The Iron Rhine Railway Link: a Chronicle of Dutch-Flemish Geo-politics Based on Contextual History

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History shows that decisions to build new railway infrastructure tend to result in controversy, especially over the issues of their social justification, funding and socio-economic consequences. Moreover, railway projects often have an international or cross-border dimension, so that the viewpoints of the various countries involved must inevitably be taken into account. This also holds for the so-called Iron Rhine, a railway that connects Antwerp (Belgium) and Gladbach (Germany) across Dutch territory. In order to gain better insight into the significance of this historical rail link and the controversy that surrounds it, we need to go back in time. Gradually, the reader will come to understand that the Iron Rhine is more than a mere railway, and that it has become almost synonymous with the mistrust that exists between Belgium and the Netherlands in the field of port competition.

1. Introduction

The railway which today runs between the Belgian port of Antwerp and the German town of Gladbach is commonly termed the *Iron Rhine*, a rather quaint name that stems from the fact that the rail link was once considered a viable transport alternative to navigation on the Rhine. Seen from this perspective, however, there used to be other "Iron Rhines". The lines between Antwerp or Amsterdam and Cologne, for example, and the railway from Antwerp via Liège/Aachen (Aix-la-Chapelle) to Cologne were, in a sense, all an Iron Rhine, and indeed that is how they are referred to in a number of official documents (Fremdling, 2000, p. 536). Only recently has the name *Iron Rhine* come to refer exclusively to the short northerly rail link between Antwerp and Gladbach that traverses the Dutch province of Limburg (Van Hooydonk, 2000).

From its inauguration in 1879 until the eve of World War I, the *Iron Rhine* was quite a successful and busy railway. This was followed by a period of decline between the First and the Second World Wars, although the railways would continue to be used on a modest scale well into the 1990s. In 1997, however, the Dutch government unilaterally decided to dismantle a number of safety installations at level crossings and to interrupt the line east of Roermond, which effectively prevented further use of the railway (Broos, 1998b). Dutch authorities took their decision on the strength of Dutch constitutional and environmental law, even though the move was in contravention of existing international treaties[1]. The reactivation of the *Iron Rhine* has been high on the Flemish political agenda ever since, despite some environmental concerns over a bird sanctuary and reservations about the fact that the railway runs through the Dutch province of Limburg, which has been a source of political and economic strife for over a century. Moreover, the whole debate over the railway line has become symbolic of the often-fraught relationship between Belgium and the Netherlands when transportation and port-related matters are involved. It is no secret, for example, that the availability of a shorter and faster rail link with the German hinterland is commercially and economically important to the port of Antwerp, as it increases its competitiveness vis-à-vis the port of Rotterdam (Witlox, 1998).

Thus, the purpose of this article is to demonstrate that the *Iron Rhine* is not just a railway: at a more general level, it is an emblem of the mutual distrust and suspicion that often exists between Belgium and the Netherlands in economic matters. Indeed, economic and political motives, particularly within the context of competition between the ports of Antwerp and Rotterdam, appear to underlie the debate on the reopening of the railway. It is in this light that the full significance of the issue becomes clear.

The article is structured as follows. First, it briefly outlines the background against which the issue of the *Iron Rhine* needs to be

[1] The Netherlands cannot refuse the state of Belgium its right of transit over Dutch territory to Germany based on Article XII of the Peace Treaty of XXIV Articles of 1839.

evaluated, particularly the historical context of Belgo-Dutch economic and political relations and the 1839 Separation Treaty between the two countries. A second milestone that we consider is the so-called *Iron Rhine* Treaty of 1873, which defines the railway's trajectory (now referred to as the "historical route"). Subsequently, we briefly discuss the *Iron Rhine* in the context of the First and Second World Wars. Finally, our attention turns to developments since the 1980s.

2. The treaty of peace between Belgium and Holland

Belgium and the Netherlands usually stand united when their common interests are at stake, but friction does tend to arise if their respective commercial goals diverge, particularly, it seems, in port-related matters. This mutual suspicion and distrust dates back to the sixteenth and seventeenth centuries, when the Dutch, who controlled the Rhine, Meuse and Scheldt delta, have tried more than once to impede the development of the port of Antwerp, including its trade with the Rhineland in Germany. The closure of the river Scheldt[2] between 1585 (when Antwerp fell into Spanish hands) and 1792 (when the river was reopened under a French decree), the imposition of the Dutch staple right system (Suykens, 1996), and the toll that was imposed until 1865 on any inland vessel making for Antwerp or Ghent are just some examples of this restrictive Dutch policy (Nusteling, 1974). The inevitable result of these (and related) actions was a decline of Antwerp's flourishing trade.

The so-called "Scheldt issue" (Bindoff, 1945), which revolves around who should control shipping and maritime freight traffic to Antwerp, is one of the most important factors underlying Belgium's (i.e. Flanders's) attitude towards the Netherlands. The issue dates back to when the United Kingdom of the Netherlands was divided into two, a partition that saw Antwerp fall under Belgian rule, while the Scheldt estuary was retained by the Dutch (Smit, 1966). In this context, the adoption at the 1830 London

[2] The closing of the river Scheldt was officially recorded in Article XIV of the Peace Treaty of Munster (1648). See: J. Strubbe, 'Het verdrag inzake de verruiming van de Westerschelde in historisch perspectief', *Tijdschrift over Waterproblematiek*, Jrg. 14 (85), 1995, pp. 233-236.

Peace Conference of the 7th protocol, under which the then major powers (i.e. France, Great Britain, Austria, Prussia and Russia) recognised Belgian independence, represented an important turning point. Equally important was the adoption of protocols 11 and 12, which laid the foundations for the separation of Belgium and Holland ("*Bases destinées à établir la séparation de la Belgique d'avec la Hollande*") (Coolsaet, 1998). These so-called Principles of Separation would result in the Treaty of XVIII Articles, which was subsequently amended into the Treaty of XXIV Articles. It established the borders of the new state[3], arranged the division of the mutual burden of debt, and dealt with a number of economic and commercial matters, such as the issue of freedom of navigation on the Scheldt under sections 108 to 117 of the Treaty of Vienna of 9 June 1815 (Suy and Wellens, 1999).

Obviously, the respective positions of Belgium and the Netherlands were wide apart. Belgium demanded the territorial retention of all regions that had shown sympathy for the revolution. In particular, this referred to the Left Bank of the river Scheldt, to the whole of Limburg and to the Grand Duchy of Luxembourg. Given that an important section of the population of Zeeland-Flanders was Protestant, it seems doubtful that this region was ever eager to join the new Belgian state (Schuursma, 1975).

It should be noted at this point that Belgian territorial demands were not aimed exclusively at gaining additional land. As a matter of fact, economic and commercial considerations prevailed for the Belgian representatives. The strategic claim on Limburg, for example, was essential for safeguarding a direct trade route to Germany. Dutch objections to the Peace Treaty centred around the establishment of a joint Belgo-Dutch supervisory commission for shipping on the Scheldt, access for Belgian vessels to the connecting waterways between the Scheldt and the Rhine (the so-called "Tussenwateren") (De Bock, 1950; Vanfraechem, 2003), the accession to Belgium of part of Luxembourg, and the allocation of much of the countries' mutual debt to the Netherlands (Smit, 1946).

[3] In spite of the protest of the Belgian representatives the left bank of the river Scheldt (i.e. Zeeland-Flanders) was given to the Netherlands.

Eventually, following the "Ten Day Campaign" (1831), an agreement was reached. With regard to territorial matters, the town of Maastricht and all of Limburg east of the Meuse (including Venlo and the southern part of Roermond) were granted *ad infinitum* to the Netherlands, while Belgium retained only the Walloon part of Luxembourg. Significantly in the context of the present paper, Belgium was awarded right of transit passage through Dutch Limburg (i.e. the Sittard area) (Van Hooydonk, 1998). This was necessary because, under the Principles of Separation, there would be no direct border between Belgian Limburg and Germany. Hence, any future canal or (rail)road[1] connecting Antwerp with Cologne (i.e. the *Iron Rhine*) would cut through Dutch territory. The Principles further stipulated that Zeeland-Flanders and both banks of the Scheldt estuary belonged to the Netherlands. Belgium, for its part, obtained partial control of shipping on the Scheldt and of the exploitation of the river, as well as right of navigation on connecting waterways between the Scheldt and the Rhine. In addition, freedom of navigation on the Scheldt was guaranteed. Clearly, then, the agreement safeguarded Antwerp's future as a commercial port.

It is notable that the Belgian position in negotiating the terms of the peace agreements was inspired largely by economic and commercial considerations. In particular, the importance of high-quality infrastructure connections was emphasised: "If our communications are too much limited and curtailed, we shall perish like a plant without water", King Leopold I wrote in 1831 in a letter to the then British Foreign Secretary, Lord Palmerston (Stengers, 1968). Antwerp in particular was a source of concern. Between 1815 and 1830, the seaport had, after all, become an important link in the trade route between Great Britain and the Rhineland. Not surprisingly, then, the issues of

[1] This is stipulated in the famous Article XII of the Principles of Division. It gives to Belgium the legal right to construct or build a road or canal connection over Dutch territory (Sittard) to the German border. Literally, Article XII did not give Belgium the right to construct a railway connection through the canton of Sittard. Only a road or a canal was allowed. However, prior to endorsing the Principles of Division set forward in the Peace Treaty, Belgium had closed a deal with the major powers that also a *railway* connection was permitted. Later, the right of transit was officially recorded in the Treaty between Belgium and the Netherlands of 1842. In Article 3 of that treaty, it was stated that the Belgian state could, with respect to its right of transit, substitute itself by a concessionaire company.

Antwerp and its transit trade to the German hinterland received so much attention (Van Berkel and Veraghtert, 1982). Antwerp felt that Rotterdam and Amsterdam, because they had access to a superior inland waterways network, would take its place and that this would spell the city's economic downfall.

3. Antwerp and the transit trade to the German hinterland

Efficient freight distribution and movement of people have always been important factors in maintaining the cohesion of economic systems and in enhancing social welfare and the overall industrial performance of a country (De Jong, 1992). Yet, until the eighteenth century, the quantity of freight transported between nations was negligible compared to contemporary levels. In mediaeval times, for example, annual French imports from Italy and Switzerland via the Saint-Gotthard Pass would not even have filled a single freight train.

From 1830 onwards, railroads began to connect urban centres, providing easy access to resources and markets, particularly from ports. The first commercially successful rail link connected Manchester and Liverpool (1830). It demonstrated that rail travel was a viable alternative to travelling by coach or barge. Soon, railways were being constructed throughout the developed world. Initially, rail development was a national, point-to-point process whereby private companies would connect two major population centres (e.g. lines between Amsterdam and Utrecht, between Antwerp and Malines, etc). Transnational lines were also constructed, but as competition between countries, provinces and cities was fierce, these often suffered from blockades (De Vries, 1981). It was not until the 1860s that integrated, cross-border railway systems began to cohesively service whole nations with standard gauges, offering both passenger and freight transport. Travel times were reduced from weeks to days, which opened up a vast pool of resources and new agricultural and industrial regions. The main consequence of this revolution was a specialization of transportation services and the establishment of large distribution networks for raw materials and energy sources.

It was in this context that the idea of a rail connection between Antwerp and the Rhineland took shape. The concept was originally suggested to William I, King of the Netherlands, by the Liège-based industrialist John Cockerill (Demoulin, 1938). Immediately after the Belgian revolution, the merchant community of Liège further propagated the idea of a new transport connection with the German hinterland (Jonckers-Nieboer, 1938). The interim government of the fledgling Belgian state considered the idea of building a road or canal between Antwerp and Maastricht. In other words, establishing a connection between Antwerp and Germany became one of the very first issues in the history of Belgian economic policy-making (De Lannoy, 1930). That is not to say that the actual idea was new: in fact, the construction of a canal connecting Antwerp to the Rhine in Germany had already been contemplated in Napoleonic times, but that project was never realised.

It was no secret, however, that Antwerp preferred a rail connection with Germany. Just five days after his official inauguration, Belgium's King Leopold I gave attention to the issue, and later that year, the Minister of Foreign Affairs, Joseph Lebeau, also took a personal interest in the Antwerp railway project. In April 1831, Lebeau informed the newly appointed British Foreign Secretary, Lord Palmerston, about the possible construction of a rail link between Antwerp and Cologne. One month later, the project was placed on the political agenda of the National Congress. At this conference, Belgium's General Secretary for Foreign Affairs, Jean-Baptiste Nothomb, argued that all of Limburg (including the town of Roermond) should become part of the Belgian state, as this would make it possible to establish a direct rail or canal link between Belgium and Germany. He asserted that "*sans le Limbourg, sans le cours de la Meuse, pas de commerce de transit avec l'Allemagne, pas de possibilité de réaliser le projet de jonction de l'Escaut à la Meuse et au Rhin, soit par un canal, soit par une route en fer*" (Huyttens, 1844). Even if Belgium were unable to claim Maastricht and Venlo, it was important that Roermond should be retained, not only because of the town's important location on the freight transit route to Germany, but also because of the proximity of the Rolduc coalmines. Luxembourg, on the other hand, was not considered terribly important. According to Nothomb, whose roots

actually lay in Luxembourg, the Grand Duchy "*n'est pas d'une grande importance pour la Belgique que par la possession de la Moselle*".

The Treaty of XXIV Articles gave Belgium right of free transit up to the Dutch canton of Sittard, which meant that Antwerp's interests had been safeguarded. Initially, the Dutch government paid little attention to this stipulation, because it believed that Germany was already very receptive to the Belgian cause, so that the Sittard transit would offer no real benefits. However, William I, who was also known as the Merchant King, saw matters differently (Colenbrander, 1920). He considered Belgian right of way through Dutch Limburg to be a violation of his country's sovereignty. Moreover, he felt that it posed a genuine commercial threat: the transportation of goods over Dutch territory would clearly benefit the port of Antwerp, which he deemed unacceptable (Broos, 1998a). Therefore, he remained firmly opposed to Belgium's right of transit through Sittard, as stipulated in Article XII of the Peace Treaty (Hartgerink-Koomans, 1965). Henceforth, Dutch policy would aim at exploiting maximally the commercial benefits of its geographical position and at preventing other countries from using the Dutch delta and the Rhine (Schuursma, 1975).

As Belgium did not want to become economically dependent on the Netherlands, and as the Dutch government had initially rejected the Treaty of XXIV Articles, the Belgian government immediately set out to develop a rail network. A bill on the financing and operating of a state railway was adopted as early as 1834. The *Chemin de fer de l'Etat Belge* was granted the right to construct a railway from Antwerp to Prussia via Verviers, thus bypassing Limburg. This meant that, for the time being, Belgium did not need to exercise its right of transit. The first so-called "iron road" ran from Mechelen to Loeuvaien, Tienen, Borgworm, Luik (Liège), Verviers, Aachen, Düren and Cologne. Merchants from the Rhineland showed a great interest in the new railway. Moreover, it could clearly be used as a weapon against growing Dutch economic supremacy and it offered a viable alternative if free navigation on the Rhine should ever be restricted. Although the construction of the railway between the port of Antwerp and Cologne encountered many practical problems, it was eventually completed in 1843. The rail link, which is often referred

to as the first Iron Rhine, was in many ways superior to the inland waterway connection between Rotterdam and the Rhineland. It also boosted transit traffic through the port of Antwerp (Suykens *et al.*, 1986). The Dutch, however, saw the completion of the Antwerp–Cologne line as "an enormous threat to the trading position of Rotterdam", which was fast developing into a transhipment port, and as "an even greater threat to the position of Amsterdam", because the latter port had no adequate link with the river Rhine (De Jong, 1992). The Dutch response consisted of the construction of a railway line between Amsterdam and Cologne. However, rivalry between the ports of Amsterdam, which was desperate for the direct rail link with Germany, and Rotterdam, which advocated inland navigation to the Rhine, seriously delayed the building of this railway (Hartgerink-Koomans, 1959).

Meanwhile, in order to increase capacity and avoid the longer route via Liège and Aachen, the decision was taken to build a second, alternative railway. Two equally politically sensitive options were considered: (i) to make use of the right of transit through Dutch Limburg (i.e. the construction of the *Iron Rhine* on the basis of Article XII of the Separation Treaty), or (ii) to search for an alternative route between Antwerp and the German hinterland across Dutch territory. The first option was rejected because it might have constituted too great a competition for the existing Antwerp–Cologne line. But the second option was not very popular either, particularly among the Dutch, who recognised that any new railway to the east would create an additional advantage for Antwerp at the expense of Rotterdam.

In 1850, however, Belgium and the Netherlands reached an understanding over the establishment of the *Société Anonyme des chemins de fer d'Anvers à Rotterdam*, a company that would construct and operate a railway between Antwerp and Moerdijk, with a branch line to Roosendaal and Breda. The connection with Rotterdam was completed by means of a ferry service. Nevertheless, this "missing link" between Moerdijk and Rotterdam stood in the way of efficient international freight transport. It was not until the Moerdijk bridge had been completed that the railway could be used to its full potential. Subsequently, the towns of Utrecht and Arnhem were connected to the network. And in 1856, the

Arnhem-to-Emmerich line was opened, establishing the first rail link between the Netherlands and Prussia. However, one could argue that this line also provided Antwerp with a second connection with the Rhineland and northwest Prussia.

The Belgian railway network was expanding rapidly, more rapidly in fact than the Dutch network. By now, Belgium had 854 km of track compared to the Netherlands' 176 km (Mitchell, 1975), and further expansion projects were underway. In 1853, the Belgian government granted a concession to *Société Anonyme du chemin de fer de Turnhout* for the construction of a railway between Lier and Turnhout. The main aim of this project was to establish a connection between Antwerp and Arnhem via Tilburg, Hertogenbosch and Nijmegen. This new connection meant that goods could now be transported from Antwerp to the Rhineland either on the Hertogenbosch-Utrecht-Arnhem route or on the 's-Hertogenbosch-Nijmegen-Arnhem line. In 1861, a further concession was granted to *Société Anonyme des chemin de fer du Nord de la Belgique* for the construction of a railway from Herentals to Louvain via Aarschot. This consortium subsequently obtained a concession to build a railway from Antwerp to Hasselt. The latter line was more convenient than existing lines, where competition from Dutch rail operators was resulting in congestion. After the opening of the Antwerp-Hasselt line in 1865, the town of Maastricht became economically more isolated. A group of local merchants responded by establishing an enterprise called "Aken-Maastrichtsche Spoorweg-Maatschappij". The purpose of this company was to construct a railway line between Antwerp and Aachen via Hasselt and Maastricht (Laffut, 1974).

With the abolition in 1863 of toll on the river Scheldt (which the Netherlands imposed on Belgium for each ship that used the Dutch section of the river, regardless of its flag), a much-resented trade restriction ceased to exist. While one might expect this to have improved economic relations between the two countries, it should be noted that the toll was not simply abolished, but that it was bought off by Belgium for the amount of 17,141,640 Dutch florins. It was as though Belgium had finally succeeded in casting off an economic and, equally

importantly, symbolic yoke. Consequently, rather than improving economic relations between the two countries, it further amplified existing rivalries (Pirenne, 1932). However, the controversy surrounding the river Scheldt was not just about the toll. It also concerned Dutch intentions to dam the Sloe and Eastern Scheldt in order that a railway could be constructed from Flushing to the German hinterland (Gerretson, 1943). This railway posed a threat to the economic position of Antwerp, not only because it was shorter than any other connection with Germany, but also because the port of Flushing was more accessible than Antwerp. In addition, the Belgian government was worried that the two lateral dams that would separate the Eastern and the Western Scheldt would compromise the port of Antwerp's accessibility. Belgium even called for international arbitration on the matter by the Great Powers (i.e. France, England and Prussia), but to no avail. It was probably this new threat posed by the Flushing railway that prompted Antwerp port authorities to argue the case for additional hinterland connections. It seemed the time had come for Belgium to exercise its right of transit as formulated in the Separation Treaty.

Indeed, under that Treaty, the Belgian government was legally entitled to commission the construction of a railway from, say, Antwerp or Herentals to Düsseldorf in Germany across Dutch Limburg. However, it took until September 1869 before a concession was granted to *Société Anonyme des chemins de fer du Nord de la Belgique* for the construction of the Belgian section of the line between Antwerp and Gladbach. The precise route of this rail link remained a point of debate.

Although it seemed an obvious choice for Belgium to exercise its right of transit through the Dutch canton of Sittard, as stipulated in Article XII of the Separation Treaty, it transpired during negotiations that the Belgian government gave preference to a more direct line to Gladbach via Roermond. A line through Sittard was less interesting from an economic viewpoint because it did not connect so conveniently with the existing German railway network and because it was considerably longer. Furthermore, it offered few advantages over the existing line from Antwerp to Aachen via Hasselt and Maastricht.

It took until 13 January 1873 before Belgium and the Netherlands

reached a compromise over the planned railway. This agreement was, for the sake of simplicity, referred to as the *Iron Rhine* Treaty.

4. The Iron Rhine Treaty

The route of the new rail connection between Antwerp and Gladbach via Limburg was laid down in Article 4 of the *Iron Rhine* Treaty. The track runs from Antwerp to Lier, Herentals, Geel, Mol, Lommel and Neerpelt, and on to the border town of Hamont. From there, it crosses Dutch Limburg (via Budel, Weert, Roermond and Vlodrop) towards Germany. The German section passes through Dalheim and Rheydt, and ends in Gladbach, where the line connects to the German rail network (see *Figure 1*). A more southerly track through Bree and Thorn was rejected by the Netherlands. The Belgo-Dutch *Iron Rhine* Treaty said nothing about the German section of the line. At the time the treaty was drawn up, Germany had already granted a concession to the powerful consortium of "Bergisch-Märkische Eisenbahngesellschaft". The actual construction of the *Iron Rhine* proceeded without any great difficulty. Still, it could be argued that it took all of 43 years to complete the line. Passenger and freight transport on the *Iron Rhine* only became operational in 1879.

FIGURE 1. The Iron Rhine

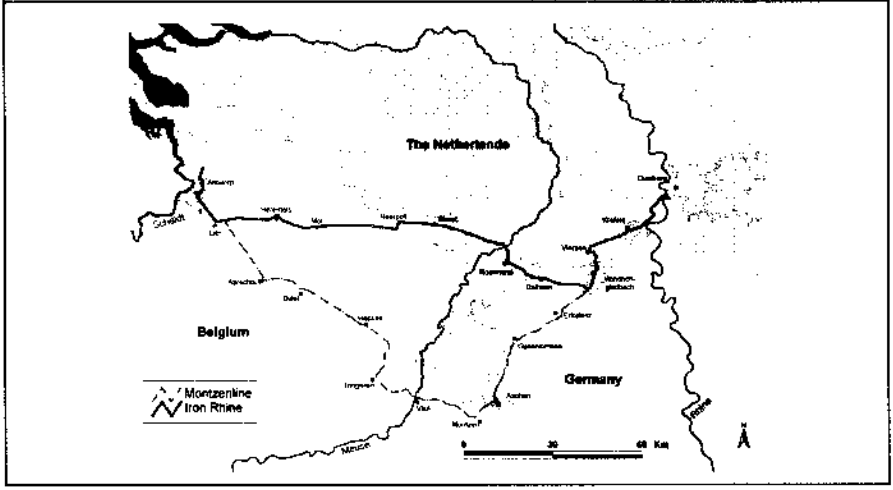

Table 1 provides an overview of the owners and operators of the various sections of the line. The principal operator was *Chemin de fer Grand Central Belge*, a hugely successful company that generated enormous profits and was the envy of the Belgian State. Eventually, in 1897, the Belgian government acquired the entire rail network from *Chemin de fer Grand Central Belge* for 264 million Belgian francs. A Royal Decree was adopted that entrusted control of the Belgian section of the *Iron Rhine* to Belgium's state railways[5].

The *Iron Rhine* quickly became a very important railway. The single-track line was intended primarily for freight transport. The average travel time was just 4 hours and 30 minutes. Moreover, the railway attracted industry: around the turn of the century, a number of important companies, including a zinc company N.V. Kempensche Zink Maatschappij (now known as Budelco), decided to locate near the *Iron*

TABLE 1. Owners and operators of the various sections of the *Iron Rhine* (in 1879)

Section	Owner	Operator
Antwerp (Docks and Warehouses) – Berchem – Mortsel	EB	EB and GCB
Mortsel – Boechout – Lier	NB	AR/GCB (for NB) and GCB
Lier – Herentals	LT	AR (for LT) and GCB
Herentals – Border Vlodrop/Dalheim	NB	GCB
Border Vlodrop/Dalheim – Rheydt	BME*	BME*
Rheyht – Mönchengladbach	AD	BME*

AD : Aachen-Düsseldorf-Ruhrorter Eisenbahn Gesellschaft
AR : Société Anonyme des chemins de fer d'Anvers à Rotterdam
BME : Bergisch Märkische Eisenbahn Gesellschaft
EB : Chemin de fer de l'Etat Belge
GCB : Chemin de fer Grand Central Belge
LT : Société Anonyme du chemin de fer de Lierre à Turnhout
NB : Société Anonyme des chemins de fer du Nord de la Belgique
* The German section of the track would later be operated by Königliche Preussische Staats-Eisenbahn-Verwaltung (1882), Deutsche Reichsbahn (1920) and Deutsche Bahn (1949)

Source: Freriks, 2003

[5] In 1926, the administration of the state railway was reformed to the current Belgian railway operator NMBS (Nationale Maatschappij der Belgische Spoorwegen). See: M. Van Meerten (ed.), *Sporen in België. 175 jaar Spoorwegen – 75 jaar NMBS*, (Leuven 2001).

Rhine. The combination of the Campine Canal and the railway was ideal for the supply of feedstock and the conveyance of finished products. But some years later, following the outbreak of World War I and the German invasion of Belgium, international transport on the *Iron Rhine* came to a complete standstill.

5. The Iron Rhine and the First and Second World Wars

During World War I, the *Iron Rhine* fell into disuse and soon became obsolete. The Germans could have used it as a major feeder line for their occupying force in Belgium. This, however, would have meant passing through Dutch, i.e. neutral, territory. To resolve this problem, a decision was taken to go ahead with the accelerated construction of a new, alternative rail connection between Antwerp and Germany via Montzen. This so-called *Montzen Line* runs from Aarschot to Hasselt, Tongeren, Liège (Wezet-Montzen) and Aachen. Avoiding Dutch territory implied a detour of approximately 51 kilometres.

Although the *Iron Rhine* remained operational to some extent between Antwerp and the Dutch border town of Hamont, pre-war transportation levels would never again be attained, for several reasons. First, there was the economic crisis and the slow recovery of business in some of the seriously war-affected areas in Germany. Second, Belgo-Dutch relations deteriorated profoundly after 1918, largely because of Belgium's (unjustified) criticism of the Netherlands' neutrality during the war. In response to Belgium's accusations and its "unworthy" territorial claims at the 1919 Versailles Peace Conference (i.e. the so-called "annexionist" policy by Belgian foreign minister Paul Hymans), the Dutch government not only refused to co-operate with improvement works on the Scheldt-Rhine Canal, but it also demanded transit tolls for the transportation of goods from Antwerp to Germany. The tariff policy pursued by Dutch rail operators further contributed to a shift of transportation flows to the more southerly Wezet-Montzen line.

In 1925, Dutch-Flemish relations further deteriorated following an important political event, namely the narrow renunciation of the so-called Treaty of The Hague by the Dutch First Chamber. The purpose of this

treaty was to revise (to the advantage of Belgium) a number of articles in the 1839 treaty that concerned the Belgian and Dutch waterways. For example, it recognised Antwerp's right to host a naval port. More importantly, though, it stipulated that the Dutch government should maintain the fairway of the Western Scheldt estuary, so that it would remain accessible for every kind of ship, including larger vessels in the future. This commitment implied a continuous struggle for the Dutch with the strong currents in the estuary. The treaty also dealt with two canals: (i) the so-called Moerdijk Canal, which was to be constructed between Antwerp to the village of Moerdijk, and would thus establish a new connection with the delta of the rivers Rhine and Meuse, and (ii) the Ruhrort Canal, which was to connect Antwerp with Ruhrort via the Dutch Province of Limburg. Both canals would be of the maximum depth and width, and they would have caused considerable damage to the interests of Rotterdam and Amsterdam, and thus to the Netherlands as a whole (Schuursma, 1975). The publication of the full text of the treaty prompted a great debate in the press. Opposition movements were formed, particularly within the business circles of Rotterdam and Amsterdam, who resented the idea that Antwerp and Rotterdam would be considered as equal Rhine ports. Next, the engineers of the Dutch Department of Waterways (*Rijskwaterstaat*) joined in the criticism of the Treaty. Further opponents were found among sympathizers with the so-called "Greater Netherlands Movement". This movement, headed by P. Geyl and F.C. Gerretson, supported the Flemish struggle for equality within the bilingual state of Belgium. Under the leadership of Anton Adriaan Mussert, a Dutch National Committee was formed that channelled all opposition to the treaty. All economic, political, and ideological means were employed to justify the common cause, namely the renunciation of this 'implausible and unacceptable' treaty (cf. Schuursma, 1975). Following the rejection of the treaty, a huge anti-Dutch campaign was launched in the Belgian press. Clearly, the dispute about the Belgo-Dutch treaty had stirred up feelings of mistrust, and it had also prompted a kind of nationalistic awakening (cf. the installation of the Belgian Rhine Shipping Subsidies). Together, these factors clearly had a negative impact on all cross-border transportation of passengers and freight (Veraghtert, 2003).

Following the decline in passenger and freight transport, certain parts of the *Iron Rhine* track were dismantled and yards were closed down. Signal boxes, locomotive depots, and railway hangars were eliminated. During the Second World War, the railway link was used for military transports, but in the post-war period it continued to decline. Dutch railway authorities even dismantled some of the double tracking. And on the Flemish side, maintenance of the railway line was kept to an absolute minimum, its sole purpose being to avoid further downgrading.

6. The turnaround of the 1980s

In the 1950s and 1960s, goods transport decreased significantly. Up to the 1970s, cross-border cargo transport was limited to just four trains a day from Dalheim to Roermond and back. Since 1978, the Belgian section of the *Iron Rhine* up to the station of Neerpelt has also been used for passenger transport. In addition, until 1991, piggyback trains and salt trains also used the *Iron Rhine* on a regular basis.

Today, the *Iron Rhine* is a desolate sight. Some sections of the line are single-track, so that the maximum speed is limited to only 40 km/h. Other sections are not electrified, so that they are suitable only for diesel-driven locomotives. In fact, it appears from *Table 2* that only half of the total length of the *Iron Rhine* is equipped with double tracks, while just 43% of the line is electrified. It speaks for itself that the single-track and non-electrified sections give rise to some important bottlenecks. Two such sections are those from Mol to Weert (43.5 km) and from Roermond to Rheydt (31.7 km). The most problematic stretch of rail is arguably that between Budel and Weert, a single-track, non-electrified section where the maximum speed is only 40 km/h.

For at least a decade now, the Antwerp port authority (AGHA) has tried unsuccessfully to generate renewed interest in the *Iron Rhine* project. The federal government and the Belgian railway operator NMBS/SNCB[6], for their part, do not consider the *Iron Rhine* to be a priority. The

[6] NMBS/SNCB stands for "Nationale Maatschappij der Belgische Spoorwegen/Société nationale des chemins de fer belges".

NMBS/SNCB holds the view that rail transport should be concentrated on a limited number of main lines. Moreover, argues the NMBS/SNCB, the Montzen line has sufficient reserve capacity. The latter connection is also more attractive to the NMBS/SNCB from a revenue point of view, because it involves two rail operators (NMBS/SNCB and Deutsche Bahn) rather than three, as in the case of the *Iron Rhine* (NMBS/SNCB, Deutsche Bahn and NS) (Witlox, 1999).

In fact, precious few people from outside port circles have shown any interest at all in the resurrection of the *Iron Rhine*. Furthermore, antagonism between Flanders and Wallonia over the 60/40 distribution code for the rail investment budget has prevented a united Belgian stance. The Dutch, for their part, are fearful of any improvement of Belgium's railway infrastructure, because it could partly damage the long-term position of the port of Rotterdam. The reactivation of the *Iron Rhine* would undoubtedly create more competition for the planned *Betuwe*

TABLE 2. The *Iron Rhine* today

Country and section	Length (km)	Number of tracks	Electrified	Max. speed (km/h)
Belgium				
Antwerp Noord– Berchem – Mortsel	18.4	2	Yes	90
Mortsel – Lier	10.6	2	Yes	120
Lier – Herentals	17.7	2	Yes	120
Herentals – Mol	16.3	2	No	120
Mol – Neerpelt	23.4	1	No	120
Neerpelt – border Hamont/Budel	09.7	1	No	70
	96.1			
Netherlands				
Border Hamont/Budel – Weert	10.4	1	No	40
Weert – Roermond	24.1	2	Yes	140
Roermond – border Vlodrop/Dalheim	13.7	1	No	80
	48.2			
Germany				
Border Vlodrop/Dalheim – Rheydt	18.0	1	No	60
Rheydt – Mönchengladbach	03.7	2	Yes	120
	21.7			
Total length	**166.0**			

Source: NMBS, 1999, p. 9.

Line between the port of Rotterdam and the German border town of Emmerich (Fremdling, 2000). Initially, the Germans, too, were wary of the *Iron Rhine* project, because it implied additional traffic on the already saturated north-south lines in the Cologne area. Furthermore, the EU was not supportive of the project because it was concerned mainly with the national level, given the existing differences in electric tension and rail safety equipment.

Despite this opposition, the port of Antwerp has been insisting on a modernisation of the *Iron Rhine* since the late 1980s. Its calls were prompted by a controversial Dutch plan for the construction of the so-called *Betuwe Line*. This railway will run through the Betuwe, the well-known Dutch fruit-growing region, and it will be used for freight transport between Rotterdam and Germany (Fremdling, 1999). According to a decision dating from November 1996 regarding the route of the *Betuwe Line*, about 160 kilometres of additional railway track need to be built. The section from Rotterdam to Kijfhoek has already been completed through an extension of the existing port railway line. The section that passes through Geldermalsen and Elst and continues to Zevenaar on the German border, however, is not ready yet. Beside investment in new railway infrastructure, the project also involves the construction of additional bridges and tunnels. With the new *Betuwe Line* and the existing *Brabant Line* via Eindhoven and Venlo, Rotterdam will have two rail links to the German hinterland and beyond. This has been perceived by Antwerp as a threat to its position as a leading European port, so that a countermove seems inevitable.

In order to examine the economic rationale of reactivating the *Iron Rhine*, it was decided that a feasibility study should be conducted. Under the supervision of the Flemish government and with the support of the European Commission, the possible revitalisation, (re)use and operation of the *Iron Rhine* was looked into. The purpose of the study, conducted by Tractebel Development, Technum and Prognos (1997), was to examine the short- and long-term transport potential of the *Iron Rhine* in a broad perspective. Obviously, the study focused mainly on the connection between Antwerp and Germany, but transport across the *Iron Rhine* and the existing *Montzen Line* between all Belgian North Sea ports and the

Channel Tunnel on the one hand and their Central and Eastern European hinterlands on the other were also taken into account. The findings were to be used as a basis for further negotiations on the *Iron Rhine* between Flanders, the Netherlands and Germany.

It is obvious that, without Dutch co-operation, Belgium is unable to put much into effect. If need be, Dutch co-operation could be enforced on the basis of EU Directive 91/440, which (i) separates "the management of railway operation and infrastructure from the provision of transport services", and (ii) ensures "access to the networks of Member States for international groupings of railway undertakings". In other words, the Netherlands is in no position to refuse to co-operate in the *Iron Rhine* project. Furthermore, under Article XII of the Separation Treaty, Belgium could actually demand that the Dutch section of the line be modernised. Ultimately, however, there is no need for Dutch co-operation to be enforced by international law, as a "compromise" has now been reached. The manner in which the deal was struck bears close resemblance to a previous agreement, under which the Dutch pledged to deepen their section of the Western Scheldt in return for improved water quality control on the Belgian section of the Meuse. In this instance, the *Iron Rhine* issue was linked to a decision regarding the route of an international high-speed rail link. The Dutch government obtained its preferred route for the high-speed train north of Antwerp (along motorway E19 rather than so-called railway line 13), while Flanders obtained full clarity on the future of railway line 11 from Rotterdam to Bergen-op-Zoom, which will improve the connection between the ports of Rotterdam and Antwerp. Furthermore, the Dutch government agreed to co-operate actively in a feasibility study of the *Iron Rhine*, and, irrespective of the outcome of this study, to take part in joint discussions on the line with Flanders and Germany.

The results of the feasibility study confirmed that, from an economic point of view, the reactivation of the *Iron Rhine* would be an interesting investment. The cost of a full upgrade of the line (i.e. double tracking and electrification) is estimated at 137.5 million euros (75 million if one opts for diesel). An additional advantage is that the investment can be spread out over time. In fact, the price tag would be very modest indeed

compared to the 4.5 billion in costs and negative environmental effects associated with the construction of the *Betuwe Line* (Roscam Abbing, 1999). If the minimal investment option is chosen (i.e. diesel version), the net present value of the *Iron Rhine* project, assuming constant market shares, equals 20 million. The project's macroeconomic benefits (i.e. the welfare created for the community as a whole) is estimated at between 25 and 50 million if savings can be realised in prevention costs for accidents, traffic jams, air pollution, noise nuisance, etc.

Although the *Betuwe Line* is less cost-effective than the *Iron Rhine*, the Dutch government has succeeded in having the former project placed on the European list of priority railway investments, so that it is now supported financially by the European Commission. Nevertheless, in terms of tonnage transported, the Dutch project is inferior to the Flemish proposal. As a matter of fact, the Belgian national railway operator NMBS/SNCB transports 3.5 times more goods than its Dutch counterpart NS. Furthermore, figures show that, in 1994, the port of Antwerp handled a total of 28 million tonnes of rail freight, compared to Rotterdam's 10 million tonnes. German figures for that same year show that total freight traffic between the German Länder and Rotterdam amounted to 2.9 million tonnes, compared to the 2.3 million tonnes in the case of Antwerp. However, closer analysis reveals that the figures for Rotterdam include almost 2 million tonnes of iron ore transported from Rotterdam to the Saarland steel industry. New figures for 1996 confirm that 14 of the 16 German Länder import greater freight volumes via Antwerp than via Rotterdam (AGHA-SEA, 1996). Consequently, from a transport economics point of view, the reactivation of the *Iron Rhine* is essential.

But there are other arguments in favour of reactivating the *Iron Rhine*. For one thing, unlike the *Betuwe Line*, the *Iron Rhine* already exists. Moreover, the railway runs through flat land without tunnels, which implies that fewer locomotives are required and that double-stack container transport is possible. The *Iron Rhine* also connects more favourably to the German rail network (i.e. in a less congested area) than the *Betuwe Line* will. Furthermore, the *Iron Rhine* can contribute to the regional economic development of Flemish and Dutch Limburg, Dutch Southeast Brabant, Krefeld-Mönchengladbach and Düsseldorf in

Germany. One should also consider that reactivating the *Iron Rhine* will not only be beneficial to the port of Antwerp, but that it will also improve connections between Zeebrugge and Ghent on the one hand and the German hinterland on the other. Finally, the Belgian Province of Limburg has shown an interest in the *Iron Rhine* project because a reconstructed Railway Line 18 (Genk-Goederen, Zonhoven, Houthalen-Helchteren, Peer, Neerpelt) could serve as a feeder line for the *Iron Rhine*, creating an excellent connection between Limburg and the German hinterland (GOM Limburg, 1998; Van Ballaer and Schiepers, 1998). In this sense, the *Iron Rhine* also constitutes an important link in the growing transport flow to and from Eastern Europe.

Inevitably, there are a number of counterarguments and drawbacks. For instance, one could submit that rail transport should be concentrated on a limited number of well-equipped lines. The *Montzen Line*, for example, might be a viable alternative, given existing reserve capacity on that line. This reserve capacity, however, seems to be far smaller than was initially assumed as a result of the further development of intra-European rail traffic. Another counterargument is that it is financially more favourable to have two operators involved than three. Finally, there are a number of important environmental considerations to take into account, as the historical line runs through the Dutch national park "De Meinweg".

"De Meinweg" lies east of Roermond in the community of Roerdalen and stretches out in an easterly direction across the German border. The area used to be common property of fourteen neighbouring villages on both sides of the border. In 1995, 'De Meinweg' became a National Park. The sanctuary also falls under the 1979 European Wild Bird Directive, which was updated in 1991. The sanctuary has been granted the status of Special Protected Area under the terms of the European nature protection programme Natura 2000. Today, "De Meinweg" is a haven for such rare species as the viper, the comb salamander, the garlic toad and the common crane, all of which are protected under the European Habitat Directive. Provincial authorities of Dutch Limburg have said quite unequivocally that they will, under no circumstances, allow the reactivation of the section of railway that

runs through the sanctuary. Dutch legislation on the construction of railways explicitly states that any reactivation of an existing railway line through a nature reserve such as 'De Meinweg' is subject to the findings of an environmental impact study in which consideration should also be given to possible alternatives. The European Habitat Directive requires a similar procedure. An alternative line via Venlo, however, might entail benefits for the town, besides an inevitable burden (Witlox, 2000).

8. Conclusion

It is clear that the debate on the *Iron Rhine* has not been resolved yet. The political discussion is unfolding at different levels, whereby attention is paid to economic feasibility, technical aspects, environmental effects, legal implications (regional, federal and European), and operational and port-related issues. Given the complexity of the debate, Flemish-Dutch sensitivities and mutual distrust must be placed in their proper context.

The amount of controversy that the *Iron Rhine* has caused since its construction is quite remarkable. No other transport-related project has given rise to such fierce and intense social debate. This can be explained in different ways: growing public awareness and concern in the regions through which the *Iron Rhine* passes, greater ecological sensitivity and, last but by no means least, the recognition by the various parties involved of the strategic and economic importance of an adequate rail connection for freight transport between Antwerp and Mönchengladbach. In a sense, then, the *Iron Rhine* debate is intrinsically about international competition.

It is almost certain that the *Iron Rhine* will be resurrected in the near future. The question remains how long it will take before this is achieved. As far as Flanders is concerned, the day cannot come soon enough. But in the eyes of the Netherlands, the issue is not as cut and dried as Flanders claims. Environmental and safety issues will no doubt have a huge impact on the outcome of the debate. These are, however, topics, on which Flanders and the Netherlands have entirely different views. For instance, given that a very substantial part of the cost of the *Betuwe Line* consists in environmental compensation, the Dutch find it hard to understand

why such environmental precautions should not be taken in the case of the *Iron Rhine*. Obviously, the conditions of reactivation will have to be further discussed. The existing Memorandum of Understanding is a step in the right direction. The proverbial snake in the grass, however, is the precise route of the railway line. For Flanders, the ideal route would cut through the Meinweg nature reserve. This should preferably be combined with the development of a logistic park near the town of Lommel, so that the Belgian province of Limburg could also benefit from the project. The Dutch, on the other hand, maintain that the railway should be constructed near Venlo, where there is already a vast logistic park.

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