

International comparison Road Administrations

Perspectives from abroad for the long-term strategy review 'RWS 2020'

Part of phase 3 'Inspiration from benchmarks'

RWS 2020



Ministerie van Verkeer en Waterstaat



Rijkswaterstaat

Colophon

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Preface

This report is the result of an exercise of 'learning through comparison' that was to provide input for the review of Rijkswaterstaat's long-term strategy. For this purpose, the Road Administrations of Austria, Denmark, England, Finland, France and Sweden have cooperated in providing insight into their current developments.

It is interesting to see how the strategies of the Road Administrations in the countries involved in this comparison are determined by the different driving forces with which they have to deal. These differences find their origin in the typical institutional setting and the political and societal context for each country, as well as in the type of road network the Road Administrations manage. Each RA tackles its challenges differently.

However, all countries seem to have common notions regarding the management of their road infrastructure. A dominant trend is the huge involvement of private parties in building and maintaining road infrastructure. Their involvement in management and operations is also increasing. Another common notion is the importance of user orientation and the development of methods to communicate with roads users about their needs. One of the driving forces for this is the fact that traffic management is becoming increasingly important for keeping traffic moving and for improving reliability. When traffic management has become a well-known task, the private market will be involved more and more. Coordinating network management on the regional level (national-local) seems essential. Despite these efforts, further developing road user charges seems unavoidable in order to be able to manage road traffic in the future.

These developments are affecting the role of the Road Administrations and will continue to do so in the future. Further exchange of knowledge and views will help to develop our network management so that it serves road users and society as effectively as possible.

We would like to thank everyone who contributed to this study: be it by completing the questionnaire, taking the time to talk to the authors, participating in the workshop or by providing feedback in other ways.

Rotterdam, August 2007.

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Managing Director, Rijkswaterstaat AVV Transport Research Centre.

Working scheme RWS 2020

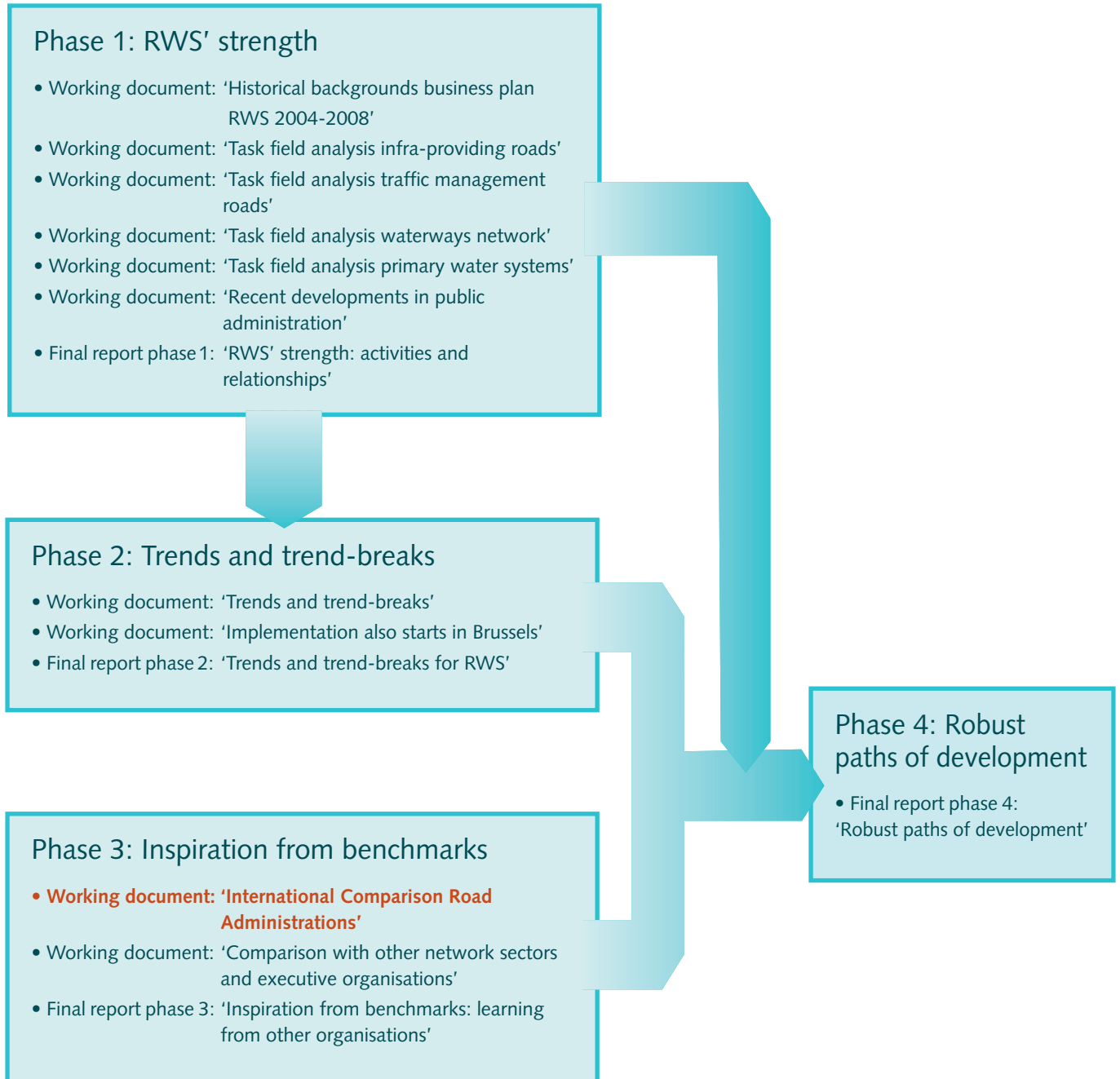


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Executive Summary

This report presents the findings of a short investigation into a limited set of aspects of six Road Administrations in the European Union and the national Road Administration of the Netherlands, Rijkswaterstaat (the Directorate-General for Public Works and Water Management). The report was prepared as part of the current review of Rijkswaterstaat's (RWS) long-term strategy. One of the main subjects of this 'RWS 2020' review is RWS' role as national road administration, and the associated responsibilities and tasks.

For this purpose, six countries were selected that each represent a situation or development that might be of interest with a view to drafting strategic choices for RWS: Austria, Denmark, England, Finland, France and Sweden. The study focused on the external relations of the road administrations i.e. the relations with policymakers, the private sector, road users and other interest groups, and regional/local road infrastructure providers.

The report describes these relations for each of the six Road Administrations, with a view to those aspects that differ from the situation in the Netherlands. The descriptions are therefore not exhaustive, but highlight those aspects by which the particular road administration stands out.

The comparison of the situation in these countries and in the Netherlands with regard to the abovementioned aspects is the starting point for developing possible future perspectives for Rijkswaterstaat. These perspectives or images are reflected by the following characteristics:

- A financially-independent Road Administration
- A more regional approach with a Road Administration that is responsible for catering for optimal regional accessibility
- Evolution towards integrated network management, including traffic and incident management and demand management in a single organisation
- An outward-oriented Road Administration
- Separate responsibilities in separate agencies as an option: one agency for road network provision and another for network operations (traffic management, safety, incident management)
- A wider scope with regard to road transport policy: integrating policy development and implementation in a single Road Traffic and Transport Agency
- A broader scope with regard to transport domains: combining the management responsibilities for the national road network, the national waterway network and the national railway network into a single national transport network administration (catering for roads, railways, waterways)
- The Road Administration as the employer of choice.

The resulting questions and remarks from this exercise will feed further discussions. The results of these discussions and of the study itself are to be input for the 'RWS 2020' long-term strategy review.

Introduction

BACKGROUND

The Directorate-General for Public Works and Water Management (*Rijkswaterstaat*- rws) of the Dutch Ministry of Transport is presently conducting a review of its long-term strategy (RWS 2020). One of the main subjects of this review is rws' role as the national road administration, and the associated responsibilities and tasks. In order to obtain a broader view on possible strategic choices, the RWS Scenario Team asked RWS-AVV Transport Research Centre to carry out a comparative study of a number of other national road administrations.

The study included a short questionnaire, interviews and collection of information from additional data sources, such as the PIARC database and information available from the websites of various road administrations.

The study covers six countries besides the Netherlands. These six countries were chosen as each represents a situation or development that might be of interest with a view to drafting strategic choices for rws. The six countries are:

- *Austria*: because of the financial independence of state-owned company ASFINAG that is responsible for managing the national road network;
- *Denmark*: because of the recent split of the network in national and local roads (no intermediate level);
- *England*: because of the recent transfer of traffic management responsibilities from the police to the Highways Agency and the role of the private sector;
- *Finland*: because of the interaction between FINNRA and the road users and the way in which FINNRA deals with the private sector in construction and maintenance;
- *France*: because of the private toll road concessions;
- *Sweden*: because of the sector responsibility of the SRA and the additional traffic-related tasks carried out by SRA.

Other countries, such as Germany, were not included as the position of the national road administration is less 'extraordinary' compared to the situation in the Netherlands.

This report is a co-production of the RWS-AVV Transport Research Centre and ECORYS Netherlands. The basis for the report was a short questionnaire on various aspects of managing and maintaining the national road network. The questionnaire was sent to six European Road Administrations in December 2006. The completed questionnaires were the basis for more in-depth interviews carried out by RWS-AVV in February and March 2007. This report describes the combined findings based on the questionnaire, the interviews and additional information from other sources, such as the PIARC database and websites of the road administrations concerned. These findings were verified and partly explored more in-depth during an international workshop 'Comparing Road Administrations' in The Hague on 14/15 June 2007. The results of this workshop have been used in finalising the report.

ROAD NETWORK TASKS FOR COMPARISON

Rws' core tasks are starting point

Throughout the report, the starting point for the description and comparison is the situation in the Netherlands. The national road administration in the Netherlands, rws, only deals with the main (or primary) road network. Rws bears certain responsibilities for this network that are translated in the road network tasks.

The analysis starts from these core rws tasks related to the primary road network. The situation in other countries is compared to this situation. In doing so, it will become clear that the task of other road administrations may have a different scope; this may be expressed in different tasks and/or in different types of road network.

The following road network tasks are rws' core tasks:

- *Network development (implementation)*: This includes constructing new network links, as well as expanding the (static) capacity of existing network links and major rehabilitation works that result in higher road capacities.
- *Maintenance*: This task includes the works carried out to keep the network in a good condition (routine maintenance), including keeping the roads passable under winter conditions (winter maintenance), as well as major overhauls (which may include minor capacity expansion) and renewing pavement and equipment, etc. (periodic maintenance).
- *Dynamic traffic management and providing traffic information*: One of rws' tasks is to ensure that its network is utilised safely and efficiently. To this end, traffic management measures are being taken, both static (static traffic signs) and dynamic (route information, dynamic signs for maximum speeds, closure of lanes, etc.). Rws provides the traffic information to service providers (for free), who handle further distribution.
- *Incident management*: Another of rws' tasks is to ensure that emergency services can access accident spots and that damaged vehicles are removed from the spot as soon as possible so as not to interrupt the steady flow of traffic for an unnecessary period of time. Incident management is considered a separate core task because of its substantial contribution to the reduction of congestion.

Additional tasks in the scope of the analysis

As noted, some Road Administrations may have fewer tasks or may also carry out tasks for regional/local roads. The RA may also be involved in additional tasks. The following tasks, which are not the responsibility of rws in the Netherlands, are also taken into account:

- *Policy development*: defining the objectives related to the road network.
- *Strategic network planning*: identifying and prioritising network improvements.
- *Other road traffic tasks*: such as vehicle registration (licence plates), issuing drivers' licenses, vehicle inspection, collecting toll revenues, or implementing transport policy measures (e.g. subsidies for local infrastructure, for safety or mobility management measures), etc.

The following table shows the total scope of the report in relation to rws' core responsibilities and tasks:

Main area	Task	Responsibility (NL)	
		RWS	Others
Network development	Policy development		X
	Strategic network planning		X
	Network implementation	X	
Maintenance	Regular maintenance	X	
Management	Traffic management	X	
	Incident management	X	
Other road traffic related tasks	Vehicle registration, issuing drivers licences, toll collection, etc		X

RESEARCH ISSUES

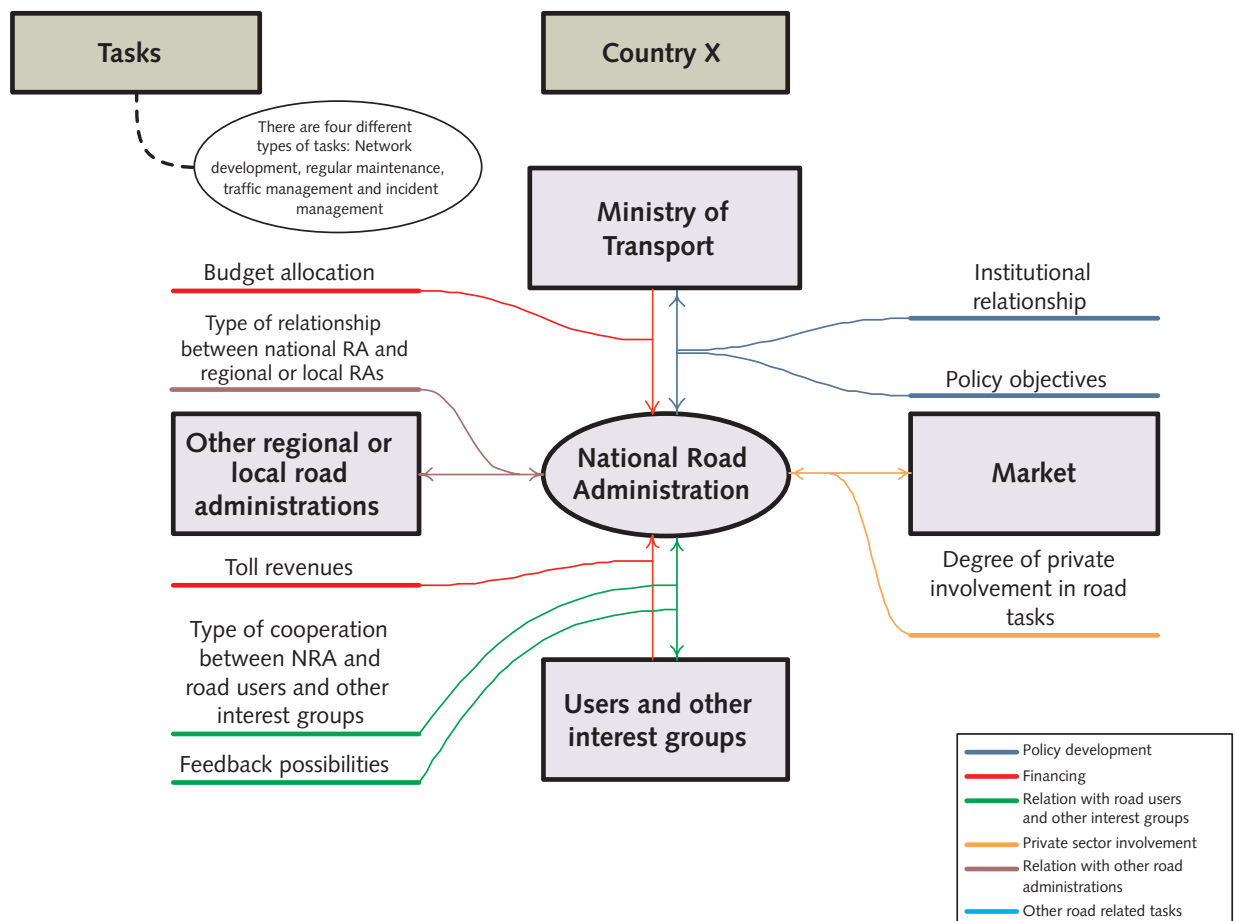
This report is not meant to be a detailed description of all legal, technical, administrative, financial and organisational aspects of these road network tasks in the six selected Road Administrations and the Netherlands. In view of the specific purpose, the analysis concentrates on the following selected issues:

- The relationship between the Road Administration and policy developers
- The financing of road network tasks
- The relationship between the Road Administration and the private sector
- The relationship between the Road Administration and road users and other interest groups
- The relationship between the National Road Administration and the administrations of regional/local roads.

By combining the themes and issues, one can draft a matrix that represents the main study issues. Note that not all issues are relevant for all tasks:

Tasks Issues	Network objectives, planning & development	Maintenance	Management (traffic, incident)	Other road traffic tasks
Policy	X	X	X	X
Financing	X	X		
Road users and interest groups	X	X	X	X
Private sector	X	X	X	Not relevant
Other road network managers	X	X	X	Not relevant

The situation in the selected countries will be compared on these issues. In describing these situations, the following graph illustrates the relationship between the RA and the other stakeholders. The graphs have been used in the interviews. In the description of the situation in the various countries in page 15 to 44 similar graphs are used to highlight some outstanding issues.



Graph 1.1 The National Road Administration's external relationships

STRUCTURE OF THE REPORT

Besides this introduction, this report contains the following chapters:

- A description of the analytical framework used for the description and analysis. The framework has been used in the questionnaires and interviews that are the basis for this report. The questionnaire itself can be found in annex 2.
- A description of the situation in the six countries involved and in the Netherlands.
- A comparison of the situation in the countries based on the analytical framework.
- Possible perspectives for Rijkswaterstaat's strategic orientation that can be derived from this comparison.
- An Epilogue, summarising the findings of the international workshop on 14/15 June in The Hague.

The Framework

ROAD POLICY DEVELOPMENT AND THE INSTITUTIONAL SETTING OF ROAD ADMINISTRATIONS

From strategic transport objectives to road network tasks

Road networks are part of a country's transport infrastructure and are therefore subject to general transport policies. In transport policies, governments describe their *strategic objectives* with respect to the transport sector and infrastructure that usually involve enabling the movement of goods and persons and stimulating economic development, but also include safeguarding natural habitats and human lives. Transport policies are typically renewed every 5 to 10 years.

In order to achieve the strategic objectives, *specific objectives* need to be defined in relationship to the road network. Specific objectives may include:

- Improving regional interconnection (scope of the network)
- Improving/sustaining accessibility, expressed as minimum achievable speeds and/or maximum levels of congestion (capacity)
- Minimising/reducing environmental damage due to the construction and/or use of the network (sustainability).
- Minimising road accidents and road casualties (quality).

Specific objectives for the road network are translated into *operational objectives*, the realisation of which may be delegated to the Road Administration or others. Such operational objectives relate to:

- Expanding the road network (creating new links)
- Improving the capacity of existing network links
- Achieving and maintaining minimum technical quality levels (e.g. layout, roughness, gradients, etc)
- Efficient use of the network
- Safe use of the network
- Etc.

Institutional setting

Road policy objectives can therefore be translated into operational objectives for the road network, from which specific tasks and activities can be derived. Such tasks and activities are usually in the realm of the Road Administration. As the government is responsible for the policy objectives, preparing transport policies is usually the task of a unit or department within a Ministry of Transport or Public Works (policy department). Strategic network planning links these two levels.

The Road Administration's influence on developing policy objectives and strategic network planning has a formal and an informal aspect. The formal aspect relates to the Road Administrations' institutional setting. The informal aspect relates to the influence Road Administrations can exercise on such objectives.

In this report, a distinction is generally made between four formal models:

- The Road Administration may be a part of the Ministry, such as a *Directorate or Department*. The Directorate has policy development and implementation/executive tasks.
- The policy development task and the executive task are both within the same Ministry, but in different departments. In this case, a Transport Policy Department and *Road Administration* (executive body) exist side-by-side.
- The policy task is carried out by the Ministry, but the executive task is carried out by a separate body (e.g. an *Agency*).

- The Road Administration is a more or less *autonomous public body* that largely develops policy objectives and carries out the implementation of works. The public body operates under responsibility of the Minister.

This results in the following institutional possibilities for a Road Administration:

Position Road Administration	Policy development and implementation	Policy Implementation
Government department		
(Autonomous) public body		

FINANCING ROAD NETWORK TASKS

Financing road network tasks is, of course, related to the institutional setting described above, but does not necessarily follow from it. In terms of financing, there are two separate directions. Firstly, financing is needed for the *investments* in the network (road network development). Such funds are usually large, as investments are made for a period of up to 50 years, depending on the type of works to be carried out. Secondly, financing is required for *operational expenses* related to maintaining and managing the road network (including traffic and incident management).

Financing can be made available from two different sources:

- *Government budget allocations*: annual allocations for running expenses and allocations from multi-annual investment budgets;
- *Road user charges*: excise duties, fuel taxes, vehicle taxes, congestion charges, road tolls, etc. In this case, the user pays for the service.

In addition, financing may be made available by incurring debts. Types of such financing are:

- *Loans* on the capital market;
- Loans/pre-financing from *private sector parties* in case of Public Private Partnerships (PPPs).

Whereas in the case of budget allocations and road user charges no repayment is needed, loans and private sector pre-financing results in debts for the RA and therefore annual debt servicing. This takes up part of the financing available for the road network tasks.

Investments may typically be financed from a combination of sources. Depending on the role of the private sector, part of the network may be privately financed, the remainder being financed from budget allocations, tolls and/or loans.

The same sources may apply for running expenses, apart from loans on the capital market. Such loans are less suitable for annually-recurring expenses.

	Investments: network development	Operational expenses (maintenance, traffic/incident management)
Budget allocations	X	X
Road user charges (tolls, congestion charging, taxes, duties)	X	X
Loans on capital market	X	Not applicable
Private sector (pre-financing, PPP, toll concessions)	X	X

RELATIONSHIP WITH THE PRIVATE SECTOR

The private sector may be involved in road network tasks in various ways.

Contracting

Firstly, private parties may carry out many works and activities related to the road network on the basis of a contract with the Road Administration. In recent years, the format of such contracts has been changing. Whereas in the past activities were typically contracted out, in which the expected output was clearly defined in great detail (output specification), contracts have recently tended to be less specific in their description of outputs. Such contracts may leave the choice of solution to the contractor and rather specify the desired *outcome* of works and activities. The Road Administration still bears full responsibility, however, and bears almost all types of risks related to the works or services (except for, for example, design and construction risks).

Public Private Partnerships (PPP)

Secondly, in public private partnerships, part of the responsibilities and risks of construction and/or operations are shifted from the RA to private parties. Such risks may relate to various aspects such as design, construction, operations, economic development/use of the facilities, etc. Political risks, of course, remain with the government.

In some forms of PPP, full responsibility for part of the road network is handed over to private parties for a certain time period. Usually such contracts include the design, building, operations and/or financing of network links.

RELATIONSHIP WITH ROAD USERS AND OTHER INTEREST GROUPS

Road users are Road Administrations' ultimate clients as they are the consumers of the mobility possibilities provided by the road network. Such consumers are represented by driver associations (e.g. AA, ADAC, ANWB etc), road freight transport organisations (e.g. IRU, TLN) and shipper/industrial organisations (e.g. Chambers of Commerce or Industry, EVO). Although these organisations represent user interests, a direct dialogue with road users can supplement consultation with such organisations. Various Road Administrations are finding ways to consult road users directly.

There are also other stakeholders who are affected by the 'production of mobility'. In the case of new network links, natural habitats and people who live in the project areas may be affected by the construction activities and subsequent use of the road link. In the case of upgrading (widening) of existing links or maintenance works, people who live near the road may be affected by the noise and

air pollution associated with the traffic and/or works. Such interests are mostly defended by specific (ad hoc) interest groups, in addition to the protection given by the existing national and European legislation (e.g. EU directives such as the Environmental Impact Assessment Directive¹, the Clean Air Directive, Birds and Habitat Directives, Natura 2000, etc.).

Both road user and interest groups are therefore stakeholders in the road network tasks and Road Administrations interact with them. In general, one can define five models of cooperation between Road Administrations and road users/other interest groups²:

- *No involvement*: Road users and/or interest groups are *not involved* in any formal way in RA tasks (road network development, maintenance, traffic/incident management). They are only informed when applicable.
- *Consultation*. Road user and/or interest groups are consulted for RA tasks. This may include monitoring satisfaction, for example.
- *Advice*. Road users and/or interest groups may have a formal right to give advice on (one or more) RA tasks.
- *Preparing decision*. Road users and/or interest groups may be involved actively in *preparing decisions* for (some of) the RA tasks, for instance by having a place in a Road Board that supervises and steers the activities of the RA.
- *Co-decision making*: Road users and/or interest groups may have a formal role in *decision making* related to (some of) the RA tasks. Such a role is only possible in those areas where the power of decision lies at the level of the RA. As new network links are usually decided upon on the Ministerial or Parliament level, this would not be an area for co-decision.

The type of cooperation may differ for each of the RA tasks involved.

RELATIONSHIP WITH REGIONAL/LOCAL ROAD ADMINISTRATIONS

As described, this comparison focuses on the primary or main road network (national roads). Such a network is part of a total network including regional and/or local roads. Regional and local roads may be the responsibility of the national RA. However, local roads are usually owned and managed by local governments. National road administrations therefore work side-by-side with regional and/or local road administrations. Consequently, the activities of the Road Administration will have an impact on, and will be affected by, the actions of regional/local road administrations.

The key question in this issue is how this interdependence between road administrations at the different administrative levels affects the national Road Administration. Here, the focus is on the main tasks:

- Road network development: identifying, preparing and implementing
- Regular maintenance
- Traffic and incident management

¹ 2001 Environmental Impact Assessment Directive

² This participation ladder was designed by Arnstein in 1969.

Description of the situation in the selected countries

THE NETHERLANDS

Institutional setting

Rijkswaterstaat (RWS) is an agency of the *Ministerie van Verkeer en Waterstaat* (Ministry of Transport, Public Works and Water Management). RWS operates under political responsibility of the Minister. RWS is responsible for public works and water management on behalf of the ministry, which includes the management of the primary road network of 3,249 km and 600 km of regional roads³. The network includes 19 tunnels⁴, a few of which are financed by private consortia on the basis of shadow toll arrangements.

Key indicators Netherlands

Total network managed by RWS	3,861 km
Main network managed	3,249 km
– of which motorways	2,100 km
Regional offices	9
Employees	3,600 ⁵
Annual investment budget	EUR 0.9 billion (2006)
Annual maintenance budget	EUR 1.0 billion (2006)
Utilisation of the network	EUR 54 billion vehicle km
Average utilisation	45,000 vehicles/km/day

RWS' mission is to be a public-oriented network manager that operates on the basis of sound business-economic principles with the public funds made available to it, and that lets the market perform those activities it can do best. It aims to be the most public-oriented public organisation in the Netherlands by 2008. RWS has €2.1 billion available for the main road network, about half of which is devoted to managing and maintenance tasks, 47% to construction and 3% to traffic management.⁶

Policy objective, strategic planning and network development

The Directorate-General for Passenger Transport (DGP) of the Ministry of Transport is responsible for formulating overall transport policy, including road mobility. DGP prepares the strategic decisions on road network development, which are a joint responsibility of the Minister of Transport and the Minister of Housing, Spatial Planning and the Environment. RWS plays an active role in identifying network improvements (strategic network planning). In fact, the whole process of preparing (and implementing) road network development projects is managed by RWS on behalf of DGP. Decisions that imply commitment to a next planning stage are taken by the Minister.

RWS is responsible for the following road network tasks: preparing road network development, maintenance, traffic management and incident management. RWS operates on the basis of a management contract with the Ministry that includes Service Level Agreements in the field of maintenance, traffic management and incident management (response times). The objectives for incident management are developed together with DGP. RWS is responsible for drafting technical norms of the network (to be sanctioned by the Minister of Transport).

³ RWS also has tasks, similar to road network management, regarding waterway network management and water management (water quality and flood control).

⁴ Source: Rijkswaterstaat, De kracht van RWS (draft report 2007).

⁵ Estimated share of RWS staff to be attributed to road network management tasks; source Avv.

⁶ Source: Rijkswaterstaat, De kracht van RWS (draft report 2007)

Rws is responsible for traffic and incident management. To this end, it operates one national and five regional traffic control centres⁷. Traffic management is actively carried out on 40-50% of the network. For this task, rws uses Variable Message Signs (*Dynamische route-informatiepanelen*), speed limitation signs (*sneldisplays*), ramp metering (*toeritdoserings*) and peak/plus lanes (*spits-en plusstroken*). Peak/plus lanes are additional traffic lanes that can be opened to traffic if demand requires so. When closed, the lanes are for the exclusive use by emergency services.

Financing

Investments and operating expenses are both financed from budget allocations (from the Infrastructure Fund). Investments are part of a multi-annual investment plan (*MIT*). Nevertheless, each project in this plan is decided upon individually. Environmental and cost-benefit assessments play a role in such decisions.

The maintenance budget is also allocated from the Infrastructure Fund. In recent years, a multi-annual budget was introduced, which is related to the agreed minimum maintenance level. This implies that budgets are projected for a longer period; if expenses are below budget in any one year, the remaining funds can be used in the next year, provided that the quality criteria are being met.

Current national policy is aiming at the introduction of road pricing in the Netherlands in 2011. It is not yet decided how the revenues will be treated and to which degree they may be earmarked for road network tasks (maintenance, extension).

Private sector

A large part of the works and services are contracted out to the private sector, amounting to about 75% of the construction budget and 66% of the maintenance budget⁸. Maintenance contracts make increasing use of contracts that define outcome (*prestatiecontracten*) instead of output-specified contracts.

All activities that are carried out by own staff rws are reviewed critically and, if possible, are contracted out to private parties (*De markt tenzij...*). Rws concentrates on its role as network manager.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				NL
Maintenance				NL
Traffic management		NL		
Incident management			NL	

Source: questionnaire

In recent years, rws has started a few pilots for PPP-like projects. The initial experience was not positive, which may be linked to the structure of the PPP (a pre-financing arrangement with shadow tolls involving relatively low risk for private parties). In recent years, new pilots have been carried out, including one pure PPP (N14).

⁷ Source: Rijkswaterstaat, PIM op weg.

⁸ Source: Rijkswaterstaat, De kracht van rws (draft report 2007).

Relationship with road users and other interest groups

Road users and interest groups have a formal role in decisions on network improvements that is regulated in planning procedures such as the Environmental Impact Assessment procedure. There is no formal role for such groups in maintenance and management tasks. Road users and interest groups may be informed/consulted on the planning of maintenance works or traffic management issues at the regional level. There are regular meetings with transport sector organisations in which they may discuss their views with rws.

Rws operates Traffic Centres at various locations in the country. Such centres monitor the traffic flows and control the variable message signs. Although substantial amounts of traffic information is gathered, such information may, according to an agreement with private parties, not be provided by rws directly to the general public. This is the exclusive right of private parties. Rws is allowed to address the public directly only in case of severe emergencies/calamities. Private parties may collect the information themselves or receive it free-of-charge from rws.

Recently, rws has begun to actively collect feedback from road users. Using a so-called '*Publiekswaardemodel*' (Public Value Model)⁹, the satisfaction of users is measured on five main elements: result (including good quality of road surface, road side facilities), delivery (driving time, reliability), emotion (comfort, behaviour of other road users), price (efficient use of taxpayers' money) and effort (to get information, time involved in deviations). Rws uses questionnaires, surveys and focus groups to assess the satisfaction of users. One of rws' key performance indicators is user satisfaction, which is measured on a quarterly basis.

There is also a telephone number available for information requests and complaints.

Rws does not have other road traffic tasks directly aimed at the general public, such as providing traffic information (carried out by private parties), collecting toll revenue or vehicle registration.

Relationship with other road infra providers

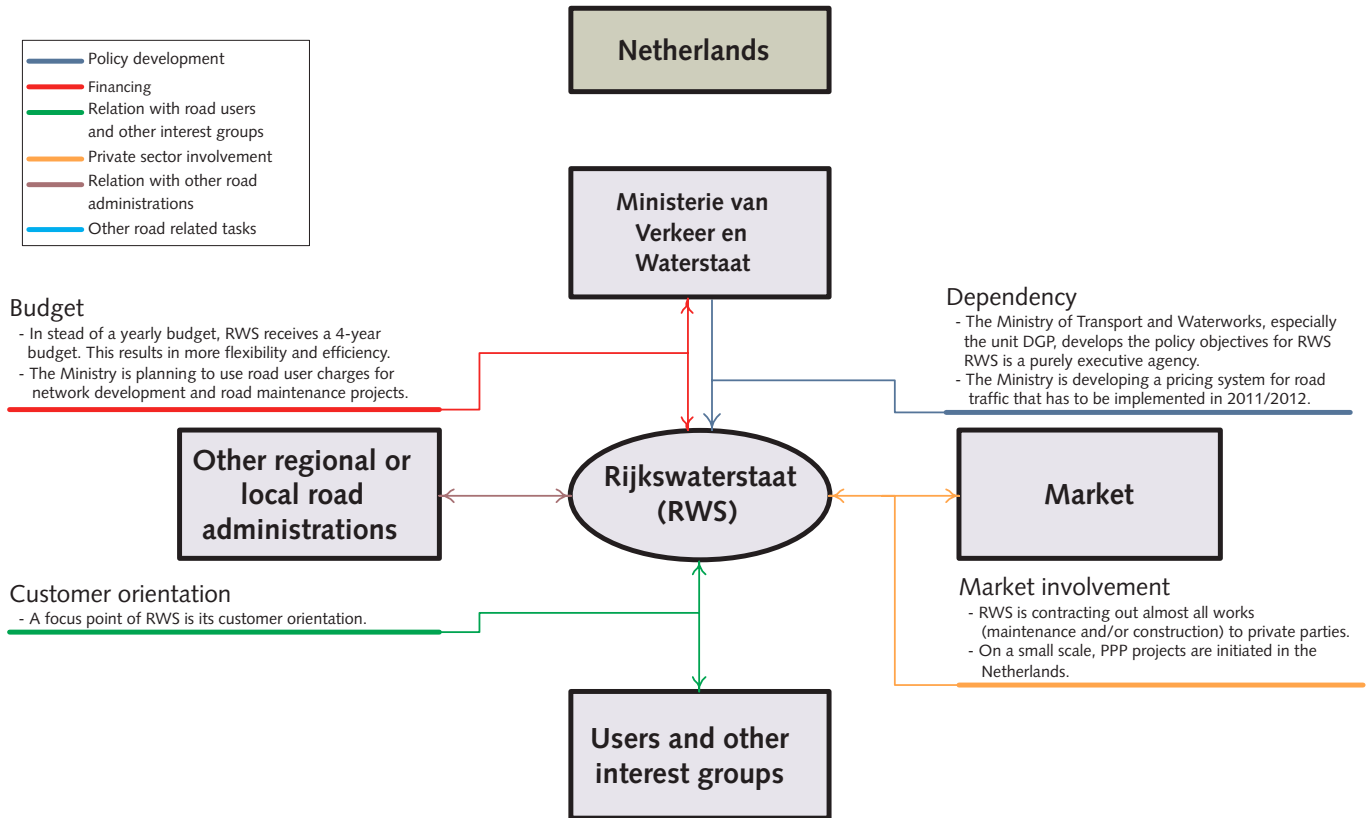
Rws has nine regional offices that oversee part of the national road network. Each has several district offices. Such regional offices are primarily responsible for planning and managing contracted works related to the primary network, daily inspections etc.

In addition to rws, there are also road administrations at the regional level (provinces) and at the local level (municipalities). Such road administrations have their own executive capacity. National and regional/local road administrations work together in some, but not all, areas in terms of identifying network improvements, maintenance works and traffic management issues. An example of such cooperation is found in the Haaglanden urban region (the conurbation of municipalities around The Hague). In dealing with the other network providers, rws is changing its role from 'director' to 'partner' in mobility that primarily deals with managing the main network.

⁹ The model was derived from a publication by the Harvard Business School.

Highlights

The following picture illustrates the RWS situation.



A U S T R I A

Institutional setting - ASFINAG

The *Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft* (ASFINAG) is a public limited company that is responsible for the primary road network in Austria. ASFINAG is 100% state-owned and supervised by a Stakeholders Board, comprised of two representatives of the Ministry of Finance, four representatives of the private sector and three employee representatives.

Key indicators Austria

National and regional/secondary roads Austria	33,400 km
Total network of ASFINAG	2,045 km (2005)
Main network managed by ASFINAG	2,045 km (2005)
– of which motorways	1,600 km
Value of the network	EUR 8.8 billion
Regions ASFINAG	4
Staff ASFINAG	2,500*
Investment budget ASFINAG	EUR 1.0 billion (2005)
Maintenance budget ASFINAG	EUR 0.3 billion (2005)
Toll revenues ASFINAG	EUR 1.2 billion (2005)
Utilisation network ASFINAG	23.9b vehicle km
Average utilisation	32,000 vehicles/km/day

*: including 1,400 maintenance staff taken over from the *Länder* in 2006

ASFINAG's mission is to be an independent and profitable builder and operator of high-ranking road infrastructure, active in Austria and foreign countries. Its medium-term corporate goal is to become an equity capital-strong and internationally active company. An important basis was laid for this development in 2005 by taking over all core tasks (construction, operation, toll collection, traffic telematics) to the sole control responsibility of the group¹⁰.

ASFINAG's performance goals are:

- Increasing customer service
- Increaseing productivity
- Forward-looking expansion of traffic routes
- Optimising traffic flow
- Improving traffic safety.

ASFINAG was created in 1982 to attract foreign loans for developing the road network. In 1997, its task was broadened as the state relinquished the economic rights to exploit the state-owned primary network of motorways and trunk roads by law to ASFINAG. In return for this 'Usufruct', ASFINAG assumed the state debt for financing this network, as well as the obligation to manage and maintain it and to complete it as envisaged in the 'Bundesstrassengesetz' (Federal Road Act) of 1971.

In order to finance this development, ASFINAG borrowed money on the capital market. As the state is still guaranteeing these loans fully, ASFINAG is seen as a so-called triple-A company; such

¹⁰ Source: ASFINAG Annual Report 2005.

companies are perceived to have the lowest credit risks and can borrow at highly competitive financial terms (low interest). However, it is not certain whether this position can be maintained in the future without becoming the legal owner of the network, since a stricter implementation of the norms of the European Monetary Union (EMU) requires ASFINAG's debts to be taken into account when assessing the level of Austria's state debt.

Until 2006, the *Länder* carried out the maintenance of the national road network on the basis of a contract with ASFINAG. Recently, the maintenance task related to the newly defined national network (1,600 km of motorways, 400 km of expressways) has been assumed by ASFINAG, including part of the maintenance staff. Four regional private limited companies were set up by ASFINAG to harbour the staff and carry out the maintenance task.

The '*Usufruct*' implies that ASFINAG is entitled to the revenues of the Maut, Vignette and Tolls. This is the main source for financing current expenses. The levels of Maut, Vignette and Tolls are set by the Ministry. ASFINAG has the authority to enforce compliance with the Maut, Vignette and Toll systems; the enforcement is carried out with own staff. Speed limit enforcement is carried out by the Traffic Police. The revenues of the enforcement, though, are legally earmarked for the network provider, minus a 20% handling fee for the Police.

Traffic telematics was introduced in 2005 and is expected to become more important in the future as one of ASFINAG's goals is to increase continuously the efficiency of the existing network. Traffic management is carried out by ASFINAG in cooperation with counterparts in Germany, Switzerland and Italy, as many of the traffic problems are related to international tourism and transit flows. Traffic influence systems, for instance, are being used to reduce maximum speed limits in urban areas. Incident management mainly relates to tunnels. Traffic Management was recently introduced in Vienna. ASFINAG is now building a network-wide system with variable signs and a central management and control station. It is expected to cover the whole main road network within four years.

The police are responsible for coordinating the incident management activities in cooperation with ASFINAG incident teams. ASFINAG and the *Länder* collect traffic data on behalf of the Ministry and receive remuneration for this.

Institutional setting - Ministry

The Road Directorate of the *Bundesministerium für Verkehr, Innovation und Technologie* (BMVIT) is responsible for developing the transport policy, including road network policy objectives and technical standards. It employs 90 people for this task, with a growing number of legal experts. Besides the Road Directorate, three other directorates are involved in road traffic matters, including a directorate that deals with tolling issues and one that deals with financing. BMVIT only deals with the national road network managed by ASFINAG.

The formal relationship between BMVIT and ASFINAG is laid down in the '*Infrastrukturfinanzierungsgesetz*' (Infrastructure Financing Act) of 1997, the '*ASFINAG-Gesetz*' (the act by which ASFINAG was created) of 1982 and the '*Bundesstrassengesetz*' (Federal Road Act). These acts state the policy objectives for ASFINAG. Performance criteria for ASFINAG are set by BMVIT, but are presently described in general terms only. This implies that BMVIT cannot manage ASFINAG on specific criteria. In practice, therefore, the relationship between BMVIT and ASFINAG is mostly based on mutual 'trust'.

Strategic network planning is a responsibility of BMVIT. A '*Planfeststellung*' has to be made for each network extension. This involves a comprehensive process in which national and regional stakeholders (including regional administrations, the *Länder*) have to be consulted. Once a *Planfeststellung* has been approved by the Ministry, ASFINAG becomes completely responsible for

realising the network extension, including project management, maintenance and financing. In doing so, ASFINAG has to agree with the *Länder* on the environmental requirements (noise screens, air quality, etc), which may differ per region.

BMVIT is also responsible for setting the technical norms of the network, in close cooperation with ASFINAG and other stakeholders. In principle, ASFINAG has to adhere to these norms, although there is some flexibility, for instance for the application of new techniques.

In the interviews, it emerged that BMVIT and ASFINAG are still trying to find the optimal way to work together within the legal framework.

Financing

ASFINAG has been established as a financially-independent road administration, responsible for financing, developing and managing the national road network. The original aim was to finance road network development with help of foreign capital. The loans are guaranteed by the state. This setup was developed as tax revenues were not sufficient to finance road network developments.

Nowadays, financing for the investments and operational expenses comes from various sources:

- User charges like Tolls, Vignettes and Maut (presently EUR1.2b per annum);
- Construction services charged to the government (EUR0.7b in 2005);
- Issuing long-term bonds on the capital market with an unconditional guarantee from the Republic of Austria (net cash flow EUR1.4b in 2005).

Should the revenues from Toll, Vignettes and Maut not be sufficient to cover ASFINAG's financing needs, then domestic and foreign capital is used as an additional source. ASFINAG does not have autonomy in setting user charges, as the BMVIT sets the maximum tariffs.

As such, ASFINAG seems to have little financial room to manoeuvre. On the one hand, BMVIT (and to a certain extent the *Länder*) can force investment costs on ASFINAG, while on the other it has no possibility of increasing the revenues by increasing user charges. This situation has stimulated ASFINAG to develop and export its knowledge. Recently, ASFINAG purchased EUROPPAS, the Italian-owned company that developed the Maut system in Austria. This system was set up in a short period (less than one year), after 20 years of political discussion, and functioned well from day one. This knowledge will allow ASFINAG to export services to other countries.

ASFINAG is looking for other sources of revenues, such as those from carrying out speed enforcement on its network. ASFINAG may take over this task in the future from the police. Another option is to develop automobile assistance services on its roads.

Road network tasks and relationship with private sector

ASFINAG is fully responsible for road network implementation, maintenance, traffic management and incident management tasks. Since 2006, four regional subsidiary companies are responsible for maintenance tasks, which are contracted out partly to private market parties.

Until 2006, the *Länder* carried out maintenance of the main network on behalf of ASFINAG. With the transfer of the task in 2006, ASFINAG has also taken over the *Länder's* maintenance employees and has given them a place in one of the four newly established companies.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				AU
Maintenance			AU	
Traffic management		AU		
Incident management		AU		

Source: questionnaire

ASFINAG tenders certain maintenance tasks that have been taken over from the *Länder* to private contractors. The contracts with these private contractors are predominantly of a traditional (output-specific) character. ASFINAG's aim is to develop into a network manager, with the majority of tasks being executed by market parties while ASFINAG remains responsible for those tasks. This should result in efficiency gains.

In 2007, ASFINAG started the first PPP project in Austria by order of the government. The project concerns the national route A5 to Brno, a stretch of 50 km. The contractor has been awarded the concession for 30 years. Although it was the intention to develop a PPP construction with the financial risk for the contractor, the financing mechanism has been changed in that the contractor is being paid a combination of availability fee (70%) and shadow toll (30%).

Relationship with road users and other interest groups

Road users and other interest groups do not have many opportunities to communicate with ASFINAG on road network-related topics. There is a special telephone number for complaints. As ASFINAG is dependent on road users for its income, it is looking for opportunities to extend its services to road users. One of the possibilities is to provide road-user-assistance services for its users. Further, ASFINAG is trying to improve its image, especially in case of calamities, by providing drinks, food and blankets.

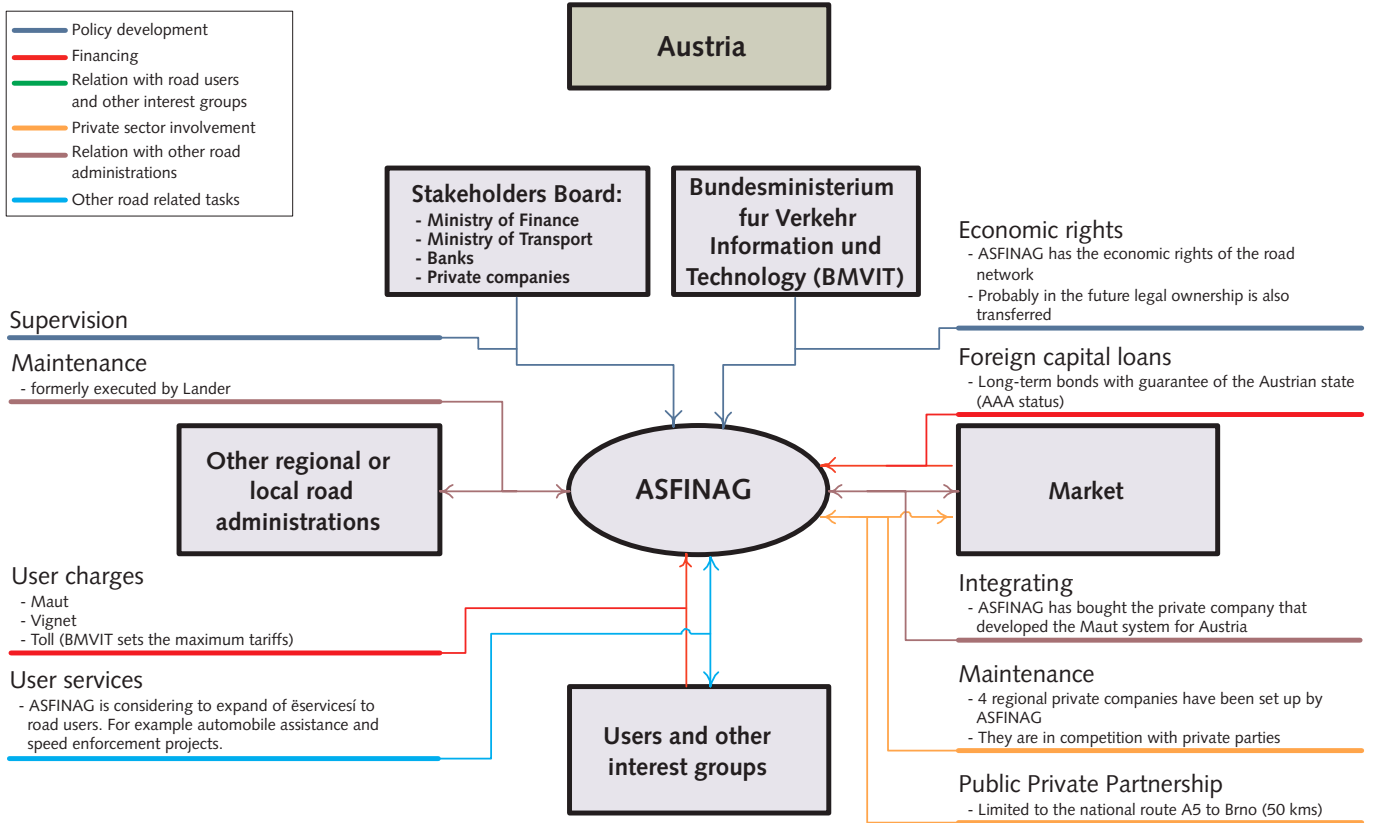
Relationship with other road infra providers

The *Länder* are the political spokesmen for their regions. The *Länder* lobby at national level for particular road extensions, which, once decided, need to be put in place by ASFINAG. The *Länder* are responsible for environmental legislation and, as such, may also have an impact on ASFINAG's work.

As described, ASFINAG has taken over responsibilities and resources of the *Länder* for maintaining the national roads. There is cooperation between ASFINAG and the *Länder* in the collection of traffic data.

Highlights

The following picture presents the most striking elements of the situation in Austria.



DENMARK

Institutional setting

The *Vejdirektoratet* (Danish Road Directorate – DRD) is an agency of the Ministry of Transport and Energy and falls under the political responsibility of the Minister. The Road Office within the Ministry is the counterpart for the DRD. The relationship between DRD and the Ministry is laid down in a contract. The contract sets objectives for maintenance tasks, but none for traffic management or incident management. Within the scope of this contract and current legislation and budgets, the DRD is independent to determine its policies and executive tasks.

As of 1 January 2007, DRD is responsible for a road network of almost 3,700 km. This includes the national road network and 2,000 km of regional roads that were transferred to the DRD in 2006; the 41 km stretches of motorway on the Great Belt Bridge and Øresund Link, together with Kastrup airport motorway, are administered by Sound and Belt Holding A/s.

The regional roads transferred to DRD used to be managed by counties, a regional administrative layer. The 14 counties were abolished in 2006 as part of a major administrative reform operation that also included a reduction in the number of municipalities from 295 to 98, and a reduction in the number of police districts from 50 to 12. The roads under jurisdiction of the counties were divided over the DRD (connecting or feeder roads) and municipalities. As the reorganisation has only recently been carried out, most parties involved are still finding their way and, to some extent, cooperation still needs to be redefined.

Key indicators Denmark

Total road network Denmark	72,363 km
- of which main roads	1,600 km
Total network DRD	3,700 km
Main network (trunk roads) DRD	1,618 km
- of which motorways	918 km
Utilisation of the main network	12.4 billion vehicle km
Average utilisation	21,000 vehicles/km/day
Regions DRD	6
Employees DRD	900 FTE
Investment budget DRD	DKK 1.97 billion (EUR 0.26 billion)
Maintenance budget DRD	DKK 1.15 billion (EUR 0.16 billion)

With the expansion of its road network, DRD has introduced six area centres. The size of these area centres ranges from 25 to 60 FTE. In total, 400 FTE staff were transferred to DRD, doubling the size of the organisation. Some of the personnel resources are consultants who are working on-location at DRD offices on long-term tasks.

The area centres are responsible for (and have autonomy in) local planning, administration, maintenance and smaller changes to the network (e.g. roundabouts). Implementing major construction works is a task of the central office of the Road Directorate.

The Police is responsible for traffic management, be it with intensive cooperation from the DRD. DRD has introduced Variable Message Signs (VMS) and has good experiences with it. The high costs, however, are a bottleneck to expand the system.

A complimentary email service is provided to road users for singular traffic events (incidents, accidents etc). Traffic data is made available to traffic information providers on a commercial basis. There is a contractual arrangement with one of the nationwide TV stations, which the DRD provides with traffic information on commercial terms that include an obligation to identify DRD as the source of the information.

DRD does not perform any other road traffic related tasks.

Policy objectives

Transport policy is developed by the Ministry of Transport and Energy. With respect to strategic network planning, an independent ad hoc commission (*Infrastruktur kommissionen*) has been established to advise the Ministry on the future infrastructure developments. The commission consists of industry and organisation leaders, infrastructure experts as well as professors of Danish Universities. The Commission is due to submit its advice in October 2007.

Network expansions are approved through legislation in Parliament following negotiations in the *Parliamentary Committee on Transport*. With the transfer of regional roads to the DRD, decision-making on and preparation of works for these roads will be more centralised, which DRD considers a positive development. A major benefit is that there is one administrative layer less, which could potentially speed up decision-making.

Financing

Both investments and operational expenses are covered fully by budget allocations. The extent of road maintenance carried out on the trunk road network depends on the Danish Parliament's annual grant from the budget. On the basis of this budget, the Danish Road Directorate strives to ensure that the trunk road network is effective and efficient. Continuous prioritisation of road maintenance is undertaken with a view to achieving the best possible benefit for society from any work initiated, within the budget limits set.

Two main bridges in the primary network have recently been developed on the basis of toll concessions with private consortia. The tolls are registered and their payment is settled by means of on-board units. It is the explicit aim of the consortia for the system to become the standard for interoperability of road pricing systems (and perhaps also paid parking) for all Nordic countries.

There are no plans yet as for the introduction of road pricing, although Copenhagen municipality seems to be in favour of introducing some form of road user charge.

Road network tasks and relationship with private sector

Contractors carry out almost all infrastructure-related works and services, such as design, construction and maintenance activities. The DRD is in charge of designing and financing maintenance projects, and outsources the work to private contractors based on technical (output) specifications. The DRD is responsible for implementing and financing the network development projects.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				DK
Maintenance				DK
Traffic management	DK			
Incident management		DK		

Source: questionnaire

A new method of cooperation between the public institutions and private companies has been developed recently with respect to maintenance works. This was initiated by the goal set by the Ministry to reduce maintenance costs by 2%. The new contracts are cooperative or alliance contracts and should result in cost savings for both the client (DRD) and the contractor. The agreements last 3 to 5 years and relate to road maintenance on certain sections of the road network. The agreement is based on the technical specifications regarding road conditions during its lifetime, as well as common goals such as effective communication and knowledge exchange, all with the common goal of contributing to the best possible technical and economic benefits for both parties. If new, innovative and cost-saving solutions are adopted within the duration of the contract, the contract may be reviewed to the benefit of both parties.

Relationship with road users

DRD carries out user surveys to measure satisfaction. The most recent annual report available in English (2001) presents the results of these surveys, including information on:

- Visibility of road markings, evenness of the surface, maintenance
- Cleaning of roads, bridges, ditches
- Cleaning of toilets
- Traffic operations.

The acquisition of part of the country roads has brought DRD closer to the public, both road users and people living near the road. These relationships are important in view of the organisation's desired user orientation.

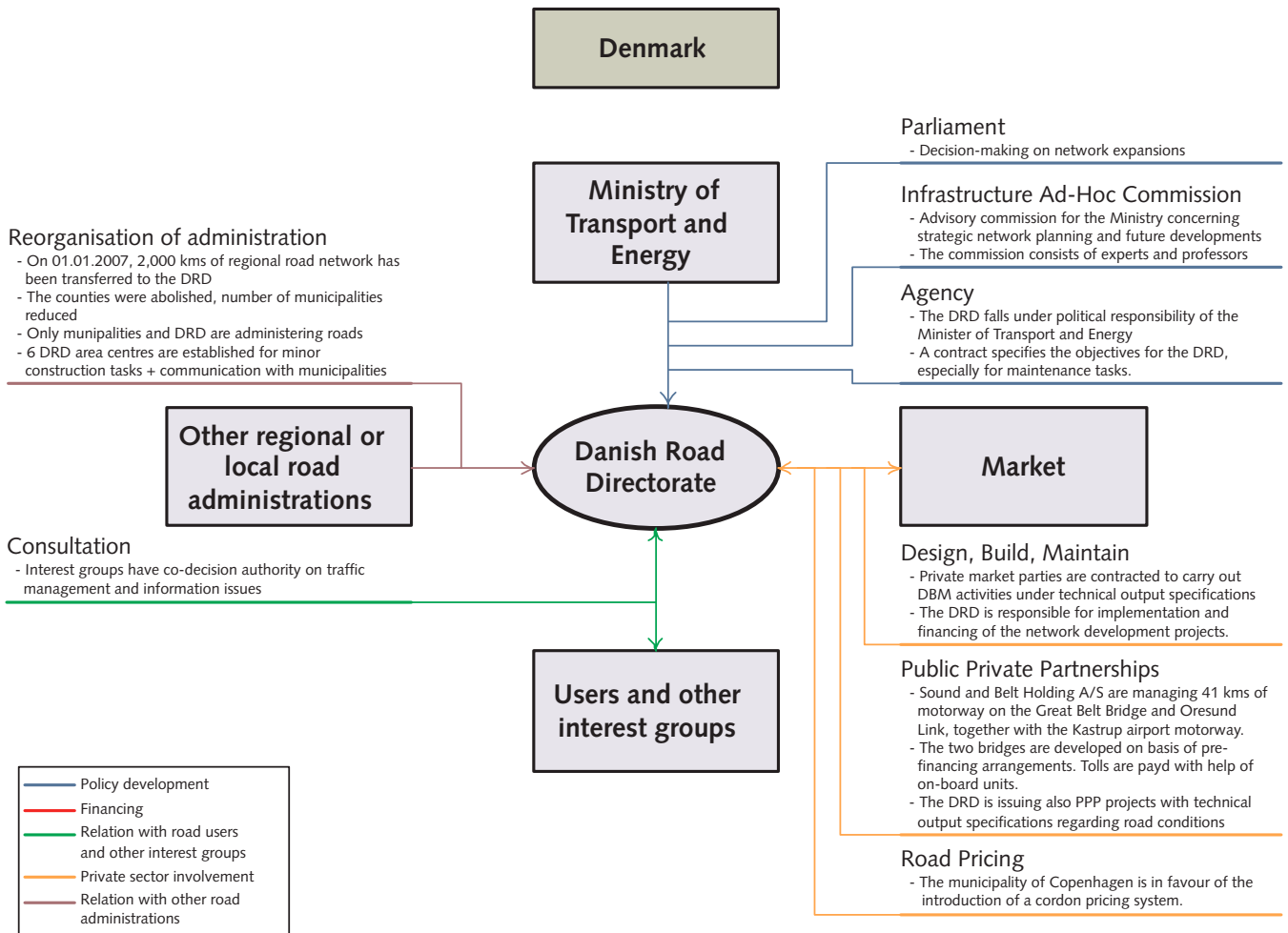
It is important for the DRD to stay connected with the municipal road authorities and customers with help of the six area centres. The DRD therefore aims to simplify the way in which the general public can get in touch with and be served by the road administration as much as possible. This could ideally lead to a situation in which the two mutually-independent road administrations, i.e. the area centre and the municipal road offices within the centre's geographical area of responsibility, serve as front desks for each other, depending on where a customer makes the initial contact. The Road Directorate's area centres expect to become so well-known to the public that they will receive many queries that eventually require the attention of one of the municipal offices.

Relationship with other infra providers

The area centres are cooperating with the municipalities for road safety. This was previously covered by the counties. The DRD cooperates in six specific projects with other infra providers. Six of the larger bridges and structures are called 'joint bridges' and are administered in cooperation with other authorities. Limsfjord Bridge is administered with Ålborg local council. Storstrøms Bridge, Masnedssund Bridge, the old Little Belt Bridge, Odde Sund Bridge and King Frederik IV's bridge are all administered with the National State Railway Agency.

Highlights

The following picture highlights the Danish situation.



ENGLAND

Institutional setting

The *Highways Agency* (HA) is one of six Executive Agencies of the Department for Transport (DfT) and was established in 1994. HA is responsible for operating, maintaining and improving the strategic road network in England.

The Secretary of State for Transport is responsible for overall Government policy on motorways and trunk roads in England and determines the strategic framework and the financial resources within which the HA operates.

Key indicators England

All roads England (2005)	297,911 km
- of which classified roads (2005)	119,363 km
- of which A roads (2005)	35,206 km
- of which trunk motorways and trunk road dual carriageways (2005)	5,587 km
- of which trunk motorways (2005)	2,938km
Total network HA (October 2004)	7,754 km
Value of road assets	GBP 76.2 billion ¹¹
Regions	9
Employees	3,000 ¹²
Total budget	GBP 6.4 billion (EUR 9.6 billion) ¹³
- Investment budget	GBP 1.3 billion (EUR 1.9 billion)
- Maintenance budget	GBP 0.9 billion (EUR 1.3 billion)
- Notional charge for cost of capital	GBP 2.7 billion (EUR 4.1 billion)
Traffic intensity HA network	Over 130 billion vehicle km
Average utilisation	46,000 vehicles/km/day

HA's aim is 'Safe roads, reliable journeys, informed travellers' that supports the DfT objective of a transport system that works for everyone. The agency improves road safety, makes journeys more reliable through better network management and information and respects the environment.

The Government's long-term strategy for transport policy has been formulated in the White Paper 'The Future of Transport', published in 2004. This White Paper looks at the factors that will shape travel and transport over the next thirty years and sets out how the Government will respond to the increasing demand for travel, maximising the benefits of transport while minimising the negative impact on people and the environment.

¹¹ Source: HA Annual report 2005-2006

¹² Based on: RWS, *PIM op weg*. 2006.

¹³ Source: HA Business Plan 2006-2007

The Department for Transport has a Public Service Agreement (PSA) with the Treasury. The PSA is 'cascaded down' to all agencies in their business plans that contain also other relevant targets not following from the PSA. The HA has developed key performance indicators for each of the targets specified in the PSA. A main element of HA Annual Report is to report on these indicators and the achievement of targets.

The following targets (amongst others) are specified in HA Business Plan for 2006/2007:

- Deliver the PSA targets to make journeys more reliable on the strategic road network by 2007/2008 (the average vehicle delay on the 10% slowest journey should be less than the baseline period)
- Deliver improved management of the strategic road network
- Deliver the programme of improvements to the strategic road network (described in number of progress points, priority actions, variable speed limits).
- Deliver improvements to journeys by making information available to influence travel behaviour and inform decisions.
- Reduce by a third the number of people killed/seriously injured on trunk roads compared with the 1994-98 average.
- Maintain the network in a safe and serviceable condition.
- Mitigate the potentially adverse impact of strategic roads and take opportunities to enhance the environment taking into account value for money.
- Deliver a high level of user satisfaction
- Deliver the HA contribution to the Department's efficiency target.

The targets thus comprise issues like network development, quality and operations, safety, environmental impact, user satisfaction and operational efficiency, but also influencing travel behaviour.

Policy objectives

In 1998, the Government's *New Deal for Transport* set out the Highways Agency's change of focus to become a network operator. The HA and the Police commissioned a review that revealed that there was a strong case for the transfer of general traffic and road management tasks away from the police. This led to the transfer of such tasks to the HA. The Traffic Management Act of 2004 provides newly-created Traffic Officers with special powers so that they are able to perform certain traffic management tasks previously carried out by the police.

As a consequence of the current PSA (following the 2004 Spending Review), journey time reliability has become an important indicator. The target was defined as to improve reliability in 2007/08 relative to a baseline taken in 2004/05. The amount of improvement was not defined, so in practice the target is for reliability 'not to become any worse'. The introduction of traffic officers was expected to provide a major contribution to this target, but monitoring data show that reliability is getting worse (as a result of background traffic growth) and it looks unlikely that the target will be met. This suggests that measures to influence demand (e.g. road user charging) will be required to improve reliability.

HA has autonomy for any project up to GBP5m. Any new road scheme that exceeds this limit requires the Minister's consent. A business case has to be developed for each improvement scheme (regardless of costs). This includes an environmental assessment and cost-benefit analysis. Where schemes will have a noticeable impact on the surrounding community, there is likely to be a public consultation exercise. If a road improvement scheme is included in the so-called *Targeted Programme of Improvements* (this comprises projects costing more than GBP5m), the project may be expected to be realised eventually. However, the format of the TPI is now being reviewed and will be changed.

The development of a more rigorous CBA methodology (particularly for smaller schemes) started some 10 years ago, when the DfT wanted more clarification about value-for-money (from an auditing point of view). The development was further stimulated through a more thorough 3-year Comprehensive Spending Review procedure where DfT had to support its claim to the Treasury for future funding with evidence of what benefits would be delivered for the money provided.

In general the DfT has become increasingly outcome-oriented. The HA has, over many years, become further oriented towards the market. However, to ensure HA becomes more oriented towards the customer and the outcomes that DfT are seeking, the HA has recently started to do more functions themselves in preference to the market (e.g. Traffic Officers). This is shaping relationships with DfT as well as with the market.

Financing

The HA has a number of PFI (Private Finance Initiative) agreements for providing new infrastructure and its subsequent maintenance for a fixed period of time, typically 30 years. The PFI has become one of the HA's main instruments for delivering high-quality and cost-effective road related services. It is not simply about financing capital investment in road network development projects, but also about using the full range of private sector skills and innovation.

PFI projects fall into three broad categories:

- financially free-standing projects, where the private sector's costs are recovered entirely through charges to the end-user;
- services sold to the public sector, where costs are recovered by charges from the private sector to the public sector;
- joint ventures, where costs are met partly from public funds and partly from other sources.

There are two fundamental requirements for a PFI project:

- value for money must be demonstrated for any expenditure by the public sector;
- the private sector must genuinely assume risk.

The use of the Private Finance Initiative for road procurement has delivered contracts representing good value for money. Assessment of the first 10 contracts of the Highways Agency's Design, Build, Finance and Operate (DBFO) roads programme showed good results. However, it proved difficult to make any intermediate change in the contract; the concessionaire is in a very strong negotiating position which would cause changes desired by the HA to become very expensive. This includes getting concessionaires to 'recognise' the position of the newly introduced Traffic Officers. Nevertheless, the HA believes that, as a result of this programme, the public will receive the required level of service at lower cost.

Besides this private initiative in financing road network development, the government is also funding the Agency with help of an annual budget. In general, the choice between public and private financing is made on a value-for-money basis. Since the state can borrow money at a better rate than the private sector, it will usually be better value for money for public financing to be used.

Road network tasks and relationship with private sector

The HA was, until relatively recently, only responsible for all executive tasks in the fields of network development and maintenance – Incident management and traffic management were the responsibility of the Police. Concerning the realisation of maintenance tasks, the HA is subcontracting tasks to private contractors. In most cases, the contractor is responsible for designing and operating the job, under restriction of certain technical standards of the HA.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				EN
Maintenance				EN
Traffic management			EN	
Incident management	EN			

Source: questionnaire

Until 10 years ago, local authorities carried out maintenance (municipalities and counties; the latter for inter-urban roads). From about 1997, responsibility was transferred to 24 Managing Agents (MA) and Term Maintenance Contractors (TMC). These assumed the ‘agent’s role’ of the local authorities for the HA network. In several cases, the counties kept on doing the maintenance work, sometimes in partnership with a firm of consultants.

In 1998, following the White Paper ‘A New Deal for Transport: Better for Everyone’, a process of ‘rationalisation’ and ‘de-trunking’ was initiated as detailed in the report ‘A New Deal for Trunk Roads in England’. For the maintenance of the resulting so-called ‘core network’, the number of areas was reduced from 24 to 14.

Nowadays, each of these areas is assigned an HA area team and a contractor, known as a Managing Agent (MA) or Managing Agent Contractor (MAC), which is either a consortium (consultant with contractor) or a firm that fulfils both roles (the ‘one-step- service provider”). In general, the consortia only comprise private parties. The area team and the corresponding Managing Agent Contractor are responsible for maintaining the Agency’s roads (and network development up to a defined threshold) in their area. Performance criteria for maintenance tend to be come more outcome-oriented.

Relationship with road users and other interest groups

The HA is measuring road user satisfaction with help of a National Road Users’ Satisfaction Survey (NRUSS). The Agency has been monitoring awareness and satisfaction of network users since 1995. From 2001, the results from NRUSS have been providing the Agency with quarterly Key Performance Indicators.

Besides this national survey, there is also an Area Road Users’ Satisfaction Survey (ARUSS). The ARUSS measures road users’ attitudes on area level issues. It also identifies what the area team needs to do to improve its services. This survey is used as a tool to form an action agenda for the area teams.

Traffic management

With the Traffic Management Act of 2004, the traffic management responsibilities have been transferred from the police to the HA, to be performed by Traffic Officers. However, the HA does not have powers to move traffic to lower roads, nor any enforcement power; these still fall under the Police’s authority. With this transfer, the Traffic Officer’s task remained in-house with the HA, although this was not in line with the government’s general procurement strategy (which implies outsourcing whenever possible). Hiring Traffic Officers nearly doubled the HA’s size. The transfer of traffic management responsibilities also implied the transfer of tasks of 32 local (police) traffic control centres to seven regional HA traffic control centres.

Before the introduction of Traffic Officers, the Highway Agency had already introduced another major traffic management tool: the National Traffic Control Centre (NTCC). The NTCC provides strategic traffic management across the entire English strategic road network, by monitoring a road network of approximately 5130 miles with 4000 traffic monitoring sites.

NTCC coordinates with Police and local highway authorities to disseminate accurate and timely information to the public via a website, interactive telephone services and roadside vms. It also provides information direct to media organisations for onward broadcast. The project has been procured as a Public-Private Partnership, whereby the NTCC Company is responsible for installing and maintaining the necessary infrastructure and provides services over a ten-year concession for which payment is received.

The national Traffic Control Centre was realised under a PPP contract with SERCO as main contractor. This contract included the building and installation of a National Traffic Control Centre, as well as installing the necessary traffic monitoring equipment and variable message signs along the road network, and furthermore the operation of the control centre for a period of seven years from its completion in 2004.

SERCO took care of the private financing of the building and equipment. The HA pays an annual service charge during the seven-year period. After this period, the control centre and equipment are to be transferred to the HA.

The contract for the NTCC was awarded before the transfer of traffic management responsibilities from the Police to the HA. However, the NTCC does not really deal with traffic management. Actual traffic management is operated from the HA's seven regional control centres, which has been the cause of coordination problems with the NTCC.

Perceptions of the outcome of the NTCC contract seem to be mixed. SERCO seems to have underestimated 'what it took' to meet the service quality requirements of the HA. This led to serious considerations to terminate the contract, but eventually it was decided this would bring too many disadvantages.

As far as incident management is concerned, the responsibilities are divided between the HA and the police, depending on the character of the accident:

- if there are no injuries HA is responsible
- if there are injuries the Police manages the incident scene
- if the accident is fatal (or nearly) the Police treats the accident scene as a crime scene, keeping it free for forensic research.

Protocols have been agreed upon, but practice has to evolve. The HA is building up expertise.

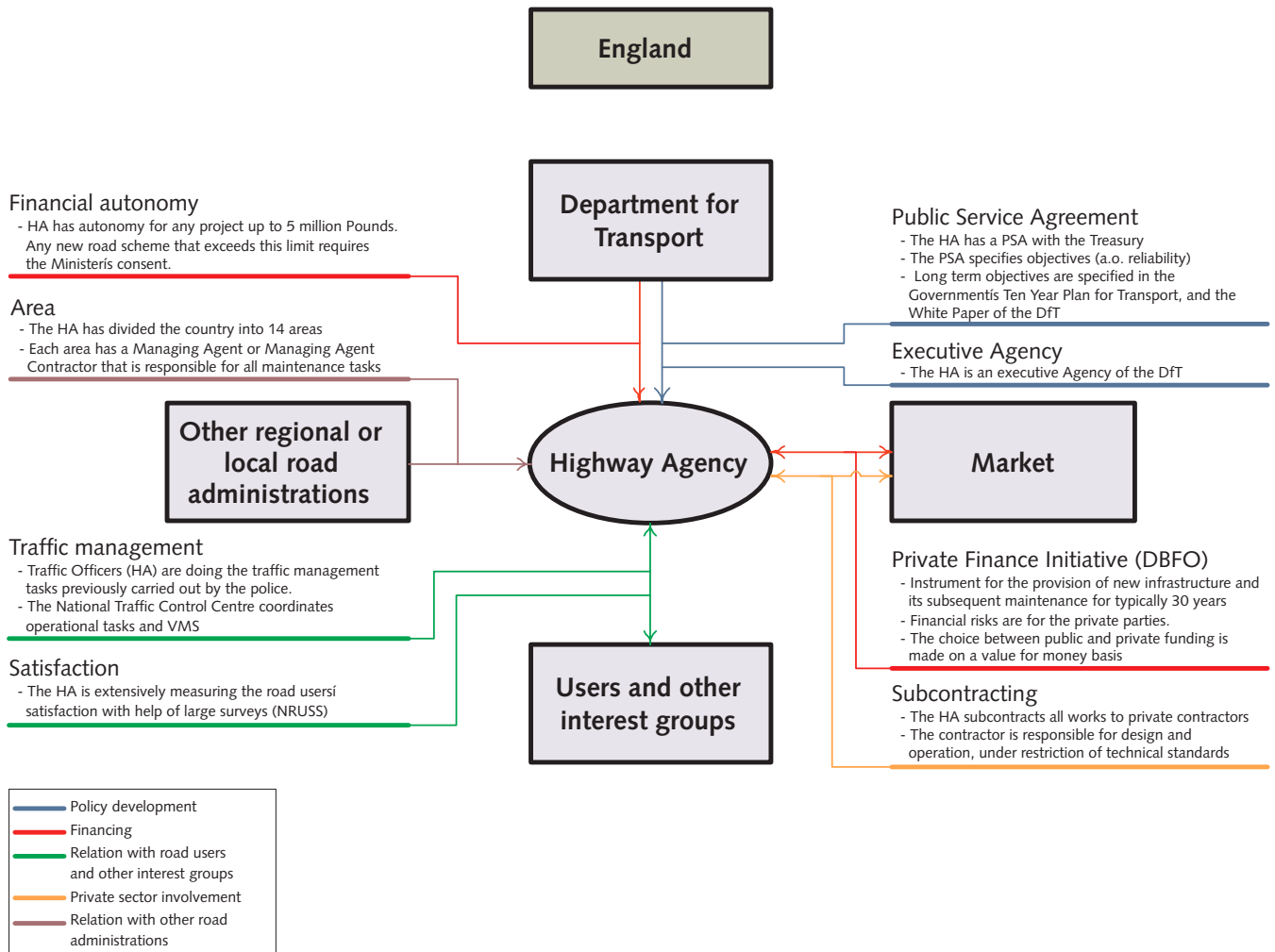
Relationship with regional infra providers

The planning of regional network development has for a large part been decentralised. The 2004 Planning Act requires a 'Regional Spatial Strategy' including network development, to be prepared by the 'Regional Planning Body'. The planning framework was created, expecting that there would be an elected regional government who would act as a 'Regional Planning Body'. However, this never happened. Without an elected regional government, the regional strategies are now being prepared under the responsibility of Regional Assemblies, comprising local authority representatives and 'stakeholders' from the social, economic and environmental sector (formally all on a voluntary basis). Each Regional Assembly covers a geographical area that matches the regional Government Office's area. Adoption of the Regional Spatial Strategies by the ministers happens after examination in front of an independent inspector.

The Regional Assemblies are involved in setting priorities for major improvements proposed for regional routes that are managed by the HA. The timing and priorities for major improvements on these roads are determined relative to regional funding allocations, and are proposed by the relevant region and approved by Ministers. The HA has an important advisory role in this process.

Highlights

The following picture highlights the situation in England.



FINLAND

Institutional setting

Tiehallinto (the Finnish Road Administration – FINNRA) is a government agency operating under the jurisdiction of the Ministry of Transport and Communications. FINNRA is supervised by a Board, with an independent chairman (presently the chairman of an insurance company) and representatives of the Ministries of Transport and Environment, a provincial governor, a mayor, a business representative, a representative of the personnel and the DG of FINNRA. FINNRA is relatively independent from the Ministry.

FINNRA's mission is 'to provide road and traffic services that meet the needs of road users and businesses'¹⁴. Its values are:

- Societal responsibility;
- Client-centred activities;
- Know-how and cooperation.

The mission and values are reflected in FINNRA's Vision 2007: *A respected authority leading the way*. The key aspects of this vision are:

- Societal needs are FINNRA's starting point
- FINNRA works for the benefit of the transport system. Together with others, it is responsible for the operation of the entire transport system. It provides know-how to others and actively develops cooperation.
- As expert, FINNRA is responsible for road management. Client-orientation and equitable services are the basis of its operations. It endeavours to have the best tendering practice in a market that is developed and operates effectively. In information management, it wants to lead the way for other administrations.
- Its working community offers positive challenges: employment with FINNRA is a sought-after job.

Key indicators Finland

Total network FINNRA	78,189 km
- of which main roads	13,273 km
- of which motorways	693 km
Value of road assets	EUR 15 billion
Regions	9
Employees	950
Maintenance budget	EUR 0.75 billion
Works contracted out	EUR 0.6 billion (2005)
Traffic performance motorways	5.3 billion vehicle km
Average utilisation	21,000 vehicles/km/day

The Finnish Road Administration consists of a head office and nine regional centres. The head office focuses on strategic and performance management as well as process development. These are mainly executive tasks. The regional centres are responsible for road management and regional cooperation as well as for financial and operational results. Productivity and efficiency are improved by developing process performance indicators.

¹⁴ source: FINNRA, Road Facts 2006.

FINNRA makes an annual proposal for planning road network extensions that has to be approved by the Cabinet. Its aim is to provide *'smooth, safe and environmentally-friendly road connections'*.

Policy objectives

The Ministry of Transport and Communications determines performance criteria for FINNRA, such as a minimal level of passage of the roads (in particular in relation to winter maintenance), the technical condition of roads, and the satisfaction of road users and transport service companies.

Recently, a ministerial working group composed of five ministers was set up to consider a new transport infrastructure policy. Its report was completed early 2004 and sets out a framework for Finland's transport infrastructure policy for the next ten years. Some of the major investments and projects suggested by the working group for solving problems in the basic transport infrastructure maintenance have already been launched.

Environmental issues are a vital point to Finnish Road Administration policies and are considered in both transport system planning and road management. The Finnish Road Administration plays an active role in international environmental cooperation.

Financing

Network development is financed through a combination of budget allocations and private sector (pre)financing. Operational expenses are covered from annual budget allocations.

Road network tasks and relationship with private sector

In recent years, the involvement of private sector parties has increased. FINNRA privatised its maintenance work by creating the Finnish Road Enterprise (FRE) with a gradually shrinking position as a protected contractor until 2005. FRE has now established its position among the tendering contractors. In recent tenders organised by FINNRA on, for example, regional maintenance, contract prices have fallen by more than 20 percent.

FINNRA aims to be regarded as having the best method of outsourcing as compared to the other infrastructure sectors in Finland. Outsourcing therefore focuses on on:

- Service levels to the user;
- Cost efficiency;
- Reasonable profit for contractors, in particular in case of innovation.

Contracts should contain room for innovation and further developing technical solutions and production methods. The larger involvement of private companies in road-related tasks has resulted in an increase in productivity as result of providing room for service providers to create and use innovations and new technical solutions. In new pilots, an integrated part of the contracting procedure is that contractors can receive a bonus of 1% to 1.5% of the total contract sum if the satisfaction of road users in the region concerned is above average. The level of the bonus is under discussion and may be increased to 2%.

At present, the winter maintenance of public roads is 100% submitted to open competition. Moreover, regular maintenance tasks are commissioned in the form of long-term agreements and area-based contracts in which FINNRA specifies activities and desired quality requirements mainly by outcome-based requirements. In turn, contractors use their innovations and best practices to meet those quality requirements. The contractors are responsible for technical realisation, which stimulates innovations. For FINNRA, a successful contract is achieved when contractors understand and execute the client's vision, goals and ethics and produce excellent customer services. In addition, minimising the use of salt is rewarded and reflected in the bonus system described above.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				FI
Maintenance				FI
Traffic management		FI		
Incident management		FI		

Source: questionnaire.

Next to these private initiatives in road maintenance tasks, FINNRA typically uses DBM contracts in new development. In one case, a DBFOM contract has been used in which shadow tolls are used as the financing mechanism.

FINNRA's long-term objective is to outsource road development and maintenance works to contractors on the basis of long-term agreements as much as possible, in which the outcome is specified by quality of the road, congestion levels due to works and user satisfaction.

Relationship with public

FINNRA has a systematic approach to the relations with stakeholders. Stakeholders are regarded as partners who can help FINNRA to execute its activities. FINNRA has developed a two-level policy towards stakeholders:

- A portfolio policy: identifying stakeholders and assigning contact persons. Contacts are evaluated every three years;
- A policy per stakeholder: developing an action programme (one to three years) per stakeholder with goals to be achieved, mutual cooperation and responsibilities.

The policy is developed on the basis of a stakeholder research programme, including detailed questionnaires for each stakeholder. The result of the programme gives a picture of how stakeholders see FINNRA.

FINNRA uses a segmentation of user groups. The aim is to develop goals for each of the users groups in the future and to prioritise user oriented activities.

With respect to companies, FINNRA also uses a segmentation of companies with whom it works. The groups of companies are characterised in terms of their most important driver (costs, effectiveness, cooperation, flexibility). Information profiles are available for each group of users with respect to their mobility. This includes soft information on the wishes of these groups of companies.

FINNRA has laid down its promises to road users in a Road User's Charter. The Charter is available on the internet as well as in a brochure. The charter covers the following fields:

- Information to plan the journeys;
- Travelling in winter;
- Travelling in summer;
- Road works.

For road works, FINNRA promises that contractors will safeguard the safety of road users and road workers and that negative impacts of the works will be minimised.

The satisfaction of users is measured with help of questionnaires and interviews. The satisfaction is measured at regional level, including the main and regional road network. Group discussions are used as a tool to interact with users.

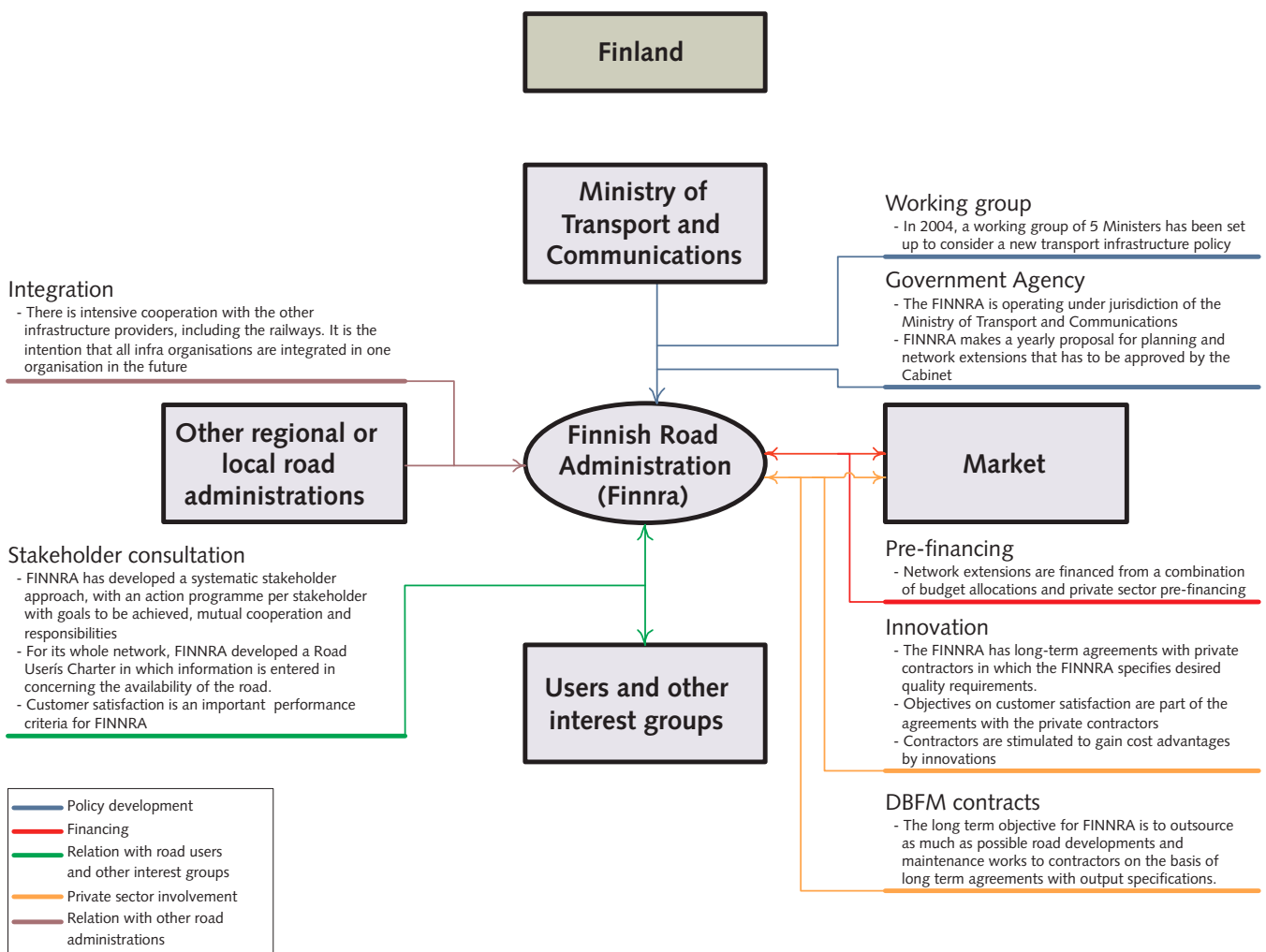
Relationship with other road infra providers

Besides the municipalities, there are no other road infra providers in Finland. In addition to the public road network, there are about 330,000 km of private roads. Managed by private communes (people who live along the side of the road), some of which receive funding from FINNRA.

There is intensive cooperation with the other infrastructure providers, such as the railways. It is the intention that all infra organisations are integrated in a single organisation in the future.

Highlights

The following graph highlights the Finnish situation.



FRANCE

Institutional setting¹⁵

The French Directorate-General of Roads (*Direction Générale des Routes* - DGR) is part of the Ministry of Transport (*Ministère des Transports, de l'Équipement, du Tourisme et de la Mer* - MTETM). Besides DGR, there are DGs for civil aviation, rail & sea transport, urbanisation & construction, and others. The DGs are overseen by the Minister's Cabinet, which has a staff of 30 persons.

DGR is presently directly responsible for 12,000 km of national roads. Some 8,500 km of national roads are managed by the private sector on the basis of toll concessions. Although all concessionaires except one have been bailed out in the past by the government, and thus became public entities, these concessionaires were again privatised in 2006.

DGR is responsible for total network integrity. One of DGR's sub-directorates (RAR) is responsible for interacting with the concessionaires, including renegotiations of contracts. Responsibility for roads with a local function has recently been decentralised to the local administrations (*Départements*).

DGR is not in charge of traffic management activities. The *Direction de la Sécurité et de la Circulation Routière* (DSCR), which is also part of the MTETM, is responsible for providing traffic information, traffic management and developing and implementing road safety policies. Unlike the DGR, it is not a Directorate-General but a 'Délégation interministérielle'. The DSCR aims to ensure the rational use of the road network as a whole and the quality of the information provided to the users. The DSCR is responsible for the integral safety of the national, regional and local road network.

Key indicators France

Total main national network France	20,000 km
Total network DGR	12,000 km
Main network DGR	12,000 km
Regions	21*
Employees	12,600

*: the newly established SMOs

Policy objectives

Decisions on expanding the road network are prepared by the DGR and taken by the Cabinet, especially for the larger projects. Parliament has to approve the DGR's objectives for its main tasks. These objectives are determined by the Minister's Cabinet and include topics such as average speed, congestion levels, quality of the network and quality of the traffic-related amenities (parking areas, etc). Once approved, DGR is responsible for their realisation. Within these objectives, DGR is autonomous in its daily operations and decisions.

Furthermore, DGR has responsibilities in determining the technical standards of the road and in prioritising tasks. While the decisions on network expansion are taken by the Ministry, the DGR is may identify the needs for network development and set priorities. This can be done with help of cost-benefit analyses carried out by third parties or by the DGR itself.

Financing

The road network development in France is financially-dependent on both government and private sources. The DGR is completely dependent on the government budget allocations for its part of the

¹⁵ This section describes the situation in France as it existed until the change of government that was a result of the election of a new president in May 2007. As a consequence of this change of government, the Ministry of Transport has recently merged into a newly created ministry with a broader scope: the *Ministère de l'Écologie, du Développement et de l'Aménagement durables* (Ministry of Ecology, Sustainable Development and Spatial Planning).

network. Since the (re-)privatisation of the concessionaires, the revenues of these concessions are no longer available. Since then, the greater part of the government budget allocations have to be funded from tax revenues.

The private sector finances the construction of many main roads in France; in most cases toll revenues are used as a return on investment mechanism. The level of the toll charges has to be approved by the Ministry for each concession individually.

The financing of regular maintenance is organised in line with the financing of network development: DGR carries out maintenance on the basis of government budget allocations, while concessionaires finance the maintenance of their road sections.

Road network tasks and relationship with private sector

The concessionaires have long-term contracts with the DGR, concerning the design, construction and maintenance of specific parts of the road network. They are also responsible for all traffic management and incident management activities for their part of the road network.

DGR oversees the activities of the concessionaires. Every 5 years, the conditions of the concession contracts are renegotiated, making it possible to discuss matters such as additional investments, improvement to the quality of the services and the level of the user charges.

The existing tolled network was developed up to the 1990s without competition, benefits of old links funding the building of new links within regional concessions. Nowadays, as a result of EU regulations, new concessions are only granted for each new link based on competition. Despite the large private involvement, DGR uses a restrictive policy concerning issuing new road tenders. The most recent case is the completion of the A86, the western orbital road near Paris, which is also the second concession within a metropolitan region.

Besides these long-term contracts, DGR also issues short-term contracts, mainly for maintenance activities. These contracts are more limited, as the private party is only responsible for the maintenance works, based on technical standards provided by the DGR. The majority of road maintenance activities are carried out by DGR's own staff.

Involvement private sector in road network tasks – DGR network only

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				DGR
Maintenance		DGR		
Traffic management	DSCR			
Incident management	DSCR			

Source: questionnaire

Relationship with road users and other interest groups

The role of interest groups in network expansion is laid down in laws. Extensive consultation is foreseen in most cases. In this consultation, there is no formal role for road user groups. With respect to other activities (maintenance, management), the relationship between DGR and user/interest groups is not extensive. The DGR informs the interested parties or individuals on maintenance activities, but there are no formal opportunities for advice or consultation. There is

only interaction for traffic management activities between road users and other interest groups and the DGR. In this case, the information from road users is used to improve the quality of the DGR's traffic management tasks.

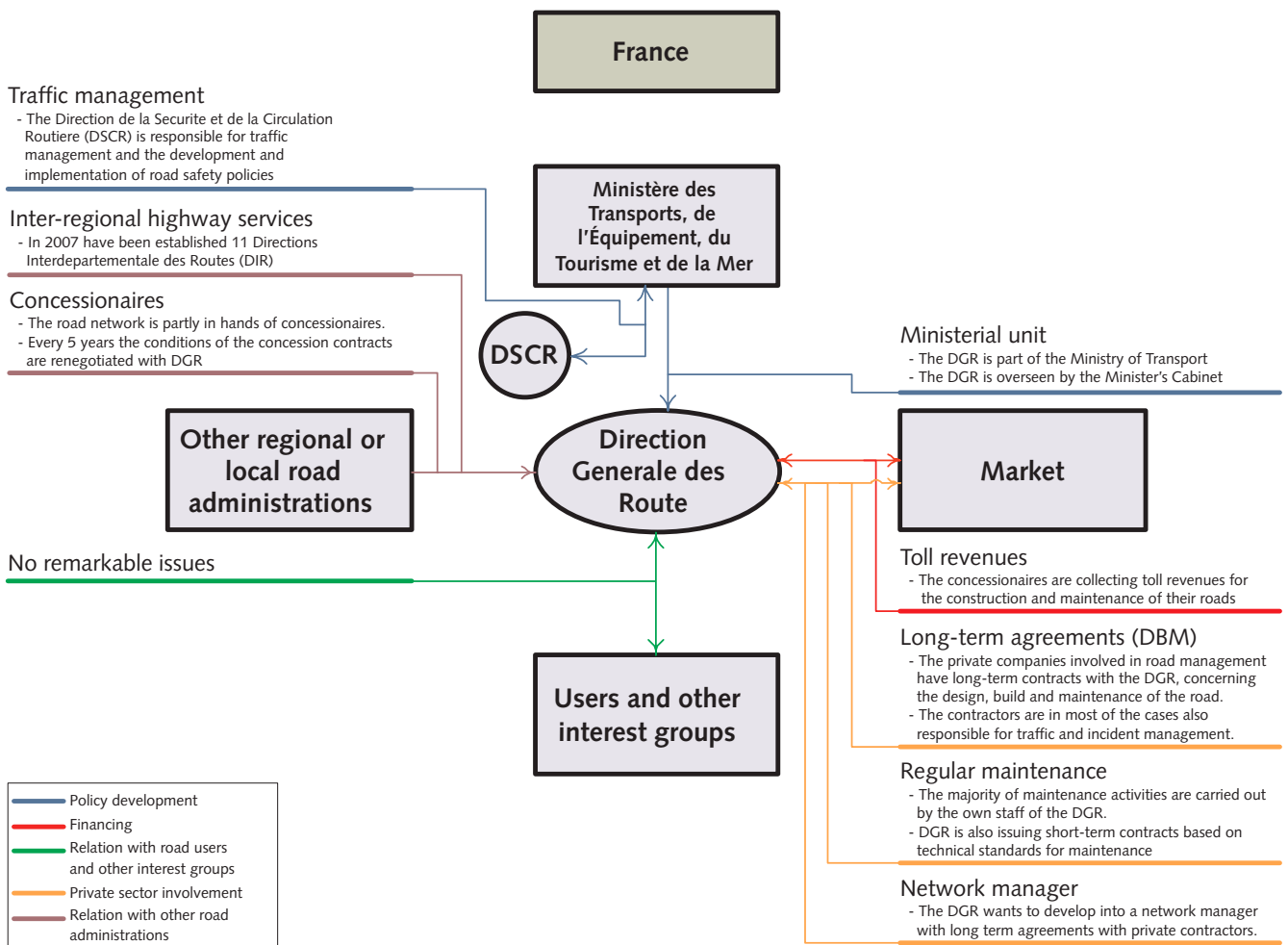
Relationship with other road infra providers

The DGR experienced a major decentralisation process in 2006. Up until then, the regional offices of the DGR were also in charge of the operation of the regional network. From 2007, onwards each *Département* has its own operator. In total 20,000 kilometres of the road network have been transferred from DGR to the departmental offices.

As of 2007, there are 11 inter-regional highways services (DIR) that are dedicated to the managing and operating a specific part of the national road network. These services are part of the MTEMT and refer directly to the DGR and the DSCR. Subsequently, 21 management services (SMO) have been set up in each regional directorate, which are responsible for network development. Each SMO is using the services from a DIR or a private firm for designing network development projects.

Highlights

The following graph highlights the situation in France.



SWEDEN

Institutional setting

Vägverket (Swedish Road Administration - SRA) is an agency of the Swedish Government that has been entrusted with the overall sectoral responsibility for the road transport system. SRA is also responsible for drawing up and applying road transport regulations. In addition, SRA is responsible for planning, constructing, operating and maintaining the state roads.

The sectoral responsibility of the SRA involves representing the State at a national level in issues relating to the environmental impact of the road transport system, road safety, transport quality, regional development and gender equality. The SRA fulfils a coordinating, supporting and stimulating role for these areas in relation to other parties concerned. Its responsibility also includes intelligent transport systems, public transport, adaptations for disabled persons, commercial traffic, applied research and development and demonstration activities in the road transport system. It furthermore involves representing Sweden in Europe concerning transport related questions. The sectoral responsibility of the SRA implies the responsibility 'to make things happen' rather than act by itself. The limited SRA budget also makes it necessary to seek partners in developing and implementing new ideas.

Although the SRA acts under the political responsibility of the Minister of Enterprise, Energy and Communications, it can in practice act independently from the Ministry. The Ministry is largely dependent on the SRA in terms of policy setting and strategic network planning. Due to its size, the Ministry does not have enough sufficient knowledge to manage and control SRA activities. The national parliament sometimes calls for the SRA by means of hearings in a dedicated commission when they want to focus on certain issues in order to stimulate further action.

Key indicators Sweden

Total public road network	138,600 km
-of which municipal streets and roads	40.300 km
- of which state roads (SRA)	98,300 km
- of which main network (EU and national roads)	15,400 km
- of which European roads	4,900 km
- of which motorways	1,700 km
State-subsidised private roads	75,000 km
Book value assets SRA	SEK 99 billion (EUR 10 billion)
Regional offices SRA	7
Employees* SRA	3,150
Investment budget (2005) SRA	SEK 8.1 billion (EUR 0.9 billion)
Maintenance budget (2005)** SRA	SEK 7.3 billion (EUR 0.8 billion)
Use of the main network (EU roads only)	19 billion vehicle km
Average utilisation	10,600 vehicles/km/day

*: excluding business units; **: excluding winter maintenance and operations

The SRA is governed by a Board of Directors, with representatives from industry, parliament and other high-level representatives. They are appointed by the Ministry and are responsible in the same way as a board of a private company, with a Director-General equivalent to a private 'Chief Executive'.

Policy objectives

SRA is in charge of determining policy objectives, technical standards and performance indicators concerning the topics above as stipulated by the Swedish Parliament. SRA formulates the Government's National Road Transport Plan that includes the proposed main road construction works for the coming years. After approval by the Ministry, the plan is handed over to the Parliament for information.

Financing

Road network development is financed from a combination of budget allocations and loans taken by the National Debt Office on the capital market. SRA does not operate independently on the capital market. Operational expenses are financed from annual budget allocations. After the election in 2006, the new government opened up the possibility for PPP projects. According to the proposal, the first four projects should start after 2007.

SRA, together with the municipality of Stockholm, has been experimenting with a congestion charge pilot in Stockholm county. In 2006, a trial implementation of a congestion tax started for seven months that was concluded with a referendum on the continued implementation of congestion charging. Thereafter, the Swedish government decided to reintroduce congestion charging permanently, starting on 1 July 2007. This decision will also have implications for the way investments in road and railway infrastructure in Stockholm County are carried out.

Road network tasks and relationship with private sector

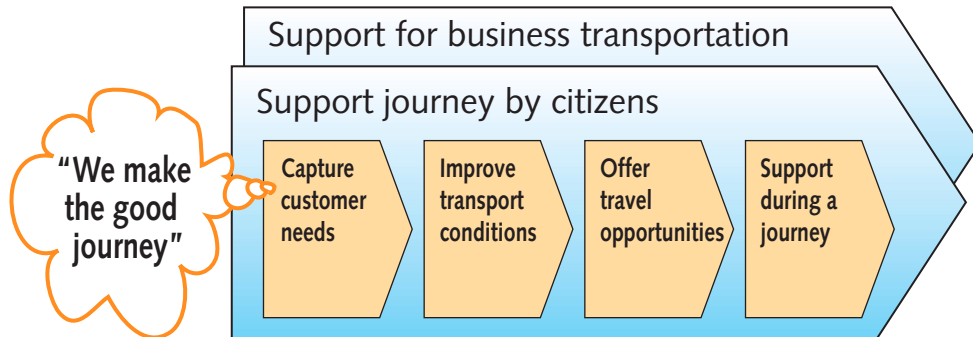
SRA has specified an operations and maintenance standard for the state road network, based on the planning parameters of the Government's National Road Transport Plan. This plan contains the requirement that the standard should be achieved at the lowest road maintenance costs. As a consequence, SRA asks its contractors to realise an increase in efficiency of one percent per year.

In principle, the SRA outsources fully its maintenance activities. In general, the maintenance contracts have output-specific criteria, in which the SRA stipulates the technical requirements of the tasks that have to be executed by the contractor. However, these output-specific contracts are being replaced increasingly by outcome-specific contracts in which the contractor is responsible for realising the tasks given a specified outcome.

Three former SRA profit centres have been converted into in-house companies that are now operating in direct competition with private contractors. With this conversion, the SRA is no longer doing any maintenance activities 'by itself' (i.e. without being tendered). The government intends to have the in-house companies converted to independent companies by January 2009.

Relationship with road users

At the SRA, process orientation is used to increase focus on customer needs, i.e. to increase customer orientation. As a result, SRA activities were divided into two main processes, which were in turn divided into four subsidiary processes. To ensure that these work efficiently, five support processes have also been identified. This is illustrated below.



Since 2006, the two main processes were merged into one: 'Support travel and transport'

The SRA has divided its clients – citizens and business community – into a number of customer groups. The views of these groups are taken into account in 'Customer Programmes', which form the bases - together with goals, targets etc. set by the Government - when taking decisions.

One important part of SRA's customer-oriented approach is to develop a dialogue with individual citizens and to increase its accessibility and openness. On the 'grass root' level, citizens are represented in local user panels that have agreements on, for example, when snow is ploughed.

Road user satisfaction is measured by means of questionnaires and focus groups. There is also a phone number for complaints. All complaints are registered and SRA's target is to deal with 80% of them to the satisfaction of the user.

Relationship with other infra providers

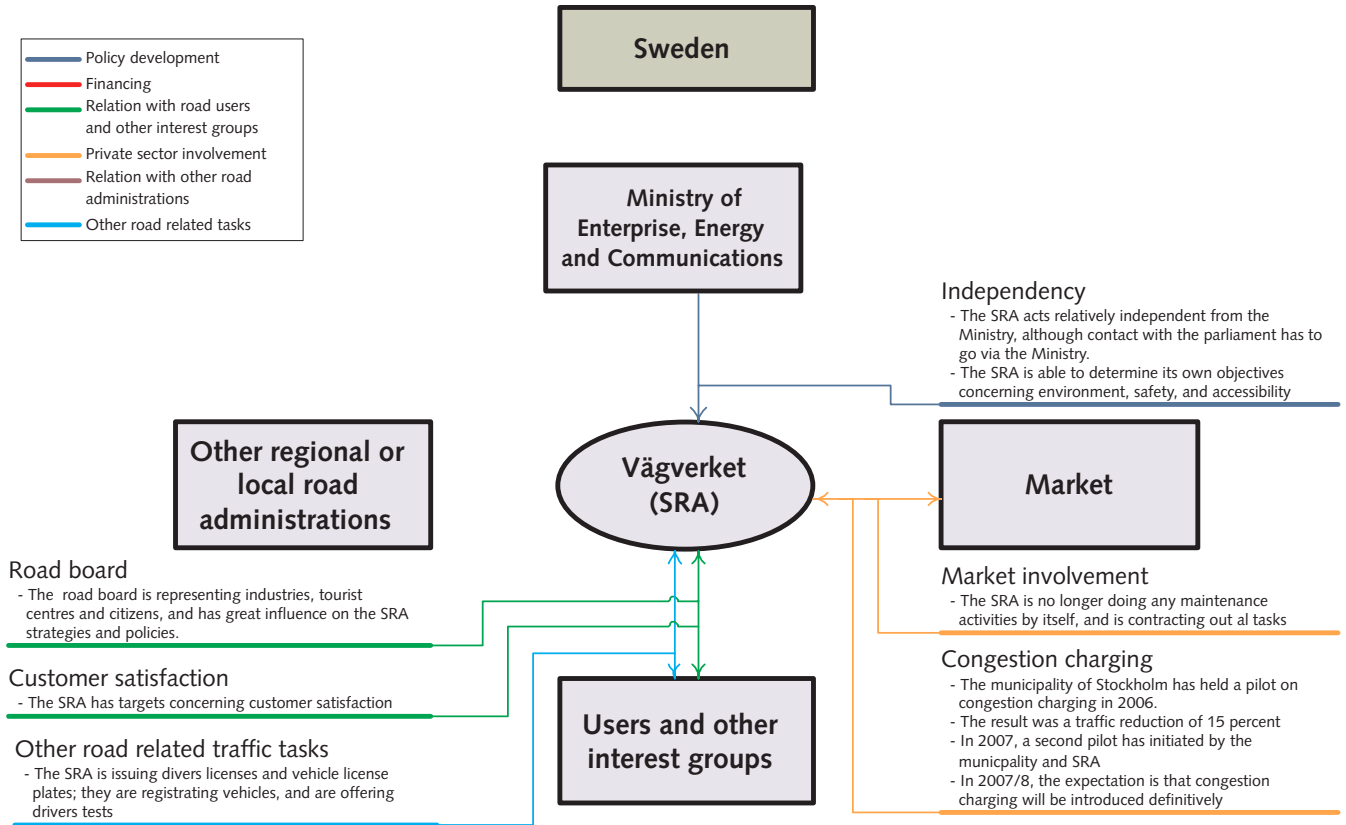
As SRA is responsible for national and regional roads, there are only a few other road infrastructure providers with whom it has to deal. Although 90% of the almost 300 municipalities have responsibility over some of the roads in the most populated area, this basically only concerns the municipalities of major cities. Cooperation with them is on a need-be basis, e.g. in the case traffic management and maintenance works. A substantial part of the Swedish road network is in private hands, largely in those of timber companies. The maintenance of some of these roads is being subsidised by SRA in view of their availability for public transport services.

Other road-related traffic tasks

The Swedish Road Administration also offers other public services to road users. It is the only road administration in Europe that provides services such as issuing drivers' licences and vehicle license plates. In other countries, these tasks are typically carried out by other agencies.

Highlights

The following graph highlights the situation in Sweden.



Comparison and lessons

SIZE AND SCOPE OF THE ORGANISATION

The selected Road Administrations clearly differ in terms of size and scope of their networks and scale of operations. A first impression can be gathered from the overview of some key indicators below.

Key Indicators Road Administrations

		NL	AU	DK	EN	FI	FR	SW
	Unit	RWS	ASFINAG	DRD	HA	FINNRA	DGR	SRA
Network								
Total network RA	km	3,861	2,100	3,700	7,754	78,000	11,500	98300
Main network RA	km	3,249	2,100	1,619	7,754	693	11,500	4,900
Average utilisation	Veh/km /day	45,000	32,000	21,000	45,000	21,000		10,600
Motorways	km	2,100	1,600	918	2,938	693	9,700	1,700
Value of total road network	EUR bln		8.8	3.6 (2000)	9.3	14	104	10
Organisation								
Regions	no.	9	4	6	9	9	21	7
Employees	no.	3,000	2,500	900	3,000	963	12,600	3,150
Finances								
Annual expenses	EUR bln	2.1	1.7	0.42	9.6		4.5	1.8
- Investments	EUR bln	0.9	1.0	0.26	1.9		2.3	0.9
- Maintenance	EUR bln	1.0	0.3	0.16	1.3	0.75	2.2	0.8
- Notional charge capital costs	EUR bln				4.1			

Given the differences in size and scope of the network, the scope of operations and utilisation of the network, no conclusions can be drawn from the table on the efficiency of operations of the individual Road Administrations.

However, a few striking aspects can be noted:

- The intensity of the use of the main network is relatively high in England and the Netherlands and relatively low in Sweden. This difference reflects the difference in population densities between the countries.
- The number of staff of HA and DRD are substantially lower in relation to the respective main networks in the other Road Administrations.
- In the Netherlands, annual expenses for maintenance are presently higher than expenses for investments. In other countries expenses for network development are higher.

INSTITUTIONAL SETTING

All Road Administrations involved are public bodies: government departments, agencies or state enterprises. In all cases, the road networks are owned by the state. This also applies to France, where roads under private concessions are handed over to the government at the end of the concession period.

Using a slightly amended table from page 12, the various countries can be grouped as follows:

Position Road Administration	Policy development and implementation	Policy implementation
Government department		DGR (FR)
Public body under responsibility Ministry	SRA (SW)	DRD (DK); FINNRA (FI); Highways Agency (EN); Rijkswaterstaat (NL)
Public body with some autonomy in operations		ASFINAG (AU)

Almost all Road Administrations are predominantly executive agencies, without a formal policy development task. They are usually involved in drafting the technical standards for the network, but operate within policy objectives with respect to network quality (congestion, speeds, safety, etc.) set by a policy department. All have a substantial role in the activities involved in strategic planning for network development.

In the case of Sweden, SRA has substantial influence on the policy objectives regarding the road network. This is attributed to the limited size of the policy department at the Swedish Ministry. In other countries, the RA has input in setting policy objectives. In all countries, final responsibility rests with policy departments.

The fact that the RA in France is a government department does not give it significantly more influence on policy setting with respect to network development than their counterparts that are at arms' length of the Ministry.

The scope of the Road Administrations differs also in terms of core tasks. Differences are noted in terms of providing traffic information (not done by RWS), other road traffic related tasks (carried out by SRA) and the extent to which traffic management is carried out. In France, the DGR is not involved in traffic management at all; this task lies with a separate directorate (DSCR) under the Ministry.

Whereas RWS, HA and DSCR cover almost the entire network with traffic management instruments, the scope of traffic management is more restricted in the other countries.

Overview of tasks and responsibilities

Main area	Task	Responsibility						
		NL	AU	DK	EN	FI	FR	SW
Network	Policy development*	MoT	MoT	MoT	MoT	MoT	MoT/Cabinet	MoT/SRA
	Strategic planning	MoT	MoT	MoT	MoT	MoT	MoT/ DGR	SRA
	Network implementation	RWS	ASFINAG	DRD	HA	FINNRA	DGR	SRA
Maintenance	Regular maintenance	RWS	ASFINAG	DRD	HA	FINNRA	DGR	SRA
Management	Traffic information	Private Parties	ASFINAG	DRD	HA	FINNRA	DSCR	SRA
	Traffic management network wide	RWS			HA		DSCR	
	Traffic management (local)		ASFINAG	DRD		FINNRA	DSCR	SRA
	Incident management ¹⁶	RWS/Police	Police	Police	HA/Police	Police	DGR	Police
Other	Road traffic related tasks	None	Toll: ASFINAG	None	None	None	None	Various

*: MoT means the ministry responsible for transport policy.

This may have a different name or be part of a larger ministry.

FINANCING ROAD NETWORK TASKS

The following table summarises the sources of financing for the Road Administrations. Financing other than from budget allocations is only performed in a widespread way in Austria and France. In both countries, direct user charges are used to finance (part of) the network tasks.

	Investments: network development	Operational expenses (maintenance, traffic/incident management)
Budget allocations	NL, EN, FR, DK, SW, FI, AU	NL, EN, FR, DK, SW, FI
Road user charges (tolls, congestion charging, taxes, duties)	AU	AU
Loans on capital market ¹⁷	AU	
Private sector (pre-financing, PPP, toll concessions)	EN, FR	EN, FR

¹⁶ In case of no injuries

¹⁷ This relates only to loans directly made by the Road Administration. Governments may conclude loans at the capital market to finance the budget allocations.

In England, private sector pre-financing is used frequently. This results in substantial annual payments to the private sector as debt-servicing. Such payments represent almost half the HA's annual budget.

In the Netherlands, Denmark, Finland and Sweden, private sector involvement, either in terms of toll concessions or private pre-financing, is still limited.

THE INVOLVEMENT OF THE PRIVATE SECTOR

The following table summarises the involvement of the private sector in the various road network tasks as derived from the questionnaires.

Involvement private sector in road network tasks

	Hardly (0-10%)	Somewhat (10-30%)	Substantial (30-70%)	(almost) Completely (70-100%)
Network development				NL, DK, EN, FI, AU, FR
Maintenance		FR	AU	NL, DK, EN, FI, SW
Traffic management	FR, DK	NL, FI, AU	EN	
Incident management	FR, EN	DK, FI, AU	NL	

The extent of involvement in road network development and maintenance is quite similar in the selected countries, with the exception of France (DGR). In contrast to the other Road Administrations, DGR carries out a relatively large share of the maintenance activities with its own staff.

In terms of the type of involvement, there are some differences between countries, with contracts specifying technical standards and output still being predominant in most countries. At the same time, many Road Administrations are changing towards more outcome-specific contracts, including Design Build Finance and Maintain (DBFM) contracts.

The way of involving the private sector in road network tasks is most developed in England and France. The involvement of private parties in these countries is quite different, though. In England, the HA is small in relation to its network, reflecting the situation that many tasks are performed by the private sector. In France, private consortia operate a major part (some 40%) of the network. However, DGR is relatively large in relation to the publicly-operated part of the main network, and carries out many tasks in-house.

RELATIONSHIP WITH ROAD USERS AND OTHER INTEREST GROUPS

With respect to road network development, specific (legal) procedures are followed in all countries in which interest groups and the general public are consulted at some stage. Here, the role of road user groups is less specified than those of interest groups (e.g. environmental groups). It appears that road user groups as such are not formally part of the decision process in most countries.

All Road Administrations organise feedback on their performance in terms of questionnaires and, sometimes, focus groups. All have a telephone number for complaints; in Sweden, the SRA has a target for dealing with such complaints. In Finland, the level of user satisfaction is a key performance indicator for FINNRA. Contractors are asked to measure user satisfaction as part of the contract. As a consequence, the road users in Finland have direct influence on the performance measurement of the contractors. Here, the central objective is to intensify the involvement of the road users. The Danish Road Directory is also an example of this, as they use 5,000 drivers as informants on traffic issues and the technical status of the roads.

Some of the road administrations (HA, FINNRA, SRA, ASFINAG) are supervised by a Board that consists of representatives from various government organisations (such as the Ministries of Transport, Finance and Environment) and non-governmental organisations (such as business and banks). In some cases, other administrative levels (regions, municipalities) and employees of the RA are also represented. Road users or environmentalist groups are not directly represented on any of the boards.

RELATIONSHIP WITH REGIONAL/LOCAL ROAD ADMINISTRATIONS

In Sweden, Finland and Denmark, there are no (longer) regional road administrations. In these countries, the national road administrations are responsible for national and regional roads and deal with the municipalities only as the local road administrations. This means that these organisations play a larger role in providing the transport networks. In Finland and Sweden, the Road Administrations work together with providers of other infrastructures explicitly, while in Denmark a similar trend can be seen in the more intensive cooperation with the municipalities.

The trend towards more integration at the regional level can also be seen in the Netherlands, with the introduction of traffic area management teams and the regional network analyses that were prepared in 2006. This has not (yet) had an impact on the organisation of the rws.

In contrast, in France the road network was recently decentralised and DGR was left with a smaller, but still substantial road network. Here too, the involvement of the regional authorities in network planning is considerable, as it is in England.

Possible perspectives for Rijkswaterstaat

Whereas until now the description and comparison has been as factual and objective as possible, this section develops some possible perspectives for Rijkswaterstaat. In some cases, the perspectives are extrapolations and interpretations of the description of the situations in a particular Road Administrations and are therefore not intended to reflect the (future) development of these models.

PERSPECTIVE FROM AUSTRIA

ASFINAG as an example of a financially-independent Road Administration

ASFINAG is the only one of six Road Administrations that, in essence, is financially independent from the government. It has to perform its task within the financial boundaries set by the legal and political framework, using its status as state-owned and state-guaranteed company.

This implies that the expenditures are more or less given by the task that is entrusted upon ASFINAG. ASFINAG's revenues predominantly consist of user charges. Unlike in France, where the level of tolls is a result from a negotiated and/or tendered concession contract, the Austrian Ministry sets the limits for these user charges, like Maut and Vignette. The income from traffic is thus directly related to the use of the network and cannot be influenced.

In order to broaden its revenue basis, ASFINAG is looking to expand its services, both at home (e.g. traffic management and other services to users) and internationally (possibly exploiting toll roads or toll systems abroad). It is the only RA with network ambitions that go beyond its home country. This is reflected for instance in the acquisition in 2005 of EUROPPASS, the company that developed the LKW-Maut system for Austria.

Possible perspective for Rijkswaterstaat: financial independence

The model of a financially independent organisation may be interesting for RWS in light of the present debate on the introduction of (variable) road user charges on a national scale. The net revenues of such a scheme could directly or indirectly be earmarked for the development and operations of the road network and, as such, RWS could become directly or indirectly dependent on the volume of traffic on its roads and the level of charges.

Remarks and questions

Such a perspective would raise several issues. Some of them are touched upon below. Firstly, it is clear that in order to be financially independent, RWS would ideally need to have the means to influence both expenditures and revenues, in order to be and remain financially healthy.

This could imply that the future RWS:

- has a large degree of autonomy with respect to the development of the network, with financial considerations (business cases) playing a large role. As user charges may reflect socio-economic costs, such business cases could be more in line with socio-economic cost benefit analyses than in the present situation.
- has some degree of freedom to set user charges;
- has to avail of comprehensive financial knowledge and capacity;
- might need freedom to develop and market additional services (e.g. providing traffic information, automobile assistance services, etc.)

Secondly, in such a situation, RWS would become a kind of monopolist, which would need regulation by the government or an independent regulator. The conditions under which a financially independent RWS would operate would need to be clearly defined, including the relationship with (public) road infra providers at the regional and local level.

Thirdly, as a financially independent rws may have its own observations on the attractiveness of investments, the government may have to set, and pay for, the achievement of goals in environment and safety. Such goals could be laid down in public service obligations or a bonus/malus system.

Fourthly, a financially independent rws would have an even more intensive relationship with other external parities, such as road users and the private sector. As road users would be rws' main clients, there would be a tendency to even stronger focus on the demands of road users. As such, road users may also experience a new dimension to the relationship and see rws as their supplier that needs to deliver.

Lastly, the private sector may experience an even larger efficiency orientation of rws as it would need to keep costs in line with revenues. The new situation would stimulate rws to compare the costs of contracting out with doing things in-house and could even result in reversing the present trend of contracting out.

France as an example?

The situation in France is different from the Austrian situation in that only part of the network is operated on the basis of user charges. The other part is managed by the national road administration. Translating the French situation to the Dutch situation, it would imply that, in addition to a public road administration, one or more private organisation(s) would emerge to deal with the tolled network. In that case, the financially-independent organisation would need to concentrate on those routes that can be operated profitably, i.e. the more heavily-trafficked corridors¹⁸.

Such a perspective would raise another set of issues, such as:

- How would one define the road user charges for the public and private networks?
- How would one safeguard the integrity of the network?
- Would it be necessary to have toll-free alternatives to toll routes?
- etc., etc.

POSSIBLE PERSPECTIVES FROM DENMARK

DRD as an example

DRD has recently gone through a substantial change as a result of the reorganisation of the government administration. The abolition of the regional administrative layer in Denmark has resulted in a larger road network and more staff for DRD due to the inclusion of regional roads under its responsibility. At the same time, DRD has been reorganised into 6 regions that each deal with a part of the extended (national/regional) network. Besides these regional offices, headquarters are responsible for strategic matters.

As the situation is fairly new, the consequences of the administrative reorganisation are not fully clear yet, but the following advantages could be realised. Firstly, the abolition of an administrative layer and the reorganisation at local level may increase the efficiency of DRD operations. It has fewer partners to coordinate with, which may lead to more efficient and faster decision-making and more efficient operations.

Secondly, the DRD now has greater interaction with local interest groups as it is now also deals with regional roads. The link with such groups is intensifying and resulting in a greater need for local presence.

Thirdly, the DRD is now closer to the local road administrations (municipalities). As described, this may even result in joint front offices to both users and interest groups.

¹⁸ The example of RFF, the French agency in charge of the railway network is interesting; the law by which RFF was created, defined the rules under which RFF can invest in new network developments itself. These rules define the part of investments funded by RFF that must be covered by future revenues for RFF to be generated by the project; the part that is not covered has to be funded by state or local authorities, which is very important in the projects for High Speed Trains that are presently under construction.

Possible perspective for Rijkswaterstaat: stronger regional approach

The abolition of regional administrations in Denmark has resulted in an expansion of the network under the Road Administration. Like in Sweden and Finland, the national road administration is now responsible for a relatively large network, including roads with international, national and regional importance. An interesting aspect of the Danish reorganisation is that regional offices now have larger networks and are likely to cooperate more closely with local road infrastructure providers.

This can be transposed to a possible perspective for rws in which it is responsible for a larger part of the network (i.e. including provincial roads), while at the same time taking a more regional approach for the mobility problem (in cooperation with local authorities). In its ultimate form, this could lead to further decentralisation of the present rws organisation with a larger role for regional stakeholders and a relatively small head office concentration on network integrity. In a way, the present arrangements with some regional bodies already include elements of such an organisation.

Remarks and questions

Is such a transposition towards the Dutch situation realistic? A major difference with the Danish situation is that the Dutch regions are more interconnected and that providing a minimum level of accessibility of regions is a more prominent objective. The present regional structure may not be suitable to combat the traffic problems. In this respect, the traffic centre areas (five) are perhaps a better guideline. But even with a smaller set of (larger) regions, actions in one region can have considerable impact on traffic others.

Nevertheless, a decentralised model could also have advantages in that regional accessibility problems could be tackled in an integrated way, involving fewer road administrations. Moreover, the (decentralised national) road administration could be even more user- and stakeholder-oriented.

Another element of such a model is the 'one stop' idea for road infrastructure matters on a national and regional scale. This will result in bundling of technical knowledge, purchase power towards the private construction sector and transparency towards users. The approach could potentially lead to higher (cost) efficiency and greater client focus.

POSSIBLE PERSPECTIVES FROM ENGLAND

The Highways Agency as example¹⁹

There are various interesting aspects in the way road and traffic management is organised in England. We will concentrate on one aspect only, other aspects being dealt with in the separate PIM project (Partner Programme Infrastructure Management). The element to be discussed here relates to the inclusion of traffic officers in the HA staff. With this transfer, the HA has expanded its traffic management task from electronic means to more traditional traffic management tasks.

Perspective for Rijkswaterstaat: integrated traffic management

Whereas traffic management by means of electronic measures was already common in England, the recent addition of the traffic officers has given a new dimension to HA's work. Moreover, HA is now also looking at ways to influence travel behaviour (through travel information as well as forms of demand management) in order to ensure improvement in travel time reliability. Some believe that demand management by means of road user charges is inevitable to assure regional accessibility.

Continuing this line of reasoning, a possible perspective for rws could be that it becomes fully responsible for traffic management on its network, from traffic management and incident management to also include demand management. The task could include all aspects of traffic flows except for those incidents in which casualties are involved and the police needs to take action. In line with the observations for ASFINAG, the extended traffic management task could even include enforcing traffic rules.

¹⁹ The interesting aspects of the HA mentioned here are additional to those that were already part of the PIM project

In terms of discussions in other network sectors, e.g. the gas and electricity sectors, rws would be fully responsible not only for providing the network but, in a way, also for optimal functioning of the provision of services, without providing the services themselves.

Remarks and questions

Of course there are various questions, drawbacks, etc. to such a situation. It is, for instance, not clear whether tasks that are presently the domain of the policy can easily be transferred to a government agency. If such a perspective would mean rws taking over tasks from the private sector (e.g. removing damaged vehicles), this would entail a clear change from the present outsourcing policy.

POSSIBLE PERSPECTIVES FROM FINLAND

FINNRA as an example

As its vision illustrates, FINNRA has a strong focus on its external environment, including its users/customers, works suppliers and other providers of transport infrastructure and services. Moreover, it has a policy to develop and reward its human resources and thereby be an employer of choice.

The Finnish experience shows how contracts can be used to create incentives for the private sector for achieving customer satisfaction and innovation. FINNRA has a strong customer orientation, which is reflected in the user charter and in its stakeholder communication policies. Like the SRA, customer orientation is an integrated part of operations. This gives both organisations a higher public profile and, consequently, a higher level of attention for road users than rws.

A second interesting element of the Finnish situation is FINNRA's ambition to attract highly skilled people and have a human resources policy that enables it to do so, including the remuneration at competitive wage levels. The high average age of its employees has incited the road administration to focus on its image as employer on the labour market. FINNRA is the first road administration in Europe that is focused on being an employer of choice.

Possible perspective for rws: outwardly-oriented road administration

The FINNRA experience points to elements that are also recognised by and receive attention from rws: being a partner in mobility, being innovative, and client-oriented. The Finnish example can be used to mirror developments in the Netherlands, keeping in mind the vastly different characteristics of the road network and its use. A strong element in this is the clear goals and objectives set in this outward orientation.

Possible perspective for rws: employer of choice

With job markets tightening and an increasing age of the working population, similar problems may arise for rws with respect to attracting highly-skilled professionals. The Finnish example shows that an active and integrated policy to promote itself as an employer can indeed pay off in this respect.

Remarks and questions

Rws has already taken many actions related to user orientation. However, drafting a Road User Charter in which promises are made to users may be difficult for rws. In this respect, the strong emphasis on accessibility (as compared to an emphasis on the passability of roads in Finland) may be a handicap. Moreover, rws is presently not in a position to provide traffic information directly to road users.

Other elements of the Finnish situation can be adopted more easily. For instance, the customer focus and customer policy applied by FINNRA is quite advanced and may help rws shape its own communication policy. In addition, the way in which FINNRA stimulates innovation in its contracts could be regarded as an example.

POSSIBLE PERSPECTIVES FROM FRANCE

The situation in France as an example

Key characteristics of the French situation are that DGR is only responsible for part of the main road network. Another government department, DSCR, is responsible for traffic management and incident management, while private concessionaires manage 40% of the national road network.

Although DGR is only responsible for part of the national road network, it can play the role of network manager for the whole network. A main instrument in this is that the ongoing contracts with the concessionaires are renegotiated every 5 years. This allows DGR to redefine quality criteria and the concessionaire to renegotiate toll levels. Customer satisfaction can also play a role in such negotiations.

The distinction in tasks between DGR and DSCR makes that each directorate can focus on its specific task. Other than in the HA in England, for example, DGR and DSCR are not developing towards a single integrated road network manager, but are separate public organisations that on the one hand provide the road network and on the other promote safety and accessibility. The differences in scope of the network, with the national road network in France being larger than the trunk network in England, may play a role in this.

With respect to financing the network, the situation is more transparent than in Austria in that the heavily-trafficked roads are generally operated by private parties on the basis of cost-covering toll concessions. The less heavily used national road network is in public hands and financed from the government budget. In this situation, it is clear which sections are expected to be operated on commercial terms and which have a kind of public service character (like the situation in public transport, for example). However, as a result of history, the present share between tolled links and free links is not totally socially and economically efficient. In several cases, this results in long-distance freight trucks using toll free routes instead of tolled by-pass routes. Examples of this include the routes passing the Paris urban area and the RN10, which is used by many of the trucks on the route between Bordeaux and Paris instead of the tolled A10. The new obligation for tendering a specific concession for each new link also creates complications for the coordination between all concessionaires as well as for the management of each small transformation of the highway. The likely implementation of pricing for trucks on the presently free network may help to solve these problems.

Despite the decentralisation of the *Routes Nationales* to the regional authorities, the DGR continues to be involved on the regional level by means of the DIRS and SMOS. In this way, national interest can be safeguarded and knowledge at the regional level can be secured.

Perspective for rws: separation of infrastructure and operations/services tasks

Apart from the financing aspect already mentioned, the concentration on the road infrastructure, with operations located in a different entity, is an interesting element that leads to new perspective for RWS. The situation has reminiscences of the development in other network sectors such as electricity in which separation of infrastructure provision and operations. In this perspective, part of RWS would focus entirely on the physical infrastructure, while another, separate organisation would be responsible for the managing traffic, safety and incidents.

Remarks and questions

It is presently difficult to judge the merits of separating infrastructure provision and operations/management tasks as described. In this respect, the team has not been able to assess the advantages and disadvantages of the separation as practiced in France.

Theoretically, a possible advantage could be that concentrating on a specific task offers greater focus to the organisation and could result in higher efficiency. At the same time, synergies between the

two tasks might be lost due to the separation of tasks. In a way, though, separation could make it easier to privatise the task of traffic management in the future.

POSSIBLE PERSPECTIVES FROM SWEDEN

SRA as an example

The outstanding feature of the Swedish situation is the integrated approach whereby not only the regional roads are part of the task of the Road Administration, but issues like public transport are taken into account also. The SRA therefore has a broader task than any of the other Road Administrations.

This broader task goes together with a closer relationship with the general public. SRA is one of the most advanced road administrations for keeping in touch with users and measuring user satisfaction. This may be related to a certain extent to its responsibility for other road traffic-related tasks and specific user-related tasks (licences, vehicle inspection, etc.). However, the FINNRA example shows that increased customer orientation is also possible without additional tasks aimed at road users.

The influence of the SRA on transport policy development and objectives appears to be larger than in the other countries, which may be partly due to the relatively small central government in Sweden. SRA is thus more than a road network manager, as it also has the overall responsibility for achieving sector policy objectives for transport issues.

Perspective for rws: policy and executive tasks in one agency

Transposing the Swedish situation to rws, one could theoretically envisage a situation in which rws is responsible for a larger part of the transport policy, i.e. by also being responsible for policy development or at least for the coordination of policy implementation. To a certain degree, this would imply a return to the situation in the 1990s, before such these tasks were transferred to the policy directorates of the Ministry of Transport.

The new rws would be responsible for a larger part of the of transport policy cycle including drafting policy documents (including public transport, freight transport), strategic network development and network operations.

Possible perspective for rws: provider of all transport infrastructure

Apart from combining policy and execution in one agency, the broader sector responsibility can also be envisaged in terms of broadening responsibility for the infrastructure. In this perspective, rws would be responsible not only for roads and waterways, but also for rail infrastructure.

Remarks and questions

The first possible widening of scope would entail a reorganisation of policy tasks, which may be less likely in the Dutch situation than in Sweden. A main reason is the difference in governance concepts in the two countries (with strong policy departments in the Netherlands). At the same time, however, a combination would give rws sector responsibility and a wider scope for demand management.

The second perspective, in which all infrastructure of national interest is provided by one organisation, would give possibilities for synergy in providing infrastructure and even perhaps stimulate the advance of intermodal terminals. The organisation could perhaps play a larger role in policies to reduce the transport sector's energy consumption and thereby impact positively on the emission of green house gasses.

Epilogue: testing the conclusions

INTRODUCTION

The findings of this comparative study were verified at a workshop organised in The Hague (NL) on 14 and 15 June 2007. Representatives from Austria, Denmark, England, France, Germany, Sweden and the Netherlands attended to this workshop, which also aimed to explore some specific themes that had emerged during the study.

All participants were satisfied with the way the results of the questionnaires and interviews were reported. Only a few minor aspects needed to be corrected, which has been done in this final document.

During the workshop discussions and presentations, the following driving forces were identified as reason for important organisational changes of the different road authorities:

- Change of government and administrative reform
- The need to have more traffic management powers in one hand
- Decentralisation
- Economic efficiency
- Change of management
- The state's finances in general and/or in relationship to EMU requirements
- Separation of policymaking and implementation
- The use and interest of the private sector for funding and financing infrastructure

'EXPLORING SPECIFIC THEMES'

This took place in two parallel discussion sessions, both dealing with three separate topics. Each topic was introduced with a short presentation from one of the RAs that was most concerned, explaining its position. The findings of these discussions are summarised in the following paragraphs.

Financing and funding the road network

Subject of discussion: Which developments would be desirable given the present position of the various Road Administrations and which are the success factors or barriers?

The existence of ASFINAG as the 100% subsidiary of the Austrian Government is based on a political idea (to be able to finance network development by foreign capital by a government guarantee only and off balance sheet debt), and therefore still sensitive to the political directives of the moment. Nevertheless, ASFINAG tries to position itself more like an entrepreneurial organisation by diversifying and developing new business nationally as well as internationally. ASFINAG would prefer a more independent position, such as a *concessionaire* in France, in order to be able to run a healthy business administration. This might not be realistic, however, since a totally independent organisation would get a monopolistic position in this case.

In France, the present situation with privatised concessions, was also established by a political decision process. However, the long-term concessions still have some flexibility due to five-year subcontracts that allow both sides room for negotiation on the toll level and network developments. For example, a raise of tariffs by 1-2% was criticised by the public since the concessions became privately-owned while under government ownership the annual raises were similar but never criticised. Introducing shadow tolls to pay the road operator, in combination with a toll tariff for road users regulated by the State, might be more reliable in the eyes of the public.

Tariffs will always be a politically issue, however. For example, in the 30-year concession that was given for the M6 Toll road (the bypass for the M6 through the Birmingham conurbation) no restrictions were imposed on the tolls that could be charged. To provide a 'premium' route, and for avoiding high maintenance costs, the toll company has 'overpriced' heavy vehicles to discourage them from using the route. This has led to much adverse publicity, particularly from the freight sector, and the toll road is not relieving the existing M6 as much as it could. In such a case too, a solution to the problem may be found in shadow toll (DBFO). In England, the Private Financing Initiative (PFI) driven by an innovative and efficiency goal is basically a success. The difference between the French and English concessions is that the contracts in England are fixed for 30 years and leave no room for adjustments.

Conclusion: privatising Road Authorities is not necessary for financing and funding the road network. Road user charges are a proven alternative. Regulating of the toll level by the government is necessary because of the monopolistic situation. Road users should have transparency as to what he or she is paying for.

Evolution towards integrated network management.

Subject of discussion: is there an evolution towards integrated network management, which would comprise not only traffic management (including incident management) but even demand management within one organisation?

The most important driving force behind this development in England is the target for traffic management: 'improvement of travel time reliability', which was introduced by the Department for Transport and incorporated in the targets of the Highways Agency (HA). One of the measures intended to diminish delays by incidents was the introduction of traffic officers who could handle the incident and reroute the traffic. This has not led to the expected result due to a strong increase of traffic and the fact that the police has not handed over all tasks to the traffic officers. The Highways Agency has no authority to reroute cars from highways to a road that belongs to a county or municipality.

Demand management seems to be necessary to be able to manage the traffic flows on the network. 'Soft demand management' measures such as influencing travel behaviour and encouraging the use of public transport are not enough. The HA advise on land-use planning and development of industrial areas (by law they are entitled to do so) regarding a better use of the road network. Nevertheless, road user charges are seen as the only remaining option to counter traffic growth and manage the traffic and thus to fulfil the target of reliable travel times. Whether a national charging scheme will be introduced is still subject to political discussion. However the government is also encouraging local authorities to come forward with initiatives and a number are developing proposals for local road-user-charging schemes. They are not generally seeking to copy the London congestion charge system (which is a cordon-based system) but have a smarter system in mind with variable prices depending of the time of the day and the type of road at the city entrances (e.g. Manchester).

Another question with regard to traffic management is whether investments in traffic management systems and road equipment will be cost efficient in the long run due to the rapid developments in in-car navigation systems.

Conclusion: all Road Administrations are investing substantially in ITS systems for the main reason of safety and better use of the infrastructure. Road administrations are now gathering experience with Traffic Management (once TM has been rolled out and has become common practice the discussion might be opened to have TM operated by the private market.

The best way to become an outwardly-oriented road administration.

Subject of discussion: what do we have to do to become a better public-oriented organisation?

In Sweden, the driving force behind the user orientation of Vägverket (SRA) is the Director General himself. He implemented his vision, which has a holistic approach. This is expressed in Vägverket's motto 'We make a good journey possible'. The Minister is supporting this approach and wishes to copy it to other agencies.

The SRA also used the experience of Finland. The SRA started with websites and toll-free telephone numbers to get in touch with the public and to be accessible for them 24 hours per day. Client-oriented tasks such as issuing car registration plates and driving licences are important. The mindset of the people in the organisation has changed: employees want to build a better community instead of roads! Lawyers, however, are having more difficulties in adopting this way of thinking. Formal planning procedures have not changed yet therefore. This behavioural change has had its effect on the image of the organisation: SRA and his General Director became Company and Boss of the year. The SRA's positive image, contributing to a better society, encourages young people to look at the SRA as a possible employer.

The improved attractiveness as an employer as a result of an improved orientation towards the public is as an important effect of such a transition. Being an attractive employer will become more urgent, because within 10 year a large number of employees (the 'Baby-boom generation') will retire, leaving the organisation to face a far smaller job market.

Conclusion: each road administration is investing in becoming more customer- and public-oriented and is using the best practices from Finland and Sweden. A top-down process, supported by the Minister himself, is an important success factor for such a transition.

Regionalisation

Subject of discussion: With further regional cooperation, the accessibility of regions will improve. What, however, are the consequences for the RA?

In Denmark, the implementation of a more regional approach was a direct result of the disappearance of the counties which in turn was the result of the national administrative reform initiated by the government. As a consequence, the Vejdirektoratet (DRD) was assigned responsibility for the regional roads. This doubled the network to be managed, but reduced the number of parties the DRD has to deal with. Not only because the 14 counties, who governed the regional roads in a rather political way, were abolished, but also because the number of municipalities has been reduced substantially. As a result, coordination processes take less time. Both the national and city levels feel that they have benefited with greater influence and simpler tuning. DRD's seven new regional centres play an important role in these processes.

The reorganisation was mostly a personnel problem. Staff not only had to move to a new organisation, but were often also faced with moving to a new working area (the seven regional DRD centres). The DRD's matrix organisation is still developing. The regional DRD centres and the municipalities are seeking to improve their cooperation and, for example, to try to connect data systems for more efficiency.

In Sweden, the SRA has had a similar organisational structure for over 30 years and they are happy with it. They warn against separating responsibilities in the matrix too strictly; a situation that originally emerged in Sweden. Today, linking regions is not done per subject anymore (e.g. traffic safety) but integrally.

In Germany, the Scandinavian approach could not work as they have 4 administrative layers:

Federal, *Land* (state), *Kreis* (“county”) and municipalities, each of which can be politically powerful. *Länder* (states) can decide themselves about their administrative organisation (degree of centralisation). Furthermore the ‘arena’ is more dense (traffic, population, political influences). There might be a chance in some rural *Länder* for such an approach.

Conclusion: having regional responsibilities can have benefits of wider scope, easier coordination and integration, and greater societal efficiency. However, whether this is feasible seems to depend heavily on the administrative structure of the country, existing political forces and the compactness of society (population, traffic, land use). When organising a road administration in a matrix, an integral approach is to be preferred over linking the regions too by function.

Integrated responsibilities within one agency?

Subject of discussion: How far will integration of tasks in a single agency develop?

The three main tasks of the Swedish Road Administration – national road manager (of a very large network, including all types of roads), sectoral responsibility and public authority as well – give the SRA a far wider reach than the other road administrations. The SRA not only proposes and to some extent set the policy objectives, it is also responsible for achieving wider goals. The ‘sectoral responsibility’ means that the SRA is responsible for results, even where they have no mandate (cities, industry) and only limited funds (e.g. safety, they develop alcohol lock). Today’s Director General is taking Sweden’s holistic approach even further in a charismatic way: ‘SRA makes the good journey possible’.

The SRA is also very much user-oriented and people are accountable for results, not the organisation. Sweden is very content with the way things are organised and the SRA is a charismatic organisation, strong enough to be held responsible even for the sectoral goals they have no real control over.

Specific conditions in Sweden are: a very small ministry, 2 administrative layers and a discussion culture with all stakeholders and a historic political culture in which SRA proposals are judged on technical and logical arguments rather than political ones. As a result, the SRA has become a powerful and effective organisation.

In Germany, it is unlikely that the Road Administration could get such broad responsibilities and powers as a result of the four administrative layers, but mainly because of the different strong political powers and a different type of discussion culture.

In France similar arguments apply as they do in Germany, where they would hope for some more integration in future reorganisations (including traffic management within the road administration).

Conclusion: the SRA is a strong organisation with broad responsibilities, very visible to the public and appreciated. They can decide their own planning and direction to a large extent. As such, national integration and harmonisation is promoted. The external conditions (administrative and political structure and culture), however, are major drivers in making this possible. In other countries, where those conditions differ, it should be analysed whether they would allow for a positive trade-off for part of the integrated approach.

Separated responsibilities in separated agencies?

Subject of discussion: Is separation of network provision and network operation in two agencies the future?

This option is derived from the French situation in which two different directorates each have part of the responsibility for the main road network. DGR is responsible for developing and maintaining the network, including direct operations. DSCR is responsible for road safety policy in a wide scope (safety of driver, vehicle and road) as well as for traffic information that is also used for traffic management (e.g. use of variable message signs for rerouting). This configuration was chosen with

the objective that it would be more efficient for DGR to focus on road construction and maintenance (carried out by its own staff to a substantial extent) and on overseeing the toll road concessionaires.

In a recent reorganisation, 18,000 kilometres of national roads were transferred, with staff, to the *départements* (the third-highest administrative layer, below regional government). In combination with this transfer, 11 DIR centres for operations and traffic management were established to replace the >100 centres of the *départements*. The DIRs receive their funding from DGR for maintenance activities and from DSCR for traffic management activities, which is hampering efficiency. It seems desirable, therefore, that responsibility for and funding of maintenance and traffic management will be combined under DGR in the future. Furthermore, it would be desirable to develop a mechanism to preserve national-level experience (and a harmonised approach) in the DIRs in the future.

In Germany, Traffic Management is usually the task of the road administration, at either *Land*, *Kreis* or municipal level, while the police (of each *Land*) is involved in safety and incident management. Information is partially the task of the road administrations (collection, general-, operational- and safety information), but is also partially in the hands of the private sector (increasingly collection, user services, starting navigation services).

In general, there is a trend in a number of countries towards higher involvement of the private sector in maintenance and in some places also traffic management.

Conclusion: in France, further steps might be taken to bring traffic management under the same organisation as maintenance, DGR. In other countries, traffic management traditionally was a task of the road administrations, but the trend is that the private sector and private initiatives are starting to play a role in this domain.

GENERAL CONCLUSIONS

The various road administrations seem to be in different stages of development. The national administrative structure, political driving forces and to some extent culture are often the reasons behind the present institutional setting. In spite of all these differences, all countries seem to have shared notions regarding how to manage road infrastructure.

A dominant trend is the huge involvement of private parties in building and maintaining road infrastructure; private involvement in management and operations seems also to be increasing. Furthermore, customer orientation is growing in all countries and there is an increasing interest in the development of methods to communicate with roads users about their needs. Strong leadership will support this transition.

A common notion is also that traffic congestion is a problem, but also a fact of life, which cannot be solved by expanding infrastructure solely. Reliability of the journey is more important than speed (time needed). Traffic management is becoming increasingly important for ensuring and improving reliability. Coordination of traffic at regional level (national-local) seems essential also. When traffic management has become a well-known task, the private market will be increasingly involved.

Despite traffic management, road user charges seem unavoidable in the future for managing road traffic. This may affect the role of the RA, where both public and private tolling are options. Regulation by the State is necessary as a result of the monopoly status of many highways.

Further exchange of knowledge and views will help the road administrations in developing public-oriented network management. All participants expressed their interest therefore in regular discussions about this type of topics concerning the role and development of road administrations.

Annex 1: Organisations and informants

Overview of organisations that were involved in this study:

Country and organisation(s)	Interviewed person(s)
<p>AUSTRIA</p> <p>Bundesministerium für Verkehr, Innovation und Technologie www.bmvit.gv.at/ministerium/index.html</p>	<p>Mr Günter Breyer, Deputy Director Road Directorate</p>
<p>Asfinag (Autobahn- und Schnellstrassen-Finanzierungs-Aktiengesellschaft) www.asfinag.at/</p>	<p>Mr. Manfred Philipp Asfinag Konzernstrategie</p> <p>Mr. Raoul Rumplmayr Asfinag Konzernsteuerung</p>
<p>DENMARK</p> <p>Vejdirektoratet/Danish Road Directorate www.vejdirektoratet.dk/</p>	<p>Mr. Jorgen Christensen, Chief counsellor</p>
<p>ENGLAND</p> <p>Highways Agency</p>	<p>Mr. Bruce Parker Project coordinator²⁰</p> <p>[questionnaire coordinated by Mr. Nigel Edwards]</p>
<p>FINLAND</p> <p>Tiehallinto/Finnish Road Administration (FINNRA) www.tiehallinto.fi/</p>	<p>Mr Raimo Tapio, Director</p> <p>Mr. Matti Piispanen Head of Department Engineering Services</p> <p>Mr. Pekka Pekkala Project Manager special procurement projects</p>
<p>FRANCE</p> <p>Ministère de l'Équipement, des Transports, de l'Aménagement du Territoire, du Tourisme et de la Mer²¹</p>	<p>Direction Générale des Routes (DGR) www.route.equipement.gouv.fr/</p> <p>Mr. Dominique Hucher, Deputy Director</p>
<p>Direction de la Sécurité et de la Circulation routières (DSCR) www.securiteroutiere.equipement.gouv.fr/</p>	<p>Mr. Jean Panhaleux, Deputy Director</p>
<p>SWEDEN</p> <p>Vägverket/Swedish Road Administration www.vv.se/</p>	<p>Mr Gunnar Tunkrans Head Office</p> <p>[questionnaire coordinated by Mrs. Anika Murphy]</p>

²⁰ Currently stationed with the Partner program for Infrastructure Management, based at Rijkswaterstaat

²¹ As a consequence of the change of government that followed the election of a new president in May 2007, the Ministry of Transport has recently merged into a newly created ministry with a broader scope: the Ministère de l'Écologie, du Développement et de l'Aménagement durables (Ministry of Ecology, Sustainable Development and Spatial Planning).

Overview of participants to the international workshop on 14-15 June 2007 in The Hague:

Mr. Konrad Bauer	Bundesanstalt für Strassenwesen/ Federal Highway Research Institute
Mr. Jurgen Christensen	Vejdirektoratet/Danish Road Directorate
Mr. Thierry Dallard	Ministère de l'Équipement, des Transports, de l'Aménagement du Territoire, du Tourisme et de la Mer ²¹ , Direction Générale des Routes (DGR)
Mrs. Åsa Ersson	Vägverket/Swedish Road Administration
Mrs. Jette Kastoft	Vejdirektoratet/Danish Road Directorate
Mr. Bruce Parker	Highways Agency
Mr. Manfred Philipp	ASFINAG Austria

For Rijkswaterstaat (rws):

Mr. Joris Al	Director, rws - AVV Transport Research Centre
Mr. Ton Bestebreur	Rws - Head office
Mrs. Mieke Bogaerts	Rws - AVV Transport Research Centre
Mr. Okke van Brandwijk	Rws - Regional Directorate Northern Netherlands
Mr. Roger Demkes	Rws - Head office
Mr. Herman Heegstra	Rws - Partner program for Infrastructure Management
Mr. Jose Hernandez	Rws - VCNL National traffic Control Centre
Mr. Bert Keijts	Director-General, Rijkswaterstaat
Mr. Paul van de Kroon	Rws - AVV Transport Research Centre
Mr. Olivier Overbeke	Rws - Head office
Mr. Ben Spiering	Rws - Partner program for Infrastructure Management
Mr. Paul Stephan	Rws - AVV Transport Research Centre
Mr. Peter Struik	Director, Rws - Regional Directorate Northern Netherlands
Mr. Jan Willem Tierolf	Rws - AVV Transport Research Centre
Mr. Maarten van der Vlist	Rws - Head office
Mr. Olaf Vroom	Rws - Head office
Mr. Bert de Wit	Rws - DWW Road and Hydraulic Engineering Institute

Annex 2: Questionnaire

INTRODUCTION

Background

The Directorate-General for Public Works and Water Management (Rijkswaterstaat- rws) is presently conducting a review of its long-term strategy. One of the main subjects of this review is the role of rws as the national road administration, and the responsibilities and tasks that belong to this role. In order to obtain a broader view on possible future developments, the Management of rws has asked AVV Transport Research Centre to carry out a comparative study on the role of other national road administrations, amongst others your organisation.

For this study we kindly ask your cooperation. This comprises filling in this questionnaire that has been prepared for this purpose and, possibly, answering in-depth questions about specific topics in a later stage.

We are aware that some of the questions in the questionnaire regard data and/or information that may be already available from other recent surveys, such as the PIARC-survey. In order to prevent double work, some of the available general information for your organisation has already been filled in at the appropriate place in the questionnaire, with a request to verify and, if necessary, up-date it.

Outline of the questionnaire

Main issues

The review focuses on a limited number of **issues** of the task of Road Administrations. These issues represent the elements on which rws would like to benchmark itself with colleague Road Administrations. The five issues are:

- The role of the **private sector** in the RA task.
- The relation of the RA with the **road users and other interest groups**.
- The funding and **financing** of the RA task.
- The relation of the RA with **other road infra managers** in the country.
- The impact of **policy making** on the RA and the RA task.

We tackle these issues by using a continuum, which describes the various possibilities of organising the relation with RA and these other stakeholders. The extremes of the continuum represent a low or no involvement of the particular stakeholder (e.g. private sector, policy makers) in the RA task at the one end, and a high involvement of that group at the other end of the continuum.

Five main tasks of a Road administration

Apart from the five main issues, the questionnaire focuses on five main task areas of a Road Administration (RA):

- **Network development:** A main task of a Road Administration is the development of the national road network. This includes the construction of new network links, as well as the expansion of the (static) capacity of existing network links.
- **Regular maintenance:** This task cluster comprises the works that are carried out to keep the network in condition, including keeping the roads passable in winter conditions, as well as major overhaul and renewal of pavement and equipment etc..

- **Dynamic traffic management and provision of traffic information** .One of the tasks of a Road Administration is to ensure that its network is efficiently utilised. To this end traffic management measures are being taken, both in a static (static traffic signs) and in a dynamic way (route information, dynamic signs on maximum speeds, closure of lanes, etc.). By traffic management the RA is more or less directly influencing the options of the road user.
In addition to traffic management, the RA can provide traffic information to road users. By providing information the behaviour of road users is influenced indirectly: the road user can choose not to follow the advice or not use the information.
- **Incident management**. Road Administrations bear a certain responsibility for what happens on the road network. One of the tasks of a RA is to ensure that emergency services can access accident spots and that damaged vehicles are being removed from the accident spot as soon as possible, in order not to interrupt the steady flow of traffic unnecessarily long.
- **Other public tasks** related to road traffic, such as vehicle registration (licence plates), issuing of drivers licenses, vehicle inspection etc.

In the first four tasks we would like you to focus only on the role of your organisation with respect to the NATIONAL network, even if your organisation is also responsible for regional roads.

Structure of the questionnaire

By combining the five issues and the five RA tasks, the following matrix results.

Issues	Tasks	Network development	Maintenance	Traffic info and management	Incident management	Other road traffic tasks
Policy making		X	X	X	X	X
Financing		X	X			
Road users and interest groups		X	X	X	X	X
Private sector		X	X	X	X	
Other road managers		X	X	X	X	

X: issues of interest

The questionnaire is structured according to these issues and tasks. Not all 25 cells of the matrix are of interest, though. In the table the most relevant cells have been indicated.

This questionnaire should be completed on behalf of the principal/national road administration of the named country. The information and results from this survey will only be used for internal purposes of Rijkswaterstaat (RWS), in particular for vision development with regard to the position of RWS in relation to several aspects. By comparing its position with those of road administrations in other countries, a well-balanced strategic document can be created that helps RWS to be prepared for the coming decades.

Although many subjects are being dealt with, the questionnaire is set up in such a way that answering the questions takes about 30-45 minutes of your time.

Your answers will be treated confidentially.

GENERAL DATA

This section deals with some general data on your organisation. These data are used to calculate global indicators on size and scope of the operations of your organisation.

#	Questions	Answers
NETWORK		
1	What was the length of the total road network managed by your organisation in 2005? - of which national roads - of which regional roads - of which other roads	Km Km Km Km
2a	Is the whole national road network managed by your organization?	YES / NO
2b	If NO, what is the length of the total national road network in your country?	Km
ORGANISATION		
3	What is the number of employees of your organisation? (2005)	Persons
4	In how many locations (towns, villages) does your organization have offices?	
5	Total operational costs of the RA (salaries, office costs, etc) (2005)	Mln Euro/yr
6	Works contracted out to 3rd parties (2005)	Mln Euro/yr

RELATION WITH POLICY MAKING

Introduction

As development and management of the road network is a public task, the Road Administration task is subject to government policies. The way in which this relation is shaped varies between countries. In the traditional model the RA is a government department, usually part of a Ministry of Transport or Public Works. In other models the RA is at arms' length of a Ministry or has a more independent status and is accountable to the legislature (e.g. to Parliament).

In all such cases the RA can have different roles in drafting national transport policies or strategic planning of road networks. At the one extreme the RA is purely an executive department, which is managed by the Ministry. At the other extreme the RA has the task to develop and manage the network in such a way that specific goals on congestion, environmental impact and road safety are being realised.

The key issue in this field of policy making that rws would like to explore is ***the degree to which your organisation is dependent on policy makers***²², for instance in terms of setting strategic objectives, organisation of the RA task, setting quality standards, etc. In this we assume that legal issues such as traffic rules and regulations (e.g. speed limits) are typically the domain of policy makers.

²² Policy makers can for instance be the cabinet, the policy department of a Ministry etc. outside the RA.

Network development

Introduction

The relation between RA and policy makers in the field of network development relates to the degree of independence of the RA in relation to policy objectives. Other aspects, like the funding and financing of the network, traffic management and incident management will be dealt with separately.

We discern the following relation between RA and policy making in terms of road network development:

- A Policy objectives on road network development are being set by policy makers (objectives on average speed or congestions levels, road deaths on the network, etc). Decisions on network expansion are also being taken by policy makers (i.e. new network links, upgrading of links). The RA is largely responsible for technical norms of the network.
- B Policy objectives on road network development are being set by policy makers (objectives on average speed or congestions levels, road deaths on the network, etc). Decisions on network expansion are also taken by policy makers (i.e. new network links, upgrading of links), but the RA has a substantial role in priority setting and identification of network development projects; this can e.g. be reflected by cost-benefit analyses being carried out by the RA. The RA is largely responsible for technical norms of the network.
- C Policy objectives with respect to congestion on the road network are being set by policy makers (objectives on average speed or congestions levels). The RA has the responsibility to achieve them. The RA can identify network improvements, only marginal testing by policy makers is being carried out. The final decision on road network development is taken by policy makers. The RA is not responsible for achieving safety or environmental objectives.
- D Policy objectives with respect to congestion, safety and/or environment on the road network are being set by policy makers (e.g. objectives on average speed or congestions levels, safety levels, emissions from road traffic). The RA has the responsibility to achieve them, given available means.

#	Questions	Answers
1	Which of these descriptions fits best the present relation between RA and policy makers (ministry, parliament)? If none of them fits, please describe the situation	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
2	Has this relation changed over the past 5 years with respect to road network development? If so, in what way A More responsibility for RA in road network development B Less responsibility for RA in road network development C Other, please describe	YES / NO <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C

Regular maintenance

Regular road maintenance is typically a task of the RA. Policy makers may have limited interest in the way activities are being carried out and what technical norms are being used, but may set desired outcomes for the quality of the network and/or the level of congestion due to road maintenance.

#	Questions	Answers
3	<p>Do policy makers set objectives for the RA in terms of road maintenance?</p> <p>If so, in what area(s) (more answers possible)::</p> <p>A quality of network</p> <p>B maximum level of congestion due to road works</p> <p>C other, please specify</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p>
4	<p>Has the relation between policy makers and the RA changed over the past 5 years with respect to road maintenance?</p> <p>If so, in what way?</p> <p>A Policy makers have become less interested in road maintenance</p> <p>B Policy makers have become more interested in road maintenance</p> <p>C Policy makers have set additional quality requirements for the RA to be met</p> <p>D Policy makers have given more responsibility to the RA in the field of road management</p> <p>E other, please specify</p> <p>If so, has this influenced the organisation of road maintenance?</p> <p>Please explain:</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p> <p>YES / NO</p>

Traffic management

Traffic management is typically a task of the RA. Policy makers may not be interested in the way the activities are being carried out, but may set desired outcomes for the level of congestion.

#	Questions	Answers
5	<p>Do policy makers set objectives for the RA in terms of traffic management?</p> <p>If so, in what area (please specify)::</p> <p>A maximum level of congestion</p> <p>B (maximum) respond time in cases of accidents</p> <p>C Other (please specify)</p> <p>.....</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p>
6	<p>Has the relation between policy makers and RA changed over the pas 5 years with respect to traffic management performed by the RA?</p> <p>If YES, in what way?</p> <p>A Policy makers have become less interested in traffic management</p> <p>B Policy makers have become more interested in traffic management</p> <p>C Policy makers have set additional quality requirements for the RA to be met</p> <p>D Policy makers have given more responsibility to the RA in the field of traffic management</p> <p>E other, please specify</p> <p>If YES, has this influenced the organisation of RA?</p> <p>If YES, please specify in what way:</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p> <p>YES / NO</p>

Incident management

Incident management is typically a task of the RA. Policy makers may not be interested in how the activities are being carried out, but may set desired outcomes for the level of congestion due to incidents.

#	Questions	Answers
7	<p>Do policy makers set objectives for the RA in terms of incident management?</p> <p>If so, in what area::</p> <p>A maximum level of congestion due to accidents</p> <p>B Other (please specify)</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p>
8	<p>Has the relation between policy makers and RA changed over the past 5 years with respect to incident management performed by the RA?</p> <p>If YES, in what way?</p> <p>A Policy makers have become less interested in incident management</p> <p>B Policy makers have become more interested in incident management</p> <p>C Policy makers have set additional quality requirements for the RA to be met</p> <p>D Policy makers have given more responsibility to the RA in the field of incident management</p> <p>E other, please specify</p> <p>If YES, has this influenced the organisation of RA?</p> <p>If YES, please specify in what way:</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p> <p>YES / NO</p>

Other road traffic related tasks

Besides the four tasks dealt with above, some Road administrations also perform other tasks in relation to the road traffic.

#	Questions	Answers
9	<p>Does your organization perform other road traffic related tasks?</p> <p>If YES, in which (more answers possible):</p> <p>A Issuing of driving licenses</p> <p>B Issuing of vehicle license plates, registration of vehicles</p> <p>C Vehicle inspection</p> <p>D Others, please specify.....</p> <p>If YES, does the performance of such tasks affect your organisation?</p> <p>If YES, in what way? (please describe)</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p>YES / NO</p>
10	<p>Has your involvement in such tasks changed over the past 5 years?</p> <p>If YES, in what way? (please explain)</p>	YES / NO
11	Will your involvement in such tasks change over the past 5 years	YES / NO
12	<p>Do you monitor the satisfaction of clients with your performance on such tasks?</p> <p>If YES, how?</p>	YES / NO

FINANCING

Network development

Introduction

The financing of the network development can have various forms. We distinguish the following types:

- A Network development is financed completely from government budget allocations
- B Network development is financed from a combination of government budget allocations and loans taken by the RA (e.g. on the capital market)
- C Network development is financed from a combination of government budget allocations and private sector capital
- D Network development is fully financed from private sector capital, on the basis of long term concessions with shadow toll arrangements
- E Network development is fully financed from private sector capital, on the basis of long term concessions, based on user toll (electronic or with physical toll plazas)

#	Questions	Answers
1	Which of these types of financing is presently being used most often for the national road network in your country (i.e. including national roads managed by others)?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
2	Which of the types of financing was typically used 5 years ago for the national road network in your country?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
3	In case the financing has changed over the past 5 years, what was the main reason for this? A Political decisions to involve private party financing B Pressure from private investment funds C Lack of government budgets D Reorientation on the role of the government E Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

#	Questions	Answers
4	<p>Has or would a larger involvement of private sector parties in financing of the network expansion affect(ed) your organisation?</p> <p>A No, not at all</p> <p>B Yes, the RA would need different types of employees</p> <p>C Yes, the RA can reduce its staff size</p> <p>D Yes, the role of the RA would be considerably different</p> <p>E Yes, (please specify)</p> <p>.....</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p>
5	<p>Is it considered that completely private financing of development of the national road network will be possible in 10 years from now?</p> <p>A No, there is not enough interest from private parties</p> <p>B No, many national roads do not have sufficient traffic levels for private financing</p> <p>C No, because (please specify)</p> <p>.....</p> <p>D Yes, but only for the main routes with sufficient traffic. Other routes need to be provided on the basis of government budgets</p> <p>E Yes, road user charges should be set in such a way that revenues can be used for expansion and maintenance of the complete national network.</p> <p>F Yes, because (please specify)</p> <p>.....</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p> <p><input type="checkbox"/> F</p>

Regular maintenance

For regular road maintenance three possible types of financing are:

- A Road maintenance is financed totally from government budget allocations
- B Road maintenance is financed from the revenues of a user fee that are allocated to a dedicated Infrastructure fund
- C Road maintenance is financed from the revenues of a road user fee which is directly paid to the Road Administration

#	Questions	Answers
6	Which of these types of financing was typically used road maintenance in 2005/2006?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
7	Which of the types of financing was used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
8	In case the financing has changed over the past 5 years, what was the main reason for this? A Political decisions to involve private party financing B Lack of government budgets C Reorientation on the role of the government D Other, (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
9	Is it considered that complete financing of road maintenance from user charges will be possible in your country in 10 years from now? A No, there will not be enough revenues B No, this is not a political issue, we will continue budget financing C No, because (please specify) D Yes, it is already the case E Yes, road user charges should be set in such a way that revenues can be used for network development and road maintenance for the complete national network. F Yes, because (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F

RELATION WITH ROAD USER AND OTHER INTEREST GROUPS

General

The Road Administration has a public task, which in general terms may be described as: to accommodate passenger and freight movements of citizens and companies. In performing this task, the RA can treat its users as customers or even partners, as private enterprises do. This may be reflected in the Road Administration involving road users and other interest groups in various RA tasks.

'Road users' may include individual users as well as road user organisations (car users and road transport companies). 'Other interest groups' may include people living near the road, environmentalists, or groups representing business interests (Chamber of Commerce, employers etc.).

Generally five models are possible:

- A **Information:** Road users and/or interest groups are not involved in any formal way in RA tasks. They are informed through advertisements, flyers, press statements and newspaper articles, newsletters etc. or, when applicable, by more personal means (letters, telephone calls etc.).
- B **Consultation:** Road user and/or interest groups are consulted by way of public hearings etc. about specific projects and/or certain RA tasks. This may include legally required public participation procedures.
- C **Advice:** The RA seeks actively advice from road users and/or interest groups concerning specific questions e.g. by organising meetings with focus groups etc. The questions may regard specific problems as well as, more generally, the execution of certain RA tasks.
- D **Co-production:** Road users and/or interest groups are actively involved in preparation of decisions of (some of) the RA tasks. This may include defining of the actual problem and developing solutions.
- E **Co-decision:** Road users and/or interest groups have a more or less formalised role in decision making on (some of) the RA tasks.

In order to assess the role of road users and other interest groups in the RA tasks, we kindly request you to first fill in the following tables, indicating the involvement of road users and other interest groups in the main RA tasks.

Relation with the road users - General						
1	To what extent are road users or road user groups involved in the four tasks? Please mark the applicable boxes.					
		Information	Consultation	Advice	Co-production	Co-decision
	Road network development					
	Road maintenance					
	Traffic information and management					
	Incident management					

Relation with other interest groups - General						
2	To what extent are other interest groups involved in the four tasks? Please mark the appropriate boxes.					
		Information	Consultation	Advice	Co-production	Co-decision
	Road network development					
	Road maintenance					
	Traffic information and management					
	Incident management					

Road network development and road maintenance works

The relation between RA and road users and other interest groups in terms of the network development and road maintenance tasks²³ can have different forms (see above).

#	Questions	Answers
3	Which of these types of cooperation with road users and interest groups best resembles the type of cooperation used in 2005-2006 relating to new road links?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
4	Which of the types of cooperation with road users and interest groups was typically used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
5	In case the relation has changed over the past 5 years, what was the main reason for this? A Public pressure B It was felt that involving interest groups more would save time in implementation as there is less opposition to be expected. C It is the policy of the RA that we involve user and interest groups as much as possible D Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D

²³ including works related traffic management measures

#	Questions	Answers
6	<p>What is the experience of your organisation in working with road user organisations and other interest groups in road network development?</p> <p>A No experience at all B Positive C Neutral D Negative</p> <p>Please explain</p>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
7	<p>Do you monitor the satisfaction of road users in terms of construction and/or road maintenance works, or is there any other method by which road users can express their experiences with road works?</p> <p>If YES, in what way?</p> <p>A There is a phone number which can be used for complaints B The RA measures the satisfaction level by means of questionnaires C Other, namely </p>	<p>YES / NO</p> <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C

Traffic management and traffic information

The potential role of road users and interest groups in traffic information and management is quite limited. Road users could be involved somehow, as they are the main recipients and users of the traffic information and are the subject of traffic management.

#	Questions	Answers
8	Does the Road Administration provide traffic information?	YES / NO
8a1	<p>If YES, How is the traffic information provided? (more answers possible)</p> <p>A Via internet B Via radio C Via variable message signs D Other, namely</p>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D

#	Questions	Answers
8a2	Is traffic information actively used to improve traffic management?	YES / NO
8a3	If so, is it effective? Yes, because No, because	
8a4	What is the impact of providing traffic information to the public on the RA? A Better focus on the road users B More interaction with the road users C No impact at all D More persons needed by the RA E Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
8b	If NO, What is the reason for not providing traffic information? Answer:	
9	Can others than the Road Administration provide traffic information to the public?	YES / NO
9a	If YES, Does the RA provide the basic information to these other providers?	YES / NO
9b	Do they have to pay for it?	YES / NO
9c	What impact has the fact that others provide this information to the public? A The effectiveness of traffic management by the RA increases B The effectiveness of traffic management by the RA decreases C No impact	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
10	Is there any involvement of road users in traffic management ?	YES / NO
10a	If YES, In what way? Answer:	
10b	What is the impact of this role on the RA? A More interaction with the road users needed B Traffic management is more effective C Traffic management is less effective D Other, (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D

#	Questions	Answers
11	<p>Do you monitor the satisfaction of road users in terms of traffic information and management, or is there any other method by which road users can express their experiences in this field?</p> <p>If YES, in what way?</p> <p>A There is a phone number which can be used for complaints</p> <p>B The RA measures the satisfaction level by means of questionnaires</p> <p>C Other, (please specify)</p> <p>.....</p>	<p>YES / NO</p> <p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p>

Incident management

As with traffic information and management, there is no clear role of road users in incident management. The questions will therefore be general.

#	Questions	Answers
12	Is there any involvement of road users in incident management ?	YES / NO
12a	<p>If YES,</p> <p>In what way?</p> <p>Answer:</p>	
12b	<p>What is the impact of this role on the RA?</p> <p>A More interaction with the road users needed</p> <p>B Incident management is more effective</p> <p>C Incident management is less effective</p> <p>D Other, (please specify)</p> <p>.....</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p>
13	<p>Do you monitor the satisfaction of road users in terms of incident managements?</p> <p>If YES, how?</p>	YES / NO

RELATION WITH THE PRIVATE SECTOR

Introduction

The private sector can in various ways be involved in RA tasks, and the degree of participation of the private sector can vary per task. Typical examples of private sector participation are being described in the following paragraphs, for each of the RA tasks individually.

These examples are ranked in increasing order with respect to the scope of the role of the private sector. A growing role implies that the responsibility of the private sector increases, from being purely contract party for the works specified by the Road Administration, to being also responsible for the project or policy outcomes, as specified by the Road Administration. At the same time, the number of risks borne by the private sector parties can increase, from only the purely technical risks, to technical, operational as well as financial risks.

With a growing role for private parties, the role of the Road Administration declines. However, some responsibilities (e.g. defining the desired outcome of policies and projects) and some risks (e.g. political risks, decision risks) will remain with the public sector, even with highest involvement of the private sector.

In order to assess the role of the private sector in the four RA tasks, we kindly ask you to fill in the table below:

Relation with the private sector - General					
1	To what extent is the private sector involved in the four tasks? The percentages are indicative, but could express e.g. the number of man hours provided by the private sector as compared to the number of man hours of own staff of the RA dedicated to this task.				
		Hardly (0-10%)	Somewhat (10-30%)	Substantially (30-70%)	Almost completely (70-100%)
	Road network development				
	Road maintenance				
	Traffic information and management				
	Incident management				

Road network development

The involvement of private sector in road network development can take various forms. Some typical situations are:

- A Road network development on the basis of technical specifications provided by the RA; the design is to be approved by RA.
- B Road network development on the basis of output specifications provided by the RA; the contractor is responsible for design.
- C A long term agreement (concession) with the RA, which covers both design, construction and the maintenance of the new link over a longer period (e.g. 10, 25 or 30 years) after which the link is transferred to the RA.
- D A long term agreement (concession) with the RA, which covers design, construction, maintenance (and financing) over a longer period
- E Development, financing and construction of a new link by a private party on the basis of outcome specifications (on e.g. required capacity of the road link, interconnection with present network, maximum level of environmental impact, etc) set by the RA.

#	Questions	Answers
1	Please indicate, what type of cooperation with the private sector has been used in network development activities carried out in 2005-2006? (in value terms)	<input type="checkbox"/> A % <input type="checkbox"/> B % <input type="checkbox"/> C % <input type="checkbox"/> D % <input type="checkbox"/> E %
2	Which of the types of involvement of private parties in network development was typically used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
3	If the dominant type of cooperation has changed recently, why has it changed? A The new method is more cost effective: good value for money B There was a change in strategy of the RA C The legal framework has changed D Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
4	If the method has changed recently, how is your experience with the change? A Very positive B Positive, C Neutral, D Negative Please explain your answer	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
5	In what way has your organisation changed in recent years in order to deal best with the private sector in road network development? (disagree (-), neutral (0), agree (+)) A The organisation has not changed to this end B More lawyers are needed for contract issues C The RA needs more decision power, needs to be able to act quicker D The RA needs to better supervise the works to make sure the quality is okay E Fewer personnel is needed, as the private sector does all the work F More can be done with the same budget, as the private sector is more cost effective G More can be done with the same budget, as the private sector also finances the road expansion H Less can be done with the same budget, as the private sector is more expensive. I Fewer personnel is needed in headquarters, more personnel is needed on the spot.	- 0 + A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Regular maintenance

The private sector can be involved in various ways in regular maintenance:

- A Maintenance is carried out by own staff of the Road Administration. There is hardly any involvement of the private sector.
- B Maintenance is predominantly performed by contractors on the basis of technical specifications provided by the RA
- C Maintenance is predominantly performed by contractors on the basis of output specifications provided by the RA; the contractor is responsible for design.
- D Maintenance is performed by contractors on the basis of a long term agreement with the RA, which specifies the required output (roughness, etc)
- E Maintenance is performed by contractors on the basis of a long term agreement with the RA in which the desired outcome is specified (quality of road, congestion level due to works, user satisfaction etc)

#	Questions	Answers
6	Which of these types of involvement of the private sector in road maintenance was typically used by your organisation in 2005-2006?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
7	Which of the types of involvement of the private sector was typically used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
8	If the method has changed recently: why has the method been changed? A No change B The new method is more cost effective: good value for money C There was a change in strategy of the RA D The legal framework has changed E Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
9	If the method has changed recently, what are you experiences with the change? A Very positive, B Positive C Neutral D Negative Please explain your answer:	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D

#	Questions	Answers
10	<p>What will in your opinion be the best situation for the future with respect to the involvement of the private sector in road maintenance works? If possible refer to one of the types A to E.</p> <p>Answer:</p>	
11	<p>In what way has your organisation changed in recent years in order to deal best with the private sector in road maintenance? (disagree (-), neutral (0), agree (+))</p> <p>A The organisation has not changed to this end</p> <p>B More lawyers are needed for contract issues</p> <p>C The RA needs more decision power, needs to be able to act quicker</p> <p>D The RA needs to supervise the works more intensively to make sure the quality is okay</p> <p>E Fewer personnel is needed, as the private sector does all the work</p> <p>F More can be done with the same budget, as the private sector is more cost effective</p> <p>G More can be done with the same budget, as the private sector also finances the road maintenance</p> <p>H Less can be done with the same budget, as the private sector is more expensive.</p> <p>I Fewer personnel is needed in headquarters, more personnel is needed on the spot.</p>	<p>- 0 +</p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

Traffic management and information

Role of private sector

Some typical roles for the private sector in Traffic information and management are:

- A No involvement at all, apart from supplying equipment and software to the RA.
- B Provision of traffic information, which is obtained from the RA. No involvement in traffic management.
- C Provision of traffic information, which is collected by own means. No involvement in traffic management.
- D Complete traffic management of road sections (e.g. as part of a toll road concession).
- E Traffic management of road network, without provision of traffic information.
- F Traffic management of the road network including provision of traffic information.

#	Questions	Answers
12	<p>Which of these types of involvement of the private sector in traffic information and management was typically used by your organisation in 2005-2006?</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p> <p><input type="checkbox"/> F</p>

#	Questions	Answers
13	Which of the types of involvement of the private sector in traffic management and information was typically used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F
14	<p>If the cooperation has changed recently: why has it been changed?</p> <p>A The new method is more cost effective: good value for money</p> <p>B There was a change in strategy of the RA</p> <p>C The legal framework has changed</p> <p>D Other (please specify)</p> <p>.....</p>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
15	<p>If the cooperation has changed recently, what are your experiences with the change?</p> <p>A Very positive</p> <p>B Positive</p> <p>C Neutral</p> <p>D Negative</p> <p>Please explain:</p>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
16	<p>What is considered to be the best situation for the future with respect to the involvement of the private sector in traffic information and management? If possible refer to one of the types A to F.</p> <p>Answer:</p>	
17	<p>In what way has your organisation changed in recent years in order to deal best with the private sector in traffic information and management? (disagree (-), neutral (0), agree (+))</p> <p>A The organisation has not changed to this end</p> <p>B More lawyers are needed for contract issues</p> <p>C The RA needs more decision power, needs to be able to act quicker</p> <p>D The RA needs to better supervise the works to make sure the quality is okay</p> <p>E Fewer personnel is needed, as the private sector does all the work</p> <p>F More can be done with the same budget, as the private sector is more cost effective</p> <p>G More can be done with the same budget, as the private sector also finances the traffic information and management</p> <p>H Less can be done with the same budget, as the private sector is more expensive.</p> <p>I Fewer personnel is needed in headquarters, more personnel is needed on the spot.</p>	<p style="text-align: center;">- 0 +</p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

Incident management

Role of the private sector

In this field the private sector can play various roles:

- A None at all
- B The private sector removes damaged vehicles, but only when the emergency services allow them
- C The private party manages the whole process around incidents: it calls emergency services, as well as vehicles needed to remove the damaged vehicles. It has a performance contract with the RA.

#	Questions	Answers
18	Which of these types of involvement of the private sector in incident management was used by your organisation in 2005-2006?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
19	Which of the types of involvement of the private sector was typically used 5 years ago?	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
20	If the cooperation has changed recently: why has it been changed? A The new method is more cost effective: good value for money B There was a change in strategy of the RA C The legal framework has changed D Other (please specify)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
21	If the cooperation has changed recently, what are your experiences with the change? A Very positive B Positive C Neutral D Negative Please explain:	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
22	What is considered to be the best situation for the future with respect to the involvement of the private sector in incident management ? If possible refer to one of the types A to C. Answer:	

#	Questions	Answers
23	<p>In what way has your organisation changed in recent years in order to deal best with the private sector in incident management? (disagree (-), neutral (0), agree (+))</p> <p>A The organisation has not changed to this end</p> <p>B More lawyers are needed for contract issues</p> <p>C The RA needs more decision power, needs to be able to act quicker</p> <p>D The RA needs to better supervise the works to make sure the quality is okay</p> <p>E Fewer personnel is needed, as the private sector does all the work</p> <p>F More can be done with the same budget, as the private sector is more cost effective</p> <p>G More can be done with the same budget, as the private sector also finances the incident management</p> <p>H Less can be done with the same budget, as the private sector is more expensive.</p> <p>I Fewer personnel is needed in headquarters, more personnel is needed on the spot</p>	<p>- 0 +</p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

Relation with other road infra providers

Introduction

Three types of cooperation are distinguished in the relation with other road infra providers:

- A There is only incidental cooperation at the operational level if necessary, for instance when road maintenance are being carried out. (coordination of works)
- B There is cooperation on an ongoing basis for instance in joint operations of traffic management.
- C There is cooperation on an ongoing basis in joint operation of traffic management and road maintenance. Road network development projects are identified, prepared and implemented together with other road infrastructure providers.

#	Questions	Answers
1	<p>Which of these types of cooperation with other road infra providers is being used now?</p> <p>If another type of cooperation applies, please specify</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p>
2	<p>Which of the types of cooperation with other road infra providers was typically used 5 years ago?</p> <p>If another type of cooperation was applied, please specify</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p>

#	Questions	Answers
3	<p>In case the cooperation has changed over the past 5 years, what was the main reason for this?</p> <p>A Political decisions</p> <p>B Increasing traffic requires more coordination</p> <p>C Own initiative from RA to improve service level to road users</p> <p>D Other infra providers have requested this</p> <p>E Other</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p>
4	<p>What has been or would be the effect of more intensive cooperation with other road infra providers on your organisation?</p> <p>A More staff would be needed</p> <p>B We would need to have different type of people</p> <p>C We would need to have more intensive local presence (e.g. local office)</p> <p>D We would need to involve private parties to organise the cooperation with other road infra providers</p> <p>E Other:</p>	<p><input type="checkbox"/> A</p> <p><input type="checkbox"/> B</p> <p><input type="checkbox"/> C</p> <p><input type="checkbox"/> D</p> <p><input type="checkbox"/> E</p>