connection (Agreement from Warnemunde), progress on the German side for the 72 km of track connecting Emmerich at the border with Oberhausen was very limited until 2002, when a funding agreement was reached between the Federal State and the county of NRW. Following a declaration of intent between the Ministries of Transport of Germany and the Netherlands in 2007, work on the Dutch part of the track between Rotterdam and Zevenaar (Betuwe Route) was finished with a delay of two years. On the German side, planning approval was granted for the first section (Oberhausen) in 2015, although a legal appeal has been filed. Works in Germany are due to be completed in 2022 (30 years after the Agreement from Warnemunde), while works for the third track in the Netherlands are expected to begin in 2017 and be completed in 2018.

The delays in the permitting procedures stemmed from the reprioritisation of Transport Infrastructure Plan (2007-2010, Germany) removing funding from the plan, changes of legislation requiring adjustments to the design and permitting applications (2010, Germany), legal appeals (2013-2015 the Netherlands and Germany), partly due to the lack of harmonisation in safety legislation between the two countries.

Delays in the Planning Approval Process were caused by the removal of funding after the reprioritisation of the Federal Transport Infrastructure Plan, lawsuits filed by stakeholders and the local authorities, and the time taken for public hearings and consultation, including follow-up communications. Further delays may have been caused by the lack of binding timelines in the German Planning Approval Process.

The project faced a number of other difficulties as well.

There were **changes in the legal framework** to take into account:

- Changes to the Federal Transport Infrastructure Plan (*Bundesverkehrswegeplan*) resulted in a change in the predicted train numbers and an adjustment of the calculation for noise and vibration.
- Changes to the Federal Environmental Law (*Bundesnaturschutzgesetz*) resulted in adjustments to the planning application documents, causing a delay in completing the environmental studies.

The project – in its cross-border context – encountered difficulties relating to the **implementation of (European) environmental legislation**:

- Different Dutch and German technical and regulatory standards for fire safety, disaster control and transport of dangerous goods caused an increased public demand (in Germany) for safety measures.
- The Dutch policy and law on rail transport of dangerous goods has been in force since 1 April 2015. The objective of the Dutch legislation is to specify the corridors and the amount of transport of dangerous goods through densely populated regions, as well as specifying limitations for building developments along the tracks. Germany has no comparable policy.
- Similarly, cross-border differences in technical and regulatory standards occur in the domain of Fire Safety and Disaster Control, with regulatory standards for fire water supply and distance between safety doors being different in the two countries.

- This caused an increased public demand in Germany for additional safety measures, (comparable to those in the Netherlands) and the filing of a lawsuit by the City of Oberhausen against a planning permission which allowed Germany to apply less stringent standards than those in the Dutch regions.
- The development of an EU wide harmonised approach to rail safety legislation could provide a solution in theory, but harmonisation at an EU level would require significantly detailed safety provisions.

The process was vulnerable. As in all EU countries, the EIA is time-consuming and resource-intensive. Legal appeals have the potential to block or cause serious delays to a project that has been in planning for many years. Taken together, the **extended process of stakeholder consultation, shortage of financial resources, the vulnerability of the process (no binding timelines, changes in legislation) and differences in safety standards** created a situation where it took between five and six years for the competent authority to grant the 12 planning approvals.

Public resistance / stakeholder consultation

The high volume of public information and participation (information events, brochures, etc.) seemed to decrease public acceptance of the project. Legal appeals against the permitting decisions caused constant uncertainty, disrupting financing and planning. Although **appropriate communication strategies** were employed to actively involve the local public in the early planning stages, these should remain a constant focus.

In general, communication and intensive working with all stakeholders is important:

- Continuous Jour Fixe/information exchanges with administrations, communities involved, county planning agencies, regulatory agencies and all parties involved, in order to prevent unexpected surprises, time gaps or resource shifts.
- Increase/create a mutual understanding of regulations, procedures and milestones.

This case highlighted **a number of good practices in both countries.**

A centralised planning and permitting set-up/approach was used. The railway project was not subject to a Regional Planning Procedure/SEA (Regional Planning Act). The project is listed in the German Federal Transport Infrastructure Plan and was developed as an extension of the existing two track railways. At the Project Planning Level, a Plan Approval Procedure was applied. The German competent authority for railway projects is the Federal Railway Agency EBA (Eisenbahn-Bundesamt), which is responsible for planning and licensing federal railway infrastructure. All public and private interests, including environmental compatibility, are weighed before public approval is granted. In the General Railway Act, the Federation has regulated planning approval for all railways, including state railways. This centralised set-up helps project developers and the relevant authorities to build up a body of expertise and knowledge in respect of large-scale railway infrastructure projects, especially with a view to complex popular participation procedures.

By contrast, federal motorways and federal highways in Germany are built and administered by the States (State Highway Department) on behalf of the Federation. The specialist administrative authorities in the States (Länder) are the key players in the planning and approval process for individual projects. Major transportation infrastructure projects are often processed alongside their regular day-to-day tasks without the addition of extra staff. This results in procedural delays and also leaves the process vulnerable to errors. In addition, the decentralised structure runs the risk of fragmenting the planning and approval process where projects involve more than one of the Länder, especially where different Länder handle procedural issues differently. In this decentralised set-up, the experience of managing major infrastructure projects gathered by individual authorities remains much more fragmented, making it difficult for project developers and the relevant authorities to build up a

sustainable body of expertise and knowledge.

Dutch-German Bilateral Working Groups and subgroups were established. As this project is of a cross-border nature, ProRail and DB Netz worked closely together on planning and layout. The specification and design of the interfaces between the DB Netz and ProRail infrastructure in the section Zevenaar – Emmerich was produced by Dutch-German bilateral working groups and several subgroups of the common DB Netz – ProRail organisation established in November 2010. The following technical interfaces were studied by this common organisation: ERTMS interface; GSM-R interface; Interlocking interface; Traffic Control interface; 25kV Traction Power interface; 25kV Catenary interface; 25kV Earthing System interface; Hotbox detection interface; EIA; and third track interface. As German and Dutch railway systems do not have standard interfaces which fit easily together, specifications and designs were needed to determine what would be built and how technical and organisational interfaces would be defined. ProRail and DB Netz agreed on the design and specifications, allowing them to clearly define a plan for the scope and timeframe of the building activities.

Contact was established between the involved parties in Germany and the Netherlands for environmental impact studies. An early meeting determined that planning approval for section 3.5 (Emmerich-Elten) requires cross-border EIA, with planning approval in the Netherlands requiring disclosure. They agreed that it was sufficient to disclose DB plans for the third track only in Zevenaar. The Province of Gelderland was also involved in the procedure, as a representative of public interest. The Dutch Commission for Environmental Assessment suggested performing a coherent study (together with the German study) on the effects of the third track on the Natura 2000 area. DB Netz provided ProRail with the draft management plan of the Bird protection area *Unterer Niederhein* and this was taken into account in the Dutch project. The German ecology impact study also contains the effects on the Natura 2000 area *Gelderse Poort*.

An information event was held in Zevenaar (the Netherlands) on the project activities of section 3.5 Elten (cross-border section in Germany). All necessary **documentation and information was translated** in order to facilitate communication and understanding. Citizens' participation in the planning of infrastructure projects was made a priority in the project cycle in both countries.

Compulsory public participation after the formal procedures is often much too late in the planning process. The first formal procedural stage which requires communication between the project developer and the stakeholders is the approval procedure, at which time the route has already been planned and changes to the design of the project are very difficult. In both countries, meetings with local residents and stakeholders took place early in the planning process. The project promoter took considerable care before overruling the views of local stakeholders and authorities, finding it easier, in many instances, to reach mutual agreement.

12.4 CONCLUSIONS

- The project – in its cross-border context - encountered difficulties relating to the implementation of (European) environmental legislation. Different Dutch and German technical and regulatory standards related to fire safety, disaster control and transport of dangerous goods, caused an increased public demand in Germany for safety measures and the filing of a lawsuit against a planning permission allowing for less stringent standards in Germany than in the Netherlands. Development of an EU harmonised approach to rail safety legislation could provide a solution.
- The railway has strategic importance as a freight corridor connecting the port of Rotterdam to the Ruhr region in Germany. While the Dutch Government fast-tracked the procedure for implementation of the project, the German procedure has no strict deadlines for implementation, thereby hampering implementation. Under German law, the new development should provide the necessary compensations to the communities (e.g. Oberhausen), including noise reduction measures (noise walls). Due to the topographical structure of the area these walls need to be high (2-6 m). The German section of the line also experienced additional problems, such as some fifty

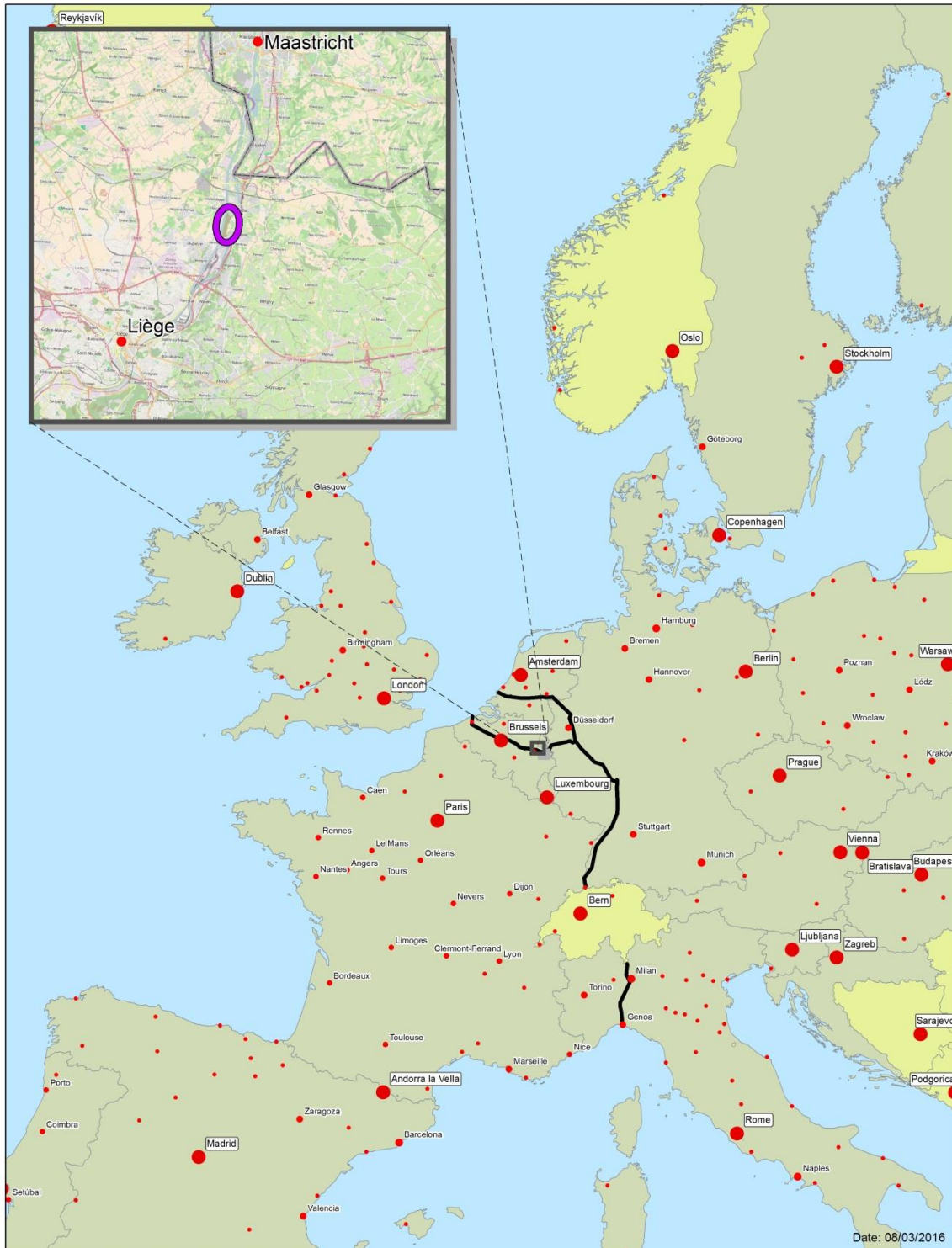
level crossings along the line, insufficient capacity of the stations (Oberhausen), and disturbances to the surrounding settlements. Taken together with the less stringent safety measures in Germany compared to the Netherlands, these factors increased public opposition by local communities.

- Analysis of the drivers of delay reveal a measure of political resistance to the project, as well as unbalanced public and local benefits in both countries, hindering efficient cross-border cooperation.
- Citizens' participation was given high priority and can be seen to play an important role in cross-border projects. Appropriate communication strategies should actively involve the local public in the early planning stages and remain a focus throughout.
- An information event on the common project activities in cross-border sections is good practice in cross-border projects' permitting procedures. To facilitate communication and understanding, all necessary documentation and information should be translated into the national language of the country concerned.
- Cross-border Bilateral Working Groups and subgroups should be established between the cross-border transport organisations from the start, while, for environmental impact studies, contacts should also be established between the involved parties in both countries. If the cross-border section has potential impacts on Natura 2000 areas, a coherent study between the countries is a prerequisite.
- A centralised planning and permitting set-up and approach (like in Germany and the Netherlands) can shorten delays and improve decisions by means of:
 - Centralised responsibility to decide the scope and adequacy of review. The general principles for review should be disclosure of material facts sufficient to make a considered decision, with a focus on the overall environmental impact of the project. This centralised set-up makes it easy for project developers and the relevant authorities to build up a sustainable body of expertise and knowledge in respect of large-scale infrastructure projects.
 - Avoiding complications from overlapping jurisdiction by three or more levels of government.
 - Clear lines of authority, with consolidated decision-making on both environmental review and permitting. One agency should have overriding permitting authority, with the obligation to balance the concerns of other agencies and departments.

The railway project was not subject to a Regional Planning Procedure/SEA. In the Netherlands, the Routing Decision (Planning Approval) ends up with the routing being integrated in a spatial plan. This has advantages for the length of permitting procedures.

13 PROJECT LIEGE TRILOGIPOINT

Trilogiport Liège



13.1 PROJECT DESCRIPTION

The Liège Port Authority has developed a multimodal platform *Liège Trilogiport*. This 12 ha platform is located at Hermalle-sous-Argenteau (in the outskirts of Liège), alongside the Albert Canal which links Liège to Antwerp. The project is on the Alpine and North Sea Baltic TEN-T Corridors.

Development work on the Liège Trilogiport multimodal platform, one of the 32 port areas managed by the Liège Port Authority and located along the Albert Canal in Hermalle-sous-Argenteau, started on 28 June 2013.

This multimodal platform will become a real *logistics village* at the heart of Europe. Named Liège Trilogiport for its tri-modal character, it aims to be a mass storage area upstream of Northern Europe's sea ports.

Liège Trilogiport boasts:

- Three access points to the sea: Antwerp, Rotterdam and Dunkirk.
- Three transport modes: water, rail and road.
- Three cross-border markets: France, the Netherlands and Germany.

The investment required to carry out the Trilogiport project and provide road and railway access is estimated at almost EUR 45 million.

- Construction of the platform within the limits of the port area - EUR 29.5 million (20% from Port autonome de Liège and 80% from Walloon Region), included in the Marshall plan.
- The platform's operation: road and access construction and installation of outside equipment - EUR 22.5 million (60% from Walloon Region and 40% from the EU), allocated within the framework of the FEDER 2007-2013 programme.
- Study contract for the construction of the multimodal platform - EUR 712,366, allocated within the framework of the FEDER 2000-2006 programme.

Private investments will amount to approximately EUR 115 million.

The construction of the Trilogiport multimodal platform lasted two years and finished in November 2015. It is now waiting for its first users.

The primary objective of Liège Trilogiport is to attract companies who use the waterway and main European distribution centres. It will provide a high value-added activity and create 2, 000 new jobs (study by the Direction de la Promotion des Voies Navigables et de l'Intermodalité, an inland navigation promotion organisation).

13.2 TIMELINE – KEY MILESTONES

1998-2005: Early developments

- The Port of Liège and the Walloon Ministry of Transport launched a study in 1998 to examine which sites are best suited to develop economic activities primarily focused on freight and valuing the multimodal potential.
- In April 2002 the Walloon Minister of Public Works decided to expropriate a piece of land owned by Electrabel in order to create a large multimodal area (of +/- 100ha) multimodal that will become "Trilogiport". The ministerial decree of expropriation was issued in April 2003.

2004-2012: Planning phase

- The building permit for the 1st phase was granted to the Port in March 2004.
- The expropriation of the land (+/- 100 ha) was carried out between June 2003 and December 2005.
- In January 2006, the Walloon government decided to partly finance the work via the “Marshall 2 plan”. In addition, ERDF (2004-2009) funds were requested and obtained.
- The Walloon Ministry of Equipment and Transport started the study of the development of the project site in 2006
- A second building permit was granted to the Ministry of Equipment and Transport in October 2006 for the infrastructure project of the multimodal platform.
- In October one of the stakeholders (Electrabel) submitted an appeal for suspension for the Belgian Council of State against this building permit
- In 2009, the study and development of the infrastructure project of the multimodal platform was assigned to a contractor (Greisch design office). This project was subject to an environmental impact assessment (EIA) - assigned in March 2009 to ARIES; the EIA commenced with a public consultation session.
- The studies for the North Bridge and the road access to the site were awarded to AM Consultants and Arcadis-Greisch and began in July 2010.
- A third building permit was granted in August 2010 regarding the road access project north to the new bridge over the Meuse. An additional expropriation plan was required as well.
- Infrastructure works (infrastructure project, bridge and access roads) on the site are awarded to Momentary Corporation ELOY-Kumpen-Eraerts in 2012-2013.

2013-2015: Construction works

- In June 2013 the development work on the multimodal platform started.
- In October 2013 construction of the North Bridge and the link road (between the North Bridge and the N618 at the Haccourt bridge) started.
- In June 2014, development work on the multimodal platform finished.
- October 2014 saw the completion of the roundabouts (north zone).
- At the beginning of 2015, construction began on the logistics warehouses (logistics zone).
- In October, construction was completed on the North Bridge and the link road (between the North Bridge and the N618 at the Haccourt bridge) and the project was nearly ready for operation.
- The Trilogiport multimodal platform finished in November 2015 and is awaiting its first users.

Key project milestones	Original planning/timing	Real or currently estimated planning
Land expropriation	2003-2005	2003-2005
Building permit 1st phase	2004	2004
Site development study	2006	2006
Building permit 2nd phase (infrastructure project multimodal platform)	2006	2006
Appeal for suspension (Belgian Council of State) against 2nd building permit	2006	2006
Start public procurement procedure	2008	2008
Assignment of the study and development of part the infrastructure projects to contractors	2009-2010	2009-2010

Building permit 3rd phase (road access)	2010	2010
Assignment of the study and development of the rest of the infrastructure projects to contractors	2012-2013	2012-2013
Start works	2013-2014	2013-2014
Completion of the works	2014-2015	2014-2015

Despite the challenges the project has faced, there were no delays. The schedule set was a realistic one.

13.3 ANALYSIS

Although now finished, the project experienced some **obstacles during the implementation phase**.

The changing economic landscape had an influence on the project progress. During the project process, multinational companies located near Triligiport took key decisions, such as re-opening sites which were previously closed down, requiring the original plans to be changed, e.g. changing access, building a new bridge. The new plans demanded that additional land be bought, causing additional costs. They also included a new bridge much closer to the residents, causing a law suit (see below).

There was public opposition to the project. At the start of the project (during the pre-study) not-immy-back-yard attitudes were already evident among the residents, who complained about the expected levels of noise and dust. Changes to the plans during the project, as a result of the economic climate, also drew criticism from local residents, who appealed against these new plans to the Belgian Council of State. The appeal for suspension was rejected, although no decision has yet been taken on the appeal for annulment. Despite the appeal, the project was completed.

The decision-making process was not easy because the Minister for Infrastructure is both permit applicant and permit authority for this project, **which led to legal discussions**.

Issues with unforeseen nature impacts. During the permitting procedure, the administration provided negative advice in relation to protected species. Although the area is not a natural habitat, additional measures were necessary to protect one species. These measures did not cause project delays.

At the start of the project there was no legal framework for soil protection, however, during the implementation of the project a new law on soil was approved. The project promoter decided to proactively implement a remediation plan on a voluntary basis.

The project promoter believes that the project is supported, politically as well as financially, by the Walloon government. Despite the various changes in the project (see above) increasing the costs, the required additional budget was provided by the Walloon government.

Extensive communication and continuing consultation with stakeholders were key in this project:

- Informal consultation during realisation phase: A task force was set up with representatives of the various administrations and cabinets. During the monthly meetings, the problems were discussed directly and solutions were found, thereby limiting delays.
- Dialogue with stakeholders in a support committee: The permit imposed the set-up of a support committee with local residents, municipalities and administrations. The purpose of this consultation was to engage in dialogue with stakeholders to monitor adherence to the permit conditions during the implementation phase.
- Clear communication to residents: During the implementation phase, residents were notified when specific work would cause nuisance, e.g. exceptional freight by road.

- A comprehensive discussion took place with respect to the urban development of the area. This ensured that the project was integrated with the Albert Canal and the village of Hermalle-sous-Argenteau to the extent possible. Of the 120 ha planned, nearly 40 hectares will be devoted to an area of environmental integration, which will encircle the platform and beautify the access to the north bridge. The project promoter is convinced that the result of consultation and dialogue with the representatives of the Hermalle-sous-Argenteau Village Committee will render the large environmental integration zone (39 hectares in total) satisfactory. Local input has resulted in a plan featuring orchards and community gardens, pontoons for fishing, paths dedicated to the soft modes of transport (RAVeL) and bodies of water with a walkway and a four hectare wooded area.

13.4 CONCLUSIONS

Flexibility with respect to the changing economic landscape is a key requirement for this type of project.

A proactive response to changing legislation helps to avoid delays at a later stage of the process. In this case, for example, the project promoter decided to proactively implement a soil remediation plan before this was required by law.

Extensive communication and consultation with stakeholders on an ongoing basis is a significant success factor, as seen in this case.

LIST OF ANNEXES

ANNEX 1: SELECTED BIBIOGRAPHY - OVERVIEW OF SOURCES (DESK RESEARCH)

Table 1 – Overview of sources

Case study	Sources
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ANNEX 2: STAKEHOLDERS CONSULTED (INTERVIEWS)

Table 2 – Overview of Stakeholders consulted

Stakeholders consulted
Innovation & Networks Executive Agency (INEA)
Tunnel Euralpin Lyon-Turin (TELT)-SAS
Femern A/S
Brenner Basistunnel (BBT)-SE
European Investment Bank (EIB)
Rail Baltica (RB) Rail AS
PKP Polskie Linie Kolejowe (PLK) / Polish Railway Lines S.A. (Poland)
Agentschap Waterwegen en Zeekanaal nv / The Flemish Waterways and Sea Canal Agency (Belgium/Flanders)
Voies navigables de France / French Inland Waterways (France)
Département du Nord (France)
Departement Mobiliteit en Openbare Werken / Flemish Ministry of Mobility and Public Works
Vlaams-Nederlandse Schelde Commissie / Flemish-Dutch Scheldt Commission
Service Public de Wallonie, La Direction de la Promotion des Voies Navigables et de l'Intermodalité
Tractebel SA (Belgium and Romania)
Administratia Fluviala a Dunarii de Jos Galati (AFDJ) - SCN Giurgiu
Joint Assistance to Support Projects in European Regions (JASPERS)
DG Regio
Bulmarket DM Ltd
Pro Danube International
Austrian Ministry for Transport, Innovation and Technology
Autobahnen- und Schnellstrassen- Finanzierungs-Aktiengesellschaft (ASFINAG)
Czech Ministry of Transport
Le Havre Port Authority
DG MOVE
German Federal Ministry of Transport and Digital Infrastructure (Ports)
German Ministry for Economy, Labour and Ports of Bremen (Port economy, infrastructure, shipping)
DG Environment
Hamburg Port Authority

Stakeholders consulted

Rete Ferroviaria Italiana RFI, EEIG Trieste-Divaca Italy

Deutsche Bahn (DB) Netz AG

Direction des voies hydrauliques de Liège – Service public de Wallonie