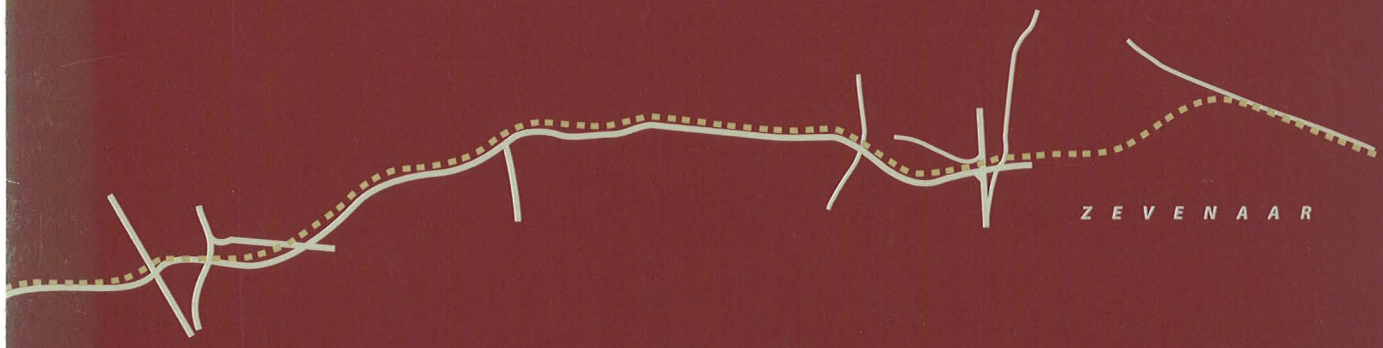


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Betuweroute



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# Betuweroute Progress Report

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PERIOD COVERED:  
UP TO 1 JANUARI 1997

The Betuweroute Progress Report 2  
is a publication of:

Betuweroute Autoriteit  
PO box 20903  
2500 EX THE HAGUE  
NETHERLANDS



Ministry of Transport, Public Works and Water Management


# Betuweroute

## Progress Report

Period covered:

1 april 1996 - 1 januari 1997

2



The Hague, march 1997



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# Introduction

This is the second Progress Report on the Betuweroute project published on the basis of the rules of procedure for major projects (recently amended: parliamentary document 24752, number 1). The period covered by this Progress Report is from 1 April 1996 to 1 January 1997.

The first Progress Report was presented to the Lower House of the Dutch Parliament by the Minister of Transport, Public Works and Water Management on 14 June 1996, and was discussed on 18 December 1996 with the Standing Parliamentary Committee for Transport, Public Works and Water Management.

This second Progress Report has the same structure as the first. The following topics are examined:

- A. project definition
- B. organization
- C. creating the required conditions
- D. contracts and construction process
- E. finance

# A Project Definition

## A.1 Preconditions

No changes have occurred during the period covered by this Progress Report in the preconditions set for the Betuweroute project (requirements resulting from e.g. legal or political considerations).

### *Recalibration of calculation and measuring instructions for rail traffic noise*

The first Progress Report states that the central government has assumed an obligation to guarantee a certain result, laying down that the actual noise levels which occur when the Betuweroute goes into operation will not exceed the values stipulated in the decision on the projected track.

In order to fulfil this obligation, the Ministry of Transport, Public Works and Water Management has decided on two types of measures:

1. transporters are to be encouraged in the short term to buy quieter freight rolling stock;
2. requirements are to be formulated on the noise emissions of the rolling stock allowed to use the line.

### *Sub 1. Quieter freight wagon*

An important factor here is the current ICES project 'Quieter Train Traffic' (ICES-STV: Interministerial Committee for Economic Structure Policy, Quieter Train Traffic project). The aim of ICES-STV is in 1998 to produce a prototype of a container wagon and superstructure which together result in a noise reduction of 10dB(A) compared with current combinations.

### *Sub 2. Regulations*

There are still no international standards for rail transport, as there are for both road transport and inland shipping. The Ministry of Transport, Public Works and Water Management is to make proposals concerning the requirements for the rolling stock allowed to use the line, preferably in cooperation with the other European countries, aimed at the use of quieter rolling stock.

## A.2 Functional requirements

### *Schedule of Requirements: general*

The Schedule of Requirements lays down the basic principles of the project. The concept of the Schedule of Requirements will be subjected to a final review in early 1997. This review will be made by various expert bodies (including NS Materieel, NS Cargo, Union Internationale des Chemins de Fer, European Rail Research Institute). Definitive adoption of the Schedule of Requirements is expected soon after the review has been completed. The Schedule of Requirements has a number of different functions. For the designers and the contractors, for example, it serves as the starting point for the detail drawings and calculations and as a reference in proposing variants.

For the future operators, it gives an insight into the possibilities for users, such as the (maximum) transport capacity, connections to the rest of the rail network and transfer facilities.

### ***Electrical systems***

The electrical systems used in the Betuweroute project can be divided into the systems for the traction power supply and the systems for the control and protection of the train traffic.

#### **1. Traction power supply**

On 29 November 1996 the Minister informed the Lower House (letter accompanying the presentation of the decision on the projected track of the Betuweroute) that the decision had been made to use the 25 kV traction power supply system on the Betuweroute.

The arguments in favour of this choice are:

- interoperability: 25 kV is the new European standard; with this system the Betuweroute is co-ordinated with European developments
- future reliability and operation: the 25kV system assures the Betuweroute of sufficient power capacity for the long term
- costs: the choice of 25 kV can be made within the budget for the Betuweroute project

The decision to use 25 kV has no planning implications for the provisions relating to the railway line laid down in the decision on the projected track of the Betuweroute. It may, however, have implications for the NS Cargo rolling stock. Part of the locomotive fleet is unsuitable for 25 kV and will not have been written off at the time the Betuweroute comes into operation.

On the basis of the arrangements made within the scope of the 'capital donation', consultations are being conducted with NS Cargo by the Freight Transport board of the Directorate-General for Transport.

#### **2. Control and protection**

The basic requirement for the control and protection system is that it must be in keeping with the European Train Control System (ETCS) which is currently being developed.

To guarantee progress in the realization of the Port Railway, a decision was made in 1996 concerning its future protection system. This system fits in as closely as possible with the present state of development of the ETCS. A decision concerning the system to be used on the A15 line is expected in 1998.

### ***Double stack transport***

The dimensions of the Betuweroute are based on a total rail transport volume of approximately 45 million tons in 2010. The potential volume of freight for rail transport could increase yet further in the longer term, which would require a greater rail transport capacity.

One of the options for increasing the capacity of the Betuweroute is to stack the containers (double stack transport).

Current expectations do not justify a decision to make the Betuweroute fully suitable for double stack transport, but no-one can predict the developments which may occur in freight transport by rail in 20 to 30 years. From this standpoint, consideration is being given to whether it is sensible to keep the double stack option open in technical and planning terms. It is particularly important that the tunnels to be built in the Betuweroute should be constructed now with a diameter which allows double stack transport. The soil conditions in the Netherlands would make it extremely difficult to increase the diameter of the tunnel tubes in a later phase.

The Cabinet will decide early in 1997 whether the two tunnels in the western section of the projected track (Botlek and Sophia) can be constructed with a larger diameter, suitable for double stack transport. The contracts for these tunnels will have to be awarded around this time. A decision on the size of the other three tunnels (under the River Giessen, under the Pannerdensch Canal and near Zevenaer) can be made at a later stage. According to the present schedule, the contracts for these will only be awarded in 1998.

A study of the additional environmental effects of double stack transport has been completed. It revealed that these are quite limited in comparison with the environmental effects of conventional single stack transport.

#### *Emergency services*

Agreements have been concluded with the Ministry of the Interior and the relevant regional fire brigades about access to the railway and the presence of water for fire fighting.

On the basis of these agreements the Ministry of the Interior is holding consultations with the fire brigades about the purchase of new equipment (immersion pumps). These pumps are needed to ensure the rapid supply of sufficient water in the event of a fire anywhere along the Betuweroute.

### **A.3 Connection to the German railway network**

On 6 November 1996 the agreements between the Netherlands and Germany about connecting the Betuweroute to the German railways, as laid down in the 'Vereinbarung' of 31 August 1992, were reconfirmed at the official level. The two countries stated that the implementation of the agreements is progressing on schedule.

### **A.4 Schedule**

The basic project schedule has not changed since the first Progress Report. The position on 1 January 1997 in relation to this schedule (the 'position line') is shown in Figure 1.

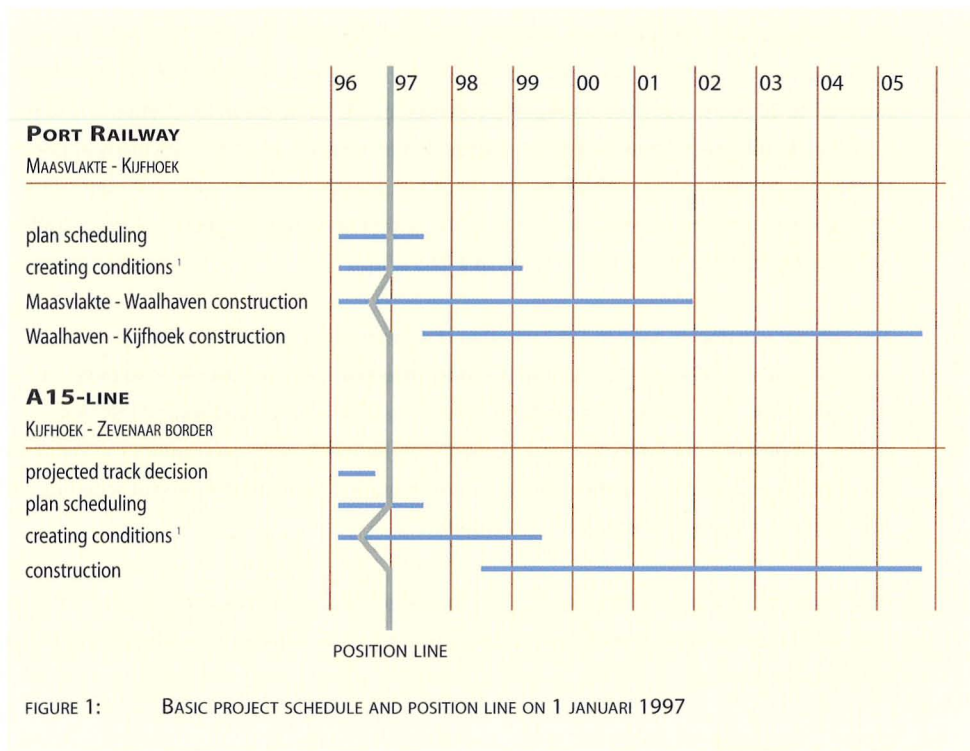


FIGURE 1: BASIC PROJECT SCHEDULE AND POSITION LINE ON 1 JANUARI 1997

<sup>1</sup> *Creating conditions: all activities required in order to make the actual physical construction possible (such as land acquisition, permits, soil remediation and archaeology).*

**Explanation of Figure 1**

The position line on 1 January 1997 in Figure 1 shows the actual progress of the work in relation to the schedule. It indicates that the work is proceeding on schedule, with the exception of the projects 'Maasvlakte-Waalhaven construction' in the Port Railway and 'creating conditions' in the A15 line.

The start of the construction of the Botlek Tunnel has been delayed by approximately three months because the zoning plan procedure began later than scheduled. This delay has no implications (as yet) for the completion of the adaptation of the existing Port Railway.

The creation of conditions on the A15 line will be completed about six months late, because less land was purchased in 1996 than planned. This delay also has no implications (as yet) for the completion of the Betuweroute.

## **B Organisation**

### **B.1 Legal relationship between the central government and NS Railinfrabeheer**

The task organization NS Railinfrabeheer (NS-RIB) has been assigned the exclusive right by the central government for the management and maintenance of the rail infrastructure. The central government and Dutch Rail have agreed that exceptional conditions can be set for the Betuweroute project. The agreement is currently being elaborated.

### **B.2 Ownership**

With regard to the ownership position of the Betuweroute, the central government intends that the State should have entire legal and economic authority. The main reason for this is the privatization of the project: to encourage maximum interest from private financiers in participating in the operation of the Betuweroute, the ownership must be in the hands of the State. A definitive decision on this will be made after the completion of consultations with Dutch Rail, which are to take place early in 1997.

The ownership of the Betuweroute will be placed with a legal entity which is still to be set up: the Betuweroute BEM (Track Ownership Company). The BEM will also acquire the private capital for the construction of the Betuweroute, and will be responsible for the operation of the Betuweroute once it is completed.

### **B.3 General audit function**

The project organization has instituted a general audit function, intended to monitor and guarantee the quality of the project. This function is fulfilled by an independent Audit Bureau, which will regularly ask the project organization to account for the way in which work is being executed. The Audit Bureau started work on 1 June 1996. The schedule is for an audit plan to be adopted early in 1997, selecting the subjects which are to be audited during the forthcoming period. The auditor reports to the Director-General for Transport.

### **B.4 Integrity**

Agreements have been concluded within the project organization in order to guarantee the integrity of the project. The policy is in keeping with the existing regulations and current standards of propriety. The agreements are set down in writing.

## B.5 Communication

The communication concerning the publication of the draft decision on the projected track was evaluated in May 1996. The results from this evaluation were included in the Betuweroute communication plan. This plan contains a description of all communications within the scope of the Betuweroute project. Work is now conducted on the basis of this plan.

Interested parties and people living near the projected track are informed through the 'Wisselwerk' newsletter of the project's progress. The first issue of this newsletter was published at the same time as the decision on the projected track, and distributed to 160,000 households.

The intention is to publish Wisselwerk four times per year.

A Betuweroute freephone information number has also been made available.

Separate communication plans will be drawn up for the various sections of the projected track regarding the communication with nearby residents during the construction phase.



photo: Peter van Roon

*The building of the Dintelhaven-railroad bridge started in 1996.*

# C Creating the Required Conditions

## C.1 Administrative and legal

### *Decision on the projected track of the Betuweroute*

The draft decision on the projected track of the Betuweroute was available for public inspection in March and April 1996, and everyone had the opportunity to give their reaction. In addition to the reactions from the administrative authorities concerned, almost 1,000 responses were received from private individuals and organizations. The reactions gave no cause to change the existing plan on essential points, although a few small amendments and corrections have been made. The Standing Parliamentary Committee for Transport, Public Works and Water Management has 'taken as read' the decision of the Minister of Housing, Spatial Planning and the Environment and the Minister of Transport, Public Works and Water Management to publish the decision on the projected track before the Council of State's pronouncement on the appeal against the Betuweroute key planning decision.

On 26 November 1996 the Minister of Transport, Public Works and Water Management and the Minister of Housing, Spatial Planning and the Environment adopted the decision on the projected track and the associated documents. The Minister of Housing, Spatial Planning and the Environment simultaneously issued an instruction to nine municipalities (Lingewaal, Geldermalsen, Buren, Lienden, Kesteren, Valburg, Elst, Duiven and Heerjansdam). The decision on the projected track entered into force on 3 December 1996. The decision on the projected track, the instructions and the associated documents were available for public inspection from 4 December 1996 to 14 January 1997. During this time interested parties could submit an appeal to the Council of State's department of administrative law. The authorities that have announced their willingness to cooperate in the planning have one year in which to amend their zoning or regional plans. The municipalities that were given an instruction have been asked to say whether they themselves will carry out the required amendment of the zoning plans within one year. If they refuse, the Minister of Housing, Spatial Planning and the Environment will adopt the zoning plan concerned.

### *Execution covenants*

Agreements with the relevant administrative and management authorities about the executory aspects of constructing the Betuweroute are to be laid down in covenants. Consultations about these are underway. It is important that the content of the covenants should keep pace with the amendments of the zoning plans.

### *Appeal against the Betuweroute key planning decision*

At 16 public sessions between 8 July and 24 September 1996 the Council of State dealt with the objections to the Betuweroute key planning decision. The subjects to be covered were divided as follows:

- four sessions: subjects of a general nature (procedures, zone width, financial and economic basis and strategic basis)

# Kijfhoek: *far from sidelined*

Expansion and adaptation of the Kijfhoek shunting yard are a part of the plans for the construction of the Betuweroute.

In 1996 NS Railinfrabeheer published a leaflet devoted entirely to these plans, entitled 'Kijfhoek in the leading role', from which this text is drawn.

Kijfhoek shunting yard, situated between Zwijndrecht and Heerjansdam, is an important link in freight transport by rail. Every day several hundred freight wagons pass through Kijfhoek, where they are uncoupled and coupled again to form a new train - selected according to destination - ready for further transport. Kijfhoek serves as a 'turning-table' for the various forms of freight transport:

- **unit transport**  
where wagons with a different point of origin travel to one or more destinations abroad,
- **charter transport**  
where a train travels from client to client, and
- **shuttle transport**  
where trains are put together at a Rail Service Centre.

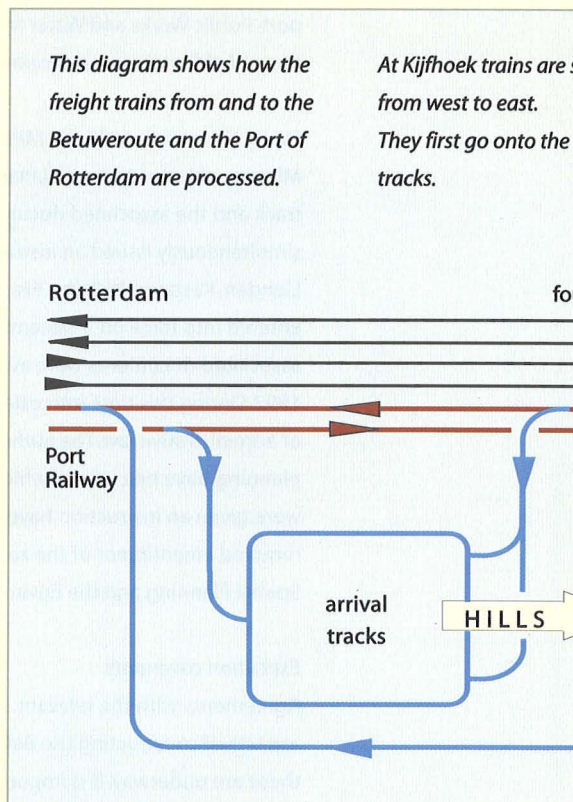
Freight transport through Kijfhoek will increase greatly over the next few years. Kijfhoek's capacity must therefore be expanded from the present 1,600 wagons per day to a maximum of 4,000 wagons per day in 2010.

The Kijfhoek shunting yard is to have extra tracks for putting together the trains, extra points, new fly-overs and railway viaducts, and also a new sorting system, using new developments in shunting technology.

Shunting at Kijfhoek is done with a 'hill' system, a technique that makes use of gravity. Freight wagons are taken onto a shunting hill and uncoupled. They then roll down the hill and

onto the designated track, under their own momentum, where they are coupled to the correct train.

The process is controlled by a computer system, which can 'recognize' every wagon and which can also set the points through which the wagons are to go through.





Distributing tracks at Kijfhoek

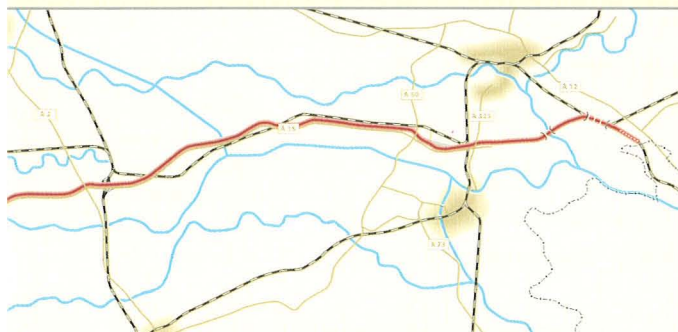
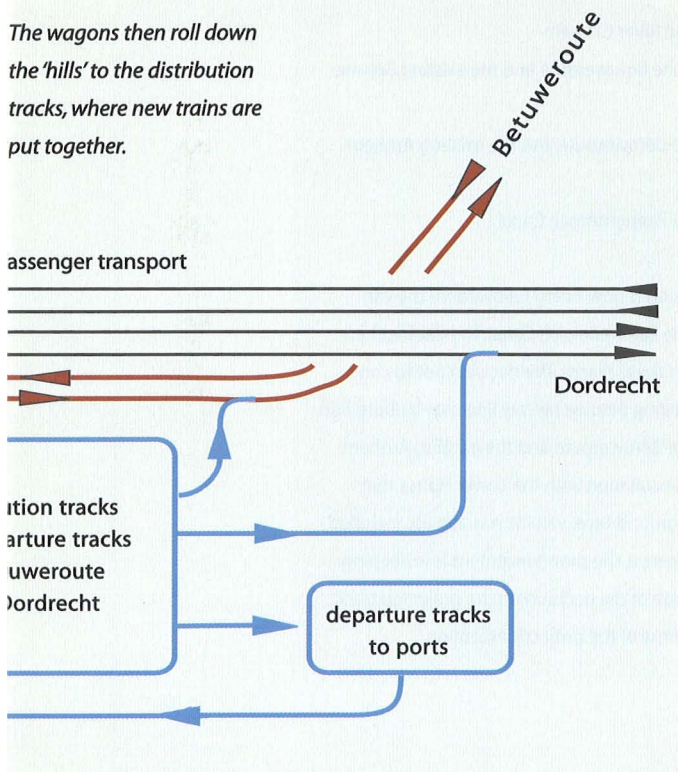
photo: Peter van Roon



Acceleration system

photo: NS Railinfrabeheer

The wagons then roll down the 'hills' to the distribution tracks, where new trains are put together.



The system not only controls the route of the wagon, it also controls its speed. The required speed is calculated on the basis of the distance the wagon still has to cover, its weight and the strength and direction of the wind.

A wagon that is travelling too quickly is slowed down by the application of the rail brake. If a wagon rolling down the shunting hill has too little speed to reach the required place under its own momentum, it is given an extra 'push' by an acceleration system built into the rails.

In expanding Kijfhoek, a great deal of attention has been given to the measures for restricting noise and increasing safety. The wagons are sorted as far as possible without using locomotives, noise screens are to be constructed in several places around the yard and quieter shunting locomotives are to be used.

Monitoring the rolling speed of the wagons and making use of an acceleration system reduces the noise levels, by limiting the noise of the wagons as they collide. The shunting process is also to be changed to minimize the number of shunting movements, also for the transport of hazardous materials via Kijfhoek. This significantly reduces the risk of accidents.

The expansion and adaptation of the Kijfhoek shunting yard mean that more trains can be handled in a shorter time.

The adaptation of the shunting systems and the introduction of the measures described above reduce the noise pollution outside the yard and increase the levels of safety within the yard.

- twelve sessions in which the sections of the projected track of the Betuweroute were dealt with in turn, from west to east.

After the period covered by this Progress Report, on 31 January 1997, the Council of State's department of administrative law made a pronouncement on the Betuweroute key planning decision. The department held that the Cabinet was able to decide in reasonableness to construct the Betuweroute. Substantive and procedural objections to the basis for the project (usefulness and necessity), the finance and the relationship to other projects and other policies were all declared to be unfounded. The Cabinet could assume that a track can be constructed within the zone widths, whereby the specific interests of parties concerned can be sufficiently fulfilled, if necessary by means of mitigating measures, by purchase, expropriation, granting compensation for losses resulting from government decisions or otherwise. Of the 171 appeals submitted, 22 were declared to be partially founded and 149 entirely unfounded.

The department cancelled four parts of the key planning decision:

1. the horizontal and vertical zone widths of the crossing with the River Giessen;
2. the horizontal zone width for the connecting tracks between the Betuweroute and the existing Betuwe railway line near Valburg;
3. the vertical zone width for the connecting arches between the Betuweroute and the existing Arnhem-Nijmegen railway line;
4. the horizontal and vertical zone width of the crossing with the Pannerdensch Canal.

The procedure of the partial amendment of the key planning decision is now being followed for the cancelled sections of the projected track near the River Giessen and the Pannerdensch Canal. The Cabinet had already decided in 1995 to construct a tunnel instead of a bridge in these places. The decision not to construct the connecting tracks between the Betuweroute and the existing Betuwe railway line near Valburg had already been made in 1994. For the connecting arches between the Betuweroute and the existing Arnhem-Nijmegen railway line (the 'ears' near Elst), it has been decided in consultation with the Lower House that these will be constructed in a simplified form at ground level. This ground-level variant was already included in the decision on the projected track of the Betuweroute. To summarize, the pronouncement is in keeping with the decisions made by the central government within the scope of the decision on the projected track of the Betuweroute, and therefore has no implications for the progress of the project's execution.

#### ***Port Railway plan description***

The Port Railway plan description was adopted on 15 November 1996 and published simultaneously with the decision on the projected track of the Betuweroute. The plan description serves as the basis for the zoning plans in the Rotterdam port area that are to be amended and as the basis for compensation.

#### ***Kortsluitroute***

For the construction of the Kortsluitroute, the normal procedure laid down by the Infrastructure Act is being followed. The Minister of Transport, Public Works and Water Management and the Minister

#### ***Kortsluitroute***

*the connection between the existing Port Railway and the re-routed Port railway to the south of Rotterdam.*

of Housing, Spatial Planning and the Environment adopted a standpoint on the projected track on 30 September 1996. The Lower House was informed of this by letter of 30 September 1996.

*On 28 January 1997 the draft decision on the projected track of the Kortsluitroute was published.*

#### ***Partial amendment of the Betuweroute key planning decision***

On 11 October 1996 the Cabinet adopted a standpoint about the partial amendment of the Betuweroute key planning decision for the crossings with the Vaanplein, the River Waaltje at Barendrecht and Heerjansdam, the River Giessen and the Pannerdensch Canal. On 14 October 1996 the standpoint was sent to the Lower House for examination. After this has been adopted by the Lower and Upper Houses, a draft decision on the projected track will be published for three of these sections of projected track; this has already been done for the crossing with the River Waaltje. A component of the partial amendment is the increase in the vertical zone width near the projected Sophia track, sufficient to also allow the construction of a bored tunnel instead of an immersed tube tunnel.

#### ***National Ombudsman***

On 30 December 1996 the National Ombudsman made a pronouncement in response to a complaint from residents of Boerenhoek. The complaint concerned the long period of uncertainty for the residents surrounding the construction of the Betuweroute and the extension of the A15 motorway and the anticipated noise pollution from the Betuweroute. The Ombudsman declared the complaint to be largely unfounded. On one point - a single instance of negligence in wording in relation to the noise issue - the Ombudsman declared the complaint to be well-founded. The pronouncement has no implications for the project.

## **C.2 Land acquisition, soil survey and archaeology**

#### ***Land acquisition***

The number of owners who were willing to sell their property in 1996 was lower than forecast. Important reasons for this were the deferred publication of the decision on the projected track and the fact that the owners concerned were waiting for the Council of State's pronouncement on the key planning decision appeal.

Most of the properties for which a valuation report has been drawn up are in the negotiating phase. 13% of the necessary land has been purchased. In the last quarter of 1996 the willingness of the owners to sell their property increased significantly. In the places for which a partial amendment of the key planning decision is being prepared (crossings near the Vaanplein, Sophia, Giessen and Pannerdensch Canal) no land has yet been acquired. The discussions between the Betuweroute project staff and parties whose land or other immovable property is required are aimed at reaching agreement about the sale (amicable agreement). These discussions also include an explanation of the consequences of failure to reach 'amicable agreement'. In such a case a procedure under the

Expropriation Act has to be followed. Two important steps can be distinguished in this procedure: the administrative procedure and the legal expropriation procedure. The administrative procedure leads to the granting of a Royal Decree in which the land is designated for expropriation. The legal expropriation procedure can then be started on the basis of this Royal Decree.

For the Betuweroute project the administrative procedure for obtaining the Royal Decrees on expropriation was started in December 1996, immediately after the adoption of the decision on the projected track. NS Railinfrabeheer submitted an application to the Minister of Transport, Public Works and Water Management for the Royal Decree for the Sliedrecht-Gorinchem section of projected track. For practical reasons the total projected track is divided into eight sections for these applications. The applications for the other sections will be submitted to the Minister during the course of 1997. It is expected that the Royal Decree will be granted within one year of the application being submitted.

#### ***Soil survey***

More than half of the required environmental soil surveys have been completed. Others - almost 20% of the total - are being conducted at the moment. The remaining surveys are still to be started. As stated in the first Progress Report, the initial results show that the degree of contamination is higher than had been expected. Agreement has been reached with the provinces of Gelderland and South Holland (the competent authorities) concerning the basic principles for executing the soil remediation. These principles will be laid down early in 1997.

#### ***Archaeology***

All 42 designs for the additional archaeological surveys have been completed, and almost half of these surveys have been carried out. The schedule is that all the surveys will be completed in the summer of 1997. The government's department of archaeological surveys will then make a selection of sites which must be preserved. Because of the limited time available, the department has already selected two sites. The tendering procedure for the definitive survey of these sites will start in January 1997. There is some concern about meeting the schedule for the larger excavations because of the present lack of permission for access to the land.

#### ***Compulsory permission for access to land***

In the last quarter of 1996 the number of people who refused permission for access to their property - for the purpose of conducting soil and archaeological surveys - fell to approximately 8% (the first Progress Report stated that about 33% were refusing this permission). In the municipality of Sliedrecht steps were taken to compel permission for access on the grounds of Section 9 of the Expropriation Act, for the first time within the scope of the Betuweroute project. This was done with the cooperation of the Municipal Executive.

Starting this procedure resulted in cooperation from the people in Sliedrecht who originally refused permission for access to their property.

### C.3 Compensation

On 6 September 1996 the Minister of Transport, Public Works and Water Management adopted the Betuweroute compensation scheme for losses resulting from government decisions; the scheme provides for the processing of claims relating to compensation for losses resulting from government decisions and for losses resulting from government planning decisions. The compensation scheme was published in the Government Gazette (number 189) on 1 October 1996, and came into force at the same time as the decision on the projected track. It describes the decision on the projected track of the Betuweroute as a decision which causes losses; the scheme also applies to the Port Railway and the adaptation of the existing railway line from Zevenaar to the German border. The scheme was formulated in consultation with the municipalities and provinces concerned.

The adoption of the decision on the projected track created the formal basis for the submission of compensation claims. The claims are to be processed by NS Railinfrabeheer on behalf of the Minister of Transport, Public Works and Water Management, with advice from independent damage assessment committees. A decision on the claims submitted can only be made after the decision on the projected track has become final and conclusive.

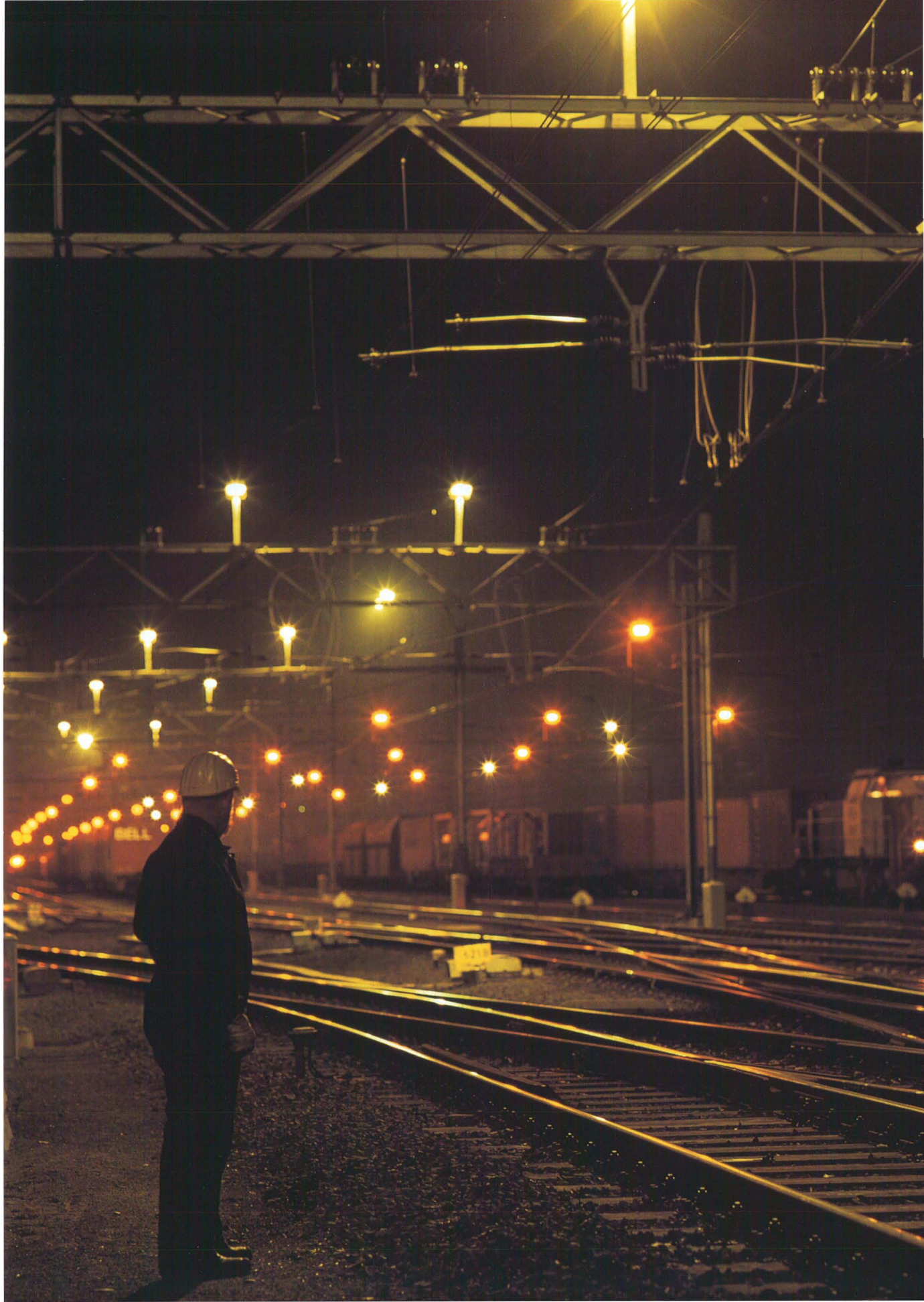
### C.4 Future use

#### *Transport in balance*

The freight transport policy for the Netherlands was set out in the plan of approach published in September 1996, 'Transport in balance'. In this plan of approach the Cabinet holds that the forecast quantity of transport on the Betuweroute in 2015 of over 30 million tons can be attained.

#### *White Paper on Rail Transport*

In July 1996 the European Commission published the White Paper on Rail Transport ('A strategy for revitalising the community's railways'). In the White Paper the Commission expresses its concerns regarding the progress of the implementation of Directive 91/440 and the decrease in the share of freight transport by rail within Europe during the period 1970-1994. Extrapolation from the current trends suggests that the share of rail in freight transport within Europe will decline from 16% to 9%. As an incentive for the development of freight transport by rail, the Commission proposes to set up 'Trans-European Rail Freight Freeways'. On these Freeways carriers must have free access and measures will be taken to promote interoperability, both technical (e.g. protection, power supply, rolling stock) and administrative (e.g. stops at borders, processing of documents). The Netherlands government is pressing for the Rotterdam-Germany-Austria-Italy axis to be designated as a trial project for these Freeways.



## D Contracts and Construction Process

### D.1 Contracting policy

The construction contracts will be awarded in accordance with the current European directives, especially the fourth (93/38/EEG). This focuses specifically on the utility sector, which also includes transport. The main outlines of the contracting policy for the Betuweroute project were presented to the construction sector on 30 November 1996.

### D.2 Contracts

#### *Botlek Tunnel and Sophia Tunnel*

The tendering procedures for the Botlek Tunnel and the Sophia Tunnel have started. Five groups of contractors have been asked to submit a tender. The contracts are expected to be awarded early in 1997.

#### *Other Port Railway contracts*

Contracts have been awarded for the following work on the existing Port Railway:

- groundwork for the Botlek yard (planned completion early 1997)
- Dintelhaven Bridge (planned completion April 1998)
- a small part of the groundwork along the existing Port Railway, a length of 1.3 km
- the protection system
- the required adaptations for the reconstruction of the Kijfhoek yard
- the software for the shunting system at the Kijfhoek yard

#### *A15 line*

No contracts have yet been awarded for work on the A15 line.

### D.3 Construction process

#### *Port Railway*

Progress has been made in the construction process on the Port Railway as follows:

- execution of the construction of the Dintelhaven Bridge has started
- execution of the groundwork at the Botlek yard is over halfway to completion

#### *Kijfhoek shunting yard*

The work on the reconstruction of the hill system has started.

The development of the software for the hill system is on schedule.

#### *A15 line*

The construction of the A15 line has not yet started.

# E Finance

## E.1 Reserved budget

The budget of NLG 8.25 billion stated in the first Progress Report serves as the reference for the total investment costs of the Betuweroute (1995 price levels). This sum is exclusive of VAT and has a margin of uncertainty of 20%. In the period covered by this Progress Report the budget increased by NLG 120 million as a result of wage and price increases. The wage and price increases are established on the basis of the Index of Gross Government Investments (of the Central Planning Office).

project component	budget on 1 april 1996	budget increase in the report period caused by autonomous wage and price increases	budget on 1 januari 1997
Port Railway	3,10	0,05	3,15
A15-line	5,15	0,07	5,22
<b>Total</b>	<b>8,25</b>	<b>0,12</b>	<b>8,37</b>

TABLE 1: BUDGET INCREASE  
(IN GUILDERS x 1,000,000,000 - 1996 PRICE LEVELS)

The table below shows the total expenditure and sources of cover for the Betuwe Route project.

	to 95	96	97	98	99	00	01	later	total
<b>Budget</b>									
Long-term figures	256	245 <sup>1</sup>	943 <sup>1</sup>	1.116	1.178	1.421	1.320	1.890	8.369
<b>Cover</b>									
Infrafund	178	85	197	334	259	230	230	252	1.765
FES	68	115	675	722	843	796	714	20	3.953
Other	10	45	71	60	76	395	376	1.618	2.651

TABLE 2: LONG-TERM FIGURES FOR INVESTMENTS AND SOURCES OF COVER  
(POSITION IN 1996 AUTUMN STATEMENT, IN GUILDERS x 1,000,000 EXCLUSIVE OF VAT, 1996 PRICE LEVELS)

<sup>1</sup> After the period covered by this Progress Report, the expenditure for 1996 and the forecast for 1997 were reduced in comparison with the autumn statement. The forecast for 1997 is NLG 500 million. This reduction was caused by delays in the land acquisition process and a delayed start on the construction of the Botlek Tunnel. Table 4 shows the expenditure realized in 1996.

**Explanation of Table 2**

The cover component 'Infrafund' includes:

- the regular resources from the second structural plan for traffic and transport of NLG 1,765 million

The cover component FES (Fund for economic structural reinforcement) includes:

- a contribution from the fund for economic structural reinforcement of NLG 3,953 million (including the extra resources allocated by the fund for economic structural reinforcement of NLG 820 million)

The cover component 'Other' includes:

- the private financing of NLG 1.6 billion
- the contributions from the European Union of NLG 300 million
- a contribution from the province of Gelderland of NLG 17 million
- the resources from the structural plan for traffic and transport originally intended as a risk buffer for setbacks in private financing of NLG 700 million

The investment sums include all costs of the project, with the exception of the personnel and equipment costs of the Betuweroute Authority of the Directorate-General for Transport.

**Financial obligations**

According to the present schedule, by 1999 the central government will have entered into all the financial obligations for the project. The table below shows the composition of the obligations with the associated effects on funds over the years.

	to 1995	1996	1997	1998	1999	Funds
<b>Obligations</b>	342	763	1.657	2.700	2.907	8.369
to 1995	256					256
1996	86	159				245
1997		285	658			943
1998		244	500	372		1.116
1999		75	345	380	378	1.178
2000			154	315	952	1.421
2001				675	645	1.320
after 2001				958	932	1.890

TABLE 3: OBLIGATIONS - FUNDS MATRIX  
(POSITION IN 1996 AUTUMN STATEMENT, IN GULDERS x 1,000,000 - 1996 PRICE LEVELS)

## **E.2 Estimate**

The first Progress Report states that there is a difference between the funds reserved in the budget of the Ministry of Transport, Public Works and Water Management and NS-RIB's estimate for the construction of the Betuweroute. It also states that for the time being the figures in the reserved budget are being retained. A further assessment of the difference between the budget and the estimate is dependent on, amongst other things, the approved Schedule of Requirements, the outcome of the cost audit and the results of the first invitations to tender.

### ***Schedule of Requirements***

The Schedule of Requirements has now been further elaborated. This further elaboration revealed no realistic possibilities at the moment for substantially restricting the provisions contained in the Schedule of Requirements.

### ***Cost audit***

The final report of an audit on the Betuweroute estimate was published on 13 February 1996. This audit gives no cause to amend NS-RIB's estimate.

### ***Results of invitations to tender***

The final verdict on the estimate will be apparent from the invitations to tender. It will therefore be possible to draw a further conclusion from the results of the first invitations to tender about the appropriate level of the funds to be reserved. Sufficient information about this will be available in 1998.

### ***Budget***

Early in 1997 the Cabinet will discuss the possibility of double stack transport and an increase in the budget for the project, in order to reduce the difference between the estimate and the budget. However it is not unusual for there to be a (small) difference between budget and estimate for large infrastructure projects. Given the size of the project and its current phase of realization, a difference of this kind is considered to be justified.

In mid 1998 a balance will be drawn up of the financial developments. At that point the actual contract sums of the existing Port Railway will be known. This information will allow an assessment of whether a cutback within the project or a budget adjustment within the Infrastructure Fund is necessary. The first invitations to tender for the A15 line will take place at the end of 1998/beginning of 1999.

## **E.3 Expenditure**

Expenditure on the Betuweroute project up to 1 January 1997 amounted to NLG 458 million. The expenditure of the Ministry of Transport, Public Works and Water Management relates to the programme expenditure of the Betuweroute Authority.

EXPENDITURE UP TO 01-01-1997	to 1993	1994	1995	1996	TOTAL
MINISTRY OF TRANSPORT	6	5	8	8	27
NS RAILINFRABEHEER	95	72	71	193	431
TOTAL	101	77	79	201	458

TABLE 4: EXPENDITURE ON THE BETUWERROUTE PROJECT UP TO 1 JANUARI 1997  
(IN GUILDERS x 1,000,000, 1996 PRICE LEVELS)

The expenditure of NS Railinfrabeheer relates to preparation and investment expenditure by the Betuweroute Management Group. This expenditure is covered by quarterly advances to NS-RIB.

In 1996 the investment expenditure was lower than planned, because fewer owners were willing to sell their property than forecast.

#### E.4 Cover

The sources of cover for the Betuweroute project are described in Section E.1.

##### *Contributions from the European Union*

NLG 17 million has now been received from the European Union (EU), mainly for studies and research. The contributions from the EU are determined annually, on the basis of applications submitted by the Ministry of Transport, Public Works and Water Management. The European Commission formally adopted the contribution for 1996 on 11 December 1996. ECU 10 million (over NLG 21 million) was allocated for technical and design studies for the Betuweroute project. This contribution is expected to be received in instalments in 1997.

The application for a contribution from the European budget for trans-European networks will be sent to the European Commission early in 1997. This relates to the expenditure on studies and research in 1997. An application will also be submitted for a contribution to the investment costs for the Botlek Tunnel project component.

# List of terms

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## ***traction power supply***

'Traction' refers to the 'pulling' rolling stock: locomotives and engine wagons. Traction power supply is the system that enables the pulling rolling stock to move. The electric locomotives obtain their power from an overhead line. The Dutch railway network currently has an overhead line voltage of 1500 V direct current. Neighbouring countries use different electrical systems. The wide variety of electrical systems is extremely inconvenient for cross-border train traffic, and it is important to achieve greater uniformity in this area. This is recognized by the European Union. Since the 25 kV alternating current system offers the greatest power capacity and therefore the widest range of applications, this is the new European standard for traction power supply. The Betuweroute and the High Speed Rail South (Amsterdam - Antwerp) will be constructed with this type of power supply.

## ***interoperability***

'Interoperability' means that train systems are co-ordinated (both technically and procedurally) to permit unrestricted cross-border train traffic. With full interoperability a train can travel on any domestic or international route without the locomotive or driver having to be changed. The Betuweroute is to have a 25 kV power supply. Technical interoperability also requires co-ordination of the protection systems. Work is currently in progress on the development of a European standard, the European Rail Traffic Management System (ERTMS). The European Train Control System (ETCS) is a part of this. If ERTMS/ETCS is available on time, it will be used for the Betuweroute. In any case, however, the protection system used on the Betuweroute must be compatible with future ERTMS/ETCS train equipment.

## ***single and double stack***

At present goods wagons on European railways always carry just one layer of containers ('single stack'). On a number of routes in the United States a second layer of containers is stacked on top of the first. This is known as 'double stack'.

## ***audit***

An independent assessment of the quality of an organization and of the products that it supplies, with the aim of improving this quality.

## ***horizontal and vertical zone width***

The maximum space within which the projected track can be moved in the elaboration of the plans, with regard to the location both in the surface level (horizontal) and in the height or depth (vertical).

## ***compensation***

The compensation of damage suffered as a result of the Betuweroute project. Loss resulting from government planning decisions is the damage caused by a planning alteration, such as an amendment of a zoning plan. Loss resulting from government decisions is the damage caused by measures (temporary or otherwise) connected with the construction of the Betuweroute.

## ***flanking policy***

Measures aimed at promoting goods transport by rail. For example, measures which help to strengthen the competitive position of rail in relation to other transport systems and consequently increase the market share.

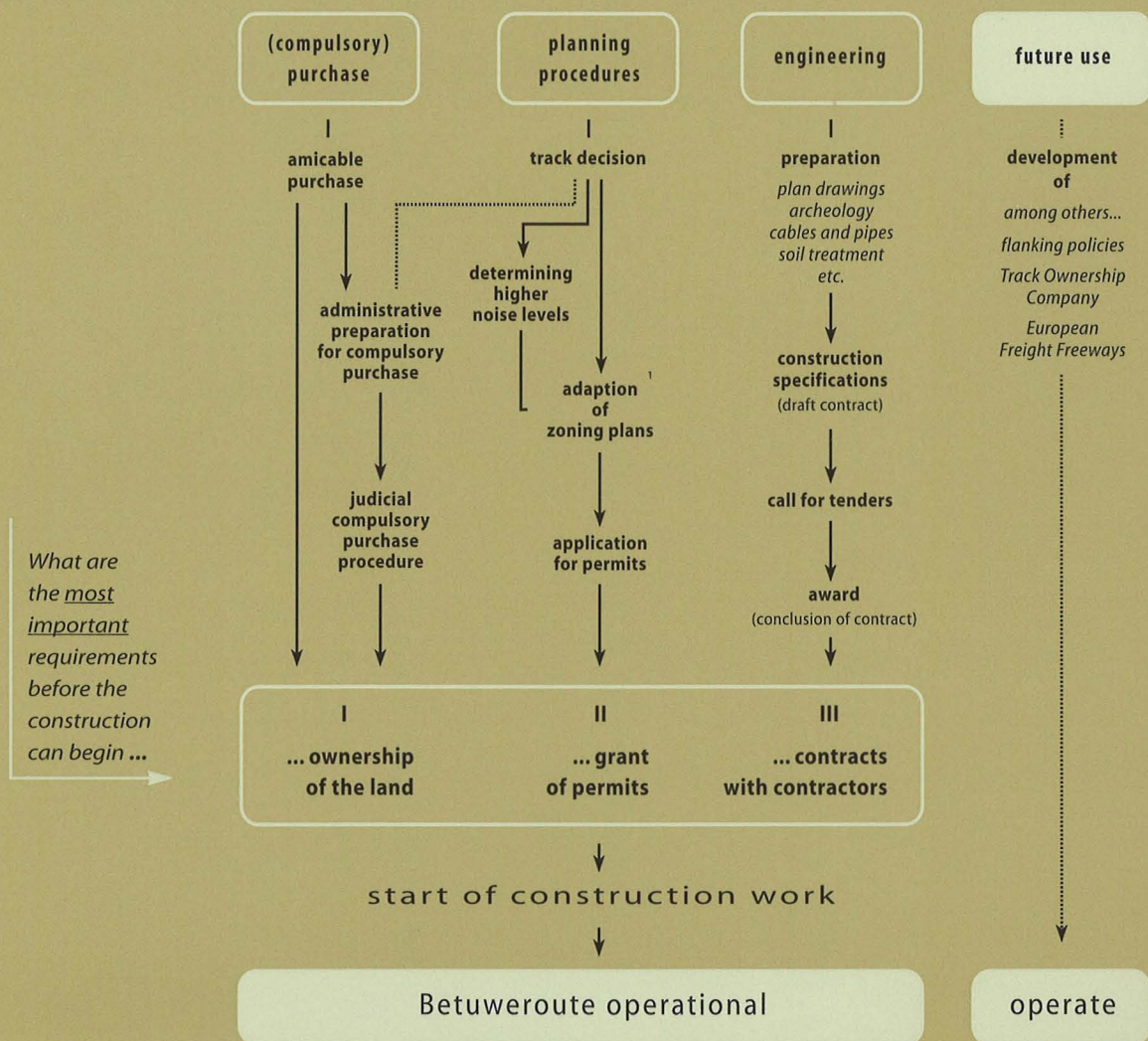
## ***instruction***

Order from the Minister of Housing, Spatial Planning and the Environment to amend an existing zoning plan.

# Outline of construction preparations

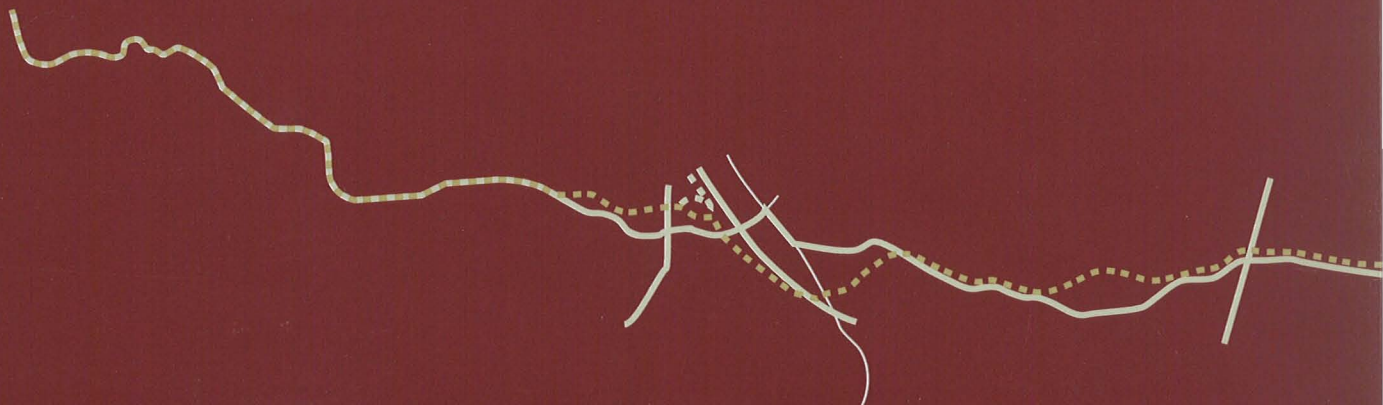
The Betuweline Track Decision entered into effect on 3 december 1996.

This diagram shows the most important requirements necessary for starting the construction.



<sup>1</sup> Under the Infrastructure Act the zoning plans must be adapted within one year of the Track Decision.

M A A S V L A K T E



THE BETUWEROUTE PROGRESS REPORT 2  
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ISBN 90 346 33985