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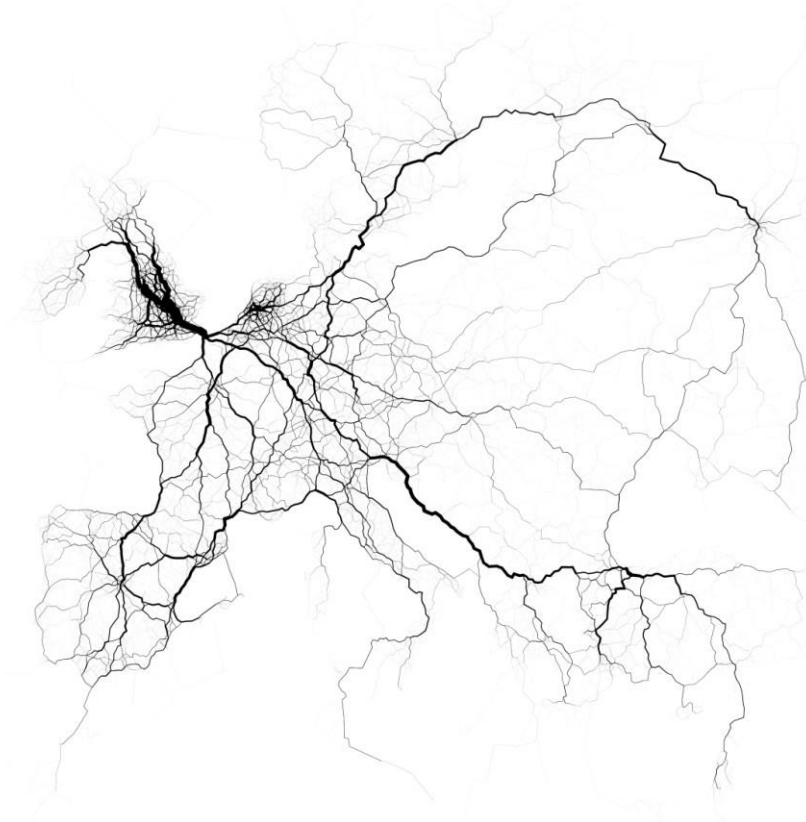
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# Privatizing the “Chunnel” project

## Success or failure?

A Governance Analysis of a Public-Private-Partnership in High-Speed Rail



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<sup>1</sup> Aggregated travel routes to/from London. Source: Wikimedia Commons/Eric Fischer 2.0 Generic/CC BY 2.0

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# 1 Introduction

Public-Private-Partnerships (PPP) are a popular tool to finance infrastructure projects, which cannot be financed by the respective region or country alone. PPP investments in infrastructure were growing since the 1980s and reached their peak before the financial crisis in 2008/09, while recently seeing a declining number of projects<sup>2</sup> (World Bank Group 2016; Siemiatycki 2013). While PPPs have always been popular in the construction of airports, local public transport<sup>3</sup>, and the construction of roads and highways, few or no private investment was seen in the construction and operation of railroad projects and among them even less in high-speed rail (HSR)<sup>4</sup> (Robson 2009).

Traditionally, rail projects have often been funded by national funds, sometimes with international support<sup>5</sup>, and private companies have only been contracted – without an overall project responsibility. Meanwhile, pure rail PPPs have been tested several times with more failure than success (Jooste et al. 2009). However, some scholars suggest that public interest may actually favor a combination of private and public investment for HSR projects in order to overcome existing budget constraints (Roll and Verbeke 1998), lacking planning capacities (Jooste et al. 2009) or because of more attractive conditions due to a changed environment after the financial crisis and the subsequently higher demand for infrastructure-backed investments (Robson 2009). The reasons for today's low diffusion of PPPs in railway and especially HSR projects are diverse. Most of all – even more than at other infrastructure projects – investment costs are excessively high in comparison to later operation costs and revenues. With construction taking several years or even decades and public interest in affordable ticket prices, the cashflow and expected

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<sup>2</sup> However, numbers may vary from year to year and the decline may not be of long-term representativity because of very large single projects, such as Turkey's IGA Airport (\$35.6 billion) in 2015 (World Bank Group 2016).

<sup>3</sup> Examples: Light-Rail projects as in the UK & Canada (Smith and Gannon 2008), Bus Rapid Transit Systems as in Cape Town, South Africa & Bogota, Colombia, or metro projects as in Bogota, Colombia (World Bank Group 2017).

<sup>4</sup> The abbreviation HSR will further be used for High-Speed-Rail projects or lines (Givoni 2006).

<sup>5</sup> Especially the European Union is providing large funds for a European HSR network (European Court of Auditors 2008).

interest rates of such projects seem unattractive for private investors. As interests of important stakeholders are often opposed to each other, a PPP is slowing down itself even further<sup>6</sup> (Roll and Verbeke 1998; Jooste et al. 2009).

Examples for failures in PPP railway include the Prague airport link, which couldn't be realized because of discrepancies among stakeholders, the HSR South line in the Netherlands, which experienced extreme time and cost overruns, and the completely cancelled HSR network in Portugal in the ongoing of the national debt crisis. On the other side, there have also been some rail PPP success stories, such as the Stockholm Arlanda Airport Link, the Öresund bridge between Copenhagen and Malmö, and the recently opened LGV Sud-Atlantique connecting Paris and Bordeaux with HSR trains (Robson 2009; European Investment Bank 2011).

An older but well-known rail PPP is the channel tunnel project connecting mainland France and Great Britain. Some scholars call the “*Chunnel*” PPP an ultimate failure, because it took over two decades until *Eurotunnel*, the responsible construction and operation company, could pay its first ever dividends (Robson 2009). However, today's railway market shares along the London-Paris route and the social and economic importance of the fixed link suggest a different story (Eurotunnel Group 2017; Jasper 2018). A quarter of a century after its opening, this paper examines if and how Eurotunnel could overcome the major challenges for PPP success by using a case study approach. The aim of the paper is to elaborate lessons learned for future private-funded HSR projects.

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<sup>6</sup> Most of all, involved banks try to avoid excessive debts during the construction period, while shareholders expect a timely completion to pull forward the breakeven point. This often results in endless negotiations and no real project progress (Roll and Verbeke 1998).

## 2 Method

The present work is applying the theoretical PPP framework of Jooste et al. (2009) on the channel tunnel case. Hereby, a threefold stakeholder analysis sets the basis for an analysis of typical PPP challenges.

First, some information about the background of the project and its importance for the European railway system will be provided. The governance process on the road to create a PPP will be outlined, while key stages of negotiating, planning and financing of the project will be described. The development and structure of the company mainly responsible for the project will be shown, while considering linkages with governmental entities and legal requirements. Relevant actors and their roles of knowledge and power will be identified, together with changes and evolutions after the initial set-up. Remarks about the construction works, the tunnel opening and a comparison between the projects first estimates and the current usage numbers of the tunnel conclude this section.

Second, the framework of Jooste et al. (2009) will be used to examine the Eurotunnel case and assess its capability to overcome the three “*salient weaknesses*” (p. 3) in infrastructure PPPs: (1) Building capacity; (2) Obtaining legitimacy and (3) Balancing interests. Therefore, the stakeholders identified before will be examined regarding their background and primary interests. Jooste et al.’s three criteria are explained and analyzed on their appearance in the present case.

Third, from the insights gained in the former chapter, this work will conclude by trying to deduct generalizable remarks for PPPs operating in the HSR area. This includes a summary of the critical issues identified in the present case and its consequences for state and society, as well as insights for a better initial set-up. Hereby, a focus will be set on international projects like the channel tunnel, which complicates negotiation and planning activities even further.

## 3 The Channel Tunnel Project

### 3.1 Background of the project

Plans for linking Great Britain with mainland Europe by crossing the English Channel existed since the beginning of the 19<sup>th</sup> century. Despite several attempts over the decades, it took until the mid-1980s for the British and French governments to eventually agree on building a fixed link between their countries (Dupont 1990). Since the opening of the first French HSR line between Paris and Lyon (409 km) in 1981, which connects the two cities in less than two hours and is responsible for skyrocketing market shares on this route, expectations towards an HSR link between Paris and London were high (Bonafous 1987). Increased capacity demands for this itinerary, both for passenger trips and transport of goods, plans for linking London and Paris by HSR, and a closer integration of the UK to European mainland were the main arguments for the construction of the channel tunnel (Dupont 1990; Regional Studies 1997).

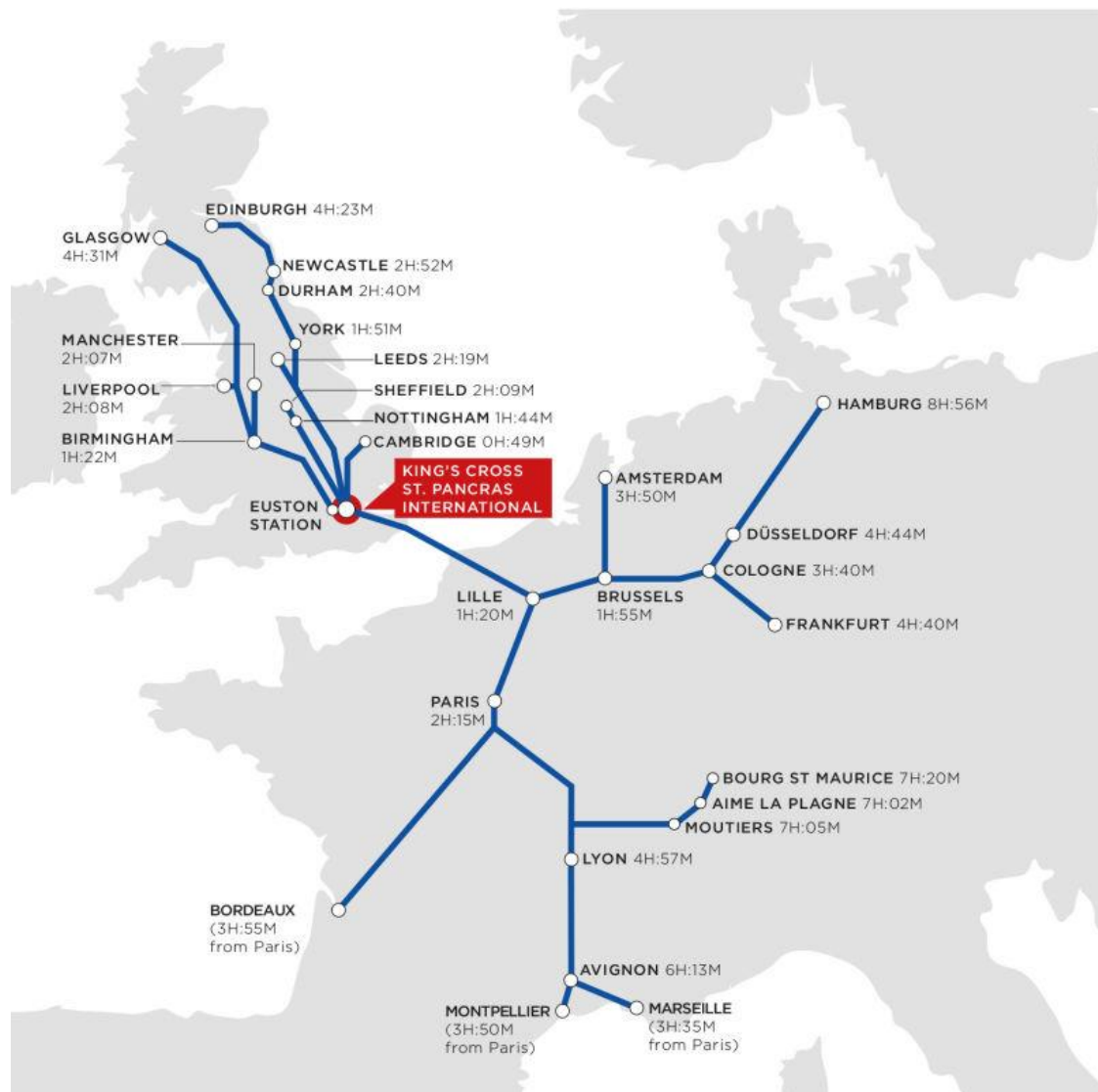
For the British government, the project was also a very welcome tool for *“signaling good will [...] at a time [of] exerting pressure against the [EEC] on budgets and [other] policies”* (Dupont 1990, p. 76). The French head of state Francois Mitterrand saw the channel tunnel project as a chance to positively make European national economies dependent on each other (Regional Studies 1997). From a user’s viewpoint, together with the new-built HSR lines LGV Nord<sup>7</sup> in northern France and HS1<sup>8</sup> in southern UK, the tunnel allows to cut travel times between the capitals of the two countries to less than 2:15h, reaching a competitive setting to airplanes (Grant 1997; Jasper 2018). Additionally, the extensive French HSR network allows fast connections to many other destinations in the country and further plans may also improve travel times between northern UK and Germany, Netherlands, or other western European nations, see Graphic 1. Nowadays, the channel tunnel is one of the most important sections of the European HSR network and for the UK’s connectivity to mainland Europe<sup>9</sup> (Norman and Vickerman 1999).

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<sup>7</sup> 333km long triangular HSR line connecting Paris ↔ Calais ↔ Brussels, cutting travel times towards London, Amsterdam and Cologne, see Graphic 1

<sup>8</sup> 108km long HSR line connecting London and the channel tunnels northern end, also called Channel Tunnel Rail Link. By the time of writing still the only HSR line in the UK (further lines in construction)

<sup>9</sup> See also Graphic 1 or graphic on cover page



Graphic 1: Improved travel times from King's Cross Station in London to mainland Europe through the channel tunnel. Future plans additionally foresee direct trains from northern Great Britain to southern France, Netherlands and Germany. Source: <https://www.kingscross.co.uk/international-rail>

## 3.2 Technical description

While the geographical location of the link was always designated to be between Dover and Calais (by far the narrowest part and the same place where most ferries cross), it wasn't clear if the link would be created as a tunnel, a bridge or a combination of both (Dupont 1990). Choosing the well-known tunnel option instead of a combination of bridges and tunnels (see chapter 3.3.2) allowed the project to be built in a straightforward process once it was financed and approved. Construction works began in late 1987 and the tunnel could be opened in summer 1994, 'only' a year after initial estimates (Grant 1997). The structure includes three sections of railway-only tunnels with a total length



of 50 km of which 38 km are undersea, making it the longest tunnel of its kind in the world<sup>10</sup> (Grant 1997; Buchanan 1988).

The tunnels are designed to carry three different types of rolling stock: (1) shuttle trains, transporting cars, trucks and coaches, while passengers stay in the vehicle; (2) passenger trains such as the Eurostar between London and Paris or Brussels and (3) freight trains, transporting goods from all over Europe to the UK without using cargo ships. Although trains don't travel faster than 160 km/h in the tunnel in order to smoothen operation, the route can still be considered as an HSR line because of the mentioned HSR links on both ends of the channel tunnel. (Grant 1997)

### 3.3 Governance Process

As explained before, political will to create the fixed link was sufficiently apparent in the early 1980s, which started the governance process towards negotiating, planning and constructing of the channel tunnel. The key stages of this process will be outlined in this sector.

#### 3.3.1 Decision for PPP & Calls for Proposals

Private financing has been by far the most popular funding source for infrastructure projects in the UK during the respective time (Edwards and Shaoul 2003). Consequently, the British government declared its interest to use a PPP for the channel tunnel project and was able to push through this model by preventing any kind of governmental investment, funding or financial guarantees in the bi-national treaties (UK Government 1987, Article 1). As the French government initially favored a combination of private, state and international funding, this outcome can clearly be seen as one of the major points where UK government interests were put above those of other stakeholders. After studies on both technological and financial feasibility of the project, the UK and France agreed in 1985 on an invitation to submit proposals for building a fixed link across the channel (Dupont 1990; Grant 1997).

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<sup>10</sup> The Seikan Tunnel linking Japan's main island with Hokkaido island in the north was opened in 1988 and was long time the longest railway tunnel of the world (53.8 km) until the opening of the Gotthard Base Tunnel in Switzerland in 2016 (57.1 km). However, the undersea sections are both shorter than at the Eurotunnel (Railway Technology 2013).

### 3.3.2 Decision for Eurotunnel

During the application period and preparation of proposals by the construction companies, other stakeholders have been involved in “*intense activity [...] to influence the process of scheme selection*” (Dupont 1990, p. 73). Here, the most important question if cars should be able to use a drive-through tunnel or if a rail-bound shuttle would transfer road vehicles. This disagreement split the stakeholders in two camps. While former option was favored by most UK-bound stakeholders, railway actors on both sides and most French stakeholders lobbied for a railway-only tunnel. Latter option was also considered preferable regarding fire safety within the tunnel. In October 1985, five proposals were supplied to the consortium, see table 1 (Dupont 1990).

<b>v.d. Putten</b>	<b>Eurobridge</b>	<b>Eurotunnel</b>	<b>Euroroute</b>	<b>Expressway</b>
piers and tunnels	3-miles-bridge and tunnel	2 rail tunnels with shuttle system	bridge, tunnel, and artificial islands	4 rail and road tunnels

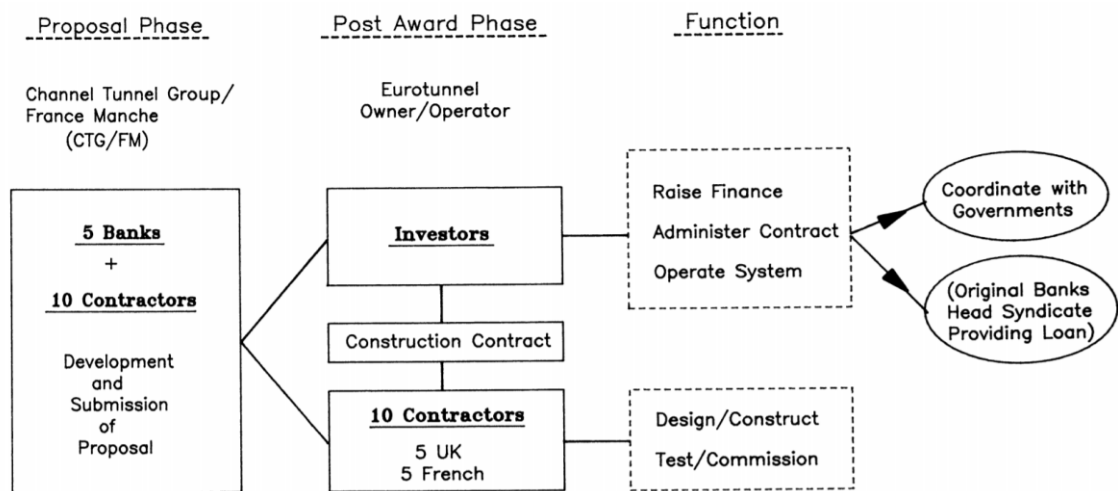
Table 1: Proposals and main characteristics for a fixed link between France and the UK. (Dupont 1990)

While the first two proposals (v.d. Putten & Eurobridge) soon dropped out because of technical and financial uncertainties, most stakeholders quickly made up their mind to support either Eurotunnel or Euroroute, while latter variant allowed the above-mentioned drive-through option for cars. The ferry operators anticipated that the call for tender would be successful and a fixed link would lead to long-term losses of their market shares across the channel. Because of this, just shortly before the deadline, they surprisingly proposed Expressway as a compromise variant to improve their outcome (Dupont 1990). In this new setting, with two reasonable options allowing a drive-through, the consortia behind Eurotunnel needed to adapt their plans and integrated a “*drive-through expansion should traffic warrant it*” (Dupont 1990, p. 78). Nevertheless, neither the UK nor France backed Eurotunnel as their first choice – but as they both opposed the other side’s first choice, Eurotunnel seemed as a logical compromise. Finally, in January 1986, the advantages of Eurotunnel as a “*known technology [with] strong financial backing, [being] considered safe [while having a] limited impact on [the] environment*” (Dupont 1990, p. 77) led to its selection.

As mentioned before, the decision against a drive-through variant can again be considered as goodwill by the UK government to “*take opportunistic action to meet French interests [...]*” in exchange for creating a good climate regarding other “*crucial EEC matters*” (both Dupont 1990, p. 79).

### 3.3.3 Set-up of Eurotunnel

Following the successful application, in 1986, the consortia behind the Eurotunnel formed a company with the same name, creating the largest infrastructure PPP in the world (Grant 1997). While banks and construction contractors were working together during the proposal phase, the firm then split up in two branches, which were bounded to each other by a construction contract, see Graphic 3. Hereby, the investors would be responsible for financing, coordination and operation of the channel tunnel, while the contractors were limited to the design and construction of the structure.



Graphic 2: Channel Tunnel Organization Evolution (Ridley 1989)

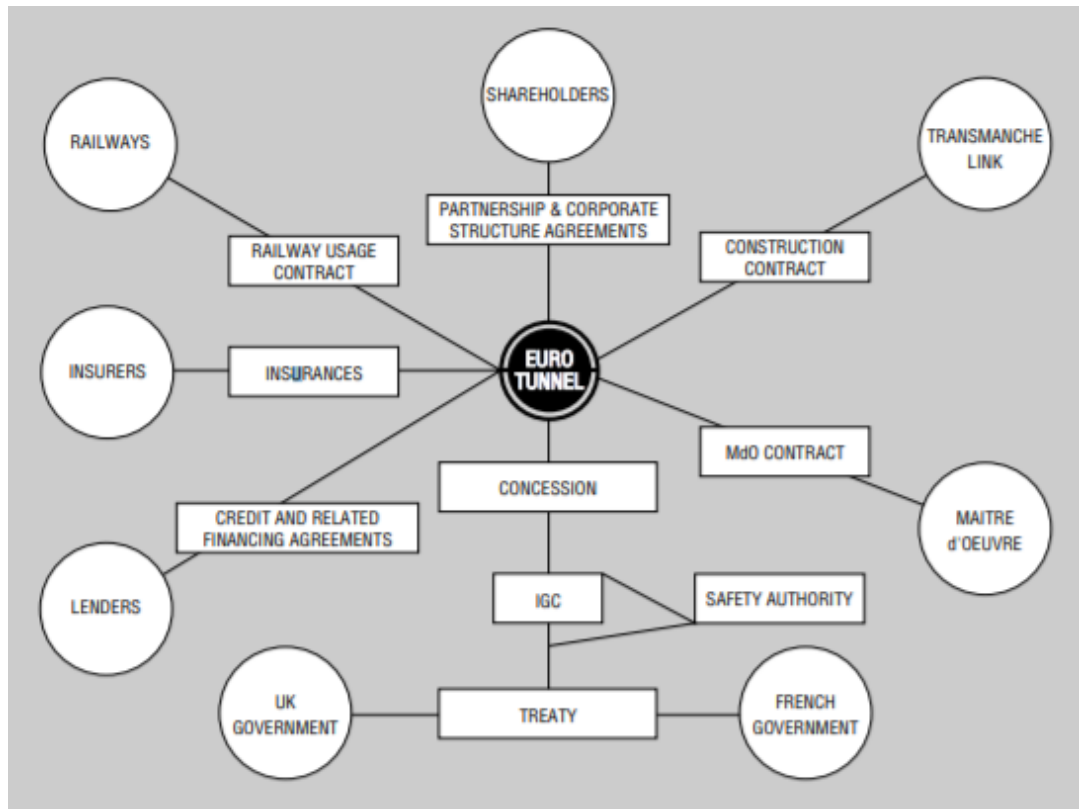
### 3.3.4 Role of Eurotunnel

This chapter outlines the most important relationships of Eurotunnel with other stakeholders. A more conclusive stakeholder analysis will be carried out in chapter 4.1.

Graphic 3 shows the central role of Eurotunnel in the project. Along with the bi-national treaty between the UK and French government, an Intergovernmental Commission (IGC) was formed to oversee and control the compliance of Eurotunnel with the concession agreement. The railway usage contract demanded half of the tunnel's capacity to British, French & Belgium railways for their Eurostar and freight trains, while guaranteeing a fixed charge, tolls and ongoing contribution to the operation costs of the tunnel. This part was later responsible for 'only' 35-40 % of Eurotunnel's revenues, which explains the attraction to gain further partners (Grant 1997).

Among other interdependencies, Eurotunnel was also the key link between the construction consortium Transmanche Link and investors through the construction contract and

financing agreements. Another important instance in the Eurotunnel PPP is the *Maitre d'Oeuvre*, an independent engineering consultant, who advises the IGC, banks and other stakeholders (Grant 1997).



Graphic 3: Project Contractual Structure (Grant 1997)

### 3.3.5 Governance Process

Although the concession agreement between the two governments was reached subsequently after the award of Eurotunnel in March 1986, the bi-national treaty couldn't be ratified until 1987, because elections in the UK delayed the process.

On the UK side, support for the project was also at first refused by some provincial members of the parliament in Kent county. The construction of a large shuttle terminal close to Folkestone for loading and unloading vehicles of the shuttle trains, see Graphic 4, was one of the most critical negotiation points. Local acceptance was only reached after promising the deployment of a regional Eurostar allowing local services to use the train tracks of the tunnel and the later constructed HS1 line. However, because of budgets restraints, the regional Eurostar never commenced service and the responsible UK authority abandoned the project, although by the time of the vote it was already well known that these services wouldn't be financially viable (UK Government 1987; UK Department of Transport 2006). A select committee stated that the regions have been “cheated”

on this issue and votes have been bought by wrong promises (UK Department of Transport 1999).



Graphic 4: Folkestone Terminal in Kent County; Photo by Ed Clayton - Flickr, CC BY 2.0

### 3.3.6 Financing

This chapter provides basic information about the financing of Eurotunnel. Planning and construction of the channel tunnel project was funded by several equity rounds and long-term debts. The funding story of the project was called a “*cliffhanging saga*”, as the project was in financial turmoil several times and “*institutions were being asked to take more risk than they were prepared to accept*” (both Grant 1997, p. 48).

Only few years after constructions began, Eurotunnel realized that the 25% financing cushion wouldn’t be enough as several critical issues evolved at the same time<sup>11</sup>. Only with support of the European Investment Bank (EIB) the project could generate enough trust to find more than 200 banks willing to sign up for further funding – a great success by the time. However, the large number of financing institutions created even more obstacles for the negotiations, which delayed project progress for several months. Because

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<sup>11</sup> Most notable, the orders for the tunnel machine was badly specified and logistics were underestimated, resulting in time and cost overruns. Additionally, changes in the terminal design and the rolling stock created more costs, while a tight market situation worsened revenue expectations. (Grant 1997; Ridley 1989).

of construction cost overruns, Eurotunnel again needed additional funding in the early 90's. In 1993, the British and French governments extended the operating concession from originally 55 years (as in the agreement of 1987) to 65 years to increase the financial stability of the company and enable repaying loans and paying dividends to investors. In 1997, similar reasons led to another prolongment of the concession agreement by 34 years until 2086 (Grant 1997; Ridley 1989; Godsmark 1997). Further details about the financing of the Eurotunnel go beyond this research, but are well summarized in the research of Grant (1997).

### 3.3.7 Forecast vs. Estimations

The forecast numbers of the project have always been far overestimated. Even 25 years after the opening of the tunnel, passenger traffic numbers stay way below initial expectations, still questioning the projects' return of investment (Eurotunnel Group 2019; Flyvbjerg et al. 2006; Sotuetso 2004; Anguera 2006; UK Parliament 2006).

## 4 Analysis

To analyze the described governance process, the framework for PPP success developed by Jooste et al. (2009) will be used. The theoretical foundations will be explained along the different points. First, a stakeholder analysis according to the model of the authors will be examined for the Eurotunnel example. Second, it will be analyzed how the project dealt with what Jooste et al. call “*salient weaknesses*”, namely how “*building capacity, increasing legitimacy and balancing interests*” (2009, p. 1) was achieved during and after the set-up of the PPP. The insights gained in this section will then be used in the conclusion to describe identified critical issues in the studied governance process.

### 4.1 Stakeholder Analysis

In this section, the stakeholders and their roles in the channel tunnel project will be identified and analyzed using the typology developed by Jooste et al. (2009). Relevant stakeholders are categorized in three groups depending on their origin. Hereby, the authors differentiate between (1) “*the government or “public sector”, such as organizations, individuals or agencies*”; (2) “*private companies and organizations that are directly involved in the PPP projects*”; and (3) “*the ‘civic sector’ that comprises the remaining actors who generally have ‘local’ interests at heart*” (Jooste et al. 2009, p. 3).

#### 4.1.1 Governmental / Public Actors

As in the used concept, governmental and public actors can be split up into two groups in the present case. Jooste et al. mention “*public sector actors [as well as] government officials*” as well as “*governmental agencies and departments*” (2009, p. 3).

In the channel tunnel example, these stakeholders can further be distinguished regarding their main motivation. First, there are those who are responsible for negotiations and pushing the project forward. This group includes high-ranked government officials, such as ministers and ministry employees, civil servants in relevant authorities such as customs or regulatory agencies, and even the heads of states and their advisors, who might use the project for political profiling and image gains. Second, governmental and public actors can also be found in the areas directly affected by the construction and operation of the tunnel. These are for example state employees for railway or ferry services and representatives such as mayors of towns and cities along the route.



#### 4.1.2 Private Actors

Regarding private actors, Jooste et al. again differ between the companies and their employees. For the case of the channel tunnel project, next to the relatively small group of private businesses, who are only indirectly affected by the tunnel link through improved transport and connectivity, the far more important private actors are the companies who were involved in planning, financing, construction and operation of the project. Most of all, these are the major construction companies and their sub-contractors, the major railway companies of both France and the UK as well as other smaller or foreign rail firms, who might use the channel tunnel for providing niche services, and the banks in the consortium financing the project. Other private stakeholders include the ferry companies, which used to serve a large portion of the market share for the route. Additionally, smaller but potentially influent stakeholders are consultants, assessors or lawyers advising one of the other stakeholders.

A special role during the entire project was played by Eurotunnel, the central PPP company. As Ridley (1989) mentions, the firm can be seen under constant evolution, from a *“small spin-off”* (p. 179) promoting the tunnel before the concession agreement, over being responsible for managing, constructing, contracting and financing as project owner, to the point where the tunnel opened for public and Eurotunnel became the long-term services operator.

Local business owners have access to better transport options for their imports, exports and employees, while also being able to attract professionals from a greater region, which themselves are another interest group. On the other side, businesses and consequently their employees may also suffer under new competition coming from the better connectivity across the channel.

#### 4.1.3 Civic Groups

Civic stakeholders can be divided into *“various parts of the general public”* and *“a variety of non-profit organizations”* (Jooste et al. 2009, p. 3). Examples for such entities in the present case will be outlined in the following. First, these are the prospective users, such as train passengers on the Eurostar or other rail services, or direct (private car drivers) and indirect (e.g. coach passengers) customers of the shuttle services. Second, people living close to the new terminals (see chapter 3.3.5) and the connecting HSR lines in the



UK and France are also affected by the project. This group can be considered as ambivalent, as they may experience advantages and drawbacks. Local residents are subject to inconveniences due to construction works or operation nuisances but could also prefer from the line if they live close by a station or the terminals and commute to the other country respectively.

The largest civic group can be considered to be the taxpayers, in the case of Eurotunnel these are the French and British citizens as well as EU citizens<sup>12</sup>. Especially non-users of the railway-link might see the project as critical, as they only bear the risk of increased government spending or even a bail-out in case the project would get in severe financial turmoil. Other important civic stakeholders mentioned by Jooste et al. are non-profit- and non-governmental organizations or social movement or community groups – most of them may form because of one of the implications stated above. This refers to both positive effects and therefore groups supporting Eurotunnel, as well as negative effects represented by alliances opposing the project. Additionally, large infrastructure projects always are subject to the resistance of environmental groups, which may fear impacts on the flora and fauna along the route due to construction and maintenance. For Eurotunnel, these groups were especially important, as they had a big say when the governments needed to decide on one of the proposed options for the fixed link.

## 4.2 Overcoming “salient weaknesses”

The three primary challenges Jooste et al. see for successful infrastructure PPPs will be discussed more in detail in this chapter and then applied to the case of Eurotunnel. First, it will be elaborated why and how institutional capacity needs to be built in PPP projects and how Eurotunnel approached this issue. Second, legitimacy issues arising frequently in PPP projects are shown together with an analysis of Eurotunnel’s handling of such. Third, the necessity of balancing interests among stakeholders is described, and then adapted for the present case.

### 4.2.1 Building Capacity

Jooste et al. mentions that “*PPPs [...] require a new type of institutional capacity [...] beyond technical skills*” (2009, p. 2) such as negotiating, project planning and financing

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<sup>12</sup> The EU supported the tunnel indirectly (EIB with guarantees etc.), the HSR links with direct funds. (Grant 1997; Roll and Verbeke 1998).

knowledge. The responsibility to enable the respective entities with those skills lies primarily with public and governmental actors. This section will examine if and how this institutional capacity was built in the Eurotunnel case.

As described in chapter 3.3.3, the compliance with the concession agreement was overseen and controlled by the IGC, a committee set up in tandem by the two governments. The existence of private planning consortia on both sides prior to the proposal approval also proves the capability of building institutional capacity. By bundling all necessary operations during negotiation, planning, construction and operation within the trans-national private company Eurotunnel, the project managed to be finished without serious time overruns, while being in indirect but not exploiting control by the governments<sup>13</sup>. Still, the extreme cost overruns, Eurotunnel's financial instability, and questionable deals between various stakeholder groups<sup>14</sup> suggest that the channel tunnel PPP failed in building enough institutional capacity for being entirely successful.

Also, Jooste et al. claims that building capacity of civic actors can be very advantageous for the overall success of infrastructure PPP projects. As considerations of local actors were being taken into account and reacted on (see chapter 3.3.5), this can be seen as fairly present in the governance process<sup>15</sup>.

#### 4.2.2 Increasing Legitimacy

Another major challenge to PPPs according to Jooste et al. is to increase its democratic legitimacy towards civic stakeholders, most of all taxpayers, as public funds are used for the gains of private companies. The authors mention that this process can be supported by “*ensuring transparency*” and “*disseminating [...] ‘propaganda’*” (Jooste et al. 2009, p. 5). Additionally, to generate “*trust and goodwill*” (Jooste et al. 2009, p. 5) among private actors, it is important that governmental actors manage to treat involved companies in a fair and equal way. This section will investigate if and how these processes took place in the channel tunnel project.

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<sup>13</sup> As outlined in chapter 4.2.3, public actors tend to act abusive in infrastructure PPPs. However, in the present case, this tendency could not be validated, Proven by the re-negotiation and strong bargaining power of the governmental actors

<sup>14</sup> Such as the two prolongments of the concession agreement or the non-compete-clauses, leaving no room for enabling positive market forces through competition.

<sup>15</sup> However, as the Regional Eurostar is still not in service and respective plans are currently put aside, it can be argued that the public actors responsible betrayed the trust of the civic actors.

According to Grant (1997), information about Eurotunnel's financial problems was concealed, kept secret and partly manipulated throughout the entire financing process in order to improve the prospects of success on the equity market. This is clearly violating the above-stated need for transparency in a PPP program. On the upside, all actors appeared to make a good job spreading and repeating the importance of the project for the UK, France and the European railway network. Also, the selection process of the approvals seemed reasonable, and by limiting potential time and cost overruns by choosing the most risk-free option, it was clearly tried to maximize the legitimacy of the project. In conclusion, this criterium was fulfilled, but in an ambivalent way. If the EIB hadn't stepped in as a generous funder, and subsequent equity rounds and the entire project would have failed, the described lack of transparency could have wasted a lot of taxpayers' money and decreased public faith in PPPs.

#### 4.2.3 Balancing Interests

The third challenge according to Jooste et al. is balancing interests among all stakeholders, constituting the most critical point in the Eurotunnel case. Hereby, all possible relationships between the three stakeholder groups need to be considered. The authors mention that within these relationships, interests are often "*fundamentally opposed*" (Jooste et al. 2009, p. 5) creating the need of permanent rebalancing by governmental actors. Some of these dilemmas can be found in the interactions of (1) public vs. private actors, with the state balancing the interests between saving taxpayer's money while also ensuring a good climate for investment; (2) private vs. civic actors, where public interests might oppose the overall financial sustainability of a project for an investor; or (3) public vs. civic actors, where governmental decision-makers need to tradeoff between an optimal representation of civic interests and the enforcing unpopular but necessary decisions.

Examples for such dilemmas are the renegotiations of the concession agreement and the non-compete clause, creating a near-monopoly situation for Eurotunnel, but counteracting public demands for affordable ticket prices or good connectivity through competition. Regarding this aspect, it can be assumed that interests were not balanced well, and the channel tunnel is a prime example of a "*financially viable but socially unsustainable*" PPP (Jooste et al. 2009, p. 5). An explanation for this process can be found in the special environment of the project, involving two parallel structures of governmental actors, which made negotiations even more complex. The enormous effort to balance the interest

between these stakeholders ultimately may have led to neglecting others – such as the prospective users.

A threat to successfully balance interests is government opportunism. This concept relates to the high ratio between infrastructure and operation expenses in projects of large size, creating devastating bargaining power for the private partner which financed the project during construction once the structure is built. However, in the Eurotunnel case no such collusion can be identified – instead, the governments leniently provided Eurotunnel with longer concession agreements and dropping claims in order to improve the financial situation of the company. This aspect also proves that public actors managed to rebalance interests over time after changing conditions.

## 5 Conclusion & Outlook

The used theoretical framework by Jooste et al. (2009) seemed suitable for analyzing the channel tunnel case. Especially the stakeholder analysis proved itself to be usable and effective. However, there are some exceptionalities for the present case, which could not be covered with the used concept. Here, the most important factor is the involvement of two nations in equal shares, which entailed a larger and more diverse landscape of stakeholders, regulations and authorities, enormously increasing the complexity of the project. Dealing with this situation within a PPP was an unprecedented endeavor and affected the analyzed outcomes, mostly in a negative way.

Although the stakeholders have arguably done a good job in balancing out their interests, the constant need to find questionable compromises during the negotiations in the late 80's and the financial instability of Eurotunnel in the early 90's led to many quick fixes and hardly legitimate deals. Consequently, many stakeholders saw their interests only very partially fulfilled with nobody being able to claim a "big win" out of the PPP. The concession agreement guarantees operation for a far longer time than initially planned and requested by civic groups' interests such as the taxpayers. The investors weren't paid dividends until 2009, more than two decades after the project start. The capacity of the tunnel may be too low for future demands, because differing preferences between France and UK led to choosing a solution, which might not be the most sustainable but instead representing a compromise. The strict non-compete clause given to Eurotunnel demolishes market competition on the route, which results in high ticket prices and bad connectivity, and counteracts the initial goals of the tunnel to increase railway market shares.

On the other side, there are also upsides of the international character of the project. The involvement of two governments and four parties improved the legitimacy of the PPP, as the diverse set of interests led to a tendency of going beyond party lines and individual interests during negotiations and planning. In the present case the democratic legitimacy was even further increased through the UK elections shortly after the set-up of Eurotunnel.

Interestingly, although there haven't been serious engineering difficulties nor unpleasant geological surprises during construction, the project couldn't manage to finish exactly within time while seeing extreme cost-overruns. These outcomes might also root in the above-mentioned situation, as all stakeholders have underestimated the complexity of a bi-national PPP. These discrepancies between estimations and outcomes can be considered to be the main reason why the Eurotunnel PPP is today being remembered as a failed governance process – although technically there haven't been too many failures on the way, and the PPP stakeholders have been working constructively and effectively throughout the entire negotiation and planning process (cf. Dupont 1990). As these problems may be encountered in the same way in future international PPPs, emerging difficulties should be clearly communicated to all stakeholders throughout the entire project.

The Eurotunnel PPP may have been a failure, leading to financial turmoil of many shareholders and not reaching the initial goals – but it is also a role model for future PPPs. Several similar projects around the world use its example to learn their lessons before committing the same mistakes. Also, the channel tunnel is more than a simple railway line and should be seen as such. It is not only linking London and Paris, but also European citizens and economies. The most crucial part of the TERN system allows both goods and passengers to travel on train from all of Europe to Great Britain. Investment, commuting and tourism in northern France and the UK has skyrocketed since the tunnel's opening (Sotuetso 2004; Buchanan 1988).

If PPPs are necessary to achieve such goals remains more than questionable. Above all, the Chinese government proved that an extensive HSR system can be built quickly and without private funding, while operating reliably and at affordable prices. However, when looking at the big picture, the EU HSR plans seem not to be financeable without combining public with immense private funding (cf. Roll and Verbeke 1998).

Regarding the future of the channel tunnel, it can be expected that the upcoming Brexit will hit the operations hard. Still, by remaining one of the last links between the EU and the UK, the words of French president Francois Mitterrand will probably continue to be valid: *“The Channel Tunnel [...] is nothing less than a revolution,”* a symbol for peace and European integration (Regional Studies 1997, p. 432).

## 6 References

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