

NMa preliminary study
“International rail capacity allocation”
September 2012



NMa preliminary study
“International rail capacity allocation”



Netherlands Competition Authority
Office of Transport Regulation

Contents

CONTENTS.....	3
LIST OF FIGURES AND TABLES	4
EXECUTIVE SUMMARY	6
INTRODUCTION.....	6
TOPICS.....	7
CONCLUSION	10
1 INTRODUCTION.....	11
1.1 BACKGROUND	11
1.2 OBJECTIVE.....	12
1.2.1 Goal.....	12
1.2.2 Relevance	12
1.2.3 Regulatory duty	12
1.2.4 Scope and definition.....	13
1.3 PROCESS.....	14
2 BACKGROUND INFORMATION.....	15
2.1 MARKET DESCRIPTION.....	15
2.2 DESCRIPTION OF INTERNATIONAL CAPACITY ALLOCATION PROCESS	19
3 GENERAL ASSESSMENT FRAMEWORK.....	24
3.1 IMPACT ASSESSMENT.....	24
3.2 LEGAL FRAMEWORK.....	24
3.3 NETWORK STATEMENT	25
3.4 EUROPEAN AND NATIONAL REGULATIONS.....	26
3.5 FUTURE: FREIGHT CORRIDOR REGULATION	27
4 MAIN TOPICS.....	29
4.1 ANNUAL TIMETABLE AND AD-HOC PROCEDURE.....	29
4.1.1 Reactions regarding annual timetable and ad-hoc procedure.....	29
4.1.2 Analysis of annual timetable and ad-hoc procedure.....	31
4.1.3 Intermediate conclusion regarding annual timetable and ad-hoc procedure	34
4.2 NETWORK CLOSURES AND MAINTENANCE.....	34
4.2.1 Reactions regarding network closures and maintenance.....	34
4.2.2 Analysis of network closures and maintenance.....	38
4.2.3 Intermediate conclusion regarding network closures and maintenance	42
4.3 TRAFFIC CONTROL AND OBSTRUCTIONS	42

4.3.1	Reactions regarding traffic control and obstructions	42
4.3.2	Analysis of traffic control and obstructions	46
4.3.3	Intermediate conclusion regarding traffic control and obstructions.....	49
5	RECURRING TOPICS	50
5.1	COMMUNICATION AND COORDINATION	50
5.2	ASSIGNMENT OF RESPONSIBILITIES.....	51
5.3	DIFFERENT PROCESSES IN THE NETHERLANDS AND GERMANY	52
6	OTHER TOPICS.....	54
6.1	PLANNING AND IMPLEMENTATION SYSTEMS.....	54
6.2	DUTCH-BELGIAN BORDER	57
6.3	RELATIONSHIP BETWEEN PASSENGERS AND FREIGHT	58
6.4	UTILIZATION OF NETWORK CLOSURES	59
7	CONCLUSION.....	61
7.1	GENERAL IMPRESSION	61
7.2	RECURRING TOPICS	61
7.3	POSSIBLE SOLUTION APPROACHES	62
7.4	NMA FOLLOW-UP ACTIVITIES.....	65
7.5	FINAL COMMENTS.....	66
ANNEX 1.....		67
ANNEX 2.....		71
ANNEX 3.....		75

List of figures and tables

Figures

Figure 2.1:	Number of intermodal services per week per country originating in the Netherlands in 2009.....	17
Figure 2.2:	Timeline of process steps.....	23
Figure 6.1:	Chart of planning and implementation systems.....	56

Tables

Table 3.1:	Impact assessment model.....	24
Table 4.1:	Overview of fine-tuning of conflicting capacity requests.....	30
Table 4.2:	Impact assessment of annual timetable and ad-hoc procedure.....	32
Table 4.3:	Impact assessment of network closures and maintenance	39
Table 4.4:	Impact assessment of traffic control and obstructions	47
Table 5.1:	Number of points to improve per type of coordination.....	50

Report of Findings

Table 5.2: Provision of information by infrastructure manager and railway undertaking	52
Table 7.1: Assessment of coordination among rail infrastructure managers.....	62
Table 7.2: Bottlenecks regarding annual timetable and ad-hoc procedure	63
Table 7.3: Bottlenecks regarding network closures and maintenance.....	64
Table 7.4: Bottlenecks traffic control and obstructions.....	65

Executive summary

Introduction

History

1. In recent years, international traffic flows received much attention from Dutch and other European lawmakers. The European Commission has launched a number of initiatives to stimulate international rail traffic. The Regulation concerning a European Rail Network for Competition Freight in particular aims to stimulate rail freight through a number of legal measures, such as imposing specific obligations on infrastructure managers, ministries and regulators to cooperate. In the past, the Netherlands Competition Authority (NMa) received indications that international rail connections leave much to be desired, whereas the market (both the Dutch market and the European market) would benefit from an efficient allocation of international capacity, particularly for guaranteeing enough connections with the Port of Rotterdam's hinterland. The importance of having good international rail connections, the recent initiatives launched by lawmakers to promote international transport, the complexity of international coordination, and the indications that there is room for improvement are all reasons for the NMa to launch a preliminary study into the process of international allocation of rail infrastructure capacity.

Study

2. The objective of this study is to identify and analyze potential bottlenecks with international capacity allocation, to explore possible solutions, and to determine any follow-up activities by the NMa. The scope of this study is limited to rail freight, because this segment covers, by far, the most international rail traffic. For this study, the NMa met with the Royal Dutch Transport Federation (KNV), rail freight undertakings domiciled in the Netherlands, infrastructure managers ProRail and Keyrail, and the German Federal Network Agency BNA (Bundesnetzagentur), the German regulator.

Background

3. There is definitely a link between the development of rail freight in the Netherlands and Europe. The international dimension of rail freight in the Netherlands is evidenced by the fact that 85% of rail freight is cross-border traffic. Freight transfer involves a combination of deploying valuable assets and time-constrained supply agreements between market participants. That is why punctuality and reliability are important in this industry. Undertakings that wish to transport freight over rail, and that are authorized to do so under the Dutch Railway Act, are able to file capacity allocation requests with ProRail or Keyrail. Requests that have been granted are processed by the manager, who will include them in a timetable. The process of requesting and granting capacity consists of four pre-determined phases: preparing the capacity allocation, the timetable procedure, the ad-hoc procedure, and traffic control and adjustments. These phases are explained in more detail in this report.

Reference framework

4. The NMa looks at international capacity allocation from a broader perspective, taking the impact on the market as the determining factor. Based on an impact assessment, parties that create bottlenecks can be held accountable to eliminate them. In this context, any statutory regulations concerning international capacity allocation are also taken into account. For example, ProRail uses several rules and provisions of their own that concern international capacity allocation. These are laid down in various chapters of the 2012 Network Statement, covering aspects such as coordination between infrastructure managers, cooperation on an operational level, the annual timetable, international requests, programming and coordination, and allocation in the ad-hoc phase. The EU (the Commission, the European Parliament, and the Council) believes that improved coordination of the capacity allocation process will raise the attractiveness of rail, and has therefore also drawn up a number of provisions. Requesting international capacity, however, is still done on a national basis. That is why various national legal provisions, next to the European regulations, flesh out the framework for international capacity allocation in further detail. These include provisions in the Dutch Railway Act and in the Decision on Capacity Allocation on the Main Rail Network.

Topics

Main topics

5. With regard to the topic of 'annual timetable and ad-hoc procedure,' it is revealed that the Board sees the late fine-tuning of connections and the limited use of the One Stop Shop (OSS) for requests for capacity outside of the Netherlands as problems with a considerable impact. The limited use of the OSS for international-capacity requests is a problem that the market can and should solve by itself, but which is currently not happening. The costs resulting from said limited use of the OSS are borne by the manager and not directly by the rail undertaking. It is therefore unlikely that the markets will solve this problem anytime soon. As for the alleged late fine-tuning, intervention by an independent agency (whether or not by the NMa) would be more appropriate.
6. With regard to the topic of 'Network closures and maintenance,' it is revealed that coordination of maintenance works in connection with network closures does not run smoothly at the moment. Coordination problems between the managers of the international train paths occur from the preparation phase through the final adjustment phase. This results in situations where the railway undertakings as well as the infrastructure managers at the very last moment are faced with obstructions, detours, additional coordination efforts, and delays. All of these issues result in lower quality of the international train paths in addition to a lot of extra work. The solution should be found in improving communication between ProRail, Keyrail and DB Netze. The NMa could also play a role in this process by working towards a permanent solution, together with the German regulator, as well as with DB Netze.
7. In the evaluation of the topic of 'traffic control and obstructions,' it is revealed that there are a number of opportunities to improve communication between the infrastructure managers. For example, it seems that

communication between traffic control in the Netherlands and its German counterpart does not run smoothly yet, and should be organized better. In addition, the processing of adjustments and delays is less flexible in the Netherlands than it is in Germany. All of these issues combined mean that delays and obstructions are not solved efficiently at the moment. With regard to this topic, rail undertakings, when faced with delays, wait much too long before providing information, which means that availability for others goes to waste. This results in more work for traffic control and in congestion at the borders. Service quality for freight undertakings thus deteriorates. Factors that may play a role in the observed bottlenecks are the lack of rail freight processing scenarios, and the differences between prioritization rules per transport class in case of delays on both sides of the border. This causes confusion over which train can cross the border first. The various structures should be harmonized better at a European level, which is where the solution must be sought.

Recurring topics

8. The NMA has identified several recurring topics that keep coming back in the entire capacity allocation process. These topics are coordination and communication, assignment of responsibilities, and differences in processes in the Netherlands and Germany.
9. With regard to the previously mentioned areas (timetable, maintenance, and traffic control), it appears that communication can be improved. The problems that are described show that coordination plays a major role. This may involve coordination between 1) different departments at an infrastructure manager, 2) different Dutch managers, 3) a Dutch manager and a non-Dutch manager, and 4) between a manager and a rail undertaking.

With regard to maintenance, one such bottleneck is that, in certain departments, it is not always clear which track segments have been closed temporarily. With traffic control, the problem is that different departments fail to communicate with each other first before contacting the border dispatcher in Germany.

With regard to the annual timetable, it appears that late fine-tuning of international connections by managers is a problem. If this coordination takes place too late, it can no longer be included in the annual timetable phase. Regarding coordination of maintenance works, rail undertakings report that the problems mostly involve network closures that have not been coordinated properly between ProRail and DB Netze.

With regard to maintenance, rail undertakings report that DB Netze often informs Dutch rail undertakings inadequately about network closures in Germany. Another bottleneck in this context is that ProRail and Keyrail sometimes announce their maintenance works quite late, including when works are cancelled, which usually leads to a lot of short-term changes. The bottlenecks with traffic control are caused by the rail undertakings providing the manager either with insufficient information or providing them the information too late.
10. When assigning responsibilities to the manager and the rail undertakings, the following issues play a role:
 - the amount of information that must be provided by the rail undertakings and managers;
 - at what moment in time this information must be provided;
 - who must do this.

Managers and rail undertakings have vastly different expectations about these issues, which leads to insufficient information coming from both sides.

11. The differences in processes between the Netherlands and Germany also influence the abovementioned main topics. With regard to the annual timetable, the bottleneck is the late fine-tuning of international connections at the European level. Fine-tuning there takes place so late in the allocation process that any changes therein cannot be included in the annual timetable in the Netherlands. With regard to network closures and maintenance, problems in that area can be traced back to the differences in national interests, processing times, and the legal status of the Dutch and German infrastructure managers. Differences in processes with regard to traffic control are reflected in adjustments, coordination with the border dispatcher, in the policy frameworks, and the planning options. One such example is that adjustments of DB are more flexible than those of ProRail. In addition, the Netherlands and Germany have different prioritization rules.

Other topics

12. Next to the topics that have already been covered, some topics have been looked into issues that a number of parties sometimes have put forward, but that have little impact or no direct relation to *international rail freight*.
13. One such topic is having different information systems, which sometimes are in operation at the same time even. The way the planning and implementation systems are currently organized appears to be acceptable. However, the NMa believes that the system users' criticism should be taken seriously, and that improvements need to be implemented in order to make the capacity request process more efficient. The most important point of criticism in this context is that rail undertakings are faced with a period of time when it is not possible to file requests.
14. Second, it has been concluded that parties hardly experience any problems in the coordination between the Netherlands and Belgium. In addition, no problems have apparently been reported with regard to the communication to rail undertakings. However, it cannot be ruled out that future growth of rail freight may lead to an increase of problems.
15. Furthermore, the difference between passenger and freight trains was briefly touched upon. Whenever rail capacity demand becomes too high, the prioritization policy is used. This means that, on most segments in the densely-populated western part of the Netherlands, freight traffic yields to passenger traffic. As demand for capacity continues to grow, more conflicts may arise. Prioritization rules differ per country. So with international train paths, trains may be faced with conflicting rules.
16. Finally, multiple rail undertakings think that ProRail does not make full use of its temporary network closures. Some have reported that ProRail claims certain periods for maintenance works at the expense of freight trains, but then cancels these planned works at the very last minute, leaving rail undertakings unable to use these freed segments. In addition, rail undertakings report that underutilization of temporary network

closures is caused by maintenance schedules that are repeated every week. Keyrail believes that Dutch managers already take into account rail undertakings' opinions and coordinate with rail undertakings, more so than non-Dutch managers do.

Conclusion

Follow-up activities

17. As already mentioned above, desk research and meetings with rail undertakings have shown there are a lot of bottlenecks in the areas of the annual timetable, maintenance, and traffic control with regard to international rail freight.

18. The study has additionally revealed that there are numerous ways to improve capacity allocation. Generally speaking, it can be argued that the market itself bears joint responsibility for improving the market. For the NMa, this inevitably means that it must set priorities within those options. The NMa deploys its resources in those areas where it believes improvements are needed the most and where such can be realized the best. That is why the NMa prioritizes these follow-up activities:
 - Bilateral cooperation between BNa-NMa about coordination of maintenance works between ProRail, Keyrail and DB Netze.
 - The NMa will sit down with ProRail and discuss coordination of maintenance works with DB-Netze.
 - The NMa will include the findings about maintenance and traffic control in the IRG-Rail recommendations on the creation of new corridors.
 - A meeting with KNV stressing the importance of having satisfactory provision of information by rail undertakings to managers.

Working together towards solutions takes international rail freight to the next level. Not only is this vital for every stakeholder, but particularly so for stakeholders such as the port of Rotterdam, which can be better connected with its hinterland through rail connections. Rail freight can be a viable alternative to other modalities, but that requires improved collaboration between managers amongst themselves and between managers and rail undertakings.

1 Introduction

1.1 Background

19. One of the main tasks of ProRail and its subsidiary Keyrail, the managers of the Dutch railway network, is the allocation of railway infrastructure capacity. A railway undertaking cannot operate without capacity. Allocating railway infrastructure capacity for international transport flows is more complicated than it is for national transport flows because railway managers must coordinate with each other and, in this context, must deal with differently organized operational processes and language differences.
20. International connections are crucial particularly for freight transport by rail, which is of major importance to the transport of goods from the Port of Rotterdam to inland destinations, mainly in Germany. 85% of freight transport by rail in the Netherlands involves cross-border journeys. International freight transport accounts for approximately 40 million tons a year, while domestic freight transport accounts for 6 million tons.¹ In international freight transport, rail has a market share of 11%, compared with inland shipping and road transport, each with 44%.² Freight transport by rail is also a more sustainable transport alternative than transport by road.³ The Minister of Infrastructure and the Environment is therefore aiming to have transport by rail account for 20% of total freight transport from the Port of Rotterdam's Maasvlakte 2 area by 2030.⁴ As a result, rail freight transport from the Port of Rotterdam will quadruple in the next 25 years⁵. In addition, freight transport by rail is the most cost-efficient mode for medium distances.⁶ Journeys of these distances from the Netherlands are precisely the ones in which one or more borders are crossed.
21. International transport flows have been a focus area of Dutch and European policymakers in recent years. The European Commission has launched a number of initiatives to promote international transport by rail. The Freight Corridor Regulation⁷ in particular is aimed at promoting freight transport by rail⁸ through a

¹ Statistics Netherlands (2012), Statline, "Spoor; goederenvervoer in ladinggewicht en ladingtonkilometer," The Hague/Heerlen.

² Based on Statistics Netherlands figures on Freight transport 2011, based on weight transported.

³ White Paper, Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM(2011) 144 final, pp. 5-7 and p. 9.

⁴ http://www.railcargo.nl/actueel/nieuws/nieuws_item/t/tweede_maasvlakte_containervervoer_20_per_spoor

⁵ Information center Railcargo Information, Rail in figures 2011.

⁶ See, among other sources, http://www.railcargo.nl/voordelen_van_het_spoor/kostenefficient.

⁷ Regulation (EU) No. 913/2010.

⁸ Directive 2007/58/EC is an example of an instrument aimed at promoting international passenger services. This Directive creates free access to the market in international rail services for passengers.

number of legal measures that, among other things, impose specific obligations on infrastructure managers, ministries and regulatory authorities to cooperate. The Regulation applies to nine European rail freight corridors. Three of these corridors pass through the Netherlands, namely the Netherlands-Italy corridor, the Netherlands-France corridor and the Netherlands-Poland and Czech Republic corridor.

22. The Netherlands Competition Authority (NMa) received indications in the past that international railway connections were not as good as they could be. The Fifth NMa Rail Monitor, for example, contains two indications about shortcomings in the international capacity allocation, namely the underperformance of the One-Stop Shop (OSS)⁹ and problematic network closures at the Dutch-German border.¹⁰ Transporters therefore continue to experience the reality of borders in international capacity requests.
23. The importance of good international railway connections, the recent activities of policymakers to promote international rail transport, the complexity of international coordination and the indications of problems were all reasons for the NMa to carry out a preliminary study into the international allocation of railway infrastructure capacity.

1.2 Objective

1.2.1 Goal

24. The goal of the preliminary study was to identify any problem areas in international capacity allocation, analyze their impact on the market, formulate problem-solving approaches and determine NMa follow-up actions. The preliminary study must ultimately contribute to the proper functioning of the international rail transport market.

1.2.2 Relevance

25. The Dutch and international markets will benefit from good international capacity allocation. Reliability and predictability are important indicators in this regard. International capacity allocation is important to the transport sector, particularly in terms of ensuring sufficient connections with inland destinations from the Port of Rotterdam.

1.2.3 Regulatory duty

26. The NMa has statutory duties concerning the economic regulation and monitoring of the rail sector. To perform these duties optimally, the NMa views the rail transport chain in a broad context. It works to ensure a rail market that is functioning as well as possible and to remove obstacles in this context. The impact of problem areas on the market guides the NMa's use of resources.

⁹ Fifth NMa Rail Monitor, pp. 38-39.

¹⁰ See network closures in general; Fifth NMa Rail Monitor, p. 19.

27. This means that the NMa views any obstacles in international capacity allocation in a broad context and does not carry out a study in advance on the basis of legal powers. The NMa therefore opts in the first instance for a problem analysis of all aspects of capacity allocation. This matter concerns a preliminary study within the framework of the NMa's general monitoring. The NMa wishes to identify the problem areas and the most suitable solutions. Possible follow-up actions on the part of the NMa will depend on the outcomes of this preliminary study. There is no concrete suspicion of a violation of the Railways Act. In addition, the NMa stresses that this preliminary study emphasizes responsibilities on both sides of the market – in other words, both those of the infrastructure manager and transporters (entitled parties) – in order to optimize the operation of the rail market for international rail transport.

1.2.4 Scope and definition

28. The preliminary study focuses on problems that are attributable to the international nature of the train journey. In addition, it limits itself to freight transport and does not take passenger transport into account. Freight transport accounts by far for most international transport by rail. It is reasonable to suppose, however, that passenger transport services would also benefit from any improvements in international capacity allocation, since freight and passenger transport services use the same infrastructure. Finally, this preliminary study is limited in geographic terms to the Dutch railway network and the directly contiguous railway networks of Germany (managed by DB Netze) and Belgium (managed by Infrabel). It does not address potential problems with respect to non-contiguous railway networks.
29. Not all of the points raised in the interviews are included in the NMa report. Whether a point was included in the report depended on the following factors:
- The extent to which the point of improvement related to the international nature of the train service.
 - The number of railway undertakings that specified the point of improvement or the extent to which both the manager and railway undertakings referred to the same point of improvement.
 - The weight accorded by the parties to the point of improvement.
30. Where a topic's score was high in terms of all three factors, the NMa deals with the topic in detail in Chapter 4, Main topics. Where a topic's score was high in terms of two factors, the NMa deals with the topic briefly in Chapter 6, Other topics. In all other cases the NMa does not deal with the topic. Nevertheless, a party can always send a message or complaint to the NMa. The message form available at http://www.nma.nl/regulering/vervoer/tip_ons/default.aspx can be used for the purpose.

1.3 Process

31. In addition to carrying out desk research, the NMa held discussions with Royal Netherlands Transport (KNV), freight transporters based in the Netherlands¹¹ and infrastructure managers ProRail and Keyrail. The report is based on the information obtained during these discussions. The report combines the information of the parties and documents consulted. The NMa does not provide for the publication of responses. The purpose of the preliminary study was to identify and list in order to determine whether there is reason for follow-up actions. A comprehensive investigation of the facts was not required for this purpose. The NMa therefore used the information provided by the parties in two rounds and readily available information.

¹¹ The freight transporters consulted were Captrain, DB Schenker, ERS Railways, HUPAC, HUSA, Rotterdam Rail Feeding and Rurtalbahn.

2 Background information

2.1 Market description

32. As a result of the liberalization of freight transport by rail,¹² changes have occurred in the number and kind of parties involved in the logistics process of rail transport. In the past, it was common for one state-run enterprise to have the roles of infrastructure manager, transporter, shipper and terminal operator. The market now has a greater diversity of parties. Rail transporters become logistics services providers and shippers are also transporters. The multiplicity of service providers participating in the market makes it more flexible,¹³ since parties that cooperate handle transport and personnel capacity more efficiently and are better at forecasting fluctuating market situations.¹⁴
33. The development of freight transport by rail in the Netherlands is a European matter. The international nature of freight transport by rail in the Netherlands is evidenced by the fact that 85% of freight transport involves cross-border journeys. International freight transport accounts for approximately 40 million tons a year, while domestic freight transport accounts for 6 million tons.¹⁵ A high proportion of freight transport by rail forms part of an international logistics chain connected to the seaports. Most of the freight distributed in the Netherlands is loaded or unloaded in the Dutch seaport region.¹³
34. The transshipment of freight involves a combination of costly deployment of operating assets and time-based delivery agreements between market participants. Punctuality and reliability are therefore important. The smooth transit of freight from the Port of Rotterdam to destinations elsewhere in Europe is essential to the Netherlands as a distribution country. For this reason, it is important to the Netherlands that freight trains reach their destinations rapidly and on time. The most important corridors for freight transport by rail run from the seaports to the German border. The Betuweroute has contributed in this regard since 2007 by relieving pressure on the Brabantroute.¹⁶ The Betuweroute is used to transport 75% of the rail freight. Because of the increase in the number of containers, the international corridors will have to handle more traffic in the future. In this context, the Port of Rotterdam Authority has set the requirement that companies

¹² Article 10(3) of Directive 91/440/EEC.

¹³ Francke, J., Ooststroom, H. van, Savelberg, F. (2007), "Marktontwikkelingen in het goederenvervoer per spoor 1995-2020," Netherlands Institute for Transport Policy Analysis, The Hague.

¹⁴ See network closures in general; Fifth NMa Rail Monitor, p. 19.

¹⁵ Statistics Netherlands (2012), Statline, "Spoor; goederenvervoer in ladinggewicht en ladingtonkilometer," The Hague/Heerlen.

¹⁶ Central Government (undated), "Goederenvervoer per spoor," consulted on February 29, 2012, <http://www.rijksoverheid.nl/>, topics, freight transport by rail. The Brabantroute is a railway route that more or less parallels the Betuweroute. The Brabantroute is also used by passenger trains.

operating in the Maasvlakte 2 area must complete 20% of their container transport by rail.¹⁷ This will double freight transport by rail relative to the current situation. Capacity allocation on the international corridors must therefore remain a key area of focus in the coming period.

35. The following figure shows rail freight flows between the Netherlands and other European countries. As can be seen, most freight trains that leave the Netherlands pass the German border. This number differs strongly from the number of intermodal services that cross the Belgian border.

¹⁷ http://www.railcargo.nl/actueel/nieuws/nieuws_item/t/tweede_maasvlakte_containervervoer_20_per_spoor.

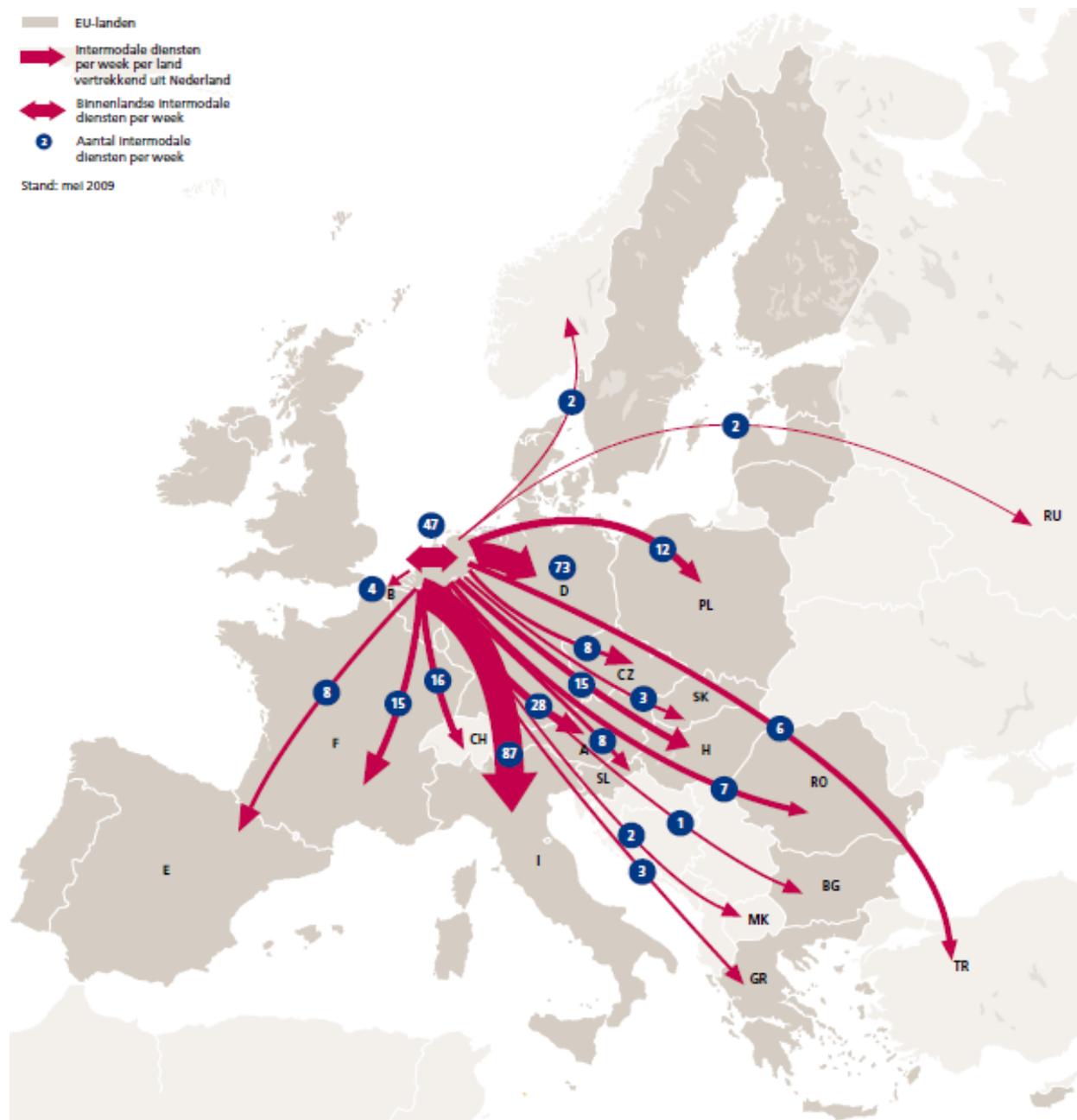


Figure 2.1: Number of intermodal services per week per country originating in the Netherlands in 2009.¹⁸

NL	US
----	----

¹⁸ Rail Cargo information Netherlands (2011), "Spoor in cijfers 2011," p. 61, De Swart, The Hague.

Report of Findings

EU-landen	EU countries
Intermodale diensten per week per land vertrekkend uit Nederland	Intermodal services per week per country departing from the Netherlands
Binnenlandse intermodale diensten per week	Domestic intermodal services per week
Aantal intermodale diensten per week	Number of intermodal services per week
Stand: mei 2009	As at May 2009

2.2 Description of international capacity allocation process

36. Undertakings that wish to transport passengers or freight by rail and are entitled according to the Railways Act may submit capacity requests to ProRail or Keyrail. The manager processes these requests in a timetable. Contractors may also submit requests for train-free periods to the ProRail department responsible for the management and maintenance of capacity in order to perform maintenance and construction work on the railway network.¹⁹
37. The request process and allocations of capacity occur according to a fixed pattern:

Phase 1 Preparation of capacity allocation

38. Step 1. Publication of the network statement:²⁰
- Following consultation, the manager publishes the definitive network statement issued in the second week of December, i.e. 12 months before the timetable takes effect (x-12²¹). This is at least four months before the final date for the annual timetable requests (x-8).
 - The manager makes the draft network statement available to railway undertakings in the second week of September for consultation.
39. Step 2. Defining catalogue paths:
- No later than 11 months prior to the start of the timetable, the cooperating managers publish a provisional supply of catalogue paths²² for international freight traffic (x-11).

¹⁹ ProRail (undated), "Spoorcapaciteit: aanvraag en verdeling," consulted on February 29, 2012, <http://www.prorail.nl/>, capacity and train paths, allocation procedure.

²⁰ The network statement provides all of the information required by a railway undertaking to use the Dutch railway network. In addition, it explains the application process concerning railway capacity and the use of this capacity.

²¹ x-12 is a standard indication of time in railway capacity allocation. In this context, x is the commencement date of the annual timetable and x-12 means 12 months prior to x. x+3 means three months after the taking effect of the timetable.

²² To make more efficient use of the existing infrastructure, paths construed in advance (catalogue paths) are made for freight traffic on the most important corridors. These catalogues are published to support capacity applications.

Phase 2 Annual timetable procedure

40. Step 3. Annual timetable requests:

- From the publication of the network statement in the second week of December, the rail infrastructure manager starts collecting the capacity requests for the annual timetable.
- The railway undertaking can submit a single request for all of the capacity required for international trains through the One-Stop Shop or can submit separate requests to the infrastructure managers of the railway networks involved. If railway undertakings submit separate requests to the different infrastructure managers (referred to as parallel requests), they are themselves responsible for coordinating those requests.
- The term for submitting capacity requests for the annual timetable ends on the second Monday of April.
- The intake of requests occurs the following week, at which time the procedure to effect allocation starts.

41. Step 4. Annual timetable procedure:

- Scheduling and coordination starts on the second Tuesday of April. The managers coordinate with other managers in Europe to meet capacity requests to the greatest extent possible.
- The RailNetEurope (RNE) Technical Meeting takes place in the third week of June. During this meeting, managers coordinate the border crossing times of international train paths.
- The draft timetable is ready for consultation at the beginning of July. Railway undertakings may submit responses up to and including the first week of August.
- In the first week of July managers also present the draft of the international annual timetable. Applicants have one month to comment.
- The manager determines the national allocation of capacity in the fourth week of August. The deadline for replying to questions from customers is also in this week.
- The manager subsequently records the allocation of capacity in Donna and Radar.²³
- The manager concludes access agreements with entitled parties in November.

²³ Donna and Radar are planning systems for rail capacity; see also 6.1, Planning and implementation systems.

Phase 3 Ad hoc procedure

42. Step 5. Late requests:

- The first day of the late requests is in the second week of April after the end of the term for the annual timetable requests procedure. Late requests are handled by the manager on a first come, first served basis.
- The manager provides the first answers to the late request in the fourth week of August.
- The last day to submit late requests is in the second week of October.
- The manager provides the last answers to the late requests in the first week of November.

43. Step 6. Ad hoc requests:

- Ad hoc requests that are not late requests concern requests for capacity or capacity changes during the timetable year. The manager reserves part of the available capacity for ad hoc requests for freight transport during the year (outside the annual timetable).
- Railway undertakings may request ad hoc paths after the closing date for late requests in the second week of October.

Phase 4 Traffic control and adjustment

44. Step 7. The traffic control service:

- The traffic control service guides the real-time implementation of the timetable. The traffic control service is also responsible for adjusting the timetable in the event of disturbances.

45. The figure on the following page shows a timeline with the process steps of phases 1 up to and including 3 that the rail managers take when allocating international rail capacity.

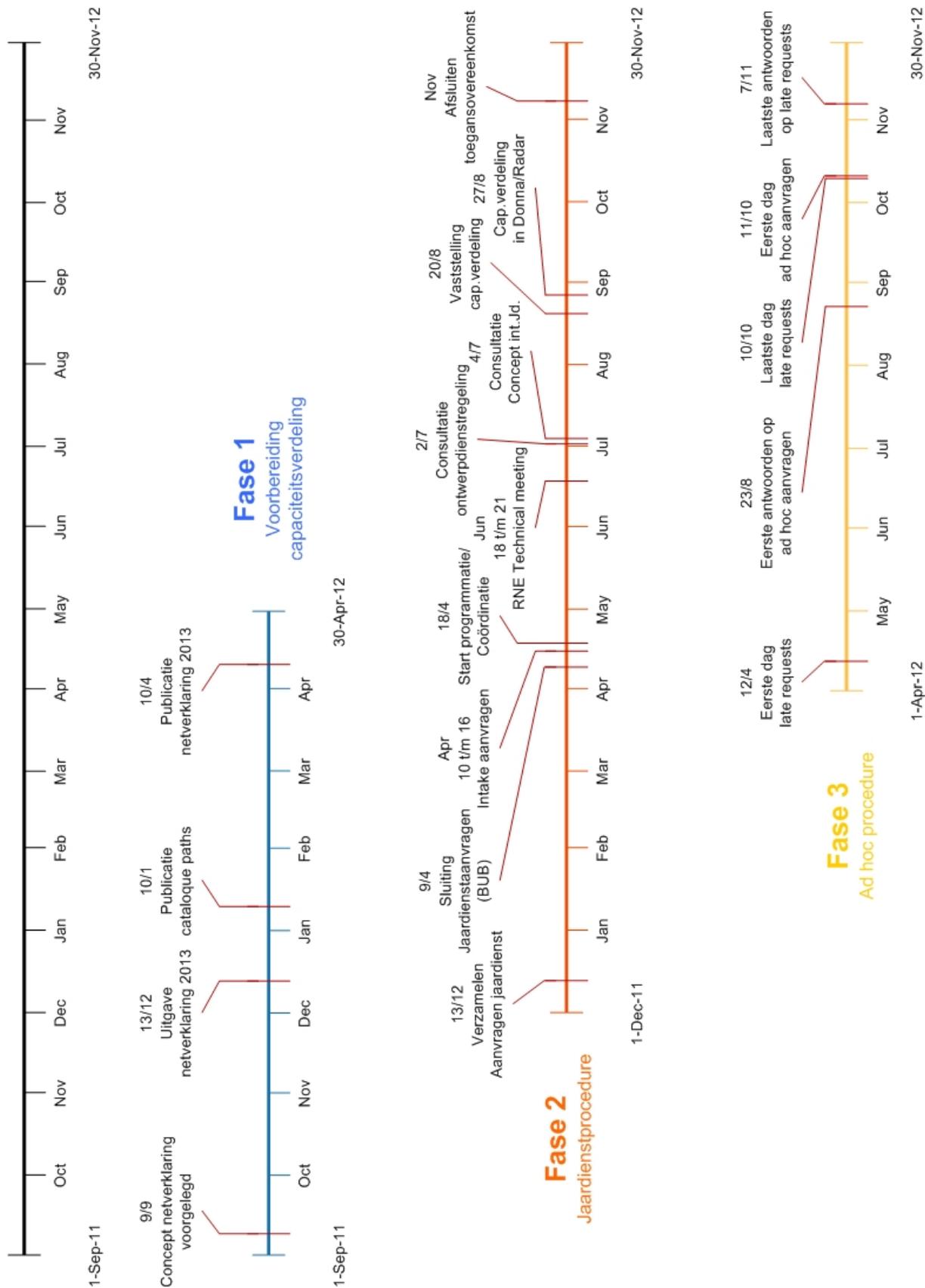


Figure 2.2: Timeline of process steps

NL	EN
1-Sep-11	09/01/11
30-Nov-12	11/30/12
9/9 Concept netverklaring voorgelegd	09/09 Draft network statement presented
13/12 Uitgave netverklaring 2013	12/13 Issue of 2013 network statement
10/1 Publicatie catalogue paths	01/10 Publication of catalogue paths
10/4 Publicatie netverklaring 2013	04/10 Publication of 2013 network statement
Fase 1 Voorbereiding capaciteitsverdeling	Phase 1 Preparation of capacity allocation
30-Apr-12	04/30/12
Fase 2 Jaardienstprocedure	Phase 2 Annual timetable procedure
13/12 Verzamelen Aanvragen jaardienst	12/13 Collection of annual timetable requests
9/4 Sluiting Jaardienstaanvragen (BUP)	04/09 End of annual timetable requests term (BUP)
Apr 10 t/m 16 Intake aanvragen	Apr 10 up to and including 16 Intake of requests
18/4 Start programmatie/Coördinatie	04/18 Start of scheduling/coordination
Jun 18 t/m 21 RNE Technical meeting	Jun 18 up to and including 21 RNE Technical Meeting
2/7 Consultatie ontwerpdiensregeling	07/02 Draft timetable consultation
4/7 Consultatie Concept int Jd.	07/04 Draft international annual timetable consultation
20/8 Vaststelling cap. verdeling	08/20 Determination of capacity allocation
27/8 Cap. Verdeling in Donna/Radar	08/27 Recording of capacity allocation in Donna/Radar
Nov Afsluiten toegangsovereenkomst	Nov Conclusion of access agreements
1-Dec-11	12/01/11
30-Nov-12	11/30/12
Fase 3 Ad hoc procedure	Phase 3 Ad hoc procedure
12/4 Eerste dag late requests	04/12 First day for late requests
23/8 Eerste antwoorden op ad hoc aanvragen	08/23 First answers to ad hoc requests
10/10 Laatste dag late requests	10/10 Last day for late requests
11/10 Eerste dag ad hoc aanvragen	10/11 First day for ad hoc requests
7/11 Laatste antwoorden op late requests	11/07 Last answers to late requests
1-Apr-12	04/01/12
30-Nov-12	11/30/12

3 General assessment framework

46. The assessment framework shows how the NMa analyzes and assesses the findings. The NMa considers the international allocation of capacity from a broad perspective. The assessment framework is therefore not limited to topics to which regulation applies. The impact on the market is in fact the guiding factor. For this reason, the first part of the assessment framework consists of an impact assessment of the problems specified by the parties. The second part of the assessment framework consists of a check in terms of current and future standards that apply or will apply. In other words, the second part concerns the legal framework. The apparent violation of a standard constitutes an aggravating circumstance in this context. The absence of an applicable standard does not mean that there is no point of improvement and, for the NMa, is not a reason to disqualify the point concerned as a point requiring attention.

3.1 Impact assessment

47. The purpose of this preliminary study is to identify and analyze any problem areas in international capacity allocation. To assess the effects of the problem areas in terms of value, the NMa tests the points of improvement put forward by means of a qualitative impact assessment. The NMa first determines the processes and the interdependencies within the processes. Second, the NMa estimates the impact of the points of improvement based on the information obtained from the interviews to determine their social effects in qualitative terms. The analysis therefore provides an instrument for prioritization and the formulation of follow-up steps. The NMa presents the impact assessment for each main topic in Chapter 4 in concise form in a table.

Point of improvement	Consequence	Impact
...

Table 3.1: Impact assessment model

3.2 Legal framework

48. The legal framework consists of the network statement and the applicable legislation, including the Railways Act, Main Railway Lines (Capacity Allocation) Decree, Directive 91/440/EEC and Directive 2001/14/EC. Bearing the near future in mind, the NMa is also anticipating the Freight Corridor Regulation. This Regulation will apply to the Rotterdam-Genoa corridor from 10 November 2013.²⁴

NMa powers

²⁴ See Regulation (EU) No. 913/2010, Annex 1.

49. The preliminary study was carried out in the context of general monitoring of compliance with the Railways Act by the NMa.²⁵ Under the Railways Act, this monitoring includes compliance with Directive 91/440/EEC and Directive 2001/14/EC.²⁶ For this preliminary study, the international aspects of capacity allocation in particular were therefore also taken into account. For example, the NMa's monitoring concerns the right of applicants to submit a request for infrastructure capacity that crosses more than one network to one manager and the duty of managers to ensure that, for infrastructure capacity crossing more than one network, applicants may apply directly to any joint body which the managers may establish²⁷ In addition, the monitoring also applies to the scheduling and coordination phase.²⁸
50. With the taking effect of the Freight Corridor Regulation for freight traffic, the NMa will in the near future also monitor competition on the corridor and, in particular, non-discriminatory access to the corridor. In addition, the NMa will handle complaints and monitor the register of capacity requests.²⁹ Furthermore, the scope of monitoring will include the management board as referred to in Article 8, paragraph 2 of Regulation (EU) No. 913/2010 to the extent that the matter concerns the conduct of the Dutch infrastructure manager.

3.3 Network statement

51. For the manager, the network statement is a binding, unilateral offer for the conclusion of an access agreement. The access agreement is an annual agreement between the manager and a railway undertaking concerning the use of capacity, the quality of the infrastructure and the infrastructure charge. In its network statement, ProRail maintains a number of its own rules and provisions pertaining to international capacity allocation. These are therefore unilaterally binding for ProRail. A summary of the most relevant provisions in the context of this preliminary study is provided below. Annex 1 contains an overview of all of the network statement's relevant provisions.
52. ProRail's network statement states that ProRail cooperates with the managers of contiguous railway networks. This cooperation concerns, among other things, the "harmonisation of infrastructure development and the co-ordinated planning of maintenance and management activities that influence cross-border traffic,"

²⁵ General monitoring as referred to in the General Administrative Law Act, Section 5:16 of the General Administrative Law Act in conjunction with Section 70 of the Railways Act.

²⁶ Section 70, subsection 2 under a of the Railways Act in conjunction with Section 17, subsection 1 under d.

²⁷ Article 19, paragraphs 4 and 5 of Directive 2001/14/EC in conjunction with Section 61, subsection 1 of the Railways Act and in conjunction with Article 4 of the Main Railway Lines (Capacity Allocation) Decree.

²⁸ Article 20, paragraph 1 and Article 21, paragraph 4 of Directive 2001/14/EC in conjunction with Section 61, subsection 1 of the Railways Act and in conjunction with Article 4 of the Main Railway Lines (Capacity Allocation) Decree.

²⁹ Article 13, paragraph 5 and Article 20, paragraphs 1 and 4 of Regulation (EU) No. 913/2010 from 10 November 2013.

the “cooperation required for offering through train paths for international traffic,” and agreements on the “control and intervention of cross-border train traffic; this includes the development of systems for the necessary exchange of data (‘Europtirails’).”³⁰

53. In addition, ProRail’s network statement states that international requests for capacity “are handled in a coordinated manner according to the agreements with Keyrail and the managers of the neighboring railway networks, as concluded by ProRail within RailNetEurope.”³¹ According to the network statement, “ProRail seeks harmonisation with other infrastructure managers in Europe during the scheduling and coordination process. The objective is to realize as many high-quality cross-border train paths as possible. These measures are detailed in the RNE document ‘Process for international path requests’ (see the website www.railneteurope.com).”³²

3.4 European and national regulations

54. The European legislature (Commission, European Parliament and Council) believes that better coordination of capacity allocation will increase the attractiveness of transport by rail.³³ Requests for international capacity are still handled at a national level. An international path consists of different national paths that are connected to each other and allocated on the basis of national legislation. Directive 2001/14/EC plays an important role in this regard. This Directive concerns the streamlining of the annual timetable requests and the ad hoc requests, the planning of maintenance and the way in which disturbances to train movements are handled.
55. In addition to European regulations, there are different national legal provisions that give further substance to the framework for international capacity allocation. In the Dutch context, these provisions are set out in the Railways Act and the Main Railway Infrastructure (Capacity Allocation) Decree. A summary of the provisions that specifically deal with capacity allocation concerning more than one network is provided below. All of the relevant legal regulations and provisions are specified according to topic in Annex 2.
56. According to European regulations, “Infrastructure managers shall cooperate to enable the efficient creation and allocation of infrastructure capacity which crosses more than one network. They shall organize international train paths, in particular within the framework of the Trans-European Rail Freight Network. They shall establish such procedures as are appropriate to enable this to take place. These procedures shall be bound by the rules set out in this Directive.”³⁴ In addition, applicants “may request infrastructure capacity

³⁰ Section 1.9 of the ProRail Network Statement 2012.

³¹ Section 4.9 of the ProRail Network Statement 2012.

³² Section 4.4.1.3.2 of the ProRail Network Statement 2012.

³³ Consideration 31 of Directive 2001/14/EC.

³⁴ Article 15, paragraph 1 of Directive 2001/14/EC.

crossing more than one network by applying to one infrastructure manager. That infrastructure manager shall then be permitted to act on behalf of the applicant to seek capacity with the other relevant infrastructure managers.”³⁵

57. According to European law, the “infrastructure manager shall as far as is possible meet all requests for infrastructure capacity including requests for train paths crossing more than one network, and shall as far as possible take account of all constraints on applicants, including the economic effect on their business”³⁶ and the “principles governing the coordination process shall be defined in the network statement. These shall in particular reflect the difficulty of arranging international train paths and the effect that modification may have on other infrastructure managers.”³⁷ Furthermore, Article 29 of Directive 2001/14/EC is also of importance with respect to disturbances because the best efforts obligation specified in paragraph 1 of the aforementioned Article – “the infrastructure manager must take all necessary steps to restore the normal situation” – also applies to international traffic and cooperation.

3.5 Future: Freight Corridor Regulation

58. Regulation (EU) No. 913/2010 applies to a number of freight corridors. This Regulation aims to establish rules for the international coordination of maintenance, the handling and allocation of an international request for capacity, reserving international freight capacity, the international coordination of right-of-way rules, international right-of-way rules in the event of disturbances and the provision of information concerning use of the corridors. For the Netherlands, the corridors to Italy and France must be operational by 10 November 2013 at the latest. The corridor to Poland and the Czech Republic must be ready by 10 November 2015 at the latest. The Regulation will not be enforced until these dates. Managers are making preparations, however. The NMa is anticipating developments in this context and has therefore included the Regulation in the assessment framework. The various relevant provisions of the Regulation are specified in Annex 3.
59. Under the Freight Corridor Regulation, a management board composed of the representatives of the infrastructure managers shall be established. The management board shall be advised by advisory groups of managers of terminals and railway undertakings.³⁸ The management board shall coordinate and ensure the publication of its schedule for carrying out all the works on its infrastructure³⁹ and designate or set up a joint body, a One-Stop Shop (OSS), for applicants to request and receive answers, in a single place and in a single operation, regarding infrastructure capacity for freight trains crossing at least one border along the freight

³⁵ Article 19, paragraph 4 of Directive 2001/14/EC.

³⁶ Article 20, paragraph 1 of Directive 2001/14/EC.

³⁷ Article 21, paragraph 4 of Directive 2001/14/EC.

³⁸ Article 8, paragraphs 2, 7 and 8 of Regulation (EU) No. 913/2010.

³⁹ Article 12 of Regulation (EU) No. 913/2010.

corridor.⁴⁰ This body shall decide on requests for capacity if there are no conflicting requests. The management board shall promote coordination of priority rules relating to capacity allocation on the freight corridor.⁴¹

⁴⁰ Article 13 of Regulation (EU) No. 913/2010. See also Article 19, paragraphs 4 and 5 of Directive 2001/14/EC and consideration 18 of Regulation (EU) No. 913/2010.

⁴¹ Article 14, paragraph 6 of Regulation (EU) No. 913/2010.

4 Main topics

60. This chapter deals with the topics that emerged during the interviews and that relate directly to the international nature of the train service, were specified by several parties and, in the opinion of the parties, have an apparent, relatively large impact on the market. The chapter is divided into three main topics: 1) the regular application process of the annual timetable and the ad hoc phase, 2) the effect of maintenance planning and work on the allocation of capacity and 3) the effect of traffic control services in the event of disturbances and delays on the allocation of capacity.

4.1 Annual timetable and ad-hoc procedure

4.1.1 Reactions regarding annual timetable and ad-hoc procedure

Late fine-tuning of international connections

61. Freight transporters stated that fine-tuning in the annual timetable with respect to internationally conflicting requests for capacity takes place too late. All managers of a corridor meet in August to harmonize internationally conflicting requests in detail using what are referred to as COBRA lists. A COBRA file is an HTML version of an Excel sheet on which the international timetable and border times are specified and harmonized. Scheduling at the national level has already been completed in August, however, and the national coordination phase starts.⁴² Transporters stated that, as a result, solutions to international conflicts can no longer be included in the national timetable. For example, a transporter requested trains in April and everything seemed to be properly arranged until, at the end of September, DB Netze indicated too late that the arrangement was not possible. An alternative was no longer practicable.
62. Managers stated that they do not recognize this problem area. Keyrail stated that the first communication with DB Netze concerning the annual timetable takes place before March in a border times meeting. Prior to the closing date of the requests, in 2012 prior to 10 April, a fine-tuning meeting concerning border times takes place. An FTE B conference⁴³ took place in April in which the managers compared the border times specified in the COBRA files for each corridor. A final check in which all managers of a corridor are involved will be carried out in August for international paths. Keyrail also stated that it is difficult for its staff to

⁴² Section 4.3 of the ProRail network statement states that the coordination phase runs parallel to the programming phase. See also the "Schedule for path requests and allocation process" ProRail Network Statement 2012, p. 35 of the English version. Section 4.3.1 of the Keyrail network statement states that capacity allocation for 2012 was determined on 22 August 2011 (p. 42 of the English version).

⁴³ Forum Train Europe (FTE). FTE is a European association of railway undertakings and service companies based in Bern (Switzerland) that promotes cross-border rail freight and passenger traffic in Europe. As a coordination body for railway undertakings, FTE sets out to harmonize international production plans and path requests for European rail traffic (http://www.forumtraineurope.org/html/e/fte_kuerze.html).

recognize conflicts when railway undertakings submit parallel requests rather than use the One-Stop Shop. In the case of parallel requests, the transporter, possibly in cooperation with a foreign transporter, submits a separate request to each network manager for part of the train path. The network manager therefore does not know whether a request has an international counterpart. In the worst case, train numbers of paths requested in parallel do not correspond with each other.

Overview of fine-tuning of conflicting capacity requests	
Date	Description
April 2012	Transporters FTE B conference based on COBRA
June 2012	Report on whether a train path is free of conflict
10 April to 2 July	Drafting of the timetable
18 to 21 June 2012	RNE Technical Meeting, including the drawing up of the COBRA list
2 July 2012	Publication of the international Draft Timetable
3 July to 3 August	Comments of transporters
August	Last FTE B conference based on infrastructure manager and railway undertaking COBRA lists
20 August	Deadline for the definitive response to transporters
22 August	Determination of national capacity allocation, including international train paths

Table 4.1: Overview of fine-tuning of conflicting capacity requests

Use of the One-Stop Shop and processing term

63. Managers indicated that only a minority (ProRail) or virtually no one (Keyrail) makes use of the One-Stop Shop (OSS) to request an international train path. Most transporters either request parallel capacity themselves or, in the case of foreign countries, have requests submitted by their business partner. Managers consider this situation to be undesirable because collaboration between rail undertakings brings with it coordination problems, and it takes more work and time to identify conflicts or determine detour routes in the event of obstructions (see also the preceding marginal number). Finally, Keyrail stated that in the case of structural delay, sometimes only the Dutch part of the train path changes while the German part remains the same, which results in a negative arrival time at the border. According to Keyrail, the reason is that a changed but undelayed train path in the Netherlands does not cost any money, whereas, in Germany, an unchanged train path that is delayed by a maximum of 24 hours does not cost any money. Conversely, an unchanged but delayed train path in the Netherlands costs money and a changed but undelayed train path in Germany costs money.
64. Transporters gave different reasons for not using the OSS. These reasons include, for example, a fear that the OSS is incapable of achieving the desired level of quality (ad hoc requests take too long) and the fact that an OSS request does not always fit within an operational process. Transporters also cited administrative

arguments which show that the OSS process does not simplify enough or even causes additional work. Examples in this regard include parallel replies by two OSS bodies, separate invoicing of managers and DB Netze apparently requires a copy of a request. One transporter stated that as long as managers work with an annual timetable, transporters will claim paths for a year. The OSS cannot function well in that context. Although some transporters work with the OSS, they stated that the OSS is only available for the Netherlands. They want the OSS to be more internationally oriented.

Many changed freight paths in the annual timetable

- 65. Both transporters and managers stated that the many changes in capacity requests of freight transporters is a complicating factor in capacity allocation. Both sides in this respect estimate that approximately 15-25% of the train paths in the annual timetable remain unchanged. Freight transporters stated that it is difficult to specify already in April and in exact terms which trains they wish to operate in the subsequent year because demand for freight transport fluctuates and because transporters have not yet received orders at that time.
- 66. Transporters stated that the time and energy that they spend on the scheduling and coordination phase as a result of the many changes is disproportionate to the number of unchanged paths. One transporter stated that a single product for international paths in the ad hoc phase should be introduced that reserves approximately 40% of the capacity for ad hoc requests. Managers stated that it is difficult to estimate the conflicts that will actually occur and which conflicts will be solved in the course of time. Managers also stated that this is an incentive for transporters to request excessive capacity in the annual timetable.

4.1.2 Analysis of annual timetable and ad-hoc procedure

- 67. The analysis of this section is carried out by applying the assessment framework described in Chapter 3. The first impact assessment is presented below. The NMa notes in this regard that managers ProRail and Keyrail do not recognize all of the problems referred to by the transporters. These topics are indicated by an asterisk (*) and explained by the Board below.

68.

Point of improvement	Consequence	Impact
Fine-tuning of the timetable takes place too late in August.*	A manager can no longer include solutions to international conflicts in the national timetable.	The transporter runs the risk of not being granted a path that it has requested in the annual timetable. This in turn entails the risk of losing income and possibly customers. It also means that international transport is disadvantaged relative to national transport.
Almost no one (Keyrail) uses the OSS.	It is difficult for a manager to identify conflicts.	Additional work for a manager and a transporter runs the risk of losing

		a desired path.
Many changes in requests for capacity. Annual timetable requests are made in April. At this stage, a transporter does not yet know what, where, and when it wishes to operate in December.	This complicates capacity allocation. Paths requested are cancelled.	A lot of work of the annual timetable phase must be repeated. This is a waste of time and causes confusion and additional costs for both manager and transporter. The transporter must bear the change costs. ⁴⁴

Table 4.2: Impact assessment of annual timetable and ad-hoc procedure

* Note to the table: The managers stated that they do not experience problems with the implementation of solutions to internationally conflicting requests for capacity following the comparison of COBRA lists in June in the national timetable.

69. The NMa notes that, roughly speaking, the impact assessment shows two categories of consequences: the failure to secure a desired train path and additional work for the manager and/or transporter. In principle, the failure to secure a desired train path is a more serious problem area than additional work for the manager and/or transporter or delay because it affects the entire transport chain. This applies as the general rule, even though there are exceptions.⁴⁵ With respect to the first two problems, namely late international fine-tuning and a low level of use of the OSS, a transporter is at risk of failing to secure a desired train path.
70. The “excessively late” fine-tuning of international requests for capacity is a process that a transporter cannot influence and is the responsibility of the manager. The network statement and current and future legislation impose several best efforts obligations on the manager to accommodate requests for capacity to the greatest extent possible. For example, the network statement states that ProRail has a best efforts obligation to at least signal, together with other infrastructure managers, connection problems at the border.⁴⁶ In addition, ProRail states in its network statement that it seeks harmonization with other infrastructure managers in order to realize as many high-quality cross-border train paths as possible.⁴⁷ According to the Main Railway Infrastructure (Capacity Allocation) Decree, the manager must meet all requests for infrastructure capacity as far as is possible and, when conflicts between different requests are encountered, must ensure the best possible matching of all requirements.⁴⁸ According to the Freight Corridor Regulation,⁴⁹ the management

⁴⁴ See section 5.5.1 Holding and sorting sidings and section 6.4 Performance scheme of the ProRail Network Statement 2012, p. 57 and p. 81 of the English version and section 5.6.1.1 Performance scheme 1 Changes of the Keyrail Network Statement 2012 Betuweroute, pp. 70-72 of the Dutch version.

⁴⁵ The costs of additional work exceed the costs of failing to secure a desired train path, for example.

⁴⁶ Section 4.4.1.3.1 Submitting applications.

⁴⁷ Section 4.4.1.3.2 Scheduling and coordination.

⁴⁸ Article 4 in conjunction with Article 20, paragraph 1 and Article 21, paragraph 1 of Directive 2001/14/EC.

⁴⁹ Article 14, paragraph 9 of Regulation (EU) No. 913/2010.

board⁵⁰ shall put in place procedures to ensure optimal coordination of the allocation of capacity between infrastructure managers. Even though managers do not recognize this problem area, it could be a point that merits further investigation given the impact on the market and the fact that a possible solution can only be provided by the managers.

71. Regarding use of the OSS, the NMa notes that, in principle, a transporter must itself assume its responsibility by submitting requests for capacity through the OSS. Submitting requests through the OSS reduces additional work for the manager, which ultimately means lower management costs for the entire rail market. A potential obstacle to a solution is the fact that the costs of non-OSS requests appear to be borne by the manager while the solution lies in the hands of transporters. Transporters are not obliged to use the OSS. However, the manager assumes less responsibility in the network statement with respect to international harmonization if a transporter does not submit a request through the OSS.⁵¹
72. Furthermore, the NMa observes that it can be cheaper for a transporter to submit parallel requests rather than an OSS request. Parallel requests make it possible for a transporter to change only part of the path, which means that it only has to pay change costs only for that part.⁵² In the case of an OSS request, the entire path is changed and change costs must be paid for, for example, both the German and the Dutch part.⁵³ A German train path remains valid for longer, 24 hours,⁵⁴ and a transporter is given a path in what is referred to as "white space." A delay can therefore mean that the Dutch part of the train path is no longer valid, thus necessitating a change request, while the German part is still valid. To remove this disincentive, managers must further harmonize their reservation fees, change costs, and fines for delays, as well as a path's period of validity.
73. The many changes in annual timetable requests of freight transporters does not immediately lead to a failure to secure a desired train path because the wish itself changes. Nevertheless, there seems to be considerable potential for a more efficient and possibly more flexible capacity allocation system for freight transport, since changes take place on a large scale. Both railway undertakings and managers would benefit from more

⁵⁰ A freight corridor's management board is composed of the representatives of the infrastructure managers. See Article 8, paragraph 2 of Regulation (EU) No. 913/2010.

⁵¹ Section 4.4.1.3.1 Submitting applications of the ProRail Network Statement 2012.

⁵² In the Netherlands, change costs are only paid in the case of Keyrail. See section 5.6.1.1 Performance scheme 1 Changes of the Keyrail Network Statement 2012 Betuweroute, pp. 70-72 of the Dutch version.

⁵³ See section 6.2.3.3 Charge for issuing an offer, section 6.2.3.4 Cancellation charges and section 6.3 c) Changes to train paths after receiving the train path offer of the DB Netz AG Network Statement (NS 2012), pp. 56-57 and p. 61.

⁵⁴ Section 7.4.2.2.1. of the DB Netz AG Network Statement (NS 2012).

efficient capacity allocation. A reservation fee could reduce the number of changes. The legal framework allows for a reservation fee but does not make such a fee compulsory.⁵⁵

4.1.3 Intermediate conclusion regarding annual timetable and ad-hoc procedure

74. The Board considers the late fine-tuning of connections and the low level of use of the OSS to be problems that have a major impact. The low level of use of the OSS is a problem that the market itself could solve provided that the costs were also borne by the transporter. The transporter currently controls the use of the OSS while mainly the manager appears to bear the costs. Making use of the OSS compulsory could be considered in this regard. Intervention by an independent authority, whether or not the NMa, would be a logical measure regarding the supposed excessively late fine-tuning. The transporter would bear the costs and the manager would determine the coordination process. The legal framework also imposes a number of best efforts obligations on the manager with respect to fine-tuning connections. The manager is responsible for organizing capacity allocation in both substantive and process terms in such a way as to ensure that requests can be met to the greatest extent possible. However, further investigation must be carried out into the specific circumstances, since ProRail and Keyrail do not recognize these problems. The many changes in the annual timetable causes more work for a manager and transporter but does not lead to the securing of a desired train path. The NMa therefore concludes that this point of improvement has less impact. Nevertheless, there seems to be considerable potential for a more efficient and possibly more flexible capacity allocation system for freight transport, since changes take place on a large scale.

4.2 Network closures and maintenance

4.2.1 Reactions regarding network closures and maintenance

75. In the meetings with transporters, in the context of international capacity allocation, three points concerning maintenance and network closures kept emerging:
1. Inadequate coordination between ProRail, Keyrail, and DB Netze in preparation.
 2. Information periods that are too short with respect to changes as a result of network closures.
 3. The role of ProRail and Keyrail in the provision of information about maintenance.

Inadequate coordination between ProRail, Keyrail and DB Netze in preparation

76. Transporters believe that coordination between the Netherlands and Germany with respect to network closures can be improved. In most cases, network closures are known in advance and ProRail usually sends an overview of the work to be performed ten weeks in advance, but coordination between ProRail and DB Netze is not optimal. A transporter pointed out that DB Netze plans maintenance work so far in advance that

⁵⁵ Section 62 of the Railways Act in conjunction with Article 12 of Directive 2001/14/EC.

it is already announced in the annual timetable. Transporters can therefore properly anticipate, whereas ProRail and Keyrail announce maintenance work (much) later. In this context, transporters stated that infrastructure managers sometimes do not take the maintenance schedules relating to a continuous path in the neighboring country into account. In a few cases, this resulted in two border crossings being closed at the same time. In September and November 2011, for example, work was being carried out on Brabantroute at the Venlo border crossing while, at the same time in Germany, work was being carried out at Zevenaar-Emmerich. The matter usually concerns paths that do not connect well at the border. As a result, international capacity cannot properly be reserved because, for example, unusable paths must be taken into account in plans.

77. ProRail stated that coordination concerning maintenance work takes place with DB Netze on two levels: first, coordination of the network closures at the border track segments and, second, coordination concerning traffic changes as a result of these network closures. Coordination of the network closures at the border track segments is aimed at keeping options for freight traffic open and preventing a total blockage of international (border) traffic with Germany. This coordination takes place in cooperation with Keyrail.
78. ProRail stated that it structurally maintains approximately biweekly contact by email with DB Netze about maintenance work and that its representatives visit DB Netze approximately four times a year. A pilot project was started in 2012 in which the frequency of work-related meetings was increased to once every two months. The aim is to hold these meetings alternately in the Netherlands (Keyrail and ProRail) and Germany.
79. ProRail stated that less coordination takes place with Infrabel. There are two larger border crossings with Belgium at Visé and Roosendaal respectively. In the event of maintenance work at these border crossings, Infrabel itself informs the transporter and, on the Dutch side, ProRail informs the transporters. Infrabel and ProRail inform each other when one of the corridors referred to is closed to border traffic because of maintenance work. In addition, less coordination is required with Infrabel than with DB Netze. The volumes are much smaller and there are less interferences with other corridors. Consultation by email is sufficient and there is little consultation in person. Problems occur incidentally.
80. ProRail stated that, in principle, maintenance work is not coordinated elsewhere on the corridor where it is not necessary to close the border crossing but where capacity at a border crossing can be limited and the flow of international traffic obstructed. It noted in this regard that maintenance work in Germany, which is bordered by nine countries, always affects an international traffic flow. As long as there is a domestic detour route in the Netherlands that leaves the border crossing intact, coordination does not take place. In addition, ProRail noted that in the Regulation this issue (coordination of works) is (also) a point requiring attention.
81. In a recent example in which an additional network closure of DB Netze in week 16 of 2012 would affect the “keeping one route open” principle, more intensive consultation ultimately led to a solution. ProRail recognizes the benefits of greater coordination in this context. ProRail is also of the opinion that the Freight Corridor Regulation lays down only marginal obligations regarding coordination between managers. It states

only that the management board must coordinate the publication, it does not specify when this coordination must take place.

82. Keyrail stated that formal communication takes place with ProRail and DB Netze about two kinds of maintenance: 1) short-term changes and 2) long-term projects planned in advance. DB Netze operates differently from Keyrail with respect to short-term changes. DB Netze in fact only takes optimization of its own maintenance work into account and disregards maintenance work in the Netherlands; DB Netze only reports the fact that maintenance work is being carried out and is not oriented toward agreement and/or coordination. DB Netze stated that, with nine neighboring countries, it cannot take everyone into account. Keyrail tries to respond to changes in DB Netze's maintenance planning as well as possible and, if necessary, adjusts its own planning to keep disruptions of traffic flow to a minimum. Although consultation with DB Netze takes place with respect to long-term projects planned in advance, Keyrail must itself obtain information from DB Netze and DB Netze does not adjust its plans to major projects on the Betuweroute.
83. According to a few respondents, the coordination between ProRail and Keyrail is sometimes inadequate. They stated that ProRail and Keyrail sometimes have network closures as a result of which the route that passes Utrecht, the Brabantroute, and the Betuweroute are all closed to transporters at the same. In particular, coordination on the last section of the Betuweroute from Zevenaar is often difficult. In addition, it is unclear to transporters which manager, ProRail or Keyrail, handles coordination with DB Netze.
84. ProRail stated that it cooperates with Keyrail in the coordination with DB Netze to prevent border traffic with Germany from becoming impossible. Based on the interviews, attention is also drawn to the fact that many short-term changes are caused by the excessively tight planning of adjoining projects.

Information periods that are too short with respect to changes as a result of network closures

85. Transporters stated that adjustments of capacity in connection with maintenance work occur regularly. Different transporters stated that the changes arising from such work are not made known far enough in advance of the performance of the work. In addition, cancellations in the maintenance plan are sometimes communicated only at the last moment, as a result of which there is no longer time to take action. This was a factor in, among other instances, a major, planned network closure on the port railway line in December 2011 that was cancelled at the last moment. A transporter stated that it is difficult to request capacity for coal trains from x to Germany because of many network closures. Planned maintenance work is sometimes cancelled shortly before performance, as a result of which capacity becomes available. Transporters pointed out that the anticipation of the network managers in the Netherlands could be better because there is currently too little time prior to the performance of maintenance work to coordinate the change for a connection with Germany. Transporters are of the opinion that changes are handled better in Germany because the German infrastructure manager anticipates better.
86. ProRail stated that DB Netze implements plan adjustments only at a late stage and that it had to put DB Netze under pressure to implement the plan adjustments earlier by leaving its own plan adjustments

unchanged. The plan adjustments now occur earlier as a result. An analysis of the 2011 adjustments on the Emmerich-Oberhausen track segment shows that DB Netze processes the adjustments two to four weeks in advance, whereas ProRail does so four to seven weeks in advance, which means that there is a difference of at least two weeks in all cases. In the pilot project referred to, both managers adhere to the same periods. One transporter stated that DB Netze indicates changes approximately six weeks in advance. This is too short a period in advance for the Dutch manager to coordinate the change with the connection at the border.

87. Keyrail stated that short-term changes of maintenance occur at the cost of smaller transporters. They have less knowledge and oversight of the consequences of such a change and are therefore less able to properly negotiate about which train movements need to be adjusted and which do not.

The role of ProRail and Keyrail in the provision of information about maintenance

88. Several transporters stated that there is uncertainty and a lack of clarity primarily with respect to network closures. It disturbs them that ProRail refers to Radar for information about maintenance developments and does not actively approach transporters in such situations, whereas they believe that an active approach is part of the reason that they pay a maintenance fee. In this context, they consider the information from Radar to be too complex. One transporter stated that if it suspects that a network closure is not actually current, its standard practice is to call traffic control, after which it usually secures passage. The lack of clarity also means that when requesting a path, transporters call the network manager to ascertain whether train movements are actually possible.
89. Transporters are of the opinion that ProRail and Keyrail do not anticipate and do not operate in a sufficiently customer-oriented way. "We are not kept informed when Keyrail or ProRail change something." In their opinion, the infrastructure managers must communicate better and play a larger role as coordinators and supervisors to ensure smooth rail operations. One transporter stated, for example, that not all network closures are known within ProRail. This transporter had requested a path to x 24 hours in advance, but, upon arrival in y, traffic control suddenly stated that x was closed. Another example was given by a transporter who, following departure from z, encountered a network closure at x. ProRail paid compensation for the paths, however. Transporters cited the human factor as a cause, such as screens that are not attuned to each other and people who did not look at the right screens.
90. ProRail stated that its provision of information to transporters in the event of maintenance work is a fixed routine in which it contacts transporters itself. It stated in this context that some transporters grant a mandate concerning the margins in which a train path may be adjusted. Transporters must in any case always agree to the changed proposal. ProRail acknowledged that mistakes are made in the communication between the managers and with the transporters concerned. As an example, it referred to the closure of the border crossing at Venlo in respect of which DB Netze implemented ProRail's Emmerich plan adjustment too late, as a result of which a German train driver waited in Venlo in vain.

91. ProRail stated that transporters that submit a request for an international train path to one manager through the OSS are not informed by this OSS/manager about changes due to maintenance work being performed on the network of another manager. Those managers report the maintenance work to the local transporter. The transporter that requested the international path in the Netherlands must contact ProRail itself to, because of the changes, subsequently secure a connecting path in the Netherlands.
92. Keyrail is of the opinion that the Dutch managers, because of the private nature of railway legislation in the Netherlands, must already take transporters into account and coordinate with them to a much greater extent than foreign managers.
93. Following a change by DB Netze, Keyrail discusses the implications with the large transporters. A meeting in which all ad hoc network closures are discussed and handled is held with transporters once every two months. There is a trend in this regard that transporters only agree to short-term changes if financial compensation is provided. Keyrail stated that the problem of compensation in the case of unplanned maintenance must be solved in the order in council, certainly if Keyrail tries to adjust its planning to DB Netze to prevent a double network closure. In addition, Keyrail finds it difficult that maintenance must be planned at exact times two years in advance. As a result, Keyrail tends toward asking too much in the annual timetable and being on the safe side.
94. Keyrail stated that a network closure is only communicated to the transporter that requested the Dutch path. Transporters must inform each other themselves if the path continues abroad or if another transporter takes it over. DB Netze therefore reports a change in the path due to a network closure only to the transporter and not to Keyrail. DB Netze does not contact Keyrail on behalf of the transporter to arrange for a changed contiguous path in the Netherlands. The transporter must do so itself.

4.2.2 Analysis of network closures and maintenance

95. The analysis of this section is carried out by applying the assessment framework described in Chapter 3. Six topics emerged from the interviews. Three of them are not considered in this chapter. Two of them, the relationship between passenger and freight transport and unknown or unrecorded network closures, were each raised mainly by one transporter. Another topic, unused capacity within the maintenance schedules, is not specifically a point of improvement linked to international capacity allocation.

Impact assessments for the three most important topics are presented below.

Point of improvement	Consequence	Impact
In the preparation: inadequate coordination between ProRail, Keyrail and DB Netze.	Reservation of international paths is not easy.	<ul style="list-style-type: none"> - It is not made possible for a transporter to reserve a usable path. - Paths do not connect well at the border and the quality of a path is low from the start. - Costs for transporters: suffer possible loss of custom and turnover.
In the implementation: information periods that are too short with respect to changes as a result of network closures (the consequence of different procedures at DB Netze and ProRail/Keyrail).	Unexpected network closures and detours at the last moment; too little time to coordinate the change for a connection with German paths.	<ul style="list-style-type: none"> - Paths do not connect well at the border and the quality of paths is low. - Additional effort on the part of the manager and costs on the part of the transporter to deal with the consequences. - Compensation costs.
The role of the infrastructure managers (ProRail, Keyrail and the OSS) in the provision of information concerning maintenance/role allocation between manager and transporter: inadequate communication and coordination, and not proactive.	Uncertainty and a lack of clarity about network closures. Planning the train service is sometimes problematic. Communication occurs only through the transporter that requested a path. Cooperating transporters must inform each other themselves.	Transporters must perform additional work. Moreover, transporters must incur additional costs to deal with the consequences; for example, closure at the Venlo border crossing and additional costs for the relocation of locomotives and other rolling stock.

Table 4.3: Impact assessment of network closures and maintenance

96. Coordination between ProRail and DB Netze is not optimal in the preparatory (planning) phase. The planning processes and associated periods of time of both infrastructure managers differ from each other, as a result of which maintenance work on a contiguous path in the neighboring country is sometimes insufficiently taken into account. This means that paths do not connect well in practice. International capacity cannot properly be reserved because of the mediocre coordination and the quality of the paths is low from the start. Together with DB Netze, ProRail and Keyrail have started a pilot project to improve the situation.
97. Changes and cancellations occur in the implementation phase as a result of adjustments in maintenance that are made shortly or right before implementation. Transporters therefore do not have the opportunity to

respond effectively. In international terms, this means that there is (too) little time for coordination and connections with German paths.

98. The role of the infrastructure managers, including the OSS, in the provision of information is under discussion. Transporters have to deal with a considerable level of uncertainty and lack of clarity regarding network closures. Transporters are of the opinion in this regard that the infrastructure managers do not anticipate and do not operate in a sufficiently customer-oriented way. Furthermore, transporters feel that they pay a maintenance fee for anticipatory and customer-oriented services. Managers are of the opinion that the transporters do not assume enough responsibility for activities, logistics-related and otherwise, that form part of the daily work of a transport undertaking and/or logistics services provider.
99. The NMa notes that the impact assessment reveals two aspects. First, in the planning or implementation, transporters have to deal with paths with poor border connections as a result of inadequate coordination between managers and/or managers and transporters. Second, transporters and managers disagree about role allocation in the planning and realization of rail transport. Transporters feel that they do not receive the services for which they have paid and to which they believe they are entitled. The managers continuously point out that transporters have an important role of their own in the process. There are additional costs for the parties in all cases.
100. The lack of coordination between managers in the planning of maintenance work on international paths seems to be primarily the responsibility of the manager. It is difficult for the transporter to influence this process. Managers recognize their shortcomings in this area and have taken action to improve the situation. The NMa considers it important to monitor this development, also in light of the Freight Corridor Regulation, which is considered more closely in the following section.
101. Agreement on role allocation is an important condition in coordination between, in particular, the manager and transporter. Transparency about the separate responsibilities of both parties is a crucial condition for a good product range. In the NMa's view, it is therefore important to increase clarity with respect to this relationship.

An analysis of the legal framework is presented below.

Cooperation and coordination between managers

102. ProRail states in its network statement that it cooperates with the managers of contiguous railway networks. Among other things, this cooperation concerns coordination in the areas of maintenance and management, and capacity allocation.⁵⁶ In addition, according to its network statement, ProRail coordinates the handling of requests in its cooperation with other managers. It states that it also does this in the case of network closures and the necessary adjustments in this regard. Furthermore, coordination also takes place during the scheduling and coordination procedures in order to “achieve continuous, high-quality cross-border timetable paths to the greatest extent possible”.⁵⁷
103. ProRail states that it coordinates international requests with other managers through what is referred to as the OSS also in the ad hoc phase. In this context, ProRail also offers a coordinating role with respect to international timetable adjustments in connection with network closures.⁵⁸
104. European legislation also imposes a general duty to cooperate.⁵⁹ In addition, a statutory best efforts obligation based on European regulations to meet requests as far as is possible applies to international capacity allocation, specifically with respect to scheduling.⁶⁰ Under the Regulation, an obligation to cooperate applies in a number of areas. See section 3.2.4 in this regard.

Information periods

105. Periods concerning the provision of information are not provided for by law or the network statement. The Regulation addresses these periods, however. Regarding the coordination of works, there must be an appropriate timeframe for the performance of work.⁶¹ However, more important in this context seems to be the provision which states that a train path allocated to a freight operation may not be cancelled less than two months before its scheduled time if the applicant concerned does not give its approval for such cancellation and, furthermore, that the infrastructure manager concerned must make an effort to propose a reasonable alternative.⁶²

Role of the infrastructure manager

106. In the network statement, ProRail offers the coordination of international requests for capacity and timetable adjustments.⁶³ The exact substance of this coordinating role can be interpreted differently by ProRail and

⁵⁶ Section 1.9. RailNetEurope – international cooperation between infrastructure managers.

⁵⁷ Section 4.9 Operational cooperation.

⁵⁸ Section 4.4.1.4 Allocation in the ad hoc phase.

⁵⁹ Article 15 of Directive 2001/14/EC.

⁶⁰ Article 20 of Directive 2001/14/EC.

⁶¹ Article 12 of Regulation (EU) No. 913/2010.

⁶² Article 14 of Regulation (EU) No. 913/2010.

⁶³ Section 4.4.1.4 Allocation in the ad hoc phase.

transporters, however. Furthermore, ProRail makes the qualification in this regard that if railway undertakings submit separate requests for an international path, ProRail will not be responsible for harmonizing these requests, though it will signal connection problems.⁶⁴

4.2.3 Intermediate conclusion regarding network closures and maintenance

107. The coordination of maintenance in connection with network closures of track segments is, as described above, problematic at times. From preparation up to and including the phase of changes at the last moment, there are coordination problems between the managers concerning internationally contiguous paths.
108. Coordination problems are the consequence of different planning procedures, different periods of time adhered to, and different departments that handle the matter at ProRail and DB Netze. As a result, communication does not take place for certain network closures, which in turn means that both transporters and managers must at times deal with obstructions, detours, additional coordination work, and delays at the last moment. Apart from the considerable amount of additional work, the foregoing means that the quality of international paths is poorer. Additional focus on and attention given to improving coordination and preventing surprises would improve the punctuality, reliability, and quality of international paths. Discussions with ProRail revealed that this point of improvement is recognized and that steps have been taken to improve coordination.

4.3 Traffic control and obstructions

4.3.1 Reactions regarding traffic control and obstructions

109. Regarding traffic control, ProRail makes a distinction between the organization itself and the process that is carried out. The traffic control process allocates infrastructure capacity to railway undertakings in the period between the closing of the plan phase (approximately five days before the date of travel) until the time at which the timetable is implemented. ProRail Transport and Timetable provides the timetable files to Traffic Control for the purpose. Because of the technical setup of the systems, Traffic Control can actually allocate capacity or process changes no sooner than 36 hours prior to the time of implementation. This allocation distinguishes between three kinds of transport: additional transport, cancelled transport, and altered transport (in terms of time or nature).
110. The traffic control process therefore also processes new requests for capacity within this period, referred to as late ad hoc applications or order applications. This concerns additions or changes to the agreed annual

⁶⁴ Section 4.4.1.3.1 Submitting applications and see Article 6, paragraph 1, Article 21, and Annex II of Directive 2001/14/EC.

timetable. Within the traffic control unit, the train service management process handles management and adjustment of the train service. The train service manager has direct contact with the driver of the train concerned for this purpose.

111. In addition, it is important for there to be contact with German traffic control at two levels. National traffic control coordinates the plan of the day concerning international traffic. Local and regional traffic control communicates about last-minute implementation changes.
112. The following points of improvement in the traffic control process were raised during the meetings with various transporters and the managers:
- Communication within the Traffic Control unit in the Netherlands, and with Belgium and Germany, as well as communication between the transporters and the manager.
 - The working method of Traffic Control and the transporter. Germany's traffic control seems to operate in a more flexible way than that of ProRail. Also, traffic control may lack knowledge of technical aspects of the freight sector (rolling stock characteristics and logistical processes).
 - Existing cooperation between the managers could be improved: the organization and effectiveness of the border dispatcher could be improved.
- Transporters do not meet their obligations in the Network Statement: Incomplete supply of information by transporters
- Non-discriminatory handling of freight trains versus passenger trains. It is suspected that ProRail gives priority to passenger trains and does not adequately perform its agreements with freight transporters concerning adjustment.
 - Rules and regulations. Different management and policy frameworks: different priority rules lead to confusing situations.

Communication

113. Transporters and managers stated that communication between the parties could be improved. Regarding communication between ProRail's traffic control and that of DB Netze, the matter is particularly one of coordinating a solution to a delay caused by disturbances and obstructions. According to transporters, the result is often that trains are halted at the border and it is unclear to transporters and their customers when trains will arrive at their destinations.
114. For international coordination and communication with Germany, ProRail has what is referred to as a "border dispatcher," a forward post at DB Netze's traffic control. Keyrail also makes use of this post. According to ProRail, however, the staffing of this post is irregular for a variety of reasons. The post was originally set up to improve the locomotive and personnel changes at the border. Since the number of locomotive changes at the border has now decreased, the dispatcher also focuses on timetable changes caused by disturbances and the communication required in this regard. According to ProRail, this border dispatcher operates well in terms of communicating about changes with DB Netze as soon as possible.

115. ProRail communicates at two levels with DB Netze's traffic control, namely at national level through the Operational Control Center Rail (OCCR) and at local and regional level through the posts. According to ProRail, it is sometimes the case that communication about irregularities between different planning departments is not good and staff therefore do not know whether a train can continue its journey at the border or must stop. According to ProRail, there is sometimes confusion as to whether the OCCR or the Eindhoven post is communicating with the border dispatcher. ProRail stated that the recent reorganization within traffic control has not yet been completed in full, as a result of which different roles and responsibilities are not yet being fulfilled entirely according to plan. According to transporters, coordination between ProRail and Infrabel proceeds more smoothly and no examples were given of incorrect coordination.
116. In spite of good communication between ProRail and DB Netze, things can still go wrong in the processing of changes and performance of traffic control duties. On the one hand, ProRail explained that DB Netze focuses mainly on managing intensive domestic traffic in Germany. In other words, the information provided is not always acted upon. ProRail also reported in this regard, however, that more attention was given in Germany in the past year to international freight traffic. On the other hand, according to transporters, there is a suspicion that the effects of passenger train delays on freight transport are forgotten. These effects are congestion at the border and loss of the opportunity to adjust train paths and reroute trains. The result is a traffic queue at the border, which in turn causes delays for trains arriving later and, ultimately, longer waiting times.
117. Transporters stated that no agreements are in place with ProRail and Keyrail concerning detour routes in the event of obstructions, whereas transporters believe that there is a need for clear scenarios regarding the handling of delays caused by obstructions and disturbances. According to transporters, such scenarios are in place for passenger transporters. No reason for the absence was given. In addition, it is noted that nothing is recorded about the handling of such disturbances, which means that things are likely to "go wrong" again during subsequent disturbances.

Working method of traffic control

118. The quality of DB Netze's traffic control adjustment is experienced by a number of transporters as being more flexible than that of ProRail. According to transporters, this has to do with, among other things, the way in which DB Netze devises solutions. In the Netherlands, ProRail adheres to the basic hourly patterns (BHP) and therefore waits until a BHP path is available. According to a number of transporters, a more constructive approach is taken in Germany, where, if capacity is available, trains can simply continue their journeys, make up for lost time, and even arrive at their destinations ahead of schedule. A transporter stated that this approach makes it possible to make up for a delay of up to 12 hours, something referred to as having a "tailwind." Such situations do not occur in the Netherlands. Not returning paths that are not being used by transporters in good time is also a factor of importance for proper adjustment (see below).
119. Conversely, a few transporters consider ProRail to be more flexible than DB Netze in the annual timetable and ad hoc phase. One transporter questioned whether the flexibility of DB Netze's traffic control is

necessary because conflicts in requests are discovered at DB Netze only at a late stage. According to transporters, it is striking that paths requested at DB Netze usually have considerably longer travel times in the annual timetable than ad hoc requests at traffic control because of, according to the transporters, the additional margins included in the annual timetable request. No comments were made about Keyrail in this regard.

120. More generally, a number of transporters stated that ProRail's traffic management sometimes lacks knowledge of freight trains and their specific characteristics relative to passenger traffic. Consequently, according to transporters, their trains are too easily halted in the event of a delay, they are given a path of inadequate quality, as a result of which they must, for example, repeatedly slow down because of yellow signals, and no creative solution is found to give a train a green signal. A number of freight transporters stated that they always feel that they are disadvantaged by incorrect and poorly considered traffic control decisions.

Working method of transporters

121. In addition to the working method of the manager, comments were also made about the conduct of transporters. ProRail and Keyrail stressed that although railway undertakings are responsible for providing accurate information on time, traffic control carries out this step itself in order to ensure smooth handling at the border and prevent the process from stalling. ProRail stated that the timetable planning of transporters that take over each other's trains is not always properly matched. In addition, ProRail stated that freight transporters do not always report deviations in their processes on time and do not sufficiently inform ProRail about these deviations from plans. As a result, the paths concerned remain in a plan and traffic control cannot sell them to another, and it takes longer in such a case before an alternative path can be offered.
122. Keyrail also stated that it does not always receive all of the information required from freight transporters, which creates problems. For example, a transporter does not plan a stop at the location for drivers, whereas it may indeed have to stop at that location. An extreme case is that a train is left unattended on a track segment because the next driver is not present and the shift of the other driver has ended. According to ProRail, freight transporters do not return their path on time. This hinders maximum utilization of railway infrastructure because the path cannot be given to another transporter. The network statement and access agreement state that a transporter must inform traffic control of the most recent state of affairs an hour before departure. This procedure is often not adhered to. According to ProRail, traffic control then assumes responsibility for the process and its consequences, including as regards capacity.
123. Keyrail stated that information concerning gridlock is sent by traffic control to DB Netze through the border dispatcher, after which it is sent to transporters. The transporters must themselves indicate what they subsequently wish to do. Keyrail cannot decide on this matter. The transporters are in the best position to determine, based on the information from and about the driver, how they wish to make a detour and where they wish to wait. Keyrail stated that fixed scenarios would be very desirable in this regard.

Result

124. Regarding obstructions and disturbances, a number of transporters stated that ProRail gives priority to passenger trains. Freight transporters often receive the message from ProRail that they must wait until the obstruction is over. A transporter stated that it must stop on a fixed route in approximately half of the cases while no stop has been requested. There is sometimes the impression that there are solutions but these are not offered. Transporters gave different reasons for this situation, including 1) insufficient knowledge of freight trains at traffic control, 2) the impression that ProRail, to the extent that such schemes are in place, does not comply with the schemes, and 3) more generally, a lack of clarity about the handling of disturbances and obstructions.
125. A number of freight transporters would like to conclude better and more concrete agreements with ProRail concerning the handling of obstructions. For unknown reasons, ProRail has until now hardly addressed this aspect. Keyrail stated with respect to disturbances that there are no freight scenarios at traffic control. Scenarios are available for passenger trains.

Rules and regulations

126. ProRail stated that traffic control in the Netherlands and Germany have different priority rules. In Germany, international passenger transport is always given priority, even if it is not on schedule. In the Netherlands, delayed trains may not hinder trains that are running on schedule. In addition, there is a difference in planning possibilities between DB Netze and ProRail that leads to flaws. According to ProRail, planning does not take place at ProRail between five days prior to implementation and 36 hours prior to implementation. DB Netze does not apply this separation. ProRail stated that contact with other departments at DB Netze may lead to improvement.
127. To further improve quality, ProRail stated that it would be better to detach order acceptance from last-minute adjustment and to centralize at a single location in the Netherlands rather than in regional traffic control posts. This would prevent adjustment by traffic control and train service management, where delays must be anticipated and responded to rapidly, from being disturbed by the many changes on paths and new orders that characterize freight transport. Both the quality of adjustment and order acceptance would be improved because, according to ProRail, this activity would be more efficient, simpler, and concentrated at a single location, and it would also lead to better contact with the transporters.

4.3.2 Analysis of traffic control and obstructions

Point of improvement	Consequence	Impact
Inadequate communication between the different parties in the event of delays.	Congestion at the border/delay.	Delays and additional work for traffic control.
The OCCR and the Eindhoven	Unclear allocation of duties and	Timetable disruptions and no

Report of Findings

traffic control post both communicate with the border dispatcher in Duisburg.	inefficiencies.	efficient solution.
No agreements concerning obstructions for freight transporters.	No clear scenarios in advance and no learning effect.	A lack of clarity about adjustment and waiting times, additional work, and repetition of wrong decisions.
The working method of traffic control and transporters.		
DB Netze's traffic control appears to operate more flexibly than that of ProRail.	Delays are handled better in Germany and there is a good chance of making up for lost time.	Quality of the path is poorer in terms of punctuality; dissatisfied customers.
Insufficient knowledge of freight trains at traffic control.	Long waiting times and no custom work.	Poor punctuality and delay of freight trains.
The information on train compositions supplied by transporters is incomplete and is not supplied on time.	In the event of delays, a lack of clarity about who is taking over the train at the border. Paths that are not purchased are not used and additional waiting times for freight trains that want a new path.	Traffic control must make an additional effort to ascertain who is taking over the train. Worse punctuality and performance.
ProRail gives priority to passenger trains and, according to transporters, does not comply with the agreements concluded concerning adjustment and routes.	Long waiting times and uncertainty.	Higher costs and dissatisfied customers.
Planning gap of between five days and 52/36 hours before the train service.	No changes possible.	The bottling up of changes and more work for traffic control.
Different priority rules.	Incorrect order at the border.	Congestion at the border and inconsistent handling of trains.
Disturbance of the work of local and regional traffic control.	Lower reliability of last-minute adjustment.	Order acceptance placed in the OCCR.

Table 4.4: Impact assessment of traffic control and obstructions

Communication

128. The meetings with transporters and managers revealed that organizational and process-based aspects play an important role in communication. The quicker disturbances and delays are detected, the quicker they can be solved and congestion and the consequences of congestion for following trains thus prevented.
129. The problem is not ignored by the managers because a border dispatcher works to organize communication between ProRail and Keyrail on one side and DB Netze on the other. Communication between different levels of traffic control is not yet as it should be and will have to be arranged more clearly, since, according to ProRail, no proper agreements are as yet in place between the OCCR and the Eindhoven post.
130. Traffic control's duty is to manage and adjust rail traffic flows and find solutions to delays. Agreements concluded in advance between managers and transporters concerning detour routes, for example, make it easier to perform that adjustment duty. According to transporters and managers, there are no fixed handling scenarios that would provide greater clarity about how traffic control should handle a given train. The current working method means that there is no learning effect. This is also a reason to think in terms of handling scenarios.
131. Cooperation and communication are required by law. This obligation includes coordination between traffic controllers in the event of delays. This cooperation and communication must be efficient and transparent. Traffic control can also be seen as capacity allocation, which must be carried out in a non-discriminatory manner. The fact that ProRail does not make handling scenarios with freight transporters but does make such scenarios with passenger transporters therefore seems to evidence an incorrect course of action. The "arbitrary" application of priority rules likewise seems to be at variance with the principle referred to above.

Working method

132. The processing of changes and delays is less flexible in the Netherlands relative to the situation in Germany. In the Netherlands, fixed BHP paths are used and planning is not done in terms of available capacity. Moreover, the train numbers cease to apply, which causes a lack of clarity about a train's origin and destination. In the event of delays, transporters do not supply information on time, as a result of which paths that are not being used cannot be allocated to others. This causes additional work for traffic control and congestion at the border. The solution in this regard is for transporters to comply with the agreements in place with the manager concerning the timely supply of information. In addition, delays must likewise be reported in a timely manner.

Result

133. Traffic control's result was measured in terms of the measures taken in the event of congestion. The conclusion is that the quality of services provided to freight transporters is not as good as it should be and that solutions that, in the view of the transporters, are available are not offered. Factors that play a role in this regard are insufficient knowledge of handling scenarios and opportunities to make up for a delay.

Rules and allocation

134. The priority rules that apply to delays differ per transport segment on each side of the border. This causes confusion in the order in which trains are sent across the border as well as inconsistency and inefficiency. In addition, it causes additional work on both sides of the border.

4.3.3 Intermediate conclusion regarding traffic control and obstructions

135. The information reveals that although attention is given to the communication between the traffic control organizations on both sides of the border, a number of steps can be taken to improve the communication between the managers and between transporters and managers.
136. Far fewer problems were found between the Netherlands and Belgium. The fact that the rail traffic volume is lower probably plays a role in this regard.
137. Improving communication in a number of areas will also improve the quality of adjustment. Agreements are an important means to determine scenarios in advance to the greatest extent possible, which saves time.
138. Because of the use of fixed BHP paths, adjustment in the Netherlands appears to be less flexible than in Germany. Transporters themselves play an important part in this regard in that they report delays too late, as a result of which paths remain unused.
139. In a European context, the different structures must be better harmonized. Coordination and communication must also be improved. In practice, the different rules that apply cause logistical problems.

5 Recurring topics

140. There are a number of recurring topics within the subject of international capacity allocation. These topics are discussed in the following sections:

- i. Communication and coordination in section 5.1
- ii. Assignment of responsibilities in section 5.2
- iii. Different processes in the Netherlands and Germany in section 5.3

5.1 Communication and coordination

141. Communication can be improved in all areas (annual timetable, maintenance, and traffic control). Under the Railways Act⁶⁵ and according to their own network statements, the infrastructure managers are obliged to properly coordinate paths.

142. The points of improvement outlined in the previous chapters show that coordination plays a major role in many areas. This coordination may concern that between 1) a manager's departments, 2) the Dutch managers, 3) a Dutch manager and a foreign manager, and 4) a manager and a transporter. The most common coordination problems will again be discussed in this chapter. This discussion will also consider where most of the problems occur (see table below).

	Between departments	Between Dutch managers	Between a Dutch and a foreign manager	Between managers and transporters
Annual timetable			1	
Maintenance	1	1	2	3
Traffic control	1		1	3
Total	2	1	4	6

Table 5.1: Number of points to improve per type of coordination

Coordination between a manager's departments

143. A problem area with respect to maintenance is that it is not always known which track segments are closed. In terms of traffic control, different departments do not coordinate with each other prior to communicating with the border dispatcher in Germany. Improvement is required in this area.

Coordination between Dutch managers

⁶⁵ Section 15 of the Railways Act.

144. Transporters stated that ProRail and Keyrail sometimes close a track segment at the same time for maintenance. As a result, transporters cannot operate on their usual paths and the detour route is also closed. Coordination should take place between these managers to prevent such problems in the future.

Coordination between a Dutch and a foreign manager

145. A problem area with respect to the annual timetable is the late fine-tuning of international connections by managers. According to legislation in force,⁶⁶ ProRail and Keyrail must coordinate with the foreign manager to overcome these difficulties on international paths and try to find a solution. If this coordination takes place too late, a solution can no longer be included in the annual timetable phase. Regarding coordination in the context of maintenance, transporters stated that problems are primarily caused by network closures that are not always properly coordinated between ProRail and DB Netze. At times, both border crossings have therefore been closed due to maintenance work. In addition, DB Netze plans maintenance either far in advance or on a very short-term basis. Regarding traffic control, some transporters stated that communication between ProRail's traffic controller and that of DB Netze is not always good. For example, although DB Netze's traffic controller might report an obstruction, this information is not always properly processed. In addition, coordination between the border dispatcher and traffic control at DB Netze is not always optimal. ProRail has given more attention to this problem area in recent years.

Coordination between managers and transporters

146. With respect to maintenance, transporters stated that DB Netze often does not communicate well with transporters in the Netherlands about network closures in Germany. A transporter travelling in Germany or ProRail must report a network closure. Another problem area in this context is that ProRail and Keyrail sometimes report their maintenance work only at a late stage, also when, for example, such work is cancelled, as a result of which many changes occur in the short term. Traffic control problems are also caused by the frequent failure on the part of transporters to provide sufficient information to the manager or to provide information on time.

5.2 Assignment of responsibilities

147. A number of factors play a role in the assignment of responsibilities between managers and transporters. These factors include the quantity of information that must be provided by the managers and transporters, the time at which this information must be provided, and the party that must provide the information. Managers and transporters have different expectations in this regard.

⁶⁶ Article 21 of Directive 2001/14/EC.

148. The manager’s role is based on its statutory duty. The process and its implementation are largely prescribed in legislation. An important aspect in this context is that the process and its implementation must be non-discriminatory. In other words, transporters must be treated equally.
149. The role of transporters is less tightly defined than that of a manager. The network statement specifies what ProRail expects from transporters and procedures and rights are agreed in the access agreement. The meetings revealed that improvements can be made with respect to a number of issues. These issues are specified in the following table.

Information	Moment	Who
Definitive fine-tuning of the international timetable.	Too late according to transporters.	Manager
Provision of information concerning network closures.	Not at the same time by DB Netze and ProRail.	Manager
Provision of information to the manager in the event of delays.	As soon as possible.	Transporters
Choice of path.	As soon as possible on the part of the manager and as late as possible on the part of the transporter.	Both
Indicate who is taking over the train at the border.	In the annual timetable.	Transporters
Report departure to traffic control.	One hour in advance.	Transporters

Table 5.2: Provision of information by infrastructure manager and railway undertaking

5.3 Different processes in the Netherlands and Germany

150. Different process in the Netherlands and Germany clash in terms of all main topics (annual timetable, maintenance, and traffic control).

Annual timetable and ad hoc procedure

151. Late fine-tuning and changes are problem areas. At European level, the fine-tuning of international connections takes place at such a late stage in the allocation process that it is rather detached from the process in the Netherlands. Managers, however, stated that they do not recognize this problem area. As regards changes, the point of improvement is the responsibility of transporters. In the case of structural

delay, transporters sometimes change only the Dutch part of the international train path, which means that paths no longer connect at the border. A possible reason for this is that a train path in Germany remains valid for longer (20 hours). By changing only a part, a transporter can avoid change costs in Germany. This means a disincentive in terms of using the OSS.

Network closures/maintenance

152. Regarding network closures and maintenance, problems can be traced to the difference in national interests, processing times, and the legal status of managers. DB Netze seems to focus primarily on optimizing its own maintenance and apparently does not give sufficient attention to coordinating with maintenance in neighboring countries like the Netherlands. Transporters are of the opinion that network managers in the Netherlands do not respond quickly enough to changes in Germany, as a result of which there is only limited time to coordinate the changes for a connection with Germany. However, a ProRail analysis of adjustments made in 2011 on the Emmerich-Oberhausen track segment allegedly shows that, relative to ProRail, DB Netze implements adjustments in the plan only at a late stage. ProRail stated that it successfully exerted pressure on DB Netze to ensure that these adjustments were implemented at an earlier stage. In addition, the Dutch managers must operate in a private-law context. They must therefore always coordinate with transporters and possibly take them into account to a greater extent than foreign managers like DB Netze are required to do.

Traffic control and obstructions

153. With respect to traffic control, the differences in processes manifest themselves in terms of the adjustments made, cooperation with the border dispatcher, policy frameworks, and planning possibilities. DB Netze's adjustment method is more flexible than that of ProRail. ProRail also stated that DB Netze's traffic control focuses mainly on managing intensive domestic traffic and the border dispatcher is therefore more peripheral in terms of area of focus, though more attention was given to international freight traffic in the past year. In addition, the Netherlands and Germany have different priority rules for traffic control. In Germany, the train with the highest average speed is given priority, even if it is not running on schedule. In the Netherlands, delayed trains may not hinder trains that are running on schedule. Moreover, there is a difference in planning possibilities between DB Netze and ProRail that causes flaws. At ProRail, planning does not take place between five days prior to implementation and 36 hours prior to implementation. This separation does not apply at DB Netze.

6 Other topics

154. This chapter deals with points raised in the interviews that achieved a high score in terms of one of the following criteria:
- The topic relates to the international nature of the train service;
 - The number of parties that mentioned the topic;
 - The topic's apparent impact.
155. Although the NMa did not comprehensively analyze these topics, it considers them important enough to provide feedback to the parties.

6.1 Planning and implementation systems

156. The topic of planning and implementation systems was not included as a main topic because freight transporters do not consider it to have a major impact. Nevertheless, given that it was mentioned by all parties, the NMa considers it important to discuss it in brief.
157. The most important systems that support the allocation process are Donna, Radar, ISVL, PCS,⁶⁷ and the OSS counter. Railway undertakings can use these systems in their application and communication process. Managers use these systems to plan and implement a train service.
158. By means of the Donna Internet application, the infrastructure manager offers rail infrastructure users access to the process of rail capacity planning and allocation. Donna provides insight into the available infrastructure capacity, planning, and conflicts. Each party that has a right to do so may submit requests through Donna. Radar is the application used by transporters and the infrastructure manager to communicate with each other about the capacity allocation of the infrastructure.
159. In Radar, requests for network closures are handled and schedule proposals for an alternative train path are coordinated with the other parties involved.
160. *Leitsystem zur Netzdisposition* (LeiDis) is the German version of Radar. It is an information system that DB Netze provides to support transporters. Once connected to this information system, a transporter has a dynamic and graphical overview of the current operational status of trains on the railway network supervised by DB Netz AG. The representations are partly based on data that DB Netz AG receives from other infrastructure managers, such as those of contiguous railway networks. LeiDis supports the operational and logistical processes and makes it possible for a transporter to rapidly inform its own customers about changes in the schedule.

⁶⁷ Path Coordination System (PCS), formerly Pathfinder.

161. The Traffic Control Information System (ISVL) is a business-critical communication and recording system for adjustments made by the infrastructure manager and the transporters. It is used to inform organizations about the occurrence and handling of emergencies and other possible train service disturbances. ISVL also provides information about the use of infrastructure capacity in the form of requests, closures, and changes.
162. The Path Coordination System (PCS) is a RailNetEurope web application that makes it possible for European infrastructure managers and railway undertakings to communicate with each other effectively. Applications for international freight and passenger transport can be submitted in PCS. Transporters can subsequently monitor the coordination and harmonization of the requests up to draft schedule level. The international train paths are ultimately offered to the requesting party through PCS.
163. The One-Stop Shop (OSS) is a counter at which transporters can submit a request for an international train path to a single infrastructure manager. This manager will then organize the entire process concerning availability and costs with the other infrastructure managers.
164. For ad hoc requests, transporters must use the train paths catalogue developed by the infrastructure manager. The train paths catalogue is made available in two forms, a printed version and a digital translation of that version in the Donna and ISVL planning tools. Ad hoc requests can be submitted in writing (letter, fax or email) at the OSS up to five work days prior to the commencement date of the new timetable.⁶⁸ Donna is for requests concerning only timetable paths from 52 to 36 hours prior to departure and ISVL is for short-term requests up to half an hour prior to departure. This traffic control phase starts 24 hours before the new timetable takes effect.
165. Regarding international requests, a transporter can submit a single request for the capacity required through the OSS or can submit separate requests to the infrastructure managers of the railway networks concerned, if required through a partner railway undertaking. The responsibility of the infrastructure managers involved is then limited to signaling problems in the connections. Requests for international paths are supported by PCS.
166. During the interviews, transporters were asked how they experience the application and use of the systems referred to above. The transporters would like the OSS to be more internationally oriented in the sense that although a transporter must submit a request through the OSS in the Netherlands, this request is subsequently not accepted by the German infrastructure manager if the requesting party is not registered as a railway undertaking in Germany. Such transporters must submit separate requests for capacity on the German railway network. Transporters stated that Donna only applies to national requests and therefore cannot be used for international paths. In addition, Donna only indicates the capacity available during daytime, not nighttime. Furthermore, an option for management is lacking. PCS can only be used to plan the

⁶⁸ Keyrail (2009), "*Generieke Operationele Regeling*," Keyrail document GOR 01 ad-hoc, Jan 2009, v. 1.0.

annual timetable until the middle of April. After that time, all requests must be submitted to ProRail or DB Netze, for which purpose transporters must use different systems. It is inconvenient that transporters have to use several systems. If a transporter requests a route in PCS, it does not mean that it will be assigned the route as requested. A transporter must itself ascertain where conflicts are occurring. PCS can function well provided that international processes are harmonized. This applies particularly for freight transporters. The matter concerns the complexity of the various application procedures for ordering trains. Some countries use PCS while others do not. There is no link between PCS and Donna. Ad hoc requests can be submitted through the OSS up to five days in advance. Submitting requests through ISVL, which is available 24 hours in advance, is only possible on the day itself. These periods are therefore separated by one in which it is not possible to submit a request for capacity – the “black hole.” Radar is not compatible with other systems. The system was described as being unclear and unreliable. In this context, it was also stated that transporters do not see it as their duty to monitor Radar and localize network closures on the path that they have purchased from the manager.

167. The following figure provides a schematic representation of how the different systems are organized in the current structure.

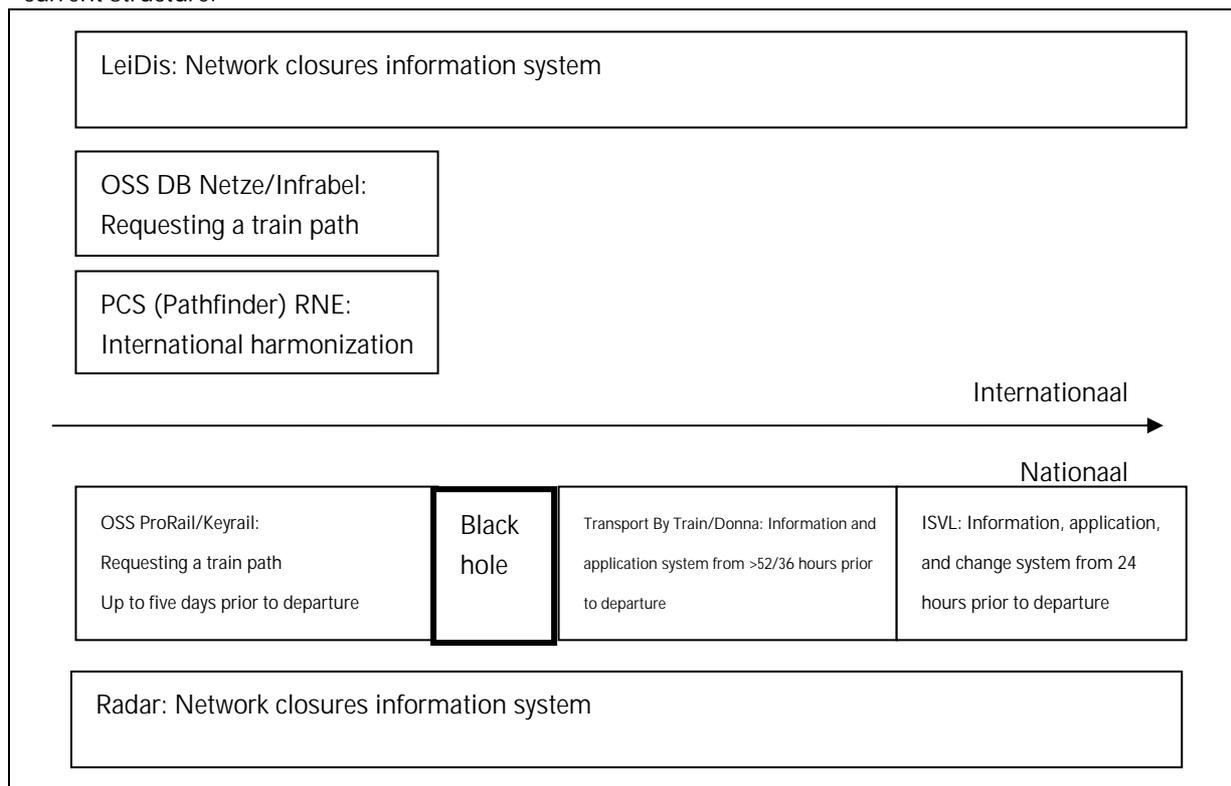


Figure 6.1: Chart of planning and implementation systems

NL	EN
Internationaal	International
Nationaal	National

168. The current organization of planning and implementation systems is practicable. Nevertheless, the NMa is of the opinion that managers must take the points of improvement of the system users seriously, since much can be improved to ensure better capacity allocation. The most important point is that transporters have to deal with different systems that are not linked to each other.

6.2 Dutch-Belgian border

169. This topic was not included as a main one because not many problems were reported in relation to the route between the Netherlands and Belgium. In the interviews, several transporters stated that coordination between ProRail and Infrabel is good in most cases. Coordination is better than between the Netherlands and Germany. One transporter stated that communication is good specifically in the case of detours. Transporters remarked, however, that the routes between the Netherlands and Belgium are quieter than those between the Netherlands and Germany, and that this lower traffic volume could be a reason for the better coordination. However, one transporter described Infrabel's application system for ad hoc paths as poor. Nevertheless, communication with Infrabel is experienced as good.

170. ProRail confirmed that less coordination is required with Infrabel than with DB Netze. According to ProRail, this is partly because the volume of traffic bound for Belgium is much smaller. In the event of maintenance work at the Belgian border crossings, Infrabel informs transporters itself. ProRail informs transporters in the event of maintenance work on the Dutch side of the border.

171. Based on the interviews, the NMa concludes that transporters hardly experience any problems in the coordination between infrastructure managers ProRail and Infrabel. Communication with transporters also seems to take place without any problems. The NMa deems it probable that, as transporters stated, the good coordination referred to is due to the relative quietness of the routes between the Netherlands and Belgium. This is perhaps because, at present, connections from the Netherlands to the east are more economically attractive than connections to the south. It is therefore possible that if freight traffic on the southbound routes increases in the future, problems on those routes will also increase. In the NMa's view, the limited number of problems reported does not mean that the process of international capacity allocation between the Netherlands and Belgium occurs flawlessly at all times. There are also indications of thresholds with respect to accessing the French market.⁶⁹ This last point, access to the French market, is outside the scope of this preliminary study. In the interviews, the infrastructure manager and freight transporters were only asked about how they experience the coordination between the Netherlands and Belgium.

⁶⁹ See the Fifth NMa Rail Monitor.

6.3 Relationship between passengers and freight

172. This point of improvement was not included as a main topic because there is no direct link with the international nature of a train service, though its impact is experienced as considerable by transporters.
173. Within the Dutch rail market, 150 million train kilometers are travelled. Freight trains account for 10 million of those kilometers, just under 7% of the total. Passenger transport accounts for the rest, of which 90% is operated by Dutch Railways.⁷⁰ Two routes are available to freight trains from the Port of Rotterdam, the Betuweroute and the Brabantroute through the combined network. Passenger and freight trains therefore converge where the Betuweroute joins the railway line to Emmerich and the Brabantroute to Venlo, which means that conflicts can occur. A third international route proceeds via Hengelo-Oldenzaal to Bad Bentheim, also through the combined network.
174. To ensure sufficient supply for the different market segments, capacity allocation in the Netherlands is regulated through legislation-based policy by means of, among other things, priority rules. The starting point in this regard is that passenger and freight train market segments defined in advance must be able to operate on the routes specified by law at least at a set minimum frequency. These routes, market segments and minimum frequencies that must be guaranteed – the minimum service levels – are specified in the Capacity Allocation Order in Council. These minimum service levels are always available for the annual timetable. In the ad hoc phase, at least an additional 10% is reserved for the specified segments. In practice, there has up to now always been sufficient scope for freight in the annual timetable. Because of the international nature of freight, the paths continue to the border. Between Zevenaar and the Zevenaar border, there are at least four freight paths per hour and at least one per hour on the Brabantroute.
175. When more trains have been requested in a certain market segment than the guaranteed levels, these requests are met unless demand exceeds supply. If no solution can be found, the track segment is declared overloaded and the priority order laid down in Article 10 of the Order in Council is applied. This usually means that Dutch Railways trains are given priority on most track segments in the Randstad conurbation. This method ensures a sufficient supply of paths for international freight trains.
176. Nevertheless, the expectation is that demand for capacity will increase and therefore more conflicts will occur. Rules concerning hazardous substances (Basic Network), and environmental and noise legislation restrict capacity in the sense that maximum capacity is not determined by the “technical” capacity of a track segment but, rather, by permitted noise levels and, for certain market segments, maximum numbers of railway cars per year.

⁷⁰ See ProRail's 2011 annual report.

177. In the event of increasing traffic flow, it is important to also take the quality of the international paths sufficiently into account in terms of the right departure and arrival times, connections, and travel characteristics (load, speed, tonnage, and so on).
178. Priority rules differ per country. In the case of international paths, trains therefore encounter different rules that, as also evidenced by the interviews, can run counter to each other. Particularly for these trains, the international coordination of these rules and harmonization are of major importance. The NMa is of the opinion that the legislature should take more account of this aspect, since it acts as a barrier with respect to the quality of the paths.
179. Another point raised during the interviews is that countries' national policies are aimed at permitting fewer freight trains during rush hours. When a train travels through different countries, however, it is inevitable that it will at times also do so during morning or evening rush hours.
180. More attention could be given to the topics referred to above in another analysis.

6.4 Utilization of network closures

181. The NMa briefly touches upon the utilization of network closures because it is not a specific point of improvement for international transport and is therefore outside the scope of this preliminary study. The utilization of network closures is also a factor in national transport.
182. Several transporters are of the opinion that ProRail does not fully utilize network closures.⁷¹ One transporter stated, for example, that although ProRail claims maintenance time at the cost of freight trains, planned maintenance work is sometimes cancelled so soon before it was due to start that it is no longer possible for transporters to operate their trains, or a network closure is planned for an inspection but the inspection does not take place. A transporter sometimes contacts traffic control to arrange for passage nonetheless. In addition, transporters stated that the underutilization of network closures is caused by the weekly repetitive pattern of maintenance schedules.
183. Keyrail is of the opinion that Dutch managers take account of and coordinate with transporters to a much greater extent than foreign managers. Transporters must "approve" changes in the short term, otherwise the maintenance work in question cannot be carried out. Keyrail stated that transporters only agree if financial compensation is provided. According to Keyrail, foreign managers only announce that they will be carrying out maintenance work. Keyrail stated that many short-term changes are the result of new-build work on the combined network. In addition, Keyrail stated that planning two years in advance at exact times in the annual

⁷¹ Network closures are periods of time during which a section of the railway network is not available for transport and the manager carries out maintenance or repair work on that section.

timetable does not work for maintenance. As a result, Keyrail tends to request excessive capacity for maintenance work in the annual timetable. This topic was not raised in the meeting with ProRail.

184. The Board ruled in previous cases that the manager may not withdraw capacity granted in an access agreement for maintenance work without the consent of a transporter.⁷² The legislature assumes an equal and private-law relationship between the transporter and the manager in respect of which the manager does not have the authority to withdraw the agreed capacity without consent unless there is a ground for doing so under the Railways Act (emergencies).⁷³ In addition, the Board ruled in previous cases that ProRail must provide customized services with respect to its capacity allocation when there is a conflict between management and traffic. ProRail is obliged to meet requests for capacity to the greatest extent possible.⁷⁴ In the event of conflicting management-traffic requests, ProRail must carry out a detailed check in the scheduling and coordination phase to determine whether the capacity claimed for maintenance is really necessary and must undertake efforts to allow the transporter's request.⁷⁵
185. In view of the Board's earlier decisions, the utilization of network closures for maintenance work and its impact on the capacity available for transport are continuously monitored by the NMa.

⁷² Opinion of September 8, 2007 under Section 71 of the Railways Act, ACTS vs. ProRail; http://www.nma.nl/images/Oordeel_ex_art_71_ACTS_vs_ProRail22-189199.pdf (in Dutch).

⁷³ See page 18 of the Fourth Memorandum of Amendment, 27 482, no. 13.

⁷⁴ Article 20, paragraph 1 and Article 21, paragraph 1 of Directive 2001/14/EC.

⁷⁵ Decision of June 10, 2008, Veolia vs. ProRail.

7 Conclusion

7.1 *General impression*

186. Desk research and meetings with railway undertakings give the impression that numerous problems occur in the context of the annual timetable, maintenance, and traffic control with regard to international freight transport by rail. Much can be improved. The root cause of the bottlenecks lies in three overarching themes. These are discussed in section 7.2.
187. Responsibility for improvements lies with the market: the railway undertakings and the rail infrastructure managers. The rail infrastructure manager has a heavier best efforts obligation because it is the only party that can start change processes. Railway undertakings cannot influence the process of coordination between managers, for example.
188. There is no established legal framework for international capacity allocation. This would be undesirable, however, since a certain measure of flexibility is required. But that does not mean that aspects not provided for by law do not require improvement. The manager has a general best efforts obligation to ensure that the allocation process is efficient and effective. Solutions can therefore also be found in this context.

7.2 *Recurring topics*

189. In the preceding chapters, the NMa identified the locations of the problems and the impact of these problems. Following an analysis of these problems, the NMa concludes that virtually all of them originate from three underlying areas: 1) communication and coordination (C), 2) the assignment of responsibilities (R), and 3) the clash of processes (P).
190. The area of communication and coordination concerns coordination between domestic managers themselves, coordination between a domestic manager and a foreign manager, and coordination between a manager and a transporter. The NMa has found a lack of clarity and/or disagreement regarding the assignment of responsibilities between managers or between a manager and a transporter. In some cases the law does not provide a definite answer while in others the matter is one of mutual expectations that are not met. The clash of processes concerns differences in legislation, frameworks, policy objectives, and working methods of managers and other parties in different countries. These differences mean that decisions are made in one country that cause problems in a neighboring country or that an international train path is not used in the most efficient way possible. The most striking problems are specified in the following table.

Theme	Assessment
Communication and coordination (C)	Points of improvement regarding communication primarily concern communication between the Dutch and German rail infrastructure managers, especially with respect to maintenance.
Assignment of responsibilities (R)	There is a lack of clarity about the mutual obligations of the manager and railway undertakings. Expectations of each other's obligations differ and the parties seem to be unable to jointly find solutions, even though better agreements would be beneficial to both sides.
Clash of processes (P)	Different processes in the Netherlands and Germany cause clashes in planning and maintenance and ad hoc capacity allocation. Processes are perhaps insufficiently streamlined.

Table 7.1: Assessment of coordination among rail infrastructure managers

191. In the table specifying problems in the following section, the probable underlying cause is indicated in the second column by a C, R or P, or by a combination of these indicators. The solution must be found by addressing the underlying cause.

7.3 Possible solution approaches

192. The study of the three topics discussed in Chapter 4 included an assessment of the extent to which the problems associated with them can be solved by the NMa, the legislature or the parties themselves. The table below specifies both the problems and the parties that must take the initiative or the action that could be taken to solve them.

REGULAR ANNUAL TIMETABLE AND AD HOC PROCEDURE			
Topic	Theme	Assessment	Solution approach
Late fine-tuning of international connections.	C	The last check of international connections takes place too late, i.e. only when the national timetable has virtually been completed. This has a major impact and entails the risk of paths not being granted. Managers are responsible because transporters cannot influence the process. There are only a few concrete indications, however, that transporters have really lost paths in the past.	Include this point of improvement through IRG Rail in the organization of freight corridors. Possibly, press for amendments to guarantee better streamlining.
The One-Stop Shop is hardly used by transporters for	R & P	Additional work of the manager because the manager does not know that a connecting path has been requested abroad. The	Consult with Royal Netherlands Transport (KNV) on how to urge and stimulate its members to use the OSS. Managers could

international-capacity requests.		initiative must be taken by transporters, since they must make greater use of the OSS. Differences in change cost regimes possibly constitute a <i>disincentive</i> .	adjust their infrastructure charge regimes to ensure that there is no disincentive to using the OSS.
Many freight path changes in the annual timetable due to erratic market demand.	R	A widely recognized problem that leads to inefficient capacity allocation and higher costs for both transporters and managers. Its impact seems limited because transporters still get the paths that they want. All parties bear responsibility and it is therefore difficult for any single party to solve this problem. Passenger transport may also be affected.	All parties involved must jointly develop a more efficient working method. As trade organization, KNV could play a role here.

Table 7.2: Bottlenecks regarding annual timetable and ad-hoc procedure

NETWORK CLOSURES AND MAINTENANCE			
Topic	Theme	Assessment	Solution approach
Inadequate coordination between Dutch and German manager with respect to maintenance.	C	A widely recognized problem that has a major impact, such as the simultaneous closure of alternative border crossings for maintenance work. The initiative must be taken by managers, since transporters are unable to do anything about this problem. ProRail has already taken steps to improve coordination with DB Netze.	<ul style="list-style-type: none"> - Bilateral cooperation between the NMa and the German Federal Network Agency (BNA), and further study into Dutch-German coordination. - ProRail will continue the cooperation pilot project with DB Netze. - Emphasize through IRG Rail in the organization of freight corridors.
Information periods that are too short with respect to network closures.	C	Managers report changes in network closures ⁷⁶ too shortly before these changes take effect, which has a major impact and means that international paths do not connect well.	Urge a performance scheme for ProRail and Keyrail, in which this point is incorporated. As trade organization, KNV could play a role here.
Role of the manager in the provision of information about	C & R	Initiative must be taken by both managers and transporters. Both sides would also benefit from solutions. Transporters are	Freight transporters should conclude better agreements with managers. There may be a role in this regard for Royal Netherlands

⁷⁶ Closure of a section of the railway network to traffic for the purpose of maintenance work.

maintenance.		entitled to a minimum access package, but a manager is not a travel agency.	Transport as a sector organization.
--------------	--	---	-------------------------------------

Table 7.3: Bottlenecks regarding network closures and maintenance

TRAFFIC CONTROL AND OBSTRUCTIONS			
Topic	Theme	Assessment	Solution approach
German-Dutch traffic control communication is not optimal.	C	A medium impact that leads to delays. This topic is a priority because the quality of traffic control is strongly dependent on good communication.	Together with DB Netze, ProRail is continuing work on a project to improve communication in terms of traffic control. The NMa and DB Netze may carry out a further study.
Exchange of information between manager and transporters.	C & R	A medium impact. Transporters provide too little information and do so too late. This causes delays and additional work for traffic control. Transporters must take the initiative. It is a priority because the quality of traffic control is strongly dependent on good communication.	Transporters provide the right information on time.
Different working method in Germany and the Netherlands.	P	A medium impact. The manager in Germany appears to be more flexible in the planning of ad hoc paths. This difference results in the inefficient use of ad hoc capacity, since a train that can still be scheduled in Germany can no longer be scheduled in the Netherlands.	Managers should include a better description of the allocation of capacity in the ad hoc phase in the network statement to clarify the rights of transporters.
The lack of handling regimes in the event of obstructions for freight transporters.	C	Medium impact. It takes time to find a detour route, a process that also depends on the knowledge of traffic control.	Reach agreement on handling regimes. Managers draw up handling regimes (or better ones) for processing freight train in case of obstruction. If necessary, urge for inclusion of agreements or requirements in the Dutch Railway Act. Publication of this option in the Network Statement.
Non-discriminatory treatment of passenger and freight trains.	R	Freight transporters are of the opinion that passenger trains are favored, as a result of which freight transporters must make additional stops.	Capacity allocation must be non-discriminatory. File objection with the NMa.

Different frameworks, including priority rules.	P	Medium impact. Differences in priority rules cause congestion at the border.	Emphasize through IRG Rail in the organization of freight corridors. The different national managers should harmonize priority rules amongst themselves. Ministeries and/or executive boards of corridor organizations harmonize prioritization rules, and amend statutory provisions if necessary.
---	---	--	---

Table 7.4: Bottlenecks traffic control and obstructions

7.4 NMa follow-up activities

193. The preliminary study shows that there are many ways in which capacity allocation can be improved. This necessarily also means that the NMa must prioritize. The NMa will deploy its resources where 1) problems are most urgent and 2) the greatest number of improvements can be achieved. The NMa is therefore according priority to the follow-up activities specified below.
194. Bilateral cooperation between the German Federal Network Agency and the NMa in order to coordinate maintenance work between ProRail, Keyrail, and DB Netze. This is a problem area that was referred to by both transporters and managers and one that has a major impact on the timetable's quality. Carrying out a study into this coordination in both countries would be a further step toward a solution. Such a study could also benefit coordination in other areas.
195. In addition to cooperation with the German Federal Network Agency, the NMa will also enter into discussions with ProRail regarding the coordination of maintenance with DB Netze. ProRail has already taken the first steps to achieve improvement. These steps include the setting up of a pilot project. The NMa will monitor its progress. It is important to achieve rapid improvement in this area to prevent unnecessary blocking and interruptions and ensure that transporters have access to as much capacity as possible.
196. The NMa will include findings on the coordination of maintenance work and traffic control in its advice concerning the formation of new corridors that are set up under the freight rail regulation. It cannot be ruled out that the identified problems may occur on other corridors as well.
197. The NMa will enter into discussions with Royal Netherlands Transport to emphasize the need for transporters to provide proper information to managers. Freight transporters can themselves contribute to improvements in the process through the proper provision of information. In this context, it is important for transporters to take a constructive approach and identify the ways in which they can contribute.

7.5 Final comments

198. This report was prompted by indications received by the NMa that much can be improved in international freight transport. The preliminary study revealed numerous problem areas with respect to international capacity allocation and international train paths. The NMa listed these problem areas, identified the underlying problems, and specified possible solutions.
199. The conclusion is that all parties in the freight transport by rail sector can and must contribute to improving the process and efficiency of international freight train operations. As an infrastructure manager, ProRail is responsible for the coordination with other managers and transporters. At the same time, however, transporters themselves have some responsibility. They can considerably accelerate and improve the process by improving their provision of information to the manager. In addition, both regulators will also actively contribute, among other things creating a more European approach.
200. Jointly working on solutions will improve the quality of international freight transport. This is in the interest of all stakeholders, including, for example, the Port of Rotterdam. Managers must improve their cooperation amongst themselves, as well as with transporters to ensure that freight transport by rail is a good alternative to other modalities.

Annex 1

Relevant provisions from the 2012 Network Statement:

Cooperation

1.9 RailNetEurope – international cooperation between infrastructure managers

ProRail cooperates with the managers of neighbouring railway networks. This cooperation includes:

- The harmonisation of infrastructure development and the coordinated planning of maintenance and management activities that influence cross-border traffic.
- The cooperation required for offering through train paths for international traffic.
- Agreements on the control and intervention of cross-border train traffic; this includes the development of systems for the necessary exchange of data ('Europtirails').

1.9 RailNetEurope

In January 2004, several railway infrastructure managers and railway capacity allocation authorities in the EU Member States established RailNetEurope [RNE] with the purpose of developing and marketing international rail traffic.

[..]

RailNetEurope's most important objective concerns the development and improvement of the market for international rail traffic. With that in mind, RNE focuses on processes linked to the railway infrastructure, including mid and long-term harmonisation of members' plans with regard to construction, timetable design, marketing and sales, operational services, as well as follow-up activities such as monitoring and reporting.

See also the website of RailNetEurope (www.railneteurope.com).

1.9.1 One Stop Shop

The railway infrastructure managers and railway capacity allocation authorities in the EU Member States have set up One Stop Shops that function as a network of customer contact points within the framework of RNE. In order to request an international train path, a railway undertaking need only contact one of these One Stop Shops, which will then initiate the entire international coordination process.

The One Stop Shop approached by a railway undertaking will, after consultation with the managers involved:

- Coordinate the handling of capacity applications for every requested international trade path within the RNE, in such a manner that the applications are appropriately included in the annual timetable process.
- Propose train paths for the entire international infrastructure. Coordination of this process takes places predominantly through the RNE-application, Pathfinder.

Every One Stop Shop is part of an international network aimed at providing customers with easy access to the international network. For a list of the contact particulars of the One Stop Shops, go to

the website of RailNetEurope (www.railneteuropa.com).

1.9.2 RNE tools

Paragraph reserved for informative text on the services and systems of RailNetEurope: including Pathfinder (now PCS) – Eicis (now CIS) – Europtirails (now TIS).

PCS (former Pathfinder) is a system for requesting and coordinating international timetables.

CIS (former EICIS) is a system to make price information on the infrastructure charge available.

TIS (former Europtirails) is a system for current performance of the timetable of international trains

In addition, within the context of coordination with managers, the following excerpt from chapter 4, Capacity allocation, is important:

4.9 Operational cooperation

Capacity applications for train services that cross the boundary of the area under management of ProRail are handled in a coordinated manner according to the agreements with Keyrail and the managers of the neighboring railway networks, as concluded by ProRail within RailNetEurope. Moreover, ProRail, working together with Keyrail and the managers of the neighboring railway networks, coordinates the planning (annual timetable and ad hoc) of possessions as well as intervention measures as described in Chapter 4.8 [of the Network Statement].

4 Capacity allocation

4.1 Introduction

[..]

4.2 Description of process

4.2.2 Process in general

Four types of processes can be distinguished.

1. Determine the basic hour patterns

In this phase, the titleholders and ProRail sit around the table in order to reach agreement about the capacity applications to be submitted for the annual timetable. ProRail uses the interim results for the publication of catalogue paths for **international freight traffic**.

[..]

4.3 Schedule for path requests and allocation process

Determining the basic hour pattern

[..] ProRail will publish catalogue paths for **international freight traffic** no later than 11 months before commencement of the annual timetable. A link to the appropriate RNE publication will in time be placed on the website of ProRail (www.prorail.nl > vervoerders > capaciteit / treinpaden). [..]

ProRail and the other infrastructure managers cooperating in RailNetEurope guarantee a response time of 5 working days for applications submitted after 11 October 2011. [..]

4.4 Allocation process

[...]

4.4.1 Further description of the processes

4.4.1.1 Determining the basic hour patterns

[...]

In preparation of the capacity allocation, the cooperating infrastructure managers in Europe also draw up a provisional program of available catalogue paths. This takes place within the framework of the trans-European network for freight transport by rail. To/from the network managed by ProRail, these paths are offered in the 2012 timetable on the following routes:

- Rotterdam – Duisburg (– Basel – Milan)
- Rotterdam – Duisburg (– Berlin – Warsaw)
- Rotterdam – Antwerp (– Lyon – Marseille)

The provisional timetables of these paths are published on the website of RailNetEurope (RNE) (www.railneteuropa.com).

[...]

Annual timetable

For the annual timetable, the following provisions from the 2012 Network Statement are relevant:

4.4.1.3 Annual timetable allocation

4.4.1.3.1 Submitting applications

[...]

International applications

The railway undertaking can request the required capacity on these railway networks by means of a single application submitted to the One Stop Shop of the country of departure or separately to the infrastructure managers of the railway networks involved, whether or not through a partner railway undertaking.

If railway undertakings submit separate applications to various infrastructure managers, they assume own responsibility for harmonisation of those applications. The role of the infrastructure managers involved is then limited to signaling connection problems.

An international capacity application must comply with the conditions imposed by each of the infrastructure managers with regard to capacity applications for their network, as worded in their respective network statements. If any of the infrastructure managers involved fails to accept an international capacity application submitted via ProRail, the latter will give the applicant an opportunity to change the application and to limit it to an application exclusively for capacity on the railway infrastructure managed by ProRail. [...]

4.4.1.3.2 Scheduling and coordination

[...]

ProRail seeks **harmonisation with other infrastructure managers** in Europe during the scheduling and coordination process. The objective is to realize as many high-quality cross-border train paths as possible. These measures are detailed in the RNE document 'Process for international path requests' (see the website www.railneteurope.com).[...]

→Process rules [...]

7 The border-crossing times agreed upon with the context of RNE are maintained as much as possible.

8 The minimum available capacity for ad-hoc applications for **international freight transport and private passenger transport** is included in the capacity allocation. This capacity ensues from the legal standard.[...]

Ad-hoc phase

For the ad-hoc phase, the following excerpts from the 2012 Network Statement are relevant:

4.4.1.4 Allocation in the ad-hoc phase

Applications by titleholders

- Ad-hoc applications are submitted in the same way as in the annual timetable allocation process. Capacity applications that concern **more than one manager** can be submitted to the One Stop Shop. The One Stop Shop will on request coordinate the handling of those applications with the managers of the other networks. It is also possible to have ProRail coordinate changes in an **international timetable** in connection with possessions by ProRail or elsewhere.

[...]

- The ad-hoc allocated capacity is recorded in the data files. The processed ad-hoc applications can periodically be grouped and included in a change sheet. Inclusion in a change sheet is solely an administrative action and does not imply any change to the capacity rights. The commencement dates of the change sheets are determined by ProRail, following consultation with railway undertakings and **foreign infrastructure managers**.

- Catalogue paths for international freight transport offered in RNE context and paths designated by ProRail in determining the annual timetable (pattern paths) remain reserved for this use up to five working days before implementation.

- ProRail makes an estimate of the anticipated ad-hoc applications for freight transport and private passenger transport, including those resulting from work on the infrastructure of ProRail, Keyrail and foreign railway infrastructure managers. This estimate is converted into train paths, whereby the principle of peak-shaving is applied. Paths that will be used for more than 50% and/or are not in conflict with applications by other titleholders will be included in the capacity allocation for the normal timetable (7*24 hrs), with as bottom limit 10% of the minimum operating level for freight transport.

[...]

Annex 2

Relevant provisions ordered by topic:

Coordination

The following provision is relevant for international coordination:

Article 15, Directive 2001/14/EC

Cooperation in the allocation of infrastructure capacity on more than one network

1. Infrastructure managers shall cooperate to enable the efficient creation and allocation of infrastructure capacity which crosses more than one network. They shall organize international train paths, in particular within the framework of the Trans-European Rail Freight Network. They shall establish such procedures as are appropriate to enable this to take place. These procedures shall be bound by the rules set out in this Directive.

The procedure established in order to coordinate the allocation of infrastructure capacity at an international level shall associate representatives of infrastructure managers for all railway infrastructures whose allocation decisions have an impact on more than one other infrastructure manager. Appropriate representatives of infrastructure managers from outside the Community may be associated with these procedures. The Commission shall be informed and invited to attend as an observer.

2. At any meeting or other activity undertaken to permit the allocation of infrastructure capacity for trans-network train services, decisions shall only be taken by representatives of infrastructure managers.

3. The participants in the cooperation referred to paragraph 1 shall ensure that its membership, methods of operation and all relevant criteria which are used for assessing and allocating infrastructure capacity be made publicly available.

4. Working in cooperation as referred to in paragraph 1, infrastructure managers shall assess the need for, and may where necessary propose and organize international train paths to facilitate the operation of freight trains which are subject to an ad hoc request as referred to in Article 23.

Such prearranged international train paths shall be made available to applicants via any of the participating infrastructure managers.

Annual timetable

For the annual timetable, the following regulations for cross-border capacity is relevant:

Article 4, Decision on capacity allocation on the Main Rail Network (based on Section 61 Sw)

When allocating capacity for the normal timetable, the manager and titleholders will observe the procedure of Articles 19, 20 and 21 and the schedule of Annex III of Directive 2001/14/EC.

Article 19, Directive 2001/14/EC

Application

Report of Findings

1. Applicants may apply on the basis of public or private law to the infrastructure manager to request an agreement granting rights to use railway infrastructure against a charge as provided for in chapter II.
2. Requests relating to the regular working timetable must adhere to the deadlines set out in Annex III.
3. An applicant who is a party to a framework agreement shall apply in accordance with that agreement.
4. Applicants may request infrastructure capacity crossing more than one network by applying to one infrastructure manager. That infrastructure manager shall then be permitted to act on behalf of the applicant to seek capacity with the other relevant infrastructure managers.
5. Infrastructure managers shall ensure that, for infrastructure capacity crossing more than one network, applicants may apply direct to any joint body which the infrastructure managers may establish.

Article 20, Directive 2001/14/EC

Scheduling

1. The infrastructure manager shall as far as is possible meet all requests for infrastructure capacity *including requests for train paths crossing more than one network*, and shall as far as possible take account of all constraints on applicants, including the economic effect on their business.
2. The infrastructure manager may give priority to specific services within the scheduling and coordination process but only as set out in Articles 22 and 24.
3. The infrastructure manager shall consult interested parties about the draft working timetable and allow them at least one month to present their views. Interested parties shall include all those who have requested infrastructure capacity as well as other parties who wish to have the opportunity *to comment on how the working timetable may affect their ability to procure rail services during the working timetable period*.
4. The infrastructure manager shall take appropriate measures to deal with any concerns that are expressed.

Article 21, Directive 2001/14/EC

Coordination process

1. During the scheduling process referred to in Article 20, when the infrastructure manager encounters conflicts between different requests he shall attempt, through coordination of the requests, to ensure the best possible matching of all requirements.
2. When a situation requiring coordination arises, the infrastructure manager shall have the right, within reasonable limits, to propose infrastructure capacity that differs from that which was requested.
3. The infrastructure manager shall attempt, through consultation with the appropriate applicants, to achieve a resolution of any conflicts.
4. The principles governing the coordination process shall be defined in the network statement. These shall in particular reflect the difficulty of arranging international train paths and the effect that modification may have on other infrastructure managers.
5. When requests for infrastructure capacity cannot be satisfied without coordination, the infrastructure manager shall attempt to accommodate all requests through coordination.

Report of Findings

6. Without prejudice to the existing appeal procedures and to the provisions of Article 30, in case of disputes relating to the allocation of infrastructure capacity, a dispute resolution system shall be made available in order to resolve such disputes promptly. If this system is applied, a decision shall be reached within a time limit of 10 working days.

Ad-hoc

Relevant for ad-hoc requests are:

Article 23, Directive 2001/14/EC

Ad hoc requests

1. The infrastructure manager shall respond to ad hoc requests for individual train paths as quickly as possible, and in any event, within five working days. Information supplied on available spare capacity shall be made available to all applicants who may wish to use this capacity.
2. Infrastructure managers shall where necessary undertake an evaluation of the need for reserve capacity to be kept available within the final scheduled working timetable to enable them to respond rapidly to foreseeable ad hoc requests for capacity. This shall also apply in cases of congested infrastructure.

Article 5, Decision on capacity allocation on the Main Rail Network (based on Section 61 Sw)

1. When asked, the infrastructure manager shall provide titleholders information about capacity within the timetable that is available for ad hoc requests.
2. The infrastructure manager informs the titleholder involved within five working days after receiving an ad hoc request whether or not this path is available for allocation.

Maintenance

Relevant for maintenance are:

Article 28, Directive 2001/14/EC

Infrastructure capacity for scheduled maintenance

1. Requests for infrastructure capacity to enable maintenance to be performed shall be submitted during the scheduling process.
2. Adequate account shall be taken by the infrastructure manager of the effect of infrastructure capacity reserved for scheduled track maintenance on applicants.

Article 6, Decision on capacity allocation on the Main Rail Network (based on Section 61 Sw)

1. The capacity that the infrastructure manager requires for, at the time of the closing date of the capacity requests for the normal timetable, reasonably foreseeable and plannable maintenance works and other works to the main railway infrastructure on or near the main railway network will be allocated during the capacity allocation process for the normal timetable.
2. In the capacity allocation process for the normal timetable, the infrastructure manager is to be transparent in its actions with regard to the required capacity, as referred to in the first paragraph. This means that the

infrastructure manager will include in its request an explanation of the use and necessity of the required capacity, in case of a dispute about the required capacity or if no agreement can be reached during the coordination phase with regard to competing capacity requests that concern the required capacity.

3. The infrastructure manager acts in a transparent way with regard to its capacity required for maintenance works or other works that cannot be reasonably foreseen or planned to the main railway infrastructure on or near the main railway network. This means that the infrastructure manager will include in its request an explanation of the use and necessity of the required capacity, in case of a dispute about the required capacity.

Traffic control and obstructions

Relevant for traffic control, obstructions and disruptions are:

Article 29, Directive 2001/14/EC

Special measures to be taken in the event of disturbance

1. In the event of disturbance to train movements caused by technical failure or accident the infrastructure manager must take all necessary steps to restore the normal situation. To that end he shall draw up a contingency plan listing the various public bodies to be informed in the event of serious incidents or serious disturbance to train movements.

2. In an emergency and where absolutely necessary on account of a breakdown making the infrastructure temporarily unusable, the paths allocated may be withdrawn without warning for as long as is necessary to repair the system.

The infrastructure manager may, if he deems it necessary, require railway undertakings to make available to him the resources which he feels are the most appropriate to restore the normal situation as soon as possible.

3. Member States may require railway undertakings to be involved in assuring the enforcement and monitoring of their own compliance of the safety standards and rules.

Annex 3

Summary of Freight Corridors Regulation (913/2010/EC):

The management board shall be composed of the representatives of the infrastructure managers.

Article 8(2) Regulation 913/2010/EC

The management board shall take its decisions, including decisions regarding its legal status, the establishment of its organizational structure, resources and staffing, on the basis of mutual consent of the infrastructure managers concerned. **Article 8(5) Regulation 913/2010/EC.**

The management board shall set up an advisory group made up of managers and owners of the terminals of the freight corridor including, where necessary, sea and inland waterway ports. **Article 8(7) Regulation 913/2010/EC.**

The management board shall set up a further advisory group made up of railway undertakings interested in the use of the freight corridor. **Article 8(8) Regulation 913/2010/EC**

The management board shall coordinate in accordance with national and European deployment plans the use of interoperable IT applications or alternative solutions that may become available in the future to handle requests for international train paths and the operation of international traffic on the freight corridor. **Article 8(9) Regulation 913/2010/EC**

The management board shall coordinate and ensure the publication in one place, in an appropriate manner and timeframe, of their schedule for carrying out all the works on the infrastructure and its equipment that would restrict available capacity on the freight corridor. **Article 12 Regulation 913/2010/EC.**

Applicants may request infrastructure capacity crossing more than one network by applying to one infrastructure manager. Article 19(4) Directive 2001/14/EC and **Article 13(1) Regulation 913/2010/EC.** Infrastructure managers shall ensure that, for infrastructure capacity crossing more than one network, applicants may apply direct to any joint body which the infrastructure managers may establish. **Consideration 18 and Article 13(1) Regulation 913/2010/EC** and Article 19(5) Directive 2001/14/EC.

The one-stop shop shall, as a coordination tool, provide basic information concerning the allocation of the infrastructure capacity. **Article 13(2) Regulation 913/2010/EC.**

If there are no conflicting requests, the one-stop shop decides on the capacity requests. If there is a conflicting request, the national infrastructure managers will decide on the request. **Article 13(3,4) Regulation 913/2010/EC.**

The activities of the one-stop shop shall be carried out in a transparent and non-discriminatory manner. To this end a register shall be kept. **Article 13(5) Regulation 913/2010/EC.**

The European legislature believes that RNE should have a coordinating role in creating the one-stop shop for capacity requests on freight corridors. **Consideration 18 Regulation 913/2010/EC.**

Relevant provisions in Freight Corridors Regulation (913/2010/EC):

Article 2(2, sub a) Regulation 913/2010/EC:

(a) 'freight corridor' means all designated railway lines, including railway ferry lines, on the territory of or between Member States, and, where appropriate, European third countries, linking two or more terminals, along a principal route and, where appropriate, diversionary routes and sections connecting them, including the railway infrastructure and its equipment and relevant rail services in accordance with Article 5 of Directive 2001/14/EC;

Article 8(2) Regulation 913/2010/EC:

For each freight corridor, the infrastructure managers concerned and, where relevant, the allocation bodies as referred to in Article 14(2) of Directive 2001/14/EC, shall establish a management board responsible for taking the measures as expressly provided for in paragraphs 5, 7, 8 and 9 of this Article, and in Articles 9 to 12, Article 13(1), Article 14(2), (6) and (9), Article 16(1), Article 17(1) and Articles 18 and 19 of this Regulation. The management board shall be composed of the representatives of the infrastructure managers.

Article 8(5) Regulation 913/2010/EC:

The management board shall take its decisions [...] on the basis of mutual consent of the infrastructure managers concerned. [...].

Article 8(7) Regulation 913/2010/EC:

The management board shall set up an advisory group made up of managers and owners of the terminals of the freight corridor including, where necessary, sea and inland waterway ports. This advisory group may issue an opinion on any proposal by the management board which has direct consequences for investment and the management of terminals. It may also issue own-initiative opinions. The management board shall take any of these opinions into account. In the event of disagreement between the management board and the advisory group, the latter may refer the matter to the executive board. The executive board shall act as an intermediary and provide its opinion in due time. The final decision however shall be taken by the management board.

Article 8(8) Regulation 913/2010/EC:

The management board shall set up a further advisory group made up of railway undertakings interested in the use of the freight corridor. This advisory group may issue an opinion on any proposal by the management board which has consequences for these undertakings. It may also issue own-initiative opinions. The management board shall take any of these opinions into account.

Article 8(9) Regulation 913/2010/EC:

The management board shall coordinate in accordance with national and European deployment plans the use of interoperable IT applications or alternative solutions that may become available in the future to handle requests for international train paths and the operation of international traffic on the freight corridor.

Article 9 Regulation 913/2010/EC:

Measures for implementing the freight corridor plan

1. The management board shall draw up an implementation plan at the latest 6 months before making the freight corridor operational and shall submit it for approval to the executive board. This plan shall include:
 - (a) a description of the characteristics of the freight corridor, including bottlenecks, and the program of measures necessary for creating the freight corridor;
 - (b) the essential elements of the study referred to in paragraph 3;
 - (c) the objectives for the freight corridors, in particular in terms of performance of the freight corridor expressed as the quality of the service and the capacity of the freight corridor in accordance with the provisions of Article 19;
 - (d) the investment plan referred to in Article 11; and
 - (e) the measures to implement the provisions of Articles 12 to 19.
2. The management board shall periodically review the implementation plan taking into account progress made in its implementation, the rail freight market on the freight corridor and performance measured in accordance with the objectives referred to in point (c) of paragraph 1.
3. The management board shall carry out and periodically update a transport market study relating to the observed and expected changes in the traffic on the freight corridor, as a consequence of its being established, covering the different types of traffic, both regarding the transport of freight and the transport of passengers. This study shall also review, where necessary, the socio-economic costs and benefits stemming from the establishment of the freight corridor.
4. The implementation plan shall take into account the development of terminals to meet the needs of rail freight running on the freight corridor, in particular by acting as intermodal nodes along the freight corridors.
5. The management board shall, as appropriate, take measures to cooperate with regional and/or local administrations in respect of the implementation plan.

Article 10 Regulation 913/2010/EC:

Consulting applicants

The management board shall introduce consultation mechanisms with a view to the proper participation of the applicants likely to use the freight corridor. In particular, it shall ensure that applicants are consulted before the implementation plan referred to in Article 9 is submitted to the executive board.

Article 11 Regulation 913/2010/EC:

Investment planning

1. The management board shall draw up and periodically review an investment plan, which includes details of indicative medium and long-term investment for infrastructure in the freight corridor, and shall submit it for approval to the executive board. This plan shall include:
 - (a) the list of the projects foreseen for the extension, renewal or redeployment of railway infrastructure and its equipment along the freight corridor and the relevant financial requirements and sources of finance;
 - (b) a deployment plan relating to the interoperable systems along the freight corridor which satisfies the essential requirements and the technical specifications for interoperability which apply to the network as

defined in Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (1). This deployment plan shall be based on a cost-benefit analysis of the use of interoperable systems;

(c) a plan for the management of the capacity of freight trains which may run on the freight corridor, which includes removing the identified bottlenecks. This plan may be based on improving speed management and on increasing the length, loading gauge, and load hauled or axle load authorized for the trains running on the freight corridor; and

(d) where applicable, reference to the contribution of the Union envisaged under financial programs of the Union.

2. The application of this Regulation shall be without prejudice to the competence of the Member States regarding planning of and funding for rail infrastructure.

Article 12 Regulation 913/2010/EC:

Coordination of works

The management board shall coordinate and ensure the publication in one place, in an appropriate manner and timeframe, of their schedule for carrying out all the works on the infrastructure and its equipment that would restrict available capacity on the freight corridor.

Article 13 Regulation 913/2010/EC:

One-stop shop for application for infrastructure capacity

1. The management board for a freight corridor shall designate or set up a joint body for applicants to request and to receive answers, in a single place and in a single operation, regarding infrastructure capacity for freight trains crossing at least one border along the freight corridor (hereinafter referred to as a 'one-stop shop').

2. The one-stop shop shall, as a coordination tool, also provide basic information concerning the allocation of the infrastructure capacity, including the information referred in Article 18. It shall display infrastructure capacity available at the time of request and its characteristics in accordance with pre-defined parameters, such as speed, length, loading gauge or axle load authorized for trains running on the freight corridor.

3. The one-stop shop shall take a decision with regard to applications for pre-arranged train paths specified in Article 14(3) and for the reserve capacity specified in Article 14(5). It shall allocate the capacity in line with rules regarding capacity allocation as set out in Directive 2001/14/EC. It shall inform the competent infrastructure managers of these applications and the decision taken without delay.

4. For any request of infrastructure capacity which cannot be met pursuant to paragraph 3, the one-stop shop shall forward the application for infrastructure capacity without any delay to the competent infrastructure managers and, where relevant, the allocation bodies as referred to in Article 14(2) of Directive 2001/14/EC, who shall take a decision on that application in accordance with Article 13 and Chapter III of that Directive and communicate this decision to the one-stop shop for further processing.

5. The activities of the one-stop shop shall be carried out in a transparent and non-discriminatory manner. To this end a register shall be kept which shall be made freely available to all interested parties. It shall contain the dates of the requests, names of the applicants, details of documentation supplied and of incidents which

have occurred. These activities shall be subject to the control of the regulatory bodies in accordance with Article 20.

Consideration (18)

In order to facilitate requests for infrastructure capacities for international rail freight services, it is appropriate to designate or establish a one-stop shop for each freight corridor. For this, existing initiatives should be built upon, in particular those undertaken by RNE, a body which acts as a coordination tool for the infrastructure managers and provides a number of services to international freight undertakings.

Article 14 Regulation 913/2010/EC:

Capacity allocated to freight trains

1. The executive board shall define the framework for the allocation of the infrastructure capacity on the freight corridor in accordance with Article 14(1) of Directive 2001/14/EC.
2. The management board shall evaluate the need for capacity to be allocated to freight trains running on the freight corridor taking into account the transport market study referred to in Article 9(3) of this Regulation, the requests for infrastructure capacity relating to the past and present working timetables and the framework agreements.
3. On the basis of the evaluation specified in paragraph 2 of this Article, infrastructure managers of the freight corridor shall jointly define and organize international pre-arranged train paths for freight trains following the procedure referred to in Article 15 of Directive 2001/14/EC recognizing the need for capacity of other types of transport, including passenger transport. They shall facilitate journey times, frequencies, times of departure and destination and routings suitable for freight transport services with a view to increasing the transport of goods by freight trains running on the freight corridor. These pre-arranged train paths shall be published not later than 3 months before the final date for receipt of requests for capacity referred to in Annex III to Directive 2001/14/EC. The infrastructure managers of several freight corridors may, if necessary, coordinate international prearranged train paths offering capacity on the freight corridors concerned.
4. These pre-arranged train paths shall be allocated first to freight trains which cross at least one border.
5. Infrastructure managers shall, if justified by market need and the evaluation as referred to in paragraph 2 of this Article, jointly define the reserve capacity for international freight trains running on the freight corridors recognizing the need for capacity of other types of transport, including passenger transport and keep this reserve available within their final working timetables to allow for a quick and appropriate response to ad hoc requests for capacity as referred to in Article 23 of Directive 2001/14/EC. This capacity shall be reserved until the time limit before its scheduled time as decided by the management board. This time limit shall not exceed 60 days.
6. The management board shall promote coordination of priority rules relating to capacity allocation on the freight corridor.
7. Infrastructure managers may include in their conditions of use a fee for train paths that are allocated but ultimately not used. The level of this fee shall be appropriate, dissuasive and effective.
8. Save in the case of force majeure, including urgent and unforeseeable safety-critical work, a train path allocated to a freight operation pursuant to this Article may not be cancelled less than 2 months before its

scheduled time in the working timetable if the applicant concerned does not give its approval for such cancellation. In such a case the infrastructure manager concerned shall make an effort to propose to the applicant a train path of an equivalent quality and reliability which the applicant has the right to accept or refuse. This provision shall be without prejudice to any rights the applicant may have under an agreement as referred to in Article 19(1) of Directive 2001/14/EC. In any case, the applicant may refer the matter to the regulatory body referred to in Article 20 of this Regulation.

9. The management board of the freight corridor and the advisory group referred to in Article 8(7) shall put in place procedures to ensure optimal coordination of the allocation of capacity between infrastructure managers, both for requests as referred to in Article 13(1) and for requests received by infrastructure managers concerned. This shall also take account of access to terminals.

10. In paragraphs 4 and 9 of this Article, references to infrastructure managers shall include, where relevant, allocation bodies as referred to in Article 14(2) of Directive 2001/14/EC.

Article 15 Regulation 913/2010/EC:

Authorized applicants

Notwithstanding Article 16(1) of Directive 2001/14/EC, applicants other than railway undertakings or the international groupings that they make up, such as shippers, freight forwarders and combined transport operators, may request international pre-arranged train paths specified in Article 14(3) and the reserve capacity specified in Article 14(5). In order to use such a train path for freight transport on the freight corridor these applicants shall appoint a railway undertaking to conclude an agreement with the infrastructure manager in accordance with Article 10(5) of Directive 91/440/EEC.

Article 16 Regulation 913/2010/EC:

Traffic management

1. The management board of the freight corridor shall put in place procedures for coordinating traffic management along the freight corridor. The management boards of connected freight corridors shall put in place procedures for coordinating traffic along such freight corridors.

2. The infrastructure managers of the freight corridor and the advisory group referred to in Article 8(7) shall put in place procedures to ensure optimal coordination between the operation of the railway infrastructure and the terminals.

Article 17 Regulation 913/2010/EC:

Traffic management in the event of disturbance

1. The management board shall adopt common targets for punctuality and/or guidelines for traffic management in the event of disturbance to train movements on the freight corridor.

2. Each infrastructure manager concerned shall draw up priority rules for the management between the different types of traffic in the part of the freight corridors within the responsibility of that infrastructure manager in accordance with the common targets and/or guidelines referred to in paragraph 1 of this Article. Those priority rules shall be published in the network statement referred to in Article 3 of Directive 2001/14/EC.

3. The principles for establishing the priority rules shall at least provide that the train path referred to in Article 14(3) and (4) allocated to freight trains which comply with their scheduled time in the working timetable shall not be modified, as far as possible. The principles for establishing the priority rules shall aim at minimizing the overall network recovery time with regard to the needs of all types of transport. For this purpose, infrastructure managers may coordinate the management between the different types of traffic along several freight corridors.

Article 18 Regulation 913/2010/EC:

Information on the conditions of use of the freight corridor

The management board shall draw up, regularly update and publish a document containing:

- (a) all the information contained in the network statement for national networks regarding the freight corridor, drawn up in accordance with the procedure set out in Article 3 of Directive 2001/14/EC;
- (b) the list and characteristics of terminals, in particular information concerning the conditions and methods of accessing the terminals;
- (c) the information concerning the procedures referred to in Articles 13 to 17 of this Regulation; and
- (d) the implementation plan.

Article 19 Regulation 913/2010/EC:

Quality of service on the freight corridor

1. The management board of the freight corridor shall promote compatibility between the performance schemes along the freight corridor, as referred to in Article 11 of Directive 2001/14/EC.
2. The management board shall monitor the performance of rail freight services on the freight corridor and publish the results of this monitoring once a year.
3. The management board shall organize a satisfaction survey of the users of the freight corridor and shall publish the results of it once a year.

Article 20 Regulation 913/2010/EC:

Regulatory bodies

1. The regulatory bodies referred to in Article 30 of Directive 2001/14/EC shall cooperate in monitoring the competition in the rail freight corridor. In particular, they shall ensure non-discriminatory access to the corridor and shall be the appeal bodies provided for under Article 30(2) of that Directive. They shall exchange the necessary information obtained from infrastructure managers and other relevant parties.
2. Member States, in order to foster free and fair competition on the freight corridors, shall endeavor to establish a comparable regulatory level. Regulatory bodies shall be easily accessible to the market players, and shall be able to take decisions independently and efficiently.
3. In the event of a complaint to a regulatory body from an applicant regarding international rail freight services, or within the framework of an own-initiative investigation by a regulatory body, this regulatory body shall consult the regulatory bodies of all other Member States through which the international train path for freight train concerned runs and request all necessary information from them before taking its decision.

4. The regulatory bodies consulted under paragraph 3 shall provide all the information that they themselves have the right to request under their national legislation to the regulatory body concerned. This information may only be used for the purpose of the handling of the complaint or the investigation referred to in paragraph 3.

5. The regulatory body receiving the complaint or having initiated the own-initiative investigation shall transfer relevant information to the regulatory body responsible in order for that body to take measures regarding the parties concerned.

6. Any associated representatives of infrastructure managers as referred to in Article 15(1) of Directive 2001/14/EC shall ensure provision, without delay, of all the information necessary for the purpose of the handling of the complaint or the investigation referred to in paragraph 3 of this Article and requested by the regulatory body of the Member State in which the associated representative is located. This regulatory body shall be entitled to transfer such information regarding the international train path concerned to the regulatory bodies mentioned in paragraph 3 of this Article.