Ministry of Infrastructure and the Environment

2011 Work Programme

KiM Netherlands Institute for Transport Policy Analysis

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January 2011

The KiM Netherlands Institute for Transport Policy Analysis conducts mobility analyses that are subsequently incorporated in national transportation policy. As an independent institute within the Dutch Ministry of Infrastructure and the Environment, KiM provides strategic research and policy analysis.
The content of KiM publications is independent and does not need to reflect the views held by the minister and/or state secretary of the Infrastructure and the Environment ministry.

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0 About KiM and this Work Programme

0.1 Introduction

This is the 2011 Work Programme of the KiM Netherlands Institute for Transport Policy Analysis (KiM). The Work Programme is intended for the employees of the Ministry of Infrastructure and the Environment (IenM) and for other individuals and organisations interested in KiM's activities.

2011 is an important year for the development and practical implementation of the objectives contained in the coalition agreement of the new Dutch government, which was elected in 2010. For mobility and transport, the focus will be on improving the accessibility of roadways in order to enhance and encourage economic growth and a cleaner environment; facilitating an easily accessible, reliable and efficient public transport system; supporting the qualitative growth of interconnecting networks via Amsterdam Airport Schiphol; strengthening the international competitiveness of the Port of Rotterdam; expanding collaborative efforts between the government and industry in constructing and maintaining infrastructure; and accelerating and simplifying decision-making processes for infrastructure projects. Current and scientifically based knowledge is essential for all these subjects. KiM strives to contribute significantly to compiling knowledge and translating this knowledge into practical policy initiatives.

In 2011, the new Ministry of Infrastructure and the Environment will be further developed. This process will also involve a review of the relationship between policy and knowledge and the organisation of knowledge within the ministry. KiM will contribute to this process, reviewing what available knowledge within KiM could be of importance to the entire Ministry of IenM. Discussions have been held with the former Ministry of Housing, Spatial Planning and the Environment's Directorate-General for Spatial Planning (DGR) and the Directorate-General for the Environment (DGM) in order to ascertain their interests regarding the focus of project content and the involvement of DGR and DGM therein. Moreover, DG Spatial Planning and DG Environment representatives have been given seats on the KiM Programming Committee.

0.2 Objective and role of KiM

KiM's stated objective is to strengthen and broaden the strategic knowledge base for mobility policy and thus enhance the quality of mobility policy. For this the term 'evidence-based policy' is used: that is, basing policy choices on relevant facts, comprehensive analyses and reliable estimates of risks in the context of (inter)nationally available knowledge.
KiM fulfils the following three knowledge functions:

- **Research projects**: setting up research projects and policy analyses based on data and (scientific) literature studies that are then translated into practical policy initiatives; the subsequent research publications are open to the public.
- **Knowledge-at-the-table**: the (collegial) introduction of knowledge into policy processes, which includes:
  - discussions, presentations and short reports about available knowledge;
  - answering ad hoc questions;
  - opening up the (inter)national knowledge network for the Ministry of IenM (what knowledge can be derived from which actor?);

- supporting IenM ministerial policy directorates in formulating the research questions and approaches to research for research projects that have been outsourced to third parties;
- participating in supervisory committees;
- transferring knowledge by teaching masterclasses

- **Observational reports**: reports in which KiM tables agenda points within the Ministry of IenM based on current policy and scientific developments or reports submitted by third parties. These are not included in the Work Programme, although capacity is made available within KiM for this purpose.

Focal points in 2011
In 2011, we will further strengthen the role of Knowledge-at-the-Table. This will involve continuing with the approach taken following an evaluation of KiM in late 2009. A key conclusion of this evaluation was that KiM is ideally suited to further improve the quality of policy formation by providing relevant knowledge, and that, moreover, the informal introduction of knowledge during policy preparations is crucially important.

In 2011, KiM will (in the context of Knowledge-at-the-Table) provide greater support to the policy directorates through the formulation of research questions and approaches to research for research projects outsourced to third parties. KiM already does this, but to a limited extent. A key aspect of this is rendering KiM capable of indicating which party is able to provide the best of a certain type of knowledge.

Teaching internal masterclasses for the Ministry of IenM is a new product that KiM will begin in 2011. Possible subjects include a masterclass about policy evaluations or a masterclass about how the mobility system functions. Also new in 2011 are the previously mentioned observational reports, through which KiM aims to contribute to the orientation to the environment, which is a vital subject for the Ministry of IenM.

Finally, in translating knowledge into practical policy, in 2011 KiM intends to begin using various innovative methods and tools, such as applications of 'serious gaming' and the use of 'argument maps'.

KiM symposium
KiM organises an annual symposium. In 2011, the symposium will focus on tensions that exists between irrational behaviour and the '*homo economicus*', and the manner in which mobility policy can address this issue. As this year also marks the five-year anniversary of KiM's founding, this year's symposium will be held in September.

How does KiM differentiate itself from other knowledge providers?
The field of mobility has multiple suppliers of knowledge: universities, knowledge institutes, such as TNO, planning agencies and consultants. This raises the question as to how KiM differentiates itself from these other knowledge providers, notwithstanding its positioning within the Ministry of IenM, which is detailed later in this chapter.

Characteristics of typical KiM products and services include:
- In close contact with policymakers: a 'short distance' to KiM contributes to a stronger foundation of knowledge, as closer contact leads to a better exchange of policy questions and research results.
- Strategic: broadly outlined and relating to the first stage of the policy cycle. Generally, KiM does not work on tactical-operational knowledge questions nor does it perform studies of extremely limited scope.

- Multidisciplinary: a choice for multiple angles from multiple disciplines. In this way, KiM's analyses are more robust. Also, for research in which there is one specific focal point, the results are evaluated from multiple angles in order to increase robustness. This is also reflected in the wide range of disciplines represented within KiM (including economics, social geography, (urban and rural) planning, sociology, psychology, transport engineering and management).
- Analytical: not only descriptive (which developments are occurring, the 'what' question) but also explanatory (which are the underlying factors, the 'how' question).
- With 'policy controls' but without policy recommendations: for KiM the focus is on creating a better foundation of knowledge for policy, which is why KiM indicates which effects various policy options (could) have, because expected policy effects in practice form only part of the political and policy considerations, and KiM cannot and will not give policy recommendations. More generally, KiM concentrates on policy-focused research and not on, for example, deeper scientific investigations of particular issues. Nonetheless, it is also important for KiM to develop knowledge over many years. But that knowledge development is also ultimately focused on support for (future) policy projects and policy processes.
- About one or more key mobility dossiers: the ambition to strengthen and broaden the Ministry of IenM's foundation of knowledge pertains to all IenM mobility dossiers, although the greatest attention is given to the most important dossiers (in the sense of the policy's contribution to solving social problems and to prosperity, and in the sense of the degree to which social and political discussions occur).

How KiM differs from the planning agencies
One important difference between KiM and the planning agencies is that planning agencies study questions about various policy areas (including mobility) from a specific angle (economy, environment and behaviour). KiM however specifically studies questions relating to mobility policy from various angles (economy, environment and behaviour). Although KiM's approach differs from the planning agencies, and although KiM's positioning also differs, there are however areas in which content overlaps. See section 0.3.

0.3 KiM's positioning and working methods

Positioning
Within the Ministry of IenM, KiM is positioned to facilitate a satisfactory processing of KiM products and immediate interaction between KiM and the policy directorates. This marks a second important difference between KiM and the planning agencies: KiM exists to facilitate the *internal* bolstering of the ministry's knowledge base, while the planning agencies' role consists of providing *external* critical reflection on existing and proposed policy initiatives. This was reconfirmed during an evaluation of KiM in late 2009.

Collaboration
The products listed in section 0.2 were developed by KiM or in collaboration with the planning agencies, external knowledge institutes, universities, and Directorate-General of Public Works and Water Management (RWS-DVS) . KiM primarily does this based on knowledge that is developed elsewhere (in the Netherlands or abroad), which KiM then integrates and renders applicable for practical policy initiatives. KiM occasionally outsources segments of a research project to private organisations, with KiM then integrating these research segments in a KiM product.

Current project-level, collaborative efforts involving the planning agencies will be explicitly stated in the collaboration agreements, which will detail the various forms of collaboration, such as critical assessments of each other's products and participation in supervisory committees, contributions to the content of each other's products and, in isolated cases, joint products.

Strengthening contacts with the scientific community
The contacts between KiM and the scientific community are diverse and vary in degree. Increasing numbers of professors from the Netherlands and abroad are being invited to become KiM fellows, in order to provide both better insights into these contacts and to promote more structural dialogue regarding KiM's activities. Each fellow is directly involved in one or more of the core themes (see below). The following are but a few examples of possible ways in which KiM fellows are involved: by providing an extra boost to ongoing or starting research projects; by providing scientific reviews of complete research projects; by participating in review committees; by giving inspirational lectures; and by writing columns in the KiM newsletter. Moreover, in appointing international fellows the knife cuts both ways: the international knowledge provided in this manner also contributes to KiM products.

In 2008, two PhD research projects were started in collaboration with VU Amsterdam University. The PhD students conduct their research partly at VU Amsterdam and partly at KiM. These doctoral research projects will run for a period of four years, but they have however already led to spin-off products for other KiM researchers. These PhD projects are described on pages 17 and 26.

Part of the scientific knowledge that KiM uses and translates into practical policy is developed within the framework of the Sustainable Accessibility Randstad (DBR) programme. KiM is represented on the DBR programming committee and maintains close contacts with the project leaders of the various DBR projects. Regarding the translation of scientific insights, the FES programme 'Sustainable Dynamics in the Delta (3D)' is also relevant, as is, in an international context, the Joint Programming Initiative Urban Europe, in which the Netherlands plays a leading role.

International orientation
Many research questions also require internationally developed knowledge or have a strong international or European context. KiM therefore continuously gathers 'state-of-the-art' scientific knowledge and, based on the requests for knowledge, seeks to connect to the most up-to-date international policy context. As such, KiM maintains a number of specific relationships with relevant international research institutes. For each core theme (see below) these relationships will be further strengthened and expanded. KiM moreover is the Netherlands' representative in Joint Transport Research Committee (JTRC) of the International Transport Forum. In this role KiM also participates in JTRC's various Round Tables. KiM also regularly gives presentations at international conferences, such as the European Transport Conference, the Hamburg Aviation Conference, the annual conference of the Transportation Research Board, the World Conference on Transport Research, the European Regional Science Association and the Air Transport Research Society. On such occasions, KiM both gives and receives knowledge.

Publications
All of KiM's research publications are in the public domain. Publication occurs within three months after completion of the research. In some cases this timeline may be deviated from; for example, when the research is part of the preparations for a major policy report, in which case the relevant research reports are published simultaneously with the release of policy report.

0.4 Core themes

2011 is the first year in which KiM will work with core themes. Core themes are, initially, intended to clearly establish which knowledge is available within KiM and fulfil a policy agenda-setting role: that is, which knowledge is required for the future policy questions.

The key characteristics of a core theme are:

- Contributes to KiM's recognisability; it thereby reveals which type of knowledge KiM can provide;
- Logically integrates the 'individual' research projects and the 'knowledge-at-the-table' questions, which now characterise the demand-driven research;
- Contributes the characteristics of a typical KiM product and fortifies them;
- Provides, again, a view of future mobility research as well as the focus of current mobility research. This provides a multi-year, agenda-setting 'foundation' for actual projects;
- Core themes can, over time, be removed. And new core themes can also be added if circumstances warrant. In any case, updating is done once per year during the drafting of the Work Programme.

As of this year, core themes will provide a foundation for structuring KiM's activities and research. Moreover, the focus is on cohesive clusters of KiM's projects and other activities. Existing programmes within KiM can then be eliminated.

The 2011 core themes are:

1. **Accessibility.** Analysis of the developments in, importance of and opportunities for improving accessibility and the operability of 'new' accessibility aspects, such as robustness and reliability. The focus here is on passenger transport and freight transport (smart use of networks and smart logistics, such as unimodal and multimodal), as well as transport chains and hubs.
2. **Drivers and effects of mobility**. Description and explanation of national and international developments in mobility and transport, and of the effects on safety and the environment. Includes looking back (explanations based on societal developments and policy effects) and looking ahead (development of environmental scenarios to support robust policy development and prepare medium and long term assessments).
3. **Mobility behaviour and influential factors**. Description and analysis of (differences in) peoples' mobility behaviour and the behavioural choices of freight transporters, as well as the underlying factors and motives. Includes policy engagement points for exploring the possibilities of influencing behaviour.
4. **Accessibility of data and policy models**. Promoting the required development of mobility and transport policy-related models and data collection. Development of policy indicators for the purpose of monitoring policy goals and strategic issues.
5. **Market regulation and the role of the government.** Analysis and explanation of effective and efficient government relations – vis-à-vis the various market sectors (roads, regional public transport, railways, inland waterways, sea shipping, aviation). In addition, focus on public interests, regarding various types of market regulation and governance and effective managerial relations between the various governmental departments. Also analysis of opportunities for public-private partnerships and alternative financing methods.
6. **Policy evaluations and assessment frameworks**. Evaluation of the effectiveness and efficiency of mobility and transport policy instruments

(in the areas of infrastructure, utilisation and pricing policy). Both ex ante and ex post evaluations. Development of assessment frameworks that integrate the economic and management focus on people, profits and the planet. Promoting the improved use of the SCBA system.

7. **Transition to a sustainable, vital and safe mobility system.** This core theme primarily focuses on the long-term: Outlining possibilities for sustainable, vital (robust) and safe future mobility and transport systems. Focus on the optimum use of the limited space available, the opportunities offered by ICT, the reduction of emission levels, the effects of climate change, energy uncertainties and an effective mix of energy sources. Comprises the entire mobility and transport system, thus both networks and hubs (including mainports).
   In addition, this core theme focuses on the question of how this transition can be achieved, or if a prompting role from the government is required, and which actions should now be initiated.
8. **The importance of mobility and transport.** Providing insights into the importance of mobility, transport and infrastructure for economic development and the structure of the economy. Particular focus on the (inter)national significance of mainports, other logistic hubs, and networks that are nationally important to the structure of the economy and location attractiveness. Attention is given to the possibilities of government influencing how the mainports function.

High profile projects in 2011

Many research projects and other activities (Knowledge-at-the-table) are conducted within the core themes. Some projects and activities focus on a specific policy area and specific policy direction, while others have a wider significance for Ministry of IenM policy. The following table indicates which project per core theme is deemed high profile in terms of its wider significance and expected importance on policy discussions. This is only a snapshot. Moreover, due to actual political and social developments, projects other than those mentioned below can be regarded as high profile. Such developments moreover can lead to a reprioritization.

Core theme	High profile project	Page
1. Accessibility	Accessibility: an alternative view	13
2. Drivers and effects of mobility	Mobility Report 2011	21
3. Mobility behaviour and influential factors	Target group catalogue of mobility users	27
4. Accessibility of data and policy models	IenM-needs for data collections relating to mobility and accessibility	33
5. Market organisation and the role of the government	Regional orientation towards nodes	39
6. Policy evaluations and assessment frameworks	OEI for comprehensive and area-focused approach	43
7. Transition to a sustainable, vital and safe mobility system	Exploring sustainable transportation systems for 2050 that are also robust and safe	51
8. The importance of mobility and transport	The importance of mobility	55

Management team

KiM's management team consists of Jaap de Wit (director of science), Arjen 't Hoen (deputy director), Odette van de Riet, and Jan van der Waard. With the exception of the director of science, all others are responsible for a number of core themes, as cited below:

Core theme	Responsible MT-member
1. Accessibility	Jan van der Waard
2. Drivers and effects of mobility	Jan van der Waard
3. Mobility behaviour and influential factors	Odette van de Riet
4. Accessibility of data and policy models	Jan van der Waard
5. Market organisation and the role of the government	Arjen 't Hoen
6. Policy evaluations and assessment frameworks	Arjen 't Hoen
7. Transition to a sustainable, vital and safe mobility system	Odette van de Riet
8. The importance of mobility and transport	Arjen 't Hoen

0.5 About the Work Programme

Formulation of the Work Programme
KiM's Work Programme is demand-driven and created through engaging the various Ministry of IenM departments involved with mobility and transport in constructive dialogue (with the exception of the observational reports described in section 0.2) Because KiM's objective is to strengthen the strategic knowledge base for mobility policy, if KiM were to choose its own research subjects - subjects that moreover did not correspond to the Ministry of IenM's current and future policy demands - there would be little interest within the ministry for the results of KiM's research. The risk then would be that KiM would simply 'blow with the wind'. The choice to pursue demand-driven research does not however mean that KiM has no influence on the demand for knowledge. Rather, KiM influences demand by, among other means, submitting possible questions to IenM colleagues, by elaborating on questions KiM has proposed, and by proposing suggestions when the questions for the Work Programme are being compiled. Knowledge questions come from the following Ministry of IenM departments: the Directorate-General for Mobility (DGMo), the Directorate-General for Aviation and Maritime Affairs (DGLM), the management boards for Finance, Management and Control (FMC). In addition, discussions are held with the Strategy, Knowledge and Innovation (SKI) management board, the Directorate-General for the Environment, the Directorate-General for Spatial Planning and Inspectorate for Public Works, Transport and Water Management (IVW).

New project ideas are diligently prioritised based on a project's urgency for its client, the connection between research questions and KiM's knowledge and skills, and the degree to which a typical KiM product can be delivered (see section 0.2). This requires agreement to be reached with various IenM ministerial departments on various levels. Moreover, the Work Programme is thoroughly discussed with our knowledge partners: the joint Councils for Environment and Infrastructure; the Netherlands Environmental Assessment Agency (PBL); the CPB Netherlands Bureau for Economic Policy Analysis (CPB); and the Netherlands Institute for Social Reasearch (SCP). The recommendations are discussed and considered by KiM's Programme Committee. The Work Programme is determined by the Secretary General of IenM.

Dynamic Work Programme
Unlike in previous years, this Work Programme is dynamic. In the meantime, however, adjustments and additions to the programme can lead to other sets of priorities, to other means of implementation, or to refraining from pursuing research about a particular subject. In this Work Programme therefore the emphasis is on KiM projects and activities that continue on from 2010 or start in the first half of 2011. The descriptions of the various core themes include mention of a number of possible projects or project ideas that could begin later in 2011, unless, that is, other priorities have emerged in the meantime.

0.6 Explanation of Chapters 1 to 8

Chapters 1 to 8 of this Work Programme contain descriptions of the projects and activities per core theme.

For each core theme, we first provide an explanation of the core theme's content and describe the various subjects that comprise part of the core theme. Then, for each subject, we explain which projects and other activities are continuations from 2010 or have started in the first half of 2011. Each project is described according to the following: project title, project type (research or knowledge-at-the-table), project number, and expected capacity requirements (large, medium-sized or small[1]). Subsequent to this we then cite the issues that will be addressed later in 2011, or beyond, and require contributions from KiM.

Appendix A contains an analysis of the KiM's contribution to the client, the core theme, and the type of project. Appendix B presents a complete overview of all projects, categorized by client.

1 Core theme: Accessibility

1.1 Explanation of the core theme

Improving accessibility is a primary objective of national traffic and transport policy. A main element of the core theme is contributing knowledge to the operationalisation of the accessibility concept, problem analysis, and studying possibilities for improving accessibility through specific policy measures, including mobility management and utilisation and fiscal measures.

KiM's approach is broad, focusing on passenger and freight transportation (smart use of networks and smart logistics, including unimodal and multimodal) and on transport chains and nodes.

Regarding the conceptual definition, a focal point of KiM's research is the operationalisation of the accessibility concept. This involves expanding the definition of accessibility to include all aspects related to 'the difficulty passengers and carriers/shippers have in getting from A to B'. This approach contrasts with current traffic and transport policy's focus on those aspects of 'difficulty' that are related to journey times on the infrastructure (journey time, speed, peak/off-peak journey time ratios). The core theme also focuses on further developing insights into 'new' aspects of accessibility, such as robustness, journey time reliability and comfort. A second focal point is expanding the knowledge of the potential accessibility effects of specific policy measures.

The subjects we will elaborate on in 2011 within this core theme are clustered as follows:

- Accessibility as policy objective
- Accessibility and robustness
- Development and analysis of accessibility policy options

The following section explains per subject which activities KiM undertakes in order to support the identified (policy) questions. The tables in Appendix B provide a complete overview of all projects.

1.2 Accessibility as policy objective

Accessibility is one of the Mobility Report's core subjects. Comprehensive and clearly communicable indicators for accessibility are essential for: determining if new policy focused on improved accessibility is in fact needed; and for commenting on the expected and achieved policy effects.

Continuing projects and projects starting in early 2011

DGLM - International and Strategy
Research project, medium-sized, E901

Quality indicator for accessibility of land-based mainports
In this project, started in 2010, KiM develops a quantifiable indicator for the land-based accessibility of mainports that can serve to measure the quality of network connections. The indicator therefore aims to reveal which (changes in) qualities of hinterland connections are required to maintain or improve the accessibility of mainports, given the envisioned development perspective for these mainports. The development of this indicator, which is line with previous KiM research, will lead to an integral and clearly communicable indicator for actually measuring accessibility. Accessibility is thereby defined as the difficulty of getting from A to

B, with the aim being for the indicator to include many possible aspects of this difficulty.

DGMo – Strategy, Investment policy
Research project, medium-sized, BB1101

Accessibility: an alternative view
Existing policy indicators largely focus on traffic engineering and are only applicable to one modality. The indicators moreover provide inadequate tools for integrating spatial planning and accessibility. What possibilities exist for other indicators? And how does this position the Netherlands in an international context? Can accessibility be defined differently by taking into account how many people/companies/organisations can be reached within a certain scope and time and/or at certain costs? What if one differentiates by region? Are there differences between highly urbanised and more rural areas? What is the state of accessibility in the Netherlands and in each region if one studies all modalities together instead of individually? Are these 'new' policy indicators easily measured and comparable internationally? A follow-up question is: in what ways can this lead to other policy objectives related to accessibility? This research project is in line with the results of previous KiM research for developing a comprehensive and clearly communicable indicator for actually measuring accessibility.

Projects starting later in 2011 unless other priorities emerge
No research projects or Knowledge-at-the-Table activities are currently planned.

1.3 Reliability and robustness

In addition to accessibility, the Mobility Report also introduces reliability and robustness as core concepts in national traffic and transport policy. With this introduction comes the need for further elaboration of these concepts. In earlier research, KiM focused a number of research projects on further developing the conceptual definition. Nevertheless, the knowledge currently available on this subject constitutes only a first step, which deserves greater elaboration. This segment's primary focal points are the operationalisation of both these concepts into usable policy indicators, the mapping of developments in these indicators, and the translation into assessment frameworks.

Continuing projects and projects starting in early 2011

DGMo – Roads and Traffic Safety
Research project, medium-sized, B924

Description and explanation of reliability and robustness of main road network
This project, started in 2010, focuses on mapping and explaining the historical development of the distribution of passenger journey times on the main road network between 2000 and 2009. In addition, specific attention is devoted to how the development of relatively long, incidental journey delays translates to the passenger's concept of robustness. The project findings are also intended to increase insights into the effects of policy measures pertaining to reliability and robustness and allow such insights to be used for ex-ante analyses. The initial findings were incorporated in the Mobility Report 2010. The study provides substance to the Dutch Cabinet's response to the Council of Environment and Infrastructure's recommendations to report on reliability and robustness and provide an impetus for indicators for describing the quality of a network.

VU Amsterdam and KiM
PhD research, P801

Reliability of journey times
The research questions are:
- How great is the range of door-to-door journey times? Has this increased over time?

- Is the range (approximately) proportional to the total journey time, or to total delays?
- What expectations do passengers and transportation companies have regarding journey times? Are these expectations rational? Or is there a systematic bias?
- How do passengers and transportation companies experience unexpected accelerations and delays?
- Are the costs factored-in and unexpected delays equal?
- Does the value of non-reliability change over time? Is 'just in time' becoming increasingly important?

Projects starting in 2011 unless other priorities emerge

DGMo – Roads and Traffic Safety
Research project, Medium-sized, BB1102

Unreliability from the passenger's perspective
At present unreliability and robustness are the subjects of much national and international research, in which most important perspectives are those of the road authorities and the economic valuation. Relatively little attention however is given to the passenger's perspective, of which knowledge of the passenger behaviour and preferences is lacking. This project aims to provide part of this knowledge base through research into the ways in which passengers plan their journeys (by car and public transport), what subsequent journey times are expected, what passengers' behavioural responses are to journey time delays and changes therein, and how passengers experience various types of delays (long – short, purpose of the journey). The research approach is based on comparing the passengers' objective behavioural responses with subjective preferences. Surveys, observation, interviews and new data collection techniques are used to conduct this research. The project also incorporates insights derived from the behavioural sciences, projects from the Sustainable Accessibility of the Randstad (DBR-projects) programme, supporting PhD research (see Appendix B) and recent international research (OECD, FHWA-SHRP2).

DGMo – Roads and Traffic Safety
Research project, medium-sized, BB1103

Robustness and reliability in actual projects
The potential effects of policy measures aimed at improving robustness and reliability cannot be satisfactorily assessed using available models. It is therefore necessary to estimate these effects for actual projects based on rules of thumb derived from research projects specifically conducted for this purpose. In 2010 a first step was taken in this direction, but further elaboration is needed, in which - in addition to projects for the main road network - studies will conducted of the measures undertaken for the secondary road network and within other modalities.

1.4 Development and analysis accessibility policy options

The traffic and transport system consists of a set of complimentary transport modes. The primary modalities are roads, railways, water and air, but therein exists a wide array of means of transport, including cars/trucks, trains, (electric) bicycles, buses, trams, the metro and taxis. Each of these means of transport has its own strengths and market. Passenger or shippers choose the best means of transport based on issues like journey purpose and departure and arrival locations. Cars/trucks are especially popular choice alternatives, and this places great pressure on the accessibility of the road system.

National and international traffic and transport policy is then sharply focused on accessibility by road. Consequently, there is also a great need for studies that test accessibility developments against such policy objectives. This segment involves examining how, through intervention in the road traffic system, accessibility can be improved and which market (segments) can be served by other modalities (such as public transport, bicycles) and what this demands from these modalities.

In addition, intermediate forms, such as taxis and specific target group transport, are explored. Special attention is given to multimodal travel, in which various modalities are used for one journey. As such, walking distances and the availability and convenience of bicycle parking stalls, also partly determine public transport's overall attractiveness: is the quality of the bus, tram and metro lines an influential factor in the attractiveness of travelling by train; is the availably of bicycle transfers a determining factor in the attractiveness of using bicycles for the first or last part of a journey? Further, research focuses on developing new policy options, with attention also given to testing these options with regard to their effectiveness for accessibility objectives.

Ongoing and yet to be started projects within this cluster are detailed below.

Continuing projects and projects starting in early 2011

DGMo – Roads and Traffic Safety + Strategy, Investment policy
Research project and Knowledge-at-the-Table, medium-sized, BB1104

KiM contribution to further elaborating on NMCAs and analysis of Network 2040
In autumn 2010 the previous Dutch government published a first version of the National Market and Capacity Analysis (NMCA), which is a multi-modal analysis of the state of accessibility in 2020 and 2028. The NMCA elucidates the conflicts between demand for mobility and the capacity of the modalities/networks of roads, railways, regional public transport and waterways. This analysis moreover illustrates the accessibility problems on a national level, but offers no concrete solutions. The newly elected Dutch government however has introduced a focus on spatial planning, as based on the importance of the Netherlands' three economic engines (Amsterdam, Rotterdam, Eindhoven). In order to arrive at conclusions on the regional level, a further area analysis will be conducted of the secondary road network and decentralised railways. This national analysis and expanded regional analysis enables KiM to play a supporting role through Knowledge-at-the-Table and/or specific research. Potential subjects of such research include analysis of the use and potential of secondary road networks, the characterisation of superhighways, identification of solutions focusing on robustness. This approach can partly serve to supplement 'Road Networks West Netherlands', a project started in 2010. Similar Knowledge-at-the-Table contributions from KiM are provided through updating the Spatial Planning Report and Mobility Report. In this context, the particular focus will involve contributing to the comprehensive analysis of the main infrastructure in 2040.

DGLM - Airports
Research project, Medium-sized, BB1105

Mainport 2.0: land-based accessibility
The aviation network at Amsterdam Airport Schiphol is important for providing all types of business services in the Amsterdam Metropolitan Area. Conversely, this area's spatial economic developments can contribute to Amsterdam Airport Schiphol's network of destinations. The committee for Spatial Organisation of Airports concluded that public and private parties must collaborate in order to strengthen the substantive consistency between node function and location function. For this a new mainport concept (Mainport 2.0) must be developed, thus giving new impetus to such collaboration. The Ministry of IenM assumed responsibility for this task and asked KiM to provide support in elaborating on this new concept through the (joint) answering of various research questions, as divided over two projects.

This project groups together the research questions related to the aspect of Amsterdam Airport Schiphol's land-based accessibility:
- What concrete, land-based accessibility problems do specific frequent-flier user groups encounter at Amsterdam Airport Schiphol? Which of these problems are most decisive in their choice to fly or not to fly from Amsterdam Airport Schiphol?

- Best practices in transport concepts. Which innovative concepts for improved integration of land-based pre-flight transport and aviation de we observe in other countries? Are these concepts, such as integrated ticketing, check-in services at train stations, special shuttle connections, et cetera, effective and efficient and are they applicable to the situation in the Netherlands?

Other research questions addressed in the Mainport 2.0 project: coherence of node function and location function, in core theme 8.

DGMo - Regional Accessibility and Safe Transport + Railways
Research project,
large, G1003 + BB1106

Differentiation in supply of regional public transport

Regional public transport is characterised by three segments:

- a segment of (extremely) light flows in rural areas
- a middle segment in which demand specifically in the off-peak hours is limited;
- a segment with heavy flows in which there is strong support for attractive supplies of public transport

For the *smallest segment* with the (extremely) light flows in rural areas, virtually everyone agrees that this segment requires customisation. In the *segment with the heavier flows* (traffic during rush hours to large urban areas), efforts have been made in recent years to develop HOV (High Level of Service Public Transportation) lines, with examples of this including the South Tangent, Randstad Rail, and Phileas Eindhoven. These lines often attract impressive numbers of passengers, yet the precise underlying effects and factors for this remain unclear: at what point do passengers regard public transport to be of a high level? Which 'high level service' elements (such as frequency, comfort and bicycle facilities) does this involve and what are the effects of each individual element? Do HOV lines attract another type of passenger and do they constitute an improvement for public transport as a whole, for example in terms of passenger volumes, speed of door-to-door journeys, or reducing levels of car use? There is, in addition, a *middle segment*, in which the concern is often to supply the traditional transport line service by bus. For this segment, it is routinely difficult to maintain a public transport supply that is both attractive and cost-effective. Consequently, for more than half of all national transits authorities the average occupation rate per one bus kilometre is ten passengers or less. And in off-peak hours that figure is significantly less.

This research aims to reveal where the tipping points are. Under what circumstances do passengers choose a particular public transport mode (or not)? From a societal perspective, when and where is HOV preferable and what form should this take? What then is the best way to approach the middle segment? Such approaches could include measures aimed at increasing the attractiveness of public transport for passengers and concurrently deploying transport modes that are more streamlined to actual demand, like, for example, using more small-sized vehicles, various types of taxi transport, and bicycles.

DGLM – International and Strategy
Research project,
Medium-sized, B1003

Location of multi-modal hinterland nodes

Multi-modal hinterland nodes comprise part of what is known as the mainport network. The availability of intermodal provisions in the hinterland promotes transportation by inland waterways and railways. These nodes increasingly serve as outports or extensions of the mainport. The hinterland node network serving mainport Rotterdam is growing. In light of various spatial developments and changes in increasing freight flows, it is important to consider the locations of multi-modal hinterland nodes. If the correct locations are chosen, inland waterway and railway transportation can be stimulated. However, too many nodes lead to secondary competition and negatively affect the profitability of terminals and transport services. As commissioned by DGLM, various sector node studies are being studied as a prelude to eventually devising a future roadmap for multi-modal node policy.

DGMo – Roads and Traffic Safety
Research project, small, B1017

Effects of context variables on utilisation
On road section level, relatively much is known about the influence traffic management measures have on traffic flows. However, relatively little is known about how accessibility effects - time loss, capacity changes - develop on the network level. This project, started in late 2010, aims to determine how specific environmental variables - including composition of traffic demand and network structure - influence the effectiveness of traffic management measures on the network level. The project uses data previously compiled for the 'Description and explanation of reliability and robustness of main road network' project.

DGMo - Strategy, Investment Policy
Research project, Medium-sized, B1016 + BB1007

Smart utilisation
Given the cancellation of the proposed kilometre road-pricing scheme and the limited opportunities for major investment in construction of new infrastructure, current accessibility objectives for road traffic cannot be achieved or only in rare instances. Moreover, there is a great need for a study of alternative policy options focused on achieving the accessibility objectives. In 2010 KiM began compiling an initial overview of possible measures, including indications of effectiveness. In 2011, capacity has been reserved for developing and testing the further elaborations of promising policy options.

DGMo - Strategy, Investment Policy
Research project, Medium-sized, L901

Accessibility of urban regions
DGMo is eager to gain insights into the question of whether there will be smarter combinations of spatial planning and infrastructure policy. This project must provide both substantive and methodological knowledge that can be used by the Ministry of IenM when evaluating spatial, infrastructural reports. In order to be able to answer this question correctly, a study is conducted to determine which knowledge already exists regarding the relationship between urbanisation concepts and mobility concepts. Further, a list is compiled of the rules of thumb and methodologies required and available for establishing a 'quick' method for determining the consequences that urban developments have for mobility. This also includes gaining a sense of the necessary scope of investment (construction, exploitation). What are the differences in the scope of infrastructure expenditure as a consequence of inner-urban construction versus outer-urban construction? Subsequently, these rules of thumb are applied to a number of regional agendas. The rules of thumb are then used to estimate how sensitive the findings (effects on mobility and investment) of these regional agendas are regarding assumptions made about spatial development (sensitivity analyses). The subsequent focus is on both the assumptions made pertaining to autonomous spatial development and the various policy assumptions, such as compaction objectives. The project will be conducted in collaboration with the Netherlands Environmental Assessment Agency (PBL).

DGMo – Road and Traffic Safety
Knowledge-at-the-Table, small, B1011

KiM-contribution to Developing Utilisation Evaluation Framework
In this continuing Knowledge-at-the-Table project KiM provides knowledge and expertise to the DGMo-project, 'Developing Utilisation Evaluation Framework'. KiM does this by participating in the supervisory group, among other activities. This project represents an elaboration of agreements from Strategic Council for Traffic Information and Traffic Management, focused on acquiring insights into the potential social benefits of informing, guiding and directing (utilisation). For the benefit of the annual Mobility Report and Mobility Monitor, chief among KiM's contributions is coordination of the conducted historical analyses of congestion developments.

Projects starting later in 2011 unless other priorities emerge

DGMo - Regional Accessibility and Safe Transport
Research project, medium-sized, BB1108

Bicycles in the chain
Bicycles play an increasing role in multimodal travel: an example of this is the popularity of the public transport bike (OV-bike). And this role will be further developed. The aim of this study is to investigate how the role of the bicycle in the transport chain can be expanded and which provisions are required for this. Special attention is given to the role of bicycles in multimodal nodes and the (potential) role of (electric) bicycles.

1.5 Projects overview table

Project Management	Title	Project-number	Project type	category	Size
DIS	Quality indicator for accessibility of land-based mainports	E901	Research project	A	Medium-sized
S&I	Accessibility: an alternative view	BB1101	Research project	A	Medium-sized
WV	Description and explanation of reliability and robustness of main road network	B924	Research project	A	Medium-sized
IenM-wide	Reliability of journey times	P801	PhD research		
WV	Unreliability from the passenger's perspective	BB1102	Research project	B	Medium-sized
WV	Robustness and reliability in actual projects	BB1103	Research project	B	Medium-sized
WV + S&I	KiM contribution to further elaborating on NMCAs and analysis of Network 2040	BB1104	Research project + KaT	A	Medium-sized
LHV	Mainport 2.0: land-based accessibility	BB1105	Research project	A	Medium-sized
DRV + Railways	Differentiation in supply of regional public transport	G1003 + BB1106	Research project	A	Large
DIS	Location of multi-modal hinterland nodes	B1003	Research project	A	Medium-sized
WV	Effects of context variables on utilisation	B1017	Research project	A	Small
S&I	Smart utilisation	B1016 + BB1107	Research project	A	Medium-sized
S&I	Accessibility of urban regions	L901	Research project	A	Medium-sized
WV	KiM-contribution to Developing Utilisation Evaluation Framework	B1011	KaT	A	Small
DRV	Bicycles in the chain	BB1108	Research project	B	Medium-sized

2 Core theme: Drivers and effects of mobility

2.1 Explanation of the core theme

The traffic and transport system is a complex system. Many factors, including demographic, spatial, socio-economic and technological developments, determine demand for the mobility of people and products. Additional factors, moreover, influence the way this demand will transpire; for example, technological developments render new ways of supplying traffic provisions possible. How, and to what extent, these provisions are used will have consequences for the environment in terms of emissions of pollutants and noise disturbance levels. Furthermore, at issue are unsafe traffic conditions and potential dangers for residents should accidents or disasters occur. Understanding mobility-determining factors and the interaction of traffic and transport in the (spatial) environment provides insights into possible targets for policy implementation: where and how can the functioning of the traffic and transport system be influenced? A thorough understanding of the 'coherence of things' concerning traffic and transport provides important basic knowledge for policy development. In addition, in our present era, influential factors are impacted by seemingly ever-faster changing developments. It therefore becomes increasingly important to closely monitor such developments and their consequences for mobility.

The core theme 'Drivers and effects of mobility' focuses on describing and explaining national and international developments in mobility and transport, and the consequences for safety and the environment. This primarily involves looking to the past to explain mobility developments stemming from societal developments and implemented policy, and looking ahead to a - by definition - unknowable future. This can be achieved, for example, through the development of environmental scenarios in support of robust policy developments and through the drafting of medium- and long-term studies.

The subjects we will elaborate on in 2011 within this core theme are clustered as follows:

- Coherence in the traffic and transport system.
- Relevant developments in this area.

The following section explains per subject which activities KiM undertakes in order to support the identified (policy) questions. The tables in Appendix B provide a complete overview of all projects.

2.2 Coherence in the traffic and transport system

This subject concerns the present, past and future situation regarding traffic and transport systems in relation to the environment. Knowledge of the internal coherence of, and interaction with, the environment serves as the basis for both problem analysis and identifying policy targets in order to prevent problems or mitigate negative effects. Problem analysis primarily focuses on finding answers to questions, such as where has the system failed and what negative consequences result from the functioning of the system. The knowledge activities involved in this chiefly concern describing the system in the past, present and future and explaining the mobility developments that have occurred.

Continuing projects and projects starting in the first half of 2011

IenM wide
Research project, large, OG1101

Mobility Report 2011

The annual Mobility Report is one of KiM's core products, presenting an overview of the state of mobility in the Netherlands. In addition to describing developments in mobility, the Mobility Report explains the growth in passenger and freight transportation. In addition, one or more selected subjects are explored in greater depth; these can be knowledge 'blind spots', reflections on topical issues or supplemental analyses of issues addressed in the Mobility Report. The Mobility Report aims to provide policymakers, researchers, politicians and organisations active in the field of traffic and transport with objective (background) information, which subsequently can be used to create policy or for scientific papers, while also providing input for public debate about mobility in general. In 2010, a 'Medium-term Mobility Study' was published concurrently with the Mobility Report. Although the starting points for such a study will not change annually, we will, in consultation with DGMo, explore the possibility of also including an 'exploratory' section in this year's Mobility Report.

DGMo - Roads and Traffic Safety
Research project, medium-sized, B905

Short-term effects of fuel prices

In 2008, oil prices peaked enormously, reaching nearly 150 USD a barrel. In late 2008 there was a sharp drop. The accompanying effects this had on fuel prices provide an excellent source of information for analysing the short-term effects this had on travel behaviour. Short-term fuel price elasticity will be estimated based on this analysis. This information will not only help explain developments in mobility but also offer policy vantage points, such as, for example, those aimed at preventing sharp price changes.

DGMo – Roads and Traffic Safety + Strategy, Investment Policy
Knowledge-at-the-table, medium-sized, OG1102

Changes in maximum speed HWN

The Dutch government's coalition agreement proposes a maximum speed limit of 130 km/h on highways. Speed is a key factor in the traffic and transport system and has many complex interactions with other features and consequences of the system. It is therefore understandable that there are many opposing views in the public debate about raising the national speed limit. Based on knowledge about how the system functions, KiM can provide Knowledge-at-the-Table regarding the implementation of the speed limit policy.

DGMo - Strategy, Investment Policy
Research project, small, OG1103

Will policy actually solve the users' problems?

Policy is focused on preventing and/or solving problems in the functioning of the traffic and transport system and removing or reducing the negative effects of the system. The ways in which society as a whole and the users of the system experience the system's dysfunction is however also subject to development. In order to conduct good policy analysis, it is important to also consider this development. In this research project, KiM will study whether current policy is overly focused on solving problems that are too far removed from the users of the traffic and transport system: are the policy objectives 'public focused'? Based on the study's results, insights will also be provided regarding what could be more 'public focused' objectives. This research project will also use DVS's knowledge and expertise in public focused network management.

VU Amsterdam and KiM
PhD research, P802

Infrastructure in the 19th and 20th century

The research questions are:

- Have cities located by railways and highways grown faster than other cities in the 19th and 20th centuries? Does this effect occur only or primarily under certain conditions? Can an argument be made for causality (does the

infrastructure make the city grow, or is infrastructure created where growth is expected?)?
- Have regions that have international airports grown faster than other regions? Is there a difference between regions with a hub and regions at the end of the spokes?
- Are such effects additional or distributive?

Projects starting later in 2011 unless other priorities emerge

Potential activities slated for later in 2011 or closely related to this subject are as follows:

DGMo - Strategy Investment Policy + DGLM Maritime Affairs + Aviation
Research project, small, OG1104

Learning opportunities utilisation infrastructure
Given the cancellation of the proposed kilometre road-pricing scheme and lower investment levels in road infrastructure, the utilisation of existing infrastructure demands great attention. Utilisation is however not unique to the road system. In addition to analysis of potential alternative policy options, such as those implemented in the 'Smart Utilisation' project, it is also possible to learn from the utilisation approach in other systems and sectors. What can be learned from the approaches (specific utilisation measures, chain approach, etc.) in other modalities (for example, railways, aviation) and other sectors (water management, gas distribution, electricity networks) for utilisation of the road system? Links will be made to research findings of Next Generation Infrastructures (NGI).

DGMo – Roads and Traffic Safety
Research project, medium-sized, OG1105

Parking problems in cities (home and destination)
Parking is an essential part of the road traffic system. The importance of parking as an element of the system will be further elaborated, focusing on questions such as: 'How does parking influence mobility now?', 'What will the situation be like in future if policy remains unchanged?', 'Where are the connection points for IenM policy interventions?'

2.3 Relevant developments in this area

The primary focus of this subject is not on the state of the traffic and transport system under various conditions but rather on the relevant developments in this area. Knowledge of such developments is particularly important for gaining an understanding of how the traffic and transport system will function in future, including the corresponding external effects. Early recognition of possible developments allows policy to anticipate the expected consequences. The knowledge activities in this area involve analysing developments in influential factors and their consequences for mobility.

Continuing projects and projects starting in early 2011

DGMo - Regional Accessibility and Safe Transport
Research project, medium-sized, OG1106

Development in transport of hazardous materials
A major part of the transport of hazardous materials involves transporting fuel for the mobility system. How does the market for hazardous materials develop and what implications does this have for mobility? In the transition to a sustainable mobility system, what is the probability of encountering supply uncertainties? What is the added value of the various flows of hazardous materials?

DGLM - Aviation
Research project, medium-sized, OG1107

Recent and future developments in aviation
Dutch aviation policy is established within the context of various secure and insecure developments in aviation, which include, for example, liberalisation of

the aviation market, increasing consolidation of airlines, increasing competition from the Middle East (Dubai, the Emirates, etc), demographic developments, development of the world economy, international tourism, mutation of low-cost carrier (LCC) business models, concentration in the LCC-sector, advanced internalization of external environmental costs, et cetera. Some developments have been manifest for long periods of time, while other developments are relatively new or are now glimpsed on the horizon. In this project, KiM will study what these developments could mean for Amsterdam Airport Schiphol's competitive position. Policy options will also be studied, in order to anticipate any possible desirable or undesirable developments.

DGLM –International and Strategy
Knowledge-at-the-Table, small, G908

Contribution to OESO-futures 2030-2050 project
In this project KiM participates in an OESO-research group studying the future needs of transcontinental connections. The research is part of the International Futures Project (IFP) and aims to launch policy proposals for the long-term challenges associated with needs of various types of infrastructure.

Projects starting later in 2011 unless other priorities emerge

Potential activities after the first half of 2011 are as follows;

DGLM Maritime Affairs + Aviation
Research project, medium-sized, OG1108

Security above all, but what is safe enough?
Aviation should be safe above all else, for passengers and crew, as well as for people residing near airports. It is for this reason that new security requirements and measures are continuously being implemented, yet some of them are costly. This gives rise to questions such as:

- When is aviation safe enough?
- In what way is it possible to involve objective and subjective safety, as well as absolute and relative safety, when assessing the costs and benefits of regulatory measures (for example, from the International Civil Aviation Organization/European Aviation Safety Agency (ICAO/EASA) or potential national influence on international regulations)?
- How does one measure the importance of increased safety? Is a SCBA a good method for this, or if not, what is?

Similar questions arise for maritime affairs. This project aims to delve deeper into these problems for both sectors.

IenM-wide
Research project, medium-sized, B901

Updating long-term scenarios
In 2010, the CPB's study, 'The Netherlands of 2040', offered an initial outline of four new future scenarios to replace the four WLO-scenarios published in 2006. In consultation with the CPB and PBL, this project will study whether it is necessary to further elaborate on these future scenarios for various sectors, including mobility. The plans for the actual research are still unknown, although it is possible the research will begin later in 2011.

DGLM Maritime Affairs
Knowledge-at-the-Table, small, OG1109

KiM-contribution to possible follow-up on advice from inland waterway advisor
The ambassador of the inland waterways recently offered advice for helping the inland waterway shipping sector survive the crisis. Providing substance for elaborating on the ambassador's findings is paramount for the sector. At a later stage in this process it might also be possible to raise specific questions for the Ministry of IenM, which KiM can contribute to answering.

DGMo - Regional Accessibility and Safe Transport
Research project, medium-sized, OG1110

Effects of urbanisation
The main questions in this research project are: What are the consequences of compacting mobility? And what are the consequences for public transport of 'contracting areas' in cities? How can the government control these developments? This research project will incorporate the PBL's expertise.

2.4 Projects overview table

Project Management	Title	Project number	Project type	Category	Size
IenM-wide	Mobility Report 2011	OG1101	Research project	A	Large
WV	Short-term effects of fuel prices	B905	Research project	A	Medium-sized
WV + S&I	Changes in maximum speed HWN	OG1102	KaT	A	Medium-sized
S&I	Will policy actually solve the users' problems?	OG1103	Research project	A	Small
IenM-wide	Infrastructure in the 19th and 20th century	P802	PhD research		
S&I + MZ + LVT	Learning opportunities utilisation infrastructure	OG1104	Research project	B	Small
WV	Parking problems in cities (home and destination)	OG1105	Research project	B	Medium-sized
DRV	Development transport of hazardous materials	OG1106	Research project	A	Medium-sized
LVT	Recent and future developments in aviation	OG1107	Research project	A	Medium-sized
DIS	Contribution to OESO-futures 2030-2050 project	G908	KaT	A	Small
MZ + LVT	Security above all, but what is safe enough?	OG1108	Research project	B	Medium-sized
IenM-wide	Update long-term scenarios	B901	Research project	B	Medium-sized
MZ	KiM-contribution to possible follow-up on advice from inland waterway advisor	OG1109	KaT	B	Medium-sized
DRV	Effects of urbanisation	OG1110	Research project	B	Medium-sized

3 Core theme: Mobility behaviour and influential factors

3.1 Explanation of the core theme

Those who understand behaviour derive more from policy measures. Such measures can focus on many different problems, such as congestion formation, air pollution and road safety. Yet, regardless of the policy measures used to tackle such problems, there will always be consequences for mobility behaviour. People or organisations must to varying degrees adapt their behaviour and this can lead to resistance. It is important then to know how people respond to particular measures, how behaviour is formed, and how this can be anticipated. Greater attention given to behaviour factors leads to more effective government policy.

Owing to the economic crisis, there is less money available for *construction* (the construction of new infrastructure). And because the government's coalition agreement distanced itself from the 'Different Ways of Paying for Mobility' plan, the *pricing* instrument is no longer an option. Owing to these developments, the *utilisation* instrument now generates even greater interest. And here especially the ability to influence behaviour plays a crucial role. Moreover, requisite objectives can be achieved using various socio-psychological principles and at a relatively low budgetary cost.

Mobility behaviour can be defined as the choice behaviour of individuals and organisations, such as freight shippers. Understanding the choice behaviour behind movements of people and goods clarifies what possibilities exist for influencing mobility behaviour in the direction of socially desirable behaviour. This however also means that we must comprehensively study the individuals and organisations that policy focuses on. What works for one does not necessary work for the other. Individuals and organizations are classified in various ways.

In previous years KiM primarily focused on tangible, objective, measurable characteristics, such as age, gender, income and purpose of journey. These tangible characteristics are important tools for describing and interpreting behaviour. Since 2010 however KiM has focused on intangible, psychological characteristics, such as experience, image and the role of norms and values. These intangible characteristics provide insights into behaviour, the formulation of choices, and people's experience and image-creation.

The subjects we will further elaborate on in 2011 are clustered as follows:

- **Target groups and trends**: What differences exist in individual choice behaviour and how can these be explained?
- **Experience**: Who experiences what as a problem and when? And does this lead to different behaviour?
- **Influencing behaviour**: How can we take in account and anticipate the noted behavioural aspects?

The following sections reveal per subject the primary (policy) questions and which activities KiM undertakes in order to provide substance to identified (policy) questions. The tables in Appendix B offer a complete overview of all projects.

3.2 Target groups and trends

The primary focus of this cluster is on individual mobility behaviour. An analysis of variations in mobility behaviour and the underlying motives is necessary for interpreting and understanding mobility behaviour. What developments have occurred in the choice behaviour of individuals and organisations? How does this differ between groups and individuals, and how can these differences be explained? Other questions are also relevant in this respect. Which needs and desires do the Dutch hold dear regarding their (daily) mobility? To what extent do differences in mobility behaviour correspond to differences in personal characteristics, living conditions and lifestyles? Policy is based on the answers to such questions. It is necessary to have a clear view of people's needs and desires and of developments in their mobility behaviour.

Continuing projects and projects starting in early 2011

In previous years KiM mapped the various target groups and the trends therein. Examples of this include KiM publications about the consequences of an aging population (*Grijs op reis*) and the increasing number of immigrants (*Blijvend anders onderweg*). In late 2008 a joint research project with the SCP was started focusing on family mobility. This project, which will be completed in 2011, is described below.

DGMo - Regional Accessibility and Safe Transport
Research project, small, G704

Family mobility

This study examines the activity patterns of families and the derivative mobility behaviour. In addition, the emphasis is especially on the activity patterns of the parents in relation to their (young) children. What do these activities patterns look like and what problems do family members encounter when coordinating their activities (at different times in the day and for varying reasons), how is this expressed in mobility behaviour and are there connection points to traffic and transport policy? This study does not only examine individual mobility behaviour but rather specifically studies the coordination of activities within families with children. KiM is conducting this research in collaboration with the SCP.

A project started in late 2010 took target group segmentation as a primary focal point. This project aims to provide a complete overview of all possible target group segmentations, including segmentations based on lifestyle choices.

DGMo - Regional Accessibility and Safe Transport
Research project, medium-sized, G804b + GB1101

Target group catalogue of mobility users

'The citizen' does not exist. Consequently, policy for 'the citizen' also no longer exists, except perhaps in laws and regulations. For modern, effective policy, it is important to know precisely which target groups we are dealing with. Compiling a target group catalogue allows us to gain a greater understanding the segmentations and sections of the population. Moreover, it becomes clear which target group segmentation correspond to what policy questions and measures. In addition, the target group catalogue will focus on privacy and equity issues: to what extent can government focus on specific target groups without infringing on the privacy of individuals and without treating people unequally? The target group catalogue can be used in supporting research, to help in the reporting of trends and developments, and for the effective use of government resources.

In line with this catalogue, certain target groups will be the subject of further research in order to determine how these groups can be addressed. Special attention is then given to senior citizens and mobility, which will build on research contained in the KiM publication, 'Grijs op reis' ('Elderly on the move'). One question that will arise from this is if it is possible to encourage senior citizens to travel more during off-peak hours.

Projects starting later in 2011 unless other priorities emerge

In previous years KiM mapped the effects of various social trends affecting all target groups. Examples of this include research on the consequences of population decline ('*Population decline and Mobility*'), and the 2010 KiM symposium ('*Less or more'*), which focused on the effects of various key trends in passenger mobility and freight transport. In 2011, a project could be started that analyses the consequences stemming from the rise of our (social) networking society. This project is described below.

DGMo - Strategy, Investment policy
Research project, medium-sized, G902a

Impact of network society on mobility
The network society denotes the increasing use of information and communication technology in virtually all sections of society. Via social networking sites we stay in touch with our friends and acquaintances and make new contacts. We need not leave home to chat, and this counts for shopping as well. Consequently, our daily activities are less place- and time-specific. At the same time, we use websites to make new appointments to meet with each other and sometimes we drive extra kilometres to buy a product we found via internet. And if we tele-work during the day, the car is not used for home-to-work travel, but another family member could use the car that day. This project reveals how the network society changes our mobility pattern. Does this ultimately result in more or fewer trips and car kilometres (mobility), and is this the same for every target group? The aim of this research is to synthesise the conclusions of existing studies, such as for example the mobility-management study conducted as part of the 'Sustainable Accessibility of the Randstad' programme. The project specifically focuses on the effects of tele/video conferencing.

3.3 Experience

Aspects of experience are focal points of this cluster. Who experiences what as a problem and when? How are measures and policy perceived? How is mobility experienced and does this differ among the various transport modes? And does this also lead to different behaviour? And how can policy anticipate to this?

In previous years KiM has conducted more research that studied experience aspects. Examples of this include studies of public transportation's image (*Image OV*), psychological aspects of pricing policies (*Psychology and Pricing Policy*) and experience and image creation (*Experience and Image Creation of Mobility*).

Projects starting later in 2011 unless other priorities emerge

Projects that could potentially be pursued in 2011 are described below.

DGMo - Strategy, Investment policy
Research project, Medium-sized, G902c

Influence of ICT-applications on travel experiences
The advancing application of information and communication technology has consequences for the travel experience as well. The use and application of new electronic devices in vehicles creates another kind of mobility experience. Think of real-time travel information, teleworking in trains, voice interfaces with which car drivers can have their email read aloud, and smart phones offering the latest news in digital newspapers. This project will show how e-culture changes our travel experience, reveal if that change is equally large among all the various target groups, and illustrate what the consequences are for mobility behaviour. Will traffic jams become less problematic? Will travelling by train become more appealing? And what is the relation to the key figures given for travel time valuations and the valuation of journey time reliability as elaborated in project E707?

In addition to this project, in 2011 KiM will also purse the subjects of *mobility and happiness* and the *low trust society*. The relation between mobility and happiness receives even greater attention on the international level. Mobility is a symbol of independence, offers the possibility of engaging in social relationships, and is pleasurable in itself. Can the relationship between mobility and happiness be accounted for in mobility policy, and if so, how? As for the issue of a low trust society, citizens are increasingly losing trust in the government. In terms of Ministry of IenM policy, what is the best way to approach this?

3.4 Influencing behaviour

In the coming years KiM intends to devote greater attention to psychological behaviour mechanisms and influences on mobility behaviour. There are two main reasons for this: first, because this knowledge will allow for more effective measures aimed at changes in behaviour, and second, because present day society allows individuals to make more choices.

For this purpose, KiM will engage with a prospective research project, titled *The Human Decider*, which focuses on the psychology of choice and behaviour and is being conducted by the Scientific Board of Government Policy (WRR). The WRR proposes that current policy holds that individuals are generally capable of making choices that are the best suited to their own desires. This approach is known as the rational choice theory, whose assumptions play a dominant role in the analyses and modelling of various scientific disciplines. It is a starting point in the ways in which companies and government assess consumer choice behaviour. The WRR study however reveals that people's decisions are made in a wholly different manner. In practice, however, people are seemingly incapable of processing information in rational ways; they suffer from predictable biases and allow their emotions to strongly influence the choices they make.

In 2010 KiM performed a synthesis study (to be published in 2011) that compiled all socio-psychological insights pertaining to influencing behaviour. The result of this research is neat summary of the factors and motives leading to (mobility) behaviour. The synthesis shows what factors people consider, how choices are made, and how they can be anticipated. This overview serves as a source of inspiration for policymakers. To support policy in this, various presentations and workshops based on study's preliminary results were held in 2010 for the policy departments. These were positively rated by policy and will be followed up in 2011 (see below).

Continuing projects and projects starting in early 2011

Projects that will start in early 2011 or have already started are described below.

DGMo-wide
Knowledge-at-the-Table, medium-sized, GB1102

Workshops to help policy in applying behaviour insights
In 2011, a number of workshops will be held for policy as a follow-up to the above-mentioned behaviour synthesis research. Various policy departments at DGMo have already expressed interest. Examples of this include *Sustainability, Road Safety, Strategy and Investment Policy, Regional Public Transport systems and Regional accessibility.* The main question for *Sustainability* is: 'What could the possible effects of sustainability affect car drivers?' The main question for *Road Safety* is: 'Why are traffic rules so often broken and what can we do about this?' For *Strategy and Investment Policy*, a workshop focusing on 'Smart utilization' is needed, and for *Regional Public Transport Systems* and *Regional Accessibility* there is the need for a joint workshop about mobility management.

DGLM - International and Strategy
Knowledge-at-the-Table, small, O1004 and GB1103

Support preparation for ITF 2011
During the annual International Transport Forum (ITF) key figures from politics, government and business come together to discuss a current transport topic. In 2011 the main topic will be 'transport and society'. KiM is asked to help with the Ministry of IenM's preparations for this forum.

DGMo – Roads and Traffic Safety
Knowledge-at-the-Table, small, G910

Participation in EMMV Advisory Group (people-focused measures for road safety)
The Province of North-Brabant and Regional Partnership Eindhoven started the project 'Effect Measurement of People-focused Measures for Road Safety (EMMV). This project evaluates the effects educational measures have on knowledge, intention, attitudes of road users and road safety. DHV is conducting this project. An advisory group – in which KiM (and SWOV, Maastricht University and Tabularasa) is participating - has been set up for this project.

DGMo – Roads and Traffic Safety
Knowledge-at-the-Table, small, G1008

Supporting ex-post evaluation of road safety
DGMo has asked DVS to conduct the 'ex-post evaluation of road safety' research project. This projects aims to indicate when an ex-post evaluation is necessary and which methods, activities and efforts it demands. In addition, the project will reveal the conditions under which this method is applicable. Part of the project will be conducted by SWOV. KiM is involved as an advisor. The project started in autumn 2010.

Projects starting later in 2011 unless other priorities emerge

Projects that could potentially begin in one of 2011's other quarters are described below.

DGLM - Aviation
Research project, Medium-sized, GB1104

Aspects in audit of aviation safety culture
What aspects should one look for in an audit of safety culture? What indicators allow one to comprehend the effects of corporate culture or sector culture on the behaviour of individuals, for example? How do pilots balance the demands of costs and safety and what influence does the constant focus on costs have in this regard? And what indicators allow one to comprehend the behaviour of companies? This study will draw from experiences and insights gained in other sectors and organisations, such as the safety culture at Rijkswaterstaat. More information is available about this subject in other DVS publications. IVW will of course be involved in conducting this study.

3.5 Projects overview table

Project Management	Title	Project-number	Project type	Category	Size
DRV	Family mobility	G704	Research project	A	Small
	Target group catalogue of mobility users	G804b + GB1101	Research project	A	Medium-sized
S&I	Impact of network society on mobility	G902a	Research project	B	Medium-sized
S&I	Influence of ICT-applications on travel experiences	G902c	Research project	B	Medium-sized
DGMo-wide	Workshops to help policy in applying behaviour insights	GB1102	KaT	A	Medium-sized
DIS	Support preparation for ITF 2011	O1004 + GB1103	KaT	A	Small
WV	Participation in EMMV Advisory Group (people-focused measures for road safety)	G910	KaT	A	Small
WV	Supporting ex-post evaluation of road safety	G1008	KaT	A	Small
LVT	Aspects in audit of aviation safety culture	GB1104	Research project	B	Medium-sized

4 Core theme: Accessibility of data and policy models

4.1 Explanation of the core theme

The quality of being able to answer virtually every knowledge question about traffic and transport depends on the quality of the data the answers are based on. For data related to the past and present, at issue is the quality of the standard data compiling procedures relating to traffic and transport data, while for the future this involves models in which such data can be generated for future years. KiM does not compile structural data in the field of mobility and accessibility (except for specific projects) and does not manage and develop traffic and transport models. As such, KiM's knowledge production for policy initiatives is reliant on the standard data collection, model development and management procedures of other institutes, which includes CBS (mobility and freight transport), DVS (traffic data, models), NDW (traffic data), TNO (models), universities (incidental data gathering and models) and market operators (incidental data gathering and models).

Policy's (and KiM's) need for information is directly determined by current and possibly future policy indicators for monitoring the policy objectives of strategic subjects. Herein, interaction is clearly at issue, because the demands relating to the need for information are often limited by (im) possibilities in the field of data collection and accessibility. KiM possesses a wide range of knowledge about the available data collections, data collection methods and models. KiM can use this knowledge to both promote the development of models and data collection relevant to mobility and transport policy, and to simultaneously assist policy with the development and use of policy indicators for the purpose of monitoring the policy objectives of strategic subjects.

The subjects we will further elaborate on in the 2011 core theme are clustered as follows:

- Basic information about mobility and accessibility
- Traffic and transport models

The following sections reveal per subject the primary (policy) questions and the activities KiM undertakes in order to provide substance to identified (policy) questions. The tables in Appendix B offer a complete overview of all projects.

4.2 Basic information about mobility and accessibility

This section of the core theme concerns data collection in the field of mobility and accessibility, with the sharpest possible focus on monitoring and evaluating information needs relevant to mobility and transport policy. The knowledge and expertise available at KiM of existing data collection and data collection methods is used to translate policy's need for information to a continuation and improvement of data collection and processing. This data collection is not conducted by KiM but rather by CBS and RWS (DID and DVS), for example. However, KiM could play a role in 'translating' the available data and information to relevant policy information.

Continuing projects and projects starting in early 2011

IenM-wide
Research project, medium-sized, B1015 + DM1101

IenM needs for data collection regarding mobility and accessibility

The Ministry of IenM's need for information is dependant on the availability of basic data/information regarding mobility (passenger and freight transport) and accessibility data (network usage, congestion, etc.) as compiled within the Ministry of IenM and by third parties. The data concerned not only serves as a means of production for creating knowledge within KiM but also partly to satisfy policy's immediate need for monitoring and evaluation, for example. This project aims to identify which information should be available for KiM and/or DGMo and DGLM and the quality level this should be, as well as determining how this supply can be guaranteed. This project will use the specific knowledge and expertise that DVS has in this field.

DGLM - Aviation
Research project, small, B928

Factsheet aviation data

The aviation data factsheet provides an annual overview of the development of Amsterdam Airport Schiphol's traffic and transport figures, as well as those of other (competing) airports. The focus is on Dutch regional airports (Eindhoven, Rotterdam, Maastricht and Eelde), the major north-western European hubs (London Heathrow, Frankfurt and Charles de Gaulle), and various Belgian and German airports that also serve the Dutch market (Brussels, Charleroi, Düsseldorf, Hamburg, Cologne, Dortmund, Bremen, Munster and Weeze). As a reference point, developments in the global aviation industry are outlined as well. The factsheet serves a purely informative function.

DGMo - Strategy, Investment policy
Research project, Medium-sized, DM1102

Panel research mobility

This project concerns KiM's contribution to studying and possibly initiating the setting up of a panel research project pertaining to personal mobility. Goudappel Coffeng and Twente University have taken the initiative of developing such a panel research, which represents a continuation of the Longitudinal Displacement Research (LVO) project that was conducted in the 1980s. The panel research findings should provide greater insights into the development of mobility in specific target groups in that time. The aim is to expand the initiating group to include collaboration between Goudappel Coffeng, Twente University, PBL, KiM and a yet to be determined market research agency. In this collaborative project, KiM will serve as a representative of interested Ministry of IenM parties (KiM, DVS, DGMo). The project's short-term goal is to study the possibility of setting up a panel. Following this, the further elaboration of compiling research subjects will commence.

DGLM – Maritime Affairs
Knowledge-at-the-Table, small, DM1103

Maritime indicators – continuation

In this project, KiM, drawing on available knowledge, contributes to reflections on the question of which policy objectives the department of inland waterway shipping supports and how this can be operationalised. Four groups, of which KiM is part, will address four budgetary items.

IenM-wide
Knowledge-at-the-Table, small, B920

Supervisory cost barometer

The aim of this DVS-conducted project is to update the current data collections costs and the income generated by traffic and transport in the years 2006, 2007, 2008 and 2009. The data for passenger transport in 2006 is largely complete; however, there is practically no data available concerning freight transport. The Cost Barometer should contain data with which developments in pricing and cost policy can be satisfactorily monitored. One requirement for achieving this is the updating of data. A second aim of this ongoing project is to provide such high

quality descriptions of the collection and reporting process that the future process of updating can become more streamlined. KiM will actively contribute to the project's supervisory group by providing *Knowledge-at-the-Table*.

Projects starting later in 2011 unless other priorities emerge

Projects that could potentially be pursued later in 2011 are as follows:

DGMo - Regional accessibility and Safe Transport
Research project, Medium-sized, B1005

(Im)possibilities for new data-collecting technologies?
New technologies and systems offer new possibilities for automatically collecting substantial amounts of information about passenger and freight mobility: mobile telephony, Galileo, route planners, chip cards and road pricing. The question is, however, which possibilities this data offers in terms of usefulness for policy analysis and/or policy monitoring: is the data representative of the situation in the Netherlands? Which type of data is observed and which not? Is all the data available or only certain aggregations? Do privacy laws limit the availability of data? Which new and conventional instruments are capable of satisfying the need for policy information?

IenM-wide
Research project, medium-sized, DM1104

Elasticity overview freight transport
Compiling and implementing an actual overview of rules of thumb pertaining to elasticity, including effects on transport, traffic and external effects for various means of freight transport, through changes to the most important explanatory factors (or driving forces). Most familiar of these are of course income elasticity and price elasticity. Implementation is defined as communicating the results and coordination of the application of results first internally to KiM and then within the Ministry of IenM and subsequently to other 'knowledge partners'.

IenM-wide
Research project, small, DM1105

Update 'cost of a journey'
Executing an update of a research project conducted by CE in 2004 regarding the quantitative understanding of the external costs of various freight and passenger transport modes.

4.3 Traffic and transport models

Traffic and transport models play an important role in policymaking. For ex-ante analyses of policy measures, models are almost always used to map the effects to be considered. These models are constantly adapted based on new insights and technical possibilities. In past decades two, partly opposing, objectives drove this innovation process: the need for a complete supply of information to anticipate actual policy questions, and the scientific objective of describing the world as accurately as possible. In previous decades these developments caused problems for the application of models in the policy process; the complexity of information supply is in many respects simply too great. The probability of making mistakes, thus compromising the policy process, increased as a result. Current models do not seemingly correspond well enough to policy needs.

The future presents clear challenges to the manner in which model results are used in policy processes. Previous KiM research concluded that model content must improve if it is to remain useful in the coming years. The quality must be better guaranteed and the results presented in a better way. KiM does not plan to develop and manage models, except for the simple models used in helping to produce the annual Mobility Report and Medium-term Studies (MLTs). KiM does however possess broad knowledge of available models and modelling of policy processes. KiM can use this knowledge to promote relevant transport- and

mobility-related developments in models while concurrently assisting policy with translating the specific (content and process-oriented) information needs to meet the requirements of model development.

Continuing projects and projects starting in early 2011

DGMo - Strategy, Investment policy + DGLM – International and Strategy
Research project and Knowledge-at-the-Table, medium-sized, DM1106

Supervisory support in model use and model development
Partly as a supplement to recommendations issued in the *Governance Models* project, which KiM conducted in 2010, DGMo is internally considering improving the steering of mobility model development (including effects on air, noise levels and calculation risk areas). The structuring of information needs relevant to DGMo will also be included, of which simplification of instruments is a main topic: is a highly detailed model necessary for the actual information need, or is it possible to satisfy this need with simpler framing methods? KiM provides support to the design of this steering mechanism, to determining the information need, and to translating this to meet the requirements of the model instruments.

DGLM - Airports
Knowledge-at-the-Table, small, B1014

Supervisory group AEOLUS
DGLM uses the AEOLUS model (previously ACCM) in policy preparations for Amsterdam Airport Schiphol and regional airports, as well as in support of the aviation report. In the framework of the Mainport 2.0 project, the AEOLUS model is currently being updated, which involves technical improvements and the introduction of current policy. KiM participates in this project's supervisory committee.

Projects starting later in 2011 unless other priorities emerge

Possible activities to pursue in late 2011 are as follows:

IenM-wide
Research project, large, DM1107

Model development for MLT
In October 2010, KiM published the Medium-Term Study (MLT) 2011-2015. A concept version was presented to and discussed by the Executive Board, which reacted positively, stating that it was a good product and one that KiM should produce more frequently. The Executive Board also proposed improving the product by focusing greater attention on spatial differentiation and the relation between mobility development and congestion. This project aims to render the available prognosis methods suitable for conducting the desired differentiations and elaborations. A study of how policy affects primary instruments, such as construction, utilisation and pricing, could perhaps be added. Traffic stream theory and available data and models (LMS 2011) for congestion development, mobility, measures and social factors could be used to improve transparency and provide support.

4.4 Projects overview table

Project Management	Title	Project number	Project type	Category	Size
IenM-wide	IenM needs for data collection regarding mobility and accessibility	B1015 + DM1101	Research project	A	Medium-sized
LVT	Factsheet aviation data	B928	Research project	A	Small
S&I	Panel research mobility	DM1102	Research project	A	Medium-sized
MZ	Maritime indicators - continuation	DM1103	KaT	A	Small
IenM-wide	Supervisory cost barometer	B920	KaT	A	Small
DRV	(Im)possibilities for new data-collecting technologies?	B1005	Research project	B	Medium-sized
IenM-wide	Elasticity overview freight transport	DM1104	Research project	B	Medium-sized
IenM-wide	Update 'cost of a journey'	DM1105	Research project	B	Small
S&I + DIS	Supervisory support in model use and model development	DM1106	Research project + KaT	A	Medium-sized
LHV	Supervisory group AEOLUS	B1014	KaT	A	Small
IenM-wide	Model development for MLT	DM1107	Research project	B	Large

5 Core theme: Market organization and the role of the government

5.1 Explanation of the core theme

The main focal points of this core theme are effective and efficient relations between government and the market, the varying forms of market organization, and effective and efficient relations between the various layers of government engaged in mobility policy. This is an extremely topical subject. According to the government's coalition agreement, the Dutch Cabinet, which came to power in 2010, will seemingly act as it is compelled to act, which includes cutting governmental duties and subsidies and preventing decreases in administrative pressures by clearly allocating responsibilities and powers. Starting in late 2010, the question of how this translates to mobility policy has received great attention. At issue here, for example, is the formation of the national Infrastructure Authority, an enlargement of the number of public-private infrastructure projects, alternative forms of financing for additional infrastructure, and the tendering of public transportation services.

KiM aims to support policy formation in this area with current and scientifically proven knowledge. A multi-disciplinary approach is especially important in this area. Indeed, economists approach these questions differently than public administrators. Moreover, these questions are closely connected to the behaviour of citizens and companies and as such a behavioural sciences approach is relevant here as well. KiM furthermore possesses little or no juridical knowledge; consequently, KiM will strive to collaborate with other parties, such as the Ministry of IenM's Directorate of Legal Affairs.

The knowledge questions we address in 2011 are clustered in the following subjects:

- The relations between government and the market
- Governmental steering options
- The relations between various layers of government

The following sections reveal the primary (policy) questions per subject and which activities KiM undertakes in order to provide substance to the identified (policy) questions. The tables in Appendix B provide a complete overview of all projects.

5.2 The relationship between government and the market

The primary focal point of this subject area is the effective and efficient relationship between government and the market. To date, the main question in analyses, including KiM's analyses, was often whether a certain sector contains public interests that justify a governmental role, and if so, which ones? Answering that question is not easy, however, because the term public interest cannot be explicitly defined and because circumstances always exist that can legitimise a governmental role. KiM will therefore concentrate more on the question of how public interests can be secured and which effects have shifted in the direction of the market or government. Apart from the fundamental roles of government (such as conscientious governing), the question here is the extent to which government serves as an implementer, a facilitator and a regulator. This subject area also encompasses forms of public-private partnership and financing methods.

Continuing projects and projects starting in early 2011

In early 2011 KiM will concentrate on the following two activities within this cluster:

DGMO - Regional Accessibility and Safe Transport
Knowledge-at-the-Table, small, M1002

Government and market involvement in regional public transport
Creating a vision of the future for regional public transport and pressures on the National Budget were the reasons that prompted DGMo to explore alternative ways of financing and organizing regional public transport in 2010. By studying relevant (international) examples, KiM will assess the feasibility of the involvement of market operators in the situation existing in the Netherlands.

DGMo – Railways
Knowledge-at-the-Table, small, MO1101

Opportunities for PPP in the railway sector
The new Dutch Cabinet is placing greater emphasis on public-private partnerships (PPP). Such partnerships are still relatively limited in the railway sector. KiM will consider the possibilities and opportunities for PPS in the railway sector.

Projects starting later in 2011 unless other priorities emerge

In consultation with DGMo and DGLM, and with the coalition agreement as the starting point, an assessment of the relationship between government and the market and any possible shifts therein will be conducted later in 2011 (and continuing in 2012) for various sectors. This could take the form of research projects or Knowledge-at-the-Table.

5.3 Market organisation

The main question in this subject area is how government can improve the functioning of the transport markets and steer private parties in ways that contribute to government objectives. The 'market' concept is broadly conceived here and includes steering semi-public organisations. Among the issues addressed are the ways in which government can promote innovation in the private sector and how market organisation in the public sector can take shape.

Continuing projects and projects starting in early 2011

DGMO Railways, DGLM Maritime Affairs, DGLM Airports
Research project, medium-sized, MO1102

Steering the nodes
The functioning of nodes, such as stations, harbours and airports, is of great importance in achieving policy objectives in the areas of accessibility, economic development and environment. In practice, government has limited means at its disposal to influence how these nodes operate. The main question is how government can effectively influence the functioning of nodes. Examples of relevant questions in this area include: how can government promote an effective division of tasks and responsibilities among stations and how can government influence the functioning of mainports in order to permanently promote the quality of the network? And how does decentralization influence the government's opportunities?

In this project KiM will map the current instruments government uses for various types of nodes. A workshop will subsequently be organized in which the various policy directors involved (perhaps also joined by external participants) will discuss the steering similarities and differences and the lessons that can be learned. Based on these outcomes, KiM will possibly map the various policy options available for one or more types of nodes, which will include the associated advantages and disadvantages.

DGLM – International and Strategy
Knowledge-at-the-Table, small, MO1103

Innovations in logistics – synchro-modality
With respect to innovations in logistics, the Strategic Platform of Logistics is an important initiative focusing on the concept of synchro-modality (Dinalog, Connekt, TNO). Via Knowledge-at-the-Table, KiM contributes to the concretisation of this concept and to questions about the role of government and the relationship to policy objectives.

Projects starting later in 2011 unless other priorities emerge

DGLM – International and Strategy and DGLM – Maritime Affairs
Research project, small, MO1104

Foreign interests in the Dutch transport sector
Emerging economies (Brazil, Russia, India, China) invest in the European and United States business sectors, either through establishing companies there or participating in or acquiring 'national' companies. This occurs in the transport sector as well. This project aims to illustrate what (possible) consequences these foreign investments have for achieving policy objectives and what possibilities exist for exerting influence in this area. Attention will also be given to the reverse actions: Dutch investments in foreign transport companies or infrastructure. Initially, this will involve a brief, exploratory research study.

DGMo – Railways
Research project, Medium-sized, MO1105

Market organization railways
This project analyses the effects of various market organization concepts for railways in other countries.

Additionally, in consultation with DGMo and DGLM, in 2011 (and continuing in 2012) an assessment will made of which knowledge questions pertaining to market organization and steering of the mobility sectors are topical.

5.4 Relations between various layers of government

The main question in this subject area is how the division of responsibilities and degree of collaboration between the various layers of government can be shaped as effectively and efficiently as possible. Lessons learned from abroad and from other sectors can play an important role in this. At issue are relations within the Netherlands, as well the consequences that European transport policy has for the Netherlands.

Continuing projects and projects starting in early 2011

In early 2011 KiM will concentrate on supporting policy directorates in formulating a position in response to the new White Book.

DGLM – Management International and Strategy
Knowledge-at-the-Table, small, E1003

Support for new policy intentions from Brussels
To prepare for formulating a position regarding the new White Book, KiM will conduct a quick analysis of the effectiveness and efficiency of proposed measures, answer ad-hoc questions, including those relating to CO_2., and participate in brainstorming and expert sessions. Regarding transport-related subjects, KiM will also think along with those who devised the 'Road Map Low Carbon Economy', which is being set up in the framework of the EU flagship initiative 'Resource efficient Europe'.

Projects starting later in 2011 unless other priorities emerge

Later in 2011 KiM will also focus on administrative relationships in the Netherlands. The following two projects indicate the type of questions that could arise in this regard:

DGLM- Airports
Research projects, medium-sized, E1007

Collaborative opportunities in transport and trade relations with France and the Eurodelta
This research project on transport and trade relations with the Netherlands' neighbouring countries is divided in two parts. The first explores commonalities that exist with France. Collaboration with France already occurs in areas such as aviation and ports, following the merger of KLM and Air France and agreements between Schiphol and Aéroports de Paris. What did the creation of aviation alliances mean for the airports? Looking ahead, are there mutually beneficial opportunities to be found in other forms of (intensive) collaboration, beyond the aviation sector? In what areas is it an issue of competition, and where complementariness?

The second part concerns the Eurodelta and involves looking back at the advice the Board for Traffic and Water Management issued in 2005 (Cooperation in the Eurodelta). The Board pleaded for wide Euregional cooperation between the Netherlands, Belgium and Germany with the aim to strengthen the position of all three countries. To what extent did the joint future vision on infrastructure, mobility, traffic and transport and logistics get off the ground and what were the results? The aim in both project parts is to initially gain a global view in the form of an essay. Interesting findings can be elaborated if needed.

5.5 Projects overview table

Project Management	Title	Project number	Project type	Category	Size
DRV	Government and market involvement in regional public transport	M1002	KaT	A	Small
Railways	Opportunities for PPP in the railway sector	MO1101	KaT	A	Small
Railways + MZ + LH	Steering the nodes	MO1102	Research project	A	Medium-sized
DIS	Innovations in logistics – synchro-modality	MO1103	KaT	A	Small
DIS + MZ	Foreign interests in the Dutch transport sector	MO1104	Research project	B	Small
Railways	Market organization railways	MO1105	Research project	B	Medium-sized
DIS	Support for new policy intentions from Brussels	E1003	KaT	A	Small
LVT	Collaborative opportunities in transport and trade relations with France and the Eurodelta	E1007	Research project	B	Medium-sized

6 Core theme: Policy evaluations and assessment frameworks

6.1 Explanation of the core theme

The focal point of this core theme is ex-ante and ex-post policy evaluations and their requisite assessment frameworks. Which policy options are the most effective and efficient for solving problems and utilising opportunities? Which instruments does the government have at its disposal? And, given the public debate regarding the role and functioning of government, how can government be more accountable to citizens and Parliament regarding mobility policy?

By providing a comprehensive overview of social effects, the social cost-benefit analysis (SCBA) plays an important role in decision-making for spatial-infrastructural projects. At times however it seems as if this only concerns the totality of the analysis, with the necessary nuances dissipating. Moreover, a SCBA does not for example offer immediate answers regarding the extent of the policy objectives achieved, nor in what instances a project can be left to the market.

Ultimately all assessment frameworks focus on the best (combinations of) possible support for decision-making. This core theme focuses on optimising this support. In 2011 we will therefore concentrate on organising the various assessment frameworks, in terms of both the quality of the contents as well as the transferral of knowledge to policy staff members and decision-makers who require the relevant information. As budgets shrink in the months and years ahead, increasingly critical assessments will be made of the arguments used to justify proceeding with projects. Also of interest will be alternative solutions, such as utilisation measures that, with limited investment, perhaps do not reach the problem-solving level of a construction project but do perhaps play an important role in partially solving bottlenecks and through which other aspects could become relevant in the assessment.

The corresponding subjects we will elaborate on in 2011 are as follows:
- Developing and broadening the methodology
- The 'ready-for-use' insights from the assessment frameworks
- Quality assurance and implementation of policy evaluations

The following sections reveal the primary activities per subject that KiM will pursue. The tables in Appendix B provide a complete overview of all projects.

6.2 Developing and broadening the methodology

When developing methodologies the focus is on questions in the cost-benefit analysis. Although the OEI methodology has been used for approximately ten years now, there are nevertheless continuously new elements to be developed. These elements concern broadening the instrument's application (for example, for area-focused projects or management and maintenance assessments) and progressive insights into the types of effects that generate a mobility project (for example, reliability benefits).

Continuing projects and projects starting in early 2011

IenM-wide
Research project,
medium-sized, E707

Economic valuation reliability of journey times for various modalities
Two important benefits for society stemming from congestion reduction are gains in journey times and reliability. A wealth of knowledge is currently available in cost-benefit analyses regarding gains in journey times, although it is not up-to-date. In the Netherlands however this is not yet the case for gains in reliability.

Such knowledge is crucial in order to determine the social benefits of infrastructure projects and for weighing investment decisions. This project aims to renew the currently available key figures regarding journey time valuations and to establish key figures for the valuating journey time reliability.

DGMo - Strategy, Investment Policy
Research project, medium-sized, E1001

OEI for an integral and area-focused approach
The objective of MIRT (Multi-Year Programme Infrastructure Space and Transport) is to arrive at an integral and area-focused approach. This leads to integrated projects, which demand particular attention in terms of weighing the social costs and benefits of project alternatives. At issue here, for example, is determining the added value and synergy stemming from integrated projects within the area-focused approach. To support the formation and preparation of policy, we will determine if (and if yes, which) guidelines are required for drafting such an area-focused cost-benefit analysis and adjust the (OEI) working methods to this accordingly. The project has two distinct phases. The first phase creates an inventory of research material available regarding problem topics for SCBAs of area-focused projects, as well as the actions that have already been taken, such as for example at DG Space in the framework of the Spatial Planning Report (Report TK 29-11-2010). Based on this, it is sometimes possible to immediately arrive at proposals for improving methodology and process. The second phase, conducted in collaboration with other partners (departments, planning agencies, DVS), elaborates on the identified shortcomings. This project maintains close contact with CPB regarding their activities in this area.

IenM-wide
Knowledge-at-the-Table, small, E926

Support of NICIS-OBBRI project
On behalf of the Ministry of IenM, KiM, in collaboration with DVS and the former VROM, supports this four-year research project by the University of Amsterdam, Delft University of Technology, and Utrecht University. The project's goal is to improve the substantive evaluation of spatial-infrastructural plans and to examine the future roles the SCBA can play in designing and evaluating (spatial-)infrastructural plans.

DGMo – Roads and Traffic Safety
Knowledge-at-the-Table, small, E1009

Optimizing connection NRM and SCBA
A SCBA can use transport model generated output in various ways. DVS, in consultation with CPB and KiM, has already established guidelines for this. The question is to what extent the new NRM has solved these problems, and what still remains to be improved. KiM was asked to provide guidance to DVS.

DGLM - Airports
Knowledge-at-the-Table, small, EA1101

Economic benefits of increasing land-based accessibility of Schiphol
Various questions exist regarding the benefits of improved land-based accessibility; for example, if a person misses a flight due to a one-hour delay and the next flight departs in six hours, the actual disruption caused by the delay is much greater than the travel time loss on the road, for example. DGLM asked KiM to think of possible solutions.

FMC
Knowledge-at-the-Table, small, EA1102

Various project-exceeding questions SCBA methodology
When cost-benefits analyses are conducted, questions arise that do not specifically correspond to one particular project, and for which, in consultation with relevant parties, such as CPB and DVS, an appropriate and especially consistent solution must be found. Examples of this include the scope of project-related overhead costs, estimations of management and maintenance costs based on life-cycle data, the decision to include or exclude VAT in the SCBA, and the accommodation of risk-storage for certain types of projects. KiM drafts advice and

publishes this in the OEI report series, or responds to proposals from other knowledge parties.

In addition to further developing methodologies, we intend to devote greater attention to the position of the SCBA in the entire range of policy assessment possibilities. The focus in 2011 is on providing insights into every possible assessment framework for policy and policy accountability, and improving alignment between the various assessment frameworks and, where possible, integrating the various frameworks. The past ten years have been marked by SCBAs playing an important role in project assessments. The comprehensive OEI Guidelines have introduced a level of consistency. As such, it is routinely mandatory for smaller and regular projects in all the various guidelines and manuals as well. However, this has come under increasing criticism, especially owing to the expansion of transport-related projects into integral area developments. Are other assessment frameworks (ex-post and ex-ante) required for projects of a different scope and involving other parties, or is improved communication about what the SCBA is, and can and cannot do, sufficient?

KiM previously published a report, titled 'Pros and Cons', which outlines the consistency between assessment frameworks and briefly explains the various instruments. This report however was fairly schematic and primarily based on welfare-economic assessment methods and the ICRE framework. We aim to expand on this, including explanations of the instruments' positioning in the decision-making process and explanations of the instruments' content, as well as devoting greater attention to 'other' assessment possibilities (for example, ways of making policy effectiveness or distributional effects more understandable):

FMC, DGLM - International and Strategy, DGMo - Strategy, Investment policy
Research project,
Medium-sized, EA1103

Pros and Cons II: Broadening of assessment frameworks
Agreements reached about the decision-making process for investments in the spatial-infrastructural domain, including applicable instruments for supporting this assessment, are established in the (new) MIRT rules framework in a process-oriented manner. This framework however is not intended to function as a means of stating the exact value of these instruments and how they are interrelated, because, by doing so, the risk would be that these instruments would be regarded as a time-consuming but mandatory 'trick' to achieving the final objective.

This project adds new approaches, such as administrative, to the assessment frameworks. The objective is to provide policymakers with insights into all possible forms of assessment frameworks and, where possible, to ensure an improved alignment and presentation of collected insights. The project contributes to not only thinking about bottlenecks but also to government's ability to anticipate opportunities as effectively and efficiently as possible. The report corresponds to the new MIRT rules framework but does not solely focus on investments. The report will also be rendered suitable for other forms of mobility policy, such as, for example, the assessment of regulations.

DGMo - Strategy, Investment policy
Research project,
medium-sized, O904/O801

A good start is half the work: project delineation in integral, area-focused studies
When starting a research study in MIRT, choices must be made that will determine how the project proceeds. These choices include the problem/probability to be solved, the contours of the solution, the involvement of various parties, and so on. This project examines the project delineation in integral, area-focused studies, researching the ways in which KiM can provide insights that could help in delineating a research study. The focus is particularly on integral area studies with large mobility and spatial specifications.

Projects starting later in 2011 unless other priorities emerge

No new research projects or Knowledge-at-the-Table activities are currently planned.

6.3 The 'ready-for-use' insights from the assessment frameworks

Equally as important as the development of new knowledge for Ministry of IenM policymakers is the 'ready-for-use' insights gained from the world of research. Regarding knowledge of the assessment framework, KiM fulfils a primary function and aims to render this as transparent and accessible as possible for policymakers in 2011.

Continuing projects and projects starting in early 2011

FMC
Knowledge-at-the-Table, small, E712

Communication OEI
KiM is partly responsible for providing information to the OEI guideline. This includes supporting the secretariat of the OEI Core Team, updating and adapting information about OEI on the government website, rendering this OEI information available for presentations and reports, and contributing to conferences and courses in this field.

DGMO- Randstad Urgent
Knowledge-at-the-Table, small, Z102

Symposium 'SCBA between methodology and politics'
In January 2011 the symposium 'SCBA between methodology and politics' will be organized in partnership with Randstad Urgent, DVS and the Almere Municipality, and in consultation with parties that include DG Space, the CPB and PBL. The symposium is intended to generate debate among the participants regarding what decision-supporting information politicians need, and what roles the SCBA and other analyses play in the decision-making process.

Backed by ready-for-use knowledge, in 2011 we will particularly devote great energy to recently obtained insights into the usefulness of ex-post evaluations. A substantial amount of ex-ante evaluation research is conducted for infrastructure projects. This stands in stark contrast to the current use of after-project evaluations, yet ex-post evaluations of infrastructural projects can offer important benefits. By learning from the past, the quality of future ex-ante evaluations can be improved, and thus also the quality of decision-making. Justifying actions can also be an objective. In 2009 we studied the requirements necessary for a good ex-post analysis and the experiences abroad. In 2010 we conducted a case-study in order to learn from ex-post evaluation in practice. These results must be promoted and rendered suitable for daily policy practice. We have done this in the following project:

FMC, DGLM - International and Strategy, DGMo - Strategy, Investment policy
Research project, medium-sized, EA1104

Follow-up to ex-post evaluation
Pertaining to the ex-post analysis case study, we have contemplated how best to relay the policymaker's message 'in between the ears'. By collaborating with PBL in the bundling together of insights gained in previous studies and making the essence of this accessible to policymakers in a brief reports, we hope to achieve real movement on this subject. The message must be closely connected to accomplishing the tasks for which the policymaker is responsible. We also provide an answer to the question of why there is such a limited "learning loop", in which results play a role in policy development, and what can be done about this.

Projects starting later in 2011 unless other priorities emerge

Following the release of the above-mentioned publication, we will, later in 2011, conduct a number of ex-post evaluations in which links will be sought to policy evaluations (RPE evaluations) conducted for the Dutch House of Representatives. Although these ex-post evaluations are primarily conducted to justify actions, we intend to devote significant attention to the possibilities of learning from the results for and through policy. Examples of this are detailed in the following section.

6.4 Quality assurance and implementation of policy evaluations

In addition to contributing to the development of methodologies, KiM is also deeply involved in the practice of assessing projects by means of conducting RPE policy evaluations and offering second opinions about cost-benefit analyses. Over the course of the year KiM was regularly asked to assess SCBAs and other forms of policy evaluations, including the drafting of second opinions and various other smaller supervisory processes and opinions (Knowledge-at-the-Table).

Continuing projects and projects starting in early 2011

Other examples of what is currently planned for 2011:

DGMo + DGLM
Knowledge-at-the-Table

- ***Guiding SCBA IJmuiden sluice and Terneuzen sluice*** *(DGLM Maritime Affairs, Knowledge-at-the-Table, E1012, small)*
- ***Guiding SCBA Regulations*** *(DGLM – International and Strategy, Knowledge-at-the-Table, E1014, small)*
- ***Second opinion KKBA Haaglanden*** *(DGMo – Roads and Traffic Safety, Knowledge-at- the-Table, E1016, small)*
- ***Second opinion SCBA extension Amstelveen line*** *(DGMo – Regional Accessibility and Safe Transport, Knowledge-at-the-Table, E1017, small)*
- ***Guiding pricing policy in inland waterway sector*** *(DGLM Maritime Affairs, Knowledge-at-the-Table, E1018, small)*
- ***Economic effects maritime sector NOx emissions management area North Sea*** *(DGLM Maritime Affairs, Knowledge-at-the-Table, EA1109, small)*

KiM conducts a number of evaluations itself. The DGMo-Railways department especially has a great need for evaluations of implemented policy:

DGMO - Railways
Research project,
small, EA1105

Completion of Railways Action Plan
The new Dutch government is expected to forgo the aim of achieving 5% growth in the railways and thus the Railways Action Plan can be completed sooner. Included in this is a final evaluation, although this could be complicated by the fact that the programme includes many smaller projects of which the effects cannot or only rarely be isolated from each other and from the environmental effects. The Audit Authority has previously questioned the legitimacy of these expenditures. Useful input can be gained however from a study that places the usefulness and logic of undertaken measures in line with, for example, theoretical behavioural research studies.

Projects starting later in 2011 unless other priorities emerge

DGMo - Railways
Research project,
Medium-sized, EA1106

Effects of increasing railway user fees
Another way for government to gain more efficiency from the railways could be to increase user fees. Evaluation of railway legislation has revealed that this would quickly lead to many questions, especially regarding railway freight transport. The question is if that is really the case. Will higher user fees help to achieve an

optimum level of utilisation from the society perspective, or will it lead to underutilisation with associated societal costs?

DGMo - Railways
Research project, medium-sized, EA1107

Ex-post evaluation Railways
Commissioned by DGMo-Railway, KiM conducts ex-post evaluations of recent investments in infrastructure.

In addition to the direct involvement in project evaluations, in 2011 KiM intends to structure the quality assurance pertaining to SCBAs in the Infrastructure and Environment policy area:

IenM-wide
Knowledge-at-the-Table, small, EA1108

Organising quality assurance SCBAs
Standard procedure is for all SCBAs to be tested by (a group of) independent external experts. At present however project leaders must often determine for themselves how to carry out this procedure. Moreover, with the dissolution of the FES, it is highly likely that the FES's Sounding Board Group will also be dissolved, and with it an important part of the review process for SCBAs conducted by the Ministry of IenM. Yet there are still benefits to be gained from further streamlining agreements, such as, for example, through the creation of an independent pool of 'quality assurors' (planning agencies, universities, advisors, etc.), where, for each SCBA, a selection can be made for conducting a standard test. KiM, drawing on the strength of its position 'at a warm distance from policy' and yet retaining its independence of opinion, will take the initiative in 2011 of organising a straightforward quality assurance procedure for SCBAs conducted by the Ministry of IenM.

6.5 Projects overview table

Project Management	Title	Project number	Project Type	Category	Size
IenM-wide	Economic valuation reliability of journey times for various modalities	E707	Research project	A	Medium-sized
S&I	OEI for integral and area-focused approach	E1001	Research project	A	Medium-sized
IenM-breed	Support of NICIS-OBBRI project	E926	KaT	A	Small
WV	Optimizing connection NRM and SCBA	E1009	KaT	A	Small
LHV	Economic benefits of increasing land-based accessibility of Schiphol	EA1101	KaT	A	Small
FMC	Various project-exceeding questions SCBA methodology	EA1102	KaT	A	Small
FMC + DIS + S&I	Pros and Cons II: Broadening of assessment frameworks	EA1103	Research project	A	Medium-sized
S&I	A good start is half the work: project delineation in integral, area-focused studies	O904/ O801	Research project	A	Medium-sized
FMC	Communication OEI	E712	KaT	A	Small
RU	Symposium 'SCBA between methodology and politics'	Z102	KaT	A	Small
FMC + DIS + S&I	Follow-up to ex-post evaluation	EA1104	Research project	A	Medium-sized
MZ	Guiding SCBA IJmuiden sluice and Terneuzen sluice	E1012	KaT	A	Small
DIS	Guiding SCBA Regulations	E1014	KaT	A	Small
WV	Second opinion KKBA Haaglanden	E1016	KaT	A	Small

DRV	Second opinion SCBA extension Amstelveen line	E1017	KaT	A	Small
MZ	Guiding pricing policy in inland waterway sector	E1018	KaT	A	Small
Railways	Completion of Railways Action Plan	EA1105	Research project	A	Small
Railways	Effects of increasing railway user fees	EA1106	Research project	B	Medium-sized
Railways	Ex-post evaluation Railways	EA1107	Research project	B	Medium-sized
IenM-wide	Organizing quality assurance SCBAs	EA1108	KaT	B	Small
MZ	Economic effects maritime sector NOx emissions management area North Sea	EA1109	KaT	A	Small

7 Core theme: Transition to a sustainable, vital and safe mobility system

7.1 Explanation of core theme

This core theme focuses on the long-term: How to arrive at a sustainable vital and safe mobility system.

The Netherlands is a densely populated country where a lot of transport occurs in a small area, putting relatively heavy pressure on the environment and spatial capacity. In addition, mobility is primarily dependant one energy source – oil. Consequently, as long as new energy sources remain insufficient or undeveloped, mobility, more than other sectors of the economy, will remain vulnerable to rising oil prices rises and depletion of fossil fuels

The Dutch Cabinet, under the Prime Minister Mark Rutte, follows the targets the European Union has set sustainable energy supplies; that is, a 20% reduction in CO_2 levels in 2020 (compared to 1990 levels), and a 14% share of sustainable energy sources spread over all sectors, including 10% in the transport sector. Further objectives are also set for air quality, noise reduction and traffic safety. Mobility currently accounts for 20% of all greenhouse gas emissions in the Netherlands and is a primary source of air pollution, noise disturbances and spatial occupation (infrastructure, parking). Compared to other sectors, mobility-generated CO_2 emission levels continue to rise. Transitioning to a sustainable mobility system that is less dependant on oil is thus a vital interest of the Netherlands and offers economic opportunities.

This core theme also focuses on other Ministry of IenM objectives, such as: improving the accessibility of roads in order to encourage economic growth; facilitating an easily accessible, reliable and efficient public transport system; supporting the qualitative growth of interconnecting networks via; and strengthening the strategic position of the Netherlands' mainports.

The research included in this core theme analyses and outlines the possibilities of achieving a sustainable, vital (robust) and safe mobility and transport system. A key aspect of this is determining the (cost)effectiveness of (policy)measures. Specific attention is given to the optimum use of limited space, the possibilities of ICT, the reduction of emissions (CO_2, air quality, noise levels), the effects of climate change, an increase in energy source security and an effective energy mix, and improving accessibility, as pertaining to the entire mobility and transport system, thus including transport connections as nodes (including the mainports). In transition to a sustainable, vital and safe mobility system, new, cleaner vehicles, including hybrids, plug-in hybrids and ultimately electric and solar-cell powered vehicles, in combination with Intelligent Transport Systems (ITS), are expected to play an even greater role. A key contribution is also expected to come from large-scale applications of (clean) biofuel materials and sustainable electricity (for electric transport). Other logistics concepts, like synchro-modality (see core theme 5) and 'the new working methods', will also be important in terms of reducing vehicle kilometres.

This core theme also focuses on the transition process: how to move from the 'now' to a desired future vision? Which developments and which actions are needed in the short and medium-term to facilitate timely transition to a sustainable, vital and safe traffic and transport system? What possible bottlenecks exist and how can they be overcome? Do alternatives exist for transport for times when fossil fuels are scarce and unaffordable and new energy sources have yet to

be sufficiently developed? This core theme specifically focuses on the role of government. What can/shall the market assume and when is a facilitating, coordinating role for the government required? Given the shrinking government budgets, the cost effectiveness of government policy will play an (even more) important role in future.

The following section describes the activities KiM undertakes in order to provide substance to the identified (policy) questions. The tables in Appendix B provide a complete overview of all projects.

7.2 Projects in this core theme

Continuing projects and projects starting in early 2011
Projects starting in early 2011 or which have already started (continuing) are described below.

DGMo - Roads and Traffic Safety
Research project, large, L1001 + TD1101

Study sustainable transportation system for 2050 that is also robust and safe
This project aims to examine what will constitute a sustainable traffic and transportation system in 2050 and which government policy is needed to arrive at a timely transition. The environment and also energy supply security play important roles in sustainability. Traffic safety and accessibility are important preconditions in this project. The project distinguishes between various solution areas: fuel-efficient and clean vehicles, CO_2-low fuel sources, and reduction of vehicle kilometres. This project moreover will study which of the developments in these three areas are necessary and achievable in the transition to a sustainable transport system and what effective (governmental) strategy exists for launching them. This project will also involve DG Environment.
The project is divided into various phases. In Phase 1, KiM conducts a quick scan of existing knowledge, literature and visions for transport in the year 2050, with a focus on road transport. The following will be studied: the interconnectivity of developments in the area pertaining to CO_2, noise, air quality, traffic safety and accessibility. Further, we will review the policy options that are now being implemented in order to achieve a sustainable, robust and safe transport system in 2050. Phase 2 focuses on tackling 'trouble spots' by means of organising expert workshops. DGMo will use the results in a follow-up phase to determine which activities are required for facilitating a transition. The project is supported by existing studies conducted by PBL, TNO, CE Delft and others, as well as with an ongoing research project in the 'Sustainable Accessibility of the Randstad' programme and European/internationals research studies.
A go/no go decision will be made between Phase 1 and Phase 2, as well as a project focus decision, which could result in the project being expanded to include other modalities.

DGMo - Strategy, Investment policy
Research project, Medium-sized, G902B

Effects of ITS on mobility (conditional)
Information and communications technology have arrived in road transport: smart infrastructure, smart vehicles and smart route planners. The impact this has on mobility will only increase in future. Intelligent transport systems (ITS) support driving behaviour or partly take it over, inform road users, and aim create more efficient and economical, cleaner and safer road transport. In recent years, technology has largely driven the development in ITS systems, with the focus on demonstrating these systems' technical feasibility. This project focuses on the question of what effects these new ITS instruments will have on the (policy) objectives of accessibility, safety, sustainability and liveability and also on at what point in time these effects will actually be achieved. Furthermore, the project will begin determining which actions are needed now and what role the government should play.

Projects starting later in 2011unless other priorities emerge
Projects possibly pursued later in 2011 include the following:

DGLM- Aviation + Maritime Affairs
Research project, large, TD1102

Study sustainable maritime and aviation systems 2050, including the position of mainports
This project is a continuation of ongoing project L1001. (European) shipping, coastal marine, inland waterways and the strategic position of mainports are the main subjects of this follow-up project. Special attention is given to energy security and the strategic position of mainports. How has the influence of climate change and geopolitics developed?

DGMo – Strategy, Investment policy
Research project, medium-sized, L902

Water as an organising factor for mobility systems and spatial planning of the Netherlands
It is expected that changing climatic conditions in the Netherlands will be a determining factor for future spatial planning. Water is increasingly seen as the organizing spatial factor in the Netherlands. The water sector has tabled various plans that take into account climate change in the country's future spatial planning. This research study examines what these plans would mean for traffic and transportation systems, both in positive and negative sense.

DGMo - Roads and Traffic safety
Research project, medium-sized, TD1103

Follow-up experiments in sustainable mobility
In the framework of a Ministry of IenM's subsidy regulations, a variety of experiments are currently being conducted in the field of new vehicle propulsion techniques and fuels. This is the 'experimental garden for sustainable mobility'. The main question in this research project is what role government can play in continuing these experimental projects from the perspective of mobility policy's relation to environmental policy. This research will only commence after the results of a mid-project evaluation are known.

7.3 Projects overview table

Project Management	Title	Project Number	Project Type	Category	Size
WV	Study sustainable transportation system for 2050 that is also robust and safe	L1001 + TD1101	Research project	A	Large
S&I	Effects of ITS on mobility (conditional)	G902b	Research project	A	Medium-sized
LVT + MZ	Study sustainable maritime and aviation systems 2050, including the position of mainports	TD1102	Research project	B	Large
S&I	Water as an organising factor for mobility systems and spatial planning of the Netherlands	L902	Research project	B	Medium-sized
WV	Follow-up experiments in sustainable mobility	TD1103	Research project	B	Medium-sized

8 Core theme: The importance of mobility and transport

8.1 Explanation of the core theme

This core theme aims to contribute to providing insights into the importance of mobility and transport (and infrastructure) for the development of the Netherlands.

Explaining the importance of mobility and transport is relevant for policy preparations and policy and political discussions regarding budget cuts. Here we draw a distinction between the importance of transport as a sector of the economy and mobility as a necessary requirement for the functioning of the Dutch economy and society.

The newly elected Dutch government has emphasised the importance of Amsterdam Airport Schiphol and the Port of Rotterdam to the development of the Dutch economy. Consequently, the extended MIRT gives priority to mainports, brainports and greenports. It is partly for this reason that this year we will focus on the (inter) national significance of mainports, other logistics hubs and connections of national importance for economic structure and location attractiveness. At issue here is the role of mobility's economic dimension, meaning the accessibility of mainports as important location climate factors, in addition to other factors, including innovation capabilities, knowledge infrastructure, and the labour and housing markets. Moreover, we will focus on opportunities for government, especially the Ministry of IenM, to positively influence the (economic) functioning of mainports.

The subjects we will elaborate on in 2011 are divided among the following two main categories:

- Importance of mobility and transport
- Mainports as economic hubs

The following sections reveal the primary activities per subject that KiM will pursue. The tables in Appendix B provide a complete overview of all projects.

8.2 Importance of mobility and transport

This subject's main question is how - in a responsibly quantitative manner - we can lend credence to the crucial importance of mobility, transport and infrastructure for the development of the Netherlands. Our approach is closely connected to capital estimations, as applied in the Sustainable Netherlands Monitor, which will map the broad welfare estimation resources (capital, social capital, human capital and economic capital) that are important for current and future generations.

Projects starting later in 2011 unless other priorities emerge

DGMo Strategy, Investment policy + DGLM International and Strategy
Research project,
medium-sized, BM1101

The importance of mobility
The importance of mobility and transport for society is not easy to determine, with approaches varying from "without transport everything stops" to "the importance of mobility and transport is limited, because mobility and transport are dependent on other activities". The Mobility Report 2010 used travel expenses and journey times of people and companies to provide a rough estimate of

mobility and transport. This rough estimate however can be further elaborated and refined, including for various other modalities as well. In addition, it is important to test this approach among a broad group of experts.

One of the key issues for determining the economic importance of mobility concerns the relation between the accessibility of a location and opportunities for economic growth. Everyone agrees that such a relation exists. History shows that the availability of inexpensive, reliable transportation plays a key role in the development of regions and countries. The difficulty however lies in expressing the extent of this relationship in monetary or other quantifiable terms. We do not believe this problem can be solved completely. Later in 2011 we do however intend to refine the current measurement methods to whatever extent possible.

8.3 Mainports as economic hubs

For companies and consumers, mainports are important connections to destinations all around the world. This section of the core theme focuses on mainports as a key economic factor. In 2011 we will especially focus our expertise on supporting the development and further elaboration of two new policy documents, namely, Mainport 2.0 for Amsterdam Airport Schiphol and the long-term vision for both mainports.

Continuing projects and projects starting in early 2011

DGLM - Airports
Research project,
Medium-sized, BM1102

Mainport 2.0: coherence of node and location function
The aviation network at Amsterdam Airport Schiphol is important for various types of business services in the Amsterdam Metropolitan Region. Conversely, spatial economic development in this region can contribute to Amsterdam Airport Schiphol's network of destinations. The Commission for Spatial Planning of Airports concluded that public and private parties should engage in closer collaboration in order to strengthen the substantive coherence between node function and location function. To achieve this, a new mainport concept must be developed (Mainport 2.0), giving a new impetus to such collaborations. The Ministry of IenM has assumed responsibility for this task and has asked KiM to support the elaboration of this new concept through the answering of certain research questions, which will be divided in two projects (BB1105 and BM1102).

The research questions in this project are grouped around the aspect of coherence between node function and location function:
- Knowledge of Amsterdam Airport Schiphol's users groups. Research in sectors featuring a high propensity to fly and (upcoming) economic clusters: which destinations do people miss in Amsterdam Airport Schiphol's current supply of flights; which destination not currently served will be important in 5 or 10 years time?
- Are there ways to more closely connect certain economic clusters to Amsterdam Airport Schiphol: for example, through major user contracts between Amsterdam Airport Schiphol's home carrier and companies from specific clusters and/or by more specifically focusing airline loyalty programmes at Schiphol on personnel from specific clusters and/or implementing free Irisscan passes in order to achieve shorter pre-check-in parking and turnaround rimes at Schiphol for personnel from specific clusters?

DGLM – International and Strategy
Knowledge-at-the-Table,
small, BM1103

Policy options vision document Mainport Holland
DGLM's conceptual vision document, "Mainport Holland, engine for the future", contains several proposals for input from the Ministry of IenM. These proposals focus on spatial planning and accessibility; knowledge, innovation and

sustainability; and governance and the role of government. KiM provides ad-hoc based knowledge input for further developing these proposals.

DGLM – Airports + Aviation, DGMo - Railways
Research project, Medium-sized, BM1104

Complementariness of Aviation and HSL
A key argument for constructing the HSL was that it would serve as a possible alternative to air travel. KiM conducted a research study on this subject in 2008. That HSL will function as a pre- and post-transport mode is clearly recognised, but this has not yet been researched in the Netherlands. KiM intends to study what HSL Amsterdam-Rotterdam-Antwerp-Brussels-Paris means for air passengers residing in HSL's area of influence. And what does this connection mean for the functioning of Air France-KLM's dual hub of Amsterdam Airport Schiphol-Charles de Gaulle? An important question is also whether the HSL will contribute to expanding Amsterdam Airport Schiphol's catchment area.

France and Germany have much more experience with combinations of high-speed lines and airports. Frankfurt has an integrated ICE-station at the airport that is used daily by 174 ICE-trains, thus lending it the characteristics of an ICE-hub. Paris-CDG has been connected to a TGV line since 1994. France's Direction Generale de l'Aviation Civile has conducted a "*complémentarité modale*" survey every three years since 1999. KiM intends to use that expertise in conducting this research project.

DGLM Maritime Affairs
Knowledge-at-the-Table, small, BM1105

Vision Port of Rotterdam
The Port of Rotterdam Authority is developing a vision for 2030. KiM will reflect on this vision, focusing on starting points, assumptions and prognoses.

Projects starting later in 2011 unless other priorities emerge

DGLM Maritime Affairs
Knowledge-at-the-Table, small, BM1106

Research studies port alliance
Various research studies within the port alliance are being conducted, focusing on, among other issues, freight flow prognoses and use of space. The latter is an issue in the new SCBA for Sea Access IJmuiden. KiM was asked to provide knowledge concerning the relation between freight slow prognoses and the manner in which spatial occupation is included in the policy assessments of port alliances and investments.

8.4 Project overview table

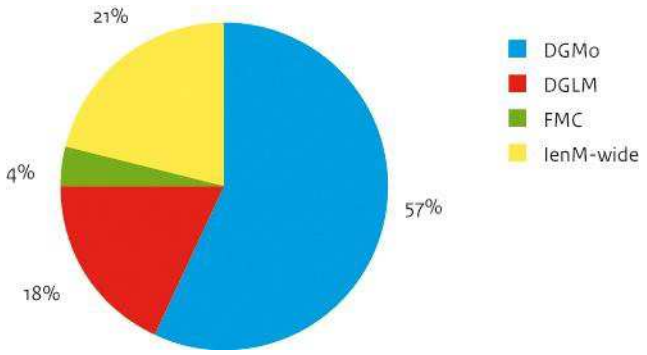
Project Management	Title	Project number	Project Type	Category	Size
S&I + DIS	The importance of mobility	BM1101	Research project	B	Medium-sized
LHV	Mainport 2.0: coherence of node and location function	BM1102	Research project	A	Medium-sized
DIS	Policy options vision document Mainport Holland	BM1103	KaT	A	Small
LHV + LVT + railways	Complementariness of Aviation and HSL	BM1104	Research project	A	Medium-sized
MZ	Vision Port of Rotterdam	BM1105	KaT	A	Small
MZ	Research studies port alliance	BM1106	KaT	B	Small

Appendix A Analysis of KiM's contributions

Available capacity
Accounting for job openings, management and support services, in 2011 KiM is expected to have about 18 FTE available for research projects and Knowledge-at-the-Table.

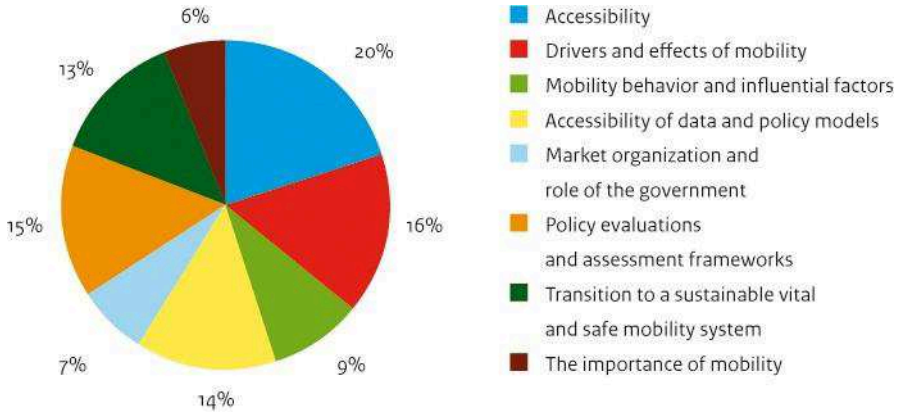
Capacity distribution per service
Figure A.1 reveals how capacity is distributed per directorate (for project categories A and B), with a breakdown provided according to the primary project commissioners. Projects can also be relevant for other Ministry of Infrastructure and the Environment directorates, such as DG Spatial Planning and DG Environment. Projects for the Directorate General for Mobility comprise the largest group at 57%. Projects for the Directorate General for Civil Aviation and Maritime Affairs represent a share of 18%. Projects for the Finance, Management and Control directorate account for a 4% project share in the Work Programme. Projects for the entire Ministry of Infrastructure and the Environment (IenM-wide), such as the Mobility Report, claim a 21% share of projects.

Figure A.1
Capacitty distribution per directorate (for categories A & B)



Capacity distribution per core theme
Figure A.2 shows how capacity is distributed in the KiM core themes. The largest core themes are 'Accessibilty', 'Drivers and effects of mobility' and 'Accessibility of data and policy models'.

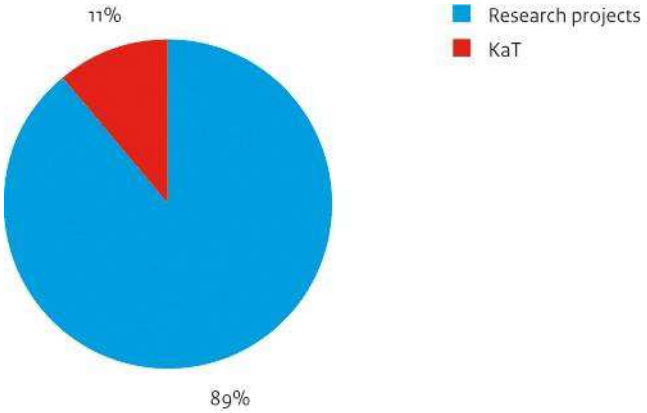
Figure A.2
Capacity distribution per core theme (for categories A & B)



Capacity distribution breakdown of research projects and Knowledge-at-the-Table

Figure A.3 shows the precantages of research projects and Knowledge-at-the-Table (KaT). 89% of the described activities are research projects. The low percentage of Knowledge-at-the-Table is partly owing to the fact that these activities are often performed on an ad hoc basis and therefore are not yet available for the second half of the year.

Figure A.3
Capacity distribution breakdown per research project and KaT (for categories A & B)



Appendix B Project overview

This appendix presents all projects and project numbers as detailed in the Work Programme 2011, arranged according to the corresponding directorate-general and project management. Owing to the dynamic nature of the Work Programme, this is not therefore a conclusive overview of the entire research capacity for 2011. The page numbers noted in the tables indicate where in the Work Programme the various project descriptions can be found.

Explanation of tables

Project management
The projects are managed according to the directorate (per Directorate-General) that is the project's primary commissioner. The 'IenM-wide' projects are those conducted for multiple directorates and/or Directorates-General, including DG Spatial Planning and DG Environment. Many other projects are primarily conducted for one or more directorates, although this is not to say that the projects are irrelevant for other directorates or DGs. This particularly applies to projects that have a spatial planning or environmental component conducted for, respectively, DG Spatial Planning and DG Environment.

Project types
- Research projects: setting up research projects and policy analyses based on data and (scientific) literature studies that are then translated into practical policy initiatives; the subsequent research publications are open to the public.
- Knowledge-at-the-Table (KaT): the (collegial) introduction of knowledge into policy processes, which includes:
  - discussions, presentations and short reports about available knowledge;
  - answering ad hoc questions;
  - opening up the (inter)national knowledge network for the Ministry of IenM (what knowledge can be derived from which actor?);
  - supporting IenM ministerial policy directorates in formulating the research questions and approaches to research for research projects that have been outsourced to third parties;
  - participating in supervisory committees;
  - transferring knowledge by teaching masterclasses

Core themes
1. Accessibility
2. Drivers and effects of mobility
3. Mobility behaviour and influential factors
4. Accessibility of data and policy models
5. Market organisation and the role of the government
6. Policy evaluations and assessment frameworks
7. Transition to a sustainable, vital and safe mobility system
8. The importance of mobility and transport

Project Categories
- Category A: projects continuing from 2010 or previous years (for example, multi-year projects) and new projects that, owing to their high priority, were started in the first half of 2011.
- Category B: new projects that we started later in 2011, unless new, higher priority projects emerge. If the latter occurs, discussions with the relevant parties will determine which projects will be replaced. If there are questions or requests that come with specific deadlines, they fall into a category reserved for 'ad hoc' requests and no reprioritisation is required.

Size
For each Category A and B research project, we estimate how many hours are expected to be spent on the project in 2011.
L = large project: more than 0.5 FTE (1 FTE = 1200 hours)
M = medium-sized project: between 0.15 and 0.5 FTE
S = small project: less than 0.15 FTE

B.1 Projects for DGMo

Project Management	Title	Project Number	Project Type	Knowledge Line	Category	Size	Page
Directorate: Regional Accessibility and Safe Transport							
DRV + Railways	Differentiation in supply of regional public transport	G1003 + BB1106	Research project	1	A	Large	17
DRV	Bicycles in the chain	BB1108	Research project	1	B	Medium -sized	19
DRV	Development transport of hazardous materials	OG1106	Research project	2	A	Medium -sized	23
DRV	Effects of urbanisation	OG1110	Research project	2	B	Medium -sized	25
DRV	Family mobility	G704	Research project	3	A	Small	28
DRV	Target group catalogue of mobility users	G804b + GB1101	Research project	3	A	Medium -sized	28
DRV	(Im)possibilities for new data-collecting technologies?	B1005	Research project	4	B	Medium -sized	35
DRV	Government and market involvement in regional public transport	M1002	KaT	5	A	Small	40
DRV	Second opinion SCBA extension Amstelveen line	E1017	KaT	6	A	Small	47
Directorate: Railways							
DRV + Railways	Differentiation in supply of regional public transport	G1003 + BB1106	Research project	1	A	Large	17
Railways	Opportunities for PPP in the railway sector	MO1101	KaT	5	A	Small	40
Railways + DGLM MZ/LH	Steering the nodes	MO1102	Research project	5	A	Medium -sized	40
Railways	Market organization railways	MO1105	Research project	5	B	Medium -sized	41
Railways	Completion of Railways Action Plan	EA1105	Research project	6	A	Small	47
Railways	Effects of increasing railway user fees	EA1106	Research project	6	B	Medium -sized	47
Railways	Ex-post evaluation Railways	EA1107	Research project	6	B	Medium -sized	48
DGLM LHV + LVT + Railways	Complementariness of Aviation and HSL	BM1104	Research project	8	A	Medium -sized	57
Directorate: Roads and Traffic Safety							
WV	Description and explanation of reliability and robustness of main road network	B924	Research project	1	A	Medium -sized	14
WV	Unreliability from the passenger's perspective	BB1102	Research project	1	B	Medium -sized	15
WV	Robustness and reliability in actual projects	BB1103	Research	1	B	Medium	15

			project			-sized	
WV + S&I	KiM contribution to further elaborating on NMCAs and analysis of Network 2040	BB1104	Research project + KaT	1	A	Medium -sized	16
WV	Effect of context variables on utilisation	B1017	Research project	1	A	Small	18
WV	KiM-contribution to Developing Utilisation Evaluation Framework	B1011	KaT	1	A	Small	18
WV	Short-term effects of fuel prices	B905	Research project	2	A	Medium -sized	22
WV + S&I	Changes in maximum speed HWN	OG1102	KaT	2	A	Medium -sized	22
WV	Parking problems in cities (home and destination)	OG1105	Research project	2	B	Medium -sized	23
WV	Participation in EMMV Advisory Group (people-focused measures for road safety))	G910	KaT	3	A	Small	31
WV	Supporting ex-post evaluation of road safety	G1008	KaT	3	A	Small	31
WV	Optimizing connection NRM and SCBA	E1009	KaT	6	A	Small	44
WV	Second opinion KKBA Haaglanden	E1016	KaT	6	A	Small	47
WV	Study sustainable transportation system for 2050 that is also robust and safe	L1001 + TD1101	Research project	7	A	Large	52
WV	Follow-up experiments in sustainable mobility	TD1103	Research project	7	B	Medium -sized	53
Directorate: Strategy & Investment Policy							
S&I	Accessibility: an alternative view	BB1101	Research project	1	A	Medium -sized	14
WV + S&I	KiM contribution to further elaborating on NMCAs and analysis of Network 2040	BB1104	Research project + KaT	1	A	Medium -sized	16
S&I	Smart utilisation	B1016 + BB1107	Research project	1	A	Medium -sized	18
S&I	Accessibility of urban regions	L901	Research project	1	A	Medium -sized	18
WV + S&I	Changes in maximum speed HWN	OG1102	KaT	2	A	Medium -sized	22
S&I	Will policy actually solve the users' problems?	OG1103	Research project	2	A	Small	22
S&I + DGLM MZ/LVT	Learning opportunities utilisation infrastructure	OG1104	Research project	2	B	Small	23
S&I	Impact of network society on mobility	G902a	Research project	3	B	Medium -sized	29
S&I	Influence of ICT-applications on travel experiences	G902c	Research project	3	B	Medium -sized	29
S&I	Panel research mobility	DM1102	Research project	4	A	Medium -sized	34
S&I + DGLM DIS	Supervisory support in model use and model development	DM1106	Research project + KaT	4	A	Medium -sized	36
S&I	OEI for integral and area-focused approach	E1001	Research project	6	A	Medium -sized	44
FMC + DGLM DIS + DGMo S&I	Pros and Cons II: Broadening of assessment frameworks	EA1103	Research project	6	A	Medium -sized	45
S&I	A good start is half the work: project delineation in integral, area-focused studies	O904/ O801	Research project	6	A	Medium -sized	45
FMC + DGLM	Follow-up to ex-post evaluation	EA1104	Research	6	A	Medium	46

DIS + DGMo S&I			project			-sized	
S&I	Effects of ITS on mobility (conditional)	G902b	Research project	7	A	Medium -sized	52
S&I	Water as an organising factor for mobility systems and spatial planning of the Netherlands	L902	Research project	7	B	Medium -sized	53
S&I + DGLM DIS	The importance of mobility	BM1101	Research project	8	B	Medium -sized	55
Randstad Urgent							
RU	Symposium 'SCBA between methodology and politics'	Z102	KaT	6	A	Small	46
DGMo-wide							
DGMo-wide	Workshops to help policy in applying behaviour insights	GB1102	KaT	3	A	Medium -sized	30

B.2 Projects for DGLM

Project Management	Title	Project Number	Type project	Core theme	Category	Size	Page
Directorate: International and Strategy							
DIS	Quality indicator for accessibility of land-based mainports	E901	Research project	1	A	Medium -sized	13
DIS	Location of multi-modal hinterland nodes	B1003	Research project	1	A	Medium -sized	17
DIS	Contribution to OESO-futures 2030-2050 project	G908	KaT	2	A	Small	24
DIS	Support preparation for ITF 2011	O1004 + GB1103	KaT	3	A	Small	31
DGMo S&I + DIS	Supervisory support in model use and model development	DM1106	Research project + KaT	4	A	Medium -sized	36
DIS	Innovations in logistics – synchro-modality	MO1103	KaT	5	A	Small	41
DIS + MZ	Foreign interests in the Dutch transport sector	MO1104	Research project	5	B	Small	41
DIS	Support for new policy intentions from Brussels	E1003	KaT	5	A	Small	41
FMC + DGLM DIS + DGMo S&I	Pros and Cons II: Broadening of assessment frameworks	EA1103	Research project	6	A	Medium -sized	45
FMC + DGLM DIS + DGMo S&I	Follow-up to ex-post evaluation	EA1104	Research project	6	A	Medium -sized	46
DIS	Guiding SCBA Regulations	E1014	KaT	6	A	Small	47
DGMo S&I + DIS	The importance of mobility	BM1101	Research project	8	B	Medium -sized	55
DIS	Policy options vision document Mainport Holland	BM1103	KaT	8	A	Small	56
Directorate: Airports							
LHV	Mainport 2.0 : land-based accessibility	BB1105	Research project	1	A	Medium -sized	16
LHV	Supervisory group AEOLUS	B1014	KaT	4	A	Small	36
DGMo Railways + MZ + LHV	Steering the nodes	MO1102	Research project	5	A	Medium -sized	40
LHV	Economic benefits of increasing land-based accessibility of Schiphol	EA1101	KaT	6	A	Small	44

LHV	Mainport 2.0: coherence of node and location function	BM1102	Research project	8	A	Medium -sized	56
LHV + LVT + DGMo Railways	Complementariness of Aviation and HSL	BM1104	Research project	8	A	Medium -sized	57
Directorate: Aviation							
DGMo S&I + MZ + LVT	Learning opportunities utilisation infrastructure	OG1104	Research project	2	B	Small	23
LVT	Recent and future developments in aviation	OG1107	Research project	2	A	Medium -sized	23
MZ + LVT	Security above all, but what is safe enough?	OG1108	Research project	2	B	Medium -sized	24
LVT	Aspects in audit of aviation safety culture	GB1104	Research project	3	B	Medium -sized	31
LVT	Factsheet aviation data	B928	Research project	4	A	Small	34
LVT	Collaborative opportunities in transport and trade relations with France and the Eurodelta	E1007	Research project	5	B	Medium -sized	42
LVT + MZ	Study sustainable maritime and aviation systems 2050, including the position of mainports	TD1102	Research project	7	B	Large	53
LHV + LVT + DGMo Railways	Complementariness of Aviation and HSL	BM1104	Research project	8	A	Medium -sized	57
Directorate: Maritime Affairs							
DGMo S&I + MZ + LVT	Learning opportunities utilisation infrastructure	OG1104	Research project	2	B	Small	23
MZ + LVT	Security above all, but what is safe enough?	OG1108	Research project	2	B	Medium -sized	24
MZ	KiM-contribution to possible follow-up on advice from inland waterway advisor	OG1109	KaT	2	B	Medium -sized	24
MZ	Maritime indicators - continuation	DM1103	KaT	4	A	Small	34
DGMo Railways + MZ + LH	Steering the nodes	MO1102	Research project	5	A	Medium -sized	40
DIS + MZ	Foreign interests in the Dutch transport sector	MO1104	Research project	5	B	Small	41
MZ	Guiding SCBA IJmuiden sluice and Terneuzen sluice	E1012	KaT	6	A	Small	47
MZ	Guiding pricing policy in inland waterway sector	E1018	KaT	6	A	Small	47
MZ	Economic effects maritime sector NOx emissions management area North Sea	EA1109	KaT	6	A	Small	47
LVT + MZ	Study sustainable maritime and aviation systems 2050, including the position of mainports	TD1102	Research project	7	B	Large	53
MZ	Vision Port of Rotterdam	BM1105	KaT	8	A	Small	57
MZ	Research studies port alliance	BM1106	KaT	8	B	Small	57

B.3 Projects for FMC

Project Management	Title	Project Number	Type project	Core theme	Category	Size	Page
FMC	Various project-exceeding questions SCBA methodology	EA1102	KaT	6	A	Small	44
FMC + DGLM	Pros and Cons II: Broadening of assessment	EA1103	Research	6	A	Medium	45

DIS + DGMo S&I	frameworks		project			-sized	
FMC	Communication OEI	E712	KaT	6	A	Small	46
FMC + DGLM DIS + DGMo S&I	Follow-up to ex-post evaluation	EA1104	Research project	6	A	Medium -sized	46

B.4 Projects for entire Ministry of Infrastructure and the Environment

Project Management	Title	Project Number	Type project	Core theme	Category	Size	Page
IenM-wide	Reliability of journey times	P801	PhD research	1			14
IenM-wide	Mobility Report 2011	OG1101	Research project	2	A	Large	22
IenM-wide	Infrastructure in the 19th and 20th century	P802	PhD research	2			22
IenM-wide	Update long-term scenarios	B901	Research project	2	B	Medium -sized	24
IenM-wide	IenM needs for data collection regarding mobility and accessibility	B1015 + DM1101	Research project	4	A	Medium -sized	34
IenM-wide	Supervisory cost barometer	B920	KaT	4	A	Small	34
IenM-wide	Elasticity overview freight transport	DM1104	Research project	4	B	Medium -sized	35
IenM-wide	Update 'cost of a journey'	DM1105	Research project	4	B	Small	35
IenM-wide	Model development for MLT	DM1107	Research project	4	B	Large	36
IenM-wide	Economic valuation reliability of journey times for various modalities	E707	Research project	6	A	Medium -sized	43
IenM-wide	Support of NICIS-OBBRI project	E926	KaT	6	A	Small	44
IenM-wide	Organizing quality assurance SCBAs	EA1108	KaT	6	B	Small	48

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KiM Netherlands Institute for Transport Policy Analysis
Plesmanweg 1
2597 JG The Hague

PO Box 20901
2500 EX The Hague

Telephone : +31 (0)70 456 1965
Fax : +31 (0)70 456 7576

Website : www.kimnet.nl
E-mail : info@kimnet.nl

KiM publications are available upon request from KiM (via kimpublicaties@minvenw.nl) or as a PDF download from our website www.kimnet.nl.
You are of course always welcome to contact one of our staff members.

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