

# RANDSTADRAIL, THE HAGUE-ROTTERDAM, NETHERLANDS

## OVERVIEW

**LOCATION:** THE HAGUE-ROTTERDAM, THE NETHERLANDS

**SCOPE:** INTER-REGIONAL

**TRANSPORT MODE:** LIGHT RAIL

**PRINCIPAL CONSTRUCTION:** AT GRADE

**NEW LINK:** PART

## PRINCIPAL OBJECTIVES

ALTERNATIVE TO CAR TRAVEL

TRAVEL TIME SAVINGS

ACCESSIBILITY

REGIONAL DEVELOPMENT

## PRINCIPAL STAKEHOLDERS

**CLIENTS:** HAAGLANDEN/ROTTERDAM CITY REGIONS

**MAIN CONTRACTORS:** HTM/PRORAIL

**SERVICE PROVIDERS:** HTM/RET

**PRINCIPAL FUNDER:** NATIONAL GOVERNMENT

## PLANNING AND IMPLEMENTATION

**APPROX. PLANNING START DATE:** 1995

**CONSTRUCTION START DATE:** 06/2003

**OPERATION START DATE:** 10/2007

**MONTHS IN PLANNING:** 96

**MONTHS IN CONSTRUCTION:** 52

**PROJECT COMPLETED:** 12 MONTHS

**BEHIND SCHEDULE (LINE 4)**

## COSTS (IN 2010 USD)

**PREDICTED COST:** 1.20BN

**ACTUAL COST:** 1.56BN

**PROJECT COMPLETED:**

**30% OVER BUDGET**

**FUNDING:** 100% PUBLIC

## INFRASTRUCTURE QUANTITIES:

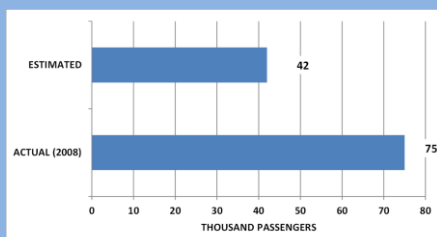
**LENGTH:** 68KM (EXCLUDING BUS LINE)

**NUMBER OF STATIONS:** 23

**NUMBER OF ADDITIONAL STOPS:** 48

**COST PER KM (2010 USD):** 0.023BN

## PATRONAGE



## INTRODUCTION

A light rail and bus service connecting the centres of The Hague, Rotterdam and the new growth town of Zoetermeer, and their commercial and residential areas, RandstadRail serves one of the most densely populated regions in the world.

RandstadRail includes three light rail lines, used by both tram and metro vehicles, and a dedicated bus route. It opened in stages during 2006 and 2007. It is associated with the *Beatrixkwartier* business district development around Beatrixlaan station, the ongoing redevelopment of The Hague and Rotterdam central stations and city centres, and several new residential neighbourhoods.

## BACKGROUND

The origin of the project is rooted in the informal collaboration between local authorities in the Zuidvleugel (southwest of the Randstad) conurbation, principally the Rotterdam and Haaglanden regions. It began with a proposal, published jointly by the two regional transport operators and national rail and bus operators, in 1995. The involvement of the national rail operator provided an opportunity to convert existing underused heavy rail tracks rather than build new infrastructure.

The scope of the project was discussed by local, regional and national operators and governments over the next few years, and an application for funding from the national government's multi-year plan for infrastructure and transport (MIT) was submitted and approved in 2002.

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### TIMELINE

**CONCEPTION: 1989: FIRST PLANS FOR REGIONAL PUBLIC TRANSPORT NETWORK**

**CONCEPTION: 1995: REGIONAL AND NATIONAL TRANSPORT OPERATORS PROPOSE PROJECT**

**DELAY: 1996: GOVERNMENT DECIDES REGIONAL PROPOSAL FOR LIGHT RAIL SYSTEM (EUR 1.3-2.7BN) TOO EXPENSIVE**

**CONCEPTION: 1998: GOVERNMENT RESERVES FUNDING FOR LESS AMBITIOUS PROPOSAL (EUR 0.58BN)**

**CONCEPTION: 1999: SCOPE EXPANDED, LINKS TO EXISTING NETWORKS PLANNED, COST ESTIMATED AT EUR 0.84BN**

**CONCEPTION: 2000: MINISTER AGREES TO CONSIDER APPLICATION FOR NATIONAL FUNDING**

**INCEPTION: 2002: FUNDING APPLICATION SUBMITTED TO NATIONAL GOVERNMENT**

**CONSTRUCTION: 2002 (DEC): FUNDING APPLICATION APPROVED BY NATIONAL GOVERNMENT, CONSTRUCTION START**

**INCEPTION: 2002-2004: PUBLIC CONSULTATION FOR SPECIFIC PARTS OF PROJECT**

**CONSTRUCTION: 2003 (JUN): CONSTRUCTION STARTS (ROTTERDAM)**

**CONSTRUCTION: 2004: CONSTRUCTION OF ZOO STATION STARTS**

**CONSTRUCTION: 2005: CONSTRUCTION OF ROTTERDAM CENTRAL METRO STATION STARTS**

**CONSTRUCTION: 2006: TESTING PERIOD**

**DELIVERY: 2006: ROTTERDAM HOPPLEIN-NOOTDORP SECTION & LINE 4 OPENED**

**ACCIDENT/DELAY: 2006: LINE 4 SUSPENDED FOLLOWING SEVERAL DERAILMENTS**

**DELIVERY: 2007: LINE 3 OPENED (LOOSDUINEN-THE HAGUE SECTION)**

**DELIVERY: 2007: LINE 4 OPENED (TRAM SECTION: DE UITHOF-THE HAGUE)**

**DELIVERY: 2007: LINE 4 (ROTTERDAM HOPPLEIN-NOOTDORP SECTION) RE-OPENED. FULL LINE OPEN**

As heavy rail, tram and metro are all subject to different legislative requirements and regulatory frameworks, planning the project was highly complex from a technical perspective. However, as it primarily involved the transformation of heavy rail into light rail and linking the tracks to the existing tram and metro network, it did not require a comprehensive environmental impact assessment (although the impact of some components, such as the larger rail stations, was assessed).

Public consultation was carried out by the local governments affected, in relation to changes to land use plans, but did not result in any significant impacts on the project.

### CHARACTERISTICS

The cost at the time of approval was EUR 0.761bn (2001 prices, equivalent to USD 1.20bn at 2010 prices<sup>1</sup>). The final cost of the project in 2007 was EUR 1.14bn (USD 1.56bn at 2010 prices), split almost equally between Rotterdam (EUR 0.58bn) and The Hague (EUR 0.56bn). The cost overrun (30%) is believed to be primarily due to the increased scope of the project.

Management of the project was shared between the two regional governments, their transport operators, and the local governments concerned, and a project management team representing the various organisations was set up to co-ordinate construction. The regional transport provider, RET, was responsible for construction of the Rotterdam sections, and the city of The Hague for the sections under its ownership (as the transport provider, HTM, had been privatised). Lump sum contracts were let to private sector companies.

### TIMELINE ISSUES

The successive derailments on Line 4 caused this line to be suspended for nearly a year, at an estimated cost of EUR 150,000-200,000 per week.

### FUNDING

National government was the primary source of funding, with some funding provided by local and regional governments. National funding was provided through lump sum agreements with the two regional governments, devolving the risk of cost overruns down to the project owners.

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