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# Public Acceptability of Road Pricing

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## Table of contents

- [Executive summary](#)
  - [The findings](#)
  - [Conclusion](#)
  - [Final Report](#)
  - [Introduction](#)
  - [Aims and objectives](#)
  - [1 Background](#)
  - [1.1 What do we already know?](#)
  - [The findings](#)
  - [2 Public acceptability of a problem needing to be solved](#)
  - [3 Public acceptability of the need for demand management](#)
  - [4 Public acceptability of the principle of road pricing](#)
  - [5 Public acceptability of the specific road pricing schemes](#)
  - [6 Public acceptability of the detail and design of the road pricing scheme](#)
  - [7 Impact of the media, family, friends and the research on the acceptability of road pricing](#)
  - [8 Conclusion](#)
  - [Annex One](#)
  - [1.1 Introduction](#)
  - [Attitudes towards Case Studies](#)
  - [1.2.2 Initial Thoughts](#)
  - [Workshop – Developing a Driver through a Narrative](#)
  - [Conclusions](#)
- 

## Executive summary

## **Introduction**

In March 2006 the Department for Transport (DfT) commissioned BMRB Social Research and the Centre for Transport and Society (CTS), University of the West of England, Bristol, to undertake research to develop its understanding of the public acceptability of road pricing. The research builds upon previous research undertaken as part of the Road Pricing Feasibility Study.

The research involved group discussions with the public over six waves, followed by a seventh wave which comprised depth interviews with some of the participants who took part in the group discussions. The research was undertaken over the course of two phases. The fieldwork for phase one took place in the seven round 1 TIF pump-priming authority areas and Cardiff. Phase two fieldwork was conducted in five of these areas: Bristol; Durham; Shropshire; Tyne and Wear; and West Midlands.

This report presents the findings from the research.

## **Objectives of the research**

The objectives of the research were to:

- explore how, why and in what circumstances public acceptability increases or decreases, particularly in relation to information and greater exposure to the issues; and
- develop an understanding of the factors that influence public attitudes.

## **Background**

Previous research suggested ten key areas that were important to public acceptability of road pricing, namely that:

- there needs to be a recognition that there is a (transport) problem (such as congestion) that requires a solution like road pricing and that road pricing is seen to work to reduce the problem;
- it needs to be part of an overall traffic management plan within a consistent transport strategy;
- good travel alternatives need to be available in particular to facilitate choice;
- revenue application should be identified clearly and used relevantly and appropriately;
- the scheme must be seen as simple;
- the scheme must be seen as fair;
- appropriate information on the scheme must be disseminated via education, publicity and marketing;
- there must be public trust in the local authority or agency to deliver, manage and run the scheme;
- there must be trust in the scheme's technology in terms of being reliable and easy to understand; and
- concerns over privacy must be responded to, with a focus on scheme design, implementation and appropriate communications.

It is also important to remember that public acceptability for road pricing is not stable and varies intra-personally (within individuals), inter-personally (between individuals) and chronologically (over-time).

This research builds on these findings and seeks to understand the complex interactions between attitudes. It involves in-depth analysis of those attitudes, which help illuminate public acceptability; how acceptance varies over time and how communications and media plays a part in this process.

## **The findings**

### **Public acceptability of a problem needing to be solved**

- The project investigated congestion as the problem that needed solving.
- Initially participants felt congestion was more of a problem for society than it was for them personally. Greater awareness of congestion by the participants over the time of the research seemed to have created a greater focus of congestion at a local and individual level and a shift away from wider and societal issues.
- At a societal level, participants felt businesses and the economy would suffer due to increased time employees and goods spend in traffic and less people accessing goods and services because of congestion. Pollution and wider negative environmental effects were also seen as a negative consequence of congestion.
- At a personal level, congestion impacted on participants in a practical and emotive level. At a practical level, congestion impacted upon the participants's time. This had consequences of people being late for appointments and work. Participants did change routes and time of travel to avoid congestion where they were able to do so and certainly attempted to travel where no congestion was found, if possible, but otherwise they would leave extra time for their journey. However, participants generally did not report changing mode of transport in order to avoid congestion.
- At an emotive level participants saw congestion as very stressful. It caused great frustration and could lead to anger and road rage. The stress was made worse by having additional pressures such as a long stressful day ahead at work or additional responsibilities such as having the children in the car. Stress was seen to negatively affect driving behaviour and safety. In addition, stress was also seen as affecting health especially contributing to headaches and fatigue.
- The practical and emotive impact of congestion was reported to be made much worse if congestion was unpredictable. There was a feeling that traffic had become increasingly more unpredictable over the past few years. It was noted that employers were becoming increasingly aware of the problems of arriving at work on time and that in society in general unexpected congestion was a reasonable excuse for being late.
- Participants felt it was possible to adapt to congestion and became somewhat desensitised to its effects. As well as changing routes where possible, they psychologically removed themselves from the congestion and indulged in personal space by listening to music and the radio for example.
- Participants had very different personal thresholds when adapting to congestion. This was largely based on experience - a journey or a queue of traffic should last a certain amount of time, for example. However, other variables were also important. These were both intrinsic, such as personality and attitude (some people were happier to sit and wait in traffic than others who got stressed easily), and extrinsic (necessity of being somewhere at a given time - being late for an important appointment etc.)
- Although there was some resignation from the participants over congestion (especially amongst the 45-64 year olds), there was a feeling that something needed to be done to solve congestion.
- Over time and involvement with this research participants reported becoming increasingly aware of congestion and as a result increasingly concerned about the need for it to be solved. Focus on the

effects of congestion at an individual and societal level throughout the research, including examination of national statistics on congestion levels, led to this increasing awareness.

- However, those who did not experience much congestion, especially those retired from work and those living in rural areas felt congestion was not an important issue that required a solution.
- Younger people felt they had never known anything different and did not view congestion as a major problem. However, they still conceded that something needed to be done to reduce congestion.
- There was a growing recognition amongst the participants that they themselves must take some responsibility for congestion, especially from younger participants.
- Information (and consequently their attitudes) on congestion came from their own experience, friends and family experience, radio traffic reports and local TV and newspaper reports. Weight was given to information that was perceived to be free from opinion, hence the importance of information from trusted friends and family, rather than local authority statistics.

### **Public acceptability of the need for demand management**

- When discussing the principles of demand management, it was generally viewed as a concept that restricted choice of driving.
- However, there was a misconception between demand management and traffic management amongst the participants. Generally participants had based their feelings of the principles of demand management in light of their previous experience of local traffic management concepts such as issues they had had with traffic lights and roundabouts.
- Participants felt they drove almost exclusively out of necessity and baulked at the idea of anything that hindered this necessity. Overall, participants felt most of their journeys, particularly long journeys and those made most frequently - for example, journeys associated with work - were absolutely necessary to be taken by car, because of advantages in terms of time, cost and safety. Psychological aspects such as comfort and the need for freedom and privacy also emphasised the necessity of using a car. Younger participants mentioned they did make unnecessary journeys and talked of being lazy and using the car "without thinking". Younger people seemed more open to changing their usual mode of transport than older people. A cost implication was also important. Participants, especially those from C2DE backgrounds, felt that they had paid large up-front costs for their car so it was perceived necessary to use their vehicle to "get their money's worth".
- Generally it was short-journeys that were seen as unnecessary, for example driving less than a mile to pick up a few items in the shops. In addition, people often stated journeys they themselves did not do as being unnecessary, for example the school-run was cited as an unnecessary journey by those who did not drive their children to school.
- Overall, there was the feeling that people should have the freedom to drive on the roads they wanted to, when they wanted to. Emotive responses highlighted the importance of this concept and participants cited rights, freedom and civil liberties.
- When discussing measures that could manage demand, participants favoured soft measures aimed at encouraging individuals to consider changing travel mode, especially better public transport and encouraging flexi-working and car sharing. Hard measures aimed at discouraging individuals from using their car were seen negatively and this included all forms of road pricing.
- Participants did point out that they realised the efficacy of soft measures relied in part on hard measures being used, and hard measures coupled with soft measures raised the acceptability of hard measures.
- However, in conclusion people would prefer to have their journey and freedom restricted by

congestion than by a demand management principle. There was a feeling of being all in it together where no one person had caused the limit on freedom and everyone suffered â demand management was seen as interference from government in which different people suffered a loss in freedom to different degrees.

### **Public acceptability of the principle of road pricing**

- In the first phase of the research, road pricing was viewed primarily by the participants as an extra personal expense without clear benefits. Revenue generation was perceived to be the key function of such a scheme.
- Participants questioned whether road pricing would be effective in reducing congestion. Reasons for such scepticism included: people drive during peak congestion times because they have to, not because they want to; if charges were introduced people would find alternative routes and congestion would move to smaller roads; and cars are convenient. However there were participants that felt road pricing could reduce congestion. A key theme was that road pricing would only be acceptable if it really did reduce congestion.
- Participants found it difficult to spontaneously think of positive aspects of road pricing. However advantages were seen to be reduction in congestion, journey times and unnecessary journeys. Revenue could be spent on improving public transport which would encourage people to use alternatives to the car. Road pricing was viewed by some as relatively âfairâ because it reflected car usage. Reduction in pollution and an increase in healthy ways of travelling were also suggested as potential benefits.
- Throughout each stage of the research concerns about road pricing were expressed. These included: the cost to the individual; the lack of choice it presented; trust in those responsible for introducing road pricing; use of income generated through a scheme; fairness of road pricing for certain groups; and the potential impact of road pricing on businesses.
- During phase one of the research, there was a strong feeling that participants did not want road pricing to be introduced. However, as more specific information on road pricing was introduced and participants understood the specific detail of a scheme, attitudes of some participants became more positive. There was a growing understanding amongst some participants that âsomething had to be doneâ about the problem of congestion and that road pricing would be the most effective way of addressing the problem. This was particularly evident amongst females, who appeared to become more open to road pricing throughout the course of the research.
- However, overall the negative feelings were generally sustained and there remained a vociferous group of participants who were strongly against the idea of road pricing at the final stage and did not feel it was an appropriate solution. There was evidence of negative attitudes becoming more entrenched. This was particularly the case amongst younger males and those from C2DE backgrounds.
- It was evident that a number of factors influenced participantsâ acceptability, these included: the impact road pricing would have on congestion; the cost implications; the extent to which road pricing is part of an overall traffic plan with alternative modes and routes; improvements in public transport; equity and fairness; evidence of improvements; access to information; and open communication about the road pricing debate from the outset.

## Public acceptability of a specific road pricing scheme

- The cordon charge model was generally considered more familiar and easier to understand than the distance based model. Key concerns around both models included that charging zone boundaries may be unclear, that places that should be accessed freely such as hospitals and railway stations would be located inside the charging zone, and that charging zones would not cover areas of highest congestion levels.
- Particular concerns around the distance charge model included: implementation and administration costs of the model; the bureaucracy required to administer the model; a lack of visibility of charges incurred in real time; and concerns that having an inner and outer charging zone would make the model more complicated to use.
- Doubts were expressed that either model would reduce congestion. There was a view that currently, people often only drive because they have to and that this would not alter with the introduction of road pricing. Further, the models were expected to displace congestion to other times of day or geographical locations rather than reduce congestion overall.
- However, as a result of road pricing it was expected that people would be more likely to use public transport or car share, and it was recognised that this would effectively reduce congestion.
- Cost, rather than the impact of reduced congestion, was the key consideration of the impact that road pricing would have on participants and others. There were concerns around the costs of both personal travel and of goods and services as businesses passed on higher transport costs to their customers. Reduced congestion was, however, expected to have a positive impact on participants. Walking in town centres was expected to be more pleasant as the environment would be cleaner and less noisy.
- Workers and parents of school children were considered to be affected by road pricing charges, as they were perceived to have little choice but to drive during charging times. Local businesses and low-income earners were also identified as groups likely to suffer as a result of increased costs of driving. Interestingly, participants who were retired themselves generally felt it was more important that other groups were exempt from charges, such as key workers and low income earners.
- There was a view that distance charging was more fair, as it was based on the distance driven rather than a single flat fee for passing a particular point. However, those from urban areas tended to feel that distance based charging in particular would be unfair as they would have to pay more than people in rural areas for driving on local roads.
- Although distance charges were considered to be more affordable, there were concerns around hidden costs that would be charged to the taxpayer to cover the costs of running the scheme. Privacy was a further concern associated with the distance charge model as it was assumed that drivers would need to have a tracking device fitted in their car.
- Details of the models that were perceived to make the scheme more acceptable included: the possibility that new roads would be built as part of the model; potential improvements to public transport; charging times that apply in peak travel times only, and exemptions for certain groups.
- It tended to be C2DE male groups that particularly felt their level of acceptance had declined over the period of the research. Younger individuals, especially males, mentioned that acceptability towards both models, particularly in terms of personal cost, had declined over the period of the research. However female participants tended to note that they had warmed to the idea of distance based charging over the course of the research, and felt it was a fairer system which had more chance of working than they had originally considered.

### **Public acceptability of the detail and design of a road pricing scheme**

- Automatic Number Plate Recognition (ANPR) technology was generally considered to be easier to understand than microwave tag technology, due to its perceived similarity to speed cameras. Participants had more confidence that ANPR technology would work, whereas microwave tags were perceived to be more complex and therefore less likely to function successfully. Due to its simplicity, ANPR was considered to be less costly to install and administer.
- Microwave tag technology was considered to be synonymous with GPS technology, and privacy was a key concern. Other concerns included the cost of the technology and health risks of the microwaves used. Evasion, fraud, and the wider use of technology to detect other offences such as speeding were raised as concerns for both microwave tag and ANPR technologies..
- Participants believed that tags would be used to track vehicles even though this information was not presented to them as part of the research. The road pricing petition and various media sources were referred to as having prompted these beliefs.
- Views on the extent to which road pricing data would be used for purposes other than to enforce road pricing charges varied. However, there was a general concern that even if data was not used to monitor drivers, the data would exist that would allow data holders to observe drivers if they chose to at a point in the future.
- Payment methods were generally considered to be easy to understand as they were similar to methods used for mobile phone use. Ease of understanding payment methods did not vary according to the age of the participants. Although remote processing was perceived to demand less sophisticated and therefore cheaper on-board technology, it was generally felt that drivers would want to be able to see the charges they incurred in real time on the onboard tag.
- Suggestions for an appropriate organisation to collect road pricing information included local government, a private company, and an independent, not-for-profit organisation.
- Overall, the most detailed bill options presented to participants were preferred, as they provided sufficient detail to allow a driver to check and, if necessary, challenge a bill. There was a general concern that it would be difficult for a driver to prove a case of inaccurate billing. Further, there was a lack of trust in the technology used to process potential billing information.
- Although information on implementation methods was thought to have improved participants' understanding of how a road pricing scheme might be administered, this was generally felt to have had little impact on acceptability. There remained overarching concerns over issues such as privacy, and the objection to the principle of charging for road use.

### **Impact of the media, family, friends and the research on the acceptability of road pricing**

- Awareness of road pricing and congestion in the media increased during the time the participants were involved in the research. It was noted that this could be because of increased media coverage or an increased awareness amongst participants.
- Increased awareness of media coverage about road pricing was linked to feelings of increased inevitability that road pricing will be introduced.
- Participants cited a variety of important media clips over the 12 months of the research including the national petition, the Eddington Report and the BBC Case Study Road Pricing Trial.
- During waves four and five, the national petition against road pricing entered the media. Participants had seen discussions on various media. There were mixed views. It was reported to have strengthened negative feeling towards road pricing for those already negative, perhaps through a

sense of solidarity. In particular it increased negative anxiety about privacy and tracking. But others felt it over stated issues on privacy and over hyped the costs.

- Participants felt TV News to be a worthy source of information. Media coverage appearing on TV led to feelings of inevitability about road pricing being introduced.
- Media coverage in newspapers was perceived as interesting but was not necessarily taken at face-value. Participants felt they knew more about road pricing as a result of attending the groups and were above the more subjective nature of some newspaper reporting.
- Motorist groups and car programme television presenters were seen as influential messengers and were perceived to present a balanced view with the motoristsâ (and hence many of the participantsâ) views central to their argument.
- Participants felt they were not influenced by the attitudes of family and friends, but did take into account their personal situations and travel behaviour when discussing and formulating attitudes on road pricing.
- Participants felt they were enlightened experts with regards to knowledge about road pricing and as such were more likely to influence friends and family than the other way around.
- However, participants still wanted more information on road pricing. There was a call for more government directed information to counteract the negative stories in the press and help back-up the more positive peopleâs views and attitudes.

## Conclusion

- The Gearing Up Model was conceived at the outset and proved effective in framing the study. The research underlined the importance of recognising a hierarchy of acceptance â from acceptance of a problem needing to be solved through to acceptance of a possible specific road pricing scheme intending to offer a solution.
- Road traffic congestion in general is recognised as a problem for society; it is less readily seen as a problem for the individual though unanticipated congestion prompts personal frustration. Engagement with the topic can lead to an increased recognition, acceptance and ownership of a problem needing to be solved. The gradually worsening nature of the problem is something to confront in terms of engagement.
- People tend to believe, based upon their experiences of congestion and of apparent continued failure by national and local government to âsolveâ it (especially in relation to traffic management measures), that congestion is an insoluble problem. As such they are inclined to favour self-regulation â avoiding or coping with the problem themselves â since this aligns more closely with the espoused principle of freedom to drive than push or pull measures to change behaviour imposed upon them in the form of demand management.
- Heightened coverage of road pricing can draw a distinction between acceptability and inevitability â that government is prepared to countenance such a difficult measure can foster a resignation to its eventual arrival. However, individuals expect road pricing to be effective if it is introduced while wishing it not to increase their own costs of motoring â in this context ârevenue neutralâ can sound as though it satisfies the latter but not the former.
- People can struggle to really understand what road pricing would mean for them in terms of their daily lives and travel needs. This can hamper openness to the concept. Likewise, information on hypothetical road pricing schemes and concepts is harder to grasp and thus influence acceptance than would be the case if ârealâ examples with evidence of impact were provided.
- At the end of a hierarchy of acceptance where a specific scheme is considered, the introduction of

such detail tends, if anything, to reduce a sense of acceptance as concerns about wider issues such as cost and privacy are exacerbated by information presented on technology. In relation to specific issues, privacy is not a natural concern to many people; however when the topic is probed it can invite a sense of being a much greater concern: thus a dormant yet volatile issue.

- There seems to be a need for a segmented or targeted approach, since different groups of individuals view road pricing in different ways. Most noticeable during the research was the apparent tendency for female participants to become more open to road pricing over the course of the research and for younger males and those from C2DE socioeconomic backgrounds to either remain very negative or become more negative during the course of the research. Maybe studying the importance of travel and car use in terms of instrumental, affective and financial concepts could highlight why such differences may be in evidence.
- A final important concluding point concerns the different life roles people have and how these roles can differently affect issues of acceptability. It is notable that the role as driver rather than citizen or community resident tends to assert and reassert itself in discussion. However, in relation to effective communication of issues, a greater receptiveness to concerns and the need for solutions arises when people think as parents or, prospectively, grandparents.
- The study has arrived at two key questions whose answers will govern acceptability of road pricing:
  - Would it really solve or effectively tackle congestion?
  - Would it make life better for me (i.e. would it be a price worth paying)?

## **Final Report**

**September 2007**

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We are also grateful to our recruitment team, Josephine King, Margaret Otway and Gary Bright who co-ordinated the fieldwork on this project.

Finally, we would like to thank all the participants who have participated in this study, both for the time they gave and for the openness with which they expressed their views.

## **Introduction**

In March 2006 the Department for Transport (DfT) commissioned BMRB Social Research and the Centre for Transport & Society (CTS), University of the West of England, Bristol, to undertake research to develop its understanding of the public acceptability of road pricing. The research builds upon previous research undertaken as part of the DfT road pricing Feasibility Study (Lyons et al, 2004, Green and Stone, 2004).

This report presents the key findings from the research project.

## **Aims and objectives**

The aim of the research was to further inform the DfT's understanding of public acceptability as it relates to road pricing. Specifically its objectives were to:

- explore how, why and in what circumstances public acceptability increases or decreases, particularly in relation to information and greater exposure to the issues; and
- develop an understanding of the factors that influence public attitudes.

The research involved group discussions with the public over six waves, followed by a seventh wave which comprised depth interviews with some of the participants who took part in the group discussion. The aims and objectives of each wave are outlined below.

### **Principle of wave 1 discussion group**

Wave one group discussions began in a deliberately wide ranging manner. This level of discussion began by building on work carried out previously addressing attitudes to road pricing (Green and Stone, 2004). Very briefly, local transport issues were explored, including their impact on the individual and society. General perceptions of congestion were also examined, before considering whether some form of demand management is a necessary and an acceptable way of reducing congestion. The wave ended with a brief discussion about participants's knowledge and initial reactions to the concept of road pricing, particularly

in relation to the current way of paying for using road vehicles.

### **Principle of wave 2 discussion group**

Wave 2 group discussions began to focus more on the principle of road pricing at a local level, including initial thoughts on how it could affect participants themselves, their friends and family, local business and society. It looked at the sticking points to accepting road pricing and explored the inter-relationships between them. Finally, wave 2 discussion groups focussed on what aspects might make road pricing more acceptable to the participants.

### **Principle of wave 3 discussion groups**

Wave 3 group discussions looked in-depth at congestion and demand management at a local level. The discussion on congestion therefore moved from a more generic initial response found at waves 1 and 2 to a more specific and considered approach.

### **Principle of wave 4 discussion groups**

At wave 4 group discussions, information on the design and scheme layout of a hypothetical local road pricing scheme, including charges incurred, times of charge and area of charge, was used to discuss the local impact of road pricing amongst the participants.

### **Principle of wave 5 discussion groups**

At wave 5 more detailed information on a hypothetical local road pricing scheme accompanied the information provided at wave 4. In particular information about technology, billing options, payment methods and fines was explored. The concept of privacy, in relation to technology, was discussed in some depth. Overall, how such information impacted on perceptions and acceptability of road pricing was examined.

### **Principles of wave 6 workshops**

Wave 6 involved workshops with a variety of individuals who had taken part in at least 3 waves of discussion groups. The workshops introduced the findings to date with an expert commentary to set a discussion in context. Then the workshops explored attitudes and perceptions of travel, congestion and road pricing of different people. In particular the focus was on the impact of communications, including message and messenger, on different people's attitudes and acceptability of road pricing.

### **Principles of Wave 7 depth interviews**

The depth interviews allowed more depth to exploring attitudes and perceptions about road pricing than had emerged during the group discussions. The interviews attempted to explore what influences the acceptability of road pricing at an individual level, and whether individuals were aware of their own views on acceptability of road pricing changing over time between waves.

The fieldwork for phase one took place in the seven round 1 TIF pump-priming authority areas and Cardiff. Phase two fieldwork was conducted in five of these areas: Bristol; Durham; Shropshire; Tyne and Wear; and West Midlands.

Additional information regarding the methodology used can be found in appendix 1.

## Report Outline

Following this introductory section, the report is divided into ten chapters:

- **Chapter 1** is a summary of the conceptual paper written at the start of the research project (Lyons et al, 2006). It provides an update on previous research in this area and a brief overview of the conceptual models developed.
- **Chapter 2** gives an account of the research design and sample profile for the study.

Chapters three to nine present the findings from qualitative research with the public. Each chapter moves along a trajectory of the conceptual model, and highlights perceptions, attitudes and acceptability towards the concepts drawn from our discussions with participants:

- **Chapter 3** discusses the participants's experiences and views on congestion and acceptability of congestion as a problem that needs to be solved.
- **Chapter 4** explores the participants's views on managing the demand on the roads and acceptability of demand management as a strategy aimed at reducing congestion.
- **Chapter 5** considers acceptability of the principles of road pricing, in particular focussing on attitudes and acceptability of such principles as they move from initial reactions in waves 1 and 2 to a more considered response in light of additional information at waves 4 and 5.
- **Chapter 6** considers acceptability of road pricing in light of the first level of hypothetical scheme design information discussed at wave 4, including charges incurred, times of charge and area of charge.
- **Chapter 7** considers the acceptability of road pricing in light of additional technical details discussed at wave 5, including technology, privacy, payment and billing options and fines.
- **Chapter 8** focuses on the impact of the media, family, friends and on attitudes as well as information gathered throughout the course of this research project
- **Chapter 9** draws together the findings of the project and provides conclusions.

Quotes and examples are provided throughout the report as a means of illustrating the points being made in the text.

# 1 Background

## 1.1 What do we already know?

It is recognised that one of the greatest barriers to the effective introduction of road pricing is limited public acceptability (Gaunt, Rye and Allen, 2007; Gray and Begg, 2001; Schade and Schlag, 2000). To address the current state of opinion and to understand the factors that influence it, there is a need to go beyond results of opinion polls and surveys to address the underlying motivations and attitudes. An attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour (Eagly and Chaiken, 1993) and involves values, beliefs and behavioural intention (Ajzen and Fishbein, 1980).

The DfT has previously commissioned research concerning (public) attitudes to road pricing as part of its 2004 National road Pricing Feasibility Study[1]. Typically public acceptability of road pricing is quite low (Bartley, 1995; Bird and Morris, 2006; Gaunt et al., 2007; Luk and Chung, 1997; Schade and Schalg, 2000). However, it must be remembered that acceptability is not fixed and is influenced by (and hence can be changed through) a variety of attitudinal, experiential and political persuasions.

Table 1.1 provides a summary of some key observations drawn from previous research. From this ten factors have been identified that appear to exert positive influence on the acceptability of a road pricing scheme:

- there needs to be a recognition that there is a (transport) problem (such as congestion) that requires a solution like road pricing and that road pricing is seen to work to reduce the problem;
- it needs to be part of an overall traffic management plan within a consistent transport strategy;
- good travel alternatives need to be available in particular to allow modal shift and choice;
- revenue application should be identified clearly and used relevantly and appropriately;
- the scheme must be seen as simple;
- the scheme must be seen as fair;
- appropriate information on the scheme must be disseminated via education, publicity and marketing;
- there must be public trust in the local authority or agency to deliver, manage and run the scheme;
- there must be trust in the scheme’s technology in terms of being reliable and easy to understand; and
- concerns over privacy must be responded to, with a focus on scheme design, implementation and appropriate communications.

There are three important caveats to acceptability; namely that acceptability is not stable and varies intra-personally (within individuals), inter-personally (between individuals) and chronologically (over-time) (see Figure 1.2).

<b>Acceptability of road pricing is higher if:</b>	
<i>There is seen to be a problem and that road pricing can solve such a problem</i>	Usually the problem is viewed as congestion (Bird and Morris, 2006). People who view congestion as a strong problem are more likely to support road pricing (Bielefeldt, 2004; Bird and Vigor, 2006; Vagverket, 2002). However, they must also perceive that road pricing will solve the problem (Gaunt et al., 2007; PATS Consortium, 2001) Knowledge and experience of it working elsewhere leads to greater acceptance (Bielefeldt, 2004).
<i>The scheme is part of an overall traffic management plan and consistent overall transport strategy</i>	Including public transport improvements, encouraging green travel plans for businesses, improving Park and Ride schemes and assessing car park levies (Green and Stone, 2004).
<i>Good alternatives to paying for use of the road are in place</i>	Including free of charge alternative routes and good public transport (Green and Stone, 2004).

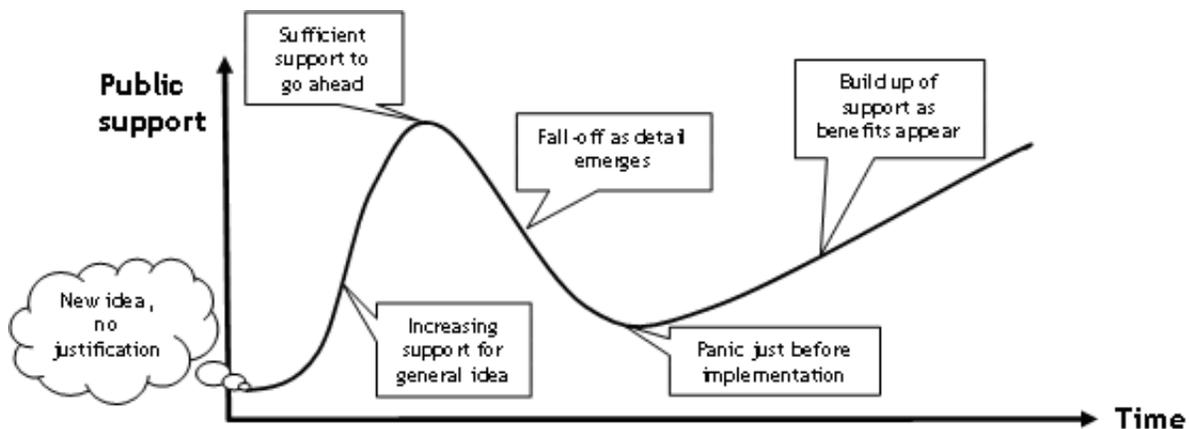
<p><i>Revenue application is made explicit and used relevantly and appropriately</i></p>	<p>Studies suggest that explicit use of the revenue was important, Increased support is found when revenue directly benefits the motorist (i.e. reduction in road tax and fuel duty), or the local transport network as a whole (i.e. local transport improvement schemes notably public transport alternatives, or expanded road capacity and maintenance) (CfIT, 2000, 2001, 2002; DfT, 2003; Dublin Transportation Office, 2003; Green and Stone, 2004; Harrington et al., 2001; Ison, 2004; Jaensirisak, et al., 2005; RAC, 2002, 2004; Odani and Akita, 1996; TfL, 2001; Tretvik, 2003).</p>
<p><i>The scheme is seen as simple</i></p>	<p>A simple scheme design and payment options tends to increase acceptability; complexity can decrease acceptability (Gaunt et al., 2007).</p> <p>Although there are examples where variable prices were acceptable, people on the whole preferred the simplicity of predictable prices (Harsman et al, 2000; Schade and Schlag, 2003).</p> <p>People also had a strong habit to stick with their previous behaviour (the status quo bias) in face of complex and novel systems (Drolet, 2002).</p>
<p><i>The scheme is seen as fair</i></p>	<p>Variability for different groups of people was seen as fair and improves acceptability. To increase fairness, schemes need to take account of size of vehicle or size of engine, income, health and disability needs and proximity of residence or business to the charging zone (Green and Stone, 2004).</p>
<p><i>Appropriate education, publicity and marketing accompany the scheme delivery</i></p>	<p>Lack of knowledge and misunderstandings can lead to lower acceptance (Gaunt et al., 2007; Odeck and Brathen, 2002), but increasing knowledge from the general principals to the specifics can also increase negative attitudes (Bielefeldt, 2004; Collis and Inwood, 1996).</p> <p>This must take into account theory from psychology, including the role of social norms, expectancy and perceived effectiveness (Schade, 2003). Communicating the success of road pricing elsewhere is important (Bielefeldt, 2004).</p> <p>Also, remembering the role of a leader or champion might be important in this process (Ferguson and Nilsson, 2004, Schade and Schlag, 2003).</p>
<p><i>Trust exists in those operating a scheme to deliver</i></p>	<p>Careful choice in which authority regulates, administers and implements any road pricing measure was required (Gaunt et al., 2007; Viegas and Macario, 2003).</p>
<p><i>Trust exists in the technology to deliver</i></p>	<p>Technology must be reliable and be simple to use and understand (Cook, no date; Ison, 2000; Langmyhr, 2001; McCabe, 1998; TfL, 2003). In addition, technology should keep evasion of payment to a minimum (Tretvik, 2003) and the cost of implementation should not be borne up front by the motorist (Green and Stone, 2004).</p>
<p><i>Concerns over privacy issues are minimised</i></p>	<p>Issues of data protection and privacy must also be addressed (Cook, no date.; Green and Stone, 2004; Harsman, 2003; Ison, 2000).</p>

**Table 1.1: Factors affecting the acceptability of road pricing schemes**

<b>But it must be remembered that acceptance varies:</b>	
<i>Intra-personally</i>	Drivers support for road pricing varies depending upon the $\hat{a}$ they are currently wearing.
<i>Inter-personally</i>	Non-drivers were more accepting of road pricing than drivers and drivers who regularly use their car were less accepting of road pricing than those who use their car less often (Green and Stone, 2004; PRIMA, 2000; Jaensirisak et al., 2005). Institutional and corporate stakeholders tend to be quite favourable to road pricing (e.g. Department of Regional Development, 2001), in particular, larger businesses tend to be more accepting than small to medium sized businesses (London First, 2004; TfL, 2004a).
<i>Chronologically</i>	Acceptance varies over time, both in the build-up period as perceptions of the problem and familiarity with the solutions evolve, and also in a major break-point between ex ante and ex post judgements (see Bird and Morris, 2006; Gaunt et al., 2007; Larsen, 1988, TfL, 2004b; Tretvik, 2003). The least successful element of most survey instruments was predicting changes in acceptance. Past experience can help inform in this regard - for example, positive support for London's congestion charge has grown (TfL, 2004b).

**Table 1.2: How public acceptability of road pricing varies**

Figure 1.1 is an illustration, based upon insights from road pricing schemes that have been pursued/implemented, of how public acceptability of the road pricing  $\hat{a}$  attitude object  $\hat{a}$  may change over time along a trajectory towards (and beyond) implementation of a road pricing scheme.



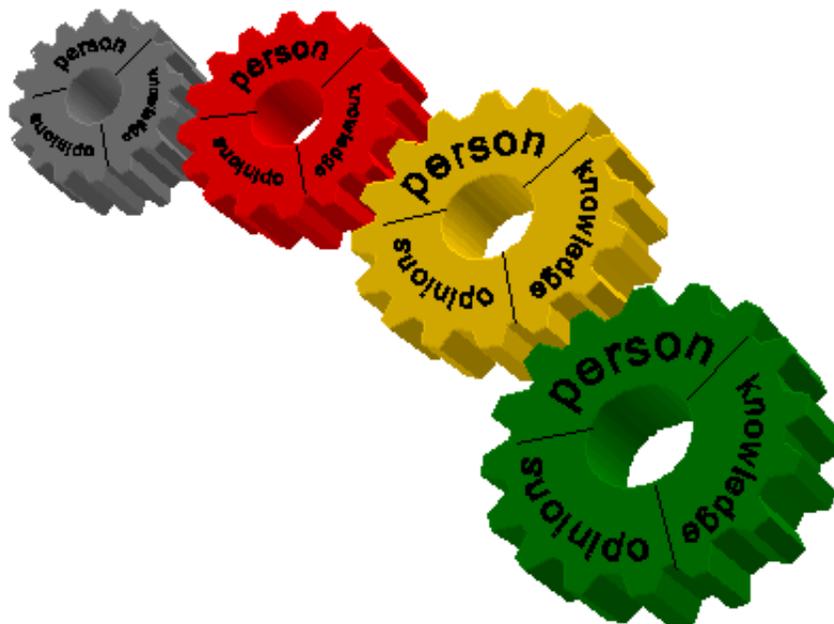
## 1.2 The Gearing-Up Model of Road Pricing Acceptability

In order to contextualise the research and provide an analytical framework for exploring the data a model, entitled the Gearing-Up Model of Road Pricing Acceptability (abbreviated to the GU Model), was developed. The model uses the metaphor of an engine with moving parts (corresponding to the factors under study) whose collective interactions determine what drives (or prevents) public acceptability. The moving parts, or cogs, can be imagined as sticking, free-wheeling or driving:

- a sticking cog corresponds to a factor or set of factors reflecting a resistance to accepting road pricing;
- a free-wheeling cog corresponds to a factor or set of factors that seems to have little or no influence on acceptability; and
- a driving cog corresponds to a factor or set of factors that is/are contributing positively towards acceptability.

Importantly, the model concerns the individual and his or her degree of acceptance of road pricing at a particular point in time. The model accounts for the fact that the individual is situated in a social context. Focusing on the individual is necessary to understand public acceptability, albeit that the ultimate interest is in the collective level of acceptability of a population or group(s) within it.

Figure 1.2 shows the primary cogs of the engine depicting a logical interplay. If an individual does not accept that there is a (transport) problem to be solved in an area, then the corresponding cog sticks which means, following through, the individual will not accept the need for demand management or, in turn, road pricing or a specific scheme. In terms of understanding, it was thus important to recognise that someone who objects (in any way) to a specific road pricing scheme may do so, not because of some specific feature of the design, but because they fundamentally oppose demand management, perhaps believing it compromises the right to personal freedom and choice.



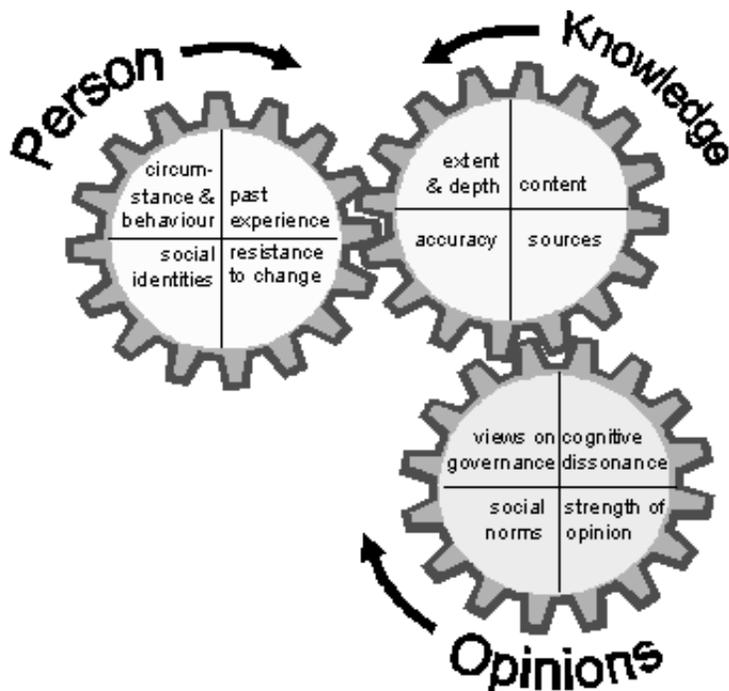
### Figure 1.2: Primary cogs of the Gearing-Up Model

The primary cogs in Figure 1.2 are each shown to be related in the engine to a set of three secondary cogs, labelled as 'person', 'knowledge' and 'opinions'. This suggests that acceptability (or not) at the primary level is dictated by characteristics of the individual, the knowledge they receive and possess and their formulation of interpretations and opinions.

Figure 1.3 shows these secondary cogs. For each of these, the Figure also shows what might be seen as tertiary cogs – the more detailed factors that come under the label of 'person', 'knowledge' and 'opinions'. Thus, for example, 'person' embodies factors such as:

- the current circumstances and behaviour of the individual (how affluent they are, what modes of travel they rely upon and what are available, what journeys they make, where they live etc.);
- the past experience they have had (such as familiarity of using other modes, the life stages they have been through, their encounters with other areas etc);
- the extent of their resistance to change (are they inherently objectionable to any threats to their routines and habits, or are they used to and comfortable with change in their lives?); and
- the social identity or identities they assume or represent (are they thinking as a motorist, pedestrian or resident?, are they thinking as a citizen or as a consumer? and in some cases are they thinking as an employer or employee?).

'Knowledge' embodies a key aspect of public acceptability that is likely to be subject to change and influence as one proceeds along the implementation path. Herein is where the influence of different sources of information (friends, family, media etc.) is at work. This is anticipated to be a key part of the engine where cogs either stick badly or are significantly responsible for driving the engine overall. Accordingly, the research itself is oriented towards this area in particular.



**Figure 1.3: Secondary and tertiary cogs of the Gearing-Up Model**

## The findings

### 2 Public acceptability of a problem needing to be solved

#### 2.1 Introduction

The GU Model (see section 1.2) infers that if people do not accept that there is a problem needing to be solved then it is highly unlikely they will accept the need for demand management or, specifically, road pricing. The problem in question is taken to be congestion (though there were also a number of related and consequential economic, environmental and social problems).

Defining the problem, i.e. congestion itself, can be challenging. In this research, a definition was not predefined or presented to participants. Instead, the intention was to probe for an understanding of how individuals conceive congestion in terms of their own personal experiences. In turn, it is possible to explore whether people think that congestion is a problem that needs to be solved and if so, how it could be addressed.

#### 2.2 Attitudes towards congestion

##### 2.2.1 Initial reactions

Participants were initially asked for their view on 'what is traffic congestion?'. There was a diverse range of answers which highlighted the subjective and personal nature of congestion.

*'The road is a very individual concept really, isn't it' (25-34, C2DE)*

Participants used words such as 'jams', 'tail-backs', 'bumper to bumper' and 'gridlock'. However participants noted two important constructs: (1) restriction in movement and (2) the impact on time. A general sense from the group discussion was that even when similar terms were being used by people to illustrate what they take congestion to mean, the actual deconstructions of what such terms imply or embody for them varied across individuals.

During the first two waves of the research, congestion at a national and local level was briefly explored. Overall, participants acknowledged that congestion was a problem that needed to be tackled but thought that it was more of a problem for society in general than for them personally.

At a personal level congestion was seen to cause anxiety and stress. Wider effects included pollution and negative impact on business. There was a view that congestion was something that had to be lived with and that participants would choose routes and the time of travel, where possible, to avoid congestion. However, it was a common theme for participants not to consider changing their mode of travel because of congestion.

There was an overall feeling that congestion needed to be tackled, and on the whole that it was a local problem requiring a local solution. With this in mind, participants generally saw local authorities as having the key responsibility for dealing with congestion. However, younger participants implied that everybody had a responsibility to reduce congestion but that on occasion governmental support would be

required to motivate people to change behaviour. Attitudes towards congestion and knowledge about it seemed to originate largely from personal experience. Local newspapers and travel reports appeared to play only a small role in shaping such perceptions

## **2.2.2 Impact of Congestion on the Individual**

At an individual level, participants generally felt congestion affected them. Exceptions were found amongst those living in rural areas who mentioned that congestion, for them, was rare. Older, retired individuals also mentioned that congestion did not affect them directly. Responses to the impact on congestion at a personal and individual level were best placed into two categories – practical impacts and emotive impacts.

### **Practical impacts**

At a practical level, participants stated how congestion impacted upon their time. The unpredictability of congestion had caused individuals to be late for appointments. Of particular concern was being late for work and where an individual's time was closely related to their work which could result in lost business.

Congestion appeared to cause participants to consider their transport choices. Participants discussed changing routes and time of travel to avoid congestion. Ordinarily, participants set-off on their journeys earlier than normal if they knew congestion would be faced, in order to take into account the longer journey time expected. It was not unusual though for participants to deliberately travel when congestion was not expected if appointments or work start and finish times allowed it. In addition, participants who were able to be flexible with work discussed the notion of working 3 or 4 longer days instead of 5 shorter ones in order to avoid the congestion. However, as found in the initial waves, participants generally did not choose their mode of transport based on congestion. On the whole, though, participants who used public transport also endured the same negative impacts of congestion as those in the private car – consequently, they had to travel earlier and choose particular routes.

### **Emotive impacts**

At the psychological or emotive level, participants stated they felt congestion was very stressful and caused them great frustration which could on occasion lead to anger and road rage.

*It's just like proper road rage. I could just ram everyone out the way. (35-44, C2DE)*

This stress, frustration and anger was felt to be made worse by extra external pressures such as having children in the car, being short of time or knowing that a busy day ahead at work was looming. These feelings could impact on concentration and therefore safety in driving. In addition, frustration on the way to work could continue into the working day and affect mood and performance at work.

*It is very tiring in the morning, and by the time you get to work, you are snappy, and can't be bothered. (35-44, ABC1)*

The impacts of such stress on health were also noted, particularly amongst older participants, who mentioned how it could make them feel quite unwell with headaches and fatigue. Additionally, negative effects on blood pressure were also noted.

Stress was thought to increase if congestion was unexpected as no extra time was allowed for unanticipated congestion when planning journeys. However, a counter argument prevailed that unexpected congestion can be more acceptable as it could not usually be blamed on anyone individually. Expected congestion was often seen as something people were more resigned to accepting. However, there was a feeling that unexpected congestion was increasing in frequency and that traffic was becoming more unpredictable, which increased stress. However, it was noted that employers were becoming increasingly aware of the problems of arriving at work on time and that in society in general unexpected congestion was a reasonable excuse for being late.

*âPeople are more tolerant I would say, if you say I am late because I was stuck in traffic and like 10 years ago itâd be âlike you what?â (25-34, C2DE)*

## **2.3 Acceptability that congestion needs to be solved**

Some younger participants (especially 18-24 year old age groups) mentioned that they had never known anything different with regards to the amount and patterns of congestion and so were fairly resigned and accepting of congestion. That said, within this group it was felt that something needed to be done about congestion. However, amongst other participants, there was a feeling of resignation associated with congestion. It was a common theme amongst 45-64 year olds to state they did not like it, but they had to âput up with itâ. Consequently, this group viewed appeared to hold a more fatalistic view of congestion, feeling that it would never change, so they feel they just have to âlive with itâ. Participants discussed how they had tactics for dealing with the situation.

### **2.3.1 Change over time**

Over the course of the year that the research was carried out, it was investigated whether attitudes towards congestion had changed. It was a common theme for participants to state that they had become more aware of congestion, but that their attitudes had not particularly changed. For those whose attitude had changed as a result of increased awareness there was a feeling of increased concern and a growing acceptance that congestion needs to be solved.

*âI think the problem is much more acute, much more critical than I thought when I first came here.â (55-65, ABC1)*

During the second phase of the research, when discussing the issues of congestion, participants said they were primarily thinking of themselves as a driver first and a citizen or a member of society second. Their attitudes and responses to congestion appeared to be localised and individual rather than about wider and societal issues. This had changed from phase one, where participants had placed an emphasis on the effects of congestion on society as a whole and had more readily discussed the effect of congestion on pollution.

Throughout the research, there was recognition that congestion adversely affects business, but this tended to escalate from individual attitudes. For example, individuals stated how businesses could begin to fail, especially in city centres, as they themselves did not drive into such areas and use businesses because of the congestion. There was also the notion that business people using the roads may lose out on business and work, which stemmed from individuals who actually faced such situations themselves.

## **2.4 Factors underlying acceptability that congestion is a problem to be solved**

### **2.4.1 Experience of congestion**

Participants's main views of congestion arose from their own experience. On the whole, most participants felt congestion negatively affected their driving and impacted on their lives. However, differences were found between individuals. For example, younger drivers generally mentioned that they had never known congestion to be any different and, although they felt something needed to be done to reduce congestion, this appeared to be less of a concern compared to other age groups. They saw congestion as quite ordinary and that it was part of everyday life.

"I think one of the things is because we are all sort of relatively young we have grown up in our short driving lives, that is how it has been, whereas, like I noticed the group when I came in was slightly older, they have probably seen it get worse and are probably more concerned than we are because we don't know any different." (18-24, ABC1)

In addition, those who did not drive in congestion, especially retired participants, felt that it was not a problem that needed to be solved. In addition, those living in rural areas also mentioned that they did not feel congestion needed a solution.

### **2.4.2 Fatalistic view**

There was the view amongst participants that nothing could be done to solve congestion. As such they would not accept that congestion needs solving as it is an insolvable problem.

### **2.4.3 Self-regulating**

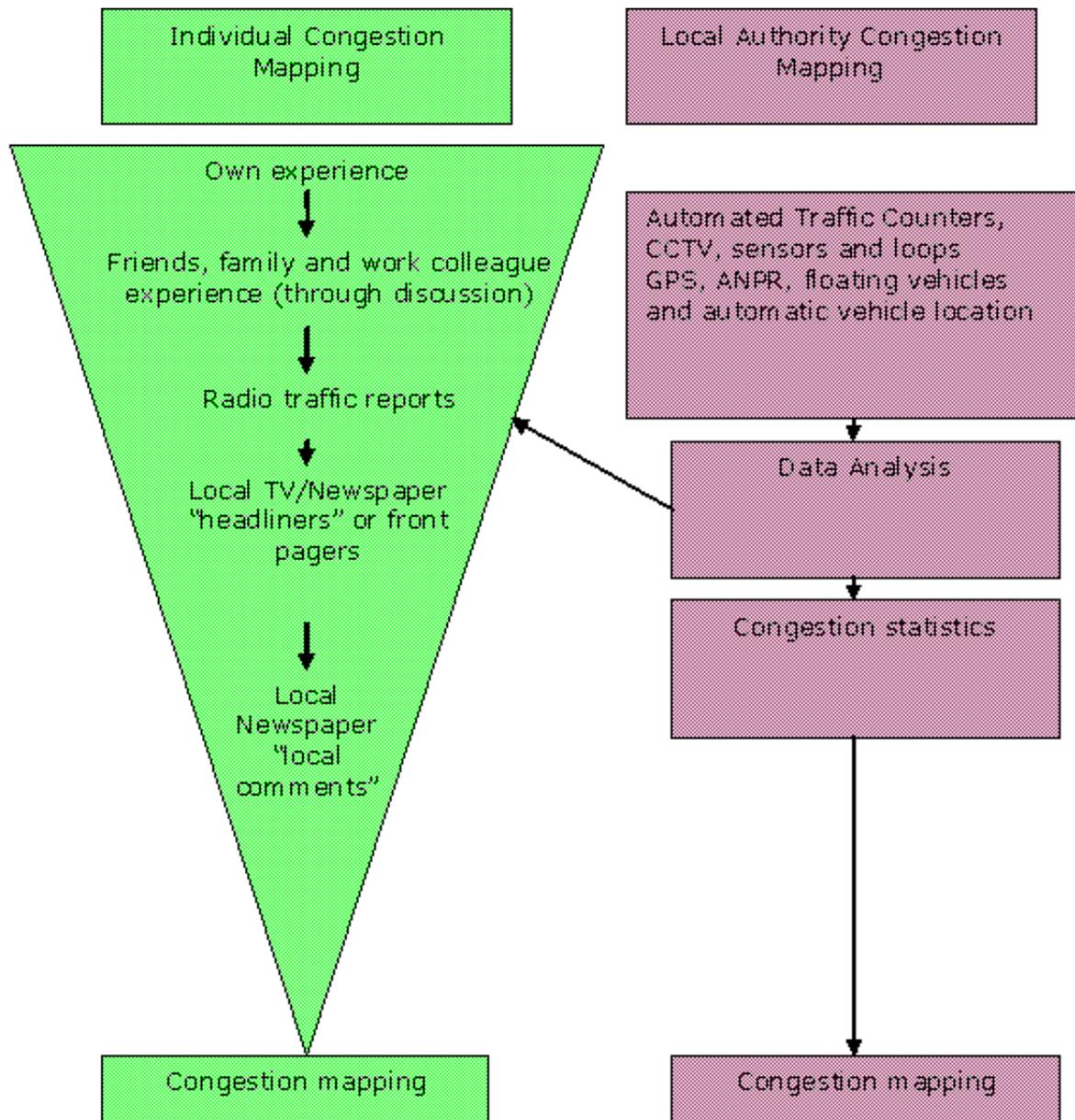
There was also a view that congestion will be self-regulating and as such participants who held this view did not believe congestion needs an intervention to solve it - it will solve itself. It was felt that people have a tolerance threshold that they would not go beyond with regards to congestion. When the threshold is met people will change time, roads or mode of travel. It is evident from the discussion groups that individuals hold very different personal thresholds, resulting in different levels of tolerance, before they would indulge in such adaptation behaviour. This was largely based on experience of certain routes at certain times of day.

However, both intrinsic and extrinsic values influence tolerance and thresholds. Some people were intrinsically happier to sit for longer in congested traffic than others, perhaps based upon personality and attitude, whereas others would get stressed and angry quickly as a result of congestion. In addition, external factors, such as having to be at an important meeting at a certain time impacted upon tolerance thresholds.

## **2.5 Information sources**

### **2.5.1 Sources of general information of congestion**

During wave three participants were asked to complete a congestion map of their local area, shading areas of heavy and moderate congestion. Completed maps were then compared to maps generated by local authority statistics. The exercise revealed where information and knowledge on congestion originates. In all cases participants completed the maps mainly from their own experience. This was then supplemented by areas that their friends, family and work colleagues had told them were congested. Finally, areas not personally known to be congested were completed by knowledge remembered from the media, particularly travel reports, which were seen, on the whole, to be objective and free from interpretation and spin. Articles from the local television and newspapers were also used as a source, particular if they had been front-page stories (viewed as giving the story importance) or had been discussed in-depth with members of the public (again perhaps seeing the importance of the information being organic and somewhat free from opinion and spin). Maps tended to be quite different from those generated by local authority statistics, probably because of the difference in sources of information (see figure 3.1). Interestingly, maps generated by those living in urban areas tended to show a closer resemblance to the local authority maps than maps completed by those living in rural areas.



**Figure 3.1. How individuals and local authorities arrive at developing a congestion map.**

### 2.5.2 Impact of statistics

During wave three of the focus groups, three national statistics were introduced for participants to discuss and relate to their local area. The first statistic was:

*From 1980 to 2004 the number of cars licensed increased by 75 per cent from 15.5 to 27.0 million (Transport Trends, DfT, 2005)*

Most people agreed that this statistic seemed about right, they rationalised it with the idea that cars are relatively cheaper than ever before, coupled with higher disposable income and the notion that finance is easier to get than ever before. Also mentioned was the concept that society was becoming increasingly car dominated, where cars are needed for almost all essential journeys, meaning there is a greater aspiration amongst younger drivers to drive as soon as they can and for older drivers to continue driving for as long as is possible. More women working and hence needing a car to get there was also mentioned, as was more parents taking their children to school by car. The reduction in the quality of public transport over the period was also mooted. However, this did not stop people being affected by the statistic and people gasped and stated that it was 'incredible' and 'horrendous', perhaps hinting at the power such statistics have in making people more aware of the growth in the number of cars (which is perceived by the participants as synonymous with congestion). At a local level, responses varied depending upon where participants lived. Some participants felt that locally the number of cars would have grown at a greater rate than the national statistic. New residential developments with few services, resulting in more car dependence, was cited as a main reason. Conversely, those in rural areas felt that growth in the number of vehicles would have been less at a local level, believing it to be largely rural and having been less developed than urban areas.

The second statistic presented was:

*87 percent of participants said they felt that road congestion was a serious problem in the UK. (Omnibus Survey, ONS, 2005)*

There was general agreement that this statistic was not surprising. Interestingly, participants in some urban areas were likely to think this was low and also feel that locally it would be a higher percentage of people who felt congestion was a problem. Conversely, 87% was higher than expected for those living in some rural areas.

The third statistic presented was:

*By 2015 traffic will have increased by 31 percent (The future of Transport: A network for 2030, DfT, 2004)*

This statistic generated the most emotive response. Immediate gasps of surprise were felt, despite most participants believing it to be completely true.

*It does look scary, I think, if you think how bad it is going to get. (18-24, ABC1)*

People immediately felt this at an individual level, exclaiming how much this would add to journey times and then commented at a societal level, being concerned how this increase would impact on the environment. Overall, this was a bigger increase than was expected, especially for younger groups (18-24, and 25-34 age groups) and those from C2DE backgrounds. On the contrary, for older people (55-64 and 65+ age groups), especially those from ABC1 backgrounds, such an increase was thought to be less than would be expected. At a local level, participants from some urban areas thought that they would see a bigger increase locally, largely due to an increase in urban developments in the areas. Those from rural areas felt that there would be less of an increase at a local level, largely as a result of less development. Overall, the power of using such a forecasting statistic was clearly evident amongst all participants.

## **2.6 Conclusion**

On the whole participants felt something needed to be done about congestion. Although there was recognition that congestion affects the wider society, the most dominant discourse was at the personal level. This seemed to have shifted from the first two waves, maybe because increased prolonged focus on concentration and associated increase in awareness entrenched localised and individual attitudes. As such, participants began to realise that they themselves had to take personal responsibility for (reducing) congestion. Nevertheless, the feeling that driving was a personal and basic human right, especially given the amount of money spent on it, was a prevailing factor that would be difficult to overcome. Discussions over time and presentation of statistics did seem to make people aware of the wider issues of congestion and increase the acceptance that something must change at an individual level.

## **3 Public acceptability of the need for demand management**

### **3.1 Introduction**

Transportation demand management techniques include increasing transportation choices, managing car parking, encouraging car sharing, developing Park and Ride facilities, encouraging telecommuting, and linking land use planning with transport planning. The term 'demand management' was not used in the discussions. It was left to participants to define and was generally seen as tangible measures such as roundabouts and traffic lights rather than strategies for management.

During waves one and two, the groups discussed whether travel by car was necessary at an individual level and then went on to address awareness of local demand management techniques and finally tackled attitudes towards the principle of demand management at wave three.

### **3.2 Attitudes and awareness of demand management**

The term 'demand management' was not used in the discussions. It was left to participants to define and was generally seen as tangible measures such as roundabouts and traffic lights rather than strategies for managing demand. As such, participants had little awareness of demand management taking place in their local areas and confused the term with traffic management controls. As such traffic management controls, such as traffic lights and roundabouts which were generally seen in a negative stance, influenced attitudes towards demand management. Participants were generally aware of Park and Ride schemes and parking restrictions and controls. Park and Ride schemes were met with a mixture of positive and negative attitudes. Parking restrictions and controls were met with negative comments, especially over the cost being too expensive and restrictions being inappropriate. In the main, participants felt currently this did little to help reduce or disperse the demand. However, when methods of tackling congestion were focussed upon during wave two and three, participants mentioned many demand management strategies they felt could help reduce congestion (see section 3.4).

### **3.3 Acceptability of demand management**

#### **3.3.1 Change over time**

Initially, participants felt demand management would restrict choice rather than create choice. They felt the road system, as it was, restricted choice. Any further restriction of choice, through any kind of demand management, was met with resistance.

*âIf you work you buy your car you pay your tax. If you want to drive, why shouldnât you drive? That is freedom of choice.â (55-64, C2DE)*

This showed the depth of support people had for such a notion and the huge challenge that faces any scheme that breaks this sense of freedom.

However, support was found as demand management options were discussed in depth during wave three. Participants favoured carrots, specifically soft measures, aimed at encouraging individuals to consider changing travel mode, especially better public transport, encouraging flexi-working and car sharing. Hard measures, viewed as sticks, aimed at discouraging individuals from using their car, including increasing fuel tax, car parking and banning cars from city centres, were seen negatively. Road pricing was generally seen as a hard measure and was, as such, viewed negatively. However, as hard measures were discussed there was growing recognition amongst the participants of the importance of a balance between soft and hard measures to manage demand. Nevertheless, the overall feeling was individuals would rather be in control of their own travel behaviour rather than be encouraged to consider options through demand management, whether it be soft or hard measures. Participants could not envisage a situation where they would not want to be in control of their own travel behaviour, regardless of how bad traffic congestion was perceived as becoming.

### **3.4 Factors underlying acceptability of demand management**

#### **3.4.1 Is your travel by car really necessary?**

When considering travel by car, participants generally felt their own car use was always necessary. Reasons cited varied and included:

- no suitable public transport alternative;
- cars were required to transport large items or children;
- cars enabled a combination of journeys therefore saving time;
- cars were important at particular times of the year and day; and
- cars were needed for long journeys.

An emerging theme from the youngest participants (aged 18-24) was that they did make unnecessary journeys and that laziness was one of the reasons for this.

*âI think I drive far too much. I think I could just walk to the shops, itâs just too handy to have the car there and get in the car, and I admit it, Iâm lazy.â (18-24, ABC1)*

The youngest participants also talked of driving for the sake of it and suggested that while it may not always be necessary, it was a pleasurable mode of transport.

*âI think a lot of people my age who have just passed their driving tests and everything and it is a lot of pleasure and entertainment as well. Just going round and driving, which isnât necessary at all but some people do thatâ (18-24, C2DE)*

This was in contrast to older people who felt they would not drive unless they had to and that car use was generally for necessary journeys.

*âI donât get in my car and drive it for pleasure; itâs got to be done.â (45-54, C2DE)*

That said, there was evidence amongst this group that driving had become a habit.

*âItâs a lifestyle thing isnât it. Years ago before I had a car I would walk everywhere or take the bus. Then I learnt to drive and I use the car for everything. Before you could walk down the shops but now it is too much troubleâ (35-44, C2DE)*

The participants generally felt that for most of their journeys, particularly longer journeys, the car was necessary. They cited they had a poor alternative in public transport, so the car provided a set of perceived advantages in terms of journey time, cost and safety. In addition, psychological aspects such as freedom, privacy and comfort emphasise the importance of using a car. Overall, younger participants indicated that they felt that not all their journeys were, in fact, necessary and felt they had become lazy in choosing their easiest default mode - the car. Older participants admitted that using the car had become habitual and was linked to lifestyle.

### **3.4.2 Driving and the need for freedom to be able to drive when, where and how often you like**

The freedom to drive when, where and how often they like was reported as extremely important by the participants. This was linked to being able to be independent, particularly amongst the oldest (65+) and youngest (18-24) age groups. Across all groups, the importance of driving was linked to civil liberties and rights, in some cases basic human rights.

*âIt is very important. It is basic human rights being able to do what we want when we want.â (65+, ABC1)*

Being free to drive where, when and how often they like was linked to the normalness and expectation, suggesting it becomes a habit. In addition, it was mentioned that society created a need for the freedom.

*âEverybody wants that personal freedom that we have been sold.â (35-44, ABC1)*

The reliance on the private car was seen through great attachment coupled with great anxiety over losing such freedom, especially amongst male drivers; while both males and females cited the right to drive, the anxiety over losing the freedom to drive was more pronounced amongst male drivers.

Participants justified the right to drive when, where and how often they liked on how much they paid already to do so; this was especially true amongst those from C2DE backgrounds.

*âI think if you have worked hard, you have paid for your car, you are paying your insurance, you are paying your tax; I donât think it is up to anyone else to dictate to you when and where you canât use it.â (25-34, C2DE)*

Alternatively, it was discussed how such a freedom was a luxury.

*âI think at the moment we are extremely lucky that we can get into our cars, we have got this freedom of which we can go anywhere.â (35-44, ABC1)*

### **3.4.4 Acceptability of measures of demand management**

During wave two, acceptable methods of reducing congestion were discussed; participants felt that congestion should be tackled through improvements in public transport, parking, the road network (which led to debates about whether building new roads could help reduce or, in fact, increase congestion) and planning. In addition, it was felt improvements could be made by businesses (both in terms of offering incentives to employees not to travel at congested times such as flexitime or subsidised public transport, but also directly helping by delivering goods at night and by rail where possible) and schools (by using school buses and increasing the use of walking bus schemes). Road pricing as a solution to congestion was not generally mentioned.

Methods of tackling congestion outlined by the participants in waves one and two were re-presented to the participants in wave three to discuss in further depth. Participants suggested the following methods are most acceptable in terms of reducing congestion:

- improve public transport;
- introduce flexible working;
- introduce (more) work or school buses;
- encourage car sharing;
- increase park and ride facilities;
- introduce green travel plans (predominantly ABC1 groups);and

In contrast the following measures were highlighted by participants as being least acceptable in terms of reducing congestion:

- limit cars to the household
- distance based charge
- ban cars from city centres
- cordon charge

It can be seen that the popular methods, as would be expected, were all carrots and the unpopular were all sticks. As can be seen road pricing options tended to be favoured negatively. Participants in urban areas showed particular concern in relation to distance-based charging, suggesting that participants feel they will be charged more for driving in their immediate urban area. In further discussion, however, it was recognised amongst participants that carrots sometimes had to be balanced with sticks in order to achieve a behavioural change. However, perhaps unsurprisingly, people balanced carrots that would benefit them individually with sticks that would affect other drivers rather than them themselves.

## **3.5 Information sources**

Information on demand management appeared to come from two main sources. People's own experiences of using or being influenced by demand management concepts were a prime source of information. However, it was clear that local press had a role to play in reporting the relative success and failure of such interventions. In particular, negative press about past demand management failures influenced the

negative acceptability of future interventions.

### **3.6 Conclusion**

Participants were likely to advocate soft measures, such as better public transport, encouraging flexi working and car sharing, for example, over harder measures, such as road pricing. They preferred to continue to have their driving affected by congestion than controlled by a change in road pricing. There was a feeling that people would rather face congestion, which was seen as more "natural", than be controlled by the perceived artificial hand of demand management. The importance of the perceived necessity of driving especially for work purposes, and the importance that driving was a freedom and viewed as an individual right, underpinned this view.

## **4 Public acceptability of the principle of road pricing**

### **4.1 Introduction**

The concept of road pricing is to offer varying charges for road use according to variables such as the time of day, day of the week and location. The charges would vary depending upon the potential for congestion. Overall, the variable cost may be higher the more likely the road is to be congested. The principle is to increase consideration amongst drivers of the necessity of travel mode, time and types of roads used, with the aim being to reduce the negative impact of congestion on individuals and society through reducing unnecessary journeys by private motor vehicles.

Participants were asked to discuss their attitude towards the principle of road pricing. During phase one (waves one and two of the discussion groups) initial reactions to road pricing were investigated. As progressively more specific information on road pricing schemes was introduced throughout phase two, attitudes towards the principles (as well as the specifics) of road pricing were challenged and these were captured through the telephone interviews (see section 5.3).

### **4.2 Initial attitudes towards the principle of road pricing**

In the first phase of the research, road pricing was viewed primarily by the participants as an extra personal expense without clear benefits. Revenue generation was perceived to be the key function of such a scheme and participants questioned whether road pricing could be effective in reducing congestion.

*"There is an argument that, there is the congestion: we must do something about it and one solution is to charge people to use certain roads at certain times. Also, discourage them from using the roads. That is a bucket with holes in, it really is. It feels to me that it is more about gaining revenue, because I can't agree that it is going to solve the problem and we are going to be left with the problem."* (55-64, ABC1)

#### **4.2.1 Effectiveness in reducing congestion**

Reasons for such scepticism about road pricing reducing congestion included:

- people drive as they have to and do not have a choice;

*People don't travel through those roads because they want to necessarily, they do it because they've got to get to work (25-34, ABC1)*

- congestion may be moved to roads and areas that weren't charged or were cheaper;

*It doesn't solve the problem, it just moves the problem (55-64, C2DE)*

- driving is convenient and people would pay for driving to keep the convenience that a car provides;
- congestion could increase as a result of queues to pay charges; and
- congestion has become too much of a problem to solve.

In contrast, there were participants who felt road pricing would reduce congestion and when asked to write three positives of road pricing, reduction of congestion was generally seen as one of the benefits. Participants felt that road pricing would discourage driving and make drivers think more about the amount they used their cars than they do presently. This would particularly be the case for unnecessary journeys.

*"I'm sure it would save some of this nonsense about nipping down the road for a newspaper in a car" (55-64, ABC1)*

It was thought that road pricing may encourage drivers to consider the roads they used and when they used them. A potential result would be staggered traffic therefore reducing the level of congestion.

*If people were charged to come into town at a certain time of the day, they'd avoid it and come at different times, it'd be staggered throughout the day. If they could avoid it, if they're coming to work for a certain time they obviously can't. But they'd perhaps stagger the times, you wouldn't come at nine o'clock, you'd come at ten or eleven instead. (45-54, C2DE)*

Road pricing was thought by some to reduce car use through encouraging people to car share, children to get the bus to school and to reduce the number of cars per family.

Most car use was seen as essential and there was a general theme that road pricing would not affect participants's most frequent journeys. Reasons included having no choice about the journeys they take, that they would just pay, that they already travel during quiet times and that road pricing was unlikely to be introduced on the roads that they use. However, participants reported that they would change their routes to avoid charges or change where they did their shopping to an area that was not charged. Furthermore, there were participants who said they would use public transport or walk more instead of driving. In some cases, it would stop participants making journeys altogether.

*Well I think I would go into town a lot less. Because you wouldn't be able to afford it, you would have to look at the costs. (45-54, C2DE)*

Participants discussed a variety of solutions to enable concerns about road pricing to be overcome (see section 4.4). A major theme throughout was that road pricing would only be acceptable if it really did reduce congestion.

Section 5.2.3 discusses the impact of road pricing on congestion in more detail.

#### **4.2.2 Advantages of the principle of road pricing**

Although participants mentioned road pricing has the potential to reduce congestion and journey times, such positive ideas about road pricing generally had to be prompted. Participants mentioned that road pricing could have the potential for reducing the number of unnecessary journeys and an increase in people considering alternative modes of transport, including public transport. Participants suggested that revenue gained from road pricing should be utilised to improve the transport system and felt that this would further encourage people to use it as an alternative to the car. Additionally, road pricing was viewed by some participants as relatively 'fair' because it reflected car usage.

There were mixed views about the impact of road pricing on reducing pollution with a general view that pollution would decrease due to fewer people driving. However, there were participants who did not think that car use would decrease as people would find alternative routes and therefore they felt road pricing would not reduce pollution. Some participants felt that people would be encouraged to take up more healthy ways of travelling, like walking or cycling, should road pricing be introduced; they saw this as having a positive impact on people's health. Additionally, if road pricing was to reduce congestion there could be potential benefits for drivers in that they would experience lower levels of stress.

#### **4.2.3 Concerns about the principle of road pricing**

Throughout each stage of the research, key concerns about the principle of road pricing were highlighted. These included: the cost to the individual, the lack of choice it presented; trust in those responsible for introducing road pricing; use of income generated through a scheme; fairness of road pricing for certain groups; and the potential impact of road pricing on businesses.

Participants expressed 'personal worry' over increased costs incurred at the individual level and these were seen as outweighing potential benefits at the societal level. However, costs incurred from road pricing were seen to be easier to accept if people knew how the revenue was being used. However, there were still concerns around being able to afford to pay road pricing charges (particularly for long journeys) and these were exacerbated by an expectation that road pricing costs would increase once the scheme was introduced.

Participants felt that the public had a lack of choice over transport. It was suggested that many drivers had no choice but to use their car to get to work and road pricing would penalise such people for travelling during peak hours on specific routes. Participants also expressed concern about the lack of alternative transport options available to them.

The importance of trust in those responsible for introducing road pricing was a repeated concern and reasons for distrust included: not having faith in the individual or organisation to deliver and a feeling of being let down in the past. There was pessimism regarding the accountability that would be in place if road pricing was introduced, with the concern that it would fall between national and local government. In addition, there were suspicions that the revenue from road pricing would be 'mis-spent'. Participants generally thought that revenue should be allocated to transport improvements and expected to see evidence that things were getting better.

Fairness of road pricing for specific segments of society was also raised as an issue of concern, with specific mention of low wage earners, those in rural areas, businesses, and those that had to use a car, such as disabled people or people with young children.

Other, less prominent, concerns included distrust in the technology to implement road pricing, privacy, complexities of a potential payment system, a lack of understanding about different schemes, and lack of evidence that demonstrated that road pricing was a successful solution to congestion.

### **4.3 Acceptability of the principle of road pricing**

Initially during phase one of the research, there was a strong feeling participants did not want road pricing to be introduced and did not agree that it should be. However, throughout the research, there was a growing understanding amongst groups of participants that the introduction of road pricing had the potential to reduce congestion, and as such amongst such participants, acceptance began to grow. Although it was considered to be a shame that people should be charged more to drive, it was argued that there was no alternative solution. Nevertheless, there continued to be staunch opposition to the principles of road pricing throughout the research.

There was a general sense that the introduction of road pricing was inevitable. Knowledge of TIF funding received by local authorities, the reported success of the congestion charge in London, and debate in the media over the issue were all said to have encouraged participants' view that road pricing was going to be introduced.

*âI'll be honest with you, I think it's probably going to be a done deal. ... I've just got a feeling that they've gone through this consultation period just to say they've gone through this consultation period and I think it was a foregone conclusion really.â (35-44, ABC11)*

A further suggestion was that the decision to implement road pricing had already been made, but there was still some debate over which particular scheme would be used and how the public could be encouraged to accept the idea.

Nevertheless, there were participants who believed that the decision over whether or not to introduce road pricing had not yet been made by the government. The research in which participants were involved was perceived as a method of 'putting the feelers out' to decide on the best approach to tackle congestion. There was also a sense that there was a large amount of public opposition to road pricing, which prompted participants to suspect that the decision had not yet been made.

The perceived inevitability of the introduction of road pricing had different influences on participants' acceptability. There was suggestion that the apparent inevitability of road pricing made road pricing less acceptable, and participants reported feeling dismayed at the idea that others may become more resigned and accepting of the scheme on consideration of its inevitability. That said, there was a mention amongst 45-54 year old participants that acceptability had increased simply because they felt it was inevitable and that they would have to live with road pricing even though they opposed it

*âIt's still not something I'm in favour of but I just get the feeling that it is going to happen and it's like when something is a long slow process, you kind of accept things because you read about it in the press and you get used to the ideaâ (45-54, ABC1)*

#### **4.3.1 Change over time**

The depth interviews, which took place as a final stage in the research, revealed some changes in views that had taken place over the course of the research. By this stage there were views that 'something had to be done' about the problem of congestion, and that road pricing would be the most effective way of addressing the problem. Participants commented on how they felt they had gained new knowledge and considered themselves to be expert on the topics, particularly compared to family and friends. On the whole, participants felt they had become more open towards the idea of road pricing and were more willing to consider the concept.

*'The whole 'research thing did have an impact in terms of I was quite negative about it at first and then when we were given the information we were given which made me more open to it and more 'I wouldn't necessarily say the views of friends/family have made any difference to that.'* (25-34, ABC1)

As such, there was a group of participants who felt they had become more positive over time.

*'As the discussions went on I think it explored other options and I think a new angle was showing, so we were a bit more receptive at looking at other opportunities maybe that could arise. So I think we got a bit more positive towards the end and more negative to begin with.'* (Workshop, Negative Group)

This seemed to be particularly true, for these participants, as the principles of road pricing were discussed and details of the schemes began to emerge (see chapters 6 and 7 for specific details).

*'The more we got into it the more they started to warm to it a little bit more.'* (Workshop, Negative Group)

Females in particular were likely to mention that they had become more positive about the principle of road pricing as a result of focusing on the issue over the waves of research. There was a growing recognition that something needed to be done about congestion and that a solution such as road pricing was an answer. This was particularly articulated by younger (18-25 year old) and older (54-65 and 65+ age groups) females. Younger females (individuals from 18-24 and 25-34 age groups) stated an increased confidence that road pricing would work to reduce congestion. A mixture of participants mentioned that they now understood the reasons behind road pricing and grasped the basic principles and as such moved from a feeling that it might just be a revenue raising exercise into something that might really make a difference to congestion.

However, overall the negative feelings were generally sustained and there remained a vociferous group of participants who were strongly against the idea of road pricing at the final stage and did not feel it was an appropriate solution.

*'We have talked about it for the past 12 months, chuntered round, we have had maps of Durham, different areas of Durham to go through and get out of it and that sort of thing and at the end of the day a shake of the head'* (Workshop, Neutral Group)

Some participants' negative attitudes did get more entrenched; those from C2DE backgrounds tended to have especially negative attitudes towards accepting road pricing. In particular they cited increased personal financial cost that they and other people they knew could not afford, that they thought was more than they anticipated before the research began,

*âFrom where we are to like down in London where they already are doing it, theyâre getting paid more than us because itâs like a bigger city. So itâs not really effecting them as much but if it comes out, like up here, it is going to make more of a difference.....just because we are on lower wages the people round here.â (18-24, C2DE)*

In addition, participants were also concerned about privacy, which seemed to be far more than before the research began.

*âIâve got nothing to hide but then you think, why should everyone know where Iâm travelling?â (35-44, C2DE)*

The greater concern for privacy appeared to be as a result of a combination of factors including the national petition against road pricing coming to the fore during the period of research and an increasing focus on technological issues associated with road pricing during the latter waves of discussion groups.

Males aged between 35 and 54 tended to state they held mixed views which had not really changed during the course of the research. In addition, 45-54 year old females stated they remained undecided and wanted more information on road pricing including attitudes and views of other people who had road pricing in their local area.

#### **4.4 Factors underlying acceptability of the principle of road pricing**

During waves one and two of the research, it was evident that a number of factors underlie participantsâ acceptability of the principle of road pricing. The factors were therefore explored in greater detail in the subsequent stages of the research, and further discussion of participants more considered and detailed reaction to such factors can be found regarding these in chapters 5 and 6.

Factors influencing the acceptability of the principle of road pricing included:

- **Impact on congestion:** A major theme was that road pricing would only be acceptable if it really did reduce congestion. Overall participants felt that by paying a premium drivers should have access to quicker travel times, people should experience less pollution and there should be fewer accidents
- **Cost implications:** On the whole, participants did not want to pay any more for using a vehicle than at present. In order to achieve this, a key theme in promoting the acceptability of road pricing was to reduce or eliminate road and fuel tax. Paying for road pricing in addition to the present system of taxation was viewed negatively by participants; they saw it as âpaying twiceâ. A trade off with the present system of charging for road use was viewed more favourably, and the removal of fuel, road or other forms of tax was suggested. However, there was uncertainty about whether the government would allow any kind of trade off to happen.
- **Extent to which road pricing is part of an overall traffic plan with alternative modes and routes:** It was evident that overall traffic management plans and alternatives to paying for use of the road were important in raising public acceptance of road pricing.
- **Improvements in public transport:** Participants felt that improvements in public transport and the road system were imperative to accepting road pricing. It was felt that the improvements should be funded by the revenue gained from the road pricing system. There was a general call for there to be improvements to public transport, particularly in terms of a reduction in fares and an increase in reliability. New routes, quicker journey times, cleanliness, staff attitude and personal safety were all additional aspects of public transport that needed improving.

- **Equity and fairness:** Equity and fairness was considered essential for all groups of people, however, people felt that in practice this would be difficult (and potentially impossible) to achieve.
- **Evidence of improvements:** Evidence of improvements to congestion, public transport and road networks, as a result of road pricing, was important to participants. Some recognised that any improvements would take time to be achieved, while others wanted to see immediate changes.
- **Access to (educational) information:** Access to information was seen as vitally important by participants, with open communication about the road pricing debate available from the outset. The success of other schemes should be made explicit and feedback should not be limited to statistics but include the views of residents, drivers and local businesses – insights from real people like them, who they could relate to. Again, transparency about costs and projected income was viewed as essential and participants felt that an independent body should be involved in the dissemination of information. This is explored further in section 6.4.
- **Trial:** A trial prior to implementation was viewed favourably by participants, although there was scepticism and a general distrust of local and national government. There were participants who said they would consider opting in to a road pricing scheme on the condition that they benefited from other concessions such as a reduction in fuel tax or road tax. It was explained that if the opt-in scheme did not work out cheaper than the current costs of driving, they would not want to take part.
- **Other themes:** Other factors discussed by participants that may impact acceptability included: the need to minimise the risk of evasion of payment (an easy to understand scheme was viewed as essential to being able to do this); transparency in scheme management to facilitate trust, (with the potential for an executive board involving local residents and businesses who would help to maintain integrity in the scheme); and concern about their information being sold on to private companies. However, it was felt that data protection laws should ensure that this did not happen.

## 4.5 Information sources

Initially, during phase one of the research, participants were asked their understanding of the terms "road pricing". The level and depth of understanding varied amongst participants, but overall there was little knowledge and as such reactions could be considered knee-jerk. For example, there were those who wondered whether it was an additional tax and those that thought of it as a method of charging for specific roads.

*Is it another tax? It sounds like it.* (55-64, C2DE)

*You'll be charged to go down a certain road or not? I don't really understand it to be honest.* (45-54, C2DE)

Overall, participants were aware of some forms of road pricing. Commonly mentioned schemes were the London congestion charge, the Durham cordon charge and toll roads in the UK and abroad.

There were some participants who had had direct experience of the schemes, but in general participants' awareness was anecdotal or a personal perception, rather than an informed opinion. Participants' sources of information included local and national media and in some cases came from friends or other people. There did not appear to be any group differences with regards to the source of information or whether they had discussed road pricing with others.

As the research progressed information was gained from the material distributed at the discussion groups (specific details were given out at wave four and five – see chapters 5 and 6) and from the media (see chapter 7).

## **4.6 Conclusion**

Initial reactions of the participants to the principle of road pricing were generally quite negative. This was unsurprising given that initial views of road pricing were synonymous with a feeling of having to pay more for using the roads than currently. This was coupled with a lack of understanding about how road pricing would actually work in principle to reduce congestion and a feeling that people were unable to change their travel behaviour. As such, participants felt they were paying more to use the roads without any improvement in service. This agreed with the trajectory model of road pricing in that there was no latent demand for road pricing. However, as more specific information on road pricing was introduced and participants understood the specific detail of a scheme, attitudes towards the principle of road pricing had the potential to change amongst certain participants. These participants began to understand how road pricing may change the way people view travel and hence how they travel. This meant individuals could see how the scheme was fair and offered alternatives to travel, rather than being seen as a tax. However, it must be stressed that there remained a strong vocal group of participants against the principle of road pricing throughout the research.

## **5 Public acceptability of the specific road pricing schemes**

### **5.1 Introduction**

As described in section 4.4, during waves one and two of the research, participants highlighted the importance of receiving specific information about a road pricing scheme and how this may influence acceptability. Therefore to allow for greater exploration, participants were shown mock up examples of two types of road pricing model during wave four discussion groups: a cordon charge model and a distance charge model. The hypothetical nature of the schemes presented to participants was emphasised. Maps of hypothetical zones in which the charges would apply in the local area were shown, with details on charges and times of charging. This chapter explores the participants' attitudes towards and acceptability of the hypothetical models.

### **5.2 Attitudes towards specific road pricing schemes**

This section describes the participants understanding of and concerns regarding the two models before considering the impact the models might have on congestion, the participants and other groups.

#### **5.2.1 Ease of understanding**

The cordon charge model was generally considered easier to understand than the distance charge model. Participants felt more familiar with the concept of a cordon charge model as it was expected to be similar to the London congestion charge scheme.

*‘Cordon charging, that’s the one isn’t it. Because there’s not confusion’/you come in and you pay two quid bang’ (35-44, C2DE)*

The cordon charge model was also considered a less complex design than the distance charge model, which made it easier to understand.

In contrast, it was considered unclear how the distance charge model might be implemented and how drivers might pay the charges of such a model. This was covered in the following wave (wave five) of the research and is reported in chapter 6.

### 5.2.2 Concerns about the models

Common concerns around both road pricing models were raised, including:

- boundaries of charging zones may not be sufficiently clear to the driver, so that people could accidentally enter a charging zone without intending to;
- the geographical location of the charging zone – It was considered essential that certain places located inside the charging zone in the hypothetical maps should be accessed free of charge. These included hospitals and public transport hubs, such as railway stations and Park and Ride points. It was also considered to be important that ring roads were located outside of charging zones, as the purpose of ring roads was perceived to be to relieve smaller local roads of traffic. There were complaints that areas that were known locally to suffer from congestion problems were not in the charging zone of the hypothetical models, while areas not considered to have congestion were inside the hypothetical charging zone. Participants explained that they would be more resentful of paying a road pricing charge to drive through an area that thought was not previously congested; and
- charging times – Congestion in some areas was not thought to begin as early as the hypothetical charging times began in the hypothetical model.

Specific concerns were also raised about each model, particularly about the distance charge model. These included:

- implementation and administration costs – The distance charge model was thought to be particularly costly to implement and administer. It was expected that cars would be fitted with an on board unit and this type of technology was thought to be expensive. Further, the cost of chasing up fines from drivers who had not paid was perceived as an additional expense of the scheme that taxpayers would have to pay for;

*‘We are paying for it. We are paying for them to make this thing that will charge you’ (18-24, ABC1)*

- bureaucracy - Due to the possible technology needed to implement this scheme, it was considered complex to run, and likely to invoke a large amount of bureaucracy to support the scheme;
- lack of visibility – Because the distance charge model charged drivers on a per mile basis, it was expected to be difficult for a driver to monitor the charge that s/he incurred in real time. In comparison, it was expected to be easier to monitor the number of times a driver passes through a cordon and incurs a charge; and
- concerns around a two-zone model – The distance charge model had two charging zones: an ‘inner zone’ where a higher charge applied, and an ‘outer zone’ in which a lower charge applied for each mile driven within the area. This two-tier system was considered to make the model more complicated to understand and to use, as it would be unclear which charge was being incurred in the area that a motorist was driving in. It was perceived that drivers would be paying ‘twice’ rather than

having a discounted charge in the outer zone.

Nevertheless, positive aspects of the models were also identified, and these included:

- drivers could be given the choice to drive outside of the hypothetical charging times â participants were pleased that charges did not apply all day and at weekends, so that by driving at particular times the road pricing charge could be avoided; and
- in some areas, the maps that showed hypothetical charging zones for each model included new roads that might be built as part of the scheme. This was perceived to make the scheme more acceptable as new roads were expected to help reduce congestion and provide an alternative route to travelling inside the charging zone.

### 5.2.3 Impact on congestion

Doubts were expressed that either model would reduce congestion which echoed those expressed when discussing the principle of road pricing (see section 5.2). These included:

- drivers do not drive at peak times unless they really have to do so.

*âIf people are going to work there, it doesnât matter where you draw the boundaries they are still going to work there and you are still going to get congestion, it is just that you end up getting people to pay for going to work, that is the difficulty.â (35-44, ABC1)*

Flexible working hours was expected to have a limited effect on reducing congestion because only a limited number of employers could offer such a scheme;

- rather than reduce congestion, the models were expected to displace congestion to different times of day or to other geographical areas. Congestion was expected to increase in smaller roads on the outside edge of charging zones, and at times of day in the period before and after charging occurs.

*âIt seems to be just transferring the problem to a wider band, a wider time band. A lot of people who have got flexible working will all want to start at seven oâclock in the morning, so seven oâclock in the morning will become a nightmare time, and itâll get busier after half past nine.â (45-54, ABC1)*

This tended to be seen as a negative consequence of road pricing, despite the potential for a positive reduction in peak-time concentrated congestion.

- charges incurred in the distance charge model were expected to be relatively low in smaller towns, because distances driven inside the charging zone were short. Consequently, it was not thought that a distance charge would be an effective deterrent. The view that distance based charges should be higher in smaller zones in order to reduce congestion was held by participants of all social grades.

*âX isnât that big anyway. Youâd probably cross the whole congestion zone for 80pâ (35-44, C2DE)*

However, there were views that congestion would be reduced as a result of the road pricing models as the charges would encourage drivers to use alternative modes of transport to the car.

#### 5.2.4 Impact on participants and others

The impact on participants and others was generally considered to be the same for both road pricing models.

Spontaneous views on the impact of the specific models on participants themselves tended to be related to cost rather than the impact of reduced congestion. Having seen the hypothetical cost of both models, there were participants from both social grade groups who felt that they would pay the charge as they did not calculate that it would be too expensive. However these participants generally maintained that they objected to the charges in principle.

*âI would kick up a fuss about the money or whatever but I would still drive my carâ (55-64, ABC1, Positive, did not attend workshop)*

There were also those from both social grade groups (ABC1s and C2DEs) who suggested that they would change their habits in order to avoid the cost of the road pricing models. For example, it was suggested that participants would use public transport or walk more often, or combine several tasks in to one trip to town rather than doing each task on a different day of the week.

Further, there were suggestions that the costs of road pricing would influence participantsâ decisions around where to shop, buy a house, work and send their children to school. Young people in particular suggested that they might re-locate and find work elsewhere to avoid paying the road pricing charges. These were generally framed in terms of threats, suggesting others would do the same creating potential ghost-towns or no-go areas. How far these would be carried out in real life is questionable.

Residents inside charging zones were concerned about the cost of driving to and from their home, and the cost of hiring tradesmen or delivery companies to come to their house. Those who lived just outside the charging zone were concerned that their local roads would become more congested as the traffic was displaced to outside the charging zones.

*â[the cordon charge model would] cause congestion where we live, because [now] none of the residents can get to park their cars, because all the cars that are there don't belong to residents, it's all for office workers and people who work in the city centre, they just park their cars and walk.â (18-24, C2DE)*

Amongst the retired participants there was the feeling that road pricing would not impact on their lives directly, as they tended not to travel at times when charges would apply. However, it was felt that road pricing would affect them indirectly, as the cost of consumer goods and services were expected to rise.

Participants who usually walked into the town centre thought that the town centre environment would be more pleasant with less traffic, noise and pollution. Due to reductions in congestion, bus journeys were expected to be quicker, although there was some concern that bus fares would rise.

By the end of the research, there was an overall view that participants would seek alternative routes, drive at alternative times, or use public transport in order to avoid the charges. This view was expressed by participants with a range of views towards road pricing and congestion more generally.

*âI would think twice of going, I really would think twice about travelling. I think they would go alternative routes or go to another shopping area where it is more convenient, nearer to home or use a bus passâ (65+, ABC1)*

It must be noted that this attitude related to a hypothetical situation, and the relationship between attitudes and future behaviour is not always clear. It is therefore unclear whether such behaviour change would actually happen in reality.

### **5.2.5 Impact of the models on others**

Workers and parents of school children were considered most likely to be affected by the charges suggested in the models, due to the charging times that applied when these groups would be travelling. The charges were referred to as a 'stealth tax' on workers.

Businesses and services which operated inside the charging zones were also expected to suffer from the road pricing charges, particularly those who had to regularly travel within the zone or cross the cordon boundary, such as delivery companies or estate agents. Concerns regarding the cost to business generally related to the impact on the local economy. To avoid road pricing charges, it was expected that businesses would relocate to an area outside of the charging zones, which was expected to have a detrimental impact on the local economy.

*âWell what Iâm concerned about is the town centre dying! And instead of having proper shops weâll just have a load of charity shops that donât pay any rate.â (55-64, ABC1)*

The cost of products and services was expected to rise as the road pricing charges paid by businesses were passed on to the consumer. Finally, participants who ran small businesses themselves expressed concerns that road pricing charges would threaten their livelihoods.

Tourists were expected to be discouraged from visiting towns that had a road pricing charge in place, which was also seen to threaten the local economy. It was suggested that a scheme would have to be rolled out on a national basis to avoid competition between towns and cities to provide cheaper transport costs to businesses and residents.

Low-income earners who lived on housing estates on the outskirts of towns were expected to experience further social exclusion due to the higher costs of using a car. Concerns about the impact of road pricing charges on low-income groups were raised by participants of all social grade categories. Participants from social grade ABC1 raised the particular concern that those on low-incomes were more likely to become unemployed if road pricing charges were introduced, as the cost of driving to work could make claiming benefits more profitable than working.

*âPeople would stop working because it would be cheaper not to work. You will be driving people in to the benefits system.â (35-44, ABC1)*

Parents of school children were expected to be more likely to use alternatives to driving children to school, such as school buses, walking or cycling with children to school. However it was appreciated that additional support needed to be provided to make this possible for some parents, such as the provision of school bus routes.

## 5.3 Acceptability of specific road pricing schemes and the influence on acceptability of road pricing

### 5.3.1 Most acceptable model

Overall, the cordon based model was generally considered more straightforward and therefore cheaper to implement and run than the distance charge model. It was also considered easier to use than the distance charge model, as it would be clear exactly when drivers had crossed the cordon boundary and the charge that had been incurred each time they did so.

Views on which model would be cheaper to use were mixed. As discussed, distance based charges were considered to be more affordable, particularly in small towns as they could be managed on an incremental basis per mile driven. However, there was an expectation that charges would be increased after the scheme was implemented because the cost of administering the scheme would be high.

*â5p in the first year is going to move up to Â£1. And 20p will probably move up to Â£3 or a fiver because you need to pay the whole workforce who are tracking. It just ainât feasibleâ (25-34, C2DE)*

Alternatively, it was thought that the administration costs of a distance charge model could be incorporated into council tax rates so that the public would face âhiddenâ costs of the scheme.

In contrast, administration costs for the cordon based model were not imagined to be quite as high because on board units in cars and billing systems would not be necessary. Further, the cost to the individual of cordon based model charges were considered reasonable when compared with the cost of parking in town centres. For example, one participant explained that a Â£2 cordon charge was the same price as paying to park for two hours in a multi story car park in town.

There was a view that distance charge model was more âfairâ, as it was based on the distance driven, whereas the cordon charge imposed a single flat fee for passing a particular point. Consequently, the distance charge model was considered to allow the individual a greater degree of choice over their driving habits.

*âI feel I could cope with this better than having a high price when you go through a particular boundary. Iâd rather do [the distance charge model] because I still feel I have a certain amount of freedom, and if I pay for it, it would be an average kind of fee instead of being hit really badly for going somewhere.â (35-44, ABC1)*

Views on which model would be more effective in reducing congestion were also mixed. As discussed, there were views that because the distance charge model was more affordable it would be of limited effect in reducing congestion. On the other hand, it was argued that the distance charge model would be more effective in reducing congestion as it would force people to consider the distance they drove, rather than merely whether to drive through a particular boundary.

Finally, unprompted participants considered the issue of privacy in relation to the distance-charge model. There were concerns that the model would require drivers to have a device fitted in their car, and concerns over privacy were raised spontaneously.

*âI want free-will, I want my independence, I donât want somebody tracking me down all the time for whatever reasonâ/and you havenât even committed a crimeâ (25-34, C2DE)*

Views on the acceptability of road pricing technology in relation to the issue of privacy were further discussed during wave 5 focus groups and are discussed further in chapter 7.

### **5.3.2 Change over time**

Overall, information provided to participants on specific road pricing schemes, including areas where charging might apply, and the times and costs of charges had a mixed effect on the acceptability of road pricing amongst the participants.

Those who felt there were alternatives to having to pay (the highest price for) road pricing reported becoming more accepting of the basic premises of road pricing, including the fairness of such schemes. Details of the models that were perceived to make the scheme more acceptable included:

- the possibility that new roads would be built as part of the model, which was expected to relieve congestion;
- potential improvements to public transport; and
- charging times that apply in peak travel times only.

Of these details, potential improvements to public transport were the most expected, as participants felt it was imperative that revenue from a road pricing scheme would be invested in improving alternatives to driving. In contrast, the possibility of new roads and peak-time only charges was new information to participants that they had not necessarily expected to be part of the model.

In contrast, information of the potential cost of road pricing charges was perceived to have reduced acceptability of road pricing. This was reported to have encouraged the view held by participants of both social grade groups that road pricing would be difficult to afford, particularly for those on low incomes.

*âWell we are looking here at potentially Â£500 to Â£600 a year or more to use your car. Those are the sorts of figures potentially, and that is a lot of money to people with low to moderate incomesâ (18-24, ABC1)*

Differences were also found in the acceptability of different schemes as a result of information being discussed at wave four. Participants reported being far more favourable towards a cordon charge than a distance based charge, a view which became more polarized over the course of the research. It was felt that cordon charge offered a real choice for people â to pay or not to pay. There was a feeling that maps presenting where the cordon were tended to focus on the correct, most congested areas and as such there was a feeling that it was in the areas which needed it most (this was with the exception of participants in one area who felt vital services including the hospital and main train and bus stations were in the main charging zone). Participants felt more able to support a cordon charge because they felt it really would work to reduce congestion. There was a feeling that the cordon charge was easier and cheaper to implement than had originally been envisaged. It was also noted that such a scheme was much more simple to use for a driver (in terms of equipment needed and payment options) than had originally been perceived. However, there were aspects that had become more negative over time; participants showed increasing anxiety about traffic being dispersed onto other roads, in addition, at a personal level, there appeared to be an increase in feelings that the costs could be too expensive, especially for those travelling

in and out of the zones regularly.

The main areas of concern over distance based charging were that costs would be too high, the principle seemed wrong and unfair and reduced choice. It tended to be C2DE male groups that particularly felt their acceptability had declined over the period of the research. Younger individuals, especially males, mentioned that acceptability towards both models, particularly in terms of personal cost, had declined over the period of the research. However female participants tended to note that they had warmed to the idea of distance based charging and felt it was a fairer system which had more chance of working than they had originally considered.

## 5.4 Factors underlying acceptability of specific road pricing schemes

The following factors appeared to underlie acceptability of a road pricing scheme:

- **Fairness**

Fairness was generally considered to have a significant impact on acceptability of a road pricing scheme. It was argued that fairness to be 'fundamental' to acceptability as it was a 'basic human moral'. Fairness was seen to be an important defence against social exclusion, and it was felt to be unfair if rich people were able to use roads that poorer people could not afford to use. It was also considered unfair that workers on lower salaries were likely to find it harder to work flexible hours, and so would have to pay road pricing charges, whereas those in higher paid positions tended to be able to work flexible hours and so could avoid charges more easily. Finally, there were complaints that those who had moved in to town centres to reduce their car use would be penalised for making such a decision by being charged for driving in a charging zone.

- **Exemptions**

Exemptions from road pricing charges were considered to be particularly important for low income earners, businesses and key workers. Other groups considered eligible for exemptions included taxi drivers, residents of areas inside the charging zones, disabled people and retired people.

Exemptions were considered to be particularly important for businesses and low income earners because of the expected impacts of road pricing on these groups discussed in section 6.2.5. It was also considered important that key workers could travel to work without incurring charges as their areas of work were essential to society. It was considered unfair if residents in an area inside the charging zone were penalised for living in the area by having to pay higher transport costs.

*'We're penalised enough for living in the town centre, we have to pay for parking anyway' town centre residents should get concessions if not for free, because we're the ones who are using our feet the most and using our cars the least' (55-64, ABC1)*

However there were also counter-arguments to these suggestions, as it was suggested that these groups should not be exempt from charges. For example, residents in charging zones were identified as the drivers most likely to cause congestion problems in the zones. The definition of a 'key worker' was considered to be unclear, and it was pointed out that some key workers, such as doctors, were high wage earners and therefore should not be exempt. Retired people were perceived to have more flexibility to choose to drive at off-peak times when charges would not apply. Further, it was argued that retired people

were eligible for cheaper travel on public transport, and there was a perception that many retired people are relatively wealthy. Interestingly, participants who were retired themselves generally felt it was more important that other groups were exempt from charges, such as key workers and low income earners.

*People with bus passes, which I think most of us have got anyway, we've got free entry, that's not going to affect us, because even if the buses have to pay more overall, that's not going to affect us.* (65+, ABC1)

- **Charge times**

The charge times in the hypothetical models presented to the groups were generally felt to reflect the periods of most congestion. However, in some instances there were suggestions for how they could be altered slightly to suit the local area. For example, in smaller towns congestion was not perceived to be a problem as early or as late as the charge times implied, and it was suggested that charges began later and finished earlier.

*I think the core congestion times are actually narrower than those bands I would suggest, that certainly covers it all. To be honest I don't see congestion on the road at 7.30 in the morning. After 8 maybe, but I think 7.30 is too early. It is not London. And in the evening I think 4.30 is too early as well to be honest.* (45-54, ABC1)

Although the charge times suggested were generally considered appropriate, there was some scepticism that over time the charge times would be extended to catch as many motorists as possible.

It was not recommended that charge times should apply at weekends, as congestion was not perceived to be a problem at this time and there were concerns that shoppers would be deterred from going to the town centres. It was also considered inappropriate to extend the charge time to all day as it was felt that the primary function of such a scheme would be to raise revenue rather than to address the problem of congestion which occurred at peak times. It was generally agreed that charge times should not be extended to the period in the day when schools ended, because it was considered unfair to charge parents for picking up their children from school.

It was spontaneously suggested that a road pricing scheme would be more acceptable if:

- charging times began later in the morning and finished earlier in the evening, to limit the inconvenience caused to drivers who wanted to avoid the charges; and
- drivers were able to monitor charges accrued in real time under the distance charge model of road pricing, and the fitting of the on board unit in their car was free of charge.

## **5.5 Information sources**

The focus of information at this stage were the two maps distributed to the participants during wave four, highlighting two different schemes (one cordon and one distance charge model of road pricing) including the areas of charge and the costs and times of the charge.

In addition, participants cited a number of media influences, especially coverage on the national petition, further coverage of TIF funded areas and coverage of the extension of the London charging zone. Discussion of these can be found in chapter 7.

## **5.6 Conclusion**

Extra information on scheme design was welcomed by the participants during wave four. However, the influence of the specifics appeared to have limited impact on increasing acceptability. Nevertheless, this would be expected should we examine the road pricing trajectory model. As the trajectory model suggests details of the scheme can increase negative feeling towards road pricing as people begin to realise the scope and costs that could be personally associated. There were aspects of the design, however, that created positive attitudes towards road pricing. These included the sense that new roads could potentially be built as part of the scheme, and potential improvements to public transport made with the money generated. In addition, they create an alternative for participants to having to pay as they could use cheaper (older) roads or better public transport. How road pricing may reduce congestion was beginning to be seen. This was further emphasised by the charge times that were seen to apply to peak-times only. As a result it was seen to be fairer. This helped raise acceptability of the principles of road pricing. It was offering choice and by default might work to reduce congestion and was viewed less as a money making exercise. It must be remembered that a vociferous opposition to road pricing and its principles, however, continues throughout this wave of research.

Further evidence of schemes being successful elsewhere is again called for by participants. In addition, further information on actual specifics of road pricing schemes, such as payment options, technology and fines are required. As a result, these were introduced at wave five and are covered in chapter 6.

## **6 Public acceptability of the detail and design of the road pricing scheme**

### **6.1 Introduction**

At the wave five discussion groups further detailed information of the two hypothetical schemes introduced at wave four (see chapter 5) was presented to the participants. In particular, this contained hypothetical information about billing details and the cost of fines. In addition, the discussion groups focussed on issues that had emerged during the previous waves as being potentially important on impacting on the acceptability of road pricing. In particular, technological feasibility and desirability and the issue of privacy were discussed.

### **6.2 Attitudes towards detail and design of the road pricing scheme**

#### **6.2.1 Road pricing technology**

Participants were shown examples of two types of technology that could be used to enforce cordon charge road pricing schemes. These included Automatic Number Plate Recognition (ANPR) and a microwave tag.

#### **Automatic Number Plate Recognition**

Of the two types of technology, ANPR was generally considered easier to understand. Participants felt relatively familiar with the concept of ANPR technology as it was thought to be similar to speed cameras and to the technology used to implement the London Congestion Charge scheme.

A number of benefits of the ANPR technology were recognised. Familiarity with ANPR technology led participants to feel more confident that it would work, as they had seen it used successfully already. In addition, ANPR was considered to be the 'easiest' system to set up because every car already has a number plate, whereas cars are not currently fitted with a microwave tag. ANPR was perceived to be simpler and more straightforward to install than microwave tag technology

*'This one's simpler I think...Because it's just like your speed cameras now which is on the side of the road' (45-54, C2DE)*

Because it was simpler, it was suggested that ANPR would be cheaper to install, which would reduce the cost of the technology to the taxpayer. ANPR was also considered to be a less intrusive method of technology than the microwave tag system, as the technology was located outside of people's cars, and there was a single recognition point where the camera was positioned. In contrast, as discussed below, microwave tag technology was thought to be capable of tracking a car at any location and so was perceived to invade people's privacy to a much greater extent.

However concerns regarding ANPR were also raised. The technology was considered to be susceptible to fraud, and it was argued that number plates could be cloned or stolen, allowing a criminal to incur charges at another driver's expense.

*'Number plates can be fiddled and a lot of people, for example the ones who don't have insurance or tax at the moment would just put a false number plate on it, they're easy enough to get hold of.'* (55-64, ABC1)

It was considered unclear how charges could be made to the appropriate driver in cases where more than one person drove a single car, such as a mother and her children.

*'How would it work in the 'mum can I borrow your car for the night' situation?' (45-54, C2DE)*

In certain situations the technology was expected to be ineffective because visibility of number plates would be poor, such as if a number plate was dirty, or if there was heavy fog or heavy snow. Questions were also raised as to how number plates of motorbikes would be recognised as they are positioned at the rear end of a motorbike.

Finally, there were concerns that in addition to the enforcement of road pricing charges, the technology could be used to enforce other laws such as speeding or driving without insurance or tax. Although there were views that this would be an additional benefit of the technology, there was an opposing view that the purpose of the technology should not extend beyond the enforcement of road pricing charges.

## **Microwave tag technology**

Microwave tags were considered to be more difficult to understand than ANPR technology. The science and technology involved was perceived to be more complex.

A number of concerns were raised around the microwave tag technology. These included:

- Enforcement – there were concerns that it would be difficult to ensure that every car has a microwave tag. It was expected that some drivers would refuse to have a tag fitted in their car and there were questions around how this would be enforced.
- Privacy – microwave tags were considered to be capable of monitoring cars, similar to GPS technology. This led to a key concern that drivers could be watched wherever you are going. Participants believed that tags would be used to track vehicles even though this information was not presented to them as part of the research. Various media sources were referred to as having prompted these beliefs. These included newspaper articles and news programmes which referred to black boxes and Big Brother technology. There were also those who had received e-mails about the road pricing petition which contained information about tracking technology. The issue of privacy is discussed in further detail in section 6.4.
- Cost – microwave tag technology was perceived to be more expensive than ANPR technology because it was more complex. The microwave tag was understood to involve technology in addition to the road side camera that ANPR also used. Consequently, it was suggested that it would be simpler and cheaper to use ANPR as it involved a camera only.

*“They have given two ideas and asked which is better, but for both they will have a camera so what is the point in using the microwave?” (18-24, C2DE)*

In addition, the installation of a microwave tag into every car was imagined to be a very large operation, which was thought to increase the overall expense of the technology. As it was expected that taxpayers would pay for the cost of implementing the scheme, such costs were a significant concern to participants. Further, expensive technology was expected to reduce the amount of revenue that remained to be invested in transport.

*“If they gave the equipment to each car owner and you had to register and tag it how much of the road pricing would actually go to pay for the equipment before the money that they were getting from the road pricing would actually go on the road?” (25-34, ABC1)*

- Evasion - There were concerns that certain drivers would not pay road pricing charges, including drivers who were visiting from foreign countries and motorbike riders.
- Health risks - There was some concern around the health risks posed by technology that used microwaves

*“This microwave can’t be good for us, radiation and all that/nuking you as you go past” (25-34, ABC1)*

*“The word microwave makes you feel like you are being cooked doesn’t it” (35-44, C2DE)*

The erection of masts in order to install microwave tag technology was expected to provoke protests due to concerns about the damage that the microwaves can do to public health. Microwaves were also reported to affect hearing aids which would make the technology problematic for drivers who wore hearing aids.

- Wider use of microwave tag technology – there were concerns that the microwave tag technology could be used for purposes in addition to imposing road pricing charges. It was thought that the microwave tag technology could help the police identify drivers who were speeding and committing other motoring offences.

- Associations with criminality – the word ‘tag’ was associated with tagging of criminals, which led to the view that drivers would feel like criminals, or, as one participant described ‘a prisoner in your own car’

*‘You should be free in your own environment, because that’s like if you come out of prison, you get put on a tag. It’s the same thing, it’s just your car has got a tag’ (18-24, ABC1)*

- A loss of freedom - Cars were perceived to have given individuals freedom of movement, and the idea that drivers could be located by the technology was perceived to represent a loss of this freedom

*‘It’s tied up in my mind with a philosophical subject which represents freedom of movement and the car, from the introduction of the car in the late nineteenth century, represented freedom of movement and independence, particularly for women – and the notion that you could be tracked and have your personal freedom invaded, to my mind, equates with the loss of freedom of being able to move about in your car’ (55-64, ABC1)*

- Cost of the tag to the car owner – it was expected that car owners would have to pay for the tag to be fitted in their car. This led to the impression that the overall cost of road pricing to each driver would be even greater than previously anticipated. The technology was expected to be particularly expensive for families who owned more than one car.
- Fraud – like the ANPR technology, there were concerns that fraudulent ways of using microwave tag technology would be found, allowing certain drivers to avoid road pricing charges. This also led to concerns about higher overall costs of the scheme when the cost of chasing up people who evaded charges was considered.

*‘I’m sure it wouldn’t take long for somebody to come up with a dummy one that you can put in your car and somebody else gets charged for it’ (25-34, ABC1)*

There was a view that fraud was less of a concern with microwave tag technology than with ANPR, as the technology of a microwave was more sophisticated and therefore more difficult to use fraudulently.

- Visual impact of masts – there were concerns that the masts used for microwave tag technology would be an eyesore on the local landscape. Participants argued that they did not want ‘more ghastly furniture on our landscape’. This was a particular concern of those who lived in historic towns which attracted tourism.
- Aesthetic of tag in the car – the tag that fitted into a car as part of the microwave tag technology was considered to be unattractive and larger than expected. Participants explained that they would not want to have such a device in their car for aesthetic reasons.
- Inconvenience of installing tag - microwave tags were expected to require each driver to learn how to fit the tag or to take their car in to a garage in order to have it installed. Consequently, tag technology was considered to cause greater inconvenience to the driver than ANPR technology, which would not require a driver to make modifications to their car.
- Security risk – there was a concern that having tags fitted inside cars would incentivise thieves to break in to cars to steal the tags.

*That's what they'll do, they'll break into other people's cars and they'll use other people's tags (35-44, C2DE)*

However, due to the perception that cars with microwave tags could be monitored, one benefit of the technology was perceived to be its ability to locate cars that were stolen, illegal or that had been involved in crimes.

*At the end of the day it's going to enforce people paying the right fees and also keep cars that are illegal off the road. Removing illegal vehicles and removing people who are uninsured (45-54, ABC1)*

*If your car gets stolen they will be able to trace it and they will know exactly where it is (18-24, C2DE)*

### **6.2.2 Road pricing scheme payment methods**

Payments methods were generally considered to be easy to understand as they were similar to top-up and pre-pay methods of paying for mobile phone use. Ease of understanding payment methods did not vary according to the age of the participants.

Participants preferred a wide range of options for payment methods, as it was considered to make it easier to pay road pricing charges.

*The payment methods are quite reasonable because you don't have to use your credit cards, you can pay over the phone or you can take it to the post office and you can pay at petrol stations (65+, C2DE)*

Views on whether it would be preferable to pay before or after charges were incurred were mixed. A pre-pay scheme using a top-up card was thought to be easy to use because people were familiar with using mobile phone top-up cards. In addition, a pre-pay scheme was considered to be more straight-forward because it did not necessitate the administrative burden of a billing system, unlike a post-pay scheme.

*Something simple like a pre-pay meter which you stick in there and you have say twelve clicks on and you are allowed to go past the unit twelve times so if it comes up and you have one left you know you can't go past after more than one, you need to go and top up. That would probably be better than an itemised bill, I mean that just seems to be making work for work's sake (45-54, ABC1)*

A pre-pay scheme was also considered to be easier to budget for as drivers would not be able to incur charges that they had not already paid for.

However there were concerns that it would be easy to forget to top up a pre-pay account. This led to concerns that drivers who had run out of credit would either be unable to drive in certain areas or would incur fines as a result of doing so. Further, there was some resistance to the idea that a scheme designed to tackle congestion would encourage people to drive to a petrol station or another location to top-up their account.

Post-payment methods were thought to be beneficial because they allowed drivers to have more time before paying road pricing charges. This was perceived to be not only financially beneficial to drivers, but also to provide an opportunity to contest the bill before paying.

*âIâd rather do the post-pay account, because theyâre not having my money until I know how much it is.â (45-54, C2DE)*

However, there were also concerns around post-payment methods, including:

- the concern that drivers would always be in arrears on their payments;
- it was assumed that a post-payment scheme would require drivers to provide their bank account details to the administrator of the scheme, which caused concerns around security of personal financial details. This was raised as a general concern and not related to specific types of organisation;
- the risk of fraud was considered to be greater for post-payment schemes, as drivers would be unaware of fraudulent use of their account until they received a bill;
- post-pay schemes were thought to be harder to use for those without bank accounts or credit cards, who were thought to generally be those on lower incomes;
- evasion of payments was considered to be more likely to occur with post-payment accounts. The consequent cost of chasing up those who had not paid their charges was thought to add to the overall cost of the road pricing scheme; and

*âI think post pay would be a nightmare because you can bet your life that a certain percentage wonât bother paying.â (45-54, C2DE)*

- there was a fatalistic view that drivers would eventually face higher charges if they did not pay by direct debit from their bank account.

There was a general uncertainty as to whether on-board or remote processing of payment information would be preferable. This uncertainty reinforced the view that ANPR technology was preferable to microwave tag technology. However, there was a view that remote data processing would be preferable because the on-board tag would be less sophisticated and therefore less likely to break down and more likely to be cheaper to install. However, it was generally thought that drivers would want to be able to see charges incurred in real time on the onboard tag in order to be able to budget for the costs incurred.

*âI think they should have a little meter on so you can see what your tags are, if they use the scheme you should be able to see what you owe otherwise you donât know if they have made a mistake at the big centre or wherever itâs going to be, you have got no ideaâ (65+, ABC1)*

## **6.3 Influence on acceptability of road pricing**

### **6.3.1 Change over time**

>Although the hypothetical information was thought to have improved participantsâ understanding of how a road pricing scheme might be administered, this was generally felt to have had a little impact on acceptability.

*What it has done though it gives us a better insight into how they are going to do it...it doesn't make it more acceptable (45-54, C2DE)*

Participants explained that they were more concerned with overarching issues such as privacy, and the objection to the principle of charging for road use. In comparison, details of payment methods were considered to be relatively unimportant.

*The knowledge that it will work ok is not enough to say that you are going to pay for it. The principle is of more payment for motorists to drive on roads that they normally drive on for free. How you pay for it is a little minimal sort of side issue. (45-54, ABC1)*

Consistent with previous research, information on costs of road pricing technology was felt to decrease acceptability of the scheme, particularly of the microwave tag technology. The cost of fitting tags was perceived to be higher than that of installing ANPR technology, as it was argued that the cost of one tag in every car would be greater than the cost of one camera for many cars. Other aspects of costs, such as the requirement of drivers to pay for the technology, and the opportunity for a private company to make large profits from manufacturing the technology, were also said to reduce overall acceptability of road pricing.

Information on microwave tag technology had raised concerns around privacy, and prompted the view that such technology would be overly complex and therefore expensive to run.

Further, information on payments was felt to have encouraged the belief that the purpose of road pricing was to raise revenue rather than to provide a successful solution to congestion.

*They are going to make a fortune I think it's nothing to do with congestion it's money, it's a money making scheme isn't it. (35-44, C2DE)*

## **6.4 Factors underlying acceptability of road pricing design and technology**

### **6.4.1 Technology**

The following underlying factors were discussed in relation to acceptability of technology:

#### **Cost of technology**

On consideration of who should pay for the cost of road pricing technology, it was thought that the government should pay as they wanted road pricing to be introduced. It was not considered fair that taxpayers should pay for a scheme that they did not want to have.

*The government should pay [for the tag] if they want us to use it you know, we don't want to use it obviously. (35-44, C2DE)*

However it was recognised that the government's source of revenue was taxpayers' money, so that ultimately taxpayers would inadvertently pay for the road pricing technology.

*Ultimately it'll be the driver that bears the cost in some way, you know, maybe not directly, but it'll be taken out of some tax won't it? I think personally that we'll end up paying it. I don't think drivers should be expected to pay to have a tag, but I think they will be. (25-34, ABC1)*

There was a view that it would be fairer to charge all taxpayers for the cost of technology rather than only drivers, as everyone would benefit from reduced congestion whether or not they drove a car.

## Privacy

The loss of privacy was a key concern regarding the technology used for road pricing. Concerns around privacy were raised spontaneously in response to the technology information shown to participants.

The technology, which was referred to as a 'Big Brother' system, was understood to collect information of the whereabouts of drivers, and this was perceived to be an invasion of privacy.

*I don't like people knowing where I've been, it's as simple as that* (35-44, C2DE)

Microwave tag technology was expected to be capable of creating a profile of a driver's habits and was equated with 'official spying'

*It's just official spying on people, yes they are spying on the motorist/where you have been, how long you spent there and everything and to my suspicions, this thing can tell a story about what you are doing* (65+, C2DE)

Microwave tag technology was perceived to be just one aspect of a broader, encroaching invasion of privacy by the government, which included ID cards and technology used in new passports. The technology was therefore associated with a wider threat to civil liberties and was even referred to as an 'abuse of human rights'. Comparisons were made with the way farm animals were identified to convey the control that the government were perceived to have on the individual through tagging.

*Tagging, you know, it's what farmers do to pigs, coming to check, to identify who is who, you know, so it's like a new world order.* (28-34, C2DE)

Although rare, there was a view that was generally held by older participants that privacy was not an issue for law-abiding citizens as they had 'nothing to hide'.

Participants were aware that individuals could also be tracked through their mobile phones, credit cards and store cards. However, the knowledge that monitoring movement can already be carried out by these methods was not considered to make road pricing technology more acceptable. In contrast, road pricing technology was perceived to only add to the restrictions on privacy that had already been imposed by mobile phone and store or credit card technology.

*It's like they know when you're shopping don't they, what you buy/probably on a computer they know a lot more than you want. They'll know exactly where you are in your car next.* (45-54, C2DE)

Further, road pricing technology was perceived to pose a greater threat to privacy due to various differences identified between road pricing technology and that used for mobile phones and credit or store cards, including:

- Mobile phone and credit/store card use was voluntary â it was argued that an individual could choose to use a mobile phone for convenience purposes, whereas they could not choose whether to have microwave tag technology installed in their car

*âHaving a mobile phone is voluntary isnât it, when it comes to something like this, which is enforced, then that gets peopleâs backs up.â (45-54, C2DE)*

Similarly, it was pointed out that a shopper could choose whether to use a credit or store card, and there were participants who claimed not to use credit or store cards.

- Mobile phones and credit/store cards could only be traced when used â It was explained that a mobile phone user could only be traced when the mobile phone is switched on, which is something that the phone owner can control. Similarly, a credit or store card can only be traced when it is used. In contrast, a car owner was not expected to be able to switch off the tag in their car, and consequently it was thought that the carâs movements could be continually monitored.

*âWith a mobile phone, itâs there for your convenience and you can turn it off. If youâre being tracked all they time by upstairs in the sky or whatever, you never know when youâre being tracked do you?â (45-54, C2DE)*

- Mobile phone monitoring was only carried out to help the police solve crimes â mobile phone data was not thought to be used for any other purpose than to help solve crimes. In contrast, there was a suspicion that road pricing data held by the government would be used for other purposes without driversâ permission.
- The government had the power to override the Data Protection Act â data held by private companies such as mobile phone companies and supermarkets were known to be protected by the Data Protection Act, which restricted the use of customer information. However, the government were considered to have the authority to override this legislation if they wanted to.

Views on the extent to which road pricing data would be used for purposes other than road pricing varied. At one end of the spectrum was the view that data would be used to track individuals. This was perceived to be âanother step towards a Big Brother countryâ. Another suggestion was that the records would be used to raise revenue by detecting other motoring offences such as speeding or driving without insurance or tax. There was also a view that data would only be used in police work, in order to track criminals or stolen cars. Finally, at the other end of the spectrum, there was the view that although data would be available for other uses, it was unlikely that in practice the data would be used for any other purpose. It was argued that monitoring drivers for purposes other than to solve crimes would be too great a burden on resources.

However, there was a general concern that if, at some point in the future, the data holders did decide to track people they would have the means to do this as the data would be available. It was argued that the concern was not really whether the data will be used but whether it could be used for other purposes.

*âWhoâs to say itâs not going to give how many points youâve got on your licence, whether youâre speeding or not and how do you know what they can actually achieve.ââ (45-54, C2DE)*

## 6.4.2 Payment methods

### Appropriate organisation to collect road pricing information

Various organisations were suggested to be suitable for dealing with road pricing information, including:

Local government – it was considered more likely that revenue from a road pricing scheme would be invested in improvements to the local transport system if the local authority was responsible for handling data from a road pricing scheme. A local authority was also considered to be more accessible than other organisations as they were based locally. Participants explained that they wanted to be able to speak to somebody based locally if they wanted to discuss a query or grievance regarding the scheme. Local authorities were also thought to be more easily held accountable for organisation of the scheme than central government.

Private company – There was a view that a private company would be more competent and efficient than a local authority in handling road pricing information. There was also an argument that road pricing data would be more secure with a private company that would be subject to regulations and restrictions on how it could use data. In contrast, there was a sense of unease at the idea that the government could control such data, due to fears of a ‘Big Brother’ state.

*– Again, I am worried that if the government does it, then it is Big Brother. (55-64, ABC1)*

However, in order to be cost-effective, a private company was considered more likely to either subcontract work to another organisation or to use temporary staff, both of which were considered less likely to work according to data protection regulations. A private, profit-making company was also expected to increase their charges for providing a service as they sought to increase their profits. No preferences were expressed for certain types of private company over others.

Independent, not-for-profit organisation – An independent company was thought to be more likely than the government to be transparent about the revenue spend of a road pricing scheme.

*– I would prefer a company set up to do road pricing and road charging because I think they would be able to tell you how much money they make and how much they are spending on fixing our roads. I don't think it should be in the hands of the government. (65+, C2DE)*

The DVLA was considered to be "independent" and was suggested as an appropriate independent organisation to collect road pricing data, as it is already well-respected and has authority.

*– There is more authority from the DVLA you know, if you've got a letter from the DVLA, you need to pay attention to it – any other private organisation or council or local authority, there is going to be too much dipping into it and taking money out. (25-34, C2DE)*

### Bill options

Participants were provided with hypothetical examples of bill types which varied by the level of detail included. The bill options ranged from option 1 which had the most detailed information to the least detailed option 4.

Overall, the most detailed bill options were preferred. It was felt that only the most detailed bill type (option 1) would provide sufficient detail to allow a motorist to challenge a bill.

*âThe first one to my mind looks like you could at least be sure thatâs what you had done.â (55-64, ABC1)*

*âWell when I have my electric or gas bill I go an check the readings and my meter to check that they havenât overcharged me so I like to see.â (45-54, C2DE)*

A more detailed bill was also considered likely to encourage motorists to consider how they could change their driving habits in order to reduce their bill.

*âIâm just wondering whether the first bill might make you reflect more on whether you could do your journeys at a different time or a different place!It might make you think more about the journeys you made and if you could actually change.â (55-64, ABC1)*

However there were also views that a less detailed bill would be adequate. It was considered unlikely that people would be able to remember the detail of their journeys and so would not be able to check the information on the most detailed bill. There were also participants who felt they would only check a bill if it was unusually high. There were also concerns about the higher printing costs and the amount of paper that would be used to print the more detailed bill options. For these reasons it was suggested that the slightly less detailed bill option (option 2) would be appropriate, with a more detailed version of the bill available on a website. Less detailed bills were thought to be more appropriate for local schemes than national schemes, as drivers would be more familiar with local journeys which they took on a regular basis.

### **Trust in bills and dealing with grievances**

Overall, there were concerns that it would be difficult to prove a case of inaccurate billing. It was considered impractical for a driver to keep their own records of their driving habits, so there was a fatalistic sense that the motorist would have to trust the billing organisation to calculate bills correctly. However, there was a lack of trust in the technology used to process billing information and it was deemed to be inevitable that billing errors would occur.

Due to these concerns, ANPR technology was favoured over microwave tags as the photographic evidence that the technology provided was perceived to be incontrovertible.

### **Fines**

Various concerns were raised around the issue of fines for failing to pay a road pricing charge, including:

- an objection to the principle of imposing expensive fines - It was argued that the primary purpose of road pricing was to encourage people to change their driving habits, rather than to penalise them or use the scheme as a means to raise revenue. Consequently, it was felt that fines should not be too high;
- a concern that fines could be incurred unintentionally, for example, if a microwave tag broke or fell out of its position in the car; and

*âSay your tag just fell off where itâs connected, would they still pick it up or would you get fined?â*  
(45-54, C2DE)

- a concern that fines could be increased if payment was not made within a certain time limit, as with parking fines.

## **6.5 Information sources**

Participants at wave five were provided with examples of ANPR and Microwave TAG technology and mock-examples of bill-types in addition to the maps presented at wave four. Information from the media at this stage was largely from continued discussions on the petition which appeared to have the effect of magnifying any negative views, especially surrounding privacy (see chapter 7).

## **6.6 Conclusion**

Additional detailed information provided appeared to do little to alter acceptability. If anything, it strengthened negativity towards road pricing, mainly because technology raised concerns about privacy and costs of the scheme. Knowledge on billing options and fines also raised concerns over administration costs of the scheme. Therefore, overall, the specific detail provided in this wave did not appear to influence acceptability of the underlying principles in the same way as details provided at wave four (see chapter 5). Hence, there was a notion that individuals needed more persuading of the principles of the scheme before accepting the specifics. In addition, issues such as privacy and administration costs of the scheme did not appear to affect acceptability until they were consciously focussed on through presentation of such material. They were dormant concerns that could be ignited into powerful negative factors affecting acceptability.

# **7 Impact of the media, family, friends and the research on the acceptability of road pricing**

## **7.1 Introduction**

Throughout the report, the sources of participantsâ knowledge for each area of research have been acknowledged. This section focuses specifically on the influence of what the participants have encountered in the media. It includes the different impact of the medium and messenger and their overall impact on the acceptability of road pricing. In addition, it examines the influence and impact of the participantsâ friends and family on the acceptability of road pricing.

## **7.2 Impact of media on the acceptability of road pricing**

### **7.2.1 Knowledge of Media Coverage on road Pricing**

Initially, there was little knowledge or awareness of media coverage of road pricing, however, over time with the involvement in the research such awareness increased. Participants were unable to distinguish, however, whether increased awareness had led to them noticing more media coverage or whether there had actually been more media coverage.

Where participants felt there had been increased media coverage this was felt to be synonymous with increased inevitability.

*It has made me feel as if it is going to happen. When we first came here I thought that will never happen; it's a bit pie in the sky. But there has been so much publicity about it that it obviously is going to happen.* (45-54, ABC1)

This section looks at the common media coverage mentioned by the participants between waves one and five and whether such media articles had any effect on individuals.

### **Wave one and two**

There was a real range of media coverage reported by the participants during the first two waves. These included neutral factual details of road pricing in general (from national TV news and national and local papers) and details of specific schemes with plans for tolls on motorways and around large urban centres (from national TV news). There was a feeling that because it was being discussed it had already been decided to be introduced by the government.

*There was something on the national news just explaining about the road pricing but it was just I think putting it out to the public. They have already decided about it but they didn't know when they were going to introduce it.* (25-34, ABC1)

Participants also mentioned a leaked government report and hearing the Transport Minister talk about the benefits of road pricing, which led them to think road pricing was inevitable.

*It was a government paper had been leaked and they have already decided that there is going to be charging per mile and for tolls.* (45-54, C2DE)

*I actually heard, I don't know if it was on the radio, whichever Government Minister, but it was almost inevitable that road pricing in some shape or form is going to be coming in.* (25-34, C2DE)

### **Wave three**

**BBC Trial** The BBC ran a trial over a month, examining how costs of motoring would change for four typical individuals should road pricing be introduced. Distance based road pricing was examined, with different costs for rural and urban areas at different times of the day, coupled with a reduction in fuel tax of 50%. Similar versions or commentary on the trials were found in the national newspaper *The Daily Mirror* and a local version in a local paper. Participants were fascinated by the case studies. Overall mixed reactions were found, even within groups. There was a feeling that the costs were cheaper than expected, with the reduction of fuel tax around 50%. But, it was discussed that this may not last and such a reduction would soon be taken away. Most negative feelings surrounded the idea of being tracked that would accompany distance road pricing. This was the first time participants had really considered this and it was met with very negative views. Overall, the coverage made road pricing more real and increased the feeling of inevitability, despite the BBC explicitly stating (and the participants noting this) that it was only a hypothetical trial.

*TIF Pilot Schemes* â Participants noted seeing coverage about regions who have secured Transport Innovation Fund (TIF) money to examine the feasibility and possibility of road pricing. There was both national and local coverage on TV news and newspapers. There was a mixture of surprise that the government appeared to be seriously pushing ahead with a proposal that would be perceived so negatively and resignation that this made road pricing more inevitable than before.

*Large Costs of Road Pricing* â Some media coverage discussed how high the costs of road pricing would have to be in order for it to work to reduce congestion. Most notably stories appeared in the *Sunday Telegraph* (5/11/06) and on GMTV. This was reported to have increased participants concerns that road pricing would not work to reduce congestion unless cost was unmanageably high. Overall, such media coverage appeared to create more negativity amongst the participants.

*Higher Cost for Larger Vehicles* â The concept of bigger cars being charged a higher road pricing cost had been discussed on national TV news and across the national papers with reference to London's congestion charge. Mixed views were received. Negatively, this seemed unfair and was felt to have increased the feeling that road pricing is a 'stealth tax' aimed at generating money. There was a feeling that larger vehicles already pay more in fuel and road tax and as such should not be taxed higher again. Positively, there was a feeling that such vehicles pollute the environment more and as such should pay more. The difference in some respects seems to be to do with whether larger vehicles were deemed necessary for journeys, with rural groups advocating that larger vehicles (such as 4 by 4s) are necessary for rural areas and as such should not pay more.

*Eddington Report* â There was some discussion amongst participants about the Eddington Report which was released during the time of the wave 3 groups. No participants had read the report, but had seen TV and newspaper articles discussing the key points. Again, mixed views were found amongst the participants. Individuals who were already negative towards road pricing, easily dismissed it as being non-independent and just a way of giving the government an extra footing to go ahead and introduce what it inevitably would anyway. However, it was felt that the statistics, particularly about congestion, were worth noting in relation to road pricing. Overall, participants felt that the report had little effect on their own attitudes and acceptability of road pricing.

#### **Wave four**

*National Petition* â Media coverage about the national petition against road pricing began to surface during wave three. Participants discussed how they heard about the petition from a variety of sources, including BBC TV news, ITV news, GMTV news, BBC Radio 1, 2 and 4 news and discussion on *Tonight with Trevor McDonald* and *Top Gear*. In addition, participants had visited the website and some had been invited to sign and a few had actually signed the petition. There were mixed views towards the petition. It appeared to strengthen negative arguments for participants who held negative attitudes towards road pricing. This may have emerged because of a sense of increased solidarity â a feeling that other people felt the same as them about road pricing. For some individuals it heightened negativity towards road pricing, particularly with regard to issues about monitoring movement and privacy.

*âThe problem with that technology appears to be as to whether it is tracking you in some way, tracking whether you are going to be exceeding speed limits. It is possibly causing an invasion of your personal privacy. So that is coming, yes, that is coming out in the media.â (55-64, ABC1)*

However, there was also a feeling that the petition (and the ensuing media commentary) over stated issues such as privacy and over hyped the costs with regards to road pricing. This overtly created more negative opinion than would happen with real schemes once introduced. On occasion, it was felt amongst the participants that they had superior knowledge as a result of being involved in the discussion groups compared to the general public and, as such, they would wait to hear what the actual facts and figures would be from the scheme before committing themselves to signing such a petition.

*âI donât see how you can be against it or even for it, until you know the details.â (65+, ABC1)*

*TIF Pilot Schemes* â There was continued media coverage about Transport Innovation Fund schemes both nationally and locally. Overall, there was a feeling that these tended to be reported quite neutrally and factually. Participants felt that their overall attitude towards road pricing had not changed as a result, but that such continued media coverage increased the feeling of inevitability.

*Extension of London Congestion Charge* â Media coverage at a national level both on television news and in the papers centred on the extension of road pricing (Congestion Charge) in London. Generally attitudes suggested this was an unfair increase made in order to make money. It generally appeared to decrease acceptability because there was a feeling that such an example would happen locally and such boundaries would continually be increased and hence costs of motoring would also increase.

## **Wave five**

*Cost of Distance Based Scheme* â Participants cited media coverage over the cost of distance-based schemes, resulting from two main sources â *The Sun* national newspaper and BBC TV News. *The Sun* was very negative and discussed how the cost would be very expensive. There were participants that agreed that distance based charging would be expensive but felt slightly less negative than the article portrayed, feeling that there would be significant reductions or improvements elsewhere. BBC TV news was more neutral, but participants still felt costs to be expensive.

*Continued discussion on The Petition* â Further discussion took place amongst participants of additional commentary and programmes found in the media in light of the petition which emerged just before wave four took place. Similar views were found to those found as a result of the initial media coverage of the petition. On the whole, participants felt the petition and subsequent coverage reinforced their negative opinions. Alternatively, there were participants that felt they were more informed than the petition and media coverage as a result of focussing on road pricing as part of this research and as such gave a more balanced and reasoned view.

*âIf we hadnât come along to these meetings we would probably be the same as them, but because we know more from coming here.â (35-44, C2DE)*

### **7.2.2 Types of media and their impact on acceptability**

*TV News* â Seeing aspects of road pricing discussed on the news, was reported to have increased feelings amongst participants that road pricing is becoming a reality.

*âWell to me it has made me think that it is more real, you know, because I know weâve talked about it but seeing it on the news like that made me think it is actually going to happen.â (25-34, ABC1)*

*Newspapers* – Participants articulated that they knew papers were far more about opinion and generating debate than about factual information. Therefore, they were aware that media coverage in papers needed to be read carefully and not taken at face value. Overall, there was an impression that different papers had slightly different stances with regards to road pricing. However, participants did not feel that the papers impacted on their attitude or acceptability towards road pricing. Articles discussing road pricing in the papers, however, did lead participants to increase feelings of inevitability of road pricing being introduced. Participants also felt that opinion included in media coverage in the papers, such as interviews with individuals and letters to the editor were powerful, especially if they came from ordinary citizens without a hidden agenda. Nevertheless, they would claim that their views were not altered by such messages. There was a feeling amongst participants, particularly those from ABC1 groups that the government needs to give out straight-talking facts about the scheme, including costs to run it, how it would work, the purpose of the schemes and possible costs and areas of the schemes. It was felt this would overcome some of the (negative) opinion found in the newspapers.

*What I think is we want government to tell us the truth exactly what they want to do. Exactly how much they will charge and when will they charge it, that is all right. But every newspaper talking their own opinion. Everybody is giving his opinion so nobody knows which one is the right one to follow.* (65+, ABC1)

*Internet* – The Internet was generally not sourced with regards to information about road pricing. The main use of internet for information occurred in relation to the petition, where many people wanted to view the original document, subsequent commentary and look at links posted on the site.

### **7.2.3 Types of messenger and their impact on acceptability**

*Government* – Participants mentioned that when the current government, mentioned aspects of road pricing, it was felt to be a powerful indicator that road pricing was inevitable. This seemed to be regardless of what was being said, just the fact the government was discussing such issues with the public meant it must be on the agenda and that road pricing was inevitable. It was mentioned that the government were likely to receive such negative opinions from the public on road pricing that they would not even mention the concept until they were sure they wished to pursue it. These feelings are heightened when the government had directly been interviewed, especially when ministers appeared on television.

*The Motorist's Friends* – Participants gave a great deal of credibility to those they regarded as understanding their opinions and attitudes, in particular those they cited as the motorist's friend. These people were felt to have the motorists's best interest at heart. It was felt that the participants's deep concerns about road pricing were well articulated in a witty, down-to-earth style which engaged with participants. While participants felt their views were not swayed by such people, there was a feeling that views become more entrenched and more firmly rooted when they were discussed.

## **7.3 Friends and Family**

### **7.3.1 Discussions on congestion and road pricing with family, friends and colleagues**

Discussions with family and friends were generally incidental rather than deliberate. Discussions on congestion arose following a particularly difficult journey where congestion had been encountered. Congestion was discussed amongst work colleagues as well, perhaps a way of sharing tips for best routes in and for explaining why they were late arriving. Road pricing was reported to be talked about less often.

### **7.3.2 Attitudes and acceptability of road pricing amongst family and friends**

Attitudes of participants's family and friends towards road pricing were reported to generally be similar to that of the participants themselves. The attitudes of friends and family were felt to be more polarized and strong, so if a participant felt they were negative towards road pricing they were likely to mention that their friends or family were really negative towards road pricing. Friends and family were used as examples or case studies to illustrate a point about road pricing, based on their travel habits.

### **7.3.3 Influence of attitudes of family and friends on participants's acceptability of road pricing**

Participants felt that their attitudes on road pricing and hence their views on acceptability, were not influenced by the views of their family and friends on this area. However, what was noticeable was that potential outcomes of road pricing on family and friends travel behaviour were used as examples to illustrate points about road pricing. As such, it could be said that travel patterns of family and friends and coupled with the inability of changing these had some influence over the articulation of road pricing amongst the participants.

### **7.3.4 Influencing attitudes of family and friends towards road pricing**

Participants who took part in a number of discussion groups began to feel quite expert on the topic of road pricing. The groups had provided information on road pricing which had increased their knowledge, but importantly had also given individuals a chance to reflect on road pricing, so that a considered and more balanced attitude could be formed. This meant individuals felt they knew more than their family and friends and were likely to influence their views rather than the other way around.

*âI can change my family and friends attitude by explaining a little bit more because people as I said earlier I think you can go on repeating this, people donât really know what road pricing is.â (65+, ABC1)*

Participants felt they were enlightened on road pricing and that they would be able to influence others. This was talked about both in making people understand either the benefits or the negatives of road pricing. Positively, it was noted that on occasion being involved in the group had led to discussions with family and friends that had not only changed family and friends's attitudes towards road pricing, but had changed their travel behaviour.

### **7.3.5 Influence of discussion group members on participants individual acceptability of road pricing**

Being involved in the discussion groups was important in individuals forming their attitudes and acceptability towards road pricing. The time given to reflection and concentrating on the topic over the waves allowed individuals to form considered opinions. As with all group discussions some individuals become more vocal and dominant than others. During the discussion groups, the most vocal and dominant people often appeared to be the most negative. The worry that this influenced those who might not be so negative did not seem to be a problem. Participants during depth-interviews at the end of the discussion groups often referred to other people's opinions or to parts of the discussion that had occurred during the previous waves. A variety of opinions had influenced them, not always the most vocal.

## 7.4 Missing Communication

Participants generally wanted to know more about road pricing as the project continued. In particular, those who were open minded or showed positive views towards road pricing wanted their attitudes to be backed-up by further evidence. Participants felt their own acceptability towards road pricing increased if the following aspects were examined in more detail:

- **Examples of other road pricing schemes working.** Participants wanted actual examples of other road pricing schemes that were in place. Not only did they want technical details and statistics, they very much wanted to hear advantages and disadvantages of the scheme from the users themselves. In all cases degrees of similarity and proximity were influential. Participants felt information on schemes in areas similar to their own and views from people similar to themselves would help with their evaluation of their own acceptability of road pricing locally. London was seen as a unique example, because of the high amount of public transport provision and how this would not occur in their locality. Schemes from Europe and America were also seen as unique, as belonging to a different culture. Hence, participants welcomed the idea of other areas introducing road pricing schemes around the country. Although participants did not want their own area to be an initial guinea-pig or pilot area, it was felt if one area took a lead others might learn to accept road pricing.
- **A positive steer from the government.** There was a feeling that there was no direct steer from the national government in driving road pricing forwards. Although participants had heard ministers speaking positively about road pricing, there was an impression that there was no consolidated consistent message continually being introduced. This created scepticism amongst the participants that perhaps road pricing had a hidden agenda and was perhaps more about making money than solving congestion and hence would be unpopular. In addition, people felt that perhaps the government did not believe road pricing would work and as such this lack of faith was somewhat translated to their own views and attitudes.
- **Education about road pricing.** Participants, especially those in ABC1 socioeconomic groups, still wanted to know more about the theory and principles of road pricing. Hence there was room for increased education on the topic amongst the public.

## 7.5 Conclusion

The main conclusion to note is the difficulty in ascertaining where the participants' influences on attitudes and acceptability originate. Participants found it difficult to acknowledge the impact of media coverage on their own attitudes and acceptability, both because they were unaware of the impact and also because they were unlikely to want to admit to being influenced in such a way. Therefore, overall participants tended to state that the media has little impact on their attitudes and acceptability towards road pricing. Nevertheless it would appear that increased media coverage on road pricing may heighten feelings of inevitability. There was a feeling that media coverage on the subject was indeed increasing, which led to feelings that road pricing was inevitable. This was especially the case should the media coverage be communicated via a trusted source of knowledge, or involve government, as it was felt they would not mention such an unpopular subject unless they felt they needed to gain support for its eventual introduction.

Specific media coverage had specific reactions. For example, the petition and its associated coverage spilt the participants in their views. For those already very negative towards road pricing it was thought to help increase their feelings of negativity. This was particularly true for those who were already slightly concerned about privacy, as its focus on privacy heightened such concerns. The amount and depth of

coverage coupled with the large number of signatures created a sense of solidarity which helped entrench such views. However, for other participants it was reported to have had little effect, as they felt they had gained superior knowledge of road pricing as a result of being involved in the discussion groups. As participants reached wave three and four they were able to feel more informed than the general public and much of the media and as such they felt they were able to make a more informed decision on road pricing than much of the press and indeed their friends and family. Local media coverage in particular can be very powerful.

Finally, there was a definite need for a clear communicative steer from the national government. There was a feeling that stories in the media were negative and uninformed and without a counteractive positive statement from the government negative opinion and attitude towards road pricing was allowed to grow in the press and became the dominant discourse in society. The benefits of having a champion communicating passionately about the benefits of road pricing was discussed.

## **8 Conclusion**

### **8.1 Context**

This has been a major UK study into the public acceptability of road pricing involving a substantial number of participating members of the public over a period of many months. The methodological approach has been that of deliberative research in which participants have engaged in a number of sequential group sessions. This approach is challenging and intensive but has served a number of important purposes:

- allowed insight into how individuals engage with the topic of road pricing and associated issues;
- provided the opportunity to explore how individuals understanding and responses adapt as they are provided with the opportunity to increase their knowledge and be reflective of the topic and issues over time;
- it has enabled different points of emphasis to be examined through the course of the deliberative research. These have ranged from discussion of congestion at a national and local level, to broad discussion of solution options and in turn on to consideration of road pricing as a concept as well as in terms of different forms of road pricing and associated technological and institutional issues concerning implementation; and
- allowed exploration of how information is communicated to and received by the public from different sources.

Based upon an examination, in particular, of earlier research commissioned by the Department for Transport in 2004 as part of the Road Pricing Feasibility Study, an early stage of this study was to identify a conceptual interpretation of the issues considered to be significant in better understanding the public acceptability of road pricing. Two important conceptual constructs were devised:

- the Gearing Up model of road pricing (focused upon acceptability at the level of the individual); and
- the road pricing acceptability trajectory (focused upon how acceptability can change through the different stages leading towards and beyond implementation of a road pricing scheme).

The hypothesis of the Gearing Up model was that there are four levels of acceptance: firstly an individual must accept that there is a problem needing to be solved; this being the case they must then accept that there is a need for demand management; this must be followed by acceptance of the need for road pricing as an element of a demand management approach; and lastly the individual must in turn accept the specific form of road pricing being proposed. At each level of acceptance it is suggested that the extent of acceptance is governed by characteristics of the individual themselves (e.g. current circumstances and behaviour, past experience and resistance to change); their knowledge (in terms of its sources, accuracy, detail etc); and their opinions (influenced by social norms, views on governance etc.).

The road pricing acceptability trajectory suggests that from empirical evidence to date the following trajectory is followed. There tends to be low initial acceptance of road pricing but this increases as people come to understand its role and nature in addressing congestion. However, once the detail of how a road pricing scheme might be introduced emerges acceptability reduces to a low point just before implementation when people become anxious and resistant to and concerned about change. Assuming the implementation is effective in addressing congestion then public acceptability then increases as the benefits are experienced and understood.

The research methodology has, in approximate terms, simulated such a trajectory or 'evolution' of public exposure to the emergence of road pricing from concept to potential implementation. As a means to examine the two key objectives of the study (namely to explore how, why and in what circumstances public acceptability increases or decreases; and to develop an understanding of the factors that influence public attitudes) the research has been framed by the conceptual constructs. The empirical evidence gathered in the study has in turn been used to test and better understand these constructs. The conclusions are now set out according to the four levels of acceptance of the Gearing Up model.

## **8.2 Public acceptability of a problem needing to be solved**

During the first phase of the research the public generally considered congestion to be a fairly serious problem that needs to be solved. However, specifically it was more readily recognised as a serious problem for society as a whole rather than for the individual. At an individual level people were resigned to congestion being a part of everyday life. Nevertheless discussion about congestion as a problem for society tends to be expressed through people's own experiences and thus frustrations at the level of the individual. In the second phase of the research participants associated with both practical and emotional frustrations. It was clear that such frustrations were particularly associated with unanticipated congestion and delay. When participants were presented with statistics and projections concerning traffic (with an indication of how congestion has worsened and may worsen in future over time) they were shocked. It seems that in their day to day lives their experience of congestion is something which worsens gradually and perhaps imperceptibly (people adapt). However, when confronted with the reality of how such gradual change can accumulate substantially over time people's awareness of the problem was heightened.

Experience and perception of congestion across participants was inevitably variable. Indeed younger drivers mentioned they did not view congestion as a major problem, feeling they had never known anything different and older drivers and those in rural areas mentioned they very infrequently encountered congestion that caused them anxiety. However, during the course of the research there was a growing collective recognition and acceptance of congestion being a problem and one which both needed to be tackled and which they had some responsibility themselves for addressing.

It can be concluded that acceptance of congestion as something which needs to be solved is prevalent among the public. However the ownership of the problem by the public is less apparent since it is seen more readily as a societal problem rather than a personal one. In addition, there is a notable feeling of resignation that nothing can be done to solve the problem of congestion amongst younger-middle aged people (typically 45-64 years old). Nevertheless, exposure to consideration of the problem does appear to heighten both an acceptance of the problem and a stronger association between the problem and themselves. The 'shock effect' of demonstrating the accumulation of gradual change in traffic conditions appears significant.

### **8.3 Acceptance of the need for demand management**

In the first phase of the research an important message emerged once the focus moved beyond the problem of congestion to the matter of finding a solution. The public (or parts of it) appeared resigned to the fact that whilst congestion was a problem it was not a problem that could be solved. Such an impression originates from past experience which shows a problem which is if anything getting worse rather than better yet in the face of government (national and local) attempts to solve the problem. In considering such attempts there was a feeling that planning for transport needed to concentrate on predicting demand for road space and providing appropriate resources. Although the concept of building new roads created a debate (with strong arguments for and against) other measures, such as reducing parking restrictions and bus lanes, and creating more appropriate use of roundabouts and traffic lights to maximise flow of traffic rather than manage demand per se, were noted as important by participants. It appears that many people's experience with or views concerning measures to tackle congestion relate to traffic management rather than demand management.

The second phase of the research served to highlight that with further discussion people were able to recognise a number of measures for managing demand. However, these tended to be soft measures (and predominantly measures assumed to affect other people) rather than naturally lead to suggestions for road pricing. Indeed, when participants were presented with a set of the many different potential measures encompassed by demand management and asked to group them the following emerged strongly. Measures suggested for immediate introduction were all 'carrots'. Measures highlighted for introduction in the future included a mixture of 'carrots' and 'sticks'. Meanwhile measures that were generally unpopular and deemed never to be introduced were exclusively sticks. The greater popularity and acceptance of carrots is not surprising.

While examination of solutions to congestion in the group discussions suggested a greater appreciation of what demand management encompassed, acceptance of an effective demand management approach (known in practice to involve both carrots and sticks) was not forthcoming. In light of a belief that congestion may well be an insoluble problem at the level of society, people were inclined to favour self-regulation - i.e. they would prefer to take their own steps to cope with or avoid congestion rather than have a demand management approach imposed on them which they would consider to restrict rather than support their travel opportunities. People continue to hold precious their 'freedom to drive'. There is in turn a tendency for a view to be taken that demand management 'sticks' impose or would impose a greater restriction on their freedom to drive than congestion would by itself.

While in relation to congestion as the problem, greater acknowledgement of individual responsibility for addressing it can be garnered, this appears to lead to a view that if individuals have a responsibility for the problem they are capable as individuals of avoiding or coping with if not confronting the problem.

Ironically perhaps, this view works against a wish for government to intervene, especially when freedom to drive is considered so important.

It can be concluded that people's appreciation of what constitutes demand management can be improved but that there is not an overall acceptance of the need for demand management where this is taken to involve measures that restrict or penalise travel choices and freedom to drive.

#### **8.4 Acceptance of the need for road pricing**

It is significant that during the course of the research the topic of road pricing has been a feature of both local and national media coverage. Indeed participation in the study itself has given road pricing a greater prominence in the minds of the individuals concerned. Accordingly a notable distinction in the discourse amongst participants emerged, namely that between acceptability and inevitability. There was a view that the exposure the public were now subject to suggested that the introduction of road pricing must be inevitable. There was also some indication of a germ of opinion concerning the point that the government's serious intention to consider road pricing in spite of the measure's popularity (i.e. not likely to be a 'vote winner') suggested that there must be a very good reason for doing so.

The above perhaps prompts another distinction: the difference between acceptance of and resignation to road pricing.

The public is not necessarily very clear in its understanding of road pricing, something complicated by the different models and approaches to road pricing which might prevail. Importantly it is not clear that the public appreciate the realities of what road pricing might mean for their own travel choices and experience. Through the discussions the public came to better understand that road pricing was not simply a restriction or additional financial cost imposed upon their travel but something which was either intended to change or improve their travel. However, an important reality was largely if not entirely overlooked throughout the course of people's discussions and (slowly) evolving understanding, namely that on a charged road an individual should be getting a better level of service than if it were not a charged road but may be getting a lower level of service than travelling on a road elsewhere (i.e. more congested roads may be more expensive than less congested roads but the more congested roads may be less congested than they would have been in the absence of charging).

The research explored in some detail participants views about two different models of road pricing: cordon charging and distance-based charging. Such views are addressed within the report and considered perceived differences in being able to understand and 'use' the different models, in fairness and in the ease and cost of implementation. Indeed fairness was a particular issue for those living in urban areas who deemed distance based charging as particularly being unfair since they would have to pay more to use roads in their immediate environment compared to those living in rural areas.

People recognise that individuals in some instances will change their behaviour in light of the introduction of road pricing but doubts were also expressed concerning whether either model would be effective in reducing congestion because of people's need to travel at certain times at places, with a suggestion also that the measure may serve 'only' to displace the problem.

Through the course of the research there were clear signals that collectively participants were becoming (a little more) open to the concept of demand management and in turn (the need for) road pricing. However, this has not necessarily translated into becoming more accepting of the concept. This said the research points towards some shift towards greater acceptability amongst those who began being mildly opposed to road pricing but not a shift that necessarily leads in any way to (vocal) support for road pricing. This was especially true of females in our research. Meanwhile there is some evidence that further exposure to discussion of road pricing has hardened the negative opinions of those who began the research being strongly against road pricing. This was especially true of younger males and those from C2DE socioeconomic backgrounds in our research. The difference in acceptability of road pricing found between different groups of participants is interesting and deserves further research to establish if patterns remain the same. Studying the instrumental and affective relationship people have with their car may go some way to explain differences between female and male participants. Typically females view their car as instrumental and practical whereas males have an affective bond with their car (Musselwhite, 2004; Musselwhite and Haddad, 2007; Siren and Hakamies-Blomqvist, 2005, Steg et al., 2001). As such road pricing would be seen as a practical solution that may enable better instrumental practices on the road for female drivers, whereas it is perceived to threaten the affective bond between male drivers and their car. Those from C2DE background appeared to be highly concerned with financial aspects of road pricing and hence their negativity was related to feeling that road pricing would cost them more. The differences in acceptability across different groups, as highlighted here, suggest that a segmented or targeted approach is needed to enhance understanding and acceptability of road pricing.

Overall it does not appear that the provision of more detail about road pricing and its different formats has improved acceptability. However, perhaps significantly it was suggested that information in the form of (detailed) evidence of successful road pricing schemes which have been implemented could increase acceptability. This suggests that the public remain sceptical about the ability of public authorities (in their areas) to effectively address the problem of congestion based on their past experience. As such, being presented with hypothetical information about possible schemes and their possible benefits does not give them confidence but rather may leave people less certain of the outcomes as such information can tend to fuel speculation and different interpretations.

People struggle with conceiving of how the costs of road pricing for them might relate to and trade-off with effects upon their travel experience. A predominant view is that they would rather lose time sitting in congestion than money through road pricing. This was to some extent a challengeable proposition in the latter stages of the research but only in the context where people understood that by paying more they would have the opportunity to travel much more freely (quickly).

Another important point emerged, especially from the first phase of the research. It was evident that participants had not entirely examined their own opinions and attitudes for internal consistency. A particular case in point is that of the level of charging that would apply in a road pricing scheme. The public seem clear about two points. Firstly, they would be more accepting of the scheme if it can demonstrate its effectiveness in tackling the traffic problem (bearing in mind their scepticism relating to past endeavours to tackle congestion). Secondly, on the whole, the public does not want to pay more for using their vehicle than they do at present. A possible problem here may be in the terms of any discussion of a revenue-neutral scheme. The very term 'neutral' reinforces a public view that because they consider most of their car journeys necessary, behaviour change would be unlikely with only a neutral (i.e. 'weak') incentive.

We can conclude that, following on from the previous consideration of (a lack of) acceptance of the need for some form of demand management, acceptance of road pricing (even though this is somewhat different to acceptance of the need for road pricing) is low. It seems that low acceptance is largely derived from an unwillingness to accept restrictive demand management measures in general reinforced by an inability to understand whether and how road pricing will work and be effective.

### **8.5 Acceptance of the specific form of road pricing being proposed**

The study considered different models of road pricing and examined the associated differences in how such models might be implemented in technological and operational terms. Overall, information on implementation methods was felt to have either had no impact or to have reduced acceptability of road pricing. Participants' discussion of implementation methods tended to centre more upon what they liked or disliked about a technology working rather than upon their views about whether or not it would be capable of working effectively.

An important potential sticking point for public acceptability has previously been identified as that of privacy concerns – i.e. a road pricing system holding data about people's movements in time and space. In the first phase of this study however it was found that concerns regarding privacy were not substantial – people recognised that they lived in a world where they were already being monitored and took a view that only those individuals with something to hide or behaving illegally would be affected. In the second phase of the research the issue of privacy in the context of implementations methods was discussed at greater length. In the course of such discussion it appeared that the loss of privacy was a key concern in relation to the technology being used for road pricing and a number of specific points were raised. Insights from the two phases must be interpreted carefully and together. It is suggested that the issue of privacy be seen as volatile: it is not a major concern that readily and naturally emerges in people's consideration for themselves of road pricing but once it becomes a topic of discussion it can appear or be made to appear as something of considerably greater concern.

### **8.6 Other issues**

A consideration through the research was the role of the media, family, friends and others in influencing people's views of and acceptability of road pricing. It was evident that research participants had felt themselves to have become better informed and more knowledgeable people in relation to their peer groups on the matter of road pricing as a result of being part of the study. As a result they wished to at least create the impression that they were more discerning about how they reacted to information from different sources. The petition by 1.8 million people against road pricing was something which arose during the time of the research study and which came up as a discussion point during the research. However, participants felt that they were not inclined to react to such information and viewpoint at face value. Likewise people generally discriminated between what they saw as more subjective coverage of information on road pricing in (some) newspapers versus a more impartial and objective reporting of information on television. Family and friends tended to be seen as people being informed (and possibly influenced) by the participants rather than the other way around where it concerned road pricing. In relation to information about (localised) congestion, friends and family were, however, looked to as a source of experience.

What is important to also note is that people gravitate towards thinking as drivers (where applicable) in discussion concerning congestion and road pricing. While this is understandable and inevitably encouraged (implicitly) by the focus being on transport matters, individuals do of course wear other hats in particular all drivers are also citizens and residents in local communities. Even where people were encouraged to think about issues wearing other hats, being a driver seemed to quickly reassert itself. Yet an interesting and potentially powerful link emerged in the workshops element of the project in which participants created fictitious people and examined how they would communicate messages about road pricing to them. Participants saw the use of a message relating an escalating societal problem of congestion to its impact upon future generations (their children and grandchildren) as a possible means, if one exists at all, for encouraging greater acceptability of (the need for) road pricing. Thus in this way there is evidence of individuals being able to be encouraged to think about the different hats they wear and how their views may differ or be changed accordingly.

## 8.7 Summarising remarks

From the consideration of the four levels of acceptance employed in this study two poignant questions appear to emerge which encapsulate whether or to what extent road pricing will be deemed acceptable by the public: (i) would it really solve or effectively tackle congestion?; and (ii) would this make life better for me (i.e. would it be a price worth paying)?

It seems at least from this study that the trajectory of road pricing acceptability which was conceptualised at the start may not in fact have such a pronounced initial peak as first implied. Acceptability of road pricing starts appreciably low and, if anything, can be reduced by the provision of further information and detail. However, scope remains, with insights gained from this study, for action to be taken both in terms of what information is communicated and how it is communicated to positively encourage a greater openness to considering road pricing.

[1] A comprehensive review of international literature on the topic was undertaken by CTS (Lyons et al, 2004). Parallel qualitative research was undertaken by BMRB Social Research to explore public attitudes to road pricing in the UK, in terms of views on the present system and understanding of issues surrounding options for change (Green and Stone, 2004). The University of Leeds also undertook research to consider the extent to which the public could cope with complex price or tariff structures such as those that might be considered in the context of a national congestion pricing scheme (Bonsall et al, 2004). More recently, follow-on research for the Department for Transport by the University of Leeds, BMRB Social Research and MVA has examined public understandings, behavioural responses and views concerning pricing structures (Bonsall et al, 2006).

# Annex One

## 1.1 Introduction

This section examines how the acceptability of road pricing is projected and reflected in discussing other people's attitudes. Participants were asked to discuss four case study examples of hypothetical people's attitude towards road pricing and the effect this had on their own acceptability. In addition, during a workshop, participants were asked to develop individual characters and discuss how this person might feel about road pricing. The point of this is to encourage participants to put themselves in other people's shoes

in order to think differently about road pricing.

## Attitudes towards Case Studies

### 1.2.1 Introduction

During the first two waves of the research, participants suggested the importance of hearing how other people adapted and coped with road pricing. Actual examples of how they changed behaviour, including impact of changes in costs, along with attitudes and opinions were felt to be influential. To this end four case studies (based on a documentary carried out for the BBC) were developed (see table 8.1).

**Table 8.1 Outline of the hypothetical case studies presented to the participants**

Hypothetical Case Study Name	David	Jenny	Natalie	Donald
Occupation	Owens a delivery Company	Own's y in a rural area	Full time mum	Office Worker
Mileage	Unpredictable and often high <b>Approx 3313 per month</b>	Mainly on rural roads <b>Approx 1056 miles per month</b>	Shares school run with other parents, uses car to visit friends and go shopping <b>Approx 754 miles per month</b>	Hour commute to work - public transport alternative is difficult <b>Approx 1588 per month</b>
Comments on about road Pricing	âIt's quite a competitive business and although we would all be in the same boat, it would be just another thing to worry about"	âIn principle I was against road charging, but I am delighted with my low bill and I am surprised how low it is compared to people who live in the citiesâ	"I would have to make a lot of changes to my day to day life, which would be annoying and difficult. I would have to go shopping less often, or go to different places to shop, to plan my journeys more and really think about what I needed to buy, as I couldn't just pop out if I forgot something."	âI live on a through road that may well be less busy if road user charging is brought in. It will be safer and there will be less pollution. The school at the end of my street may have less traffic too, with kids walking to school again, like they did when I was a kid! Meaning healthier kids too!â

<b>Hypothetical Case Study Name</b>	<b>David</b>	<b>Jenny</b>	<b>Natalie</b>	<b>Donald</b>
	<p>It may ruin other businesses or may make them relocate and possibly create a ghost-town.</p>	<p>After seeing my low bill, I think that road pricing if introduced with the right information to make sure people understand how it is going to work could be a positive thing.</p>	<p>I am quite shocked at the size of my bill I couldn't afford it on top of other family expenses.</p>	<p>If road user charging worked and reduced congestion and offered top-class public transport I think I would be really proud of my local town!</p>
	<p>"I am fed up with congestion as it delays my deliveries, but I just don't think road pricing is the solution."</p>	<p>"If it worked and reduced congestion then it could reduce pollution, which would be really good"</p>	<p>"I would have to think about when I visited my friends and where we could meet up as it is difficult to get to their houses by public transport and taxis are too expensive."</p>	<p>"I think road pricing could work to reduce congestion, I would be willing to give it a go, as the number of cars cannot continue to rise at this rate. I just think people need to think differently and look at the potential benefits."</p>
Potential cost of road pricing per month	£194	£28	£87	£127
Current cost of fuel per month	£331	£106	£76	£159
Cost of fuel and road pricing combined if fuel tax was reduced by 50%	£359	£81	£125	£206

Hypothetical Case Study Name	David	Jenny	Natalie	Donald
Hypothetical Difference	<b>David would pay Â£28 MORE than he does now if road Pricing was introduced and fuel tax reduced by 50%</b>	<b>Jenny would SAVE Â£25 per month if road Pricing was introduced and fuel tax reduced by 50%</b>	<b>Natalie would pay Â£49 MORE than she does now if road Pricing was introduced and fuel tax reduced by 50%</b>	<b>Donald would pay Â£47 MORE than he does now if road Pricing was introduced and fuel tax reduced by 50%</b>

### 1.2.2 Initial Thoughts

After the case studies were presented, the participants's initial thoughts were discussed. Two key points were noted by the participants, both relating to money. First, participants were surprised by the suggestion that there could be a reduction in tax on fuel. This appeared to increase the acceptability of road pricing, but participants continued to be sceptical about whether it would actually happen or that the tax would soon increase.

âThat's just the start of it isn't it. It will just go up and up and up! It's just the start.â (55-64, C2DE)

It was commented on whether it would actually make a difference to reducing congestion, which further led to a lack of credibility.

In addition, participants were concerned that it may seem like a large reduction, but overall could possibly still mean an increase in travelling costs.

âI think, cutting the fuel tax in half, it sounds good but whether or not it actually works in relation to what they're going to charge as a congestion charge is debateable, I thinkâ (55-64, ABC1)

Secondly, it was noted that in 3 out of the 4 case studies, the individual ended up spending more on travelling per month. This was seen as being translated to the population as a whole, with deep concerns that 75% of the population will lose money travelling by car.

âBasically it's saying that three out of four of us are going to be paying more.â (25-34, C2DE)

Overall, there was a feeling that the participants would end up paying more if the scheme operated in the hypothetical way described and that this led to a decrease in acceptability around road pricing.

âSo it just makes it worse because people are losing out and it is destructing other people's lives and people have enough to think about without that. (18-24, C2DE)

Amongst participants from urban areas, it was felt unfair that drivers pay (up to 3 times) more in urban than in rural areas. This was translated as urban drivers paying more than rural drivers for driving the same number of miles. This appeared to decrease acceptability.

âIf youâre going to sell this to us, you know, donât want to see that everybody is at a loss basically, apart from her who lives in the country.â (25-34, C2DE)

Views by participants in the oldest groups (65+ years old) remained unchanged following the case studies. There was evidence of people identifying with the person closest to them in circumstances and older people had less of a reference point with the four case studies presented.

### **1.2.3 Attitudes towards Case Study 1 - David â Delivery Businessman**

Comments on each individual case study were examined. On the whole participants felt that David would be worse off, as he has no choice to change his current working pattern as a result of the introduction of road pricing. There was a feeling he would already have changed his journeys to avoid congestion, if he was able to.

âIf he was going to change his journeys he would have probably done it already to deliver when there wasnât any congestion anyway.â (25-34, ABC1)

The wider implications of Davidâs cost increasing were also discussed. It was felt that he may have to face relocation or go out of business altogether. If this mirrored other similar businesses this could damage the economy and create ghost towns (as David himself says). It was suggested that businesses might move to rural areas in order to keep road pricing costs down, which might make rural areas less attractive.

However, urban groups in particular, mentioned how he might be able to make more deliveries and get more business if roads were less congested. Additional costs may not be realised if extra business was created. In any case, it was felt, he could reasonably pass costs on to customers.

### **1.2.4 Attitudes towards Case Study 2 - Jenny â The Rural**

There was the view that as Jenny (case study 2) did a high number of miles per month and indeed more miles than Natalie (case study 3) that it seemed unfair she should save money on her travelling. Not surprisingly, this was particularly an issue for participants living in urban areas. It was felt that this showed a postcode lottery of the system and would encourage people to drive more in rural areas (and also rural people to drive more). It was pointed out that such drivers are still contributing to pollution, so should pay the same. Participants commented how Jenny was already well-off (she owns her own house and business, and living in the country is cheaper) and did not require further âsubsidiesâ in her life. In contrast there were participants that concluded that it was fair that she should pay less, as she was not contributing to congestion.

### **1.2.5 Attitudes towards Case Study 3 â Natalie â Full-time Mum**

This case study created a passionate response. Views were mixed amongst participants; there was some sympathy for her having to pay more but other participants felt she had the most room for manoeuvre and so she could save money if she wanted. The concept that her journeys were not essentially linked to time, like work journeys, means she could pick and choose her times to visit friends and go to the shops.

âSheâs probably got more time than anybody else if sheâd sort herself out than sheâd probably save money then couldnât she.â (44-54, C2DE)

However, it was mentioned that these changes would be difficult for her as any change to a routine or pattern, work or otherwise, is difficult.

âShe is looking at how she would have to change her life and I think sheâs not obviously finding that a very positive thought.â (55-64, ABC1)

It was suggested that she should consider walking her children to school.

There was the view that if costs were too high she would have to move to a rural area or have to get a job.

### **1.2.5 Attitudes towards Case Study 4 â Donald â the Office Worker**

There was a feeling that the response by Donald was unbelievable. The feeling that he should be financially worse off but be positive about road pricing was felt to be unrealistic.

âHeâs living in cloud cuckoo landâ (65+, C2DE)

There was the view that he must be a âgreen activistâ or an âenvironmentalistâ with extreme views on reducing pollution. It was felt that road pricing would not work and his journey to work would not be quicker as he anticipated. In addition, it was stated that the buses and public transport would not be improved as he envisaged.

âA World Class Public Transport System. Well my answer to that begins with B and ends in S I think.â (55-64, ABC1)

It was thought that in order to be able to afford the increases in cost per month, that he must be well-off or well-paid or simply liked being taxed.

âDonald, it seems like with him, you know, he likes being taxed. I wouldnât mind taxing him myself.â (25-34, C2DE)

Participants did concede that occasionally people might not be so concerned for their own money and have wider public or social interests at heart, but that these people were the exception to the rule. There was also a feeling that he was able to be more flexible than most people about when he travelled to and from work and his choice of transport. It was suggested that he worked in London and as such was able to use good public transport.

âGood for Donald, he is able to go on the tube and be able to let the train take the strain, unfortunately, other people canât do that.â (55-64, ABC1)

## **Workshop â Developing a Driver through a Narrative**

### **1.3.1 Introduction**

Wave six involved participants in an interactive workshop. Participants were given free reign to come up with a "character" of their own design, based on a statement. Participants were placed into groups based on their attitudes towards being charged for how often and when people drive on the roads. Three groups were created in each area – positive, neutral and negative. Each group were given a statement about 2 (out of 3) fictional persons' driving and travelling habits (see box 8.1) From this statement, people were asked to visualise and discuss background details of the person, including a name, sex, age, family details, occupation and choose an image of what the person would look like from a selection of photographs. Next, participants discussed their travel behaviour and picked photographs of what they thought would be the person's most common methods of transport. In addition, they had to choose statements that supported their view of driving. Participants discussed how their created person would view congestion and road pricing. During this task participants chose statements to support their characters views and wrote a speech bubble of their character's typical feelings on the subject. Finally, participants had to think what would help their character think more positively about road pricing. Facilitators captured the character as he or she was developed and final montages of each created person were developed (see figure 8.1, for example).

**Figure 8.1. Completed montage of a created character during the workshop phase of the research. (Brad, Person 1, Durham, Neutral Group)**



(1) Young concerned Student (Female)

(2) Busy Mums (Female)

(3) Young and Carefree (Male)

(4) Aspiring Executive (Male)

(5) Older Rural Gent (Male)

### **The three descriptions given to the participants**

#### **Person 1 (for positive and neutral groups)**

"I drive a lot at busy times of the day."

"Although Iâm concerned about pollution and would like to drive less, the public transport I would need to use to travel to work is inconvenient as it involves changes and waiting around. I feel I have no option but to drive."

#### **Person 2 (for positive and negative groups)**

"I like to drive and although I try to avoid city centres but I often find myself driving on busy and congested roads."

"I am uncomfortable with the idea that cameras can monitor when and where I drive, this worries me."

#### **Person 3 (for neutral and negative groups)**

"I love to drive."

"I drive for fun and because I feel I have to for many journeys, like when I go to work. I think motoring is expensive but I love the freedom it gives me to where I want, when I want."

### **1.3.2 Lifestyle and attitudes towards congestion and road pricing for the five types of people**

This section outlines the five person typologies, including their background, lifestyle, attitudes towards congestion and road pricing and how the participants felt they could communicate the benefits of road pricing to them.

<b>Young Concerned Student Female</b>	
<b>Helen (person 1), Lucy and Sarah (person 2)</b>	
<b>Background</b>	
<p>They are in their late teens or early 20s. They are either a student at a university or a recent graduate, sharing a flat with friends. They tend to be single and have no children. Because they are a student (or recent graduate), they have poor finances. They are often described as serious, intense and introspective, though they are happy and pleasant. They are concerned for the environment. They drive a small (SMART car) or older car (Polo or Fiesta), that is economical and cheap-to-run. It may also be important that the car is fairly environmentally friendly. They often use expensive public transport, especially when going into an urban area, where parking is expensive. Their car helps them to be independent, but they are not worried about the way it looks.</p>	
<p><b>Views on congestion</b></p> <p>Congestion does not cause a huge problem for this category of people. They can be tolerant and patient and see congestion as an everyday occurrence.</p> <p><i>Helen might say:</i>  <i>"Congestion is a fact of life. You have to be patient."</i>  <i>(Person 1, neutral group)</i></p> <p>This may be due to the notion that they do not always have to sit in congestion and have more flexibility over the times and routes they travel.</p> <p><i>Sarah might say:</i>  <i>"Congestion (ramp) ... what congestion?"</i>  <i>(Person 2, negative group)</i></p> <p>They would see improving public transport and putting in safer cycle routes into towns as key to reducing congestion.</p>	<p><b>Views on Road Pricing</b></p> <p>There was a feeling that such individuals could feel road pricing would possibly hit them financially.</p> <p><i>Helen would say:</i>  <i>"Unfair, I won't earn enough to pay the increase."</i>  <i>(Person 1, neutral group)</i></p> <p>But it was suggested that such a person could feel that perhaps it was the only choice.</p> <p><i>Lucy would say:</i>  <i>"It's a pain, but it needs to be done".</i>  <i>(Person 2, positive group)</i></p>
<b>Issue</b>	
<p>It was felt that they would not have essential journeys to make it the car at peak-times (i.e. not for work). Therefore, it was considered they could save money through driving less once road pricing was introduced. As such, a possible saving in money would potentially be appealing.</p>	

<b>Busy mums Female</b>	
<b>Anita, Jill, Sam and Mandy (person 1), Sandra and Jenny (person 2)</b>	
<p><b>Background</b> They are aged between 29 and 42 years, usually described as mid-30s. They are usually described as busy, harassed mother of two or three children who dominate and rule their life. They might have a job, which is either part-time or certainly takes second-place to family life. This person is usually married, although could be a single-mum. They are usually out-going and energetic. They have some concern for the environment, but their main priority is with their family. They drive for work and practical reasons only and need a family-car. They may occasionally use a bike or bus into town. The important aspect of a car is that it is child-friendly. The car should make them feel safe and independent.</p>	
<p><b>Views on congestion</b></p> <p>This type of person gets very stressed with congestion, according to the participants. In particular they get anxious about being late for work, following dropping the children off for school. They are worried about pollution from the congestion, in terms of both environmental issues and personal health issues for them and their children.</p> <p><i>Anita might say: "I worry about the pollution. The fumes make me feel sick again today". (Person 1, positive group)</i></p> <p>They wish they had better public transport options.</p> <p><i>Sam might say: "I'd use public transport more if it was better/more reliable". (Person 1, neutral group)</i></p>	<p><b>Views on Road Pricing</b></p> <p>They would tend to feel that road pricing is an infringement on their human rights. They already feel restricted enough as it is by being so busy and working to tight deadlines. They do not need any additional control over their lives. There is a feeling that road pricing will cost them too much money and a feeling they have no choice. They are likely to say that there is no public transport alternative. However, there was a feeling that they may feel it was the only option.</p> <p><i>Anita would say: "Unfortunately, we need road pricing, but I am worried about cost. I can only just get by now". (Person 1, positive group)</i></p> <p>Busy mums stemming from description of person number 2 were also thought to be likely to be very suspicious of cameras or technology monitoring them.</p>
<p><b>Issue</b> As a parent, their children's future was felt to be important to them, particularly at an environmental level. Congestion was thought to be viewed negatively because of its effects on pollution.</p>	

<b>Young and Carefree Male</b>	
<b>Liam and Jack (person 2), Fred, Carl, Lee, Norman, Dave and Justin (person 3)</b>	
<p><b>Background</b>                      They are young (usually in their 20s) and have no responsibilities. They are not married and have no children. They are either students or in low-paid jobs. They are care-free and have little concern for others or the environment. They tend to be described as trendy, outgoing, cocky and arrogant. They aspire to driving big flashy cars but are often currently driving souped-up smaller cars. Their car is important to their image. They tend to drive for fun. They use very little other transport, except a taxi to and from pubs. They might say they like fast cars, that the car is linked to their personality, the car makes them feel independent and that they are guilty of speeding at times.</p>	
<p><b>Views on congestion</b></p> <p>There were two types of responses for this person. Either participants felt they would worry not about congestion along with their care-free image and may even like posing with their car and music in such situations.</p> <p><i>Fred would say:</i>                      "What's congestion? I couldn't care less, I have no worries or responsibilities".                      (Person 3, neutral group)</p> <p>Or alternatively, they would feel irritated and stressed that they could not have the freedom to move as quickly as possible.</p> <p>In both cases they would blame other people and not themselves, especially other people unlike themselves, such as parents taking children to school and older drivers.</p> <p><i>Justin would say:</i>                      "Too many old people on the road! Get them off!"                      (Person 3, negative group)</p>	<p><b>Views on Road Pricing</b></p> <p>They are likely to believe road pricing is an attack on their freedom to drive when, where and how often they like.</p> <p><i>Justin would say:</i>                      "It's an infringement on my liberty".                      (Person 3, negative group)</p> <p>They would also be defiant, continuing to drive anyway. There was a feeling that either parents will pay for these individuals or that they would not drive enough to see a great variation in the cost. For those who work, they would simply pay more in order to continue with driving since it was so important to them.</p>
<p><b>Issue</b>                      It was felt that this group may not have as many necessary journeys to complete for work and as such they could save money from the introduction of road pricing. Secondly, the thought that the roads might be free of congestion was considered appealing.</p>	

<b>Aspiring Executive Male</b>	
<b>Nigel, Nigel, Tony and Brad (person 1), Jack (person 2), Alan and Craig (person 3)</b>	
<p><b>Background</b>                      They are men in their mid-30s or early 40s who are doing well in an offive-job. They may be sales people pr managing directors, but all aspire to work-hard and make as much money as they can. They tend to be married with a young family, who they are mainly supporting financially. They are hard-nosed, strict, arrogant, but can be Jack the Lad types. They are members of gold and squash clubs and sit on Parent Teacher Associations; they may coach local youths football teams. They drive a lot for business and have a company car that is linked to their (aspiring) status and prestige (such as Audi, BMW or Lexus). They would not use buses but may use the train for business. They get very irritated by traffic jams and would want to keep moving. They feel in control when they are driving and feel their car says something about their personality. They are irritable and aggressive on the road and are always driving around in a hurry.</p>	
<p><b>Views on congestion</b></p> <p>These individuals get very irritable and very stressed when faced with congestion. They feel they are really wasting precious time with the family, but especially time at work. Those relating to person 1 and 2 are likely to try and calm themselves by stating it is just something they have to put up with.</p> <p><i>Nigel says:                      "It's a pain, but a fact of life".                      (Person 1, positive group)</i></p> <p>Those relating to person 3, however, are likely to be angry or congestion could lead them to road-rage.</p> <p>They are likely to blame other people for congestion, in particular the government. They feel solutions to congestion often lie in more roads being built and faster speed limits on roads.</p>	<p><b>Views on Road Pricing</b></p> <p>There is a feeling that road pricing is a stealth tax. Also they feel the government can not be trusted to deliver such a scheme. However, there is some support amongst this type of person should the system work. There is a real need amongst this group of drivers for less congested faster roads.</p> <p><i>Alan would say:                      "I'm not bothered - it'll get other people off the road and it'll take me less time!"</i></p> <p>They feel they can both afford to pay for road pricing and also that in many cases their business will pay for them anyway.</p>
<p><b>Issue</b>                      For those with children, it was felt that issues of the damage pollution may cause to the environment, particularly at a local level would be important. Second, clear and free roads as a result of a reduction in congestion were suggested as important.</p>	

<b>Older Rural Gent Male</b>	
<b>Bill (person 1), Arthur, Fred and Albert (person 2), Neville (person 3)</b>	
<p><b>Background</b>                      These are older individuals, in their 60s, who are usually retired, although they may still hold small part-time jobs. They are not particularly well-off. They have grown-up families who have left home. There is a tendency for them to live in a rural area. They tend to be responsible, relaxed and calm, but maybe a bit stuck in the ways. Their responsibility may associate them with caring for the environment. They own older vehicles they may have bought new 20 years ago. The car helps them to be practical and maintain independence. Occasionally, they use the bus to go to the town or shops when it is cheaper.</p>	
<p><b>Views on congestion</b></p> <p>This person tends to try and avoid congestion as much as he can. He is quite philosophical if he should encountered it and remains calm. There is a feeling of amazement that there is so much traffic on the roads.</p> <p><i>Albert would say:</i>                      "Where has all the traffic come from?".                      (Person 2, negative group)</p> <p>They generally blame it on things that have changed since they were younger, especially the idea that children are driven to school.</p> <p><i>Arthur would say:</i>                      "I got stuck this morning. Kids should walk to school. The congestion is getting worse. All those pesky 4x4s".                      (Person 2, positive group)</p> <p>This group would want to see a reduction in illegal drivers which would help congestion.</p>	<p><b>Views on Road Pricing</b></p> <p>Overall they are fairly anti-road pricing, especially as it may require them to make a change to their work patterns. They are concerned about the technology as they are unsure about how it works. In addition, they are particularly worried about the cost of road pricing.</p> <p><i>Fred would say:</i>                      "It's a big enough problem as it is - I can't pay any more. It's this government".                      (Person 2, positive group)</p>
<p><b>Issue</b>                      Creating a better environment was key for this group especially at a local level, where it was felt important to preserve the local environment. It was thought that such an individual would like the concept of having a positive future environment with some of the good aspects from the past. Appealing to the <i>Rural Gent</i> as a parent or grandparent was also important. A better, safer and healthier environment could be suggested by a reduction in congestion found through road pricing.</p>	

### **1.3.3 Talking to people about road pricing**

Based on the typologies of drivers created in the workshops, participants thought about how the benefits of road pricing could best be communicated to people in general. The messages fell into 3 categories, which are outlined below:

#### **Issue 1: Environment**

Busy Mums, the Older Rural Gents and Aspiring Executives who had children were thought to be concerned about this. Education at school was felt to be a strong motivator for change in attitude and behaviour. Highlighting changes in the environment in general either at a relatively local (such as rural areas being overrun by cars) or a global level (such as melting ice caps) was suggested as a way to help people realise that congestion has a negative impact on the environment.

#### **Issue 2: Free roads of Traffic**

Depicting roads free of congestion would be particularly powerful for the Aspiring Executives and the Young and Care-Free people. It suggests that these drivers can regain control over their driving environment through changing the way they pay, re-opening up the idea of freedom and driving.

#### **Issue 3: Save Money**

It was felt for those, such as for the Young and Care-Free and for Young Concerned Students (but not interestingly mentioned for the Older Rural Gent), who do not have to drive as many essential journeys at peak-times (i.e. not for work), it was considered they could actually save money through driving less once road pricing was introduced.

### **Key interests and concerns**

In discussing the messages that may have an influence on other people, participants were encouraged to discuss how such communication may affect their own views. It was felt that the environment was a key concern for the majority of the public. In addition, participants generally felt this was a key concern for them personally and felt if road pricing would help reduce congestion and the amount of traffic then this had environmental benefits and as such was a powerful message. In addition, the promise of less traffic on the roads was a key interest for participants. Again, if road pricing worked and this could be promised, participants felt this was extremely important. There was less support for saving money as participants generally anticipated being worse off with the introduction of road pricing.

Overall, the key aspect was some guarantee that road pricing would work to reduce congestion, which in turn would improve the environment both in terms of pollution and less traffic. It is interesting to note that participants were therefore conceptualising road pricing in terms of eliminating trips rather than the displacement of trips.

## Conclusions

The case studies showed the importance of finance compared to other factors that were considered in relation to driving. The case studies also highlighted the importance of the work journey and how it was viewed as essential. There was a feeling that this journey could not be changed or altered by most people and that any forced change through road pricing was viewed as unfair and to be resisted. In contrast, the case studies showed that other positive aspects of road pricing were not seen as important as the financial issue.

During the 30 workshops, only 5 different types of person were developed. It is interesting to consider that perhaps some degree of projection of participants's own views and thoughts occur during such a process. Indeed participants talked about how the person they developed showed similar characteristics to themselves and to friends and family. Maybe it created an opportunity for some of the most extreme views participants held towards driving, congestion and road pricing to emerge through the voice of the creation. The typology individuals generally did not find congestion much of a problem. Maybe this reflected individuals's views (see chapter 3).

It was not a common theme for the created people to want road pricing and where it was favoured it was for self interest (empty or faster roads) or radical opinions (green activists). However, there was a degree of normalising the concept of road pricing that took place during the final exercise in communicating the benefits to the newly created people.