

HSL ZUID, AMSTERDAM-ROTTERDAM(-ANTWERP), THE NETHERLANDS(-BELGIUM)

OVERVIEW

LOCATION: AMSTERDAM-ROTTERDAM
-ANTWERP

SCOPE: TRANSNATIONAL

TRANSPORT MODE: RAIL

PRINCIPAL CONSTRUCTION: GRADE

NEW LINK: YES

PRINCIPAL OBJECTIVES

NATIONAL/INTERNATIONAL LINK

ALTERNATIVE TO AIR TRAVEL

ECONOMIC DEVELOPMENT

PRINCIPAL STAKEHOLDERS

CLIENT: NATIONAL TRANSPORT MINISTRY

FUNDER: NATIONAL GOVERNMENT

MAIN CONTRACTOR: INFRASTRUCTURE

OPERATOR: NS HISPEED

PLANNING AND IMPLEMENTATION

APPROX. PLANNING START DATE: 1987

CONSTRUCTION START DATE: 03/2000

OPERATION START DATE: 09/2009

MONTHS IN PLANNING: 153

MONTHS IN CONSTRUCTION: 114

PROJECT COMPLETED:

48 MONTHS BEHIND SCHEDULE

COSTS (IN 2010 USD)

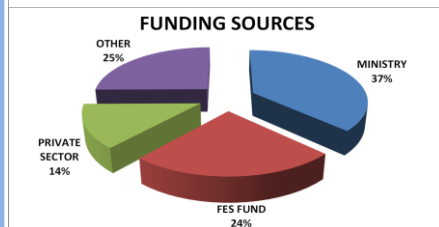
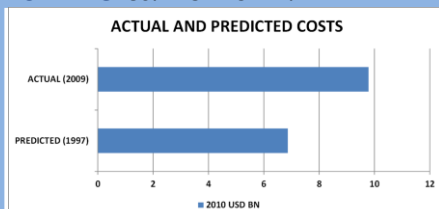
PREDICTED COST: 6.87BN

ACTUAL COST: 9.79BN

PROJECT COMPLETED:

42% OVER BUDGET

FUNDING: 86% PUBLIC : 14% PRIVATE



INFRASTRUCTURE QUANTITIES

LENGTH OF TRACK: 125KM

COST PER KM (2010 USD): 0.078BN

PATRONAGE

FORECAST (1997): 14M PASSENGERS

ACTUAL (2010): 23-24M PASSENGERS



INTRODUCTION

HSL Zuid is a high speed rail line, 125km long, stopping at three stations: Amsterdam Zuid, Amsterdam Schiphol Airport and Rotterdam, before continuing to the Dutch/Belgian border to connect with services to Antwerp, Brussels and Paris. The Hague and Breda are linked to the high speed network by shuttle trains.

Amsterdam Zuid has been the site of major redevelopment and is now a prominent business district. HSL-Zuid has also been a catalyst for the ongoing extensive redevelopment of Amsterdam Central (where the line originally terminated, before Zuid station opened), Rotterdam Central, The Hague Central and Breda stations.

BACKGROUND

The principal objectives of the project were to connect Rotterdam, Schiphol and Amsterdam to the European High Speed Network, to encourage economic development, and to provide an alternative to air travel to European destinations. It was anticipated in the government's 1979 structure scheme and a 1986 feasibility study, although the formal planning process started only in 1987.

The initial proposal was withdrawn as it was felt to be weak, but the revised version already included environmental impact assessments and public consultation from the first. A major concern was the impact on the rural Green Heart area, and other proposals based on adjusting and upgrading the existing infrastructure won widespread support both outside and within government.

To reach agreement with the Belgian government on the route to Antwerp, the environmental impacts of several alternatives were assessed. The preferred Dutch route, although the best environmental option with the highest transport value, traversed the Peerdsbos forest near Antwerp and its viability depended on finding a solution that minimised the impact.

CHARACTERISTICS

HSL Zuid is a dedicated double track infrastructure project, designed for a maximum speed of 300km/hour. The Tunnel Green Heart was one of the first tunnels drilled in the soft Dutch soil: the drilling machine was built specially.

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TIMELINE

CONCEPTION: 1977: AMROBEL STUDY ON HIGH SPEED ROUTE TO BELGIUM

CONCEPTION: 1979: GOVERNMENT STRUCTURE SCHEME ANTICIPATES HSL

INCEPTION: 1987: BEGINNING OF PLANNING PROCEDURE TO ESTABLISH HSL

INCEPTION: 1991: FIRST PROPOSAL SUBMITTED TO PARLIAMENT

INCEPTION: 1993: CABINET COMMITMENT TO HIGH SPEED LINK WITH EUROPE

INCEPTION: 1994: SECOND PROPOSAL SUBMITTED

CONTROVERSY: 1994-96: PUBLIC OPPOSITION TO BUILDING THROUGH GREEN HEART

CONCEPTION: 1996: GOVERNMENT DECIDES ON TUNNEL UNDER GREEN HEART.

INCEPTION: 1996: PROPOSAL APPROVED BY PARLIAMENT

INCEPTION: 1996: AGREEMENT REACHED WITH BELGIAN GOVERNMENT

INCEPTION: 1997: DECISION TO PROCEED. AGREEMENT WITH BELGIAN GOVERNMENT RATIFIED BY PARLIAMENT

INCEPTION: 1998: ROUTE FINALISED. TENDER STRATEGY DETERMINED

CONSTRUCTION: 1999: CONSTRUCTION FORECAST TO START. TENDERING BEGINS

CONSTRUCTION: 2000: CONSTRUCTION STARTS

INCEPTION: 2001: CONTRACTS WITH SERVICE AND INFRASTRUCTURE PROVIDERS SIGNED

CONSTRUCTION: 2004: CONSTRUCTION OF RAIL SYSTEMS BEGINS. TRAINS ORDERED

CONSTRUCTION: 2005: CIVIL ENGINEERING WORK COMPLETE

CONSTRUCTION: 2006: CONSTRUCTION OF SOUTHERN SECTION COMPLETE. TESTING OF SYSTEMS BEGINS

CONSTRUCTION: 2007: CONSTRUCTION COMPLETE

DELIVERY: 2009: OPERATION STARTS

The transport ministry remained initiator, client and main financier throughout the project, and owns the line. The project team worked under its supervision and included employees of its implementation agency, Rijkswaterstaat, and external consultants. Construction was divided into several contracts, each worth about EUR 0.4bn, awarded to different consortia. The track and signaling systems were developed by Infrasppeed (a consortium of Fluor Infrastructure, Siemens Nederland, Koninklijke BAM Groep, Innisfree and HSBC Infrastructure), under a DBFM contract with a requirement that for 25 years the track must be available 99% of the time. This contract runs from 2006 till 2031, with the state paying Infrasppeed for availability, depending on whether the 99% target is achieved.

Following privatisation of Dutch railways, HSL Zuid was the first rail project developed with minimal influence from the national rail operator, NS. A public tender was issued for exploitation of the track, won by Hispeed Alliance (a consortium of NS and the national airline, KLM). Since merging with Air-France, KLM has a very strong position in the travel market between Amsterdam and Paris.

TIMELINE ISSUES

The ministry's withdrawal of its first proposal, subsequent public opposition to the route through the Green Heart and disagreements in government prolonged the decision-making process. Negotiations with the Belgian state over the route crossing the border were also problematic and the Dutch state eventually paid financial compensation to Belgium to break the deadlock. The choice of security system also caused delays: the specifications of the standard were confirmed late, which also delayed ordering and supply of trains. The line's opening was subject to a four year delay overall.

FUNDING

Of the EUR 7bn (USD 9.79bn in 2010 prices)¹ total cost, EUR 2.6bn (37%) is from the transport ministry's SVV-budget. Slightly over EUR 1.7bn (24%) is from the FES fund (based on revenues from gas exports, dedicated to economic development). Private funding amounted to EUR 0.94bn (14%), considered to be a high proportion for a Dutch infrastructure project. However, NS overbid in an effort to keep the train line in Dutch ownership.

The ministry also pays EUR 3bn to Infrasppeed for track availability, and the government paid EUR 0.4bn to the Belgian government in compensation over the route.

¹ Costs have been converted to USD at 2010 prices, using historic inflation rates and current exchange rates, to allow comparison between projects.