Changing Behaviour

WP1: Inventory of European Demand Management Programmes

INNOVATIVE PROGRAMMES FOR TRAVEL DEMAND MANAGEMENT

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Introduction

The present document complements the Inventory Database of European DSM Programmes. The Inventory Database identifies relevant demand management programmes and their operating contexts in the countries participating in CHANGING BEHAVIOUR. The focus of the inventory is on programmes targeted at different sectors: SMEs (services, small industries), the built environment (houses, industrial and service complexes), households, municipalities and schools.

This paper complements the inventory database collected for CHANGING BEHAVIOUR by reviewing some innovative projects from travel demand management (TDM) and particularly from the point of view of private car use. When reducing car use, the problems arising are actually quite similar as when struggling with stationary energy consumption. Changing people's attitudes and behaviour, raising awareness and developing satisfying alternatives are the key issues also in car use. Its also highly essential to maintain a positive public opinion of the measure and thus increase acceptability and effectiveness of the measure. Studies from the travel sector may reveal ideas and viewpoints that are also beneficial for demand-side management in stationary energy use.

This paper is structured as follows. First, an overview is given of different types of TDM measures, their pros and cons, and the barriers that they need to overcome. After that, the potential contribution of social marketing theory is discussed. Brief presentations are given of practical travel demand management projects and programmes from Europe and various other countries. The focus in on examples that have direct applicability to demand-side management of stationary energy use, thus for example, car sharing and similar programmes are not discussed. In the concluding section, ideas for novel approaches to demand-side management of stationary energy use are identified.

TDM Measures

The private car has lots of advantages compared to public transport, for example. It is fast, private and convenient, just to mention a few things. The car is also a strong status symbol in today`s society. Europeans travel altogether some 4,8 billions kilometers per year, a figure that is 120,00 times the earth` s circumference. Europeans use their own cars for 80 percent of journeys, using public transport for only 15 percent. While the EU motorway has increased three times in size since 1970, the rail network has shrunk by 11 percent. In the same time, number of vehicles has grown

dramatically in all industrialized countries; more and more households own at least one car. The current transport system is unsustainable in many ways. It is widely agreed and accepted that technical solutions are not sufficient when at the same time the number of cars is increasing rapidly. (Johansson et al. 2003.)

Travel demand management (TDM) is one group of instruments which aims to decrease the demand of car use and make it less attractive. There are different kind of views on how behavioral changes will be attained. TDM measures are divided into four groups from more coercive ways to more non-coercive ways to influence the demand of car use. Four TDM measures groups are: 1) physical change measures (e.g. improving public transport and infrastructure for walking and cycling), 2) legal policies (e.g. car-free city centers, parking control), 3) economic policies (e.g. road pricing, decreasing costs for public transport) and 4) information and education measures (public information campaigns, social modeling, feedback about environmental impacts). Coercive measures force people to reduce their car use whereas non-coercive measures are more focused on reducing drivers' positive attitudes towards car use. (Gärling & Schuitema 2007.)

Non-coercive TDM measures are claimed to fail to make car use less attractive. At the same time, coercive ways are usually able to affect only a limited number of people for a limited time. In order to be effective, TDM measures should fulfill three conditions. According to Gärling & Schuitema (2007) TDM measures should 1) reduce the attractiveness of car use, 2) activate car-use reduction goals (e.g. motivate to improve environmental conditions) and 3) these goals should be easily attained. When deciding about the travel mode, people are affected by many different aspects which need to be considered. When setting up car-use goals, personal norms (values, attitudes) play a significant role, as well as the characteristics of the household (socioeconomic status, degree of urbanization). Gärling & Schuitema argue that the implementation of the car use goal must be done correctly. A specific goal leads to a better result than the general "do your best"-goal. Positive feedback will encourage people to set more demanding goals for themselves. In the beginning, however, goals should not be too difficult or large because this only prevents people from even trying to attain them.

In the mid-1990s, the OECD organized a project with the aim to make transport system more environmentally sustainable. The project Environmentally Sustainable Transport (EST) was completed in early 2002. During the EST project, the main barriers to sustainable transport where identified in the case studies, including societal barriers, individual barriers and technological

barriers. Societal barriers consist mainly of political resistance and the general trends promoting private car use. Transport culture is a major influence which also reflects the opinions about transport in general. One real world example is Hong Kong. There are 55 personal vehicles per 1000 residents. In Atlanta, Georgia, just a point of comparison, there are more than 750 personal vehicles for every 1000 residents. There are no restrictions on car ownership in Hong Kong although the relative costs of car ownership are relatively high. It can be noticed strongly that there is a different transport culture in Hong Kong. For example, there are no car rental facilities at the airport, only a wide range of opportunities to use public transport. (EST 2002.)

Individual factors involve the general lack of awareness of the need for change. Individuals need to develop their own motives and awareness of the consequences of their behavior for a longer scale. On the other hand, private car use is still as a very attractive option and there is a distaste for collective alternatives. Technological barriers are barriers that cannot be overcome by individuals on their own. They include, e.g. the lack of appropriate technology and common standards and barriers associated with telecommunications. (EST 2002.)

The report also suggests some novel measures for travel demand management. One aspect which may easily be underestimated is car ownership and its influence on car use. Perhaps a bit trivial is an argument that cars are used because they are owned. However, during the last 8 years the distance traveled per car has hardly increased while the ownerships of the cars has notably increased. The relationship between ownership and car use seems strong. Policy is usually more concentrated on reducing car use than actually reducing ownership. The report suggests that the most effective ways to reduce car use is to seek to reduce car ownership. (EST 2002.)

An interesting chapter of the report discussed the role of advertising. Research considering the bond between advertising a product and the use of a product has mainly concentrated on tobacco and alcohol. Much less research has been done on advertising's role in stimulating car ownership. Cars are however the most heavily advertised products. It is suggested that counter-advertising could have better possibilities and results in reducing car use than regular advertising with its aim to increase the use of a public transport. (EST 2002.)

Acceptability of TDM measures

In a study by Loukopoulos et al. (2005), the purpose was to find out what are the opinions of the public about the TDM measures. They introduced three different TDM measures programs which have been successfully implemented: 1) prohibiting car traffic in city centre in Cambridge, 2) road pricing in Singapore and 3) Individualized Marketing in Perth. People were asked about their beliefs and attitudes towards each example. The most interesting result was that people were generally more negative towards road pricing (2) as a way to decrease car use. The most popular alternative was prohibition of car traffic (1). Interestingly the way people think about the environment also affects their opinions on the TDM measures. Those high in environmental concern had more positive attitudes towards TDM measures overall. They considered higher costs simply as an effective way to improve environment.

Johansson et al. (2003) studied the goal conflicts in the views of municipality politicians. Road pricing is proved to be an effective way of reducing private car use but still it is seen as an unpopular scheme. Politicians hesitate to use it. Brög (2003) also wonders why widely known and effective proven methods among the transport field has hardly attracted the public attention. On the contrary, they meet with disbelief, skepticism and rejection by many transport professionals. In the transport world the need and feeling of the "personal freedom" is highly valued and the car is seen as a mankind's symbol. Negative consequences of private car use have been trivialized, as well as the ways of reducing car use.

In politics, goal conflicts are very salient and political decisions are usually realistic compromises. There are usually conflicts between environmental, financial and fairness goals. On the other hand there are different goals on the national and regional political level, whereas environmental problems have no boundaries. When considering road pricing, it is known that different groups are affected differently. If the fee is equal for all, low-income citizens will suffer the most. In order to achieve results, the price should be quite high, and this again is not financially rational. Johansson et al. (2003) argue that the fee should be settled so that environmental and financial goals are reached to some extent and at the same time the fairness goal should kept in mind. All TDM measures suffer from the goal conflicts in political decision making. TDM measures are often seen as a threat to economic development. (Gärling & Schuitema 2007.)

Because coercive TDM measures are more likely to limit the freedom of private car driving, they are less acceptable to the public. In other words, non-coercive measures are more "car-friendly". TDM measures are also more acceptable if its shown that they really are effective and reduce car use. This is quite contradictive because people expect to see results at the same time as they do not want to change their own behavior. Gärling & Schuitema (2007) point out that the fairness of TDM measures is one essential point when evaluating its acceptability. Road pricing for instance should be realized so that all the drivers are treated fair. Secondly the public acceptability has a strong influence on how TDM measures are seen on political level. Coercive measures are usually less politically feasible to implement than non-coercive measures. (Gärling & Schuitema 2007.) Loukopoulos et al. (2005) claim that the most essential ways to ensure acceptance of TDM measures is first to raise the environmental concern in the general public. Secondly its essential to boost belief in alternative transportation and to mention that non-auto moving is not actually more expensive at all. All in all TDM measure must enjoy the trust of the public. That is why also the non-coercive measures are needed. Combining different kinds of TDM measures would give the best result when considering the reduction of car use. (Gärling & Schuitema 2007.)

Promoting acceptance via social marketing

Besides TDM measures also social marketing theory (SMT) has been discussed as a means to reduce car use. It has mainly been used in the health issues and, e.g., recycling. According to McGovern (2007) SMT has a great potential also in the field of travel behavior. Social marketing theory consists of the four main Ps: price, place, promotion, positioning (and product). If using social marketing effectively, all these Ps should be used. McGovern also reports about the main deficiencies when enforcing social marketing theory: targeting the wrong audience, the message is too weakly presented, lack of alternative options, campaigns being underfunded and the unrealistic goals and objectives.

The key of the successful social marketing program can be outlined in two components: identifying the customers needs and expectations and at the same time providing customers with appropriate choices to meet these needs. In the transport sector, alternative choices of transport must satisfy the drivers needs. That is why its essential to shape customer's needs and compare them with what public transport has to offer. McGovern (2007) investigated the attitudes and beliefs towards public transportation and how well does the alternative modes meet the customers' (car drivers')

expectations overall. The survey was mainly concentrated on bus and train service in the vicinity of London.

The results reflect the dissatisfaction of the respondents towards public transport. Bus service was considered unreliable and infrequent. People were frustrated in having to wait for the bus arriving. Respondents also mentioned poor timetables and that the bus companies did nothing to make the situation better or more satisfying for the user. One important aspect was also revealed: personal safety and concern about it. This aspect came up especially with children and females. However people were not feeling unsafe when actually traveling on a public mode. The answers however revealed that private transport provides the greatest sense of safety. The survey also revealed that there is a connection between the mode of travel and the social status of the individual. Particularly bus service was considered "very down market". All in all public transport was not simply seen as being good enough. (McGovern 2007.)

These types of concerns have been addressed in a number of projects conducted in the EU-funded CIVITAS-Trendsetter project (CIVITAS 2005). For example, the city of Graz in Austria has implemented an innovative marketing strategy for public transport. The public transport company has introduced entertainment and promotion of public transport as a modern and pleasant way of traveling, including musicians and TV trailers playing on buses, raffles and a special leisure ticket. This has resulted in a more positive attitude towards public transport and an increase in travelling. Quality is controlled by so-called "mystery shoppers" onboard buses and at stops. The hidden checks are now considered as an important part of improving the public transport system and raising customer satisfaction. An internet-based door-to-door travel planner has been introduced. Web travel planners and quality management systems are some of the measures that the evaluation report (CIVITAS 2005) recommends for all European cities.

Case studies

There have been many European research and development programmes to promote travel demand management. Current initiatives include the European Platform on Mobility Management (EPOMM), the Civitas Initiative – Clean and Better Transport in Cities, as well as EXTRA, a programme for connecting transport research solutions to European transport policy. This section

presents some innovative projects in the field of travel demand management from Europe and other parts of the world.

Individualized Marketing

Socialdata in Germany has developed a tool that concentrates on reducing private car use. Development started already in the 1990s. Individualized Marketing (IndiMark) is based on soft policies and its purpose is to promote alternative ways to travel such as public transport, cycling and walking. Its outline is to offer personalized help and advice to car users and so motivate and convince the actors of the benefits of the alternative ways to travel. Its also essential to let people think about their own travel behavior and question it. The traditional target of the IndiMark has been private households but also schools and businesses are considered. The basic assumption of this method is that people consider public transport odd largely because of a lack of information and motivation. It was also revealed that people believe that the same trip with another transport model would take twice as long and cost one third more than it actually is the case. (Brög 2003.)

IndiMark involves targeted personal approaches to people identified as potential mode switchers with personalised information, advice and incentives provided to encourage change. It consists of four stages:

1. Contact: All households are contacted by mail and phone and a short survey is used to determine if they are regular users of environmentally friendly travel modes, interested in changing travel modes, or not at all interested.
2. Motivation: Problems and requests from the 'regular users' and 'interested' groups are responded to.
3. Information: The 'regular users' and 'interested' group participants select the information they want which can include maps, timetables and further information on particular modes. Individuals in the 'regular users' group may also receive rewards for their use of environmentally friendly modes.
4. Convincing: Consultation phone calls and home visits on request are made, with selected households in the 'interested group' receiving tickets to use on public transport for a limited period.

In the 1990s Socialdata tested IndiMark in 13 European countries, where 45 projects were executed. As a result, it was seen clearly that "soft policies" have an enormous potential when it comes to

affecting human behavior and achieving mode shifts from car to e.g. public transport. Pilot projects showed a reduction of car trips between 6% and 10%. One successful program of IndiMark was realized in Perth, Australia. Taking part of this program was voluntary. As a result, the number of car trips reduced by 14% and the kilometers traveled by cars 17%. Especially, the number of bicycle trips increased. (Brög 2003.)

Brög (2003) argues that the success of the IndiMark consists in the power of personal contact. After establishing the personal contact, its fruitful to enlarge the discussion to a wider scale. When considering transport and car use in general, its effects touch a wide range of different topics such as health, road safety and energy consumption. Brög reminds that it is essential that the model is implemented in a partnership of all social institutions. As Brög puts it: "…, for truly sustainable behavior patterns can only be achieved where there is a wide consensus between all the players…."

Walking School Bus

Walking School Bus (WSB) is an alternative method for children to walk to and from school with adult volunteers. The service is free and parents do not necessary have to become volunteers. Coordinators help to organize volunteers. There are also other similar programs launched like "Red Sneaker" and "Traffic Tamers". Today, about 40 countries are using the Walking School Bus concept. There are over 15 countries only in Europe using the concept, and in 2006, the first International Walk to School Month was organized. One successful example from Europe is from Milan, Italy, where a large part of the daily traffic congestion is caused by taking children to and from school by car. The pilot project started in 2000 and finished in August, 2004. The programme continues now with volunteers including grandparents, friends and teachers.

A project from New Zealand reveals some of the benefits and organizational issues related to the walking bus. A survey was first conducted showing that the WSB raised significant interest among parents so actors decided to realize it. Nearly half of the parents who said their children would use the WSB also volunteered to help drive the WSB. The project was realized in year 2000 at four schools in Christchurch, New Zealand. The total number of the walking school busses was 13 and most of them operated five mornings per week. Overall 57% of the potential users joined the WSB. The main reason why children eventually did not join the bus despite interest were: not enough children from a given area, children and volunteer 'drivers' too geographically dispersed within an area, or not enough volunteer drivers. It was asked from the 'drivers' what they thought about

driving the WSB. Most of the 'drivers' had positive experiences, they liked meeting other parents and children and getting to know them better. Getting more exercise was also one of the positive things, as well as spending more time with the children and being part of the WSB network. Feedback about the WSB from the children was mainly positive. They liked meeting their friends and spending more time together. Some children liked wearing the safety gear or enjoyed the exercise. There were only a few dislikes expressed by the children. Some felt too tired to walk, or did not like the pressure of having to be ready at a certain time. Parents liked that they had more time for themselves. They felt that their children were traveling to school safely while getting exercise at the same time. Some parents commented that they were saving petrol and using their car less since the WSB started. Reasons for not using the WSB at all varied widely. The most frequently mentioned comments were: taking the car out anyway, child preferred walking with a friend or parent and lack of communication (weren't informed about the WSB). Some families thought they should not free ride by letting their children use the WSB while they were not able to be 'drivers'. (O'Fallon 2001.)

For more information:
http://www.iwalktoschool.org/
http://sustainable-everyday.net/cases/?p=52 - more-52

Living Neighbourhood

Living Neighbourhood has executed in Australia in several cities. It is a part of a larger project which purpose is to make the local air cleaner. The organisers argue that its not enough just to make people aware of consequences, they also need to understand the issue and more important, make changes that suit their own lifestyles. The method was that people were given travel diaries which they filled for a week. The data from the diaries were entered into a database and an automatic feedback generation system. The feedback sheets from the system offered to each participant an individual guideline how to travel less and use more alternative methods. The project is based on an individual advice, each community develops its own set of initiatives. In Australia, the project has had quite encouraging results, when considering car use and driven kilometers. (Living Neighbourhood.)

This programme makes use of highly personalized advice based on each participant's individual needs. To our knowledge, no similar system has been applied in Europe.

EasyConnect

EasyConnect in USA address the "last mile" problem. Access from station to home or work is a significant barrier when traveling with public transport. Actors developed a demand based, easy-to-use system that links together home, work or other activity destinations. Its aim is to increase transit use and reduce private car use. People were offered bicycles, electronic bicycles and HTs (Human transporters) at the station. Instead of driving all the way to work, people could travel, e.g., by train to the station and keep on from there by bicycle. The project (executed in 2002-2003) has raised interest among employees and companies; in the first test approximately 15 companies and more than 34 employees signed up to participate in the project. (EasyConnect.)

Similar approaches to the creation of 'intermodal transport hubs' are today being tested in the EU INTERREG IIIC funded project Connected Cities (Connected Cities). Between 2005 and 2007 Connected Cities brought together twenty-five partners throughout Europe to share their experiences and insights through management and co-ordination, interregional showcase workshops, dissemination and communication and through a guide to good practice. Many of the projects are still under development but show good results.

Free bus tickets to break travel habits

A study by Fuji & Kitamura (2003) aimed to define the habitual changes of the drivers and whether a temporary incentive can lead to a permanent change. A free bus ticket was offered for one month to an experimental group of drivers in Kyoto, Japan. The purpose was that car-use habit would be challenged with bus-use habit. Drivers were motivated with the free bus ticket. The results showed that even after one month after the experiment, the use of the bus was increased. Also the attitudes towards bus driving became more positive. It could be argued that choices of car became less habitual. The data from the survey were not, however, statistically qualified.

Bamberg (2006) has conducted a similar experiment in Europe with people who had recently relocated to new residences in Stuttgart. It was argued that relocation is a point in time when people are sensitive and motivated to try out new behavioural options. The intervention group was offered

a free buss pass of one day, as well as personally tailored public transportation services and schedule information. The experiment was successful: the intervention group increased public transport use from 18% to 47%, whereas there was only a small change in the control group. Bamberg (2006) concluded that the intervention was successful in motivating participants to use public transport more often after the move. He also suggests that other 'biographical cuts', i.e. changes in life-course, can provide interesting starting points for successful public transport marketing strategies.

Verplanken & Wood (2006) referred this approach as a "downstream-plus-context-change intervention". The instruments for reducing car use are divided into three levels: 1) downstream interventions, 2) downstream-plus-context-change interventions, 3) upstream interventions. As long as people's behaviour is non-habitual, the downstream measures (information campaigns and other soft measures) are seen as an effective way of affecting peoples behaviour. When the behaviour is habitual, however, downstream measures are claimed to result in only temporary changes in behaviour. Even effective information campaigns are likely to fail to make long-lasting changes in consumers' habits. Greater success is likely when such downstream strategies are paired with naturally occurring lifestyle changes (downstream-plus-context-change-interventions). These kinds of changes become evident when changing a job or moving to a new city. Changes are also more effective when a group of people execute the change at the same time. Upstream interventions consist of taxes and city planning, for example, which may themselves change the context of the behaviour. All in all, it was argued, that policy interventions to change behaviour will be most successful when they are designed with consumers' habits in mind.

Carpooling in Sofia, Bulgaria

Bulgaria's economic development for the past years has also reflected to the transport sector. In the capital of the Bulgaria, Sofia, there were 240 cars per 1000 citizens in 2000. Currently, there are approximately 600 cars per 1000 citizens. Transportation has became a matter of frustration while the public transport is more likely seen as an disappointment than a real alternative. The idea of the carpooling is to save money, time and avoid traffic jams – people aren't necessarily concerned about the environment itself.

Young, mainly Sofia citizens have established a website forum, in where people, either looking for a lift or providing such, can connect. Currently, there are three Bulgarian websites concentrating on

the carpooling. For the past three years, the idea has gained rather little public interest. Nevertheless carpooling is now seen more as a real option and not just something awkward and scary. While carpooling has for a long been an everyday business in Western Europe, in a small Balkan nation its still something to learn and get familiar with.

Travel awareness campaign, Flemish region, Belgium

The 'To & From Week' is a large-scale Flemish campaign that focuses on sustainable commuter traffic. The campaign was directed mainly at companies and it lasted four weeks in May, 2007. Engaged companies encouraged their employees to commute more environment-friendly. Each employee attempts to collect as much CO_2-low kilometers as possible. CO_2-low kilometers consists of the use of cycle, public transport, carpooling or walking. Employees are encouraged also by the posters, brochures and stickers – i.e., by different information sources. It was mentioned that companies signing up for the campaign also have other advantages: improved image, healthier personnel and also some financial benefits. As a result, 9 307 persons participated in the first part of the project. Almost 1 000 of them made a permanent changeover to more sustainable commuter traffic. In total, 3.2 million kilometers were traveled more environmental-friendly.

We are biking to work, Denmark

The project was established in Denmark, among employees. The "We are biking to work" campaign encourages and motivates people to switch from car use to bicycle for the home-to-work trip. The aim of the campaign was simply to get more people to bike. Bicycling was advertised as being the healthier opportunity both for the human itself as for the environment also. The campaign is a sort of competition where teams are competing against each other, the more days of cycling, the bigger chances of winning. Information material is also offered; articles, photos, newsletters and the website. Every team has a leader, and the teams are gathered all over the country from companies. The main target group for the campaign were women aged 36-55 – most of them living in Copenhagen. The duration of the campaign is four weeks in May (every year). As a result, in 2006, 8000 people started cycling again because of the campaign – and they continued that after the campaign.

Conclusions

The research and experiences in travel demand management reflect some observations that are very similar to experiences demand-side management of stationary energy use. The interplay between coercive and non-coercive measures is relevant for both types of demand management: coercive measures (or at least the threat of such measures) or economic incentives are often necessary to make significant changes, but non-coercive measures are also necessary in order to support change processes. They can be used to test and introduce new ways of travel that are later supported with stronger measures, and they are important in creating acceptance for changes in travel behavior.

In particular, the research on travel demand management has addressed the problems of changing *habitual behaviour*, and has elaborated on the idea of connecting incentives for change with a change in the users' context. Moreover, the importance of understanding the needs of different user groups is stressed in the literature. Successful programmes have been tailored to both local circumstances and the needs of particular end-user segments.

Travel demand management offers some ideas for novel approaches to promoting energy efficiency also in residential and commercial buildings:

- Online personalized advice for changing behaviour taking into account participants' unique circumstances (cf. travel planners and the 'Living Neighbourhoods' programme)
- The involvement of volunteer end-users in producing alternative services themselves (cf. 'walking bus' or carpooling).
- The targeting of incentives and measures at times of change in the target group's circumstances in order to enable changes in habitual behavior.
- The need to ensure the quality of 'alternative' services (i.e., e.g. public transport of carpooling), to understand how the users' perceive the alternatives, and to make them as user-friendly as possible.

References

Brög, W. 2003. Reducing car use? Just do it! 27th Nottingham Transport Conference – "Sharing in Success" Socialdata. Germany.

Carpooling in Sofia: http://www.eltis.org/study_sheet.phtml?study_id=1821&lang1=en

CIVITAS (2005). *Evaluation Report – Innovative Soft Measures* (WP10). December 2005. Trendsetter Report No 2005:8.

Connected Cities http://connectedcities.eu/

EasyConnect: http://www.innovativemobility.org/easyconnect/EasyConnect.shtml

Environmentally sustainable transport, EST Soft measures and transport behavior. Prepared for a workshop entitled "Communicating Environmentally Sustainable Transport – The role of soft measures in achieving EST" 2002 Berlin, Germany.

Fuji, S. & Kitamura, R. 2003. What does a one-month free bus ticket do to habitual drivers? An experimental analysis of habit and attitude change. *Transportation*, 30, 81-95.

Gärling, T. & Schuitema, G. 2007. Travel demand management targeting reduced private car use: effectiveness, public acceptability and political feasibility. *Journal of Social Issues* 63, 139-153.

Johannsson, L-O., Gustafsson, M., Falkemark, G., Gärling, T., Johansson-Stenman O. 2003. Goal conflicts in political decision making: a survey of municipality politicians views of road pricing. *Environment and Planning* 35, 615-624.

Living Neighbourhood: http://www.environment.gov.au/settlements/local/publications/living.html

Loukopoulos, P., Jakobsson, C., Gärling, T., Schneider, C., Fuji, S. 2005. Public attitudes towards policy measures for reducing private car use: evidence from a study in Sweden. *Environmental Science & Policy* 8, 57-66.

McGovern, E. 2007. Transport behavior: A role for Social Marketing. The Haworth Press.

O'Fallon, C. 2001. Walking School Bus Networks: Evaluation of Trial in Christchurch. Pinnable Research. New Zealand.

Travel awareness campaign, Belgium: :
http://www.eltis.org/study_sheet.phtml?study_id=1872&lang1=en

We are biking to work, Denmark:
http://www.eltis.org/study_sheet.phtml?study_id=1811&lang1=en

Verplanken, B., Wood, W. 2006. Interventions to Break and Create Consumer Habits. *Journal of Public Policy & Marketing* 25(1), 90-103