

# Granting a concession on the High Speed Line

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## *Abstract*

In the 1980's the Dutch government began the planning of a high speed railway connection. This project, later called the HSL, was substantially delayed during time. This thesis will look into the different problems that occurred during the HSL project and caused this delay. Special interest is going to the way track access has been granted on the HSL. With a literature review it will be revealed how the way track access was arranged in the HSL project had an influence on the delay that occurred. In order to put the HSL project in perspective European rules and regulations will be reviewed together with a case study of similar project in the UK, the Channel Tunnel Rail Link.

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## 1. Introduction

Since the first European high speed train service from Paris to Lyon was introduced in 1981 the number of high speed railway connections increased rapidly. Different European countries started high speed railway services over designated high speed tracks since then. Nowadays there is an extensive European network of high speed railway connections serviced by different countries and railway companies. A map of the European high speed railway network can be found in the appendix of this thesis (Figure 1). The Dutch government decided that the Netherlands should be connected to this European railway network by an own newly build high speed railway connection, later called the High Speed Line (HSL). In order to arrange track access on the HSL a concession structure is used. After a tendering the concession was eventually granted to the High Speed Alliance (HSA), which is a consortium of the Dutch Railways (NS) and the Royal Dutch Airlines (KLM), where the NS dominates with 90% of the shares. <sup>1</sup>

The planning and construction of the HSL took much longer than expected due to multiple problems in different phases of the HSL project. Budget had to be increased for multiple times with the result that in the end the costs of the HSL were roughly three times higher than estimated at the beginning of the project. This whole process was extensively covered in the Dutch press and caused political discussions<sup>2</sup>. The different problems that occurred during the project caused a lot of delay. Due to the delays and therefore a late start of commercial train services on the HSL the HSA experienced financial problems and nearly bankrupted. <sup>3</sup>

The Dutch government had a strong preference towards the NS before and during the tendering procedure<sup>4</sup>. It seems that this strong preference had an effect on the outcome of the tendering procedure. It is likely that other participants had less of a chance than the NS had because of this preference. When granting a concession, a level playing field and transparency are two of the key preconditions in order to keep this procedure fair for every participant and to give every participant an even chance to be awarded with the concession.<sup>5</sup> With the preference for the NS as concessionaire by the Dutch government it tends that these preconditions are not met in this particular tendering procedure.

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<sup>1 2 4</sup> Tweede Kamer, 2004

<sup>3</sup> Rijksbegroting, 2011

<sup>5</sup> Europa decentraal, 2013a

The research question that will be answered in this thesis is: *What were the main problems that caused a delay in the HSL project and to which extend was this delay induced by the way track access is arranged?*

In order to answer this research question the following sub-questions will be answered:

- *What were the main reasons for the problems and delays which occurred during the HSL project and how did the way track access was arranged play a role in these delays?*
- *What are the European rules and regulations for tendering procedures and how did the HSL project deviate from these rules and regulations?*
- *How does the way track access is managed in the Channel Tunnel Rail Link project differs from the procedure used in the HSL project and was Channel Tunnel Rail Link project more effective?*

The HSL project will be divided in four different phases in this thesis in order to give a clear overview. In chronological order a planning phase, a constructing phase, the phase of granting the concession and the beginning of operating the HSL by the HSA. This thesis will look into the problems during the different stages of the HSL project. The problems that caused the biggest delays will be described and explained.

The goal of this thesis is to give an insight in the problems and delays that occurred during the planning and constructing of the HSL. In particular the role of the tendering procedure will be researched. What were the reasons for the Dutch government to have a preference for the NS and did this preference caused any extra problems and therefore delays? In order to put the HSL project in perspective European rules and regulations regarding tendering procedures will be described and compared with the procedures that are followed during the period of granting the concession for the HSL. In order to compare the HSL project with a similar project a case study on the Channel Tunnel Rail Link in the UK will be made. This project was planned and constructed in a similar timeframe and market situation. This thesis will review the differences of approach between both projects and explain if these differences did reflect on the outcome of both projects. In this case study there will be a focus on the way track access is managed and to which extend the government interfered in the Channel Tunnel Rail Link project.

The methodology that will be used in this thesis will be a literature review. To describe the process of planning and constructing the HSL project and to describe the tendering procedure parliamentary proceedings will be used together with a research that was commissioned by Dutch parliament. To

place this procedure in perspective information about European tendering rules will be used from governmental institutions, mostly found on their websites. The case study will be made with papers about the Channel Tunnel Rail Link and information from overarching organizations. In order to support the different chapter's information from different railway companies and railway authorities will be used.

The structure of this thesis will as follows: Chapter 2 will give a brief introduction to the Dutch railway market situation. This will be done to create as a theoretical background for understanding the decision making in the HSL project. In chapter 3 the whole process of the planning and constructing of the HSL project will be briefly described. The procedure of granting the concession on the HSL will be described in more detail. Chapter 4 will identify the different problems that occurred during the HSL project and will describe and explain them with a focus on the way the concession was granted and how governmental interference played a role in the whole project. Chapter 5 will briefly explain European rules and regulations regarding tendering procedures in general and the tendering rules and regulations for granting concessions of services in more detail. The case study of the UK high speed project will be done in chapter 6. Chapter 5 and 6 will put the HSL project in perspective of respectively rules and regulations and a similar project in the UK. Chapter 7 will give a conclusion and an answer on the sub-questions and the research question together with recommendations for further research. Maps from different railway networks will be available in the appendix.

## 2. Theoretical background

In this chapter a brief overview of the Dutch railway network/NS will be given in order to understand the context of the HSL project. The history and current situation will be described along with a brief introduction to the HSL and the HSA. As will shown later on in this thesis the decision to cut subsidies and end the monopoly position of the NS for the conventional domestic railway service in the Netherlands did play a role in the way that the concession was granted.

### 2.1 History of the Dutch railway network

The NS in its current shape was founded in 1938 after a merger between multiple public transport companies. The NS was an independent company since the beginning, but with the Dutch government as its only shareholder. Despite of the NS being an independent company the Dutch

government had much influence in different business decisions made by the NS. For instance timetables and price structures were strictly controlled by the Dutch government. After the Second World War the Dutch railway network began a period with growth. However, since the 1960's the competition from other modes of transport, especially the explosive growth of the number of people who could afford a car, grew rapidly. This resulted in financial losses for the NS. In order to keep competitive, especially to the car, the number of train services was increased in the 1970's

Despite of the attempts to stay competitive with the car the NS continued to make financial losses and could not operate train services with an overall profit anymore. In order to keep the NS viable as a railway company the Dutch government decided to subsidize the NS. Public railway service was seen as a socially important service and had to be continued in its then current form according to the Dutch government. Because of this subsidization by the Dutch government control over the NS became even bigger than before.

Until 1995 the NS was not only responsible for passenger train services, but also for the railway infrastructure. Maintenance and planning new tracks were a task of the NS. On top of that the NS had a monopoly on the Dutch railway network. No other company was allowed to service routes during this monopoly. At the beginning of the 1990's the Dutch government began to doubt if the current structure of subsidization was the most efficient. Subsidies supplied to intercept the losses that were made by the NS and therefore there was little incentive to innovate and to increase efficiency.

New rules and regulations were made during the 1990's by the European Union regarding railway services. These new rules and regulations were introduced to ensure more competition in the railway market. Monopolies in different European countries had to disappear and a more level playing field had to be created. Due to this change the NS had to reorganize its business model. In the years after 1995 subsidies were gradually decreased to end up at zero, the NS had support itself. Besides the reduction of these subsidies to zero the monopoly that the NS had for decades disappeared. After these changes the NS had to buy a concession to service its routes over the national railway network and competition was a possibility. Since 1995 different routes are taken over by other parties from the NS however, these routes are small regional routes<sup>6</sup>. The main routes are still serviced by the NS. A current map of different routes that are serviced by the NS and its competitors is included in the appendix (figure 2).<sup>7</sup>

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<sup>6</sup>NS, 2013a

<sup>7</sup> NRC Handelsblad, 2001

Together with the changes described above the NS had to split up in two parts. One part became in charge of operating passenger trains, and until the acquisition by Deutsche Bahn also the freight division, and the other part became charge of the infrastructure, this part is now called ProRail. The Dutch government took over control of ProRail in order to ensure the impartiality of ProRail and therefore a level playing field. Other parts of the NS, like a joint venture with British telecom, were sold in order focus completely on their core business, servicing passenger trains over the Dutch railway network.<sup>8</sup>

The biggest change that is applicable in this thesis is the change from a monopoly situation towards a situation where a concession had to be acquired. The NS was used to an exclusive right to operate passenger train services over the Dutch railway network for decades. This changed due to the new European rules and regulations wherefore the NS had to buy a concession for the national railway network. These changes played a role in the concession procedure of the HSL.

## 2.2 NS in its current state

Nowadays the NS is a private company that has a concession to operate passenger train services on the mainlines of the Dutch railway network. As mentioned before there is only competition from other railway companies on the regional lines outside the 'Randstad'. The concession agreement includes quality requirements such as the frequency of train services for every line the punctuality that has to be achieved. The NS can be fined if these quality requirements are not met. The current concession is valid until 2015, but the Dutch government is planning to grant the concession for 2016-2025 again to the NS without a tendering procedure, negotiations for this are running at this moment.

Despite of the fact that the NS is a private company the Dutch government does have a major influence on the domestic passenger train services through the requirements that are set in the concession agreement. Therefore the NS does not have a lot of influence on the way their railway services are operated. The NS is however responsible for managing the passenger flows and deploying the suitable rolling stock on the different routes. Also train stations and their direct environment are managed by the NS. Different train stations are being renovated at this moment where a more commercial use is accounted for with more retail. Marketing and ticket pricing is a task of the NS, however changes in ticket pricing and timetables have to be proposed first to the ministry of transport which have to ratify these changes before they can be implemented.<sup>9</sup>

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<sup>8</sup> NS, 2013b

<sup>9</sup> Rijksoverheid, 2013



The NS is managed as a private company without any direct subsidies. Their annual report is publicly announced and available on their website. Profits, if any, are derived from operating trains services and exploiting the train stations.<sup>10</sup>

### 2.3 The High Speed Line (HSL)

The high speed line (HSL) is a high speed railway connection, officially called the HSL-Zuid, between Schiphol and Antwerp with a length of 147km. High speed passenger train services are operated between Amsterdam and Brussels on this line. On December 13<sup>th</sup> 2009 the first passenger train services were deployed on the High Speed Line between Amsterdam and Brussels. The HSL allows high speed trains to travel at speeds up to 300km/h from Amsterdam to Brussels and further to Paris over French, already existing, high speed train tracks.<sup>11</sup> However in the first three years of service the HSL was not used at its maximum. Trains that were specially designed and ordered for the Fyra train service were not deployed before the end of 2012 and therefore older, leased, trains with a maximum speed of 160km/h had to be deployed as a substitute<sup>12</sup>

In order to establish a frequent service two types of trains were planned to use the HSL, the Thalys and Fyra trains. The Thalys train service is introduced in 1996 and used, before the commissioning of the High Speed Line in 2009, conventional domestic railway tracks to Brussels and continued its way to Paris over existing French high speed tracks. Since the opening of the High Speed Line in 2009 Thalys is using the High Speed Line.<sup>13</sup>

The second train service that was planned on the High Speed Line is the Fyra train service. This is a high speed train which was deployed in a train service from Amsterdam to Brussels. The Fyra service was not started before December 9<sup>th</sup> 2012 after many delays due the late delivery of the Fyra trains, the V250 by AnsaldoBreda. The Fyra service was intended to substitute the international train from Amsterdam to Brussels which used, and at this moment again uses, conventional domestic tracks in the Netherlands and Belgium.<sup>14</sup>

The Fyra train did not run for a long time due to technical difficulties. On January 18<sup>th</sup> Fyra service was cancelled due to safety issues with the V250 trains. HSA announce at the end of May 2013 that the Fyra project will be cancelled and the V250 trains will not be operating a passenger service on the HSL again. The former international train is reinstalled to service the Amsterdam Brussels line via the

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<sup>10</sup> NS, 2013c

<sup>11</sup> Treinreiziger, 2013

<sup>12</sup> Treinreiziger, 2008

<sup>13</sup> Thalys, 2013

<sup>14</sup> NSHispeed, 2012

route that this international train always used.<sup>15</sup> Due to these problems the future of the High Speed Line is uncertain at this moment. In the negotiations for the concession agreement that is planned to commence in 2015 a discussion is held whether or not to implement the HSL in the conventional domestic railway network. This will be decided at a later moment.<sup>16</sup>

#### 2.4 The High Speed Alliance (HSA)

The HSA is a consortium consisting of the NS and KLM which is responsible for the high speed train services over the HSL. The HSA has been granted the concession for these high speed train services over the HSL in 2001. The operating entity of the HSA is called NSHispeed. NSHispeed offers, with collaborations with affiliates like Eurostar and the French and German national railway companies (SNCF and DB), an extensive variation of travel options through Europe. An abstract map of these routes can be found in the appendix (Figure 3). This collaboration between different European railway companies and NSHispeed ensures that in the future other train services can use the HSL.<sup>17</sup> For instance, Eurostar has announced that they are willing to start a train service from London all the way to Amsterdam.<sup>18</sup>

At the moment the concession for the HSL was granted in 2001 it was agreed that the HSA would pay a yearly fee of 147 million Euros for using the HSL starting from 2007. Due to the delays which occurred before the HSL was fully operative this date was moved to 2008.<sup>19</sup> Because of persistent delays in the installation process of the ERMTS safety system this date was even moved further to the 1<sup>st</sup> of July 2009.<sup>20</sup>

In 2010 it was announced that due to disappointing financial results, owing to the late start of commercial passenger services over the HSL and a disappointing occupancy these train services, HSA was at risk of going bankrupt. When noting would happen HSA would go bankrupt in 2012. In 2011 the department of transport interfered and lowered the concession fee from 147 million euro to 101 million euro, roughly two third of the original fee. In change for this lower concession fee the HSA admitted to a restriction in the pricing of their tickets. The HSA would not be allowed to make their tickets more than 30% more expensive than tickets of conventional domestic railway services.

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<sup>15</sup> NSHispeed, 2013a

<sup>16</sup> Rijksoverheid, 2013

<sup>17</sup> NSHispeed, 2013b

<sup>18</sup> Telegraph, 2010

<sup>19</sup> Tweede kamer, 2007

<sup>20</sup> Tweede Kamer, 2009

This decrease of the concession fee was possible due to an option in the concession agreement. On top of this agreement NS guaranteed to back up the HSA when necessary.<sup>21</sup>

In the negotiations for the concession agreement of 2015, which are held at this moment, the concession of the HSL and the conventional railway network are planned to be integrated with each other. This integration of both concessions should lead to a higher quality on the conventional domestic railway network due to complementation and should guarantee the continuation of high speed passenger train services over the HSL.<sup>22</sup>

### 3. The HSL project

As shown in the previous chapter the NS was controlled and supported by the Dutch government for many decades until 1995. Together with a monopoly on the Dutch railway network the NS was not used to a competition driven railway market. With the tender for the HSL, held just a few years after the privatization of the NS, it shows that the NS had difficulties to cope with this new market situation. In order to fully understand the HSL project and to identify the different problems that arose during this project this chapter will give a brief overview of the HSL project during the planning, constructing and the beginning of the operating phase. The way the concession was granted will be reviewed more thoroughly in order to determine how this process affected the HSL project. To reconstruct the planning and constructing phase of the HSL a research commissioned by parliament will be used.<sup>23</sup>

With this chronological review of the HSL project problems that occurred during this project can be identified and explained. This will be done in the next chapter with information gathered in this chapter. There are roughly four different events that contributed to the delay of the HSL project. The planning and constructing phase, the beginning of operating the HSL and the tendering procedure all had their own flaws. All four phases are responsible for the late commissioning of the HSL. However the tendering procedure is the subject of interest and will be therefore reviewed in more detail.

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<sup>21</sup> Rijksoverheid, 2011

<sup>22</sup> Rijksoverheid, 2013

<sup>23</sup> Tweede Kamer, 2004

### 3.1 Planning the HSL

Japan developed the first high speed railway connections during the 1960's. Due to the success of this high speed line other governments followed with plans for an own high speed railway connection. In 1973 the Dutch government had its first ideas for a high speed railway connection with an idea for a railway connection between Amsterdam, Rotterdam and Belgium, the so called AMROBEL line. This idea was not elaborated any further because of a general consensus that an international approach was more vital. Shortly after the opening of the first European high speed railway connection from Paris to Lyon in 1981 the Dutch government made plans to connect the Netherlands with an European high speed railway network. An international workgroup was formed with France, Belgium and Western Germany in 1984 in order to explore the possibilities for a Western European integrated high speed railway network.

After many years of discussing different options the Dutch government decided in 1991 to build a 'real' high speed railway connection on newly built tracks which would be dedicated for high speed passenger train services. Only a few parts of the this railway connection would use conventional non high speed tracks, for instance the 'Blaaktunnel' at the south side of Rotterdam and the 'Schipholtunnel' to and from Schiphol Airport due to high the costs of building new tunnels. Besides this plan of a newly build high speed railway connection two other options were suggested. Upgrading existing tracks in order to allow trains to drive at faster speeds than normally over conventional domestic tracks was the cheapest option, but was rejected due to desire of building a real high speed railway network. For this reason also the option to build new tracks for a part of the route and use existing conventional tracks for the other part of this new railway connection was rejected. This new high speed railway connection was later called the HSL.

During the late 1980's and the 1990's the location of the HSL was discussed. There were many options available with pro's and con's. Many environmental issues, especially for the tracks north of Rotterdam, were protested by environmental organizations and activists. For the tracks south of Rotterdam there was a discussion with the Belgium government on which route to choose. The Belgium government wanted a different route than the Dutch government. The Dutch government wanted the fastest route between Rotterdam and Antwerp while the Belgium government aimed on protecting flora and fauna. The Belgium government was willing to accept the proposed faster Dutch route, but the Dutch government had to finance solutions such as tunnels in order to protect flora and fauna.

The discussions on the tracks north and south of Rotterdam were mainly about money. The routes that were preferred by the Dutch government were crossing areas with important flora and fauna, like 'Het Groene Hart', a protected area with many flora and fauna in the densely populated Randstad region. Environmental organizations demanded tunnels or other solutions in these areas to compensate for any disturbance in the flora and fauna. These solutions were expensive and were substantially increasing costs of constructing the HSL. The debate on which route to choose took several years. In 1997 the first plan where all parties could agree to was made. This was 10 years after the beginning of the active period of planning in 1987 and 7 years after the beginning of the discussion with the Belgium government in 1990. At the moment that this agreement was reached all parties assumed that commercial train services would start on the HSL before June 2005.

The HSL is designed to enable trains to reach speeds up to 300km/h. During the later phases of the HSL project it was doubted if this high designed speed was necessary to achieve the desired traveling times. Proposed transit times were also feasible with lower speed such as 250km/h. However during the planning phase the designed speed of 300km/h was never a real reason for discussion. The designed speed was taken for granted by the Dutch government. A reason for this is a misunderstanding of the agreements that were made with the European workgroup for a high speed railway network. The Dutch government had an assumption that the 300km/h designed speed was an agreement which could not be deviated from. This misunderstanding had to do with the term 'high speed'. However, a newly built railway connection may be labeled as a high speed railway connection when train services using this line have a minimum speed of 250km/h.<sup>24</sup>

A second reason for holding on to this high designed speed may have something to do with prestige. Prestige seems to have played a role in the planning phase of the HSL project. Many of Europe's high speed railway connections were designed for 300km/h and the Dutch government didn't want to admit to a lower speed. The downfall of such a strict requirement is that designing tracks for 300km/h is significantly more expensive than designing tracks for lower speeds. Curves have to be wider and tunnels have to be constructed in a different way because of aerodynamic issues. When looking back to the HSL project it may not have been necessary to construct a high speed railway connection for 300km/h, a somewhat lower speed would have satisfied the demands for traveling times.

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<sup>24</sup> European Union, 1996

## 3.2 Constructing the HSL

After the planning phase the constructing phase could begin. In 1997 the procedures started for financing the HSL project and for arranging the necessary permits. The HSL project was coordinated by a workgroup called HSL-Zuid, named after the project itself. Other options were coordination by the department of Waterways and Public Works (Rijkswaterstaat) or by the NS. The Dutch government preferred the NS as a project leader because of the experience they had in the 'Betuwelijn' project, a railway connection exclusively built for freight transport from Rotterdam to the German border, as a project leader. However the NS wasn't willing to take such a role in the HSL project. The NS indicated that they could not cope with the responsibility and risks that are present when taking a project leader role in two projects of such a big size and impact. Therefore the NS decided to not take the role as project leader but instead they provided knowledge and personnel to the HSL project. Later on the workgroup HSL-Zuid was reorganized and the department of Waterways and Public works became responsible for executing the HSL project whilst the secretary of transport became responsible for policymaking for the HSL project.

The Dutch government decided to arrange a tendering procedure for awarding contracts for building and operating the HSL. The construction of the HSL was divided in a superstructure and a substructure part which were both part in separate tendering procedures. Most contracts were awarded in 2000 to different constructing companies, or consortiums of companies, for constructing the superstructure and substructure. The department of transport made a pre-selection after the first round of the tender where candidates can show their interest. Only the candidates who were selected during this pre-selection could take part in further negotiations with the Dutch government. Therefore the competition among contractors was lowered in the tendering procedure. This happened with the tender of the substructure and superstructure.

### 3.2.1 Substructure

In 1999 a public tendering procedure was started in order to award the contracts for building parts of the substructure, the construction of the tunnels, bridges and other supporting parts of the HSL. After accumulating the different bids that were made in the tendering procedure the ministry of transport discovered that these bids were substantially, up to 50%, higher than was budgeted. A report from Loyd's Register from July 1999 showed that the budgeted contract values were too low due to incomplete cost calculations. Nevertheless the ministry of transport could not deviate much from their budget because the Dutch parliament only agreed for this budget. Because of the major gap between the budgeted contract values and the bids that were made the ministry of transport

preferred to do the tendering procedure all over again with different requirements for contractors, however, the department of arbitration prohibited this plan. Negotiations with the participants that made a bid in the original tendering procedure had to be completed. Only if these negotiations would fail, and the ministry of transport could justify the reasons of failure, a new tendering procedure could be started. In order to stay within budget the ministry of transport decided to negotiate with the contractors with costs as the leading indicator. Compromises had to be made in terms of quality requirements and risk liability. Contractors were only willing to accept contracts with a lower value if quality requirements were lowered and liability for the HSL project was partially taken over by the ministry of transport. Because of these compromises, and a 10% higher budget, an agreement was finally reached. Constructions were planned to finish in 2005 at the moment the contracts were granted.

### 3.2.2 Superstructure

In the same period the substructure tender was held the tendering procedure for granting the contract to construct the superstructure, constructing the actual tracks and the overhead wires, took place. The contract that was subject in this tendering procedure included, besides the actual construction, also a concession for maintaining this superstructure. After a tendering procedure similar to the substructure tender the outcome was comparable with bids 50-80% higher than budgeted. A consortium called Infrasppeed was finally awarded with the superstructure contract but not before later bids were lowered due to compromises on risk liability from the ministry of transport and an increase in the budget for this project. In the contract that was awarded to Infrasppeed the deadline to complete the HSL constructions was moved by 6 months to January 2006.

Both the substructure and superstructure contracts are examples of a private-public cooperation. One of the reasons that the Dutch government chose for such a construction is to cut costs due to competition. However, the Dutch government made a pre-selection after interest was shown by different companies in the first round of tendering. The Dutch government decided which participants would be admitted to further negotiations. In earlier major infrastructural projects the government awarded contracts without a tendering procedure. Instead direct negotiations with a select group of constructors were held.

In the Netherlands a big scandal was disclosed in 2002 called the 'bouwfraude', a fraud with cartels in the constructing industry, after a confession of a whistleblower. A parliamentary commission did an investigation to this fraud and concluded that the construction of the HSL was affected. However, the commission did not specify in which way and to what extend the HSL project was affected because the HSL project was not a direct subject of this research. It is assumable that the bids in the

tendering procedure for the substructure and superstructure were higher than in a free competition environment without these cartels.

### 3.3 Granting the concession for high speed passenger services

While planning the HSL the Dutch government took a private investment into account. This private investment had to be achieved mostly out of the concession fee that the concessionaire would have to pay for using the HSL. Initially the concession was split in to two parts, a concession for the domestic passenger train services and one for the international passenger train services. The concession of the international passenger train services was intended to be subject of a tendering procedure while the Dutch government preferred to grant the concession for the domestic part to the NS. The NS therefore had the opportunity to take part in exclusive negotiations with the Dutch government. Eventually the whole concession for passenger train services on the HSL was granted by a tendering procedure.

As seen in the second chapter the Dutch railway market experienced many changes during the 1990's due to a new structure of the railway market in the Netherlands, and European rules and regulations. The concession to operate international high speed train services over the HSL was not automatically granted to the NS but instead a tendering procedure would be started. Because of the international character of this concession it was obligated to start a tendering procedure for this concession.

However, the concession for domestic train services did not have this international character and therefore the Dutch government was not obligated to grant this concession by a tendering procedure. The Dutch government did however prefer a more business approach with the NS instead of the connection they had with the NS until 1995. Therefore it was decided to not automatically grant the NS this concession but negotiate with the NS on the terms of this concession. Despite of the fact that a more business approach towards the NS was desired the NS still got a preferred position. Before the concession for the domestic train services became subject to a tendering procedure the NS had an exclusive right to negotiate with the Dutch government in order to get this concession without tendering.

This different approach towards the NS caused a deterioration of the relation between the Dutch government and the NS. The NS was expecting another approach from the Dutch government because of the concession they already had for the conventional domestic rail network. The NS never had to cope with such competition before and was worrying that the companies' continuity was at stake if there was a risk of losing routes. The railway market is a very capital based one because



assets like rolling stock have high a high value and a long durability. When the number of routes would decrease a surplus of rolling stock can occur which can cause losses due to unused assets.

### 3.4 Domestic and international HSL passenger services

As mentioned before, the HSL has been split up in a domestic and an international part where the NS initially got a preferred position for the domestic HSL concession. The negotiations between the Dutch government and the NS started in 1999. Only when these negotiations would lead to a bid that was not sufficient in the eyes of the Dutch government a tendering procedure would be started for the domestic service over the HSL. The international HSL train service was intended to be subject to a public tendering procedure, open for participants from all EU countries, from the beginning due to European tendering rules and regulations.

The Dutch government invited the NS to make a bid for the domestic HSL train service. However, the NS was not willing to bid on only the domestic HSL train service, but only on both the international and domestic concessions in at the same time. However, the Dutch government asked the NS to do a bid on only the domestic part of the HSL. Despite of this strict requirement the NS eventually made a bid for both the domestic and international part of the HSL in September 1999 in order to make a statement. The NS was not willing to admit to the changes of a liberating railway sector in fear of unfair competition. This unfair competition could occur, according to the NS, due to divergent sizes of foreign railway companies, especially the French railways (SNCF) and German railways (DB) were seen as too big to compete with for the NS. The financial power of these companies is that much bigger that competition could be unfair and therefore endanger the continuity of the NS.

Due to European rules and regulations the Dutch government could not accept this bid, the international HSL train service had to be subject of a tendering procedure. The NS got an opportunity to adjust their bid in the months after September 1999, but the NS decides to leave their bid as it was and only emphasizes it. With emphasizing their bid the NS hoped that the Dutch government would come to a consensus that it was necessary to grant the concession of the whole HSL to the NS in order to secure the continuity of the NS as a private company. Because the bid is not receptive the Dutch government rejects the bid after all.

To give the NS another chance, the third one, to participate in the HSL project the NS gets three options to continue with the HSL project. This is a demand from the Dutch parliament because of the desired integration of the HSL with the conventional domestic rail network and the risks for the continuity of the NS when they would not participate in the HSL project. General consensus in the Dutch parliament at that time was that the NS would not be viable as a private company when they

would not participate in the HSL project due to a lack of growth options in the conventional domestic railway network. The first option is to make a bid for only the domestic train service, the second one is to not participate in the tendering procedure but instead the NS would have been given an option to work together with the company that was granted with the concession in a consortium and the third option is to participate in a tendering procedure.

This option to choose out of three options was a last minute procedure. The time the NS got to react on this proposal was with 7 days very short. This last minute procedure was not in line with the agreed procedure. The agreed procedure for granting the concession of the domestic HSL train service was that the NS would get an exclusive opportunity to negotiate with the Dutch government and when the final bid of the NS was not sufficient enough a tendering procedure would be started. Because of this deviation from the agreed procedure juridical risks were present. Other companies that were interested in bidding on the concession could start juridical procedures because of the preferred treatment of the NS by the Dutch government. Other companies could go to court in order to try reversing decisions made in this process of exclusive negotiations. In correspondence between the tenderboard HSL-Zuid and the Projectgroup HSL-Zuid it shows that this was a real threat.<sup>25</sup> The NS eventually rejects all options after all and this leads to a crisis situation between the NS and the Dutch government.

Dutch parliament accused the secretary of transport and the Dutch government for putting the NS out of play because of the strict conditions and the plan of opening the tendering procedure for foreign, financially stronger, companies like the SNCF and DB. In the beginning of 2000 the department of transport maps all possibilities and lists the companies that might want to participate in a tendering procedure. There are foreign companies that would be interested in a participation in the tendering procedure. The NS is initially not willing to participate in the tendering procedure, but wants to have an option to participate in a consortium with the winner of the tendering procedure. Later on the NS decides that they want to participate in the tendering procedure anyway as a consortium with KLM and Schiphol, the so called 'Oranjecombinatie'. The relation between the Dutch government and the NS becomes normal again during these months.

A strict condition for the Dutch government to start a tendering procedure was a level playing field. A strict requirement for foreign (railway) companies in order to participate in the tendering procedure is that the home railway market is accessible for foreign railway companies, like the NS, or will be in the near future. Most interested companies satisfy this condition except the SNCF. The French railway network was not accessible, and would not be in the near future, for foreign companies to

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<sup>25</sup> Janssen, J.G.J., 1999

start passenger train services. In April 2000 the department of transport announced that a public tendering procedure is not preferred because the condition of a level playing field is not satisfied. The department of transport preferred to award the concession of domestic and international train services on the HSL to the consortium 'Oranjecombinatie'. Dutch parliament does not support this option from the department of transport and therefore decides that a public tendering procedure has to be started after all. The main anxiety is that awarding the concession to the NS without a tendering procedure would yield less money than with a tendering procedure.

In September 2000 the enrollment for the tendering procedure for both the domestic and the international concession for the HSL started and in November the department of transport revealed 4 candidates, including a consortium of NS and KLM (without Schiphol). After negotiations with all four candidates two participants, including NS/KLM, did an actual bid on the concession. NS/KLM, later renamed to High Speed Alliance (HSA) eventually won the tendering procedure. NS/KLM made the best bid in financial perspective but also satisfied the requirements set in the tendering procedure best. In July 2001 the department of transport reached an initial agreement with NS/KLM. The yearly concession fee is set on €148.4 million for a period of 15 years and HSA had to start its service October 1<sup>st</sup> 2006. This concession fee is substantially higher than the budgeted €100 million per year. In the concession agreement requirements for timetables, price structures and quality demands are set.

The Dutch government made requirements for the participators of the tendering procedure. The following requirements were set in the tendering procedure:

- Experience in multimodal transport
- Comply to all Dutch railway rules and regulations and establish a Dutch subsidiary for operating train services on the HSL
- There has to be a level playing field in the country of the participating company
- Shareholders of the Thalys service have to comply with a level playing field in order to prevent a monopoly on the Amsterdam to Paris route
- No bids are accepted if these bids are backed by governments
- The domestic and international high speed train services have to be integrated in the conventional domestic train services. It has to complement each other.

Especially the last requirement was a strict one. With this integration between the HSL and the conventional domestic railway network quality improvements could be reached by complementation.<sup>26</sup>

### 3.5 The delivery of trains and ERMTS problems

Because the HSL was the first high speed railway connection in the Netherland and the NS or HSA had little to no experience with high speed trains new trains had to be ordered. The Thalys trains were only partially owned by the NS, but these trains are completely based on the French TGV train. To contract a manufacturer for building new high speed trains a tendering procedure was started. In 2004 AnsaldoBreda was selected as winner of this tender. AnsaldoBreda would build high speed trains for the HSA with a construction speed of 250km/h. These newly built high speed trains would be used for the train service between Amsterdam and Brussels. First trains should be delivered in 2006 and service was planned to start in 2007. However at the ending of 2005 it was announced that the trains would be delayed. The first test train was not delivered before 2009 and service did not begin before the end of 2012. The test period was quite extensive due to technical difficulties. It took until 2011 before the delivery of these Fyra trains really started.

During the first weeks the Fyra trains were deployed in commercial service many problems arose. On January 18, after about a month of commercial service, the Fyra service was suspended due to technical difficulties and dangerous situations. After heavy snow accessories of a Fyra train broke off during commercial service and landed on the track. Belgium railway authorities prohibited the Fyra trains for using Belgium railway tracks, in this case the Belgium part of the HSL. At the end of May HSA decided that the Fyra project would be cancelled. All trains that were not yet delivered were cancelled and lawsuits were filed by HSA and AnsaldoBreda to decide who is going to pay for this debacle.<sup>27</sup>

*ERMTS* is a safety system specially built for high speed rail tracks and provides the train drivers with extra aides to secure safety at high speeds. *ERMTS* is also intended to solve problems with different rail safety systems. Almost every country has its own rail safety system which most of the time are not compatible with each other. For international train services this is a big problem, trains have to be equipped with multiple systems to use rail tracks in more than one country. *ERMTS* will be integrated in more countries during time and will make international train services easier. This due to

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<sup>26</sup> Tweede Kamer, 2000

<sup>27</sup> Treinreiziger, 2013

a decision from the European Union that all new high speed railway connections have to be deployed with the *ERMETS* safety system.

*ERMETS* was a relatively new system that time and technical difficulties occurred during the installation on the HSL route. The HSL track and different types of trains had problems with implementing this new safety system. The Dutch/Belgium border, for instance, experienced *ERMETS* problems due to different *ERMETS* manufacturers for the Belgium and Dutch part of the HSL. The two different systems were not completely compatible with each other. Due to this kind of problems the HSL construction was delayed, Thalys had to wait till 2009 before the trains were adjusted and usable for the HSL track. The Fyra trains were ordered later than planned because of a discussion whether or not deploying the HSL with the new *ERMETS* safety system.<sup>2829</sup>

### 3.6 Conclusion

The whole process of planning, constructing, granting the concession and operating the HSL had quite some downfalls. Because of different problems that occurred during the HSL project the whole project was delayed by 5 years and even 8 if the delay of the Fyra trains is taken into account. At the start of the project costs were budgeted at 3.4 billion euro. During the constructing phase the budget was enlarged for quite a few times and the budget is kept remaining a struggle between different parties. The final costs of the HSL project were 7.125 billion euro.<sup>3031</sup>

In the next chapter all problems that occurred during the HSL project will be identified and reviewed in order to see what the different reasons behind the delay on commissioning of the HSL were. The chronological overview in this chapter will be used for that.

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<sup>28</sup>Velzen, van, T., 2012

<sup>29</sup>NRC Handelsblad, 2008a

<sup>30</sup>NSHispeed, 2013c

<sup>31</sup>Treinreiziger, 2013

## 4. What were the main reasons for delay during the HSL project?

The HSL project can be divided in four different categories which all had their different problems. First of all quite some delay occurred during the planning phase. Despite of the fact that the first official announced date of commissioning was published after the planning phase, the constructing phase could have started earlier than it did. The constructing phase was also an arduous one because of the difficult tendering procedure for the substructure and superstructure. Granting the concession to operate passenger train services caused another delay. Due to a whole procedure of negotiations before the actual tendering procedure was started this procedure was started later than necessary. The operating phase caused a delay towards the commissioning of the HSL due to late deliveries of the ordered Fyra trains. Later on the Fyra service was even cancelled definitely.<sup>32</sup>

In this chapter the main problems will be identified and reviewed in order to look on the effect they had on the delay that occurred in the HSL project. This will be done by isolating all four phases and describe the problems with their causes. A special interest in this thesis is going to the effect of the way the concession has been granted. However, in order to determine this effect a full overview of all different problems, and their effect on the delay in the HSL project, has to be made in order to isolate the problems that occurred during the tendering phase and determine their effect on the total delay. Information in this chapter will be derived from the previous chapter along with extra information from the research that was commissioned by parliament.<sup>33</sup>

One of the reasons that the concession was not granted with a tendering procedure at once is the strong preference towards the NS that the Dutch government had. Due to this preference it is plausible to assume that the concession procedure is affected by this. Despite of the fact that the concession was eventually part of a public tendering procedure it seems that the Dutch government set the requirements for the tender bid in a way the NS was almost the only candidate that could fulfill them. The preference for the NS as concessionaire will be described in detail in this chapter in order to determine the effect this preference had on the way the concession was granted.

### 4.1 Problems and delays during the planning phase

The planning phase of the HSL took about 10 years. Especially the discussion about the route between the Dutch border and Antwerp was an arduous one. It took as long as seven years before both countries reached an agreement. The Belgium and Dutch government had different objectives

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<sup>32</sup> NSHispeed, 2013a

<sup>33</sup> Tweede Kamer, 2004

towards this route; respectively retain flora and fauna and the fastest route from Rotterdam to Antwerp. The fact that the HSL route is crossing two countries, with both different objectives, caused the decision-making process to take longer than expected, either Belgium or the Netherlands had to admit to the others demands. Eventually the Dutch route was chosen, but the Dutch government almost completely financed the solutions to protect flora and fauna near the HSL route.

Belgium already had a connection with the French high speed rail network planned which would be commissioned in 1997. Therefore Belgium was ensured that it would be connected to the European high speed railway network. However, the Dutch government needed the cooperation from the Belgian government to connect the Netherlands with the French high speed rail network and therefore the rest of Europe's high speed rail network. Belgium may have had less of an interest to connect Antwerp with the Netherlands by the HSL, anyway not with the fastest route possible. A recent press release of the Thalys group confirms this presumption. According to the Thalys group it shows that not many passengers use the HSL for traveling between Amsterdam and Brussels. Most Dutch Thalys travelers use this service to travel to Paris and further. <sup>34</sup>

#### 4.2 Problems and delays during the constructing phase

When looking to the delays that occurred during the constructing phase of the HSL it can be concluded that the problems during the tendering procedure did play role in this. During the tendering procedure of the sub and superstructure a conflict arose because of financial reasons. The budgeted contract values were not in line with the bids that were handed in by the participants of the tendering procedure. After renegotiations the Dutch government accepted lower quality and liability requirements from contractors in trade of a lower contract value. Still the budgeted costs for the HSL were increased multiple times during this construction phase. It can be concluded that the contracts awarded by the ministry of transport were incomplete and caused an increase in budgeted costs after all. This may have something to do with the fact that a part of the liability was taken over by the ministry of transport. Because the ministry of transport was partially liable for the constructing of the HSL, errors that were made had to be partially funded by the ministry of transport.

After the tendering procedures criticism arose from members of Dutch parliament because of the little number of participants in both tendering procedures. There were a disappointing amount of constructors interested and among the interested constructors there were only a limited number of foreign constructors. The few foreign constructors that were interested were only part of a

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<sup>34</sup> BNR, 2013

consortium with one or more Dutch constructors without playing a dominant role. Because of the size and complexity of the constructions only a few Dutch constructing companies could cope with these constructions according to the ministry of transport. Due to pre-selection by the ministry of transport few constructors qualified for the negotiation phase of the tendering procedure. This low competition between constructors in both tendering procedures may have had an influence on the price level of the bids made.<sup>35</sup> If also the 'bouwfraude' is taken into account it can be concluded that costs would have been lower than they did if there was more competition in the tendering procedure. Due to a different approach, for instance a less strict pre-selection, more competition could have been achieved.

The introduction and difficulties with the ERTMS safety system did also have an impact on the delay of the HSL project. Due to a late decision on whether or not installing ERTMS on the HSL and the technical difficulties during the installing on the HSL not only caused a delay in finishing the construction of the HSL but also a delay in the delivering of the Fyra trains. According to the NS trains were ordered later than planned because of this late decision on the rail safety system.<sup>36</sup>

#### 4.3 Problems and delays during the process of granting the concession

The process of granting the concession for operating the domestic and/or international high speed train services over the HSL took two years. The reason that this process took this long had to do with the exclusive negotiations on the subject of the domestic part of the HSL between the Dutch Government and the NS. There were different rebounds after the NS refused to make a receptive bid. Because these exclusive negotiations failed, a public tendering procedure had to be organized after all. The start of the tendering procedure had to wait until the negotiations for the domestic concession were finished. The time that was reserved for the negotiations with the NS caused a direct delay in the HSL project

When the procedure of granting the concession was organized in a different way there might have been chosen a concessionaire in a shorter time. The delivery of the newly built Fyra trains was delayed for many years and therefore caused a major delay in the full commissioning of the HSL. When there would be chosen a concessionaire at an earlier time this delay due to the late delivery of the Fyra trains would have less of an impact because of overlapping phases. AnsaldoBreda would have got a longer time to deliver the Fyra trains.

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<sup>35</sup> Trouw, 2001

<sup>36</sup> Trouw, 2005



#### 4.3.1 Preference towards the NS by the Dutch government

From the beginning of the HSL project it was clear that the Dutch government had a preference towards the NS as the concessionaire on the HSL. As shown in the previous chapter signs of this preference are manifested by the exclusive right the NS got to negotiate with the Dutch government before an eventual tendering procedure would be started for the domestic high speed train service. Also the opportunity that the NS got to adjust their bid in these negotiations two times show that the Dutch government had a preference for the NS.

In the public tendering procedure that followed the NS stayed the preferred candidate for the Dutch government. Requirements that were set by the Dutch government did match the profile of the NS in most ways. For other, foreign, companies it was harder to comply with the requirements that were set, especially the requirement for integrating the domestic high speed service over the HSL with the conventional domestic train service. This was a big advantage for the NS and the NS was practically the only participating company that could fully comply with this requirement.

Besides the fact that the NS could meet the requirements set in the tendering procedure at best the NS also had the best bid in the tendering procedure. Due to positive network effects that are present in the railway industry the NS could achieve more profit with a concession on the HSL than its competitors and therefore the NS may have been able to make a higher bid.<sup>37</sup> The NS is by far the biggest railway company in the Netherlands, there are a few smaller railway companies, but they only operate small regional railway routes. Because of the dominant role of the NS on the conventional railway routes the NS has the power to force passengers from conventional routes towards the (more expensive) high speed routes.<sup>38</sup>

#### 4.3.2 Possible consequences of the preference for the NS as concessionaire

Besides the direct effect on the delay of the HSL due to a long procedure of granting the concession, the way the concession was granted did also cause indirect effects in the HSL project. Other, foreign, companies that were interested in a concession for the HSL had to wait for the public tendering procedure to start before they could do a bid. Other companies could be disadvantaged because of potential foreknowledge by the NS. Because of the negotiations between the NS and the Dutch government the NS was able to study the requirements by the Dutch government for granting the concession on the domestic part of the HSL before any other interested company could do so. This

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<sup>37</sup> Landex, A., Nielsen, O. A., 2007

<sup>38</sup> Volkskrant, 2005

potential advantage could have given the NS a head start in the preparation of the tendering procedure and may have retained other companies to participate in the public tendering procedure.

Because of the reasons that are mentioned above, possible foreknowledge, requirements that were most easy to fulfill by the NS and the advantage the NS has due to network effects there may have been companies that were initially interested in a concession on a route on the HSL track, but eventually decided not to participate in the tendering procedure.<sup>39</sup> Besides the possibility that foreign companies decided to not participate in the public tendering procedure there is a possibility that the companies that did participate did not had an even chance with the NS as preferred candidate.

It seems that the lack of experience from the Dutch government and the HSA/NS with high speed railway connections is one of the reasons that the whole procedure of planning, constructing and ordering trains was arduous and therefore this lack of experience could have played a role in the problems and delays that occurred during the HSL project. When a more experienced company in high speed rail connections had been granted the concession for either or possibly both the domestic and international HSL route there may have been a possibility that less problems, and therefore delays, had occurred due to more experience. The NS had only experience with high speed train services with a few projects in collaboration with foreign alliances such as the Thalys and ICE trains. However these trains are only partially owned by the NS and are existing, proven to be reliable, trains. The NS had to order newly built trains for the Fyra project while they never had to cope with his. The inexperienced contractor AnsaldoBreda was chosen to deliver these trains.

As an example the French railways (SNCF) could be used. When, hypothetically, the SNCF would have won the tendering procedure a lot of expertise would be available because of the years of experience the SNCF has in high speed railway. SNCF could bring their own trains for instance, the TGV is a proven concept. However a downside for choosing a foreign railway company as the concessionaire on the HSL is the lack of possibilities to integrate the HSL with the conventional domestic railway network.

#### 4.4 Problems and delays during the operating phase

When looking to the operating phase of the HSL project there can be concluded that most of the delay was due to the late delivery of the Fyra trains by AnsaldoBreda and the technical difficulties that occurred during testing the Fyra trains on the HSL. These problems are partially owed to the

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<sup>39</sup> Janssen, J.G.J., 1999

problems with implementing the ERMTS safety system on the Fyra trains.<sup>40</sup> These problems caused the main delay in the whole HSL project. However, the problems with the late delivery of trains could be linked to other problems such as the inexperience of the NS in the field of high speed train services.

#### 4.5 Conclusion

Multiple problems did play a role in the delay that occurred during the HSL project. The most substantial delay occurred due to the late delivery of trains. However this late delivery can be linked to decisions earlier in the HSL project. The late decision about whether or not using ERMTS as the track safety system resulted in ordering trains later than planned. Also the inexperience of the NS in high speed train connections could have played a role in this with little experience in high speed railway and non in ordering high speed trains. The choice of inexperienced manufacturer brought even more risks than when a proven concept such as the TGV or ICE was chosen.

The way track access was arranged did also have an influence on the problems during the HSL project. The Dutch government chose a concession structure to arrange track access. According to the Dutch government a concession should give a more certain income than other options. Another option is to not give exclusive rights to any railway company but to open track access to all interested railway companies and asking a fixed fee for using the HSL. By choosing a concession as the way to arrange track access there is no flexibility. The concessionaire is responsible for operating, in this case, the HSL. When problems arise, like they did in the HSL project with the late delivery of trains, the concessionaire is responsible for solving this. Due to this exclusive right problems in the operations of the concessionaire have a major impact on the railway connection itself. There is no competition to substitute train services.

When looking to the whole procedure of planning and constructing the HSL, but also in granting the concession to the HSA it is clear that the Dutch government had a lot of influence. One of the reasons that the HSL project is exposed to such a long time between first plans of building a high speed railway connection in 1984 and the first Fyra service in 2012 on the HSL is that the Dutch government had a lot of interference during this project. From planning the routes through different areas till the different budget increases, every change of plan had to be discussed in Dutch parliament. These debates caused a lot of delays. Also changing governments changed the view on the HSL project from time to time.

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<sup>40</sup> NRC Handelsblad, 2008b

In this chapter the different problems which caused the many delays are identified and explained. It seems that many factors did play a role in this. However as mentioned earlier a special interest in this is going out to the way track access is arranged, in the HSL case how the concession has been granted. By choosing an exclusive concession to arrange track access risks in continuity arise when the concessionaire is having difficulties in operating its train service. Another risk is a possible bankrupt of the concessionaire. The Dutch government had to interfere in the HSA in order to prevent a bankrupt and ensure the continuity.

This concession is granted by a tendering procedure. A tendering procedure has to make sure that the concession is granted in an impartial way. However this chapter shows that the NS had a preferred position before and during the tendering procedure. In order to see if this tendering procedure complied with all European rules and regulations these rules and regulations will be reviewed in chapter 5. The way track access has been granted and the consequences of choosing a concession along with the quantity of governmental interference will be compared with the Channel Tunnel Rail Link project in the UK with a case study in chapter 6.

## *5. European Rules and regulations for tendering procedures*

In this chapter European rules and regulations regarding tendering procedures will be reviewed in order to see to which extent the HSL project conformed with these rules and regulations. The aim of this is to see which deviations are present between these European tendering rules and regulations and the procedures followed in the HSL project and if these deviations can give an explanation for the delay that occurred due to the way the concession was granted in the HSL project. As shown in the previous chapter the Dutch government had a preference towards the NS which indicated that the tendering procedure also was in favor of the NS. This preference towards the NS did lead to some delays in the HSL project. This chapter will show how this preference was expressed in the tendering procedure.

The structure of this chapter is as follows: At first the European rules and regulations regarding tendering procedures will be explained. With these rules and regulations as a theoretical framework a comparison with the HSL project will be made with the objective to determine which deviations are present between the HSL project and these European rules and regulations. At last the question whether or not it was possible to avoid any of the problems that occurred during the procedure of granting the concession on the HSL by complying more with European standards will be answered.

## 5.1 Tendering rules and regulations explained

The European commission and the Dutch government both made rules and regulations for granting contracts funded by public money. These rules and regulations are set in 2005 and 2012 in documents provided by the Dutch government in collaboration with the European Union, "Besluit aanbestedingsregels voor overheidsopdrachten" and "Aanbestedingsreglement Werken 2012". These documents derive from older similar documents.<sup>4142</sup> Special Dutch rules and regulations for granting concessions for servicing railway routes are included in a document called "Besluit personenvervoer 2000".<sup>43</sup>

When a governmental body, or some selected subsidized organizations, decides to invest in an activity where it is needed to award contracts to private companies it is determined that all private companies must have a level playing field. This means that all companies, domestic and foreign, should have equal chances to be granted the contract that is awarded. In order to achieve this level playing field in most cases a public tendering procedure is chosen for awarding contracts to private companies. Only in specific situations, such as contracts which have a high risk if confidential information becomes public, like all contracts that are granted by the department of defense, or contracts with extreme specialist labor, another way of awarding the contract can be chosen. Companies can participate on their own or with other companies in a consortium in a tendering procedure.

A tendering procedure is obligated for a contract that exceeds the value of 5.000.000 Euro in the case of infrastructural projects. The value of the HSL project was obviously higher than this threshold of 5.000.000 Euro and no special conditions did apply wherefore a tendering procedure was the only way of awarding the contracts for constructing the HSL according to European and Dutch rules and regulations.

Because of rules and regulations that are set by the European commission and the Dutch government which determine that a tendering procedure must be transparent and non-discriminatory towards all participants a tendering procedure is acknowledged as the fairest way of awarding contracts which are funded with public money. The goal of a tendering procedure has to be clear and set up front. Most of the time the goal that is set is to create the highest economic value possible. The company that offers highest economic value is normally chosen as the winning bid. In the years before 2013 it was possible to choose for a participant that offered the lowest price, but

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<sup>41</sup> Rijksoverheid, 2008

<sup>42</sup> Rijksoverheid, 2013

<sup>43</sup> Rijksoverheid, 2000

with the new 2013 tendering rules and regulations the goal of a tendering procedure always have to be creating the highest economic value possible.

European rules and regulations determine that a tendering procedure must be open to all companies from all members of the European Union. Requirements in the tendering procedure, such as quality requirements, must be the same for domestic and foreign companies. These non-discriminatory demands must ensure a level playing field for all interested and participating companies. However a tendering procedure may contain special requirements, set by the governmental body that is awarding a contract, towards companies that are willing to participate in a tendering procedure. Although these special requirements have to be the same for every participant of the tendering procedure. Examples of these requirements can be requirements in terms of a minimum yearly turnover or the demand of having experience in comparable assignments. This is done to secure the quality of the execution of the contracts that are awarded.

When it is decided to award a contract by a tendering procedure there are different ways of organizing such a tendering procedure. The kind of contract that will be awarded is leading in such a decision. Some of the options that can be chosen are.<sup>44</sup>

- Open tendering procedure: The governmental body/subsidized organization that is awarding the contract makes a public announcement and every company that meets the requirements of the tendering bid can make a price offer. The company that is offering the lowest price or economical most viable option is winning the contract.
- A closed tendering procedure: The governmental body/subsidized organization that is awarding the contract makes a public announcement and every company can apply for participating in the tender bid. After the application period a few companies are selected to make an offer where the economical most viable bid will be chosen.
- Competition driven tendering: Companies that are interested in the contract are invited to show interest in the project by application. The governmental body/subsidized organization that is awarding the contract pre selects a few companies out of the applications and invite them to make a plan to deal with the problem where the contract is tendered for. The economic most viable option will be chosen.

The last tendering procedure that will be discussed is the tendering procedure for concessions on service contracts. The tendering procedure of the HSL project fits in this category and will therefore explained in more detail. There are a few other ways of organizing a tendering procedure but these

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<sup>44</sup> Europa Decentraal, 2013b

are not relevant for this thesis. The tendering procedures explained above are the ones that are most used.

Granting a concession for services is subject to less rules and regulations than the tendering procedures described above. It is not always obligated to organize a tendering procedure, concession can be granted by a direct negotiation with one or more companies. When a concession for services is granted the governmental body that is going to award the contract have to decide which way of granting the concession will give the highest economic value. However, the basic principles for tendering do still apply. There must be a level playing field for all players, domestic and foreign, the procedure must be non-discriminatory and there must be an acceptable level of transparency. These basic principles are necessary to ensure an impartial selection of the concessionaire.

A concession is different from other contracts awarded by a governmental organization by the fact that the contractor that is awarded the concession is not paid an amount of money for certain goods or services, but is awarded the exclusive right to operate a service for a specific period. In the HSL project, for instance, a concession is granted with the right to service a high speed rail connection for 15 years. The winner of the concession is given the right to operate a service and has to cope with all the risks which can occur in the concession period. The Dutch government is not responsible for any events that suddenly occur during the concession period.

This exception does not hold for concessions that have an international character. When companies from foreign countries could have an interest in a concession more transparency has to be implemented in the process. Because of an increased transparency more companies can show interest in the concession and it is more ensured that the procedure is non discriminatory towards foreign companies. Therefore there are situations where a tendering procedure is the only way to ensure that the procedure of granting a concession have a level playing field and is non discriminatory for interested participants from all European countries.<sup>4546</sup>

## 5.2 How did the HSL project deviate from European rules and regulations?

In the HSL project two different types of contracts were awarded by a tendering procedure. At first the contracts for constructing the substructure and superstructure were awarded. This was done by a closed tendering procedure. Every participant was able to show their interest in these contracts and make a bid. However, the ministry of transport made a pre-selection after the bidding phase and decided with this pre-selection which companies would get the opportunity to negotiate with the

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<sup>45</sup> Europa Decentraal, 2013c

<sup>46</sup> Pianoo, 2013

ministry of transport. Companies that were not selected for this negotiation phase lost the possibility of winning the tender. Due to the focus in this thesis on the way track access has been granted the construction tender will not be specified any further.

In the HSL project there was initially chosen for two different ways of granting the concession for operating a high speed train service. The NS got the exclusive opportunity to negotiate with the Dutch government for the domestic high speed train service while the contract for the international high speed train service was planned to be subject to a tendering procedure from the start of the HSL project. The negotiations with the NS for the domestic part of the route were held before public tendering of the international high speed service over the HSL started. This was done because the domestic part would be integrated in the international tender when the NS failed to meet the requirements of the Dutch government.

The rules of tendering concessions were respected regarding the awarding of the concession of the international high speed train service over the HSL. There is a clear international importance because the train service is operated between two countries. There was an open tendering procedure that was available for all interested companies. The tendering process was transparent and there was a level playing field.

The domestic part is subject to discussion in this perspective. The NS got the exclusive right to negotiate upfront and this is contrary to the rules and regulations of awarding contracts by governmental bodies. No other company had a chance of winning the concession rights for the domestic HSL train service in this phase. Other companies that were interested in this concession had to wait on the outcome of the negotiations between the NS and the Dutch government. This procedure does not comply with the rules set on transparency and non discrimination in some ways. However due to the lack of international importance the Dutch government was not required to grant this concession by a tendering procedure. In the Netherlands no other railway company is present that could cope with such a project. Therefore the selection of the NS was also a logical choice.

The NS got several chances to renegotiate the concession for the domestic part of the HSL. In these renegotiations other, foreign, railway companies still had no chance to participate. This preferred treatment indicates a strong preference for the NS as a concessionaire for the domestic part of the HSL. As mentioned in the previous chapter the Dutch parliament actually did have a strong preference for the NS and therefore did not comply with the level playing field and nondiscrimination requirements for awarding a concession for services.



The international concession for the HSL had to be granted by a tendering procedure because of the international importance of this route. As revealed in the previous chapter the Dutch government still had a strong preference for the NS as a concessionaire in the eventual tendering procedure, also for the international train services. One of the reasons that the NS had a preferred condition is the demand of the Dutch government that train services over the HSL to be integrated in the conventional domestic railway network. In the tendering procedure requirements were set that were in favor of the NS. Therefore the NS had a strong lead in this tendering procedure.

The tendering procedure was arranged according to the rules set by the European Union however, the Dutch government did manage to influence the outcome of this tendering procedure by defining specific requirements. The tendering procedure was open to all interested participants however, the requirements were set in a way that would give the NS an advantage in this tendering procedure. The NS was the only participant that could fully comply with the requirement of integrating the HSL with the conventional national railway network. This can also be concluded from the fact that only two, including NS/KLM, out of the four interested companies did make an actual bid on the concession. There was not much interest from foreign companies, probably because of the requirements set.

During the actual concession period the Dutch government did not comply with European rules and regulations for concessions. When granting a concession the concessionaire is responsible for executing the services that are included in the concession agreement. The concessionaire is liable for any risk that is associated with the concession. However in the HSL project the Dutch government interfered with the HSA during the concession period. The concession period was moved to begin at a year later than was agreed on because of problems that caused a late start of commercial service. In 2011 the Dutch government also changed the conditions of the concession because of financial problems the HSA had. This interference is not in line with the European rules and regulations.

### 5.3 Conclusion

The tendering procedure that was eventually held the Dutch government did comply with European rules and regulations for tendering a concession for services. However, due to the requirements that were set in this tendering procedure the NS was practically the only railway company that could comply with these requirements. This had something to do with the preference towards the NS as the concessionaire on the HSL. Due to these requirements there were only two actual bids made in the tendering procedure. If the initial direct negotiations for the concession of the domestic train services complied with these rules and regulations is subject to discussion. Due to the preferred

position of the NS the requirements of a level playing field, non-discriminatory and transparency were not met. However, due to little international importance this procedure was not subject to European tendering rules and regulations. Because the NS is by far the biggest Dutch railway company it was a logical choice to start negotiations with the NS.

As shown in the previous chapter the preferred position may have caused a lower number of interested companies for the concession on the HSL. Due to the requirements set in the tendering procedure the NS was practically the only participant that could fully fulfill these requirements. When these requirements were set in a different way there might have been more participants and probably more eventual bids on the concession on the HSL during the tendering procedure. Despite the fact that the Dutch government complied with the European rules and regulations for granting a concession for service it did influence the outcome of the tendering procedure. The problems due to the preference preference, as described in the previous chapter, could be avoided by granting the concession to a more experienced foreign company, whether or not in a consortium with the NS.

## 6. Case study: UK's Channel Tunnel Rail Link

In order to compare the HSL project with a similar railway project a case study will be made of the Channel Tunnel Rail Link (CTRL). The CTRL is a high speed railway connection between the channel tunnel and London St Pancras. In this case study there will be a focus on the way track access is arranged, there was not chosen for a concession structure in this project, and the way the British government interfered with the project. The aim of this case study is to compare both projects in these subjects and link the outcomes to the problems and delays that occurred. In this case study a research provided to Members of Parliament is used.<sup>47</sup>

In order to understand the context of the CTRL project first an overview of the UK railway network will be given. Together with an overview of the planning constructing and operating phase of the CTRL project this will give an understanding of the circumstances in which this project has been built. From this overview the information about track access arrangements and governmental interference will be derived and will be reviewed in more detail.

The CTRL project is chosen for a case study because of different reasons. When comparing the HSL project with the CTRL project many similarities can be found. At first the characteristics of both railway connections are very similar. Both railway connections are newly built high speed railway

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<sup>47</sup> Butcher, L., 2011

connections. On top of that both projects are built because of a desired connection to the European high speed railway network and both high speed lines are connected to existing high speed lines, the HSL to the Belgium/French high speed line via Brussels and the CTRL to the channel tunnel.

Also the timeframe in which both projects were planned and constructed is similar. Not only the time period itself, from the 1990's till the end of the 2000's, but also the changes that were made in the home railway markets during this period were similar. Both railway markets had to cope with major changes due to privatization in the early 1990's which substantially changed the way track access was arranged. The lengths of the tracks are comparable, 109km for the CTRL and 147 km for the HSL. On top of that both projects had to deal with railway companies that had not much experience with highspeed train services and had to order brand new trains.

There is however a major difference between both projects. Where the CTRL project is only affecting one country, the UK, the HSL is crossing two countries, Belgium and the Netherlands. Because the CTRL only runs on British soil it is only affected by the British government. In chapter 3 and 4 it is shown that the HSL had a difficult planning phase because of the negotiations between Belgium and the Netherlands. The CTRL did not have to cope with this and therefore was not affected by this problem.

Because of these reasons a comparison between the Dutch HSL and the UK CTRL is the best option. A case study on another high speed project would have had fewer similarities. Most countries already had experience in high speed rail, for instance France, Spain and Japan. Other countries that did build high speed railway connections for the first time in the same period, like China, do have a completely different railway structure due to total state control. Also the purposes of these railway connections are different because they serve a more domestic purpose instead of aiming at a connection with an international high speed railway network. Therefore a comparison a comparison with projects in one of these countries would give a substantial bias.

## 6.1 The UK railway network explained

The UK railway network is one of Europe's biggest and most heavily used with about 20.000 passenger train services a day (2011) and 15.754 km of route (2010)<sup>48</sup>. The UK rail network is serviced by a lot of different private companies which all service different franchised routes and is therefore fragmented. Railway companies are called Train Operating Companies (TOC'S). At this moment there are 24 TOC's active in the UK serving different parts of the UK.<sup>49</sup> To achieve the status of a TOC

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<sup>48</sup> Rail-reg, 2010

<sup>49</sup> Atoc, 2013

a company has to gratify different requirements from the UK as mentioned in the railway act of 1993.

From 1947 till 1997 there was only one state owned railway company called British Railways (BR). BR was vertically integrated with other railway services like maintenance, energy supply and train management. When the UK railway network was privatized in 1997 BR was transformed and divided into three rolling stock leasing companies (Rosco's) and Railtrack. The routes became subject to a tendering procedure in order to be franchised to different TOC's. These TOC's could lease the rolling stock from a Rosco. Train management became a task for Railtrack and maintenance was outsourced. The UK railway network became too fragmented and due to different accidents and incidents on different tracks Railtrack was replaced by Network Rail in 2002. Network Rail in-housed maintenance and other tasks quickly after their start.<sup>50</sup>

All UK railway routes are franchised nowadays because of the privatization of the UK railway system. The different routes/regions are subject to a tendering procedure. The franchise of a certain route is granted for a specific period and it is transparent when a route/region becomes subject to a tendering procedure. These dates are published by the UK department of transport. (See figure 4)

At this moment there are plans to build a new high speed line, HS2, to the northern part of the UK. This train service is aiming on much lower transit time between London and the northern part of the UK. It is planned in two phases, with the first phase going to Birmingham and phase two going further to Leeds and Manchester. At this moment the latest routes are discussed and construction is expected to start in 2017. Later on it is expected that HS2 will be continued further north to Newcastle, Edinburgh and Glasgow. HS2 will only be partially build with the aim of connecting the northern part of the UK with the European high speed railway network, the goal of this project is to bring the northern part of the UK closer to London by reducing travelling time.<sup>51,52</sup>

## 6.2 The Channel Tunnel Rail Link

The CTRL is a 109km long highspeed railway connection between the Eurotunnel and London St Pancras. The CTRL is also known as Highspeed 1 or HS1 due to the fact that it is the first highspeed railway connection in the UK. The CTRL was specially built for highspeed passenger and freight train services in order to get fully connected with the European high speed railway network. Before the completion of the CTRL all train services had to use the conventional domestic rail tracks from the

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<sup>50</sup> McCartney, S., Stittle, J, 2008

<sup>51</sup> HS2, 2013

<sup>52</sup> UK government policy, 2013

Eurotunnel to London. The CTRL was completed in two parts, the first part, from the Eurotunnel to Ebbsfleet (Kent), was completed in 2003 and the second part, from Ebbsfleet (Kent) to London St Pancras in 2007. (See figure 5) The CTRL is operated by two TOC's, Eurostar for the international train service to Brussels, Lille, Paris and Disneyland Paris using the Channel Tunnel and Southeastern Highspeed for the domestic train service between London and the Southeastern part of England.<sup>53</sup>

Eurostar is a railway company that is serving an international network of rail connections since 1994, the first year that the Eurostar trains could use the newly built Eurotunnel. Eurostar connects London with Brussels, Lille, Paris and Disneyland Paris and intermediate stations. In the first years of operating Eurostar trains could only use conventional domestic tracks in the UK, but since 2003 and 2007 respectively the first and second part of the CTRL became operational for the Eurostar train service. With additional connections London is connected with the extensive European highspeed rail network through the Eurostar highspeed train service and the CTRL since 2007. Since the full commissioning of the CTRL total time savings in travel time is 51 minutes. The Eurostar can run up to 300km/h on the first part of the CTRL and 225 km/h on the second part of the CTRL.<sup>54</sup>

Since the end of 2009 Southeastern Highspeed is exploiting a domestic high speed train service between London and the southeastern part of the UK (Kent) with speeds up to 225km/h. This route is serviced by brand new high speed trains build by Hitachi. By introducing this high speed service transit times have been substantially shortened (see figure 6). The high speed trains do not only use the CTRL but also uses conventional domestic tracks in order to serve a larger area then only the direct region of the CTRL itself. A map of these routes can be found in the appendix (Figure 7)

### 6.3 Planning and constructing the Channel Tunnel Rail Link

Since the introduction of the Eurostar train service in 1994 plans were made to connect the Eurotunnel to London by a high speed rail connection. Until the opening of the CTRL Eurostar service had to use the conventional domestic tracks at a maximum speed of 160km/h. Due to the crowded tracks around London there was little availability in existing timetables to run an extra service, the Eurostar service, which cause many problems due to congestion. France had built a high speed connection from Paris to the Eurotunnel which was finished when Eurostar services began and a new high speed railway connection was projected to finish in 1997 towards Brussels.

To connect London with the European high speed rail network the British government decided at the end of 1996 to build a high speed rail connection from the Eurotunnel to London with the 'Channel

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<sup>53</sup> Highspeed1, 2013

<sup>54</sup> Eurostar, 2013

Tunnel Rail Link Act 1996'. The high speed connection was named Channel Tunnel Rail Link (CTRL), after its main purpose, to connect London with European mainland by a high speed rail connection from London to the Eurotunnel. Therefore it was initially built for the Eurostar service, with a later to introduce domestic high speed service in mind. In the 'Channel Tunnel Rail Link Act 1996' it was planned to be finished in 2003.

London and Continental Railways (LCR) was granted the contract to construct the CTRL and to operate it when finished. LCR also became in charge of Eurostar UK in order to operate the international passenger train service over the CTRL when it was finished. To finance the project a Private Financial Initiative model was chosen. For the international service all the costs had to be financed by private parties, for example due to track access fees, this due a restriction for giving subsidies to an international railway connection set by the European Union. For the domestic service, which would be introduced later, the British government planned to give a subsidy to the CTRL, for instance to built or reconstruct inland train stations.

Constructions were expected to start in 1998, but shortly after the CTRL was planned problems arose in financing the project. Eurostars' profits were not as high as expected and therefore the expected track access fee that Eurostar could bear for using the CTRL had to be lowered. The British government had to save LCR for going bankrupt by giving new subsidies to LCR in order to save the CTRL project. Due to these problems the British government took full control of LCR. The route was slightly changed by choosing St. Pancras as the final destination of the CTRL instead of a new terminal near King's Cross. This was only partially done because of financial reasons, St. Pancras was underused and it was ready to use after a renovation. The redevelopment of this area in London did also play a role in this decision.<sup>55</sup>

Due to the financial problems and the changed route it was decided to construct the CTRL in two phases. Phase one from the Eurotunnel to the Ebbsfleet (Kent) and phase two all the way to London St. Pancras. This change of plans, dividing the CTRL into two parts, caused a delay in constructing the CTRL. Phase one was planned to be finished in 2003 and phase two in 2007. Phase one could be used separate from phase two and was therefore opened in 2003. Phase two finished in 2007 and completed the whole CTRL. A map of the CTRL can be found in the appendix (figure 5)

During time the amount of public money used for the CTRL increased and at the end of the project more public money was used than planned in 1996. To unburden public funds that were used in order to subsidize the CTRL plans were made to sell parts of the project to private companies. In

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<sup>55</sup> BBC News, 2007

2007 the British government decided to split up LCR and sell parts of LCR. A tendering procedure was started to sell the rights to operate the CTRL in a concession for 30 years. In 2010 it was announced that a consortium of Borealis Infrastructure and the Ontario Teachers' Pension Plan had been granted the concession to operate the CTRL. Eurostar became a separate entity and is now partially owned by the British government, together with the Belgian and French railways.

With the split of LCR separate companies were created and therefore a more business approach between former LCR entities could be achieved. All these different companies only have to manage their own operations and finances. During the period that all these operations were combined in LCR different entities had to take each other in to account in order to avoid any damage to another entity of LCR. Since the different tasks for the CTRL are allocated to different companies more competition could be achieved between the former LCR entities. There are more parties interested in running a high speed train service over the CTRL, for instance Deutsche Bahn has shown interest to start a service<sup>56</sup>. Because Eurostar is not linked to the CTRL via LCR competition between different train operators has more chance than before. Competition on timetable slots for example can cause higher track access fees.

#### 6.4 Track access on the Channel Tunnel Rail Link

Instead of granting a concession for an exclusive right to operate train services over the CTRL the UK government chose a system of fixed track access fees. This means that there will be no exclusive right granted to a TOC, but instead all TOC's are allowed to submit a request of track access. When a TOC is willing to pay the fixed fee and there is availability in the CTRL timetable the requested train service can be started. .

In 2007 a tendering procedure was started to award a concession for the operational management of the CTRL. The consortium that took over control after winning the tendering procedure became responsible for managing the CTRL. The system with track access fees didn't change in this new structure of operating the CTRL. With the privatization of the operation on the CTRL more competition was expected. The operational management of the CTRL was not connected through the LCR holding with the Eurostar train service anymore. Other international high speed services should have more opportunities because of this new structure.

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<sup>56</sup> Deutsche Bahn, 2013

## 6.5 Differences with the Dutch HSL project

The HSL and the CTRL project both had their own problems and delays during the different stages of the project. As mentioned before the HSL and CTRL projects are constructed in similar circumstances and have similar characteristics. Therefore a comparison between the both projects can be done with an as less as possible bias. In this comparison there will be a focus on the way track access is arranged and how the government interfered in both projects. Problems during the HSL project will be compared with those in the CTRL project.

A big problem on both projects was financing problems. In the CTRL project costs were underestimated and the private investment, the track access fee that could be asked, was overestimated. Due to these problems British government had to subsidize more than projected and even save LCR for going bankrupt. The HSL project had to deal with similar problems. In the HSL project financing the new high speed railway connection was a big issue during the planning and construction phase. Both projects had to cope with delays due to these financial problems.

Track access is arranged in a completely different way in both projects. In the HSL project a concession is granted that gives the HSA the exclusive right to operate international and domestic train services. The concession for the HSL was initially granted for a certain period, 15 years, and only after this period competition would have an opportunity to participate in a new tendering procedure. At a later moment it was announced that the Dutch government is willing to also grant the next concession period to the NS without a tendering procedure. When these negotiations lead to an agreement no competition is possible on the HSL until 2025<sup>57</sup>. In the CTRL project this is done in a different way. Track access is managed by a fixed fee that is set up front. Every TOC can apply for a timeslot on the CTRL. When a timeslot is available and a TOC is willing to pay the track access fee a train service can be started.

Arranging track access with a fixed fee is a more flexible option than granting a concession like the Dutch government did. The outcome and continuity is therefore also more uncertain. With a concession a fixed income is secured during the maturity of the concession. A disadvantage of a concession structure is that, because of the fixed period of the concession, market developments which can affect the demand for high speed train services cannot be corrected by market forces such as supply and demand. In the concession agreement frequency requirements are fixed. There is a no possibility for other railway companies to enter the market. With an increase in demand the

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<sup>57</sup> Rijksbegroting, 2013



concession owner can use their monopoly power to increase their prices. When granting track access with a fixed fee competition is possible.

The arrangement of track access by a fixed fee is a faster and easier procedure than granting a concession with a tendering procedure. Where the procedure of granting a concession in the HSL project took two years, no special procedure is needed with a fixed fee structure. Granting track access with a fixed fee is also more impartial than granting a concession. As mentioned in the third chapter there is a possibility that other companies did not have an even chance to be granted with the concession for the HSL because of the requirements that were set by the Dutch government. With a fixed track access fee this is not an issue. Any licensed TOC or other foreign train company is allowed to apply for a timeslot on the CTRL.

The major reason for the late start of commercial high speed train services on the HSL is the late delivery of the ordered trains. When this would happen in the CTRL project there is a possibility that another TOC would enter the market. However, due to the franchise that Southeastern Railway has in Kent for the conventional domestic lines it is possible to offer more added value for commuters by using the CTRL. Other TOC's would not be able to integrate the CTRL with the conventional domestic railway network as well. However, the HSL is not integrated with the conventional domestic railway network in such a way. The domestic train service over the HSL is only using the HSL tracks. Therefore it would be possible for other, foreign, railway companies to enter the HSL and begin a service, domestic or international. For instance, Eurostar could run a direct train service between Amsterdam and London for example without an agreement with the HSA.

Both projects are organized in a different way. In the HSL project the Dutch government stayed in charge of the HSL. All decision making in planning, constructing and operating the HSL is done by the Dutch government. Only a concession for operating a train service on the HSL is awarded to a private party, the NS. In the CTRL project the British government outsourced the constructing and operating of the CTRL. LCR was in charge of constructing the CTRL and later operating it. Where arranging track access in the HSL project was a task of the Dutch government, LCR was in charge of this for the CTRL. In short, in the HSL project the operation of the train services were outsourced while in the CTRL constructing and operations of the route itself were.

Due to the fact that in the CTRL project the construction and operating of the project were initially outsourced the British government had less of an influence than in the HSL project. In the HSL project governmental interference played a major role in the delay of the HSL project. However, due to financial problems the British government took over control of the project by taking control of LCR and did therefore get more influence on the project. Later on with granting the concession for operating the

CTRL, and therefore extracting public money from the project, to a private consortium governmental influence decreased.

## 6.6 Conclusion

When reviewing the CTRL project it shows that this project was less exposed to problems and delays than the HSL project. Reasons for this are the simpler way of arranging track access and little governmental interference. Due to the fact that track access is available for every interested TOC makes the procedure of granting track access is a clear one without any complex structures, for instance a concession structure.

From the beginning of the CTRL project different tasks for building and operating the CTRL were outsourced to LCR without extensive tendering procedures. Because of outsourcing these task there was a low level of governmental influence, LCR was in charge of executing these tasks. Due to this structure the CTRL was not exposed to the many discussions in parliament like in the in the HSL project. A, clear, simple structure with clear objectives made the CTRL project a more efficient one than the HSL project.

## 7. Conclusion

In order to give an answer to this thesis' research question: *What were the main problems that caused a delay in the HSL project and to which extend was this delay induced by the way track access is arranged?* the three sub-questions that were defined in the introduction will be answered first. With the answers of these sub-questions the research question will be answered.

*What were the main reasons for the problems and delays which occurred during the HSL project and how did the way track access was arranged play a role in these delays?*

The problems that occurred during the HSL project are reviewed and explained in chapter 4 with the chronological review of the HSL project from chapter 3 in mind. The event that caused the most delay in the HSL project was the late delivery of the Fyra trains which caused a delay of at least 5 years. The late delivery of these trains can be linked to other problems that occurred during the HSL project, such as a difficult implementation of the ERMTS safety system. Track access was arranged by a concession for operating train services. This way of arranging track access caused a delay because the concessionaire, the NS, did not manage to start its train service at the agreed date. There is no flexibility when choosing for a concession structure to arrange track access. If problems occur with the concessionaire, like they did, it will affect the whole railway connection. The strong preference towards the NS ensured that the NS was granted the concession. The lack of experience of the NS in high speed railway services could be one of the reasons of the late start of commercial train services on the HSL.

*What are the European rules and regulations for tendering procedures and how did the HSL project deviate from these rules and regulations?*

In chapter 5 European rules and regulations regarding tendering procedures are reviewed and explained. In the period of exclusive negotiations between the NS and the Dutch government on the concession for the domestic part of the HSL the rules and regulations regarding a level playing field, non-discriminatory and transparency were not completely met. However, due to the lack of international characteristics of the concession for the domestic train service on the HSL it was not necessary to start a tendering procedure, the NS was a logical choice to start a direct negotiation with. The Dutch government did comply with these European rules and regulations during the tendering procedure that was held. However, the requirements that were set by the Dutch government in this tendering procedure did affect the outcome of it. The NS was the only participant that could fully comply with these requirements and had therefore a lead in this tender.

*How does the way track access is managed in the Channel Tunnel Rail Link project differs from the procedure used in the HSL project and was Channel Tunnel Rail Link project more effective?*

In the CTRL project track access is managed at a completely different way than in the HSL project, as explained in chapter 6. The CTRL is accessible for every interested TOC. When a timeslot is available and the TOC is willing to pay the fixed track access fee, access on the CTRL will be granted to this TOC. When comparing the HSL, with a concession structure, and the CTRL, with a more open structure, it can be concluded that the way track access is arranged on the CTRL is more efficient. When looking to the different problems in the HSL project many of these problems can be related to the decision to arrange track access with a concession. The CTRL project did not have to cope with these, concession related, problems.

With the answers of the sub-questions which are stated above the following research question can be answered:

*What were the main problems that caused a delay in the HSL project and to which extend was this delay induced by the way track access is arranged?*

Different problems during the HSL project were responsible for the delay that occurred. However, the late delivery of the Fyra trains caused the biggest delay. The way track access was arranged in the HSL project did play a major role in the problems and delays that occurred during this project. By choosing a concession structure to arrange track access the Dutch government chose for stability instead of flexibility in the HSL project. The advantage of this choice is that there is certainty for the maturity of the concession. A downside, however, is that when problems arise, like they did in the HSL project, the concessionaire has to solve them. When the concessionaire is not able to solve these problems there are no options to interfere and the whole railway connection will be affected by these problems. Because of the preference towards the NS, competition was lowered during the procedure of granting the concession for the HSL. Due to requirements, set by the Dutch government, the NS was practically the only participant that could comply with these requirements. With the NS an inexperienced company in high speed railway services was granted the concession. It seems that the inexperience of the NS did play a role in the problems during the operating phase of the HSL.

*Recommendations for further research*

At this moment negotiations are held in order to grant the new integrated concession for both the conventional railway network and the HSL. This is done because of a desired integration of both

railway lines. A research in which way and to what extent these routes can complement each other, for example by positive network effects, might be interesting.

This thesis has only focused on past events. It might be interesting to do a research on possible competitors for the HSA at this moment. There may be railway companies that have an interest in starting a train service on the HSL, but are not able to do so because of the exclusive right the HSA has to operate train services on the HSL.

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# Appendix

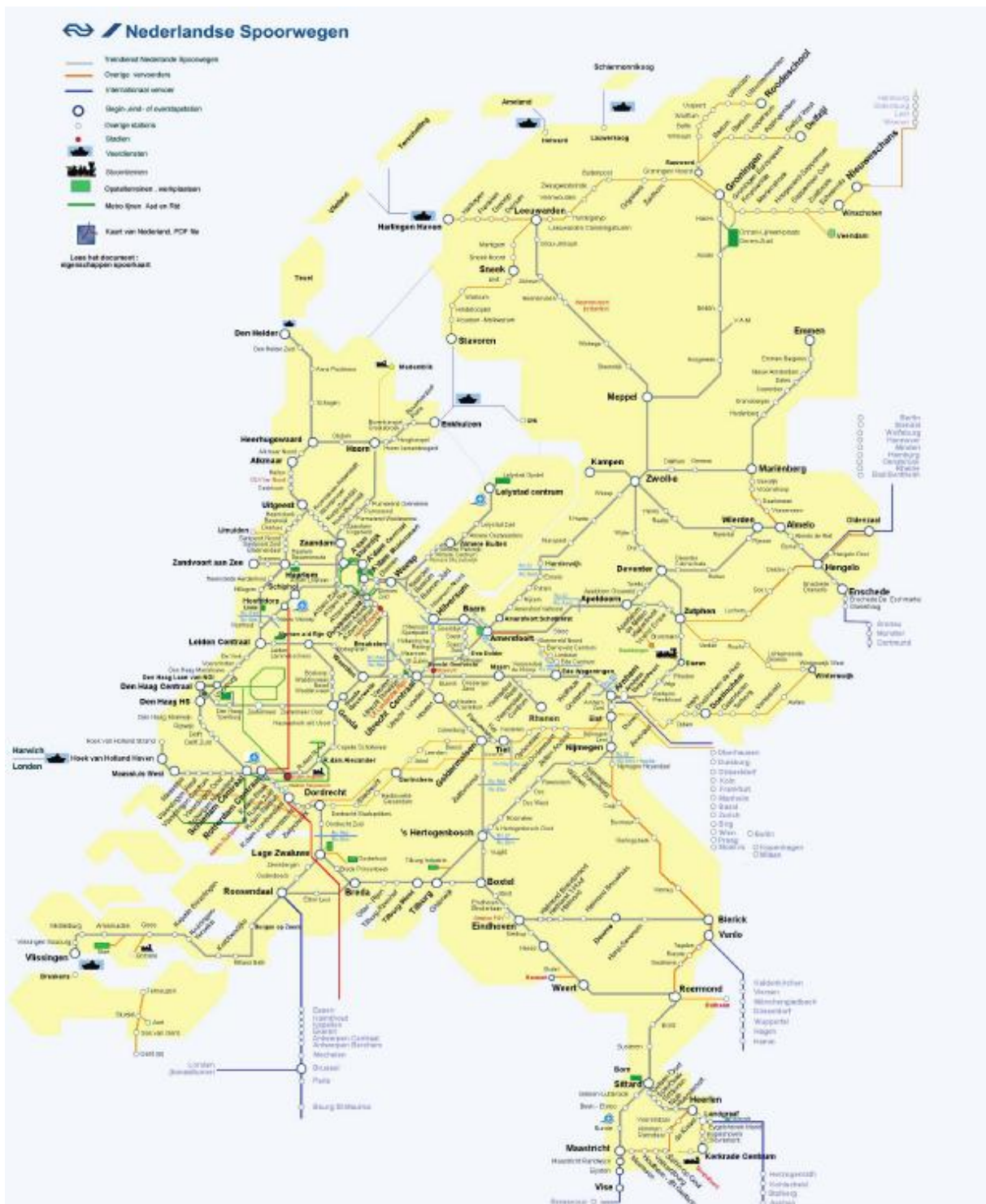
Figure 1



Highspeed railway connections (2012) source:

[http://industrializedcyclistblog.files.wordpress.com/2012/02/europe\\_highspeedrail\\_2011.png](http://industrializedcyclistblog.files.wordpress.com/2012/02/europe_highspeedrail_2011.png)

Figure 2



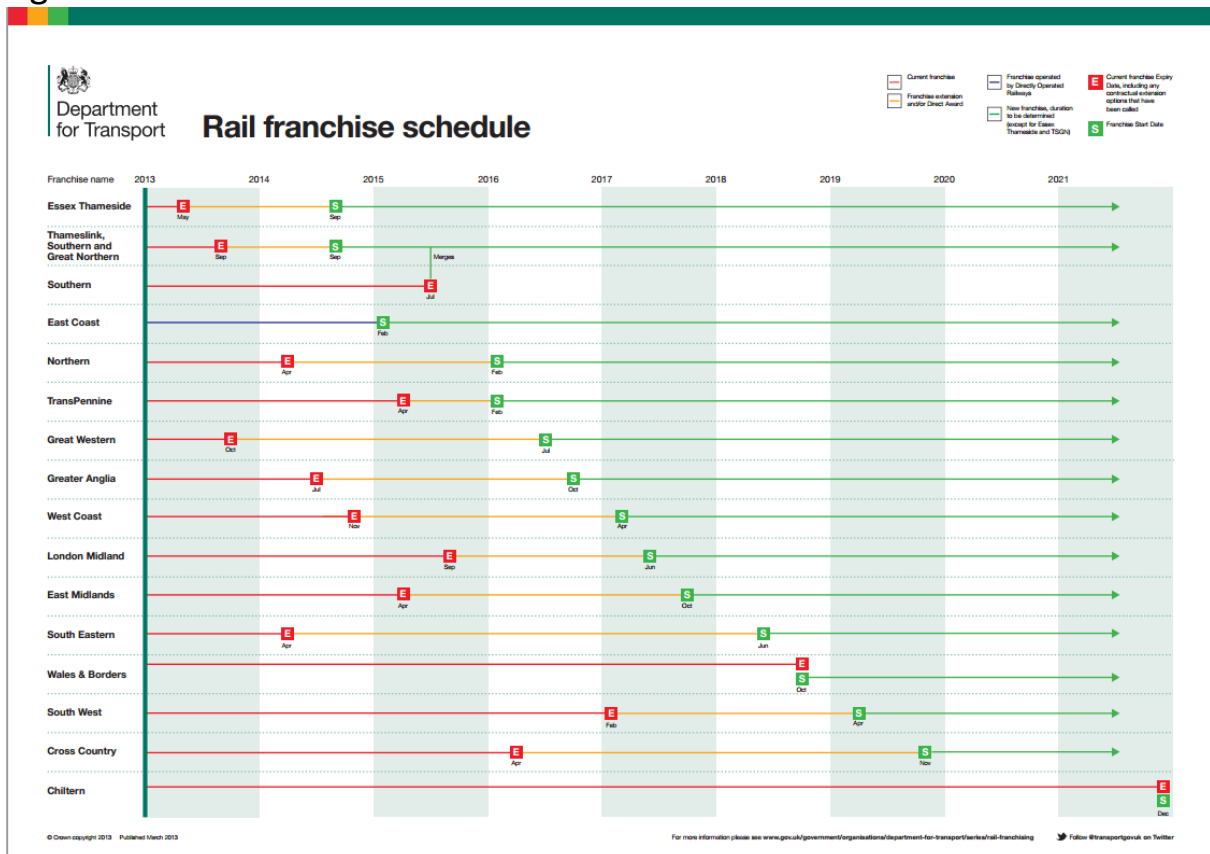
Railway map NS (2007) source: [http://www.nicospilt.com/index\\_spoorkaarten.htm](http://www.nicospilt.com/index_spoorkaarten.htm)

Figure 3



NSH speed services (2013) Source: <http://www.nshspeed.nl/nl/pers/beeldbank-2>

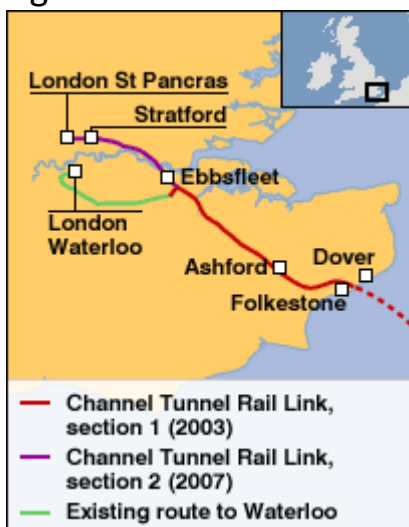
Figure 4



UK franchise schedule (2013) source:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/170565/rail-franchise-schedule.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/170565/rail-franchise-schedule.pdf)

Figure 5



CTRL map (2006) Source: [http://news.bbc.co.uk/2/hi/uk\\_news/england/6144338.stm](http://news.bbc.co.uk/2/hi/uk_news/england/6144338.stm)

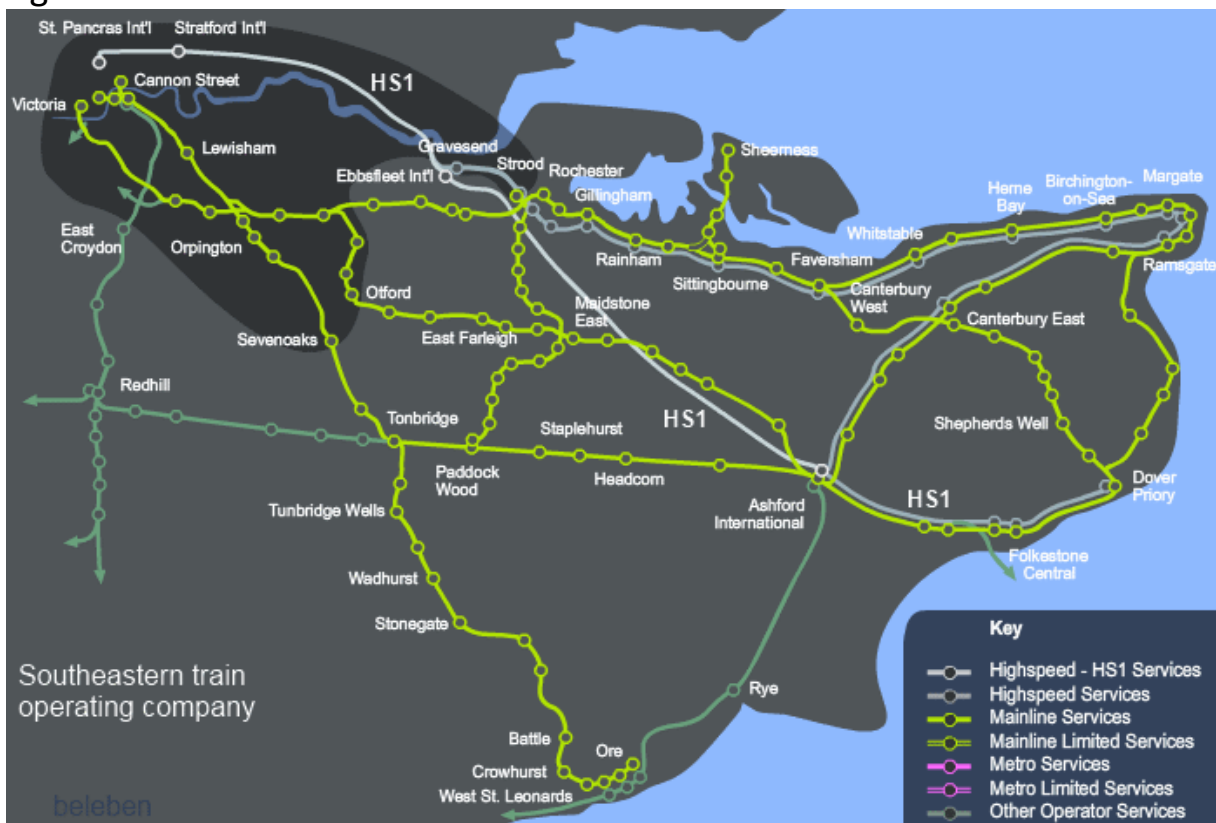
Figure 6

	Base journey time (minutes)	HS1 journey time (minutes)	Time saving (minutes)
Stratford	8	7	1
Ashford	83	37	46
Gravesend	42	24	18
Chatham	60	43	17
Strood	54	37	17
Rochester	57	40	17
Gillingham	63	46	17
Rainham	66	49	17
Sittingbourne	65	56	9
Faversham	78	66	12
Canterbury West	102	61	41
Folkestone Central	98	63	35
Dover Priory	112	74	38
Ramsgate	119	84	35
Margate	109	98	11
Ebbsfleet	-	17	-

Time savings Channel Tunnel Rail Link (2009) Source:

<http://www.lcrhq.co.uk/pdf/HS1.final.report.pdf>

Figure 7



Southeastern Railways route map (2013) Source : <http://www.southeasternrailway.co.uk/your-journey/network-map/>

