Sustainable Accessibility of the Randstad – One Year On

Popular Annual Report 2008

Colophon

Contents

Foreword

The public and private sectors face major challenges to keep the Randstad accessible in the coming decades. Various developments with a strong social impact are taking place simultaneously, including the ageing population, climate change, advancing ICT and energy transition. The consequences of many of these developments will only become clear in the longer term. The government has set three main tasks for the 'Randstad Urgent' programme and the 'Randstad 2040' Introductory Memorandum. Firstly, the Randstad must remain accessible and retain its economic dynamics. Secondly, the delta must remain safe and climate-proof. Finally, quality of life cannot be taken for granted; we must take measures to assure a good living and working environment.

These tasks demand knowledge in lots of different areas. That's why we are working to mobilise all the available thinking power in the Netherlands and are seeking to train more researchers in this field. In 2007 the Minister of Transport, Public Works and Water Management (V&W) therefore teamed up with his colleagues of the Ministries of Housing, Spatial Planning and the Environment (VROM) and Economic Affairs (EZ) to initiate a long-term research programme entitled Sustainable Accessibility of the Randstad (SAR). Since the second round the Ministry of Agriculture, Nature and Food Quality (LNV) has also participated in the process. These ministries all make a financial contribution. The SAR programme has been placed under the auspices of the Netherlands Organisation for Scientific Research (NWO), which also makes a financial contribution to the research and runs the programme secretariat.

The year 2008 was the SAR programme's first real operational year. Accordingly, we see this as a fitting moment to bring out a popular annual report in order to introduce everyone with an interest in sustainable accessibility – and particularly in sustainable accessibility to the Randstad in the Netherlands – to the idea behind the programme and the first four research programmes that are now underway. The annual report was written by Ymkje de Boer and is based on interviews with the Chairman of the Programme Committee and the four programme leaders. We thank them all for their cooperation and wish them every success for the coming period.

Wim Kuijken,
Secretary-General of the Ministry of Transport, Public Works and Water Management
Chairman of the SAR Programme Supervisory Board

Hans Leeflang is an urban planner and currently Strategy Director at the Ministry of Transport, Public Works and Water Management (V&W). In this capacity, he is also the man responsible for knowledge and innovation. Previously he was active in the fields of spatial planning (e.g. at the Ministry of Housing, Spatial Planning and the Environment; VROM) and long-term strategy – also on a cross-government basis. In addition, he is the driver of the cross-government Sustainable Development programme.

A unique close co-operation between policy and science

'I think it is a challenge to connect longer-term developments with what is happening in the here and now, while also looking across the boundaries separating sectors and organisations. You can also see this in another project that I worked on, entitled 'Different Government', which centred on the idea that government should mainly focus on the immediate social issues in hand. Basically you are constantly asking 'Who are we doing this for?' That question really motivates me – also as Chairman of the Programme Committee of Sustainable Accessibility for the Randstad,' says Hans Leeflang.

'Minister Eurlings is Programme Minister for 'Randstad Urgent' and we have been working with the Ministry of VROM to develop the vision for Randstad 2040. To my mind, the SAR research programme extends even further in scope. Ultimately, the all-important question is how to ensure in the long term that the Randstad does not disappear under water and remains accessible. That, in my opinion, is our core public mission. The R of Randstad, the A of Accessible and the S of Sustainable all come together in the research programme. Though we have made a deliberate choice to give the research a social – rather than scientific – thrust, the participating financing ministries have collectively decided to place the programme under the auspices of NWO. The programme is also a tremendous scientific challenge, not least because of the interdisciplinary approach you need to tackle these issues.'

Natural alliance between four Ministries

Leeflang has been involved in setting up the programme virtually from the outset. 'That close co-operation between science and policy is something I have not experienced before in this policy field. Professors Hugo Priemus and Piet Rietveld conceived the idea, alongside Wim Kuijken, Secretary-General of V&W. Another great thing about SAR is that the four physical ministries – V&W, VROM, EZ, LNV – are working hand in hand. These kinds

of partnerships are becoming increasingly common. LNV wasn't involved at first, but they are now, which in my opinion completes the circle. The agri-sector obviously also has a huge vested interest in keeping the greenports competitive and developing smart logistics solutions.'

A new community of professionals

Leeflang is aware of the classical gap between the world of science and the world of policy. 'But I am very hopeful that SAR will produce three types of outcomes. Firstly, SAR will stimulate an increase in excellent and interdisciplinary scientific research in this field. Secondly, the outcomes of the studies will give fresh impulses to the insights of policy-makers. Not only at the end, but also during, the programme. And finally, the programme will give rise to a surrounding community of professionals who are all engaging in roughly the same subject from their own angle of expertise. They possibly already meet in their own sector column, but I hope we can now cross these boundaries.'

Covering the entire playing field

The past year of 2008 was a busy and productive year. Leeflang: 'First of all we set up the entire organisational structure of the programme with the Supervisory Board, the Programme Committee and the secretariat at NWO. Then we sent out the call for the first round and received proposals from research groups. These were judged by international assessors. We were able to choose from excellent proposals, four of which were accepted. The call for the second round was also prepared and sent out. We changed the emphasis in the second call, because the proposals from the first round still had a strong classical traffic-oriented focus. The 'A' received ample attention, but the 'R' and the 'S' not so much. In 2009 we want to reward proposals that explicitly address other aspects, such as climate change. That way, the entire playing field marked out by Hugo Priemus and Piet Rietveld will be covered.'

Smart connections with hubs lead to super network

The researchers of the 'Synchronizing networks' research programme led by Eric Molin are developing a super network in which travel and transport, major destinations and activity patterns are viewed as an interrelated whole in time, space and 'virtual space'. That way, designers and planners of spatial facilities, mobility and infrastructure can acquire a better understanding of travel patterns. The programme is a collaboration between researchers from Delft University of Technology, Radboud University Nijmegen and Eindhoven University of Technology.

Eric Molin is a sociologist and has always taken a keen interest in research methods and techniques, he says. The term 'choice' is a common thread in his work. 'One of the subjects I worked on at the CBS was parliamentary election studies.' He obtained his PhD with Harry Timmermans at the TUE on a subject within conjunction analysis. 'This concentrates on the modelling of the factors people consider when confronted with hypothetical choices. For instance, if you want to model residential preferences, you describe the homes in terms of various characteristics. Respondents are then asked to assess each type of home, for instance by giving report marks, or to make a choice between different homes. Because of the systematic variations in these descriptions, you are able, with the aid of statistical analysis techniques, to determine how strongly each characteristic counts in the overall residential preference. My PhD research focused less on individual choice behaviour and more on group decisions. Conjunction analysis is also relevant for travel and transport issues. I supervised a PhD student who studied choice behaviour in park & ride car parks. To what extent are people willing to use or pay for these? That was so productive and the outcomes were so interesting – also for society at large – that we wanted to take it further. So we gathered the people of the current consortium together and were basically ready to go when the SAR programme cropped up.'

Eric Molin, Associate Professor in Transport Policy and Logistics, is a member of the Faculty of Technology, Policy & Management of TU Delft.

Also good for social safety

The research programme that Molin and his colleagues are carrying out integrates time, space and 'virtual space' to study people's activity patterns and their associated mobility behaviour. 'Take, for instance, the facilities that are concentrated on the outskirts of the city, such as retail centres and multiplex cinemas. Lots of people go to these destinations by car. So wouldn't it be smart to cluster even more facilities there as well as public transport transfer points? That way, we can achieve all sorts of social improvements, not just in the field of accessibility but in other areas too, such as social safety. But this, of course, also depends on how the public space is designed around these hubs and that's outside the scope of our programme.'

Improving access by concentrating activities

Accessibility is often expressed in terms of how many locations lie within half an hour from your home. The researchers of 'Synchronizing networks' take a different approach. 'We would rather express it in terms of the ease with which you can achieve a full activity pattern. You could improve accessibility by concentrating activities, so that less trips are necessary. A closely related question, incidentally, is finding ways to break through the car owner's automatic tendency to choose the car for every trip.'

'Synchronizing networks', the term used in the title of the programme, means literally connecting car links, public transport links and locations. 'And we add a further two aspects. The first is the time dimension. If you combine facilities and traffic flows, they must be open or available at the same time. The second aspect is ICT. We want to examine the possible role of ICT when there are incidents, such as extremely bad weather or traffic accidents. In that case, people may prefer to stay at home and speak to each other in a tele-meeting – in which case the activity would continue, only the physical mobility will have been replaced with virtual mobility.'

What is the best place to meet?

In the 'super network approach' the researchers go a step further than has been done so far. 'In a recent paper Arentze and Timmermans aired the view that you should not only represent locations or movements in a super network, but also the overall activity patterns. Among other things, that means taking the 'status' of the activity into account. For instance: you can then indicate whether people have already done their shopping or not. Ultimately, we also want to show how activity patterns of different individuals can be connected. This would involve creating a model that can indicate the best place for organising larger events or holding meetings. In short, what activity locations can best be placed together in space?'

Who owns the time and space?

All very well, but who is going to plan and organise this? Who, after all, owns the space and who owns the time/space problem? 'Well, that is a governance question. We also have a PhD student (AIO) project for that in our programme. Obviously, all sorts of different actors are involved in the super network. The most important question is how to get all these actors to look beyond their own self-interest and start feeling involved with the larger whole. If everybody only organises their own small part of the network, the chances are you'll end up with a suboptimal end result for society as a whole.' The other two AIO projects are about calculating the shortest paths - which will be done by someone with an engineering background - and analysing people's behaviour in making choices. 'One aspect that plays a role here is perceptions. For instance, people systematically overestimate the train travel time versus the car travel time. The car is by no means always faster than the train, but people still base their mobility behaviour on that assumption. In this connection we use the Travel Behaviour Simulator, which we fill with activity patterns on the basis of the outcomes of a survey.'

Alongside the three PhD student (AIO) projects, there is also a post-doctoral project. 'This is not so much about knowledge development, but about application, about design. To make sure this is done correctly at the end of the process, the post-doctoral researcher must see to it that the PhD students all use the same conceptual framework at the start.'

First-round progress update

Until 30 January 2008 consortia of university research groups could submit Letters of Interest (LOI). Responses were received from 30 different groups. In their LOIs they gave a rough indication of the research they would like to carry out within the SAR programme. Of these groups, 25 submitted a more detailed version of their proposal for funding. In the international assessment round it was found that all submitted proposals met the assessment criteria. Nine proposals were even designated as 'excellent' with 'high' or 'very high priority'. Given the available funding of 3.5 million euros for the first round, we were able to accept four of these proposals. The four programme leaders are currently filling the PhD student (AIO) vacancies. The expectation is that all recruited researchers will have started work by September 2009. ∎

Harry Timmermans is Professor in Urban Planning at the Department of Architecture, Building and Planning of Eindhoven University of Technology.

ICT connects the dynamic traveller with the 'slow' built-up environment

'TRISTAM' stands for the research programme entitled 'Traveller Response and Information Service Technology: Analysis and Modelling' that is led by Harry Timmermans. The programme researches how travellers use travel information such as travel time estimates when there are tailbacks. In this connection, the researchers are making full use of advancing ICT technology to avoid undesirable side effects of travel information, such as merely shifting congestion elsewhere. The programme is a collaboration between researchers of Eindhoven University of Technology, Delft University of Technology and VU University Amsterdam.

The interaction between the built-up environment and traffic is a subject that Harry Timmermans has been exploring for some time now. 'The traditional approach is to look at the physical side. How can traffic be organised to meet all individual needs without too many adverse social side effects? But that physical side is only one aspect and, what's more, a very 'inert' side. Whereas the user's behaviour is extremely dynamic. When it comes to mobility, there is a huge discrepancy between wish and reality – just look at all those tailbacks. ICT may help to narrow that gap. What you would really like to do as a policy-maker is to make optimum use of the existing travel and transport capacity, which means persuading people to use that capacity in a certain way. That 'certain way' could be related to such diverse aims as avoiding tailbacks or improving safety. We want to research the intermediary role that ICT can play between the slowly changing built-up environment and the rapidly-changing use of that environment. Our focus is on travel information. How do people respond to that information? How should it be presented and what's the most effective information infrastructure? Are there perhaps also ethical limits? We obviously don't want a 'Big Brother' situation. Then again, perhaps that already exists. People have no idea what all sorts of institutes already know about their daily behaviour… They'd be surprised!'

Putting people on a certain track

TRISTAM may have a demythologising effect. 'As scientists we must also put limits on policy-makers' expectations regarding new tools like information technology. One widespread misconception about travel information is that if you give people a certain type of message, they will respond in the way you want,' Timmermans explains. 'But travel information only works in certain circumstances. We will clarify some of these in our sub-projects.'

Earlier Timmermans led a research programme entitled 'Behavioural aspects of PITA (Personal Intelligent Travel Assistant)' within the NWO Travel and Transport Programme, the precursor of Sustainable Accessibility of the Randstad. 'The big difference is that we are now taking more recent information technology on board. It is now possible to not just give neutral information, but also travel advice with the aid of 'persuasive computing'. That way, you can deliberately put people on a certain track. Old models take little account of this kind of information.'

Factoring in strategic behaviour

The first sub-project addresses the question what happens with traffic flows if you give the users of the traffic network certain information – and how you can model these effects. 'It is not that simple, because if you send everyone the same way when there's a tailback on a certain road, you simply create a new tailback on the alternative route. And people also behave strategically. Some, for instance, will think: 'I'll just stay on this road, because it will soon get quieter now that everyone is taking the alternative route'. The older models ignore that strategic behaviour. We are tackling this aspect via simulations in a virtual environment. There we analyse how people respond to information and hope their choices are realistic so that our virtual environment closely replicates reality.'

Another sub-project is about the spatial consequences of behavioural choices. 'People go to certain places to shop, fill up their car and so on. And they do these things at certain times. Suppose you give them information about the accessibility of these places or alternatives. Then they may take different routes or choose different times. You will then see new

patterns arising in the city. Congestion may be solved in one area, but be replaced with new parking problems or noise nuisance or some other undesirable effect elsewhere. What we are trying to do is get a picture of the consequences of the overall daily activity pattern, which is an entirely new approach.'

Virtual accessibility

Yet another sub-project is about the 'accessibility' concept itself. 'Accessibility is often expressed in terms of space and time. How long does it take to cover a certain distance? Another term used in this context is 'consumer welfare', which refers to the costs that people incur for accessibility. We are now adding in the ICT factor. Teleworking or teleshopping may make certain trips unnecessary. Which means that we must also look at the virtual accessibility of services. How are we going to define that? What data and indicators do we need for this? Other related questions concern the consequences that using ICT has for an entire household or even for an entire residential or working area.'

The fourth sub-project is of a slightly different nature and zooms in on teleworking. 'The latest development is that, instead of encouraging homeworking, organisations are getting their people to work in alternative locations that are more accessible than the normal workplace, at an 'intermediate station' so to speak. In this case, they could, for instance, rent a small location to meet outside the rush hour. What consequences would this have? And what about the economic appreciation of solutions like this? What is the economic value of travel time?'

The real world is ready for the experiment

Finally, there is a post-doctoral project that must oil the wheels of the research process, says Timmermans. 'Besides bringing together the various developed concepts and models, this project is also aimed at gaining some practical experience. Formerly the travel and transport world was not yet ready for our experiments, but I definitely think they will be up for it now. All sorts of initiatives in the region point in that direction – we ourselves are already taking part in some of them. One concerns a navigation system that

has been adapted to decongest certain routes, with favourable knock-on effects for the environment.'

Six themes

The themes to be addressed in the funded research are:
1. Climate change and energy transition: consequences for the Randstad infrastructure
2. External accessibility of the Randstad, particularly mainports
3. Internal accessibility of the Randstad, particularly cities
4. Synergy between urban networks and infrastructure networks
5. Ecological quality and infrastructure networks
6. Governance of transport and infrastructure

The research programmes in the first round do not cover the six themes in full. For this reason, the second round places more emphasis on the themes of Climate Change & Energy Transition and the Synergy of urban networks and the travel and transport system of the Randstad. ∎

Different recreation – different traffic – a different space

Within the research programme 'The value of recreation: Now, and in a completely different future', which is led by Bert van Wee, the researchers are seeking to gain more insight into the needs and choices of travellers concerning recreation and mobility, both now and in the future. In this context they take account of radically changing conditions, such as the rising demand for recreation, and the consequences of climate change and climate change policy. The programme is a collaboration between researchers of Delft University of Technology, VU University Amsterdam and Eindhoven University of Technology.

Recreation is of great social significance. People have more and more leisure time, are living longer and healthier, and have more money to spend. 'Recreation is so important in people's mobility behaviour that many households have a car that is largely geared to that single annual summer holiday,' says Van Wee. 'We still know very little about recreational mobility, and nothing at all about how it may be influenced by radical changes, such as the government imposing restrictions on the number of kilometres that you're allowed to drive in order to reduce oil consumption. What choices will people make then? Will they embrace teleworking so that they needn't sacrifice their family outings in the car? Will people start recreating closer to home on a more daily basis? What consequences will that have for the planning of residential and green areas?'

Combining breadth and depth

Bert van Wee is originally a social geographer and has already spent many years working on explorations of the future and the travel and transport theme, notably at the Future Exploration of the Environment Bureau of the National Institute for Public Health and the Environment. 'Meanwhile I obtained my PhD on the relationship between spatial planning and mobility. I was also an endowed professor in that subject for several years. I have become convinced that many policy-relevant issues only benefit

Bert van Wee, Professor in Transport Policy and Logistics' Organisation, and Caspar Chorus both work at the Faculty of Technology, Policy & Management of Delft University of Technology.

from multidisciplinary research. That fits in well with my own approach. I go for breadth, rather than depth. I try to understand a bit of everything in order to tackle a complex issue - a bit of psychology, a bit of economy, a bit of technology. But you obviously also need in-depth single disciplinary research. We have people like Caspar for that. Clearly, it's the combination that matters.' Caspar Chorus: 'My contribution to this research consists in modelling people's behavioural choices in relation to mobility. Policy-makers need hard data on lots of things, such as the market share of certain transport options or how many euros people are prepared to pay for a time gain of an x number of minutes. Unfortunately, the models that are currently used to supply these data are based on small step-by step changes. These are not equipped to deal with those extreme scenarios that we are looking at.'

Economic crisis as an example

Van Wee: 'What extreme scenarios we will look at depends largely on the policy-makers. We have to get a clear focus on the challenges they see as quickly as possible. Thankfully we managed to get a PhD student with policy experience to help us do this. And he is also good at thinking 'out of the box', which is necessary too. It will also be interesting to work together with the researchers of the other SAR programmes. TRISTAM looks at the relationship between accessibility and ICT, a subject that also plays a role in our research.' Chorus: 'And we also tap into insights from behavioural economics, a discipline that is very much on the rise. It has been found that people make choices in different ways from what you might think - seemingly less rational and more spur-of-the-moment. On the other hand, factors that appear to be unrelated can suddenly turn out to be strongly interdependent. The price of a trip through New Zealand may cause people to visit an amusement park in their own country more often. In our current economic crisis, for instance, fewer people are travelling to far-flung destinations, but the tailbacks to the Efteling amusement park are getting longer. And State Secretary Heemskerk has also urged people to spend their holidays in their own country.'

Van Wee: 'Another example is the imminent contraction of the population. It may become more attractive to have a second home elsewhere in the country, but how will that take shape? You can live in the Randstad and go to the countryside for the weekends. But the reverse is also possible, with people opting for a pied-à-terre in the Randstad for weekdays. That would result in a different mobility picture.'

The household's recreational agenda

The programme that Van Wee and Chorus are carrying out consists of four sub-projects. 'A PhD student at VU University of Amsterdam is studying the value that should be assigned to recreation and, for instance, green areas in the Randstad. This will make it easier to make informed policy decisions on investments in infrastructure and recreational areas. The PhD student at Eindhoven University of Technology is investigating the recreational behaviour and the household's 'recreational agenda', i.e. people's recreational choices for the whole family. This extends across various different time horizons. When it comes to holidays, people often plan a year ahead and there's also those once-in-a-lifetime trips to take into account. Most families, for instance, will want to visit Disneyland Paris at least once with the children. This is the first-ever study centring on the motives underlying these choices, which is clearly innovative.'

What would you do if…

The third project is mainly devoted to exploring those extreme scenarios, while the fourth project identifies the consequences for infrastructure and spatial planning and development, naturally in the light of the sustainable accessibility issue. Van Wee: 'Our likeliest route of inquiry is to study what people will do if the government seeks to curb individual mobility in one way or other. I don't think we should count on some technological miracle that will allow everyone to travel as much and as far as they want without causing any nasty side effects. Another challenge that awaits us is choosing the right research method. You cannot simply ask everything in questionnaires. We may need to visit people at home and get them thinking out loud over a cup of tea: how would you use your car if you were rationed to 5000 kilometres a year…? In the Netherlands this may give the

bicycle a huge boost. And people may start visiting the nearby countryside more often. How will farmers respond to this, now that agriculture is in such decline? As you see: our research extends well beyond the domain of recreation.'

High level

The SAR-funded research is innovative, of a high scientific standard, multi-disciplinary and internationally-oriented. The research is, of course, relevant in the context of strategic knowledge demands at the participating ministries and other public parties as well as, possibly, private parties. The research meets the NWO requirements of scientific quality and practical applicability and significance.

The SAR programme will run for six years. In the first round (2008) some 3.5 million euros was awarded to research. A similar amount is earmarked for the second round. The total budget consists of contributions from the Ministries of V&W, VROM, EZ and LNV and the NWO. ◼

Lóri Tavasszy is Professor in Freight Transport and Spatial-Economic Development at Radboud University Nijmegen and team leader at the Mobility and Logistics Department of TNO Built Environment and Geosciences.

Growth in freight transport calls for creative solutions around the three mainports

The research programme entitled 'Towards a sustainable multimodal freight transport system for the Randstad', which is led by Lóri Tavasszy, focuses on the rapid growth in freight transportation in and around the three Randstad mainports (the Ports of Rotterdam and Amsterdam and Schiphol Airport). The researchers are studying ways of linking chains in trade, logistics and transport, with a particular emphasis on such issues as multimodal network design and urban distribution. The programme is a collaboration between researchers of Radboud University Nijmegen, Delft University of Technology and VU University of Amsterdam.

'For the first time ever our society has reached the point where freight transport will start growing faster than passenger transport. This has huge implications for our infrastructure and transport networks. All eyes are focused on this major social issue. And policy-makers realise this,' says Lóri Tavasszy in his Delft office at TNO. 'Just imagine…the infrastructure to and from Rotterdam will have to handle three times more freight by road, five times more by inland waterway and seven times more by rail. How can it cope? And do we even want this growth? The Netherlands is traditionally an important logistical hub in world trade. Maintaining that status is a huge challenge – particularly in the Randstad, with its four large cities and three mainports.'

Research for policy

Tavasszy continues: 'You can obviously facilitate the growth in freight transport, but only at a social cost. On the other hand, we neither can nor want to stop that growth. The middle position is the most challenging one, namely finding creative ways of managing that growth without compromising sustainability. Whatever course we take, to develop effective policy for the Randstad, we must get the facts on the table first. These include current data on freight transport, accurate forecasts, policy

analyses, and so forth. We've found that new model instruments need to be developed, estimated and tested and that new empirical research is necessary, with a specific focus on the Randstad. That's what we are going to do now.'

Knowledge development and knowledge application all in one

The SAR programme came at just the right time for Tavasszy. 'At TNO we had previously made a freight transport model for the Ministry of Traffic, Public Works and Water Management (V&W). This model, named SMILE, was intensively used in practice and was also adopted for studies in other countries such as the UK and Sweden. But there were still some unresolved scientific issues with SMILE. Now we have an opportunity to tackle these. My two hats – Professor at Nijmegen and TNO man – come in very handy for this purpose. At the university we develop fundamental knowledge, while TNO acts as a bridge to the practical world.' Tavasszy enthusiastically describes his engagement in the development of freight transport models since obtaining his PhD in the mid-1990s. 'After all sorts of practical applications, we are finally getting round to the scientific research agenda that has evolved in the past years. What's more, the programme that we can carry out now will open new avenues for research in the field of freight transport.'

System vision for trade, logistics and transport

Tavasszy explains that the programme is made up of three projects. 'The first project consists of two parts. The first part puts the demand for freight transport in focus. Who are the customers, why do they want that transport, when and for how long do they need it, how fast will it grow? We really need to delve deep here, because there are so many different data out there. The trade and transport data are based on different measurement methods, ranging from surveys to administrative records, and they also come from lots of different actors. The question now is how to integrate these data into a single coherent picture. To do this, the second part seeks to obtain a good picture of the logistical services market, i.e. the organisers of freight transport. Ultimately everything is brought together in a coherent set of models and databases for the Randstad, using the input

from the other two sub-projects. 'In our approach the system vision is the dominating factor. The data and models help us to develop a picture of the overall coherent freight transport system in the Randstad, which must also be easily reproducible. With that picture, we can deliver better forecasts of the expected growth in freight transport.'

Smart time policy saves millions

The second project is about supply: the multimodal freight transport network, the infrastructure and so forth. 'This concerns the question how to set up the network in such a way that it is not just optimal in economic terms, but also in terms of sustainability requirements,' says Tavasszy. The third project, finally, zooms in on the Randstad and makes a cross-section cutting straight through supply and demand. 'We use the outcomes from the first two projects to build a detailed simulation model specially for cities.' It is a so-called Multi Agent system, in which different policy options can be 'tried out' on artificial actors in the world of urban freight transport. 'There are policy options in various fields such as pricing, emissions norms and spatial planning. What happens with transport in the cities if you decide to place distribution centres on the outskirts of the urban area? Under what conditions is that feasible? Another option is to coordinate the time slots that lorries are allowed into the city centres to supply stores, restaurants and so forth. At present these time slots are not coordinated at all. It would save hundreds of millions of euros a year if they were.'

Educating one another

Ambitious though this programme is, Tavasszy is confident that it will succeed. 'Obviously we have to manage the users' expectations. A thesis is clearly different from an applied study. But as a TNO man I have fortunately gained some experience of the policy-making world. The programme committee's role is very important at SAR. I see the added value of the policy-makers' involvement not only in the end product of our research, but also in the 'educational process' that we will go through together in the coming four years. The policy-maker educates the researcher and vice versa. I see the SAR programme as an important experiment in this sense, and we can all learn from it.'

Meanwhile Tavasszy's programme is making good headway. 'All PhD students are known. We have our contacts at V&W and abroad. We have an NWO subsidy to organise a seminar for the first project in Tokyo in August. And in April we will be giving a course at the TRAIL research school. So everything is up and running.'

2008 – start-up year

In 2008 the Programme Committee met several times, mainly to give the first two rounds further shape. Consultation was also held with the leaders of the four research programmes that were granted first-round funding about such matters as the expected social outcome of their research. Amongst other things, the Programme Committee and programme leaders discussed ways in which the mobility world (policy-makers, businesses and other knowledge users) can be involved and kept involved throughout the various programmes. An SAR-wide user group will be set up for this purpose. In addition, researchers will take part at least once a year in a conference or other event aimed at a broad audience. ∎

The management structure of the SAR programme

The SAR programme has a Supervisory Board, a Programme Committee and ad hoc Assessment Committees. The Programme Committee is responsible for the coordination and coherence of the programme, assesses the progress and draws up the budget. In addition, this committee is responsible for prioritising the research proposals on the basis of the outcomes of one or more Assessment Committees and promoting knowledge transfer to the users. The Supervisory Board allocates subsidy on the basis of the Programme Committee's advice and oversees the implementation of the research programme.

In 2008 the composition of the various bodies involved in the SAR programme was as follows.

Supervisory Board

W.J. Kuijken, Ministry of Transport, Public Works and Water Management (Chairman)
C.P. Buijink, Ministry of Economic Affairs
H.J. Hazewinkel, VolkerWessels
J.M. Norder, Municipality of The Hague
J.W. Oosterwijk, Erasmus University Rotterdam
J. van der Vlist, Ministry of Housing, Spatial Planning and the Environment
Ms A.N. Wouters, Ministry of Agriculture, Nature and Food Quality (LNV)
P. Nijkamp, Chairman General Board NWO

Programme Committee

H. Leeflang, Ministry of Transport, Public Works and Water Management (Chairman)

Government Representatives

A.J. van der Burg, Ministry of Housing, Spatial Planning and the Environment

A.L. 't Hoen, Knowledge Institute for Mobility Policy

N. van Paridon, Amsterdam Metropolitan Region

E. Reiding, Ministry of Transport, Public Works and Water Management

E.C. Schmieman, Ministry of Economic Affairs

Representative of Ministry of Agriculture, Nature and Food Quality (from 2009)

Scientific representatives

A.N. Bleijenberg, TNO

P.P.J. Driessen, University of Utrecht (from November 2008)

M. A. Hajer, University of Amsterdam (until November 2008)

Ms M.A.J. Kuijpers-Linde, Geodan Next

H.J. Meurs, Radboud University Nijmegen

H. Priemus, Delft University of Technology

E. van de Voorde, University of Antwerp

Secretariat

H.W. Waaijers, NWO Social Sciences

Ms C.A. Rovekamp, NWO Social Sciences