

# BETTER AND DIFFERENT MOBILITY

INVESTING IN MOBILITY  
FOR THE FUTURE

MAY 2018



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# SUMMARY

## **A transition in the mobility system**

The way people move around is changing. Building more road and rail infrastructure is expensive and often provides only local and temporary relief. If the Dutch urban regions and countryside are to remain accessible in the long term, what is needed is a transformation of the mobility system. Solutions that have worked in the past – widening and building new roads and expanding the rail network – no longer suffice. The choice now is not between taking the car, using public transport or cycling, but about which transport option is the best at any given time or location. Moreover, if we want to protect and improve the quality of the built and natural environment, we will have to make transport much more sustainable.

## **A transition in the institutional system**

The collection of rules, financing mechanisms and procedures that have built up around the mobility system needs to change. It is widely accepted that the Multi-Year Plan for Infrastructure, Spatial Planning and Transport has to be revamped and the government has already instituted some changes. Interest is growing in other mobility solutions than the construction of new infrastructure and the investment strategy is leaning more towards a regional approach to resolving mobility challenges. New mobility services and alternative transport concepts that use existing rail infrastructure are attracting attention, but putting these into practice is

another matter altogether. National and subnational authorities still tend to invest in more of the same: the major road and rail networks.

## **A transition in thinking**

In practice, political and other preferences, research and innovation still focus on specific modes of transport and their associated infrastructure. This way of thinking, based on transport modes and their infrastructure, was highly successful in the past, but is now more often than not an obstacle to change. The need for change demands a different mindset and a different approach by all involved.

## **A lead role for national government**

To speed up this transition, the national government will have to take the lead. The necessary changes will require an appropriate legal framework. The legislation must ensure that all decisions on investments in the built environment take account of mobility innovations, even if they are still in their infancy or run counter to vested interests. Barriers to entry built into the current system must be removed to allow new players to gain a foothold in the mobility market. The Council for the Environment and Infrastructure therefore argues for a new Accessibility Act.

## **Adapt the investment strategy**

Investments aimed at solving bottlenecks in the major road and rail networks no longer provide no-regret solutions. A future investment strategy should address regional challenges and mobility-oriented developments. Moreover, sustainability will have to be given much



more weight in the decision-making. This means that the lion's share of resources should no longer be earmarked for the construction of new infrastructure. Instead, support must be given to better use of the existing infrastructure and the development and upscaling of new mobility concepts for regional transport.

### **Review and reappraise past decisions**

The Council observes that the way investment decisions are currently made can lead to suboptimal solutions. Because mobility is such an important aspect of many societal challenges, and given the trends in regional transport demand, there are benefits to be obtained by reconsidering past decisions and the projects currently on the agenda. Such a reappraisal could determine whether, given the current and future challenges in the region, the funds could be better spent in the same region.





# MOBILITY IN TRANSITION

The Dutch economy is currently going through a period of rapid growth and this is being reflected in busier roads and trains. The number of cyclists is also growing. All this means more traffic congestion (including bicycles), longer journey times and overcrowded trains. The knee-jerk reaction is to call for more and wider roads and more, longer and faster trains. Increasing capacity has always been a key plank of national transport policy and the Netherlands now boasts an extensive transport network of a quality that is virtually unparalleled.

Traffic congestion and its costs to the economy are significant drivers behind the massive investments in infrastructure. However, the societal challenge goes beyond ensuring sufficient capacity on the transport network. Urban expansion, rural accessibility, threats to environmental quality and the need to cut greenhouse gas emissions all make different demands on mobility. In addition, mobility needs and the availability of transport options are both changing – all in the context of widespread technological and societal change, such as the electrification of transport, the growing potentials and power of digital platforms and share schemes, and changes in access to mobility systems by different groups in society (Rli, 2016).

### **Request for advice**

It is widely recognised that mobility is in a state of transition. In response to this, the national government has initiated several reforms to its transport policy. However, the complexity of the mobility system as a whole makes it difficult to implement major changes, while the investment strategies

pursued by public authorities have hardly changed either. In this advisory report, therefore, the Council for the Environment and Infrastructure (Rli) addresses the following question:

*How can the financial resources available for mobility be used more effectively?*

In answering this question, the Council has examined all the resources available for mobility, including those for the construction, replacement, management and maintenance of transport infrastructure. Effectiveness is assessed with respect to the societal challenges which mobility can help to resolve, such as sustainability.

### **Scope**

In its advisory report ‘Faster and Closer’ [*Dichterbij en sneller*] (Rli, 2016), the Council observed that ‘proximity’ – the location of destinations with respect to one another – can often clear up more bottlenecks than optimising the transport system. The Council stands by this conclusion and feels it deserves continued attention, certainly now that the government departments responsible for mobility and spatial planning are housed in different ministries. Not only that, but the mobility system itself is evolving rapidly. This advisory report therefore examines the potential of public investment to adequately solve problems related to the mobility of people and the sustainability of the choices made. Because this advisory report complements the ‘Faster and Closer’ report, which focused on personal accessibility in urban regions, this present report is confined to passenger



transport by road and rail. Needless to say, the recommendations the Council makes in this report can also have consequences for freight transport policy.

### **Structure of the report**

This advice is about making effective use of the financial resources available for transport in a mobility landscape in transition. Consequently, the Council begins, in Chapter 2, with several observations on investing effectively in mobility given the societal challenges to be met and with an eye to the future. This chapter also reflects on current policy and the proposed reforms that aim to respond to the mobility transition. Turning these observations and policy intentions into practice will not be straightforward. In Chapter 3 the Council explores several tensions between the policy intentions and the operational contexts within which these policies seek to effect change in practice. The observations made in Chapter 2 and the tensions described in Chapter 3 lead, in Chapter 4, to recommendations for a more effective use of resources.





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## TOWARDS AN EFFECTIVE USE OF RESOURCES

The transition of the mobility system has consequences for how resources can be used effectively for mobility. The Council makes four observations in this regard:

1. The marginal returns from investments in more road and rail infrastructure are limited.
2. Effective mobility policy requires working in place-based partnerships.
3. The mobility transition will create a different playing field.
4. Sustainability places demands on mobility.

These observations are elaborated below, taking into account the ways in which current policies already address these issues.

## **2.1 The marginal returns from investments in more road and rail infrastructure are limited**

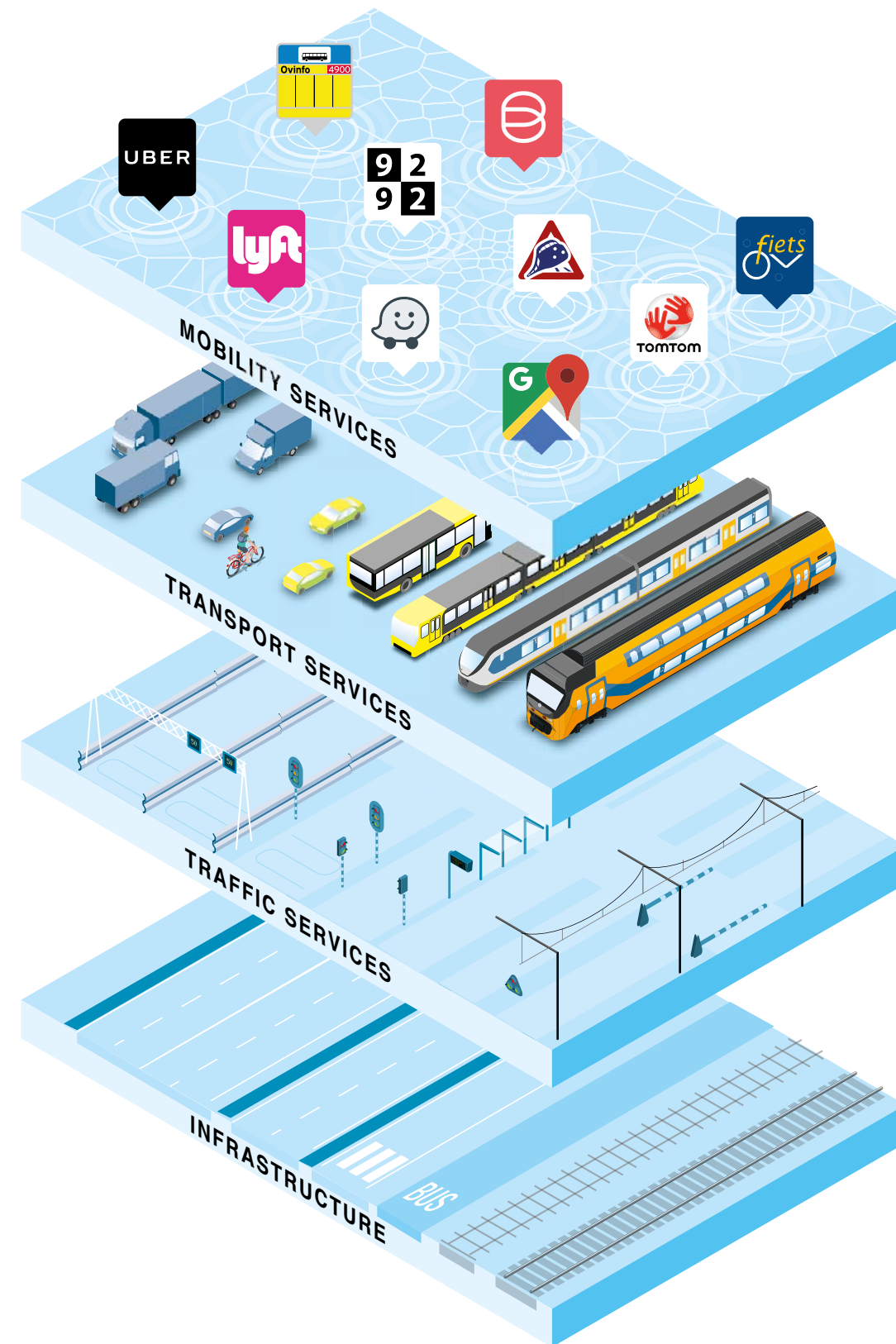
The Netherlands has one of the most well-developed transport networks in the world (IenM, 2017a; CPB, 2016). The marginal returns of more new infrastructure (road and rail, missing links, new connections) are therefore limited (CPB, 2016). Expanding the capacity of the existing network, for example by widening roads, has only a temporary and limited effect on traffic flows. Unlike in the past, investments in infrastructure and capacity expansion are no longer no-regret options. Nevertheless, they are still the most frequently chosen options. In the 2014–2017 period, the national government spent one to two per cent of the money in the Infrastructure Fund earmarked for roads and railways on non-infrastructure measures. The Netherlands Bureau for Economic Policy Analysis (CPB) argues that

only technological breakthroughs could bring about the upgrade to the system necessary to absorb the growing demand for mobility (CPB, 2016). Many new solutions are already available, but have yet to be scaled up to demonstrate their full potential.

The Council adds that making the existing infrastructure more interconnected can help to induce such an upgrade to the mobility system, because this would go a long way towards meeting the need for a dense transport network. Technological advances are leading to increasingly intelligent vehicles, which means that the infrastructure itself can be less intelligent. In view of this, the Council believes that as long as the current infrastructure network is well maintained and managed, it can provide the basic requirements for facilitating the growing and changing demand for mobility – on the condition that the existing infrastructure is used in a smarter and more demand-driven way, that the different parts of the network are better integrated, and that new technologies, data and physical interventions are exploited. In short, not more of the same, but better and different.



Figure 1: The layers of the mobility system



### Policy and policy reform

The document that sets the ground rules for implementing the Multi-Year Programme for Infrastructure, Spatial Planning and Transport [*Spelregels van het Meerjarenprogramma Infrastructuur, Ruimte en Transport*] (Ministerie van IenM, 2016a) is no longer solely concerned with building new infrastructure. The focus has shifted to making better use of the existing infrastructure and deploying a broader mix of measures. New developments are also being monitored to allow for periodic reviews of chosen solutions and an assessment of whether these solutions are still appropriate or have been overtaken by developments in society or technology. The government intends to revise the Infrastructure Fund Act [*Wet Infrastructuurfonds*] to allow the Infrastructure Fund to be used for non-investment expenditure if this improves the efficiency and effectiveness of infrastructure investments. Moreover, the government has decided to transform the Infrastructure Fund into a Mobility Fund in 2030 (Tweede Kamer, 2017a).

The Ministry of Infrastructure and Water Management (IenW) invests in the management and maintenance of the existing infrastructure, not only in traditional maintenance and replacement work, but also in technological innovation aimed at more efficient maintenance and management and at advancements in vehicle technologies and mobility services that make use of the infrastructure.



## 2.2 Effective mobility policy requires working in place-based partnerships

Most people travel each day to work, shop, visit friends and family or for leisure activities. Most trips are made within the region, which is also where international, national, regional and local journeys converge. People's activity patterns have become increasingly diverse over the years and although most trips are concentrated within urban regions, origins and destinations are much more spread out than in the past (Rli, 2016). The growing size and densities of urban regions and the development of transport hubs and nodes have made the regional scale increasingly important.

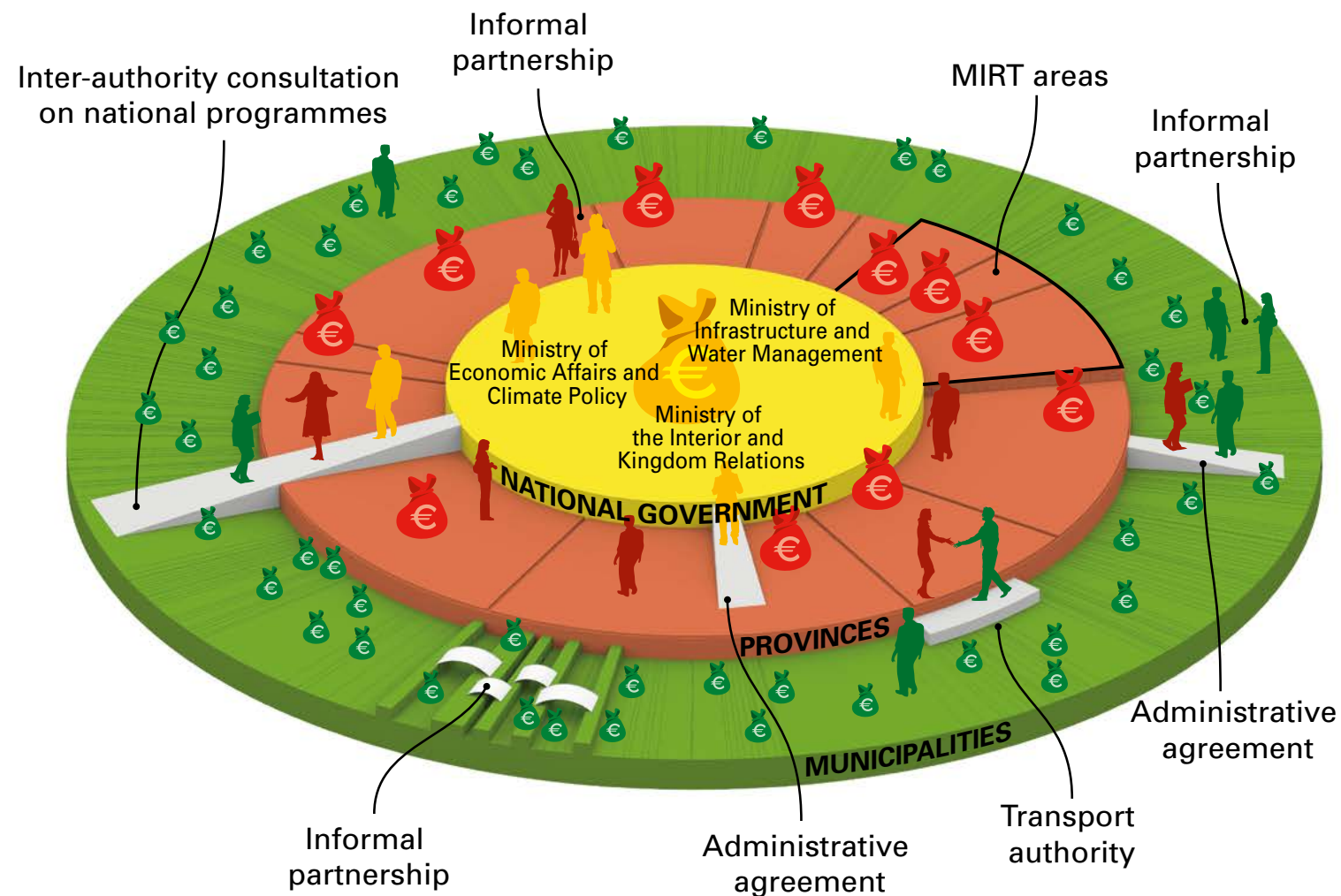
As people's activity patterns change, they will increasingly need a dense transport network and on-demand travel options. When people travel, they use all the constituent parts of the regional mobility system: it makes no difference to them whether they travel on the main or secondary network, or how responsibilities for these networks are divided between public authorities and private parties. In urban regions, the national road network is used for a significant share of trips within urban regions. As a result, congestion caused by regional traffic affects the national road network. Currently, though, congestion on the national roads is almost always addressed by measures on these roads themselves, partly because the Infrastructure Fund is primarily intended for these roads and partly because public officials and road users intuitively look for solutions where the problems are found. Because most destinations are within the same region, solving a problem on a motorway often just shifts it to the supporting road

network or elsewhere on the national road network. Similarly, national rail services are used for trips within the urban region and here, too, solutions are mostly sought in enlarging national rail capacity, primarily by increasing service frequency or using longer trains. Again, these measures only constitute part of the solution, because travellers will then use regional and local public transport services to get to their final destinations in the urban region.

National, provincial and local governments as well as other stakeholders should focus their collective efforts on meeting regional mobility needs (see also Rli, 2016). To make the most effective use of the funds available, all the constituent parts of the regional mobility system should be considered in unison, with due regard to the specific regional context. Mobility in urban areas requires a different approach than in rural areas.



**Figure 2: Cooperation in the mobility system**



### Policy and policy reform

The region is already an important point of departure within the Multi-Year Programme for Infrastructure, Spatial Planning and Transport (MIRT). The MIRT contains regional agendas for five national regions (North, South, East, North-West and South-West Netherlands), which present the joint vision and objectives of the national government and subnational

authorities (regional partners). These form the basis for prioritising regional infrastructure investments. Each year national and regional government officials meet to discuss the projects and make financial and procedural arrangements (the MIRT Inter-Authority Consultation process). As part of the effort to reform the MIRT process, in 2016 the national government and the regional partners initiated a number of place-based accessibility programmes to further strengthen the regional orientation. These programmes seek to address the various transport and mobility needs and challenges directly – rather than thinking in terms of individual projects – and have public authorities work together on an equal footing. Those involved have found this new form of cooperation to be an improvement on the previous arrangement (De Vries, 2017; Van der Steen et al., 2017).

### 2.3 The mobility transition will create a different playing field

What is needed to keep growing urban regions accessible? How can people in rural areas continue to get to work and access services and amenities? What investments will be worthwhile in the long run? How can promising new technologies be deployed to meet mobility challenges? These questions should be at the core of the mobility debate, but thinking is still dominated by traffic circulation and capacity. The much-needed modernisation is a thorny issue and cannot be expected to come from the established stakeholders, which typically represent specific transport modes. It is often new players that drive change and renewal. At the moment, new technologies are largely responsible for the entry, or



intended entry, of new players into the mobility market. Companies with an IT background, such as Google and Tesla, are having a disruptive effect on the automotive industry, while internet platforms such as Uber are revolutionising the taxi market. Even though the entry of new players may be met with resistance from vested interests (Rli, 2016), these types of developments are going to become more common. The mobility playing field is therefore in a state of flux and if resources are to be used effectively, new parties will have to be brought into the equation and given opportunities.

### Policy and policy reform

The changes taking place in mobility are not going unnoticed by public authorities. For example, they are taking an active part in the Automotive Campus in Helmond where they work together with businesses and research and education institutions to develop smart and green mobility solutions. Another example is the *Verkeersonderneming*, a public-private partnership that develops new mobility concepts in the greater Rotterdam region. In 2017 the Ministry of Infrastructure and Water Management started the Innovation in Mobility programme [*Innovatie in Mobiliteit*] that aims to steer the further development of mobility innovations in directions that serve the public interest. Examples include driverless vehicles, drones, the Hyperloop and smart ICT solutions such as Mobility as a Service (MaaS). The programme includes tests and pilot projects in a strategy for upscaling and sustainable development, based on cooperation with the business community and civil society organisations.

## 2.4 Sustainability places demands on mobility

Mobility has a considerable impact on the built and natural environment. Legal standards exist for noise, particulate matter and nitrogen deposition, but transport also causes safety issues, biodiversity loss and greenhouse gas emissions. In addition, addressing the physical footprint and landscape impacts of transport infrastructure is becoming increasingly urgent as urban regions expand and become denser. Each of the various layers of the mobility system (see Figure 1) has its own specific implications for sustainability and environmental quality. The infrastructure layer involves aspects such as circular use of materials and noise, whereas the transport services layer involves CO<sub>2</sub> emissions, nitrogen deposition, physical footprint and noise. The various modes of transport also have different consequences for sustainability: trains are safer than cycling; cars take up much more space than pedestrians or trams. The environmental and climate impacts of the different modes of transport vary widely, but there are also big differences within modes of transport as well, such as between diesel and electric cars. Technology is reducing the difference between the various modes of transport in terms of their greenhouse gas and other polluting emissions (Rli, 2016), but the same cannot be said for safety issues and the physical footprint.

In the opinion of the Council, climate and energy policies and local environmental quality and health policies will inevitably lead to sustainability becoming a key theme of mobility policy in future (Rli, 2018). In the current social climate, sustainability already imposes restrictions on investment strategies for mobility, both when deciding on goals and



instruments and when formulating concrete tasks and strategies, for example, in the planning and implementation of projects.

### **Policy and policy reform**

Until recently, sustainability goals were mainly viewed as constraints on mobility. In the MIRT reform, the government seeks to address sustainability at the early stage of policy development when accessibility challenges are studied (Ministerie van IenM, 2016a). Sustainability includes topics such as CO<sub>2</sub> emissions and energy use, the circular economy, spatial development, climate adaptation and environmental and health impacts. The ambition of the Ministry of Infrastructure and Water Management is to make sustainability more central to decision-making on mobility and to adopt sustainability objectives together with the spatial and transport development plans (Ministerie van IenM, 2017a and 2017b). The coalition agreement contains an additional interim greenhouse gas emission reduction objective of 3.5 Mt by 2030. The national government's aim is for all new cars to be zero-emission by 2030 at the latest (Tweede Kamer, 2017a).

During the parliamentary debate on the budget for the Ministry of Infrastructure and Water Management, the minister stated that a new assessment framework is being developed in anticipation of the establishment of the Mobility Fund in 2030. Investment decisions are currently based on the National Market and Capacity Analysis [*Nationale Markt- en Capaciteitsanalyse*] (NMCA) and the intention is to link this to sustainability and other relevant considerations (Tweede Kamer, 2017b).



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# TENSION BETWEEN INTENTIONS AND PRACTICE

In Chapter 2 we saw that various policy reforms have already been set in motion. The intention is to take a place-based, adaptive, flexible and problem-oriented approach. Intentions will be turned into deeds along various lines, from amending the regulatory framework for investments in transport infrastructure to improving regional cooperation. But putting all this into practice is another matter. Existing rules and agreements and the mindsets of those involved mean that good intentions do not always gain traction on the ground. As a result, the improved effectiveness of transport investments has fallen short.

The Council has identified four operational contexts that create tension between policy intentions and practice:

- Tension 1: Realising integrated MIRT objectives with a sectoral Infrastructure Fund as the main source of funding
- Tension 2: Establishing an integrated mobility system in a transport market organised along modal lines
- Tension 3: Establishing a sustainable mobility system with an investment agenda geared primarily to easing traffic flows
- Tension 4: Balancing the security (real or perceived) provided by existing solutions against the uncertainty and risks of new solutions

### 3.1 Realising integrated MIRT objectives with a sectoral Infrastructure Fund as the main source of funding

The shift from the Multi-Year Programme for Infrastructure and Transport (MIT) to the Multi-Year Programme for Infrastructure, *Spatial Planning* and Transport (MIRT) has contributed to a more integrated approach to transport and accessibility and the opportunity to link into spatial planning objectives and solutions. National and regional governments work together to realise this. The main financing instrument for realising the integrated, cross-boundary MIRT objectives is the Infrastructure Fund. However, several characteristics of the Infrastructure Fund and the decisions on its use in the MIRT are out of step with the integrated and inter-authority goals of the MIRT:

- The Infrastructure Fund is the biggest source of funding available to the MIRT, both with respect to the funds available to the other government departments involved and to the funds available to the regional partners.
- The Infrastructure Fund is the only financing instrument with a time horizon that stretches beyond the terms of office of the national and regional government partners.
- The Infrastructure Fund is primarily a sectoral fund with clear criteria on how the money should be spent. Its transformation into a Mobility Fund will mark the end of the fixed allocation formula between transport modes and will pave the way for the financing of non-infrastructure projects. The latter is already possible for MIRT studies. The lion's share of the money in the Mobility Fund goes to national transport infrastructure and related works (Tweede Kamer, 2017a; Ministerie van IenM, 2017b). None of this, though, guarantees that much more



financing will go to non-infrastructure measures than before (Ministerie van Financiën, 2016).

In practice, given the relatively large size and the long-term and sectoral nature of the MIRT process, mobility solutions that can count on financing from the Infrastructure Fund stand a relatively good chance of being approved in the MIRT negotiations. In the search for solutions there is a bias towards national transport infrastructure, even when improvements to the supporting road network and solutions involving other transport modes or spatial planning solutions may be more effective. For example, the almost completed Infrastructure Efficiency Programme [*Beter Benutten*] put much emphasis on traffic flow and congestion. Moreover, the intent to make the MIRT process more holistic is undermined by its financing mechanism. The unequal division of financial resources between tiers of government is a contributing factor to the tensions during inter-authority collaboration, although this is also partly a result of decisions by other public authorities on the allocation of their own budgets. This is illustrated by the figures presented in the box below.

#### **Funding for MIRT and the Infrastructure Fund**

*Interdepartmental:* The annual MIRT Overviews give a picture of the spending by the various ministries. In 2018, 99% of the relevant national government funding will come from the Ministry of Infrastructure and Water Management (75% from the Infrastructure Fund, 11% from the 'general fund' for transport (BDU) and 13% from the Delta Fund). Less

than 1% (about €67 million) of the total national government funding is for spatial planning, noise reduction, economic development, landscape protection or nature conservation.

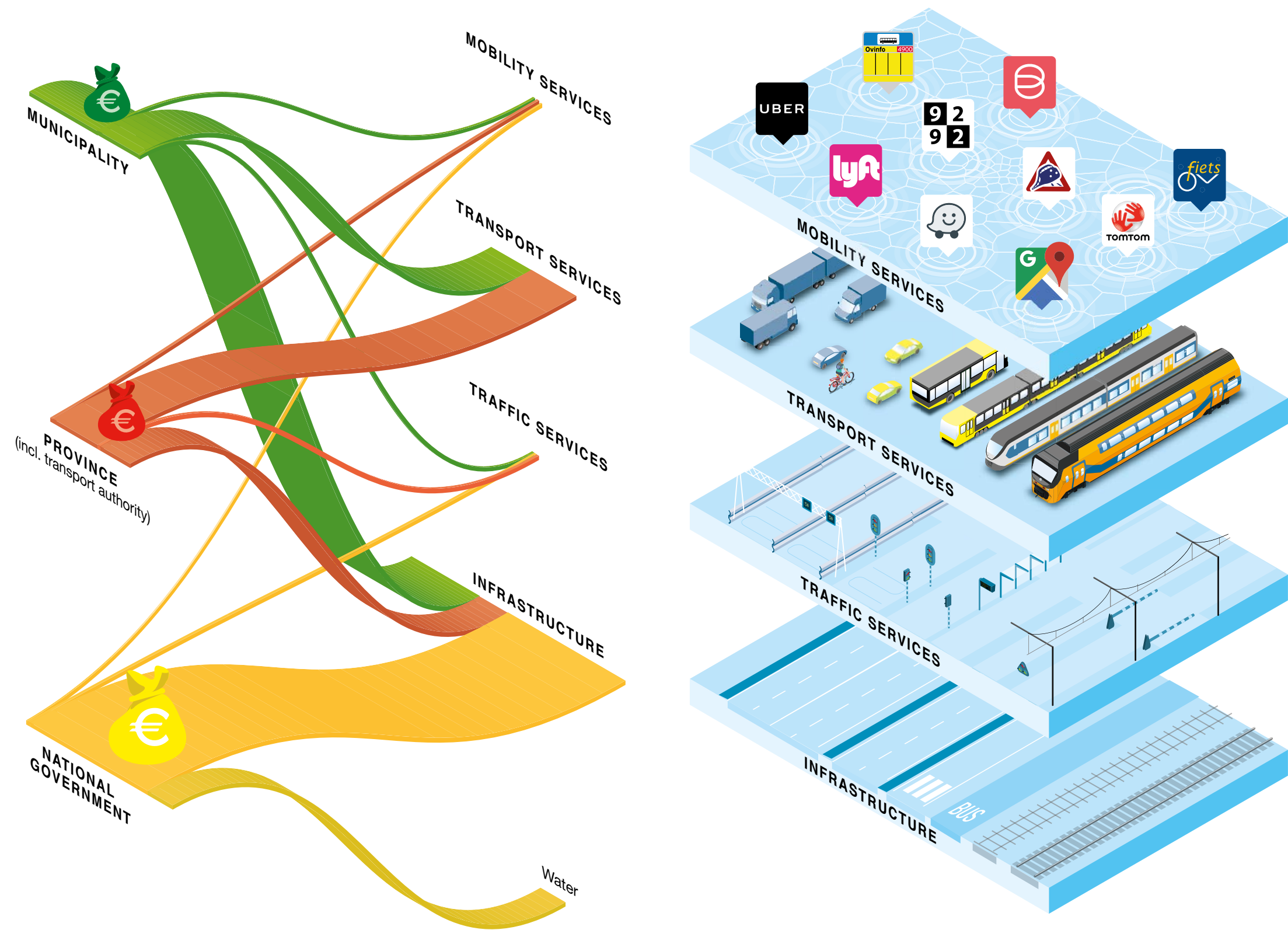
*Infrastructure Fund:* In the 2018 budget, 41% of the money is allocated to major roads and 35% to rail. A further 15% is for the main waterways, 4% for regional and local projects and 4% for major projects such as the European Rail Traffic Management System (ERTMS). The construction of new infrastructure receives 37% and a further 37% is reserved for maintenance and management or replacement. A further 13% is for build and maintain contracts and 14% is reserved for network costs, including staff and operational costs of Rijkswaterstaat.

*Inter-authority:* Spatial planning policy has been decentralised to the provincial governments. Rli has calculated that the total expenditure on spatial investments by all the provinces is €221 million, a marginal sum in comparison with the Infrastructure Fund.





Figure 3: Funding for infrastructure and mobility



In addition to the unequal division of financial resources, the realities of the political decision-making process also work in favour of major infrastructure investments. Even when regional officials recognise the need to take a broad approach and to consider alternative solutions, in practice they often cannot escape local and regional political pressures to acquire financial resources for their own region – at the cost of an integrated approach (Van der Steen et al., 2017).

### **3.2 Establishing an integrated mobility system in a transport market organised along modal lines**

The mobility system is largely structured along modal lines (see Figure 1), and within each mode, responsibilities are divided between national government, the provinces and the municipalities. The various players in each transport mode are focused heavily on their own field of activity. It is even a challenge to get the different functional and administrative layers responsible for just a single mode of transport to work in unison. An example from road transport is the linkage between the national road network and the supporting road network; examples from rail transport are the allocation of capacity between national and regional operators by ProRail (the rail network manager) and the connections between NS passenger services and regional public transport and taxi services.

In general, agreements between public authorities, implementing agencies and transport operators on performance targets are made independently for each transport mode, a key consideration being cost-effectiveness

of government resources. Also, the use of public funds is accounted for separately for each transport mode and tier of government. A logical consequence of this is that the parties involved prioritise their own responsibilities above the functioning of the mobility network as a whole (and therefore above the interests of individuals and communities). Especially when it comes to joint financing there appears to be little willingness to contribute to projects that go beyond the limits of their own mandate. Operational performance targets, such as the reliability of service provision, encourage operators to put the performance requirements for their own travel products first and only then to consider integrated service provision in the interests of the passenger. Due to this strong focus on individual transport modes, players in the mobility sector are insufficiently motivated to work together on designing a robust, sustainable and forward-looking mobility system (Jeekel, 2016).

### **3.3 Establishing a sustainable mobility system with an investment agenda geared primarily to easing traffic flows**

Although sustainability is already acknowledged to be an important principle in mobility policy, the Council observes a highly discretionary attitude and lack of commitment to putting this principle into practice. The most important criteria when making decisions on investments in mobility are traffic flows and capacity, segmented into road, rail and water. For the construction, management and maintenance of infrastructure, no clear goals exist for greenhouse gas reduction or for other sustainability



aspects such as the circular use of materials, biodiversity impacts and air pollution. The application of policy varies according to the specific sustainability objectives of a given project (Ministerie van IenM, 2017c). To meet international obligations on greenhouse gas reduction, the Ministry of Infrastructure and Water Management is deploying a combination of measures on alternative fuels (e.g. electric vehicles), modifying mobility behaviour and freight logistics (Ministerie van IenM, 2017b). It is expected that it will be possible to reduce road vehicle emissions by combining various techniques (SER, 2014). Little use is made of measures (such as spatial planning) to promote alternative forms of travel or influence the demand for mobility.

The Infrastructure Fund's financing methodology, coupled with the focus on existing transport modes, serves to prevent any discussion on reallocating resources between modes to improve sustainability. Strategies such as promoting a modal shift, reducing the need for mobility through spatial interventions and moving from individual to collective transport solutions are barely considered.

### **3.4 Balancing the security (real or perceived) provided by existing solutions against the uncertainty and risks of new solutions**

Major infrastructure projects dominate the joint investment strategies pursued by the national government and the regions. Funds are spent mainly on expanding capacity (more) and, to a lesser degree, on improving

the use of existing networks (better); only very limited amounts are spent on new mobility solutions (different). Not knowing how mobility and accessibility will develop leads to uncertainty about how policy measures and resources could most effectively and efficiently be deployed. In the past, investments in infrastructure were no-regret measures, but in the current turbulent environment the usual solutions have become less future-proof. At the same time, new, more cost-effective policy options are emerging. The magnitude, speed and unpredictability of developments makes it hard to tell how effective potential new mobility solutions can be or when they will become available. The natural reflex among policymakers is to play it safe (more of the same) and avoid discussion about investing public resources in uncertain outcomes, a tendency reinforced by the political reluctance to backtrack on previous decisions. However, the Council observes that an investment strategy geared towards expanding existing infrastructure and capacity is not necessarily future-proof either. New potential solutions are being investigated in numerous pilot projects and studies, but a great deal of hesitation still exists about applying them on a larger scale. Experiences with new solutions indicate that scale and critical mass are essential for these alternatives to work.

The NMCA and Cost-Benefit Analysis (CBA) are key tools in the assessment of projects to be financed from the Infrastructure Fund. The NMCA is a tool for travel and transport analysis and does not account for major transitions in sustainability, energy use, digitisation or driverless vehicles, although it does run sensitivity analyses for these. CBAs have difficulty dealing with any changes that do not follow a clear trend, but involve intermittent



or abrupt shifts, as is the case with mobility. The NMCA's dominance in prioritising mobility solutions, the Infrastructure Fund's bias towards existing transport modes, and the inability of CBAs to handle intermittent or abrupt changes have together created an environment that strongly favours solutions that involve expanding the capacity of existing transport systems.



4



## FROM BETTER TO DIFFERENT



PRINT



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In addition to its recommendations in ‘Faster and Closer’ (Rli, 2016), the Council believes that the good intentions of the MIRT reform as well as other policy innovations in the area of mobility should be pursued with vigour. The Council makes five recommendations to this end. Putting these recommendations into practice can help to make investments more effective and future-proof. The Council realises that the proposed changes place considerable demands on those involved and that existing routines and institutional arrangements will have to be challenged.

The five recommendations by the Council are:

1. National government: make the assessment framework for the Mobility Fund much more open to innovative and sustainable proposals.
2. National government: reserve structural funding for the sustainable maintenance and management of the existing infrastructure.
3. National government: give clear direction to the mobility transition.
4. Public authorities: invest in regional solutions that make better and different use of the existing infrastructure.
5. Public authorities: review and reappraise past decisions on transport and mobility.

**Recommendation 1: National government, make the assessment framework for the Mobility Fund much more open to innovative and sustainable proposals**

The aim of the MIRT reform and the place-based accessibility programmes is for the different tiers of government to take a more integrated view of accessibility in joint decision-making. This is in contrast to practice thus far,

in which the main criteria for mobility investments from the Infrastructure Fund have been traffic flow and the capacity of the transport system, based on the NMCA. During the parliamentary debate on the budget (Tweede Kamer, 2017b) the infrastructure minister indicated that a new assessment framework will be developed for the upcoming Mobility Fund. In the Council’s opinion, this assessment framework should promote a broader consideration of mobility issues, because in practice this fund is by far the biggest source of finance for the MIRT.

This means that spatial planning and infrastructural solutions should be compared and contrasted and consideration given to how planning and mobility solutions can reinforce one another, in effect creating an accessibility fund (Rli, 2016). In the coalition agreement for 2017–2021, however, the government proposes a Mobility Fund that excludes spatial planning solutions. Assuming this will be the case, the Council advises formulating an assessment framework for the Mobility Fund that allows:

- consideration of all types of mobility solutions to societal challenges;
- room for innovation (better and different) in the mobility system;
- setting environmental and sustainability conditions on mobility solutions.

The assessment framework should therefore do more than just take the NMCAs and the CBAs a step further. The Council feels that decisions should be based on the ability to solve mobility problems within the context of broad societal challenges. Simply focusing on specific infrastructure



problems and bottlenecks will not deliver future-proof solutions to these problems.

According to the Council, this implies that resources from the Infrastructure Fund (and the future Mobility Fund) should no longer be reserved primarily for infrastructural works. Substantial investments are needed in making better use of the existing infrastructure and existing mobility concepts (better) and in new mobility concepts (different), such as different arrangements for accessing road infrastructure, investments to enable a more frequent and denser network of rail services, optimising the last mile of the travel chain and, in urban areas, segregating traffic by speed. The Council advises that a substantial part of the Infrastructure Fund should immediately be made available for these types of solutions. The new Article 20 of the Infrastructure Fund Act (Tweede Kamer, 2017c) already allows for this during the exploratory stage of the MIRT process.

**Recommendation 2: National government, reserve structural funding for the sustainable maintenance and management of the existing infrastructure**

The Dutch transport network will not retain its excellent quality and level of service provision if left to its own devices. This high level of quality requires continual management and maintenance, partly with a view to future use by different types of rolling stock or vehicles and mobility services. This is already happening: more than 40% of the Infrastructure Fund is reserved for management and maintenance (including waterways; for rail this is 53% and for road 34%). In the budgets of subnational and transport

authorities this can amount to as much as 60%. The Council argues that decisions on investments in innovations in the mobility system must not come at the expense of the quality of the existing infrastructure network. Nor should short-term politics play a role in funding for management and maintenance. Changes in our understanding of the functioning of the mobility system and sustainability may, however, inevitably lead to reconsideration of the size of the management and maintenance budget (see Recommendation 5).

The Council therefore recommends – in addition to the general funds discussed in Recommendation 1 – reserving a rolling budget for management and maintenance of the existing infrastructure network that meets current and future cost estimations. The Council is of the opinion that management and maintenance projects should also contain clear sustainability objectives in line with the assessment framework described in Recommendation 1. Work already contracted out should be assessed to determine the extent to which it can still be brought more in line with these sustainability objectives.

**Recommendation 3: National government, give clear direction to the mobility transition**

A change in the provision of travel options is inevitable, given changing mobility needs and technological advances. Under current policy, the role of national government is to deliver infrastructure, traffic management services and some traditional transport services like public transport (see Figure 1). Other than that, it attempts to set standards and conditions in the



expectation that ‘the market’ will do the rest. The Council notes that this arrangement does not do enough to speed up the following aspects of the mobility transition:

- Greening mobility requires clarity about the conditions that need to be met.
- To be successful, new mobility concepts require considerable upfront investment and critical mass.
- To be successful, new mobility concepts require regulatory incentives.

For these reasons, the Council advises national government to take decisive action on the mobility transition, giving due regard to the principles underlying the assessment framework (see Recommendation 1). To provide this kind of direction, the national government should use the information available on the various platforms devoted to innovation in mobility, such as Connekt, the Automotive Campus in Helmond, Future Mobility Movement and *Verkeersonderneming*.

In the Council’s opinion, decisive action is needed on the following issues:

- Accelerate the greening of personal transport by phasing out the internal combustion engine more rapidly, preferably as part of an international effort. This could be done by adopting stricter emission standards or by introducing a variable road-pricing system that reflects vehicle emission levels.
- Remove barriers to new entrants to the mobility system. One cannot count on the existing big players in the transport sector to bring about the modernisation of the mobility system advocated by the Council

by themselves. In many cases, ‘better and different’ will need to come from new players. Unfortunately, the present structure of the mobility sector (see Soeterbroek, 2017) contains many barriers to entry. In addition to legislative provisions (Rli, 2016), barriers are created by data availability, access to ticketing systems, performance targets in concession contracts and the scope of model calculations. Better and different mobility options should be possible in public tenders: for road transport, the mobility solution offered should be the focus, not just the physical infrastructure; for public transport, more opportunities should be provided for differentiated procurement.

- Consider policy instruments that protect the public interest but will also work in a dynamic environment. Many new players will be data-driven businesses that approach the market from a different angle than the established players. The existing instruments to protect the public interest (permits, concession contracts, laws and regulations) are not necessarily sufficient to properly regulate these new entrants.
- Prepare legislation that encourages better and different mobility solutions. In ‘Faster and Closer’ (Rli, 2016) the Council advised the government to draw up an Accessibility Act that would, among other things, break open the regulations governing the different transport modes to allow new concepts to be introduced into the mobility system. Entry barriers, in particular, need to be removed. The Council again stresses the importance of this recommendation.



#### **Recommendation 4: Public authorities, invest in regional solutions that make better and different use of the existing infrastructure**

There is much uncertainty concerning the effectiveness of new mobility concepts and when they can be rolled out. Nevertheless, various new concepts already have considerable potential for resolving mobility challenges. What these concepts have in common is that they need to be introduced on a large enough scale to be effective. Implementing them may require a different use of the transport infrastructure or additional investments in the digital infrastructure for mobility. Even though government policy does acknowledge that investments should not be determined by the transport mode or type of infrastructure but by problems and needs, the Council observes that the debate on mobility investment is often limited to the existing modes of transport and polarised by the car (political right) versus public transport/bicycle (left) dichotomy. This paradigm has to be broken down, because it ignores the fact that cars, public transport and bicycles will become increasingly interchangeable and that the choice between these modes will become less important than having a dense network of high-frequency travel options with a modest physical footprint.

The Council feels that new solutions cannot come from the market alone; considerable public investments will also be needed to modernise the mobility system. The Council therefore advises all the relevant public authorities, depending on the specific regional challenge at hand, to invest heavily in new mobility concepts and ways to make better use of the existing infrastructure instead of expanding the infrastructure itself.

Regional transport partnerships should be more open to new, innovative players and platforms that seek to renew and modernise the mobility system. It is important to note that mobility solutions may differ from one urban region to another, and from those in rural areas. The degree to which new concepts are feasible and useful, and at what cost, will depend on an assessment of the specific mobility challenges and needs in each region.

A few examples of strategies envisaged by the Council are:

- Make the existing transport infrastructures more interconnected. Integrating the national railway network with regional or urban rail systems (such as metro, tram and light rail) offers opportunities for denser networks of high-frequency mass transit systems with a limited physical footprint. Such solutions are not necessarily cheaper than traditional rail services. Transport networks can be enhanced by feeder services using buses, shared taxis or bicycle schemes.
- Better infrastructure use could be achieved by allocating capacity in new efficiency-enhancing ways. For example, tradable rush-hour rights could be introduced for roads, or variable rates for rail travel according to the time of day. It is perfectly normal to strictly assign infrastructure capacity to air and rail carriers, whereas access to Dutch roads is completely free (with the exception of a few environmental zones and river crossings).
- In addition to making better use of infrastructure and reducing journey distances through spatial planning, alternative (new) concepts, such as smart mobility, share systems and bicycle schemes, can help to solve future mobility needs. These often make use of existing infrastructure, but in a different way. Whatever the future holds, it is certain that



considerable investments will be needed, especially in ICT and energy infrastructure (Jeekel, 2016; Ministerie van IenM, 2016b).

**Recommendation 5: Public authorities, review and reappraise past decisions on transport and mobility**

The previous recommendations are about improving and speeding up policy reforms that have already been set in motion. The Council is of the opinion that this package of recommendations will in future improve the effectiveness of the money spent on mobility. The question then is whether or not the investments that have already been scheduled should also be reconsidered. In other words, can we do more with the money already budgeted (mainly to infrastructure)? It is not at all certain, for example, that the government will be able to achieve its aim of making all new cars zero-emission by 2030 – as stated in the coalition agreement for 2017-2021 – without reconsidering the funds reserved for infrastructure.

The Council is well aware that past decisions cannot simply be reversed. Furthermore, without a more inclusive assessment framework, a bespoke regulatory framework and more investments in innovation, a reappraisal would probably not deliver a different outcome anyway. Earlier in this advisory report we mentioned that the process, financing and methodology of the MIRT can also lead to suboptimal outcomes. That in itself suggests that it would be advisable to review at least some of the investment projects that have been on the agenda for a long time as well as those that have been put forward more recently in the coalition agreement. Once the MIRT reforms and the recommendations made here start to take effect,

public authorities should use this opportunity to make a comprehensive review of previous decisions on specific projects.

By taking a broad view of the best options for meeting regional mobility needs, the partners should be able to reassess how the funds reserved for specific infrastructure projects can best be spent, as long as the relevant financing remains available within the region. That means reviewing and reappraising expenditures free of any preconceived preferences for specific transport modes, on the condition that this fosters innovation and sustainability (see Recommendation 1).





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# APPENDICES

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