

Decision-making about road pricing in the Netherlands: Actors, their viewpoints and their position in the network

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Samenvatting

Besluitvorming over prijsbeleid op het Nederlandse wegennet: Actoren, hun standpunten en hun positie in het relatienetwerk

Al meer dan vijftien jaar discussieert men over prijsbeleid op de weg, maar het is tot nu toe niet gelukt om een voorstel te realiseren. Veel onderzoek is de afgelopen jaren gedaan naar o.a. de economische en bereikbaarheidseffecten van prijsbeleid, maar er was minder aandacht voor de acceptatie en visie van belangengroepen. Dit onderwerp is echter wel belangrijk vanwege de blokkademacht die sommige partijen hebben. Het doel van dit paper is om inzicht te geven in de actoren die bij de besluitvorming betrokken zijn, hun standpunten, hun positie in het netwerk en de mogelijke conflicten en overeenstemming, om met dit overzicht een bijdrage te leveren aan een succesvolle implementatie van prijsbeleid.

De betrokken actoren zijn het eens over het probleem (congestie en milieuvervuiling) en de oplossing: de introductie van een op satellietnavigatie gebaseerd systeem voor betalen per km op het hele wegennet, met tarieven gedifferentieerd naar plaats, tijd en voertuigkenmerken. Er zijn echter conflicten tussen met name de overheid en milieuorganisaties en de vertegenwoordigers van bedrijven en automobilisten over het gewenste effect van prijsbeleid (verkeersregulering vs. genereren van inkomsten voor investeringen in infrastructuur), de besteding van de opbrengsten en de verzelfstandiging van het wegbeheer.

Het gevolg van deze conflicten is dat een succesvolle introductie van prijsbeleid nog erg onzeker is, met name omdat de onenigheid tussen betrokken belangengroepen als de belangrijkste faalfactor voor een succesvolle besluitvorming wordt gezien.

Summary

Decision-making about road pricing in the Netherlands: Actors, their viewpoints and their position in the network

Road pricing has been a topical subject for more than fifteen years in the Netherlands, but the implementation of concrete proposals time and again failed. Much research has been done on various effects related to road pricing, such as economic and accessibility effects. The opinion and acceptance of road pricing by social interest groups in the Netherlands have largely been neglected in the research done, but are indeed important, as these parties might have substantial power to block decision-making. The objective of this paper is to provide insight in the involved actors, their ideas, their positions of power and the (potential) conflicts and agreements in order to contribute to a successful implementation of road pricing.

The involved actors agree on the problem formulation (congestion and environmental damage), and the solution, a nationwide kilometre charge using GNSS/GSM technology that is differentiated in place, time and on environmental characteristics. On the other hand conflicts are especially visible between the governments and the environmental organisations, and the representatives of businesses and road users about the desired effect of road pricing, being traffic regulation versus the generation of revenues for infrastructure investments, the spending of the revenues and the privatisation of road management.

Consequence of these conflicting viewpoints is that a successful implementation of road pricing is by no means certain, especially because actors mention the disagreement between involved interest groups as the most important threat to successful decision-making.

1. Introduction¹

Road pricing has been a topical subject for more than fifteen years in the Netherlands. The first initiative was proposed in the end of the 1980's and concerned a toll cordon around the four big cities of Amsterdam, Rotterdam The Hague and Utrecht for peak-hour charging. This initiative was subsequently followed by proposals for a conventional toll, a vignette for driving during rush hours, 'rekening rijden' and a kilometre charge (Rietveld, 2001). None of the proposals has been implemented, in contrast to a number of foreign countries (e.g. Austria, Switzerland and the UK) where road pricing projects have been realised successfully. The Dutch initiatives were cancelled due to the lack of support of social interest groups, citizens and political parties. The former group in particular had a great influence with its well-organised and at times very fierce criticism, such as for example the 'Stop rekening rijden'-campaign of the Dutch Automobile Association ANWB in 2000 (Seidel et al. 2004).

Currently, the Netherlands is on the threshold of another initiative: in October 2004 the minister of Transport, Public works and Water management established the national platform 'Paying for Mobility', which had 16 members that represented the important interest groups and social organisations. The task of the platform was to give a joint and broadly supported advice on a different way of paying for road use in the Netherlands (Platform ABvM, 2005). The establishment of this platform is a unique event in the Dutch history of road pricing, as this is the first time the ministry of Transport does not present a ready-made proposal, but involves interest groups in an early stage.

1.1 Previous research and lacking knowledge

The last decade a lot of research has been done on various effects related to road pricing, such as economic effects, environmental effects, accessibility effects (ex-ante by means of simulation models and ex-post in areas/countries where road pricing has been implemented), acceptance by road users and the design of road pricing (among others the possible bases for charging, e.g. marginal cost pricing). Especially with regards to the latter two subjects, joint research funded by the European Commission has played an

¹ This paper is based on a part of my master thesis (Ten Hacken, 2005), which describes the decision-making process on road pricing in the Netherlands from a multi-actor viewpoint and deals with several design aspects from a systems engineering and policy analysis viewpoint (including requirements formulated by the European Union, lessons from foreign road pricing projects, available technologies and possibilities for a phased implementation).

important role. The TIPP-research (Transport Institutions in the Policy Process) concerning political acceptability and perceived legitimacy of transport policy implementation dealt with important criteria for the acceptance of transportation policy measures (Seidel et al., 2004). The MC-ICAM study was an integrated conceptual and applied model analysis for the implementation of marginal cost pricing in transport that among others dealt with key design dimensions for road pricing and important barriers and constraints for implementation (Niskanen and Nash, 2004).

The TIPP and MC-ICAM research both concluded public acceptance is the most important barrier to implementation of road pricing, but until now this subject has only been researched partially. It is known that in general the factors ‘problem perception’ and ‘perceived fairness of the policy’ influence the acceptance of a measure by the road users (Seidel et al., 2004). But the opinion and acceptance of road pricing by social interest groups in the Netherlands, which are after all assumed to *represent* the interests of ‘the public’, have largely been neglected in the research done. The Dutch history of road pricing has shown that the opinion and viewpoints of the interest groups are indeed important, as (some of) these parties have substantial power to block decision-making.

This research maps the involved actors, their problem perception, their goals and their view on a different way of paying for road use by means of an actor analysis and as such tries to make a change in the little attention that has been paid to the viewpoints of various interest groups up till now. Besides, this paper maps the network of actors’ relationships.

Although the platform ‘Paying for Mobility’ has performed its task successfully and has jointly advised the implementation of *a national kilometre charge differentiated in place, time and on environmental characteristics* on the motorways and the underlying road network (Platform ABvM, 2005), disagreements still exist on other issues and the detailed design of a road pricing system.

1.2 Objective and research questions

The objective of this paper is to provide insight in the involved actors, their viewpoints, their positions of power and the (potential) conflicts and agreements in order to

contribute to a successful implementation of road pricing. Research questions that are answered in this paper are:

- Which actors are involved in the decision-making process about road pricing and what are their viewpoints on a different way of pricing road use?
- What is the position of the actors in the network of relationships, from the perspective of like-mindedness and power?
- What are the most prominent conflicts that arise from the disagreements and actors' position of power?

This research takes a first step in the direction of answering the most elementary questions about the actors and their position in the playing field. A next step is discussing approaches and methods for solving the conflicts between actors. This provision of possible solutions for the differences in opinion, however, is not part of this paper.

The remainder of this paper is organised as follows. Section 2 presents the theory of the actor and network analysis and the interview methodology. In Section 3 the results of the actor and network analysis are discussed in two sub-sections. One deals with the actors and their viewpoints and objectives, the other sub-section deals with the actors' position in the network of relationships. The final section presents the conclusions and addresses issues for further research.

2. Method

This paragraph describes the methods used for data collection and analysis of the actors.

2.1 Interview method and reflection

Data for the actor and network analysis were collected by means of interviews with involved interest groups, local governments and ministries. In order to obtain an accurate picture of the standpoints of the actors, various questions were asked with regards to the problem perception, the interests and objectives of an actor, the preferred system technology and factors determining the success or failure of the introduction of road pricing. Concerning the network, questions were asked about the relations between actors and the actors' possibilities to influence the process. Interviewing was chosen as the

method of data collection, because the information needed from the actors was diverse and certainly not fully available in published documents or on the organisations' websites.

The representatives of the involved actors were interviewed using a *standard list of open questions*, which made the interview *semi-structured* (Ten Horn and Wiethoff, 2001). This structure was chosen as open questions allow interviewees to bring up interesting extra information, while a pre-arranged list of questions guarantees the interviewees provide more or less the same information and thus enhances the comparability.

Interviewing as a method has two disadvantages. Firstly, the extensiveness of the answers and the detailedness of the information highly depend on the interviewee. Secondly, an interview often does not provide *all* information needed. Almost all interviewees indicated during the conversation that certain information was confidential and sometimes interviewees refused to answer particular questions. The advantage of this *series of interviews*, however, was that a great deal of the details nevertheless came to the surface, because sixteen interviews were held and there were always several parties that did not regard information confidential that certain other parties did.

2.1.1 Interviewees

The interviewees consisted of the members of the national platform 'Paying for Mobility' and the four involved ministries². Twelve of the sixteen platform members³ agreed to an interview, which was usually not given by the representative in the platform itself, but by the representative in the expert platform that was established in the course of the discussion and negotiation process to answer content-related questions of the platform.

Two independent experts on road pricing were interviewed; one was a platform member and the other (Mr. Bleijenberg) is the chairman of the international ECMT⁴ think tank on transport and economics and formerly worked for the ministry of Transport.

2.2 Actor and network analysis

² Interviewed ministries are: 1) Transport, Public works and Water management (hereafter: the ministry of Transport) 2) Finance 3) Housing, Land-use planning and Environmental management (VROM) and 4) Economic Affairs (EZ)

³ Interviewed organisations that were represented in the platform are 1) Province of Gelderland 2) Province of Noord-Brabant 3) the city of Amsterdam 4) the city of The Hague 5) ANWB 6) KNV/Mobis 7) MKB-Nederland 8) Natuur en Milieu 9) RAI-Bovag 10) Transport en Logistiek Nederland 11) VNO-NCW 12) independent expert Prof. C. Koopmans

⁴ European Conference of Ministers of Transport

The practice of decision-making on large technological projects (e.g. the High Speed Link, road pricing, etc.) often is complex because it involves a substantial number of mutual dependent actors that have different problem perceptions and objectives, and are able to influence the process in various ways (Koppenjan and Klijn, 2004).

An actor analysis shows which actors are important in a certain problem situation and presents the viewpoints, interests and objectives of these actors. By examining to what extent parties' perceptions of the problem and its possible solutions differ, potential conflicts and possible agreements become visible. The actor analysis thus provides information for developing an approach that maximises the chance of successful problem solving by anticipating on possible conflicts (Enserink, 2002).

The network analysis examines the relationships and dependencies between actors. The network analysis used in this research is based on the methods of Enserink et al. (2002) and Hanneman (2001), and consists of three steps:

1. Mapping the actors' position of power
2. Mapping the relationships an actor maintains and clustering the like-minded actors
3. Determining the dynamics in the network

The first step of the network analysis focuses on mapping the position of power of the actors. An actor does not have power in the abstract; it has power because it can dominate others (Hanneman, 2001). The position of power is determined by the importance of its resources (e.g. financial means, authority, information, and support) (Enserink et al., 2002), its commitment and the extent to which problem perceptions, interests and objectives coincide with those of other actors.

The second step of the network analysis focuses on the relations that actors maintain, to gain a better understanding of their behaviour. Sub-groups are an important aspect of a social structure (Hanneman, 2001). When actors belong to one sub-group and thus are like-minded, conflicts between them are less likely. The definition of a sub-group is simply a sub-set of actors who are more closely tied to each other than they are to actors not being part of the group. In practice, however, it is complex to draw fixed and exact boundaries around sub-groups, as there are sub-groups where at least some members are not so closely connected.

Due to time constraints and because the objective of this research is giving a *qualitative* description of the actors and their network, instead of doing a quantitative analysis, the interviews have been set up as to gain sufficient information for a conventional, but not a ‘full network’ analysis, which requires that detailed information is collected about each actor's ties with all other actors (Hanneman, 2001).

The third step in the analysis is estimating the dynamics in the network. In the course of the process perceptions, objectives and dependencies change, e.g. because of political shifts and developments in the environment. An example of dynamics is a change in the composition of political bodies as a result of elections (Enserink et al., 2002).

One comment has to be made on the actor and network analysis: dynamics in the decision-making process influence the positions of actors as well as their relationships with other actors, resulting in the findings being valid only for a limited period of time. The only way to overcome this problem is to perform another analysis after a period of time (Enserink et al., 2002).

3. Results

3.1. Involved actors

The actors involved in the decision-making about road pricing can be divided into six groups, based on their role, function and responsibilities in the process:

- **The national government**, including the ministry of Transport, the ministry of Finance, the ministry of VROM and the ministry of EZ. The ministry of Transport is responsible for ensuring sufficient accessibility and a reliable journey time on the motorways in the Netherlands and road pricing is one of the possible instruments (Ministerie van V&W, 2004). The ministry of Finance has the responsibility for an efficient management of government funds and plays an important role in the decision-making about a different way of charging road use, as it has to approve changes in tax collection (Ministerie van Financiën, 2005). The ministries of VROM and EZ play a smaller role in the discussion about road pricing, but are nevertheless involved since the ministry of VROM decides on the environmental differentiation of vehicle taxes (Ministerie van VROM, 2005) and the ministry of EZ minds the economical effects of a different pricing system (Ministerie van Economische Zaken, 2004).

- **The regional and local governments**⁵, consisting of the provincial administrations and the city councils which are responsible for a good traffic circulation within their area.
- **The social interest groups** that all try to protect their own viewpoints and interests in the debate, to lose as little or win as much as possible in the redistribution discussion. The following interest groups have a stake in the discussion about road pricing: the ANWB (Dutch Automobile Association) provides its approximately 4 million members with information and various services in the field of traffic and transport and aims to protect their collective interests (ANWB, 2005); KNV/Mobis (Koninklijk Nederlands Vervoer) is the employers' association for transportation companies in (collective) passenger and goods transport (KNV, 2005); MKB-Nederland is the association for small and medium-sized enterprises that consults, negotiates and cooperates with the government in order to make rules and legislation fit to small and medium-sized enterprises as best as possible (MKB-Nederland, 2004); RAI-Bovag is a cooperation between the *RAI Association* that represents the manufacturers and importers of road transport means (RAI Vereniging, 2005) and *the BOVAG*, which is a branch organisation for more than 11,000 companies in the field of car mobility, e.g. car and truck dealers (BOVAG, 2005); Natuur en Milieu is a large environmental organisation that aims to protect the environmental interest in businesses and governments and is *the* organisation that is called in for advising the Dutch government on issues concerning nature and environment (Van Grondelle, 2005); Transport en Logistiek Nederland (TLN) is an employers' association for transport companies and logistics service providers (Transport en Logistiek Nederland, 2004); VNO-NCW is the largest employers' association in the Netherlands (representing 90% of the employment in the Dutch private sector). Primary objective of VNO-NCW is the representation of interests of the Dutch business community on a national as well as an international level (VNO-NCW, 2005).
- **The experts**⁶ are scientists working in diverse disciplines and other specialists that are knowledgeable in the field of road pricing.

⁵ The provinces of Gelderland and Noord-Brabant and the cities of Amsterdam and Den Haag represented the regional and local governments in the interviews.

⁶ For this research A. Bleijenberg (a former employee of the ministry of Transport, department Strategy & Knowledge, chairman of the international ECMT think tank on traffic and economics in Paris and currently working for TNO) and

- **The Dutch parliament**⁷ has to approve of proposals for road pricing formulated by the ministries and changes in related legislation. The diversity of the nine political parties enhances the disunity and thus the uncertainty of the course of the process, as it is difficult to predict parties' voting behaviour with respect to road pricing proposals.
- **Technology providers**⁸ are companies (for example Siemens, Philips, and the German TollCollect consortium) that develop, build and operate electronic tolling systems. In the early stages of the decision-making process this group of actors will in particular play a role by providing information and in a later stage these companies will offer the design and equipment for road pricing systems.

*3.2 Viewpoints of the involved actors*⁹

Problem perception

All parties agree there is an accessibility problem in the Netherlands, caused by congestion on the road network. Nevertheless, four parties have the opinion that the congestion problem is not as bad as other parties try to make the general public believe. Other problems of the growing amount of road traffic are various kinds of environmental problems, road accidents and space usage by vehicles, which are sometimes seen as important as, or even more important than the accessibility problem (by e.g. Natuur en Milieu).

Viewpoints on a different way of pricing road use

All actors associate a different way of pricing with variabilisation of the user costs and often actors mention variabilisation directly in combination with differentiation in place and time. Not one single party says to oppose a different way of pricing, but almost every party poses boundary requirements. The reasons parties support a different way of pricing are that this would reduce congestion and/or that it is either fairer/more equitable or good for the social prosperity if one pays as one uses and one pays for external costs caused.

C. Koopmans (head of the research cluster "Region and Transport" at the independent SEO Amsterdam Economics research institute and professor Infrastructure and Mobility at the University of Amsterdam) were interviewed.

⁷ Viewpoints of political parties in this research are partly based on the interviews of a student doing his final project at the ministry of EZ, with the spokespersons for transport of four important political parties.

⁸ This group of actors was not interviewed because of their minor role in the beginning of the discussion and decision-making process.

⁹ This paragraph only shows the viewpoints of the 17 interviewed actors and consequently the Dutch parliament and the technology providers are not discussed. Both parties do play a role in the network analysis.

Variabilisation is also mentioned as an incentive to make people more conscious of the true costs of driving and in this way provoke a change in behaviour.

Although all actors agree on introducing a kilometre charge, they disagree on some fundamental issues concerning the design of this road pricing system, being:

- the effect that the instrument of road pricing should produce: traffic regulation versus financing infrastructure investments, and the related design of the tariff system and other parameters
- the spending of revenues
- privatisation of road management

Firstly, the parties differ in opinion about *the desired effect of road pricing*, which can be formulated as regulation of the traffic volume through the price mechanism versus generating income to finance the construction of new infrastructure in order to fulfil the demand. Especially governments and the environmental interest groups have expressed themselves explicitly in favour of regulation, but the employers' associations and the ANWB are expressly opposed to using the price mechanism as a means for regulation.

Secondly, the actors have different viewpoints on the *spending of the revenues*. All actors assume that in case of the introduction of a kilometre charge the fixed taxes will be cut back proportionally. The parties especially differ in opinion about if it should be allowed to spend the *extra* revenues on mobility in a broad sense, including public transport (as is believed by several government parties, Natuur en Milieu, TLN and Mobis) or that the returns should strictly be allocated to new road infrastructure (as is adhered to by other government parties, VNO-NCW, ANWB and MKB-Nederland).

Thirdly, the actors disagree about *the privatisation of road management*. A number of interest groups, evidently including the employers' associations VNO-NCW, TLN, ANWB and MKB-Nederland, aim for a mobility market in which demand and supply of infrastructure are coupled through a price. An independent organisation should collect the charges and private enterprises (e.g. consortiums of builders and banks) should spend the revenues on new roads to solve bottlenecks. The government thus does not interfere with decisions about road construction, but only sets the boundary conditions. The ministry of Transport, together with regional and local governments, Mobis and Natuur en Milieu

oppose the privatisation of road management, as they think this is primarily a government task.

Interests and goals of the involved actors

General goals of road pricing that are mentioned in ‘viewpoints on a different way of road pricing’. Several actors have mentioned more distinct interests and goals they protect in the process:

- The ANWB focuses on the necessity to explain a proposal to its members and therefore a new system should be perceived as fair and car use should remain affordable.
- RAI-Bovag aims to abolish the BPM (purchase tax), because of interests in the field of international trade.
- TLN and VNO-NCW strongly focus on the idea of a mobility market that balances supply and demand, in order to eliminate the constant scarcity of infrastructure and are dedicated to realise this radical change in the way the government deals with roads.
- The main interest of the ministry of Finance is ensuring the introduction of road pricing does not have any negative consequences for the national budget.

At first sight, many goals do not seem conflicting, but parties may not have mentioned all their objectives in the interviews because of strategic considerations. The real contradictions depend on how the goals are protected by parties in the decision-making process.

Viewpoints on differentiation and coverage of the road pricing system

All parties, except for the ministry of Finance that only wants bottlenecks to be charged, agree on pricing the motorways *and* the underlying road network and they (strongly) support differentiation in place and time, which implies that parts of the road network where the capacity during the rush hours does not meet demand, are priced higher than quiet routes or areas. However, in particular the ANWB, MKB-Nederland and VNO-NCW fear that the current institutional characteristics of the infrastructure sector (a government monopoly, in which the government can determine the price and solely possesses the means to increase supply) will enable the government to use differentiation

in place and time to regulate demand. This is thought to be absolutely undesirable, as these parties believe car mobility should not be restricted by government intervention.

Differentiation of the charges on environmental characteristics is favoured by a large majority of the involved parties. Four parties do not require the charges to be differentiated on environmental characteristics, but nevertheless do not find it a problem if they are, since the current taxes also have this differentiation. Only five interviewees mentioned safety as a characteristic for differentiation and even those who did mention it, have different opinions. One view on safety differentiation is that the charge for vehicles that are more dangerous for other road users should be higher, while the other idea is to charge cars that are safe for the passengers less, in order to stimulate the purchase of safer cars. In most cases this contradicts, as cars that protect the passengers well, usually cause more damage to other road users when involved in an accident, because they are larger and heavier. Safety will in first instance most likely not be included as a characteristic for differentiation.

It is not likely the opinions on differentiation and the coverage of a road pricing system will form a source of conflict in the discussion, as differentiation in place, time and on environmental characteristics is widely supported and there is broad agreement about charging on the entire road network.

System design, suitable technologies and implementation issues

For a nationwide kilometre charge, a large majority has an explicit preference for a system based on Global Navigation Satellite System (GNSS) technology, because of its functionality. Although GNSS-technology is not yet proven and only Germany has experience with GNSS in practice, many parties think that technology will not be a problem in the implementation process. Nine of the seventeen parties, however, comment that the costs of implementation and operation of a GNSS-system are (very) high and that one should carefully weigh the social costs and benefits.

Ten of the seventeen parties support a phased introduction of road pricing, because it is supposed to be more feasible, but five have their doubts and two parties seriously disagree with the phased implementation as proposed by the platform, due to various reasons. In this preliminary phase, simple and proven technology is supposed to be used

(both DSRC-technology¹⁰ with tags and number plate recognition with cameras are mentioned), for charging four to six areas that suffer severe congestion.

A majority of the parties emphasises European interoperability is an important issue. Standards are believed stimulate the development of technology and the effort of car manufacturers to install the hardware during production, causing the price of equipment to drop.

Factors for success or failure as for the implementation of road pricing

Not all parties have great confidence in a successful introduction of road pricing. Lacking support for road pricing is a critical factor that all parties mention as a potential threat to successful decision-making. All parties mention at least one, but often more of the three issues that can be distinguished:

- Lack of support from road users, because road pricing is seen as unfair and ineffective (mentioned by 10 out of 17)
- Lack of support from involved interest groups, as a result of conflicting viewpoints and goals (mentioned by 10 out of 17)
- Lack of support from political parties, which have a crucial role in parliament that has to approve of a proposal for road pricing (mentioned by 7 out of 17)

Other threats to successful decision-making that are mentioned less often are the lack of a sense of urgency and little decisiveness of the minister of Transport. That so many parties mention the lack of public support and conflicting viewpoints of interest groups as the most important factor of failure is an indication that success is still uncertain.

A factor that is perceived as beneficial by a majority of the parties is starting with small-scale pilot projects, which could provide a learning experience and win support if the results are favourable. Another success factor that is mentioned by at least two parties is a strong personality committed to make the implementation of road pricing succeed (as the mayor of London did with the congestion charge).

3.3. The network of relationships

Many public decisions can only be taken after a process of consultation, negotiation and searching for consensus with the *various involved actors*. None of the actors can

¹⁰ DSRC – Dedicated Short Range Communication

autonomously determine the policy or project being realised, as none of the actors possesses all resources necessary for realisation. Some actors own means that are crucial for the realisation of a road pricing system, such as the formal decision-making authority of the ministry of Transport. Other actors possess powerful means that can be used to block implementation, such as the large number of members, the communication channels and the lobby-power of e.g. the ANWB. This variety in means causes dependencies and differences in power between actors, which are the fundamental reason relations exist (Teisman, 1992; Koppenjan en Klijn, 2004).

3.3.1 Clusters of like-minded actors and positions of power

A dimension of the relationship network is the extent to which actors have similar ideas. Sometimes like-minded actors form closely connected sub-groups within the network, to support each other and achieve a stronger position compared to other actors/sub-groups in the network (Hanneman, 2001).

Figure 1 shows a graphical representation of the clusters of like-minded actors, based on the actors' interview statements about parties with similar and different opinions and the resemblance of actors' viewpoints on road pricing. The figure also shows the power of actors, which depends among others on the importance of an actor's resources, the commitment an actor has to contribute to the discussion and the support it gets for its viewpoints from members, voters, etc. that gives it the power to strongly defend a certain viewpoint. It appears from the interviews that the actors basically found their opinion on the positions of power on the resources an actor possesses.

The actors mentioned most often as being important in the decision-making process are the ministries of Transport (5x) and Finance (7x), the ANWB (12x) and VNO-NCW (9x).

The ministry of Transport forms the centre of a group of mostly government related actors that also includes Mobis and Natuur en Milieu (cluster 1). All parties in this sub-group see a behavioural change of motorists (and thus the regulation of traffic) as an important objective of road pricing. Furthermore, these parties believe that governments should have the ultimate responsibility for deciding on the construction of new infrastructure. Design and construction of roads can be outsourced to private enterprises,

but the government should decide on the location and desired product. In general these parties favour the earmarking of revenues for investments in mobility in a broad sense.

The cluster of business representatives and car owners (2), including the ANWB, VNO-NCW, MKB-Nederland and TLN, truly opposes traffic regulation and instead wants road pricing to be a means for establishing a mobility market, in which the demand and supply of infrastructure are coupled through a price. Logically, revenues of the user charges should not be spent on anything else than the construction and maintenance of road infrastructure. In addition, road management should be privatised.

The ministry of Finance (cluster 3) is a divergent actor in the network, as it is the only opponent of the earmarking of revenues. Besides, it believes the congestion problem can best be solved by a ‘congestion charge’ in several bottlenecks and it does not aim for the radical system change that the other actors strive for through the introduction of a kilometre charge.

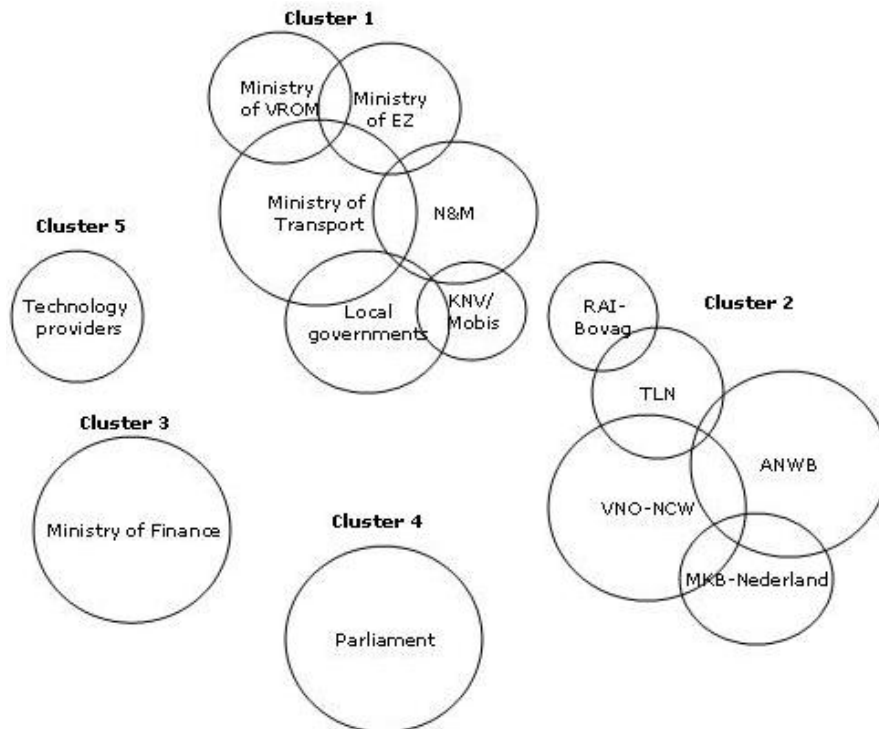


Figure 1- Power of actors and the clusters of like-mindedness¹¹

¹¹ Figure 1 is a graphical representation of the clusters of like-minded actors as have previously been described. Clusters/actors that have different viewpoints or a different perspective in the decision-making are not linked to each other. The figure also shows the power of actors: the bigger the circle, the larger the perceived power of the actor.

Parliament (cluster 4) is a crucial actor in the realisation of road pricing, because it has to approve of the policies proposed by the ministry of Transport, as well as adaptations of the legislation necessary for the introduction of road pricing. In principle, the largest political parties, except one, are in favour of a national, differentiated kilometre charge. However, on some implementation issues the parties disagree, which means that although a majority of the members of parliament currently *seems* to be in favour of the introduction of road pricing, it is not in the least certain if parliament will support a concrete proposal.

The last cluster (5) represented in figure 1 is 'the technology providers', that do not yet play a prominent role in the decision-making process, but will be essential in the realisation phase, as these companies have the knowledge and people to develop, construct, implement and operate a road pricing system and its technological complex equipment.

3.4 Dynamics in the network

In the course of the decision-making process, viewpoints and support can alter, e.g. due to political shifts or developments in society (Enserink et al., 2002). Events that can cause dynamics in the decision-making on road pricing are:

- *The national elections in 2007.* A serious political shift would not be surprising, as citizens do not seem very satisfied with the current cabinet and its policies.
- *A change of crucial persons* (e.g. the chairman) *in the involved organisations*, as different persons may have a different focus and a different way of negotiating and acting.

Other influential developments with respect to the course of the process are the implementation of European environmental directives and the success or failure of foreign road pricing projects.

4. Conclusions and recommendations

The actors agree on the following issues:

- The problem perception: car mobility causes accessibility and environmental problems.
- The solution: a nationwide kilometre charge (levied on motorways and the underlying roads) that is differentiated in place, time and on environmental characteristics.

- The preferred technology: a GNSS/GSM system.
- Factors of failure: the lack of agreement between involved interest groups and the lack of public and political support for the plans.

Conflicting opinions exist with respect to:

- The desired effect of road pricing: governments and the environmental organisations are in favour of regulation, whereas representatives of businesses and road users are in favour of establishing a mobility market in which supply and demand of infrastructure are coupled by a price for road use.
- The spending of revenues: on mobility in a broad sense (including e.g. public transport) or solely on the construction, management and maintenance of roads.
- Privatisation of road management: (private) enterprises can decide where and when to build new roads, using the revenues of the kilometre charge vs. the government being responsible, as this is the only party that can weigh all interests carefully.
- The preliminary phase as proposed by the advisory committee: little less than half of the involved parties, including parliament, is sceptical about this idea, as it is feared the preliminary phase will resemble the design of the failed 'rekening rijden'.

The most powerful actors in the decision-making are believed to be the ministries of Transport and Finance, the Dutch parliament, the ANWB and VNO-NCW.

Consequence of the conflicting viewpoints, the differences in power and the mutual dependencies of actors is that a successful implementation of road pricing is by no means certain, especially because actors mention the disagreement between involved interest groups as the most important threat to successful decision-making. In spite of the agreement on the problem and the solution, it is likely there will be fierce discussion on the implementation issues of revenue spending and privatisation. It is uncertain if these conflicts can be resolved and thus if the implementation of road pricing will succeed.

In order to enhance the chance of successful decision-making, it is recommended to perform further research on how the conflicts can best be taken into account during the process, or how they can possibly be resolved. Several theories might be applicable, for instance 'process management' as described by De Bruijn et al. (2002). Additional research is needed, however, to apply and fine-tune these theories to the decision-making on road pricing in the Netherlands.

References

- ANWB, *Wat doet de ANWB?*, 2005. Viewed on 26 April 2005.
<http://www.anwb.nl/published/anwbcms/content/pagina/over-anwb/over-anwb-entree.nl.html>
- BOVAG, *Wat is Bovag*. Viewed on 6 April 2005. <http://www.bovag.nl>
- Bruijn, H. de, E. ten Heuvelhof en R. in 't Veld, *Process Management: Why project management fails in complex decision making processes*. Dordrecht: Kluwer Academic Publishers, 2002.
- Enserink, B., J.F.M. Koppenjan en W.A.H. Thissen, *Analyse van complexe omgevingen*. TU Delft - Faculteit TBM: Delft, 2002.
- Hacken, V.H. ten, *Road pricing in the Netherlands: all or nothing?*. TU Delft: August 2005.
- Hanneman, R.A., *Introduction to Social Network Methods*. Riverside: University of California, 2001.
- Horn, L.A. ten, and M. Wiethoff, *Interviewtechniek*. Delft: Technische Universiteit Delft, 2001.
- Koninklijk Nederlands Vervoer (KNV). Viewed on 26 April 2005. <http://www.knv.nl>
- Koppenjan, J., and E.H. Klijn, *Managing uncertainties in networks, A network approach to problem solving and decision making*. London: Routledge, 2004.
- Ministerie van Economische Zaken, *Mission and Key Policy Areas*, 2004. Viewed on 12 May 2005.
<http://www.minez.nl>
- Ministerie van Financiën, *Duties and Organization*, 2005. Viewed on 24 April 2005.
http://www.minfin.nl/default.asp?CMS_ITEM=MFCR371331441708211D5BFFF00104B3FBE32
- Ministerie van Verkeer en Waterstaat, *Over Verkeer en Waterstaat*, 2004. Viewed on 24 April 2005.
<http://www.minvenw.nl>
- Ministerie van VROM, *The Ministry of VROM and Background*, 2005. Viewed on 25 April 2005.
<http://www.vrom.nl/international/>
- MKB-Nederland, *MKB-Nederland in een oogopslag*, 2004. Viewed on 14 April 2005. <http://www.mkb.nl>
- Nationaal Platform Anders Betalen voor Mobiliteit (Platform ABvM), *Nationaal Platform Anders Betalen voor Mobiliteit*. Den Haag: mei 2005.
- Niskanen, E., and C. Nash, *MC-ICAM: Implementation of Marginal Cost Pricing in Transport, Integrated Conceptual and Applied Model Analysis*. Leeds: Institute for Transport Studies, 2004.
- RAI Vereniging, *Over de RAI Vereniging*, 2005. Viewed on 6 April 2005. <http://www.raivereniging.nl>
- Rietveld, P., Pricing Mobility: Experiences in the Netherlands. *European Journal of Transport and Infrastructure Research*, 1, no. 1 (2001), pp. 45-60.
- Seidel, T., A. Matthes, B. Wieland, B. Schlag, J. Schade, E. Verhoef, B. Ubbels, K. Tánczos, Á. Kosztyó and F. Mészáros, *Political acceptability and perceived legitimacy of transport policy implementation. Transport Institutions in the Policy Process (TIPP)*, Fifth (EC) RTD Framework Programme: July 2004.
- Teisman, G.R., *Complexe besluitvorming, Een pluricentrisch perspectief op besluitvorming over ruimtelijke investeringen*. Den Haag: VUGA Uitgeverij, 1992.
- Transport en Logistiek Nederland, *Waarom lid worden van TLN?*, 2004. Viewed on 8 May 2005.
<http://www.tln.nl/lidmaatschap.html?id=342>
- Van Grondelle, W.J. Persoonlijke mededeling. 27 mei 2005.
- VNO-NCW, *Wat is VNO-NCW? en Doelstelling*, 2005. Viewed on 18 April 2005. <http://www.vno-ncw.nl>