



Ministry of Infrastructure
and Water Management

KiM Programme 2024

Netherlands Institute for Transport Policy Analysis | KiM



Introduction

The Netherlands Institute for Transport Policy Analysis (KiM) produces analyses that aid the preparation of mobility policy. As an independent institute within the Ministry of Infrastructure and Water Management (I&W), KiM delivers knowledge directly relevant to future mobility policy.

This KiM Programme provides an overview of our projects planned for 2024. KiM's Director, Henk Stipdonk, has formally approved the programme.

Reader's guide

Which long lines are running through KiM projects? → Section 2

KiM has identified four long lines. These are development trajectories that will shape the desired transitions in the field of mobility, including effective policy options to help achieve the intended outcomes.



1. Optimising accessibility
2. Shaping sustainable mobility
3. Scarcity and distribution of accessibility
4. Facilitating the economy

What is KiM and how does it operate? → Section 3

KiM prepares its programme in consultation with various policy directorates at I&W. The programme encompasses enquiries emerging from policies but also studies that KiM itself initiates. KiM is flexible in dealing with new inquiries and emerging areas of study, and may modify its priorities throughout the course of a year. Furthermore, some projects starting this year will only be completed next year.

The projects that KiM will carry out → Sections 4 to 13

Section 4 starts by describing KiM's self-initiated projects. Sections 5 to 13 describe the remaining projects, sorted by I&W Directorate. KiM categorises its projects by type: **research, knowledge-at-the-table and preliminary studies.**



Research



Knowledge-at-the-table



Preliminary studies

Overarching project summaries are listed in → Annexes A, B and C

- Appendix A by long line
- Appendix B by research line
- Appendix C by Directorates

Abbreviations of I&W Directorates	
ISM	Innovation and Strategy for Mobility Directorate
DuMo	Sustainable Mobility and Transport Directorate
OVS	Public Transport and Railway Directorate
WV	Roads and Traffic Safety Directorate, and Heavy Goods Vehicle Charge and Temporary Tolls Programme
M&G and BZK	Mobility and Regions Directorate and Ministry of the Interior and Kingdom Relations
LV	Civil Aviation Directorate, and Schiphol Airport Programme
MZ	Maritime Affairs Directorate
ASA and FEZ	Strategy Department, and Financial Affairs Department
DGMI	Directorate-General for the Environment and International Affairs
DGWB	Directorate-General for Water and Soil



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1 Foreword

Accessibility makes work, care, education, production and consumption possible. Will we be able to continue to offer access, even to our children and grandchildren? And what about the target groups that find it difficult to arrange their own access? We also want goods to arrive at the right destination at the right time, whether by road, water, rail or air. Within the Ministry, we are working to deliver a reliable and sustainable mobility system.

The challenges have never been greater. Consider, for example, the complexity of preparing the aviation and maritime sectors for a fossil-free future. We are increasingly facing the limits of our mobility system. Accessibility is unevenly distributed across society. When working to improve access, we must take account of the scarcity of space, raw materials, technical manpower and carbon-neutral fuels. To keep the Netherlands moving and a pleasant place to live in the long term, we need to find inspiration to tackle the various challenges.

Reliable and up-to-date knowledge is a fundamental asset in policy preparation. KiM delivers this foundation for policymakers through research and in the form of knowledge-at-the-table. The researchers at KiM help make sense of developments and explain the effects of proposed policy measures. They help keep us sharp. Not just by telling us which policy is effective and which policy is not, but also by setting the agenda in terms of topics that have not yet been addressed by policy. We are pleased that KiM has explicitly stated this aspect in the programme for 2024 by outlining a number of long lines. These describe development trajectories that will shape the desired transitions in the field of mobility, including effective policy options to help achieve the intended outcomes.

We are facing the limits of our mobility system

We are also counting on a fruitful collaboration with our KiM colleagues in 2024!

Kees van der Burg
(Director General for Mobility and Transport)



Ruth Clabbers
(Director General for Civil Aviation and Maritime Affairs)



2 Long lines →

We all understand that the future is uncertain, but that does not hold KiM back from thinking about future developments. For the 2024 programme, KiM has identified four long lines. These are development trajectories that will shape the desired transitions in the field of mobility, including effective policy options to help achieve the intended outcomes. Many of the components of our programme are set against the background of one or more of these long lines. There may be some occasional overlap between the long lines.

These long lines are described below. Projects that belong to a long line are highlighted. Sections 4 to 14 state whether a project forms part of a long line, and if so, which. All projects in our display cabinet are listed in Appendix A.

1 Optimising accessibility

Mobility is not an end in and of itself; mobility is a means to improve accessibility. This notion is at the heart of I&W's Framework Memorandum, the Mobility Vision. I&W is moving the focus from facilitating mobility to optimising accessibility, which results in new policy enquiries and knowledge questions. These knowledge questions lie at the heart of this long line. What is the value of accessibility compared to other objectives, such as safety and sustainability? Is it possible to formulate concrete objectives or minimum requirements with regard to accessibility, for the Netherlands as a whole or for certain regions and groups? And how could we actually measure accessibility?

It is becoming increasingly important in society to ensure that accessibility is fairly distributed. This is not only about distributing the accessibility fairly between groups, but also between current and future generations. Furthermore, broad-based prosperity is a principle that is embraced by the entire Dutch central government. How do we make these mobility policy concepts specific? KiM analyses how these principles might affect mobility policy and the decision-making processes relating to mobility interventions. Throughout this, KiM also takes account of the future role of government. When does government have a legitimate role? How can government solve market failures? And how can government act in a responsive and unifying way?

In its conceptual innovation work, KiM bridges the gap to practice by applying these insights when evaluating existing and proposed policy measures.



Examples of projects in the KiM Programme 2024 relating to this long line are:

- KiM's contributions to the I&W's new Mobility Vision ([MB2220](#))
- Dealing with declining accessibility to amenities ([MB2402](#))
- The influence of demographic changes on mobility and accessibility ([MB2421](#))
- The importance of direct flights ([MB2318](#))
- Demand-driven public transport: experiences and opportunities ([MB2211](#))
- Options for market organisation of the railways ([ER2408](#))

2 Shaping sustainable mobility

A sustainable society needs people, the economy and the nature environment to be in good health. This concept is also referred to as people, profit, planet. In the Netherlands, the pressure on the health of the natural environment and on people is great due to the high population density and high levels of production and consumption. Current social developments with a significant impact on mobility include:

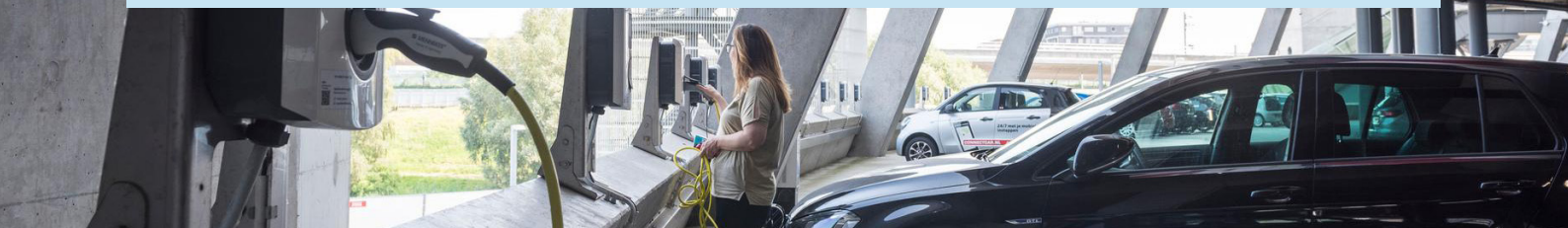
- climate change, global warming and the consequences, such as rising sea level;
- road safety;
- nitrogen deposition;
- noise nuisance.

To limit global warming as much as possible (climate mitigation), the Netherlands faces the major challenge of reducing carbon emissions by 55% by 2030 compared to 1990. In the context of climate adaptation, it is important to ensure our infrastructure is resilient to extreme weather conditions, taking into account changing transport patterns as a result of climate changes (for example, due to drought, high temperatures and timetable disruptions). KiM conducts research and delivers knowledge on climate challenges and the attendant consequences on mobility.



Examples of projects in the KiM Programme 2024 relating to this long line are:

- Sustainability leisure travel ([MB2307](#))
- What measures can we take to prevent a carbon-neutral energy shortage ([DG2206](#))
- Does sustainability policy create more unequal accessibility? ([DG2403](#))
- Carbon-neutral aviation ([DG2401](#))
- What post-fossil scenarios are there for Dutch seaports ([DG2414](#))
- Holiday coach travel ([MB2411](#))
- Climate adaptation of infrastructure: a cost-benefit analysis ([ER2407](#))



3 Scarcity and distribution of accessibility

In the Netherlands, we live in a small area and the population continues to grow. It is an increasing challenge to find enough space, resources and energy to maintain our prosperity, including the activities we want to do. The pressure on our mobility system is increasing as a result of the scarcity of space, raw materials, energy and financial resources.

Scarce resources are distributed based on principles of fairness and equity. Applying different principles of fairness and equity leads to different distribution outcomes, across groups but also across the available space. Current social developments associated with this theme include:

- housing;
- migration;
- development differences between urban and rural areas;
- circular economy;
- poverty.

In recent years, KiM has increasingly focused on the distribution of effects across groups and regions, and on the various principles of fairness and equity. KiM will continue this focus in its programme for 2024, with attention also being devoted to the interplay with regional interests and insights. Discrepancies between geographical areas and groups of people are becoming increasingly important. One of the things that KiM analyses in this regard is how the effects of national policy measures are distributed across geographical regions, travel motives and income groups. It should be noted here that KiM does not single out one specific region in its studies. KiM will try to break down the regional differences in the national picture.



Examples of projects in the KiM Programme 2024 relating to this long line are:

- Affordability of mobility ([MB2304](#))
- Applying the 'doughnut model' to the mobility sector, as it stands and in the future ([DG2406](#))
- Inclusive distribution ([ER2409](#))
- Coping strategies when raw materials for biodiesel are scarce ([DG2404](#))

4 Facilitating the economy

Economic development is a prerequisite for broad-based prosperity. This is something that tends to be forgotten lately due to the increased focus on other aspects of broad-based prosperity within I&W. The economy encompasses production, trade and the service industry, and mobility plays an important role in each of them.

Mobility here concerns both freight transport and passenger transport. Passenger transport refers to the ability to travel to work, go to the shops and undertake activities. Security of supply of goods at an acceptable cost is hugely important for the economy and for consumers. At the same time, freight transport is facing the challenge of having to work towards net-zero while having to adapt to the increasing volatility of climate and limitations in the availability of infrastructure capacity. What's more, a circular, fossil-free economy leads to very different freight flows. Various KiM projects address the tensions between these competing interests and the effects of related policy measures.

Current social developments associated with this theme include:

- reshoring;
- digital transformation;
- the impact of the war in Ukraine on global trade.



Examples of projects in the KiM Programme 2024 relating to this long line are:

- Freight transport: security of supply and resilience ([ER2413](#))
- Consequences of drought on navigable waterways for economy and infrastructure policy ([ER2315](#))
- 'Nederland Distributieland' revisited? ([ER2414](#))
- What does a circular economy mean for freight transport? ([DG2407](#))



3 About the Netherlands Institute for Transport Policy Analysis

3.1 Purpose of KiM

The Netherlands Institute for Transport Policy Analysis (KiM) provides knowledge inputs to support policymakers in the field of mobility and accessibility at the Ministry of Infrastructure and Water Management (I&W). KiM takes a critical stance and is also a trusted colleague of policy makers. KiM conducts its own research and collects knowledge developed elsewhere, enabling I&W to develop policy with a solid knowledge foundation. More information about KiM can be found at english.kimnet.nl.

3.2 Government of the Netherlands and Ministry of Infrastructure and Water Management

Under the Dutch constitution the Cabinet is entirely composed of government ministers. Its job is to make decisions on overall governmental policy and promote its coherence. The King and the Ministers ultimately make up the Government of the Netherlands. Ministers and state secretaries are responsible for the day-to-day business of government. Please visit the [governmental website](#) for further information on how the Dutch Cabinet operates in practice.

[The Ministry of Infrastructure and Water Management](#) (I&W) is committed to improving quality of life, access and mobility in a clean, safe and sustainable environment. The Ministry strives to create an efficient network of roads, railways, waterways and airways, effective water management to protect against flooding, and improved air and water quality.

Broadly speaking, the Ministry of Infrastructure and Water Management consists of three sections: policy, implementation, and inspection. In addition, the ministry has several support agencies that help to ensure that senior-level political and civil service figures as well as employees are able to effectively perform their work.

In the policy section, four Directorates-General are tasked with developing policy in the areas of mobility, water management, aviation and maritime affairs and the environment.

- The Directorate-General for Civil Aviation and Maritime Affairs is responsible for policy development in the fields of maritime affairs and aviation.
- The Directorate-General for the Environment and International Affairs is responsible for policy development in the fields of a clean, safe, healthy, and sustainable human environment; air quality; circular economy; sustainability; environmental security and environmental risks. Furthermore, the Directorate-General coordinates the international component of the ministry's policy.
- The Directorate-General for Mobility and Transport is responsible for policy development in the fields of roads; road safety; public transport and railways; bicycle traffic; sustainable mobility.
- The Directorate-General for Water and Soil is responsible for policy development in the fields of water policy and flood risk management; climate adaptation; water projects in specific areas; and water and soil issues.

3.3 Knowledge for policy

Input for the various phases of policymaking

KiM analyses and interprets developments, prepares exploratory studies and scenarios, and analyses the effects of policy instruments and the role of the government. Throughout this process, KiM brings together a variety of perspectives and disciplines. This ensures that KiM's analyses are robust. This is also reflected in the broad palette of disciplines available within KiM, including transport economics, technical governance, social geography, planning, sociology, environmental sciences and traffic management studies.

The knowledge provided by KiM delivers input into I&W's policy preparation processes. How knowledge filters through to policy depends on the phase in which a policymaking process is at a given time. Analyses and interpretations of developments, exploratory studies and scenarios are important for setting the agendas and preparing policies. The knowledge that KiM delivers on the effects of policy instruments and the government's role is vital in preparing, implementing and evaluating policies.

Products

KiM offers four different products: research projects, preliminary studies, knowledge-at-the-table and signalling services.



For **research projects**, KiM conducts its own academic enquiry, which result in open-access publications. KiM prepares a unique project plan for each study. This includes context, research questions and research methods. A project plan also sets out what data (either already available or collected specifically for the study) KiM uses.



KiM performs **preliminary studies** when it is not yet clear whether full-scale research is justified. For example, if there is uncertainty about:

- the research question;
- whether the knowledge question can be answered and, if so, how;
- whether there will be any course of policy action available for I&W.

Once justification for a research project has been obtained, KiM will conclude its preliminary studies. KiM will then prepare a project plan based on the outcome of the preliminary study. In other cases, KiM will share the results of the preliminary study with policymakers. If our academic enquiry ends after the preliminary study, i.e. there is to be no full-scale, it is unusual for this to result in a publication.



In the case of **knowledge-at-the-table** (KaT), KiM provides immediately available knowledge into ongoing I&W policy processes in the form of presentations, discussions and knowledge contributions to policy papers. In some cases, KaT may lead to publications in the form of a memo. KiM also plays a role in helping assure the quality of third-party research carried out for I&W. This ranges from making available its knowledge network and actively engaging in the formulation of research questions and approaches, to taking part in advisory committees.

Finally, KiM also actively engages policy directorates about the programming of knowledge development at other institutes outside of I&W. **Signalling services** include the agenda-setting of themes within I&W and beyond in response to the latest developments in policymaking or academic enquiry, or in response to reports from other parties. Signalling can take the form of a memo, but also in an email, a phone call, a consultation meeting or a presentation.

Blog posts written by KiM staff may also have a signalling function. These activities are not explicitly included in the KiM Programme. However, we do have capacity for signalling work. Our blogs are available on the website: www.kimnet.nl/actueel/weblogs (in Dutch only).

Standing arrangements on the publication of research

All research projects result in open-access publications. Publication ordinarily takes place within 28 days of completion of the research assignment. In exceptional cases, KiM may deviate from this timing, for example, if the research forms part of the preparatory work for a major policy paper, in which case the relevant research reports will be published simultaneously with the paper.

Publications may take the form of a brochure, a factsheet, a memo, an infographic or a short video. KiM also always publishes a background report rendering an account, for instance, of the research methods used. In the case of knowledge-at-the-table, KiM may decide to publish research after consultation with the relevant policy directorate. KiM publications can be found at english.kimnet.nl/publications.

3.4 Programming process

The process of preparing the KiM Programme starts with identifying topics for future research at KiM's internal brainstorming sessions. These sessions are based on knowledge of the mobility sector, the current policy outlook, future social developments and developments in academic enquiry. Where possible, KiM adds broad-based regional research questions with national relevance to the list of brainstorming topics. Further input for a long list of brainstorming topics comes from I&W's Strategic Knowledge and Innovation Agenda (SKIA), the tasks collated by the Knowledge Programme for Traffic and Transport (KpVV) from lower-level authorities, regional area programme managers and various networks of municipalities, such as the G4, representing the four largest municipalities in the Netherlands.

After collation and after priorities have been established, KiM discusses these project ideas with policymakers to gauge interest and to identify which current knowledge questions emerge from the policy teams. Sometimes, policy directorates have no interest in any of the research ideas. If it so wishes, KiM may then decide to conduct its own research in these areas. These studies can be found in [Section 4](#).

The final assessment that ultimately results in the KiM Programme is based on due consideration of policy relevance, social impact, research feasibility and the required research capacity. Figure 3.1 shows a schematic representation of how the programme is put together. KiM will continue to hold discussions with the various policy directorates throughout the year to collect knowledge questions and, where relevant, set any other priorities. The research question is formulated together with the approach to be taken and the expected outcome before a project starts. Taken together, these form the project plan. The specific research questions will be formulated in conjunction with the relevant policy directorate.

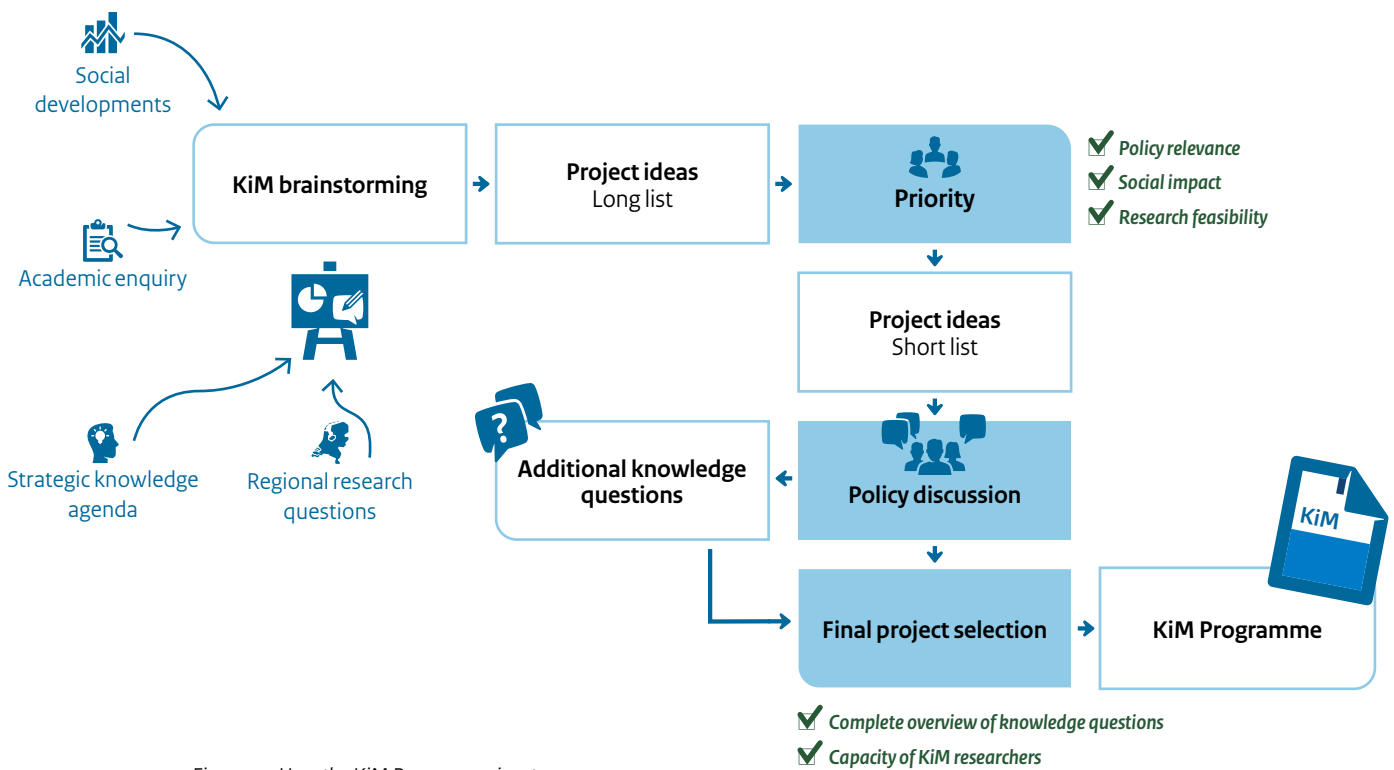


Figure 3.1: How the KiM Programme is set.

3.5 How KiM is organised

Management

The Management Team at KiM is made up of the director, the deputy director and research line managers. Henk Stipdonk is the director of KiM. Arjen 't Hoen is deputy director. The roles of research line manager are filled by Pauline Wortelboer-Van Donselaar, Stefan Verduin and Arjen 't Hoen. Each is responsible for their own research line. The research line managers also have line manager responsibility for employees.

Research line	Research line manager
A: Mobility and accessibility	Arjen 't Hoen
B: Sustainability and regions	Stefan Verduin
C: Policy evaluations and the role of government	Pauline Wortelboer-Van Donselaar

Research lines

The research lines determine the structure of KiM's work, drawing the various projects into clusters to ensure coherence between the projects and consistency over time. Section 3.5 set out a description of the research lines.

Expertise roundtables

In addition to research lines, KiM has expertise roundtables. These allow researchers to share specialist knowledge and follow policy developments. These meetings are organised around the following topics:

- public transport,
- freight transport,
- roads,
- aviation,
- data & modelling.

Projects

KiM works on the research questions in project teams made up of researchers. The projects are included from Section 4 of this programme. The programme consists not only of new projects, but also of ongoing projects that were not completed in 2023. Due to the setting of new priorities during the year, as mentioned in Section 3.3, it may be the case that KiM does not carry out some of the projects set out in its programme. Like every year, there will again be projects that start in 2024 that will be completed in the course of 2025.

3.6 Research lines

The research lines lay the foundations for the structure of KiM's work, drawing the various projects into clusters to ensure coherence between the projects and consistency over time. The long lines that KiM has identified in the programme this year (see Section 2) intersect the research lines as a cross-linkages. Appendix B sets out the projects ordered by research line. The content of the three research lines is explained in more detail below.

Research line A: Mobility and accessibility

The Mobility and Accessibility research line focuses on the functioning of the mobility system. KiM analyses the interaction between the various modalities and incorporates social trends and innovations. The data collection and modelling required to achieve this also come within the scope of this research line. KiM looks at the past to find explanations for developments in mobility and accessibility based on social developments and policy measures implemented. KiM then also sets out its outlook by preparing exploratory studies for the medium term and by estimating the effects of specific policy options on mobility and accessibility.

KiM focuses in particular on the concept of accessibility because mobility is not an end in itself, but a means to access jobs and amenities, for instance. Specific subjects of KiM's academic enquiry include how accessibility can be improved, how accessibility can be measured, and what accessibility objectives might be achievable.

KiM also studies the mobility of specific groups. Mobility behaviour differs from one social group to the next. An example of this is the difference between the elderly and young people. Or people with lower incomes and higher incomes. Studying these differences provides important information for policy development, as it demonstrates how effective policy instruments are for certain groups.

Research line B: Sustainability and regions

This research line focuses on sustainability and the interaction between spatial functions and mobility. Sustainability is a challenge for the whole of the Netherlands and for every sector. As such, it would be remiss to disregard sustainability when studying mobility. From this focus on mobility, KiM approaches this theme with a view to how emissions affect the climate and our health. Sustainability is already part and parcel of many research projects, but only some studies really zoom in on it. Where this is the case, the study will form part of this research line.

The Netherlands is facing a major housing challenge. Homes need to offer convenient access. The challenge is to prevent the entire mobility system from grinding to a halt. The government has reserved €7.5 billion to support the accessibility of homes and surrounding areas. But €7.5 billion alone will not be enough. It will also be necessary to initiate a mobility transition in which proximity to amenities and workplaces, and making more sustainable choices in relation to modes of transport will play a crucial role. KiM supports policymakers in this area by delivering relevant research.

Research line C: Policy evaluations and the role of government

In this research line, KiM focuses on how the effectiveness and efficiency of policy measures for all modalities can be balanced, for passenger transport and for freight transport. Questions about the role of the government (legitimacy) are also within the scope of this research line. Increasingly, the issue concerns the fairness of policy. Options for a fair mobility policy are also being examined in the context of the new Mobility Vision. Furthermore, KiM develops policy indicators and deploys the concept of broad-based prosperity in mobility policy, which makes it possible to monitor I&W's policy goals and the degree to which they are achieved. We also assess the role of central government and other authorities in a mobility transition process.

KiM delivers research to policy directorates about the approach and results of evaluations, or it conducts these itself. This includes the following:

- measuring efficiency;
- issues concerning the 'value' of a certain form of mobility;
- the effectiveness of financial-economic instruments.

KiM also reviews evaluations conducted by third parties. A vital element here is the deepening and broadening of the methodology for running social cost-benefit analyses. In this process, KiM considers the various parts of social relevance in an interconnected way: the contribution they make to the economic development of the Netherlands, but also the external costs of mobility, such as climate damage.

3.7 Quality assurance

KiM aims to deliver fact-based reports that provide an informative or sometimes sobering foundation for policymakers to build on. As is common with academic publications, KiM organizes reviews of its research reports to verify the methods used, results and conclusions. Within a research project, researchers check each other's work before it is reviewed by the research line manager and by external parties, such as our KiM fellows (see below). For other products, too, such as knowledge-at-the-table and preliminary studies, the minimum standard of quality assurance consists of peer review by a colleague or the research line manager. The project leader and research line manager may decide to bring in other experts for the peer review.

Achieving a high-quality publication starts at an early stage with the research design. Quality assurance is therefore also interwoven throughout the entire process and is tied to the input of several people. In a project plan, during implementation and also when sharing insights and conclusions.

All those involved in KiM research have their own responsibility for conducting and communicating research with the highest standards of academic integrity. The academic standards that KiM observes are further safeguarded by a [complaints procedure](#) (in Dutch). This ensures that any complaints about the methods or data used, or the analyses produced will be handled by KiM with integrity.

Anyone who suspects that the standards of academic integrity have not been maintained can lodge a complaint with a designated Confidential Adviser. KiM ensures that any complaints and subsequent decision-making will be handled according to a robust and fair procedure. The Confidential Adviser for

Academic Integrity is [dr. ir. E.C. \(Erik\) Schmieman](#). If the complaint is not handled to your satisfaction, it can be submitted to the [LOWI](#), the independent advisory body for complaints procedures relating to alleged breaches of academic research integrity.

KiM fellows

In the context of quality assurance, KiM has appointed ten scientists across a variety of disciplines, both national and international, as KiM fellows. An important task of these fellows is to comment on project plans and draft publications. The fellows are also invited to give lectures and presentations, and to participate in brainstorming sessions for current or new projects, in order to give them additional academic cachet.

Beyond this circle of fellows, KiM regularly also invites other academics to take part in a review or engages them in projects from the outset. Engaging outside expertise helps to raise the quality of the research we do.

The fellows currently associated with KiM are shown in the table. For the latest information, see the [website](#):

Name	Field	University
Prof. Luca Bertolini	Urban Planning	University of Amsterdam
Prof. Heleen de Coninck	Innovation and Sustainability Studies	Eindhoven University of Technology/ Radboud University Nijmegen
Prof. Dick Ettema	Urban Accessibility and Social Inclusion	Utrecht University
Prof. Serge Hoogendoorn	Operations & Management of Transport Systems	Delft University of Technology
Prof. Vincent Marchau	Uncertainty and Adaptivity of Social Systems	Radboud University Nijmegen
Prof. Tim Schwanen	Transport and Social Geography	University of Oxford
Prof. Erik Verhoef	Spatial Economics	Vrije Universiteit Amsterdam
Prof. Bert van Wee	Transport Policy	Delft University of Technology
Prof. Thierry Vanellander	Transport Economics	University of Antwerp
Prof. Oded Cats	Passenger Transport Systems	Delft University of Technology

Performance assessment

KiM believes it is important to subject its performance to review. In this light, an inspection assessment took place in early 2023 by an independent committee chaired by Prof. Gerard van der Steenhoven. The committee included representatives drawn from policymaking and academic disciplines. Laying the groundwork, the committee inspected a number of documents, including the self-evaluation report that the KiM wrote in 2022. The committee spoke with KiM employees, policymakers and representatives of organisations outside I&W that collaborate with KiM or use KiM's products. The [evaluation report](#) (in Dutch), including the committee's recommendations, is available on the website.

The committee's recommendations demonstrate its commitment, in line with that of KiM's own commitment, to securing the future viability of KiM, thereby increasing the impact of KiM's work wherever possible. The assessment committee's generally positive view of KiM is gratifying. To live up to this positive opinion in the long term, it is vital to start implementing the inspection committee's recommendations as soon as possible. Armed with the insights gained from the inspection, KiM will improve its effectiveness and its quality. Further implementation of the recommendations will continue throughout 2024.

3.8 An independent position

KiM maintains an independent position in the conduct of its research and in its publications. KiM is positioned within I&W because of the importance of being able to effectively implement KiM's research products in policy. Responsibility for the research process and the products lies entirely with the KiM. Although we largely program many studies in close consultation with policymaking departments, KiM is independent in its research programming. More importantly, we are independent in the performance of the research: the methods are entirely at KiM's own discretion. KiM is fully transparent in how it communicates its research outcomes, specifically in the sense that we publish all outcomes of research projects.

Independence is not an end in itself, but is necessary to enable optimal research development. It is of course of great importance that KiM can conduct its academic research without the outcomes being formed by the opinion of, for instance, lobby groups, political parties or policymaking departments. However, conducting research without any form of dialogue with policy makers could lead to outcomes that are completely detached from the context in which social developments take place and the policy-specific and political realities. This would detract from the value of the outcomes and limit the scope of their potential impact on policy. KiM therefore considers an active dialogue between researchers and policymakers, in which all parties respect the limits of their own mandate, to be of great value. KiM's ultimate goal is to ensure that research outcomes benefit society through policy with a strong foundation in research.

KiM's position is regulated in a [protocol](#) (in Dutch) published in the Dutch Government Gazette. This protocol ensures that KiM can conduct academic research and publish its findings independently. A key goal of the protocol is to ensure a division of the roles of politicians and policymakers on the one hand, and researchers on the other. The protocol also regulates the aspects of funding, research programming and communication.

3.9 Collaborations

An international dimension

Many research questions require knowledge which may only be available internationally or have a predominantly international context. KiM is a member of the Transport Research Committee (TRC) of the International Transport Forum (ITF), which is affiliated with the Organisation for Economic Cooperation and Development (OECD). The TRC brings together research institutes from dozens of countries for the purpose of initiating joint research projects and exchanging expertise. KiM is very active within the TRC with a view to fostering joint international approaches to problems and solutions in the area of mobility. The KiM is also committed to strengthening the coherence between policy and research at the ITF. KiM is also active on various committees of the American Transportation Research Board (TRB) and the Association for European Transport (AET).

In accordance with the assessment committee's recommendations, KiM will increase its focus on the EU. This concerns both research about decision-making relevant to mobility within the EU and research about the outcomes of European research programmes. Furthermore, KiM maintains direct contacts with researchers in all corners of the globe. KiM's staff also attend conferences and symposia – both nationally and internationally – where they present their own research findings

Collaborations with knowledge institutes, government planning agencies, universities and Rijkswaterstaat

KiM works closely with other Dutch knowledge institutes, universities and the Water, Traffic and Environment division (WVL) of Rijkswaterstaat (RWS). KiM makes expertise that has been developed elsewhere (in the Netherlands or abroad) accessible for practical use in policymaking processes.

Sometimes, KiM may commission private parties or universities to conduct some aspects of its research, after which the results will be synthesised in a KiM product. KiM performs a vital linking role between I&W and the universities in the area of mobility.

Furthermore, KiM coordinates its research programmes with the Netherlands Environmental Assessment Agency (PBL) and the Netherlands Bureau for Economic Policy Analysis (CPB) to divide tasks in an effective and efficient manner, and to work together on topics of overlapping interest. For instance, collaboration makes optimal use of both parties' expertise through joint brainstorming sessions, joint focus groups and critical feedback on each other's products. KiM also coordinates regularly with RWS and Statistics Netherlands (CBS) in order to link up current and future activities, where possible. This programme has been discussed with PBL, CPB, SWOV, CBS and RWS.



4 Self-initiated projects

Project	Number	Research line	Type	Long line*	Other directorates
Key figures 2024	MB2401	A	Research		ISM WV OVS DuMo M&G LV MZ
Carbon-neutral aviation	DG2401	B	Research	2 Sustainable	
Supervision of and collaboration in tailor-made research with NMP	DM1702	A	Research		
The Netherlands Mobility Panel (NMP): data collection, data dissemination and communication	DM1720	A	Research		
Contribution to Scenarios of Prosperity and Quality of the Living Environment (WLO)	MB2422	A	KaT		



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
- 3 Scarcity and distribution of accessibility
- 4 Facilitating the economy

This section describes the projects that KiM is undertaking on its own initiative. KiM considers these projects important for policy development and strengthening our research base. It also contains more fundamental projects that form part of KiM's recurring activities, such as the use of The Netherlands Mobility Panel and the alternating biannual publication of Key Figures or the Mobility Report.



Key Figures 2024 (MB2401)

In de Kerncijfers 2024 presenteert het KiM de actuele gegevens over de ontwikkeling van de mobiliteit tot nu toe en de verwachtingen op de middellange termijn (tot 2029). Het KiM maakt hierbij onderscheid tussen modaliteiten in personen- en goederenvervoer. Ook besteedt het KiM aandacht aan de gevolgen van mobiliteit voor bereikbaarheid, veiligheid en leefomgeving. Het KiM brengt eens in de twee jaar een Mobiliteitsbeeld uit. In de tussenliggende jaren verschijnt een beknopte versie: de Kerncijfers.



Carbon-neutral aviation (DG2401)

I&W's innovation strategy goal is to achieve 100% sustainability of fuels used in the aviation industry by 2050. The fuels used in aviation will be a mix of biokerosene, synthetic kerosene, green hydrogen and electricity. Hydrogen and battery-electric flying will be options for short-haul flights, while sustainable kerosene (bio and synthetic) would be more obvious choices for long-haul flights. In this project, KiM will explore the most suitable mix of fuels is for different flight distances. KiM will also investigate which fuel will potentially be available for aviation and to what extent.



The Netherlands Mobility Panel (NMP): data collection, data dissemination and communication (DM1720)

The behaviour of specific groups in society is receiving increasing attention in traffic and transport policy. As a result, there is a growing need for insight into the effects on mobility of changes in the circumstances of individuals and groups, of exogenous developments and of policy measures. In 2012, KiM initiated a longitudinal mobility study: the The Netherlands Mobility Panel (NMP). This study aims to gain insight into the impact of changes in the circumstances of individuals and groups (e.g. change in family composition, moving house), exogenous developments (such as the coronavirus pandemic) and mobility policy measures. The twelfth set of data collection (wave) will be carried out in the autumn of 2024.

Data from the NMP has been and will be used across a number of KiM projects. External partners in the Netherlands and beyond also frequently use the NMP data for research purposes. The data is available via Survey Data Netherlands open access. External parties may also obtain additional data via the NMP in consultation with KiM subject to strict criteria.

This project concerns all activities for the NMP from the preparation of questionnaires to the release of data to third parties. These activities include: adapting and testing questionnaires and diaries, supervising field work, drawing up research accountability reports, checking, correcting and supplementing data, and communicating the results of the NMP and its potential.



Tailor-made research with NMP (DM1702)

In addition to regular waves, which will be carried out with NMP in the autumn, NMP can also be used for additional research for by KiM, other branches of government, research institutions and universities. In recent years, NMP has been used, for example, for the purpose of surveying the impact of the coronavirus pandemic on mobility, the use of and purchase potential of e-bikes, and the use of mobility-as-a-service (MaaS). Preparation of questionnaires takes place jointly between KiM and the researching organisation.



Contribution to Scenarios of Welfare, Prosperity and Quality of the Living Environment (WLO) (MB2422)

The PBL started preparing to develop new WLO scenarios in November 2021. KiM is providing knowledge and expertise on topics in a single defined area: mobility. Follow-up stages will take a number of years; the forecast is that the scenarios will be ready in 2025.

5 Innovation and Strategy for Mobility Directorate

Project	Number	Research line	Type	Long line*	Other directorates
Affordability of mobility	MB2304	A	Research	3 Scarcity	WV OVS DuMo
Scenarios for shared mobility solutions	MB2403	A	Research		WV
Dealing with declining accessibility to amenities	MB2402	A	Research	1 Accessible	WV OVS
The influence of demographic changes on mobility and accessibility	MB2421	A	Research	1 Accessible	WV OVS
Knowledge agenda on mobility poverty	MB2107	A	KaT		OVS
Knowledge inputs for NOVI monitor	MB2221	A	KaT		M&G
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	WV OVS M&G DuMo LV MZ
Integrated Mobility Analysis	MB232	A	KaT		WV OVS M&G DuMo LV MZ
Modelling	DM1106	A	KaT		WV OVS M&G DuMo LV MZ
Knowledge inputs for the Dutch National Travel Survey ODIN by Statistics Netherlands	DM1719	A	KaT		
How do you monitor the transition paths of maturing technologies?	DG2301	B	Research		
Experiments with innovative evaluation methods of mobility policy	ER2401	C	Research		
Re-evaluating (price) elasticities	ER2208	C	Research		WV OVS LV and MZ
Estimation method for future values of travel time rating for forecast years	ER2404	C	Research		
The value of accessibility	ER2203	C	Research	1 Accessible	
Funding issues	ER2302	C	KaT	3 Scarcity	M&G
Analysis frameworks for inputs to innovative mobility interventions	ER2402	C	KaT		
Broad-based prosperity and mobility follow-up study	ER2201	C	KaT		ASA
Assessment method of mobility funding	ER2303	C	KaT		
Participatory Value Evaluation for MIRT projects	ER2322	C	KaT	3 Scarcity	
'True pricing': internalising external costs	ER2326	C	KaT	2 Sustainable	
Mobility budgets on the radar	ER2403	C	Preliminary study		



*Longlines

1 Optimising accessibility

2 Shaping sustainable mobility

3 Scarcity and distribution of accessibility

4 Facilitating the economy



Affordability of mobility (MB2304)

Given the rising prices of fuel, etc., not least due to scarcity, the affordability of mobility has become an increasingly important theme in society and government policy. But what is 'affordability' of mobility? How do you map out what 'affordability' means? And what levers does I&W have to influence 'affordability'? In this study, KiM analyses the changes in the cost over time of using various modes of transport, and how much households spend on mobility and accessibility. KiM also explores ways of measuring the extent of affordability problems, the effects of tax measures on various income groups, as well as possible lines of action by the government.



Scenarios for shared mobility solutions (MB2403)

In the discussions concerning society and policymaking, much attention is paid to shared modes of transport. In recent years, KiM has conducted research into the extent of the use of shared cars and bicycles, but also into how we can incentivise the sharing of modes of transport. In the 'scenarios for shared mobility solutions' project, KiM outlines a number of scenarios for a society where car sharing is the norm. How many shared cars would you need in the Netherlands? This depends, among other things, on how the housing challenge is addressed, the presence of hubs, parking standards and charges, and employers' policies regarding commuting and business travel.



Dealing with declining accessibility to amenities (MB2402)

In the social discussion about accessibility, attention is increasingly being paid to the perception of the reduced accessibility of amenities in certain regions (compared to previously, as amenities have disappeared or compared to other regions). This perception may differ from 'actual' accessibility. KiM charts these perceptions based on recent insights from the literature and other sources. In addition, KiM analyses how people deal with decreasing accessibility as they employ various mechanisms to cope with reduced access. Coping may mean reducing their activities, but also includes finding alternative solutions (individually or collectively), such as sharing a mode of transport or use of a mobile facility such as a library.



The influence of demographic changes on mobility and accessibility (MB2421)

The size and composition of the population of the Netherlands is changing. In this study, KiM will first analyse which of these developments might be relevant to mobility and accessibility. This concerns, for instance, the changing proportions of the various age groups in the Dutch population, the ratio between the number of single and multi-person households, and the proportion of Dutch people with a migration background. In this work, KiM will use information from the report by the State Commission for Demographic Developments, which will be published in early 2024.



Secondly, KiM will examine the consequences of some of these developments in relation to mobility and accessibility, based on the differences in the use of cars, public transport, bicycle, etc. between the various demographic groups, and the expected future changes in these differences. How will the mobility behaviour of Dutch people with a migration background change in the future, and what consequences will this have on the use of the various modes of transport? As older people increasingly remain in good health for longer, and many tools are available to enable them to travel independently for longer, what effect will this have on mobility?

The results of this research will be important for the further improvement of mobility forecasts, and will also provide clues that will help develop policy instruments aimed at specific groups in society. One part of the study is to look at efforts to improve the participation of more difficult-to-reach groups in the annual mobility survey of Statistics Netherlands, for instance.



Knowledge agenda on mobility poverty (MB2107)

I&W is engaged in the 'Mobility for all' programme. One of the key pillars of the programme is entitled 'Knowledge base in order'. Mobility poverty (or accessibility poverty) occurs when participation in society is reduced as a result of limited mobility options. The fact that someone's level of mobility is relatively low does not mean that they are involuntarily limited in their ability to be economically or socially active. However, it may be a sign that they are. Causes (and hence also solutions) of accessibility poverty might also lie outside the mobility system, for example, a different geographical distribution of amenities. KiM delivers expertise on this theme in the form of knowledge-at-the-table.



Knowledge inputs for NOVI monitor (MB2221)

Every two years, PBL publishes the NOVI monitor (National Environmental Vision) with the latest data on the 21 national interests set out in NOVI. The first monitor, published in 2020, forms the baseline measurement; the second monitor followed in 2022. The third monitor will be released in 2024. KiM delivers expertise on the mobility-related indicators set out in the monitor NOVI.



Mobility Vision (MB2220)

In the spring of 2023, I&W transmitted a Framework Memorandum setting out its Mobility Vision to the House of Representatives. Its emphasis on accessibility has increased compared to previously, and it contains an intention to work towards achieving accessibility goals. Based on the Framework Memorandum, further work was done on a Mobility Vision programme, in which a number of variants for accessibility goals are proposed that will be discussed with the House of Representatives. KiM delivers many knowledge inputs, such as:

- substantive reflections on draft versions of the Mobility Vision programme and follow-up steps;
- participation in focus groups within and across ministries;
- engagement on the subject of methodological and substantive issues concerning the development of accessibility goals;
- participation in supervision groups in assignments with external parties;
- answering ad hoc questions.



Integrated Mobility Analysis (MB232)

I&W will once again publish an Integrated Mobility Analysis (IMA) in 2026 or 2027. KiM is engaged in the process of setting the focus and structure of this analysis, in particular concerning the indicators to be used. KiM regularly participates in the IMA working group and in focus groups relating to the work of the IMA. KiM also regularly participates in substantive sessions relating to various aspects of the IMA, such as further elaboration of the accessibility indicator introduced in IMA-21.



Modelling (DM1106)

KiM contributes to modelling in the field of mobility and accessibility. This involves the structuring of three ingredients:

- the relevant information requirements for various policy processes;
- the associated requirement for modelling instruments;
- the development of improved governance surrounding the development and application of these tools.

KiM participates in the I&W strategy group and modelling steering group, providing knowledge inputs for various modelling and modelling improvement actions, which are often led by RWS WVL.



Knowledge inputs for the Dutch National Travel Survey ODIN by Statistics Netherlands (CBS) (DM1719)

Statistics Netherlands (CBS) was commissioned by I&W to conduct the Dutch National Travel Survey (ODiN, 'On Your Way in the Netherlands'). The study analyses the mobility of the Dutch population each year. Since 2019, this has been supplemented by an annual update of trend estimates that makes corrections for changes in mobility research over the years (the Statistics Netherlands trend model). I&W and Statistics Netherlands are exploring innovations in how they conduct research and analyse the results, such as development of an app to report travel activity. KiM provides knowledge inputs and participates in ODiN's core team, supervision group and management consultation group.



How do you monitor the influence of maturing technologies on transition paths? (DG2301)

In 2023, KiM conducted a preliminary study into technologies for carbon-neutral mobility, the development of which is still at an early stage (TRL < 6), but which may come to play a role in the future. In this preliminary study, we explored ways to help us map out which current immature innovative technologies with low TRLs are the most promising. As a follow-up to the preliminary study, KiM will further elaborate the monitoring of transition paths for the four energy chains (hydrogen, electricity, synthetic fuels and biofuels).



Experiments with innovative evaluation methods of mobility policy (ER2401)

The Policy Compass is the central working method for policy making in central government, to help assess and develop regulation. It is focused on strengthening the substantiation of policy choices. There is scope in this for using new methods of (ex-post) policy evaluation in addition to customary instruments. Following an earlier KiM study into the possibilities of innovative policy evaluation methods, we will apply these to a small number of cases in 2024. The OECD strategic foresight toolkit may provide us with a possible first use case. We will examine whether this can add value when assessing the effects of mobility policy and can provide more control over the influence of uncertain future developments.



Re-evaluating (price) elasticities (ER2208)

KiM uses elasticities to enable quick calculations of the effects of changes in fuel prices, ticket prices, or the quality of the timetable, etc. on mobility behaviour. Elasticity shows the extent to which mobility demand changes as a result of a change in the price or quality of a mobility option.

The elasticities used by KiM are based on the National Model System (LMS) and estimated based on observed mobility behaviour from 2014-2017. The primary question is whether these elasticities are still accurate. Or do price elasticities change over time, for example, under the influence of the coronavirus pandemic or energy scarcity? This study will first identify a number of social trends and examine their influence on elasticities. Secondly, KiM will conduct an empirical study into the level of elasticities and whether there are any statistical clues as to whether these elasticities deviate from previous long-term averages. KiM will combine insights from both research stages with the insights emanating from a

reference book for mobility elasticities that Rijkswaterstaat is developing based on a request of the KiM.



Estimation method for future values of travel time rating for forecast years (ER2404)

In 2023, new key figures for travel time ratings were developed for passenger transport and freight transport. For passenger transport, there are indications that the current estimation method for future values for forecast years contains an excessively strong correction for wage cost developments. It is therefore necessary to rethink the estimation method for future values for the forecast years in consultation with CPB, PBL and RWS.



The value of accessibility (ER2203)



In the past, KiM calculated the social relevance of mobility. The method has some known limitations, such as the use of marginal travel time ratings and only being able to calculate a minimum threshold for the value. There is also demand for a completely new approach in which the accessibility rating is front and centre rather than the mobility rating. The report with insights into this aspect will be published in 2024.



Funding issues (ER2302)



Based on our previous research, KiM makes itself available to the Mobility Fund and MIRT & Spatial Planning departments as a sparring partner on issues relating to alternative funding. For example, what options are there to involve other parties in the funding process? How have other countries organised the funding of investments in mobility? What does this mean for the role of government?



Analysis frameworks for inputs to innovative mobility (ER2402)

The central government is regularly asked to provide incentives for mobility innovations. However, it is not easy to appraise innovative measures using customary evaluation methods because little is known about the social effects of innovations at an early stage. This makes it difficult to appraise the effectiveness of a central government contribution (in whatever form) to innovative mobility interventions. KiM engages in discussion of the alternatives to answer questions about social impact or effectiveness. We do this partly on the basis of analysis frameworks for central government contribution to innovations that have been prepared for other sectors.



Broad-based prosperity and mobility follow-up study (ER2201)

In 2021, KiM published a note memo on broad-based prosperity and mobility including improvement proposals for monitors and evaluation tools. In this context, KiM has since contributed to supplementing the broad-based prosperity monitor with meaningful indicators and the elaboration of distribution effects in the social cost-benefit analyses (SCBAs) of mobility investments. Furthermore, KiM delivers expertise in parallel studies in the field of broad-based prosperity. KiM also engages in discussions concerning the question of how broad-based prosperity can be responsibly incorporated into regular I&W policy, in I&W's ambitions, in monitoring, throughout a complete policy cycle, and when analysing problems in challenges.



Assessment method of mobility funding (ER2303)

I&W is developing a method to collect decision-making information about the various investment opportunities within the Mobility Fund (MF). This information will then be used in discussions with ministers and the House of Representatives to determine how funds from the generic investment pool of the Mobility Fund should be used. The method will help to facilitate uniform and structured assessment processes across the entire breadth of the ministry. The ISM directorate has established a focus group to obtain input from other parts of I&W. KiM participates in this focus group given its expertise in this field. Furthermore, KiM will deliver a substantive reflection on the assessment method in a memorandum in 2024.



Participatory Value Evaluation for MIRT projects (ER2322)

Participatory Value Evaluation (PWE) is a new method for evaluating policy options and for facilitating participation in policy development by large groups of citizens. The essence of PWE is that citizens can offer their opinions on a choice presented by a government authority through an online consultation, and can engage in the discussion around the distribution of resources. Recently, I&W commissioned a party to map out value that the methodology adds in relation to its use in MIRT projects. KiM participates in the focus group for this study.



'True pricing': internalising external costs (ER2326)

'True pricing' is back on the agenda. The aim of 'true pricing' is to use mobility policy to internalise the total cost of mobility (including external and infrastructure costs). In other words, the polluter pays. In addition to benefits (reduction of congestion and emissions), this also creates an option to utilise income from 'true pricing' for mobility policy. In a brief memo, KiM summarises the latest knowledge on internalising the external and infrastructure costs of mobility in the Netherlands. KiM also answers questions from I&W about the principles of internalising external costs, including advantages and disadvantages. In a related project (see ER2406), KiM also looks at the extent to which current measures (including taxes and levies) in passenger mobility already internalise external and infrastructure costs.



Mobility budgets on the radar (ER2403)

Two years ago, KiM took stock of the financial resources available for mobility at all levels of government, insofar as this was possible. It was a one-off activity. Due to operational changes within municipalities and provinces, it is difficult to determine how budgets are spent on mobility, if at all. Conversely, regional governments are asking for additional budgets. This raises questions about how we can gain more insight into mobility spending. In a preliminary study, KiM will take stock of the extent to which spending on mobility is currently on the radar, and how (and by whom) further insight into spending might be obtained.

6 Sustainable Mobility and Transport Directorate

Project	Number	Research line	Type	Long line*	Other directorates
Sustainability leisure travel	MB2307	A	Research	2 Sustainable	WV OVS LV
Effects of cycling on human health	DG2107	A	Research		
A better understanding of walking	MB2203	A	Research		
Walking Facts 2.0	MB2405	A	Research		
The cycle path of the future	MB2406	A	Research		M&G
Greening travel behaviour	MB2305	A	KaT		WV OVS LV
Effectiveness of cycling infrastructure	MB2407	A	KaT		
Cycling intensities on regional routes	MB2408	A	KaT		
Knowledge inputs for active modes	MG1603	A	KaT		
Cycling incentives by employers	MB2404	A	Preliminary study		
What measures can we take to prevent a carbon-neutral energy shortage?	DG2206	B	Research	2 Sustainable 3 Scarcity	
Does sustainability policy create more unequal accessibility?	DG2403	B	Research	1 Accessible 2 Sustainable	ISM
Experiences with trailers and electric cars	DG2305	B	Research		
Sustainability of electric mopeds or light mopeds	DG2402	B	Research		WV
Coping strategies when raw materials for biodiesel are scarce	DG2404	B	Research	2 Sustainable 3 Scarcity	
Transition charts for sustainable mobility	DG2221	B	KaT		
Cost and price development of renewable fuels for road transport	DG2404	B	KaT		
What impact does the rebound effect of efficiency measures in freight transport have on carbon reductions?	DG2405	B	KaT	2 Sustainable	WV
What consequences are there from the decline in financial support to EV?	DG2409	B	KaT		
Knowledge role in participatory processes	DG2410	B	KaT		Participation
What behaviour is associated with refuelling and recharging at service stations?	DG2306	B	Preliminary study		WV
Applying the 'doughnut model' to the mobility sector, as it stands and in the future	DG2406	B	Preliminary study	2 Sustainable 3 Scarcity	DGMI
What does a circular economy mean for freight transport?	DG2407	B	Preliminary study	2 Sustainable 4 Economics	DGMI

Facts about biofuels in the Netherlands and Europe	DG2408	B	Preliminary study	
Costs of cycling	ER2405	C	Research	1 Accessible



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
- 3 Scarcity and distribution of accessibility
- 4 Facilitating the economy



Sustainability leisure travel (MB2307)



In 2023, KiM conducted a preliminary study in which the carbon emissions for various types of leisure travel (holidays, shopping, etc.) were mapped out, and subsequently published a memo. In 2024, KiM will start a follow-up study to examine how and the extent to which leisure travellers can be influenced by the government. This concerns the choice of destination and the choice of mode of transport.



Effects of cycling on human health (DG2107)

In 2019 and 2020, KiM conducted research into the relationship between body mass index and active travel, and between health experience and active travel. To provide incentives for the effects on human health of more cycling, further insight is needed into the relationship between cycling and human health in general, but also between the benefits of cycling to employers in particular. For example, encouraging employees to cycle to work can have an effect on absenteeism, productivity and vitality. The National Institute for Public Health and the Environment (RIVM) studies the health effects of cycling and its added value for employers. KiM provides inputs to this research. Together with the Ministry of Health, Welfare and Sport (VWS), I&W is considering asking RIVM to study the effects on human health of the increasing use of e-bikes among young people. KiM will provide inputs in formulating the research question and elaborating the study itself.



A better understanding of walking (MB2203)

Compared to other modes of transport, there is relatively little insight into how many Dutch people walk, to which destinations, and motives for doing so. The ODIN national mobility survey shows that there more people were still walking places in 2022 than before the coronavirus pandemic. Incidentally, ODIN also has its limitations when it comes to recording walking activities. For example, not everyone reports the distance they walked to their parked car. In this project, KiM explores how insight into walking might be improved. The first step will be for KiM to study, in collaboration with research agencies, the extent to which a combination of research into mobility behaviour using an app (NVP, *Nederlands Verplaatsingspanel*, a Dutch national mobility tracking-app) and by means of questionnaires and diaries (KiM's own The Netherlands Mobility Panel (NMP) could provide additional information about walking.



Walking Facts 2.0 (MB2405)

The 'Walking Facts' brochure was published in 2019, before the coronavirus pandemic. During the pandemic, many Dutch people started to walk more, partly because many other activities were no longer possible. What is interesting in particular is that people walked a lot more than before the pandemic. Even in 2022, after the pandemic had ended and the measures had been lifted, the distance people walked was at a higher level than before the pandemic. For this reason in particular, KiM will update this brochure in 2024.



The cycle path of the future (MB2406)

A good cycling infrastructure is an essential criterion for cycling as part of a sustainable mobility system. In this project, KiM will examine how cycle paths, their use and people's experience of cycle paths and cycle routes has changed in recent years (speeds, types of bicycle, regulations and incidents) and take stock of the opportunities and threats there are if we wish to provide an impetus to cycling as far as possible by improving our cycling infrastructure. In particular, we will look at so-called 'cycling-through-routes' that can play a key role in encouraging cycling for daily commutes.



Greening travel behaviour (MB2305)

I&W is looking for measures that will help boost the sustainability of travel behaviour. This will look at both work-related and leisure travel. KiM will deliver knowledge inputs to this process and help supervise externally outsourced studies.



Effectiveness of cycling infrastructure (MB2407)

In 2024, the Sustainable Mobility and Transport Directorate intends to commission research into the effectiveness of the construction and adaptation of cycling infrastructure. This includes promoting the switch from driving to cycling through interventions in the cycling infrastructure. KiM will deliver knowledge inputs in this field, including previously conducted literature analyses and by indicating the right methods to use in such a study.



Cycling intensities on regional routes (MB2408)

The Sustainable Mobility and Transport Directorate currently has limited information on cycling intensities on regional routes. KiM will engage in discussions on how insight can be increased and will help supervise relevant research.



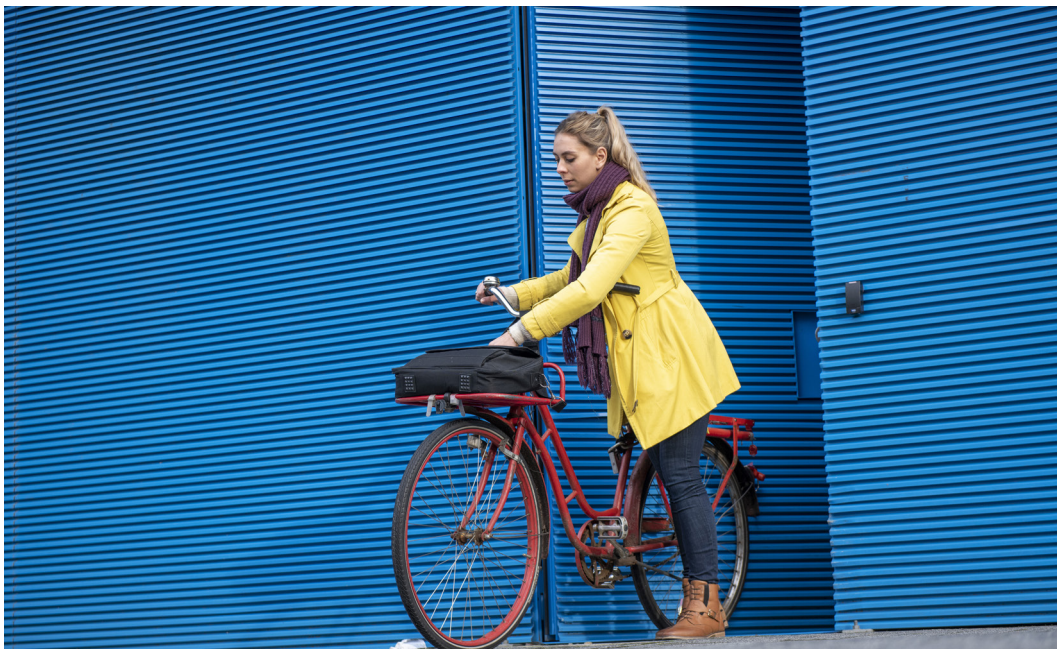
Knowledge inputs on active modes (MG1603)

Active modes of transport (cycling and walking) play a key role in our mobility system for short-distance accessibility. KiM is participating in a variety of activities with the goal of enriching policies on cycling and walking with data and analysis. This involves knowledge inputs into I&W's core team for Active Mobility and into collaborative efforts, such as the Cycling Community and the 'Space for Walking' platform. KiM also participates in the monitoring and evaluation of I&W's goals in the field of cycling and associated social costs and benefits. In 2024, this will include KaT in an update of a study into the equality of opportunity of groups in society when providing incentives for cycling, and the prospect of a study into the extent of the use of 'fat bikes' and the associated advantages and disadvantages.



Cycling incentives by employers (MB2404)

The Ministry has the ambition to further increase the sustainability of employees' travel behaviour in cooperation with employers. In 2018, a report was produced about existing initiatives aimed at employers to raise the sustainability of employee mobility by focusing on increased bicycle use. There is a need for an update: have new initiatives been added in the meantime; if so, are they effective and are there any knowledge gaps? KiM will prepare this update.





What measures can we take to prevent a carbon-neutral energy shortage? (DG2206)



If we want to maintain or grow our current level of mobility, and the energy required for this is to be carbon-neutral, the financial cost will be great and the space and (primary) energy requirements will be significant. This is evident from the study “Energy chains for carbon neutral mobility” (KiM, 2022). Based on the Trias Mobilica, KiM is studying the effectiveness, costs of and support for policy measures that can be used to avoid mobility (Avoid) and transition to more energy-efficient modalities (Shift) to prevent a shortage of carbon-neutral energy for mobility.



Does sustainability policy create more unequal accessibility? (DG2403)



Policies that focus on sustainability, such as Pay Per Use, Zero-Emission City Logistics, and encourage and offset electric vehicle (EV) use, help discourage the use of fossil fuel cars and raise the appeal of sustainable mobility. But what if someone does not have a choice? What if you cannot get to work without a car, but cannot afford an EV? KiM is investigating the size of the ‘sustainability gap’. Which groups have no access or only limited access to sustainable mobility (for example, for reasons of affordability) and what does that mean for them in terms of accessibility? KiM is also studying how I&W can improve access for these groups.



Experiences with trailers and electric cars (DG2305)

KiM’s broader preliminary study in 2023 into functionality thresholds of electric cars will lead to a research proposal with a focus on trailers. How useful do people consider electric cars when they need to tow a trailer? For example, towing a trailer or caravan is different in electric vehicles (EVs) compared to fossil fuel cars. At the same time, it is likely that the use of EVs will lead to a change in the behaviour of people who are now going on holiday by car. How big is the group of households that need to tow a trailer? How does owning and/or wanting to own a trailer influence the purchase and use of an EV??



Sustainability of electric mopeds or light mopeds (DG2402)

In 2021, KiM conducted research into the users, use and sustainability of light electric vehicles. This included both shared vehicles and privately owned vehicles. There is evidence that the sustainability of electric mopeds and light mopeds, especially the shared use variants, has improved in recent years. That is why KiM wants to re-examine the sustainability of electric mopeds and light mopeds, and their lifespan. We will focus on carbon emissions, but also touch on other sustainability aspects, such as air pollutants and depletion of rare scarce materials.





Coping strategies when raw materials for biodiesel are scarce (DG2404)

The new Renewable Energy Directive (RED-III) of the European Commission obliges fuel suppliers to deliver a greater proportion of biofuels for road transport in the Netherlands. It is expected that demand for (and the price of) biodiesel in particular, in the form of hydrotreated vegetable oil (HVO), will increase drastically towards 2030. One strategy to prevent the price increase is to reduce the dependence on biofuels based on animal fats. This could be done, for instance, by looking for other fuels, such as hydrogen, DME, bio-methanol or electricity. However, this would require modified internal combustion engines, or new types of engine. Another strategy may be to encourage the development of biodiesel based on other raw materials, such as wood and agricultural residues.

KiM is investigating the scarcity of raw materials for HVO. If relevant, the KiM will take stock of the advantages and disadvantages of various coping strategies, and explore which instruments I&W might use for this purpose.



Transition charts for sustainable mobility (DG2221)

The draft National Energy System Plan (NPE) was drawn up in 2023. KiM delivered inputs to the transition charts for sustainable mobility developed by the Netherlands Enterprise Agency (RVO) for the NPE. It is expected that this topic will also be relevant in the forthcoming period of government. KiM will deliver expertise concerning the NPE.



Cost and price development of renewable fuels for road transport (DG2404)

I&W wants to gain more a better understanding of the effects of renewable fuel policy on, carbon reduction, as well as the cost and price development of renewable fuels in road transport. I&W therefore commissioned a study and development of a dashboard to provide insight into the forecourt prices following the obligation to blend fuels. It also examines the interaction with other policy instruments, such as the Directorate for Road Freight Transport Charging, excise duties, ETS and accelerated electrification of road transport. KiM will inject expertise throughout this study as the dashboard is developed.



What impact does the rebound effect of efficiency measures in freight transport have on carbon reductions? (DG2405)

Freight transport must reduce carbon emissions to help achieve the climate challenge of combating global warming. Increasing the efficiency of freight transport is one of the interim solutions available. The question, however, is whether the additional transport capacity released by greater efficiencies would simply be used to transport even more goods. If it were, the carbon emissions reduction targets would not be achieved in that case. This is known as the rebound effect. KiM will deliver knowledge-at-the-table on the rebound effect on carbon emissions in freight transport in research that is currently underway.



What consequences are there from the decline in financial support to EV? (DG2409)

Financial support (both the subsidy scheme and the tax breaks) for EVs is currently being phased out. International research suggests that if the phasing out is not carefully managed, the EV market may collapse. What will happen in the Netherlands after the phase-out? Will people revert to fossil fuel cars en masse? Will the 2030 targets be met if that happens? KiM will contribute knowledge about the possible consequences.



Knowledge role in participatory processes (DG2410)

KiM will help to answer research questions that arise in participatory sessions. An example of this might be a Sustainable Mobility Citizens' Panel. There may also be a role for the Dutch Climate Research Initiative (KIN), whose role includes the pooling of knowledge in the field of climate.



What behaviour is associated with refuelling and recharging at service stations? (DG2306)

On the road to carbon neutral mobility by 2050, the supply at service stations will change from fossil fuels to fuels such as electricity. For the roadmap on service stations of the future, it is important to know how and where users will want to charge, and what the changing behaviour will mean for service stations. In this preliminary study, KiM will map out existing knowledge about this change in behaviour and its impact on service station design. The study will cover both passenger transport and freight transport.



Applying the 'doughnut model' to the mobility sector, as it stands and in the future (DG2406)

By mapping out the mobility system and its accessibility aspects, both conceptually and quantitatively, in the form of a [doughnut model](#) (Raworth, 2012), the challenges for ecological ceilings as well as social requirements will become visible. This will help us understand the (international) fairness aspects of the mobility transition and the options to keep mobility within the limits that our planet sets. In this preliminary study, KiM will examine the research viability of the prospect of action to act to stay within the doughnut boundaries. For example, KiM will examine dilemmas such as broad-based sustainability vs. what people need. Furthermore, it is important to take into account not only the climate, but also other earthly limitations, such as biodiversity and air pollution.

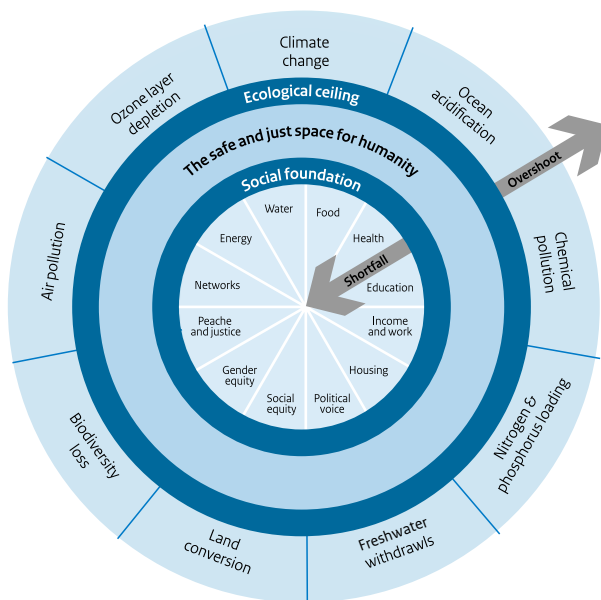


Figure 6.1 Example of a doughnut model with an upper threshold of ecological ceilings and a lower threshold of social needs



What does a circular economy mean for freight transport? (DG2407)

The central government is making efforts to achieve a circular economy (CE). CE assumes as much high-quality re-use of materials as possible, in accordance with the R ladder:

- reduce (materials)
- redesign (with a view to end of life)
- reuse (flexible use)
- repair and manufacturing (reuse of components)
- recycle (reuse of raw materials)
- recover (from waste)



KiM is investigating what CE will mean for freight transport. We are studying whether there will be a change in the logistics flows and whether research of this theme will be viable.



Facts about biofuels in the Netherlands and Europe (DG2408)

Biofuels will play a role in the transition to carbon neutral mobility by 2050. The new Renewable Energy Directive (RED-III) of the European Commission tightens regulations. In the discussion surrounding the use of raw materials, there are different understandings about availability within Europe and in the Netherlands in particular. Does biofuel compete with food for human consumption in Europe? And what options does agricultural practice in Europe and the Netherlands hold? In this preliminary study, we will examine whether KiM can establish the facts about this.



Costs of cycling (ER2405)

In this project, KiM will map out the costs of cycling mobility, both for the user and for the government. Since costs are an important factor in transport users' choice of mode of transport, it is helpful to have an understanding of the costs of cycling itself and compared to the costs of other modes of transport. Furthermore, cycling is seen as a possible solution to combat mobility or accessibility poverty. Whether this is will actually be the case also depends on the costs of bicycle ownership and use. KiM is also exploring options to influence the costs of cycling. Another part of the research focuses on government spending on cycling infrastructure. Is it possible to make a reliable estimate of how much is invested by all branches of government combined in cycling infrastructure per year? This information is not easily discernible from statistics, with the most recent estimate dating from 2010. A new assessment will therefore start with the collection of related studies.



7 Public Transport and Railway Directorate

Project	Number	Research line	Type	Long line*	Other directorates
Demand-driven public transport: experiences and opportunities	MB2211	A	Research	1 Accessible	
Opportunities for the Main Rail Network	MB2213	A	Research	1 Accessible 2 Sustainable	
Holiday coach travel	MB2411	A	Research	1 Accessible 2 Sustainable	WV LV
Revision of the TEN-T Regulation and rail transport	MB2310	A	KaT		
Bus Rapid Transit	MB2113	A	KaT		
International passenger transport	MB2210	A	KaT		LV WV
Car costs vs public transport costs	MB2214	A	KaT		WV
Revising priorities for the rail network	MB2311	A	KaT		
Monitoring and evaluation of additional financial resources for regional public transport	MB2409	A	KaT		
Distribution of passengers throughout the day and week	MB2410	A	KaT		
Public transport and rail innovation agenda	MB2413	A	KaT		
Vision on the Future of Public Transport in 2040 and monitoring	BR1420	A	KaT		
The influence of public transport frequencies on passenger demand	MB2412	A	Preliminary study		
Social effects of public transport	ER2209	C	Research	1 Accessible	
Social importance of rail freight transport	ER2304	C	Research	4 Economics	
Options for market organisation of the railways	ER2408	C	Research	1 Accessible	
Long-term vision of market regulation for the Main Rail Network	ER2229	C	KaT		
Policy assessment of accessibility allowances for public	ER2306	C	KaT		
The future of rail freight transport (Toekomstvisie spoorgoederenvervoer)	ER2307	C	KaT		
MIRT study of the Lely line	ER2227	C	KaT		



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
- 3 Scarcity and distribution of accessibility
- 4 Facilitating the economy



Demand-driven public transport: experiences and opportunities (MB2211)

Both within the regular public transport system and within Special Transport Services, demand-driven concepts can contribute to the effectiveness and efficiency of the system. Demand-driven public transport, for example, can form an alternative to scheduled bus services with low transport performance. Past experiences were often not very positive, especially in terms of financial viability. Nevertheless, several regions have recently started examining this: Groningen and Drenthe in the

Netherlands, the Flemish Region in Belgium, etc. In the US (e.g. Florida), there are also practical examples where ride hailing (subsidised) constitutes a form of demand-driven public transport (rides can be shared or solo). In this study, KiM will explore the social advantages and disadvantages of demand-driven public transport, and the factors that are relevant to success or failure. Here, KiM will explicitly address the connection with regular public transport and Special Transport Services arrangements. KiM will also study what role the central government can play in this.



Opportunities for the Main Rail Network (MB2213)



Although the use of trains has somewhat changed in character since the coronavirus pandemic, both domestic and international passenger transport and rail freight transport are likely to continue to grow in the coming years. Furthermore, there are ambitions both in the Netherlands and in the wider EU to give rail use a boost. The combination of organic growth and policy ambitions for all types of rail transport leads to dilemmas. In some cases, ambitions may be conflicting due to limited rail capacity. Large-scale infrastructural expansion of capacity is also no longer self-evident due to limited financial resources.

It is therefore relevant to ask what the most appropriate contribution is the railways can make to *'the right mobility in the right place and time'* and *'the frameworks for safety, health, living environment and sustainability'*, to cite the two key outlines of the Mobility Vision for 2050. If the network size is no longer increasing, how could we optimise the use of the rail network? What is rail particularly good at, compared to other modalities? And where does it fail to deliver? Is the most significant contribution in urban or regional travel, or, for example, in connecting outlying areas with the four largest Randstad conurbation in the west? Could rail be used more for freight transport to help reduce emissions? Or does committing to international rail transport to replace air travel offer the most social added value?

KiM will conduct exploratory research into possible answers and their underpinnings. The aim of this is to enable a well-substantiated conversation about the long-term future of the railways. In the long term, it is about the policy choices for the period after the current intended investments have been realised and beyond the end of the new Main Rail Network concession. In other words, from 2034 on.



Holiday coach travel (MB2411)



A very large proportion of the carbon emissions from mobility is caused by journeys longer than 50 km. There is a lot of policy and political attention for the transition from air travel to train travel to help reduce carbon emissions. Research by KiM and others shows that the options for substituting travelling by plane with train travel are limited. One of the reasons for this is that the number of destinations abroad that can be reached by train within a reasonable travel time is limited. In this project, KiM will study the extent to which long-distance coaches might prove to be a more important alternative to



flying. Especially if the coaches run on electricity, using the coach would offer a sustainable alternative to flying. However, the coach is currently not very popular for international travel. KiM will analyse why people choose to travel by coach for their international travel needs, and why they do not. KiM will then study what obstacles there are to making long-distance coaches a success, and what contribution the government could make to this. KiM will also examine possible changes in market regulation.



Revision of the TEN-T Regulation and rail transport (MB2310)

The European Commission's revision of the trans-European transport network (TEN-T) Regulation will have consequences for the size of the TEN-T network and the requirements imposed on the TEN-T network, not least for rail transport. When implementing this, KiM will provide knowledge-at-the-table.



Bus Rapid Transit (MB2113)

In 2020, KiM published a report on Bus Rapid Transit (BRT), a bus system in which buses travel at high frequencies and speeds, and which combines reliable travel times with a large transport capacity. Based on this report and other recent insights, KiM will provide knowledge-at-the-table with regard to BRT throughout the policy preparation process.



International passenger transport (MB2210)

I&W is working on a strategy for international passenger transport by rail. Given the scarce financial resources, it will be important to weigh the construction and expansion of infrastructure against other measures, such as improving the convenience of international travel. For example, improving the connection of timetables, improving reliable transfer options, and facilitating the purchase of international tickets. Incentivising the substitution of air travel by train travel is an important goal here. KiM will contribute knowledge about this substitution and about what motivates people to make certain choices when travelling to foreign destinations. KiM will base this on the study published by KiM in 2023 on the options for transitioning from aviation to rail by 2030 and 2040. KiM is also involved in Intraplan's ongoing study into an integrated model for international passenger transport.



Car costs vs public transport costs (MB2214)

The variable costs of a trip form an important factor for transport users when choosing between public transport and car. But the costs of the public transport for the user are less well understood by the government since the abolition of the prepaid paper travelcard and the ever-increasing rate differentiation in public transport. Even car owners do not always have a clear picture of what it actually costs to run a car. KiM is working with Statistics Netherlands and DOVA (alliance of decentralised public transport authorities) to help make the evolution of these costs more transparent to users. This insight will also be important for the study of the affordability of mobility (MB2304).



Revising priorities for the rail network (MB2311)

The Public Transport and Rail directorate (OVS) is working on a revision of the capacity distribution framework from 2025. KiM will provide knowledge-at-the-table. This is related to the development of the number of open access requests. When estimating this, KiM may also provide knowledge-at-the-table. Finally, KiM may contribute ideas on the question of what roles the government can play in capacity distribution issues in the future, and what impact the government can achieve with different possible roles.



Monitoring and evaluation of additional financial resources for regional public transport (MB2409)

From 2024, additional financial resources will be available for the public transport system. These will be used in part to mitigate fare increases and in part to improve the supply of public transport services. The Public Transport and Railways directorate wishes to monitor and evaluate the effects of the use of these additional resources. KiM will deliver expertise in the form of knowledge-at-the-table in relation to elements of the intended monitoring and evaluation and the necessary data.



Distribution of passengers throughout the day and week (MB2410)

I&W has promised the House of Representatives a study into the possibilities of distributing passengers over the day and over the week. This was in response to NS's (now withdrawn) plans for a rush hour charge. Details of how this study will be designed and who will conduct the research are currently unclear. KiM may be involved in formulating the question and in supervising the study.



Public transport and rail innovation agenda (MB2413)

Through knowledge-at-the-table, KiM will contribute to the innovation agenda of the Public Transport and Rail directorate.



Vision on the Future of Public Transport in 2040 and monitoring (BR1420)

KiM will provide knowledge-at-the-table in the ongoing recalibration of the [Vision on the Future of Public Transport 2040](#). Furthermore, KiM will deliver expertise for the monitoring of the objectives outlined in the future vision.



The influence of public transport frequencies on passenger demand (MB2412)

In this preliminary study, KiM will examine whether there are methods and data to better understand the effects of increasing public transport frequencies on passenger demand. Insight into this is important for the agreements to be made for public transport concessions.



Social effects of public transport (ER2209)

The Public Transport and Rail Directorate (OVS) wishes to check whether all the social effects of public transport measures are being accurately calculated in assessment framework. In 2009, KiM and CPB extensively considered whether all relevant social effects were adequately reflected in the then prevailing assessment frameworks (especially in the SCBA). Is there a need for updating, given how insights into public sector SCBAs have developed in recent years? What can public transport do for current government spending on climate, biodiversity and housing? Do we now know better than we did more than 10 years ago what effect a public transport intervention (for example, construction, maintenance, utilisation) will have on the economy? Are the benefits of measures that improve comfort rather than shorten the duration of the journey adequately reflected in policy considerations? What does the increased integrated nature of projects (public transport and spatial development) mean for the assessment methods?



Social importance of rail freight transport (ER2304)

In the context of the future vision of rail freight transport that OVS is preparing, OVS will ask KiM to describe the social interest of rail freight transport. KiM will use a broad-based concept of prosperity to map out the social importance. This means that the KiM does not constrain itself to economic aspects or the transport performance of rail freight transport, but will also be comparing external costs with those of other modalities. These include congestion, damage to infrastructure, air quality, climate, safety, the natural environment, quality of the living environment, noise, vibrations, and the distribution of the costs and benefits.



Options for market organisation of the railways (ER2408)

KiM will produce an overview report describing its research into market organisation of the railways (and, more broadly, of public transport), including scenarios depicting the advantages and disadvantages of various choices. We will do this against the background of the interdependencies and capacity limitations of the rail system. We do this to support I&W in the choices that will be made in the years to 2027, in the run-up to the award of the next Main Rail Network concession from 2034. Our work will include an (international) literature analysis supplemented with knowledge from the ACM (Netherlands Authority for Consumers and Markets) and from university experts.





Long-term vision of market regulation for the Main Rail Network (ER2229)

For the concession period from 2025 to 2033, I&W is committed to privately awarding transport on the Main Rail Network to NS on the basis of a transitional provision. The future market organisation of the Main Rail Network from 2034 is still unknown and will require much preparation in the coming years, not least by conducting research aimed at elaborating future scenarios and a market analysis. In addition to an overview report with design options (ER2408), KiM will deliver substantive expertise in a focus group.



Policy assessment of accessibility allowances for public (ER2306)

In 2024, Policy assessment of accessibility allowances for public transport will be subject to a policy review. These subsidies (in Dutch: *beschikbaarheidsvergoeding OV*) were paid to public transport companies during the coronavirus pandemic to enable them to continue to operate the agreed timetable despite drastically reduced passenger numbers. KiM will participate in the supervision group of the policy review study.



The future of rail freight transport (Toekomstvisie spoorgoederenvervoer) (ER2307)

I&W's future vision of rail freight transport (currently in preparation), will assess the possibilities and impossibilities of promoting rail freight transport nationally and internationally in the light of broader national and European policy objectives. In addition to the project on the social importance of rail freight transport (ER2304), KiM is available to engage in a focus group role on issues relating to the role of the government and the interests of citizens.



MIRT study of the Lely line (ER2227)

A MIRT study for the construction of the Lely Line railway got underway in 2023. The MIRT study is working to deliver an integrated development perspective and the necessary decision-making information for green lighting a MIRT exploratory study for the Lely Line railway. Part of this is insight into the extent to which the Lely Line will contribute to the broad-based prosperity objectives. KiM has accepted a seat in the Broad-based Prosperity focus group. The focus group's role is to assist the directorate in operationalising the concept of Broad-based Prosperity in the Lely Line project.

8 Roads and Traffic Safety Directorate, and Heavy Goods Vehicle Charge and Temporary Tolls Programme

Project	Number	Research line	Type	Long line*	Other directorates
Acceptable travel time, costs and convenience to achieve various (vital) functions	MB2414	A	Research	1 Accessible	ISM OVS M&G
New types of car availability	MB2315	A	Research	1 Accessible	
Is the BREVER law still valid?	MB2317	A	Research		
Traffic flow and behavioural measures	MB2313	A	KaT		ISM M&G
Mobility hubs	MB2415	A	KaT		OVS DuMo
Monitor on smart mobility	MB2115	A	KaT		
Knowledge inputs for smart mobility	MB2117	A	KaT		
The future prospects for car mobility	MB2015	A	KaT		
Social consequences of implementing Automated Driving Systems	MB2416	A	Preliminary study		
Climate adaptation of infrastructure: a cost-benefit analysis	ER2407	C	Research	2 Sustainable	DGWB DuMo
Financial incentives for modes of transport in passenger mobility	ER2406	C	Research	1 Accessible	
Basic level of quality for Rijkswaterstaat's networks	ER2310	C	KaT		ISM MZ OVS
Evaluation of the Heavy Goods Vehicle Charge and Temporary Tolls Programme	ER2311	C	KaT		
Periodic reporting of Article 14 of Roads and traffic safety	ER2312	C	KaT		



*Long lines

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Acceptable travel time, costs and convenience to achieve various (vital) functions (MB2414)



I&W's policy increasingly focuses on accessibility rather than mobility alone given that mobility is merely a means to reach jobs and amenities, for instance. The Mobility Vision 2050 Framework Memorandum therefore focuses on developing accessibility goals. To determine what these accessibility goals should be, we need to know what an acceptable level of accessibility is for transport users (in terms of time, costs and convenience), and how this acceptable level might differ between target groups and destinations. KiM will be examining this in this project.



New types of car availability (MB2315)



In 2022, KiM published an extensive study on car ownership. Numerous new forms of car availability are possible, such as private leasing, combined leasing and sharing options, and short-term leasing. In this follow-up project, KiM will explore:

- the development and potential of new forms of car availability in the Netherlands in the short and medium terms (2030);
- which factors influence this and what are the potential effects on, car use, for example;
- what could the government do to accelerate or slow down these new forms.



Is the BREVER law still valid? (MB2317)

The BREVER 'law' is a mobility principle that postulates that, on average, people always spend an almost constant amount of their time travelling. The question is whether this principle still holds true today, now that people have many more opportunities to work from home, for example, as a result of the digital transformation and the coronavirus pandemic.

How has travel time per person per day evolved over time? Is there a difference between groups? Trend-based data on the long-term evolution of travel time is required to obtain good insight. To this end, Statistics Netherlands is exploring the possibilities of updating the trend model for the evolution of the number of trips and the distance travelled, developed by CBS in collaboration with KiM, with estimates for travel time.

Possible additional questions will focus on the underlying explanation of these developments. For example, are people willing to move further away from their place of work because the commuting distance only needs to be travelled a couple of times a week? Is the commuting time saved by working from home filled with more leisure travel? The results of this study are relevant both for the operation of traffic and transport models and for policy regarding commuting and where people choose to live and work.



Traffic flow and behavioural measures (MB2313)

KiM delivers knowledge to the policy project for the Mobility Fund Reprioritisation/MIRT. This project will explore the possibilities for non-infrastructure measures to improve traffic flows. It is important to have the best possible picture of the effectiveness of these measures. KiM uses knowledge-at-the-table to visualise the effectiveness of various alternative measures. We do this, among other things, by taking stock of available knowledge in the literature.



Mobility hubs (MB2415)

Hubs could play a role in incentivising the use of public transport and cycling in general, and multimodal journeys in particular (where the unimodal car journey is replaced by a combination of public transport and cycling). KiM has studied this concept in the past: mobility hub, the various forms of hubs, possible inputs to policy goals and the options available to government to shape the development and use of hubs. In this project, KiM will deliver knowledge to further policy elaboration around hubs, based on our previously published study.



Monitor on smart mobility (MB2115)

I&W has developed a Smart Mobility monitor, aimed at developments in the use of mobility services (and shared mobility solutions) and its effects. The aim of the monitor is to keep track of the developments in supply and use, and how the policy objectives are influenced by these developments. KiM is involved in the implementation, further elaboration and application of this monitor.



Knowledge inputs for smart mobility (MB2117)

I&W and other parties are joining forces in the field of smart mobility. An advisory board of experts reflects on how to visualise the effects of smart mobility measures on the objectives of I&W, and examines what knowledge is needed to formulate effective policy. KiM participates in this group. Furthermore, I&W has commissioned research into the costs of smart mobility and who pays for it (the motorist, the car industry and/or the government). KiM participates in the supervision of this research.



The future prospects for car mobility (MB2015)

In 2023, an agenda for policy action upon the future prospects of car mobility was published. This is now being fleshed out in more detail. In-depth research is being carried out into the development of the primary road network and into the relationship between vehicles and their users. KiM is contributing its knowledge to this.



Social consequences of implementing Automated Driving Systems (MB2416)

In the coming decades, the gradual introduction of automated driving systems (ADS) is likely to continue. In this preliminary study, KiM explores the possibilities of studying the social consequences of the implementation of ADS. This concerns, for instance, consequences for the use of vehicles by people who are now unable to drive a car independently, the need for changes in driver training, and possible spatial planning implications. KiM distinguishes between driving support systems that are already available and systems that will take over even more tasks from the driver in the future. This research is complementary to research by TNO, which focuses on the road safety aspects of ADS.



Climate adaptation of infrastructure: a cost-benefit analysis (ER2407)

How can you assess the differences between making infrastructure climate-proof in advance and adapting it later and repairing the damage? Much research is being conducted into the development of measures for adapting to climate change, and an assessment method is also available. However, there are limited cases in which the costs of investing now are compared with the costs of nuisance and damage later. It is also not entirely clear how such an assessment might lead to other decisions. KiM will elaborate one or two cases. This may provide further insight into the advantages and disadvantages of preventive measures versus postponement.



Financial incentives for modes of transport in passenger mobility (ER2406)

The government provides financial incentives that influence the use of mobility. These incentives are based in tax policies (for example, vehicle registration tax (BPM), excise duties, but also privileges such as tax exemptions). In this study, KiM analyses the current financial incentives that the government gives for the use of various modes of passenger transport, and shows the relationship between the social costs of using the various transport modes. KiM also makes connections with other questions about internalising external costs (ER2326). With this knowledge, it will be possible to develop (additional) policy on internalising the external costs of personal mobility.



Basic level of quality for Rijkswaterstaat's networks (ER2310)

I&W has defined a basic quality level for the networks of Rijkswaterstaat, i.e. for the main water system, the main navigable waterway network and the primary road network. Determining a basic quality level of networks is intended as a step towards a stable and long-term maintenance level with a quality standard that users can count on, and that is equipped for future developments such as climate change. KiM will deliver knowledge-at-the-table for the primary road network and the main navigable waterway network. KiM will also deliver knowledge in respect of similar questions relating to the Main Rail Network.



Evaluation of the Heavy Goods Vehicle Charge and Temporary Tolls Programme (ER2311)

In 2024, the evaluation of the Heavy Goods Vehicle Charge and Temporary Tolls Programme will begin. KiM was asked to deliver knowledge of evaluation methods of the mobility effects of policy through its participation in an advisory board.



Periodic reporting of Article 14 of Roads and traffic safety (ER2312)

Each policy article is reviewed and evaluated approximately once every six years with regard to the effectiveness and efficiency of the intended policy measures. In 2024, the Periodic Reporting (formerly policy review) of Article 14 Roads and Road Safety will be completed. KiM participates in the supervisory committee.

9 Mobility and Regions Directorate and Ministry of the Interior and Kingdom Relations

Project	Number	Research line	Type	Long line*	Other directorates
Towards a coherent set of policy instruments for a future-proof mobility system	MB2417	A	Research	1 Accessible 2 Sustainable	ISM WV OVS
How does urban working affect the region?	DG2412	B	Preliminary study	1 Accessible	ISM
Inclusive distribution	ER2409	C	Research	3 Scarcity	ISM
Investment logic: from IMA to MIRT	ER2410	C	KaT		
Expert session on the Environmental Impact Assessment of the Spatial Planning Memorandum	DG2411	B	KaT		(BZK)



*Long lines

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Towards a coherent set of policy instruments for a future-proof mobility system (MB2417)



In recent years, KiM has conducted a lot of research into effective and less effective policy instruments around spatial planning developments, active mobility, shared mobility solutions, hubs, MaaS, parking and smart mobility. These policy instruments influence each other and together could contribute to the transition to a future-proof mobility system. There is also the risk of instruments working against each other. In this project, KiM will outline how these instruments influence each other and how a combination of these instruments could be used effectively. In doing so, KiM will draw on various previous studies, finding the red threads in the results of these studies.



How does urban working affect the region? (DG2412)



In an increasingly urbanised Netherlands, a key question is how the spatial distribution of workplaces in relation to residential locations - and the associated mobility - can be influenced in such a way that urban regions maintain or attain the quality of their living and economic environments. In this preliminary study, KiM will explore the viability of study into where people work in urban areas, how they go to work and how the quality of the living environment can be stimulated as much as possible in connection with mobility. KiM will examine both the mobility side (alternative mode of transport to the workplace) and the spatial planning side (an alternative spatial distribution of workplaces).



Inclusive distribution (ER2409)

Within central government and the region, the focus on inclusion and fairness in mobility policy is growing sharply. Increasingly, therefore, the question asked is which regions and which groups are gaining or losing accessibility as a result of a given package of measures or infrastructure intervention, and whether or not it contributes to inclusion and a fair mobility policy. To date, the implicit starting point of projects has been that the total accessibility in terms of travel time and costs must improve. Methods and models have therefore mainly been designed and used for this purpose. The distribution of accessibility between groups is not yet the focus of attention by default. Similarly, trips not made due to excessive costs are also not included in the picture. In this project, KiM will investigate whether and how current and new traffic modelling and applications might provide insight into the distributional effects of interventions and projects. Based on some specific cases, KiM will first show what decision-making information this yields, and will then examine how this fulfils the desire to make normative statements about inclusion and fairness.



Investment logic of MIRT (ER2410)

The shift in MIRT from bottleneck analysis to integrated accessibility goals means that solutions broader than mere infrastructure and mobility interventions will have to be explored. The question is to what extent current frameworks and instruments (such as IMA, SCBA, MIRT rules) are suitable for reaching a balanced investment decision for this broadening of the scope. KiM will deliver knowledge inputs on assessing instruments on an ad hoc basis.



Expert session on the Environmental Impact Assessment of the Spatial Planning Memorandum (DG2411)

Ministry of the Interior and Kingdom Relations has asked KiM to provide knowledge-at-the-table for the Environmental Impact Assessment in the planning phase of the Spatial Planning Memorandum. KiM will deliver knowledge about mobility during a digital session for the purpose of impact assessments.

10 Civil Aviation Directorate, and Schiphol Airport Programme

Project	Number	Research line	Type	Long line*	Other directorates
Structural changes in the demand for aviation?	MB2418	A	Research		
Air freight	MB2207	A	Research		
The propensity to travel by air	MB2209	A	Research		
The importance of direct flights	MB2318	A	Research	1 Accessible	
Aeolus	B1014	A	KaT		
Knowledge agenda on aviation policy	MB2419	A	KaT		
The role of government in the energy transition of airports	DG2311	B	Research	2 Sustainable 3 Scarcity	
Establishing a CO ₂ ceiling for Dutch aviation	DG2127	B	KaT		
Aviation innovation strategy roadmaps	DG2416	B	KaT		
Airport policy for regional airports and economic impact	ER2104	C	KaT	4 Economics	
The comparative pricing of journeys by air and rail	ER2412	C	KaT		
Assessment method for new aviation noise abatement system	ER2416	C	KaT		
Follow-up to the research agenda of the guide for aviation-specific SCBAs	ER2221	C	KaT		
Periodic reporting of Article 17 Aviation	ER2325	C	KaT		



*Long lines

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4 Facilitating the economy



Structural changes in the demand for aviation? (MB2418)

During the coronavirus pandemic, there was a major decline in air traffic worldwide. In early 2022, all coronavirus measures were lifted in the Netherlands. The distance travelled by Dutch people by plane rose sharply again in 2022, but was still below the level of 2019. KiM will investigate in this project whether there have been structural changes in the demand for air travel, for example, as a result of less air travel for business. If this is the case, KiM will also investigate the causes of this. Issues covered will include the coronavirus pandemic, the increase in the aviation duties, etc. The results of this research are important, among other things, for preparing forecasts for the development of aviation in the medium to long terms.



Air freight (MB2207)

In this research project, KiM analyses the size, composition and social and economic importance of air freight via Dutch airports and the developments herein. It also examines the social consequences for the Netherlands in the event of the (partial) loss of air freight, either to other airports or to rail. Air freight is a relatively small segment of freight transport overall, but it often involves high-quality and time-critical products. A lot of air freight is transported in unused cargo space in passenger aircraft ('belly freight'), which makes the capacity highly dependent on the volume and destinations of passenger air services. Some air freight is actually transported by road ('trucking').



The propensity to travel by air (MB2209)

In 2010, 2013 and 2016, KiM conducted research into the inclination of Dutch passengers to travel by air and their airport choices. See also the factsheet 'The Flying Dutchman'. In it, KiM describes which members of the Dutch population travel by air, where they go and what their travel motive is. But KiM also examined how the Dutch choose their flights as well as those who choose not to travel by air and why. In 2024, KiM wishes to repeat this study, not least because of possible behavioural changes as a result of the coronavirus pandemic and developments around aviation duties.



The importance of direct flights (MB2318)



The assumed importance of direct flights from Schiphol plays a prominent role in discussions about the size of Schiphol. In this project, KiM studies the extent to which travellers consider direct flights to the airport at their final destination important. The study includes an analysis of developments in the relationship between direct and indirect flights to and from the Netherlands, and an analysis of developments people's experience of layovers: have layovers become easier, for instance, due to better information provision, more comfort, shorter waiting times and entertainment? And how important are the differences between direct and indirect flights for travellers?



Aeolus (B1014)

KiM contributes knowledge to managing and further developing the Aeolus model and its application in new aviation forecasting.



Aviation policy knowledge agenda (MB2419)

The Civil Aviation Directorate will prepare a knowledge agenda setting out the priorities in knowledge development for the coming years. KiM will engage by delivering knowledge-at-the-table throughout the preparation of this agenda.



The role of government in the energy transition of airports (DG2311)



The aviation sector is switching to other energy sources to make the energy supply more sustainable, such as electricity, hydrogen or synthetic kerosene. The switch to a different energy supply means a change for airports. Fuels will have to be produced close to the airport or transported, stored, distributed and bunkered at a remote site. I&W has commissioned three different sub-studies with various research partners to obtain a better understanding of the developments in this area. KiM will deliver knowledge-at-the-table in the ongoing I&W studies.

I&W wished to discover what the role of the government should be in the transition from airports to a future energy hub. KiM is conducting research into this role.



Establishing a CO₂ ceiling for Dutch aviation (DG2127)

In the [Civil Aviation Policy Memorandum 2020-2050](#), the government has said that it would elaborate a carbon ceiling for aviation. I&W is working on a legislative proposal for the CO₂ ceiling. KiM will deliver knowledge-at-the-table for this process.



Aviation innovation strategy roadmaps (DG2416)

In 2023, I&W published the aviation innovation strategy to set out the direction for technological innovation. This strategy comes together in an overarching programme, which I&W and the Dutch aviation sector will implement together over the coming decades. A programmatic approach makes it possible to identify these new opportunities and determine whether they contribute to the set goals. KiM was asked to participate in the focus group to reflect on the programme.



Airport policy for regional airports and economic impact (ER2104)



The central government sets airport policies for the regional airports of Groningen, Maastricht and Rotterdam, and assesses the social and economic justification of the importance of the regional airports. KiM is available to answer questions about the social and economic underpinnings that the regional airports draw up.

Additional research may be required depending on how the substantiation is assessed. For instance, research into the impact on the region, the composition of the passenger cohort or the importance of training flights and general aviation. KiM will be engaged in discussion of the potential implementation of follow-up research.



The comparative pricing of journeys by air and rail (ER2412)

When comparing ticket prices as well as the external costs of air travel and train travel, the Civil Aviation Directorate encounters a number of issues. For instance, concerning energy generation, the extent to which some costs have already been incorporated into ticket prices, and the assumptions in the field of future sustainable aviation. KiM will deliver knowledge-at-the-table in the discussion of questions that present.



Assessment method for new aviation noise abatement system (ER2416)

The [Civil Aviation Policy Memorandum 2020-2050](#) announced that a new system of rules and interventions must be introduced to help combat noise pollution around airports. KiM advises on evaluation questions. This is specifically not about knowledge about noise impact, but about the knowledge of analysis frameworks for policy instruments.



Follow-up to the research agenda of the guide for aviation-specific SCBAs

At the request of Civil Aviation Directorate, KiM will offer support for research projects that have been outsourced in the framework of the research agenda of the guide for aviation-specific social cost-benefit analyses (SCBA). In the meantime, most of the planned studies have been completed and the question now is which insights are relevant for a possible modification of the guide for aviation-specific SCBAs.



Periodic reporting of Article 17 Aviation (ER2325)

Each policy article is reviewed and evaluated approximately once every six years with regard to the effectiveness and efficiency of the intended policy measures. This study into Article 17 Aviation will be completed in 2024. KiM participates in the supervisory committee.

11 Maritime Affairs Directorate

Project	Number	Research line	Type	Long line*	Other directorates
Freight transport agenda update	MB2321	A	KaT		WV OVS
Import, export and transit trade statistics	DM1717	A	KaT		WV OVS
How can we accelerate the transition to sustainability for maritime shipping in the Netherlands?	DG2315	B	Research	2 Sustainable	
What instruments are available to help make small ships more sustainable?	DG2413	B	Research	2 Sustainable	
What post-fossil scenarios are there for Dutch seaports?	DG2414	B	Research	2 Sustainable 4 Economics	
Can the conditions for the transition to a carbon-neutral inland navigation sector be set on time?	DG2314	B	Research	2 Sustainable	
What consequences are there from participation in the ETS-2 for inland shipping?	DG2415	B	KaT		
Surveying the future of bunkering fuel for ships in the Port of Rotterdam	DG2316	B	Preliminary study	2 Sustainable	
Modal shift in freight transport: barriers, long-term instruments and evaluation	ER2318	C	Research	4 Economics	WV OVS
'Nederland Distributieland' revisited?	ER2414	C	Research	4 Economics	ISM DuMo WV OVS
Future of Inland Waterways Transport action agenda	ER2319	C	KaT		
Control function and economic value of digitising freight transport	ER2011	C	KaT	4 Economics	WV OVS
Hands-on modal shift programme for freight transport	ER2218	C	KaT		WV OVS
Freight corridor programmes	ER2317	C	KaT		WV OVS
Developing a policy framework for pipelines	MM1802	C	KaT		
Quality impulse for maritime monitoring and evaluation	EA1614	C	KaT		
Consequences of drought on navigable waterways for economy and infrastructure policy	ER2315	C	Preliminary study	1 Accessible 4 Economics	
Freight transport: security of supply and resilience	ER2413	C	Preliminary study	4 Economics	ISM OVS WV
Causality of maritime policy and policy goals	ER2320	C	Preliminary study		



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
- 3 Scarcity and distribution of accessibility
- 4 Facilitating the economy



Freight transport agenda update (MB2321)

I&W is studying a recalibration of the freight transport agenda. This recalibration is necessary due to new developments, disruptions and transitions. The recalibration will strengthen the commitment to an efficient, resilient and sustainable multimodal freight transport system. KiM will deliver knowledge to this process.



Import, export and transit trade statistics (DM1717)

Statistics Netherlands (CBS) compiles the so-called import, export and transit statistics on behalf of I&W. The import, export and transit statistics provide quantitative insight into the volumes and compositions of annual international goods flows from, to and through the Netherlands, both in terms of value and weight of the goods. KiM uses the data from these statistics for the Mobility Report and in social cost-benefit analyses to determine the link between international goods flows and the Dutch economy. In concert with other commissioning parties DGLM and Rijkswaterstaat, KiM will supervise the work of Statistics Netherlands and test its results.



How can we accelerate the transition to sustainability for maritime shipping? (DG2315)



The Maritime Affairs Directorate wishes to explore how national policy, in addition to international policy (EU, IMO), can accelerate or support the sustainability of Dutch shipping. There is therefore a need for knowledge about the barriers and opportunities for Dutch shipping firms in making their fleet more sustainable. Those barriers and opportunities are the key points that will need to be addressed when designing a policy mix. To determine the focus of this project, KiM will first analyse the research outcomes of the Maritime Shipping Fuel Transition Roadmap, to ensure that this study complements the Roadmap. One possibility, for example, is that KiM will elaborate the action prospects stated in the Roadmap. In any case, KiM will examine whether there are countries where a national policy instrument for making Maritime shipping more sustainable has already been developed.



What instruments are available to help make small ships more sustainable? (DG2413)



Small ships (up to 400 gross tons) are a very diverse part of the Dutch fleet. These are not inland vessels but, for example, the Wadden Sea Fleet with ships for passenger transport and fishing and maintenance vessels for wind farms. Small ships can switch to other fuels more easily than large ships. This opens up specific solutions to make these ships more sustainable faster than large ships. KiM is examining which



instruments are available for this purpose. Here, we also look at current trends in the development of the fleet and what tests and learning experiences can be gained for the sustainability of larger ships.



What post-fossil scenarios are there for Dutch seaports? (DG2414)

What scenarios are there for Dutch seaports after the tax exemptions (popularly known as ‘fossil subsidies’) have been phased out? KiM is examining the economic effects of the phase-out of subsidies, especially if phased out faster than in neighbouring countries. Furthermore, KiM is examining what opportunities this phase-out may bring with regard to carbon-neutral fuels.



Can the conditions for the transition to a carbon-neutral inland navigation sector be set on time? (DG2314)

Within discussions on the energy transition, the question has arisen of whether the conditions for creating a carbon-neutral inland shipping sector can be set on time. For example, will sufficient batteries be available for inland shipping, and is there sufficient space at the available terminals to store hydrogen? This research project focuses on batteries, hydrogen, biofuels and methanol. Ammonia is a less obvious solution due to safety risks and nitrogen deposition issues. KiM is surveying potential bottlenecks in supplying carbon-neutral fuels (hydrogen, batteries/electric, biofuels, methanol) for inland shipping. The KiM is also studying whether the inland shipping fleet is implementing sustainability goals fast enough, with a view to the 2050 targets. Which policy instruments have been used in the Netherlands and neighbouring countries? And what governance arrangements are there between private and public parties in the Netherlands and neighbouring countries?



What consequences are there from participation in the ETS-2 for inland shipping? (DG2415)

ETS-2 is the new emissions trading system within the EU. KiM has been involved in this since 2021; first by conducting research into external effects and later in the preparation of the BNC document. The EU ETS-2 Directive makes it possible inland shipping to be included in this scheme. The Netherlands wants to make use of this opt-in, but Belgium does not, for instance. Because ETS-2 targets fuel suppliers (rather than shipping firms, as in the ETS maritime), inland shipping would be able to bypass the opt-in by refuelling in Belgium. KiM will deliver knowledge-at-the-table for studies into these kinds of consequences.



Surveying the future of bunkering fuel for ships in the Port of Rotterdam (DG2316)

Each year, a huge amount of marine fossil fuel is taken on by vessels in the Port of Rotterdam (about 500 PJ). This is because of the strategic location of Rotterdam for international shipping and the proximity of refineries. In an (envisioned) fossil-free future, Rotterdam as a bunker location will possibly come under pressure. Marine fossil fuel will then have to be replaced by a carbon-neutral alternative. The KiM study “Energy chains for carbon neutral mobility” (KiM, 2022) shows that, due to space restrictions, it is not feasible to produce 500PJ of synthetic fuels in the Netherlands. Synthetic fuel and biofuel imports are a more likely scenario, both as fuels that can be immediately loaded and as energy forms that first have to undergo some kind of processing. At present, CE Delft and The Hague Centre for Strategic Studies are working on a study commissioned by I&W to find out what effects sanctions against Russia could have on the supply of renewable fuels and hence on carbon targets. KiM is conducting a preliminary study into the remaining questions about the effects of synthetic fuels and biofuels on the bunker market in Rotterdam.



Modal shift in freight transport: barriers, long-term instruments and evaluation (ER2318)

At the beginning of 2023 KiM completed a study of what modal shift policy – from road transport to inland shipping and rail – could mean for freight transport in the Netherlands in terms of reducing negative external effects. Theoretically, a shift would be needed where the transport costs for rail and



inland shipping are significantly lower than for road haulage. This study raises the follow-up question: where are the barriers blocking full realisation of the potential of this modal shift? In a compact KiM memo, we will collect insights from the various studies already conducted on this issue, and we will set out what is known about the effectiveness of modal shift tools. Based on this, we will examine where additional research would be useful.



'Nederland Distributieland' revisited? (ER2414)



The vision 'Nederland Distributieland' is committed to a key role for the Netherlands in the transit (import and re-export) of goods. In addition to economic benefits, however, there are also detrimental effects, such as space requirements, energy consumption and emissions. A critical report on the 'containerisation' of the Netherlands as a result of the construction of distribution centres, by the Board of Government Advisors, gives cause to think about both the positive and negative sides of the strongly internationally oriented distribution sector. What does the Netherlands actually earn from all these flows of goods passing through our country? Do the benefits outweigh the disadvantages? KiM will analyse the social costs and benefits in a balanced way. In the first instance, we will examine international distribution centres and, possibly in a second phase, broaden the scope to examine the logistics sector as a whole.



Future of Inland Waterways Transport action agenda (ER2319)

Future of Inland Waterways Transport action agenda will be presented to the House of Representatives in due course (late 2023). The action agenda includes the Inland waterways transport round table; this elaborates questions by theme concerning the future of the sector (for example, the economic position of the inland navigation sector and nautical safety). KiM will engage in relevant discussions where it possesses appropriate expertise.



Control function and economic value of digitising freight transport (ER2011)

I&W is committed to a digitising strategy for freight transport. A programme already exists based on three pillars: government data must be in good order; public-private partnerships; and encouraging companies to set up basic data infrastructure. One research question deals with the role of government in relation to private port initiatives. Does digitising freight transformation of freight transport demand a different role for government? For example, as the impartial compiler of private data? What are the social benefits of digitising freight transport that transcend private interests? KiM will advise on the issues at hand.



Hands-on modal shift programme for freight transport (ER2218)

I&W has taken stock of the practical obstacles and possible solutions for a modal shift from freight transport by road to freight transport by inland shipping (or rail). The data and findings are now being explored further. KiM will deliver knowledge to this process. In 2024, we will participate in regular consultations and in the supervision of sub-studies of the ‘hands on’ modal shift programme, for example, the policy evaluation aimed at multimodal freight transport.



Programmes for freight corridors (ER2317)

The challenges of accessibility and sustainability in MIRT programmes demand a comprehensive approach to all modalities. They also demand partnering with other governments and private parties. The same holds true for the MIRT programmes and MIRT studies for freight corridors. This allows accessibility challenges to be comprehensively tackled, in partnership with other governments and private parties. The goal is an optimal, sustainable modal split of all freight flows. This knowledge-at-the-table project consists of supporting the freight corridor programmes, particularly the south-east and east corridors, with useable knowledge and expertise. This also includes a substantive engagement in outsourced studies, such as research into future-proof infrastructure and research into the monitoring and evaluation of the programmes. In the North and Northeast of the Netherlands, an integrated approach is needed to investments for the benefit of freight transport, such as a corridor approach as it exists for other regions. This may be something that a later government picks up. It is an organisational issue but may require some research questions to be answered. If a corridor approach for the North becomes relevant, KiM can advise on an ad hoc basis.



Developing a policy framework for pipelines (MM1802)

KiM is supplying knowledge inputs to the Maritime Affairs Directorate on pipeline transport questions dealing with the potential use, social costs and benefits (the Delta corridor), and the role of I&W. In particular, KiM will advise throughout 2024 on the further development of the policy framework for pipelines, with a particular focus on assessing the costs and benefits of the broader use of pipelines in the transport system.



Quality impulse for maritime monitoring and evaluation (EA1614)

KiM advises on the implementation of various maritime monitoring tools.



Consequences of drought on navigable waterways for economy and infrastructure policy (ER2315)



The Dutch inland waterways are increasingly facing longer periods of drought and low water levels. This means an inland vessel can carry less cargo per journey. KiM will prepare an overview of available studies on the consequences of prolonged drought for the use of inland shipping from a shipping firm’s perspective. What do shipping firms in the various sectors observe during a prolonged drought, and what actions do they take? What are the long-term consequences for the Dutch economy of successive years of drought problems on the waterways? What measures can the central government take? And what does this mean for infrastructure policy: how do you make choices about conservation (which waterways, which criteria)? Are there any other measures that the central government can take?



Freight transport: security of supply and resilience (ER2413)

Freight transport is increasingly facing external threats. For example, inland shipping can be blocked for extended periods of time due to human error or extreme weather. Or the port of Rotterdam may have to deal with a malicious hack by an enemy nation. How well would the freight transport sector be able to cope with these types of disruptions? Given the experiences with the coronavirus pandemic and the energy crisis, for instance, guaranteeing the security of supply of goods, but especially of vital goods, has come high on the agenda. A resilient freight transport system is an essential building block in this. The significance of the topics of security of supply and resilience of freight transport has been elaborated by the Multimodal Freight Transport and Pipelines Department (MGB). This raises some research questions. Possible questions include: how to increase the interchangeability between modalities in daily operations and in the event of an emergency; how to increase the security of supply in priority goods flows; what are priority goods flows and what choices can be made; how to deal with disruptions (for example in relation to adapting to climate change and cybersecurity). KiM will take stock of the relevant research questions in a preliminary study.



Causality of maritime policy and policy goals (ER2320)

In the Policy Review of Article 18 Shipping and Ports carried out in 2022, it was ultimately not possible to make any pronouncements on the efficiency and effectiveness of the policy. Determining a causal relationship between current maritime policy and outcome in terms of indicators, such as added value or employment, is difficult. Often we lack a clearly formulated objective, an indicator or quantitative data. In support, KiM is researching existing studies measuring taxation, crew and fleet policies, and incorporating insights from other countries and from other policy domains into its research, where relevant. In 2024, we will round off this project with suggestions for improvement and a conclusion on the measurability of maritime policy.

12 Strategy Department and Financial Affairs Department

Project	Number	Research line	Type	Long line*	Other directorates
Exploratory study for coherent spatial planning, industrial, housing and mobility policies	MB2420	A	Research		
Knowledge inputs for the I&W Behavioural Insights Team (BIT)	DG2319	B	KaT		
Quality assurance and consistency of analytic instruments for SCBAs	E712	C	KaT		all I&W directorates
Follow-up to discount rate working group	ER2119	C	KaT		
Improving budget quality and accountability	ER2121	C	KaT		



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
- 3 Scarcity and distribution of accessibility
- 4 Facilitating the economy



Exploratory study for coherent spatial planning, industrial, housing and mobility policies (MB2420)

In the coming years, major changes will take place in the Netherlands in policy areas with a spatial planning component. A quantitative picture of the spatial planning future of the Netherlands, elaborated in various scenarios, is important for decision-making on infrastructure investments. The Strategy Department wishes to ask the policy analysis bureaus to draw up these scenarios, including the driving forces behind the developments and key uncertainties. Following on from this, KiM will be able to compile possible strategies for mobility, accessibility and infrastructure, taking into account the KNMI's new climate scenarios. KiM can then focus on no-regret options (which are useful in any scenario) and potential political choices that can be made with a degree of uncertainty.



Knowledge inputs for the I&W Behavioural Insights Team (BIT) (DG2319)

BIT I&W is a network of knowledge institutions, renowned behavioural scientists and practical experts in the field of behaviour, with I&W as its home base. KiM participates in knowledge sharing within the core team. Policy and behaviour are inextricably linked. BIT contributes to themes, such as the circular economy, adapting to climate change, and smart & green mobility. KiM is contributing its knowledge to this.



Quality assurance and consistency of analytic instruments for SCBAs (E712)

KiM helps safeguard the quality and consistency of the social cost-benefit analysis (SCBA). For example, KiM makes information about the SCBA available to policy staff and contributes to conferences, lectures and courses in this area. KiM also hosts the secretariat of the interdepartmental SCBA core team which coordinates all cross-ministerial aspects (agreed procedures, calculation methods and key figures to be used) of the SCBA. Finally, KiM takes part in the so-called key figures consultation with other knowledge partners, such as RWS, PBL and CPB on the key valuation figures applied during SCBA processes.



Follow-up to discount rate working group (ER2119)

In 2020, a discount rate for public investment was re-established. The working group uses a capital add-on factor based on an assumption for infrastructure projects. This is because the high fixed costs may not be recovered in another way, if the use of the infrastructure turned out lower than expectation. In response to the report of the discount rate working group, KiM is drafting a research approach for quantifying non-standard capital add-ons for transport infrastructure. This will be fine-tuned during an expert session. The issue raises the question, how much does transport infrastructure deviate from average government investments? The research approach may be used as the basis for commissioning further studies. In view of the expected in-depth knowledge of financial markets required, KiM is not the obvious party to conduct such studies. It is also possible that the expert session will take a decision to discontinue further research.



Improving budget quality and accountability (ER2121)

In addition to coordination with the Financial Affairs Department (FEZ) about other systems for policy reviews, KiM is participating in a ministry-wide policy evaluation committee set up in 2020.

13 Directorate-General for Water and Soil

Project	Number	Research line	Type	Long line*	Other directorates
Assessment of costs and benefits of 'Living with Water' in the very long term	ER2415	C	KaT		



*Long lines

- 1 Optimising accessibility
- 2 Shaping sustainable mobility
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- 4 Facilitating the economy



Assessment of costs and benefits of 'Living with Water' in the very long term (ER2415)

In an I&W exploratory study, with scenarios for 'living with water' in the long term, there is a need to engage in the discussion of the system of comparing costs and benefits. The further in time and the more extreme the scenario, the more complex it is to make good estimates. Experts from different angles contribute to this from existing analysis frameworks (such as SCBA). KiM will contribute to this by delivering knowledge about the costs and benefits of mobility and infrastructure. In doing so, we will draw on the KiM study from 2021 on the effects of climate change on infrastructure.

Appendix A: Overview of projects by long line



*Long lines

1 Optimising accessibility

2 Shaping sustainable mobility

3 Scarcity and distribution of accessibility

4 Facilitating the economy



1 Optimising Accessibility

Project	Number	KL	Type	Long line	Directorate
Does sustainability policy create more unequal accessibility?	DG2403	B	Research	1 Accessible 2 Sustainable	DuMo
Costs of cycling	ER2405	C	Research	1 Accessible	DuMo
Dealing with declining accessibility to amenities	MB2402	A	Research	1 Accessible	ISM
The influence of demographic changes on mobility and accessibility	MB2421	A	Research	1 Accessible	ISM
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	ISM
The value of accessibility	ER2203	C	Research	1 Accessible	ISM
The importance of direct flights	MB2318	A	Research	1 Accessible	LV
Towards a coherent set of policy instruments for a future-proof mobility system	MB2417	A	Research	1 Accessible 2 Sustainable	MenG
How does urban working affect the region?	DG2412	B	Preliminary study	1 Accessible	MenG
Consequences of drought on navigable waterways for economy and infrastructure policy	ER2315	C	Preliminary study	1 Accessible 4 Economics	MZ
Demand-driven public transport: experiences and opportunities	MB2211	A	Research	1 Accessible	OVS
Opportunities for the main rail network	MB2213	A	Research	1 Accessible 2 Sustainable	OVS
Holiday coach travel	MB2411	A	Research	1 Accessible 2 Sustainable	OVS
Social effects of public transport	ER2209	C	Research	1 Accessible	OVS
Options for market organisation of the railways	ER2408	C	Research	1 Accessible	OVS
Acceptable travel time, costs and convenience to achieve various (vital) functions	MB2414	A	Research	1 Accessible	WV
New types of car availability	MB2315	A	Research	1 Accessible	WV
Financial incentives for modes of transport in passenger mobility	ER2406	C	Research	1 Accessible	WV



2 Shaping sustainable mobility

Project	Number	KL	Type	Long line	Directorate
Sustainability leisure travel	MB2307	A	Research	2 Sustainable	DuMo
What measures can we take to prevent a carbon-neutral energy shortage?	DG2206	B	Research	2 Sustainable 3 Scarcity	DuMo
Does sustainability policy create more unequal accessibility?	DG2403	B	Research	1 Accessible 2 Sustainable	DuMo
Coping strategies when raw materials for biodiesel are scarce	DG2404	B	Research	2 Sustainable 3 Scarcity	DuMo
What impact does the rebound effect of efficiency measures in freight transport have on carbon reductions?	DG2405	B	KaT	2 Sustainable	DuMo
Applying the 'doughnut model' to the mobility sector, as it stands and in future modelling.	DG2406	B	Preliminary study	2 Sustainable 3 Scarcity	DuMo
What does a circular economy mean for freight transport?	DG2407	B	Preliminary study	2 Sustainable 4 Economics	DuMo
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	ISM
'True pricing': internalising external costs	ER2326	C	KaT	2 Sustainable	ISM
carbon-neutral aviation	DG2401	B	Research	2 Sustainable	KiM
The role of government in the energy transition of airports	DG2311	B	Research	2 Duurzaam 3 Schaarste	LV
Towards a coherent set of policy instruments for a future-proof mobility system	MB2417	A	Research	1 Accessible 2 Sustainable	M&G
How can we accelerate the transition to sustainability for maritime shipping in the Netherlands?	DG2315	B	Research	2 Sustainable	MZ
What instruments are available to help make small ships more sustainable?	DG2413	B	Research	2 Sustainable	MZ
What post-fossil scenarios are there for Dutch seaports?	DG2414	B	Research	2 Sustainable 4 Economics	MZ
Can the conditions for the transition to a carbon-neutral inland navigation sector be set on time?	DG2314	B	Research	2 Sustainable	MZ
Surveying the future of bunkering fuel for ships in the Port of Rotterdam	DG2316	B	Preliminary study	2 Sustainable	MZ
Opportunities for the main rail network	MB2213	A	Research	1 Accessible 2 Sustainable	OVS
Holiday coach travel	MB2411	A	Research	1 Accessible 2 Sustainable	OVS
Climate adaptation of infrastructure: a cost-benefit analysis	ER2407	C	Research	2 Sustainable	WV



3 Scarcity and distribution of accessibility

Project	Number	KL	Type	Long line	Directorate
What measures can we take to prevent a carbon-neutral energy shortage?	DG2206	B	Research	2 Sustainable 3 Scarcity	DuMo
Coping strategies when raw materials for biodiesel are scarce	DG2404	B	Research	2 Sustainable 3 Scarcity	DuMo
Applying the 'doughnut model' to the mobility sector, as it stands and in future modelling	DG2406	B	Preliminary study	2 Sustainable 3 Scarcity	DuMo
Affordability of mobility	MB2304	A	Research	3 Scarcity	ISM
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	ISM
Funding issues	ER2302	C	KaT	3 Scarcity	ISM
Participatory Value Evaluation for MIRT projects	ER2322	C	KaT	3 Scarcity	ISM
The role of government in the energy transition of airports	DG2311	B	Research	2 Sustainable 3 Scarcity	LV
Inclusive distribution	ER2409	C	Research	3 Scarcity	MenG



4 Facilitating the economy

Project	Number	KL	Type	Long line	Directorate
What does a circular economy mean for freight transport	DG2407	B	Preliminary study	2 Sustainable 4 Economics	DuMo
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	ISM
Airport policy for regional airports and economic impact	ER2104	C	KaT	4 Economics	LV
What post-fossil scenarios are there for Dutch seaports?	DG2414	B	Research	2 Sustainable 4 Economics	MZ
Modal shift in freight transport: barriers, long-term instruments and evaluation	ER2318	C	Research	4 Economics	MZ
'Nederland Distributieland' revisited?	ER2414	C	Research	4 Economics	MZ
Control function and economic value of digitising freight transport	ER2011	C	KaT	4 Economics	MZ
Consequences of drought on navigable waterways for economy and infrastructure policy	ER2315	C	Preliminary study	1 Accessible 4 Economics	MZ
Freight transport: security of supply and resilience	ER2413	C	Preliminary study	4 Economics	MZ
Social importance of rail freight transport	ER2304	C	Research	4 Economics	OVS

Appendix B: Overview of projects by research line (KL)



*Long lines

1 Optimising accessibility

2 Shaping sustainable mobility

3 Scarcity and distribution of accessibility

4 Facilitating the economy

Research line A

Project	Number	KL	Type	Long line	Directorate
Exploratory study for coherent spatial planning, industrial, housing and mobility policies	MB2420	A	Research		ASA
Sustainability leisure travel	MB2307	A	Research	2 Sustainable	DuMo
Effects of cycling on human health	DG2107	A	Research		DuMo
A better understanding of walking	MB2203	A	Research		DuMo
Walking Facts 2.0	MB2405	A	Research		DuMo
The cycle path of the future	MB2406	A	Research		DuMo
Greening travel behaviour	MB2305	A	KaT		DuMo
Effectiveness of cycling infrastructure	MB2407	A	KaT		DuMo
Cycling intensities on regional routes	MB2408	A	KaT		DuMo
Knowledge inputs for active modes	MG1603	A	KaT		DuMo
Cycling incentives by employers	MB2404	A	Preliminary study		DuMo
Affordability of mobility	MB2304	A	Research	3 Scarcity	ISM
Scenarios for shared mobility solutions	MB2403	A	Research		ISM
Dealing with declining accessibility to amenities	MB2402	A	Research	1 Accessible	ISM
The influence of demographic changes on mobility and accessibility	MB2421	A	Research	1 Accessible	ISM
Knowledge agenda on mobility poverty	MB2107	A	KaT		ISM
Knowledge inputs for the NOVI monitor	MB2221	A	KaT		ISM
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	ISM
Integrated Mobility Analysis	MB232	A	KaT		ISM
Modelling	DM1106	A	KaT		ISM
Knowledge inputs for the Dutch National Travel Survey ODIN by Statistics Netherlands	DM1719	A	KaT		ISM
Key figures 2024	MB2401	A	Research		KiM
Supervision of and collaboration in tailor-made research with NMP	DM1702	A	Research		KiM

Project	Number	KL	Type	Long line	Directorate
The Netherlands Mobility Panel (NMP): data collection, data dissemination and communication	DM1720	A	Research		KiM
Contribution to Scenarios of Prosperity and Quality of the Living Environment (WLO)	MB2422	A	KaT		KiM
Structural changes in the demand for aviation?	MB2418	A	Research		LV
Air freight	MB2207	A	Research		LV
The propensity to travel by air	MB2209	A	Research		LV
The importance of direct flights	MB2318	A	Research	1 Accessible	LV
Aeolus	B1014	A	KaT		LV
Knowledge agenda on aviation policy	MB2419	A	KaT		LV
Towards a coherent set of policy instruments for a future-proof mobility system	MB2417	A	Research	1 Accessible 2 Sustainable	M&G
Freight transport agenda update	MB2321	A	KaT		MZ
Import, export and transit trade statistics	DM1717	A	KaT		MZ
Demand-driven public transport: experiences and opportunities	MB2211	A	Research	1 Accessible	OVS
Opportunities for the main rail network	MB2213	A	Research	1 Accessible 2 Sustainable	OVS
Holiday coach travel	MB2411	A	Research	1 Accessible 2 Sustainable	OVS
Revision of the TEN-T Regulation and rail transport	MB2310	A	KaT		OVS
Bus Rapid Transit	MB2113	A	KaT		OVS
International passenger transport	MB2210	A	KaT		OVS
Car costs vs public transport costs	MB2214	A	KaT		OVS
Revising priorities for the rail network	MB2311	A	KaT		OVS
Monitoring and evaluation of additional financial resources for regional public transport	MB2409	A	KaT		OVS
Distribution of passengers throughout the day and week	MB2410	A	KaT		OVS
Public transport and rail innovation agenda	MB2413	A	KaT		OVS
Vision on the Future of Public Transport in 2040 and monitoring	BR1420	A	KaT		OVS
The influence of public transport frequencies on passenger demand	MB2412	A	Preliminary study		OVS
Acceptable travel time, costs and convenience to achieve various (vital) functions	MB2414	A	Research	1 Accessible	WV
New types of car availability	MB2315	A	Research	1 Accessible	WV
Is the BREVER law still valid?	MB2317	A	Research		WV
Traffic flow and behavioural measures	MB2313	A	KaT		WV
Mobility hubs	MB2415	A	KaT		WV
Monitor on smart mobility	MB2115	A	KaT		WV
Knowledge inputs for smart mobility	MB2117	A	KaT		WV
The future prospects for car mobility	MB2015	A	KaT		WV
Social consequences of implementing Automated Driving Systems	MB2416	A	Preliminary study		WV

Research line B

Project	Number	KL	Type	Long line	Directorate
Knowledge inputs for the I&W Behavioural Insights Team (BIT)	DG2319	B	KaT		ASA
What measures can we take to prevent a carbon-neutral energy shortage?	DG2206	B	Research	2 Sustainable 3 Scarcity	DuMo
Does sustainability policy create more unequal accessibility?	DG2403	B	Research	1 Accessible 2 Sustainable	DuMo
Experiences with trailers and electric cars	DG2305	B	Research		DuMo
Sustainability of electric mopeds or light mopeds	DG2402	B	Research		DuMo
Coping strategies when raw materials for biodiesel are scarce	DG2404	B	Research	2 Sustainable 3 Scarcity	DuMo
Transition charts for sustainable mobility	DG2221	B	KaT		DuMo
Cost and price development of renewable fuels for road transport	DG2404	B	KaT		DuMo
What impact does the rebound effect of efficiency measures in freight transport have on carbon reductions?	DG2405	B	KaT	2 Sustainable	DuMo
What consequences are there from the decline in financial support to EV?	DG2409	B	KaT		DuMo
Knowledge role in participatory processes	DG2410	B	KaT		DuMo
What behaviour is associated with refuelling and recharging at service stations?	DG2306	B	Preliminary study		DuMo
Applying the 'doughnut model' to the mobility sector, as it stands and in future modelling	DG2406	B	Preliminary study	2 Sustainable 3 Scarcity	DuMo
What does a circular economy mean for freight transport?	DG2407	B	Preliminary study	2 Sustainable 4 Economics	DuMo
Facts about biofuels in the Netherlands and Europe	DG2408	B	Preliminary study		DuMo
How do you monitor the transition paths of maturing technologies?	DG2301	B	Research		ISM
carbon-neutral aviation	DG2401	B	Research	2 Sustainable	KiM
The role of government in the energy transition of airports	DG2311	B	Research	2 Sustainable 3 Scarcity	LV
Establishing a CO ₂ ceiling for Dutch aviation	DG2127	B	KaT		LV
Aviation innovation strategy roadmaps	DG2416	B	KaT		LV
How does urban working affect the region?	DG2412	B	Preliminary study	1 Accessible	M&G
Expert session on the Environmental Impact Assessment of the Spatial Planning Memorandum	DG2411	B	KaT		M&G BZK
How can we accelerate the transition to sustainability for maritime shipping in the Netherlands?	DG2315	B	Research	2 Sustainable	MZ
What instruments are available to help make small ships more sustainable?	DG2413	B	Research	2 Sustainable	MZ
What post-fossil scenarios are there for Dutch seaports?	DG2414	B	Research	2 Sustainable 4 Economics	MZ
Can the conditions for the transition to a carbon-neutral inland navigation sector be set on time?	DG2314	B	Research	2 Sustainable	MZ

Project	Number	KL	Type	Long line	Directorate
What consequences are there from participation in the ETS-2 for inland shipping?	DG2415	B	KaT		MZ
Surveying the future of bunkering fuel for ships in the Port of Rotterdam	DG2316	B	Preliminary study	2 Sustainable	MZ

Research line C

Project	Number	KL	Type	Long line	Directorate
Quality assurance and consistency of analytic instruments for SCBAs	E712	C	KaT		ASA FEZ
Follow-up to discount rate working group	ER2119	C	KaT		ASA FEZ
Improving budget quality and accountability	ER2121	C	KaT		ASA FEZ
Assessment of costs and benefits of 'Living with Water' in the very long term	ER2415	C	KaT		DGWB
Costs of cycling	ER2405	C	Research	1 Accessible	DuMo
Experiments with innovative evaluation methods of mobility policy	ER2401	C	Research		ISM
Re-evaluating (price) elasticities	ER2208	C	Research		ISM
Estimation method for future values of travel time rating for forecast years	ER2404	C	Research		ISM
The value of accessibility	ER2203	C	Research	1 Accessible	ISM
Funding issues	ER2302	C	KaT	3 Scarcity	ISM
Analysis frameworks for inputs to innovative mobility interventions	ER2402	C	KaT		ISM
Broad-based prosperity and mobility follow-up study	ER2201	C	KaT		ISM
Assessment method of mobility funding	ER2303	C	KaT		ISM
Participatory Value Evaluation for MIRT projects	ER2322	C	KaT	3 Scarcity	ISM
'True pricing': internalising external costs	ER2326	C	KaT	2 Sustainable	ISM
Mobility budgets on the radar	ER2403	C	KaT		ISM
Airport policy for regional airports and economic impact	ER2104	C	KaT	4 Economics	LV
The comparative pricing of journeys by air and rail	ER2412	C	KaT		LV
Assessment method for new aviation noise abatement system	ER2416	C	KaT		LV
Follow-up to the research agenda of the guide for aviation-specific SCBAs	ER2221	C	KaT		LV
Periodic reporting of Article 17 Aviation	ER2325	C	KaT		LV
Inclusive distribution	ER2409	C	Research	3 Scarcity	M&G
Investment logic: from IMA to MIRT	ER2410	C	KaT		M&G
Modal shift in freight transport: barriers, long-term instruments and evaluation	ER2318	C	Research	4 Economics	MZ
'Nederland Distributieland' revisited?	ER2414	C	Research	4 Economics	MZ

Project	Number	KL	Type	Long line	Directorate
Future of Inland Waterways Transport action agenda	ER2319	C	KaT		MZ
Control function and economic value of digitising freight transport	ER2011	C	KaT	4 Economics	MZ
Hands-on modal shift programme for freight transport	ER2218	C	KaT		MZ
Freight corridor programmes	ER2317	C	KaT		MZ
Developing a policy framework for pipelines	MM1802	C	KaT		MZ
Quality impulse for maritime monitoring and evaluation	EA1614	C	KaT		MZ
Consequences of drought on navigable waterways for economy and infrastructure policy	ER2315	C	Preliminary study	1 Accessible 4 Economics	MZ
Freight transport: security of supply and resilience	ER2413	C	Preliminary study	4 Economics	MZ
Causality of maritime policy and policy goals	ER2320	C	Preliminary study		MZ
Social effects of public transport	ER2209	C	Research	1 Accessible	OVS
Social importance of rail freight transport	ER2304	C	Research	4 Economics	OVS
Options for market organisation of the railways	ER2408	C	Research	1 Accessible	OVS
Long-term vision of market regulation for the main rail network	ER2229	C	KaT		OVS
Policy assessment of accessibility allowances for public	ER2306	C	KaT		OVS
The future of rail freight transport (Toekomstvisie spoorgoederenvervoer)	ER2307	C	KaT		OVS
MIRT study of the Lely line	ER2227	C	KaT		OVS
Climate adaptation of infrastructure: a cost-benefit analysis	ER2407	C	Research	2 Sustainable	WV
Financial incentives for modes of transport in passenger mobility	ER2406	C	Research	1 Accessible	WV
Basic level of quality for Rijkswaterstaat's networks	ER2310	C	KaT		WV
Evaluation of the Heavy Goods Vehicle Charge and Temporary Tolls Programme	ER2311	C	KaT		WV
Periodic reporting of Article 14 of Roads and traffic safety	ER2312	C	KaT		WV

Appendix C: Overview of projects by I&W Directorate



*Long lines

1 Optimising accessibility

2 Shaping sustainable mobility

3 Scarcity and distribution of accessibility

4 Facilitating the economy

Self-initiated projects

Project	Number	KL	Type	Long line	Other directorates
Key figures 2024	MB2401	A	Research		ISM WV OVS DuMo M&G LV MZ
Supervision of and collaboration in tailor-made research with NMP	DM1702	A	Research		
The Netherlands Mobility Panel (NMP): data collection, data dissemination and communication	DM1720	A	Research		
Contribution to Scenarios of Prosperity and Quality of the Living Environment (WLO)	MB2422	A	KaT		
carbon-neutral aviation	DG2401	B	Research	2 Sustainable	

Innovation and Strategy for Mobility Directorate

Project	Number	KL	Type	Long line	Other directorates
Affordability of mobility	MB2304	A	Research	3 Scarcity	WV OVS DuMo
Scenarios for shared mobility solutions	MB2403	A	Research		WV
Dealing with declining accessibility to amenities	MB2402	A	Research	1 Accessible	WV OVS
The influence of demographic changes on mobility and accessibility	MB2421	A	Research	1 Accessible	WV OVS
Knowledge agenda on mobility poverty	MB2107	A	KaT		OVS
Knowledge inputs for the NOVI monitor	MB2221	A	KaT		M&G
Mobility Vision	MB2220	A	KaT	1 Accessible 2 Sustainable 3 Scarcity 4 Economics	WV OVS M&G DuMo LV MZ
Integrated Mobility Analysis	MB232	A	KaT		WV OVS M&G DuMo LV MZ
Modelling	DM1106	A	KaT		WV OVS M&G DuMo LV MZ
Knowledge inputs for the Dutch National Travel Survey ODIN by Statistics Netherlands	DM1719	A	KaT		

Project	Number	KL	Type	Long line	Other directorates
How do you monitor the transition paths of maturing technologies?	DG2301	B	Research		
Experiments with innovative evaluation methods of mobility policy	ER2401	C	Research		
Re-evaluating (price) elasticities	ER2208	C	Research		WV OVS LV en MZ
Estimation method for future values of travel time rating for forecast years	ER2404	C	Research		
The value of accessibility	ER2203	C	Research	1 Accessible	
Funding issues	ER2302	C	KaT	3 Scarcity	M&G
Analysis frameworks for inputs to innovative mobility interventions	ER2402	C	KaT		
Broad-based prosperity and mobility follow-up study	ER2201	C	KaT		ASA
Assessment method of mobility funding	ER2303	C	KaT		
Participatory Value Evaluation for MIRT projects	ER2322	C	KaT	3 Scarcity	
'True pricing': internalising external costs	ER2326	C	KaT	2 Sustainable	
Mobility budgets on the radar	ER2403	C	Preliminary study		

Sustainable Mobility and Transport Directorate

Project	Number	KL	Type	Long line	Other directorates
Sustainability leisure travel	MB2307	A	Research	2 Sustainable	WV OVS LV
Effects of cycling on human health	DG2107	A	Research		
A better understanding of walking	MB2203	A	Research		
Walking Facts 2.0	MB2405	A	Research		
The cycle path of the future	MB2406	A	Research		M&G
Greening travel behaviour	MB2305	A	KaT		WV OVS LV
Effectiveness of cycling infrastructure	MB2407	A	KaT		
Cycling intensities on regional routes	MB2408	A	KaT		
Knowledge inputs for active modes	MG1603	A	KaT		
Cycling incentives by employers	MB2404	A	Preliminary study		
What measures can we take to prevent a carbon-neutral energy shortage?	DG2206	B	Research	2 Sustainable 3 Scarcity	
Does sustainability policy create more unequal accessibility?	DG2403	B	Research	1 Accessible 2 Sustainable	ISM
Experiences with trailers and electric cars	DG2305	B	Research		
Sustainability of electric mopeds or light mopeds	DG2402	B	Research		WV
Coping strategies when raw materials for biodiesel are scarce	DG2404	B	Research	2 Sustainable 3 Scarcity	
Transition charts for sustainable mobility	DG2221	B	KaT		

Project	Number	KL	Type	Long line	Other directorates
Cost and price development of renewable fuels for road transport	DG2404	B	KaT		
What impact does the rebound effect of efficiency measures in freight transport have on carbon reductions?	DG2405	B	KaT	2 Sustainable	WV
What consequences are there from the decline in financial support to EV?	DG2409	B	KaT		
Knowledge role in participatory processes	DG2410	B	KaT		Participation
What behaviour is associated with refuelling and recharging at service stations?	DG2306	B	Preliminary study		WV
Applying the 'doughnut model' to the mobility sector, as it stands and in future modelling	DG2406	B	Preliminary study	2 Sustainable 3 Scarcity	DGMI
What does a circular economy mean for freight transport?	DG2407	B	Preliminary study	2 Sustainable 4 Economics	DGMI
Facts about biofuels in the Netherlands and Europe	DG2408	B	Preliminary study		
Costs of cycling	ER2405	C	Onderzoek	1 Accessible	

Public Transport and Railway Directorate

Project	Number	KL	Type	Long line	Other directorates
Demand-driven public transport: experiences and opportunities	MB2211	A	Research	1 Accessible	
Opportunities for the main rail network	MB2213	A	Research	1 Accessible 2 Sustainable	
Holiday coach travel	MB2411	A	Research	1 Accessible 2 Sustainable	WV LV
Revision of the TEN-T Regulation and rail transport	MB2310	A	KaT		
Bus Rapid Transit	MB2113	A	KaT		
International passenger transport	MB2210	A	KaT		LV WV
Car costs vs public transport costs	MB2214	A	KaT		WV
Revising priorities for the rail network	MB2311	A	KaT		
Monitoring and evaluation of additional financial resources for regional public transport	MB2409	A	KaT		
Distribution of passengers throughout the day and week	MB2410	A	KaT		
Public transport and rail innovation agenda	MB2413	A	KaT		
Vision on the Future of Public Transport in 2040 and monitoring	BR1420	A	KaT		
The influence of public transport frequencies on passenger demand	MB2412	A	Preliminary study		
Social effects of public transport	ER2209	C	Research	1 Accessible	
Social importance of rail freight transport	ER2304	C	Research	4 Economics	
Options for market organisation of the railways	ER2408	C	Research	1 Accessible	

Project	Number	KL	Type	Long line	Other directorates
Long-term vision for market organisation of the Main Rail Network	ER2229	C	KaT		
Policy assessment of accessibility allowances for public	ER2306	C	KaT		
The future of rail freight transport (Toekomstvisie spoorgoederenvervoer)	ER2307	C	KaT		
MIRT study of the Lely line	ER2227	C	KaT		

Roads and Traffic Safety Directorate, and Heavy Goods Vehicle Charge and Temporary Tolls Programme

Project	Number	KL	Type	Long line	Other directorates
Acceptable travel time, costs and convenience to achieve various (vital) functions	MB2414	A	Research	1 Accessible	ISM OVS M&G
New types of car availability	MB2315	A	Research	1 Accessible	
Is the BREVER law still valid?	MB2317	A	Research		
Traffic flow and behavioural measures	MB2313	A	KaT		ISM M&G
Mobility hubs	MB2415	A	KaT		OVS DuMo
Monitor on smart mobility	MB2115	A	KaT		
Knowledge inputs for smart mobility	MB2117	A	KaT		
The future prospects for car mobility	MB2015	A	KaT		
Social consequences of implementing Automated Driving Systems	MB2416	A	Preliminary study		
Climate adaptation of infrastructure: a cost-benefit analysis	ER2407	C	Research	2 Sustainable	DGWB DuMo
Financial incentives for modes of transport in passenger mobility	ER2406	C	Research	1 Accessible	
Basic level of quality for Rijkswaterstaat's networks	ER2310	C	KaT		ISM MZ OVS
Evaluation of the Heavy Goods Vehicle Charge and Temporary Tolls Programme	ER2311	C	KaT		
Periodic reporting of Article 14 of Roads and traffic safety	ER2312	C	KaT		

Mobility and Regions Directorate and Ministry of the Interior and Kingdom Relations

Project	Number	KL	Type	Long line	Other directorates
Towards a coherent set of policy instruments for a future-proof mobility system	MB2417	A	Research	1 Accessible 2 Sustainable	ISM WV OVS
How does urban working affect the region?	DG2412	B	Preliminary study	1 Accessible	ISM
Inclusive distribution	ER2409	C	Research	3 Scarcity	ISM

Project	Number	KL	Type	Long line	Other directorates
Investment logic: from IMA to MIRT	ER2410	C	KaT		
Expert session on the Environmental Impact Assessment of the Spatial Planning Memorandum	DG2411	B	KaT		(BZK)

Civil Aviation Directorate, and Schiphol Airport Programme

Project	Number	KL	Type	Long line	Other directorates
Structural changes in the demand for aviation?	MB2418	A	Research		
Air freight	MB2207	A	Research		
The propensity to travel by air	MB2209	A	Research		
The importance of direct flights	MB2318	A	Research	1 Accessible	
Aeolus	B1014	A	KaT		
Knowledge agenda on aviation policy	MB2419	A	KaT		
The role of government in the energy transition of airports	DG2311	B	Research	2 Sustainable 3 Scarcity	
Establishing a CO ₂ ceiling for Dutch aviation	DG2127	B	KaT		
Aviation innovation strategy roadmaps	DG2416	B	KaT		
Airport policy for regional airports and economic impact	ER2104	C	KaT	4 Economics	
The comparative pricing of journeys by air and rail	ER2412	C	KaT		
Assessment method for new aviation noise abatement system	ER2416	C	KaT		(POLS)
Follow-up to the research agenda of the guide for aviation-specific SCBAs	ER2221	C	KaT		
Periodic reporting of Article 17 Aviation	ER2325	C	KaT		

Maritime Affairs Directorate

Project	Number	KL	Type	Long line	Other directorates
Freight transport agenda update	MB2321	A	KaT		WV OVS
Import, export and transit trade statistics	DM1717	A	KaT		WV OVS
How can we accelerate the transition to sustainability for maritime shipping in the Netherlands?	DG2315	B	Research	2 Sustainable	
What instruments are available to help make small ships more sustainable?	DG2413	B	Research	2 Sustainable	
What post-fossil scenarios are there for Dutch seaports?	DG2414	B	Research	2 Duurzaam 4 Economie	
Can the conditions for the transition to a carbon-neutral inland navigation sector be set on time?	DG2314	B	Research	2 Sustainable	
What consequences are there from participation in the ETS-2 for inland shipping?	DG2415	B	KaT		
Surveying the future of bunkering fuel for ships in the Port of Rotterdam	DG2316	B	Preliminary study	2 Sustainable	

Project	Number	KL	Type	Long line	Other directorates
Modal shift in freight transport: barriers, long-term instruments and evaluation	ER2318	C	Research	4 Economics	WV OVS
'Nederland Distributieland' revisited?	ER2414	C	Research	4 Economics	ISM DuMo WV OVS
Future of Inland Waterways Transport action agenda	ER2319	C	KaT		
Control function and economic value of digitising freight transport	ER2011	C	KaT	4 Economics	WV OVS
Hands-on modal shift programme for freight transport	ER2218	C	KaT		WV OVS
Freight corridor programmes	ER2317	C	KaT		WV OVS
Developing a policy framework for pipelines	MM1802	C	KaT		
Quality impulse for maritime monitoring and evaluation	EA1614	C	KaT		
Consequences of drought on navigable waterways for economy and infrastructure policy	ER2315	C	Preliminary study	1 Accessible 4 Economics	
Freight transport: security of supply and resilience	ER2413	C	Preliminary study	4 Economics	ISM OVS WV
Causality of maritime policy and policy goals	ER2320	C	Preliminary study		

Strategy Department, and Financial Affairs Department

Project	Number	KL	Type	Long line	Other directorates
Exploratory study for coherent spatial planning, industrial, housing and mobility policies	MB2420	A	Research		
Knowledge inputs for the I&W Behavioural Insights Team (BIT)	DG2319	B	KaT		
Quality assurance and consistency of analytic instruments for SCBAs	E712	C	KaT		all I&W directorates
Follow-up to discount rate working group	ER2119	C	KaT		(FEZ)
Improving budget quality and accountability	ER2121	C	KaT		(FEZ)

Directorate-General for Water and Soil

Project	Number	KL	Type	Long line	Other directorates
Assessment of costs and benefits of 'Living with Water' in the very long term	ER2415	C	KaT		

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