

**Eco-driving: Factors that  
determine take-up of post-test  
training research**

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# Contents

Report contacts .....	2
Executive summary .....	5
1. Background and introduction .....	12
1.1 Introduction .....	12
1.2 Theoretical framework .....	16
1.3 Research aims and objectives .....	19
1.4 Research methodology .....	19
1.5 Report outline .....	22
2. Literature review: Tailoring eco-driving interventions through segmentations ..	23
2.1 Segmentations .....	23
2.2 Communication .....	25
2.3 Targeted marketing .....	27
3. Stakeholder and training provider context .....	28
3.1 Views about eco-driving and policy .....	28
3.2 Current eco-driving offering .....	30
3.3 Take-up of post-test driver training .....	32
3.4 Marketing of post-test driver training .....	34
3.5 Evaluation .....	35
4. Awareness, perceptions and usage of eco-driving .....	37
4.1 Awareness and perceptions of eco-driving .....	37
4.2 Eco-driving techniques .....	38
4.2.1 Driver's usage of eco-driving techniques .....	39
4.3 Employer's current promotion of eco-driving techniques .....	40
5. Increasing take-up of eco-driving post-test driving interventions .....	43
5.1 General barriers towards eco-driving .....	43
5.2 Specific barriers impacting on take-up of post-test training .....	46
5.3 General motivations for using eco-driving techniques .....	47
5.4 Specific enablers to encourage eco-driving post-test training .....	49
5.5 Eco-driving intervention format preferences .....	51
5.6 Mandatory post-test interventions .....	54
5.7 Marketing eco-driving post-test interventions .....	54
6. Implications for policy and social marketing .....	56
6.1 Behaviour change strategy .....	56

6.2	Education and persuasion .....	57
6.3	Design and control.....	59
6.4	Who to target and how.....	60
	Appendix one - Qualitative recruitment and research methodology .....	63
	Appendix two – Driver group handouts .....	67
	Appendix three – Topic guides.....	69
	Appendix four - References .....	92

# Executive summary

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## **Objectives and methodology**

This research was commissioned by the Driving Standards Agency (DSA) to explore how eco-driving training can be provided and promoted in a more engaging way and how take-up can be increased amongst existing drivers with ordinary Category B (car) driving licences<sup>1</sup>. More specifically the objectives of the research were to examine:

- Factors / incentives to encourage take-up of an eco-driving intervention.
- Lessons from other eco-driving interventions.
- Marketing and promotion of eco-driving initiatives.

The research consisted of two stages: with the findings from stage one informing the structure and content of the discussions in stage two:

**Stage one** consisted of:

- A short literature review.
- Review of current eco-driving interventions.
  - Initial online search to identify relevant interventions.
  - Nine semi-structured telephone interviews with eco-driving training providers.
- Ten semi-structured telephone interviews with stakeholders such as transport delivery bodies, road safety organisations and trade unions.

**Stage two** consisted of:

- Eight focus groups with drivers across the north and south of England as well as the Midlands, including a range of vehicle type, age, purpose of driving and number of years qualified.
- Nine employer / fleet manager semi-structured depth interviews with a range of fleet sizes and company functions.

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<sup>1</sup>Drivers of cars, taxis, light vans, minibuses with under 8 seats.

### **Current eco-driving interventions and post-test driver training**

- There was some criticism voiced by training providers and stakeholders regarding the way eco-driving was being included in the **standard driving test** and a feeling that the variation in the way this was being offered by instructors should be addressed.
- **Take up of post-test interventions** (Pass Plus, Advanced Driving Skills and eco-driving) has been low in recent years. The current economic climate and the high quality of the current standard driving test were given as reasons for this
- It was deemed important for **the cost saving benefit** to be stressed (especially for employers) through clear, tangible and specific information or calculations (e.g. it will save your organisation £X over X years).
- The general consensus was that post-test interventions **offering eco-driving alongside other content** like advanced driver skills or safer driving was easier to sell and that eco-driving was rarely being offered as a standalone course.
- The reluctance of **delegates to feel like a 'learner'** was identified as a barrier to the take up and success of the intervention.
- The most effective post-test intervention was identified as **'in-vehicle training'** to demonstrate the fuel and cost savings of using eco-driving techniques. Providers further reasoned that this allowed for the learning to be 'fun' and involved an element of challenge and competitiveness if pairs of delegates were trained together in one vehicle.
- To **encourage sustainability** of techniques learnt, providers recommended the development of a website where drivers could continue to enter their miles per gallon and work out their post-training savings.

### **Awareness, usage and perceptions of eco-driving**

- This research confirmed recent research published by DfT<sup>2</sup> that suggested that awareness of the term *eco-driving* was generally low but that people were adopting techniques which may fall under the umbrella of eco or smarter driving.
- The term **'eco-driving' caused some confusion**. There was uncertainty about its meaning and, for those who had heard the term before, doubt about whether this referred to driving an environmentally-friendly vehicle such as a hybrid or fuel efficient car or if it referred to driving behaviour or to both. It was suggested that the term **over-emphasised the environmental focus** rather than the economical aspect, which for most was the primary motivator for engaging in eco-driving techniques.

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<sup>2</sup> Thornton, A. Bunt, K. Dalziel, D. Simon, A. (2010) *Climate Change and Transport Choices*, available here: <http://www.dft.gov.uk/pgr/scienceresearch/social/climatechangetransportchoices/>

- **Knowledge about eco-driving techniques** was mostly gained while learning to drive through driving instructors and / or through family and friends. Interestingly and importantly, male figures (fathers, brothers, male colleagues) were acknowledged as being primary messengers about driving style and technique.
- **Four typologies** emerged based on usage of eco-driving techniques and the extent of the drivers rationale versus habit for using these - novices; followers; educated; and experts. These groups will respond in different ways to information and interventions.

	Typology name	Usage	Rationale	Demographics
1	Novices	Using a few techniques	No rationale / habit	Younger females
2	Followers	Using some techniques	No rationale / habit	Mixed
3	Educated	Using some techniques	Limited rationale	Mixed
4	Experts	Using lots of techniques	Full rationale – more than one reason	Older males

- The need for older males to be viewed as an ‘expert’ is an important theme that runs throughout the report and represents a challenge with regards to how to engage these individuals in learning about more techniques or in becoming persuasive messengers.
- The concept of fuel efficient driving was gaining momentum with employers (especially those with larger fleets) and they were using a number of strategies to enforce or promote this to their employees.

### **The barriers to using eco-driving techniques**

A number of interlinking barriers:

**Lack of awareness / salience:** Driving behaviour is deeply habitual rather than rationalised. There were many techniques that drivers were unaware of and had not practiced. A lack of conscious thought about eco-driving prevents drivers from using the techniques consistently and from effectively spreading the message to others.

**Social norms:** the culture within society or within an organisation was felt to hinder an individual’s propensity to use eco-driving techniques. The pressure of getting from A to B quickly or of driving in the same way as peers overtook good intentions.

**Entrenched habits:** Certain drivers felt that their current driving habits were so ingrained and that incorporating new techniques or stopping non-environmentally

friendly ones would be challenging. For example, warming the car's engine before driving.

**Nature of business:** Taxi drivers highlighted difficulties with using eco-driving techniques. They claimed that their customers had minimal interest in saving the environment and would rather reach their destination as quickly as possible.

**Environmental views:** Although climate change was not really at the heart of why decisions were being made to use or not use these techniques, it was nevertheless part of a sub conscious reasoning process. Drivers who did not believe in the impact of climate change or felt that humans could have little effect on climate change were less willing to change their behaviour.

### **The barriers impacting on take-up of eco-driving post-test interventions**

**Cost of training:** Drivers and employers were unwilling to be out-of-pocket without evidence of reduced fuel consumption or a reduction in vehicle insurance.

There was an overwhelming sense that without a financial incentive, drivers and employers were unlikely to view eco-driving training as a necessity, especially in the current economic climate.

**Feeling expert enough:** The current standard driving test was referred to many times as being high quality and sufficient, especially compared to previous years and other countries. As a result, very few felt they were sufficiently lacking in driving expertise to consider taking up any post-test intervention.

**Doubts about sustainability:** There was a concern expressed by employers that many drivers would not maintain techniques after training, leading to only a short term payback on the investment.

**Lack of evidence:** There was insufficient proof that a reduction in fuel consumption or accidents was the direct result of eco-driving training rather than other mitigating factors.

### **The motivations for using eco-driving techniques**

Across the spectrum the main (and in many cases, for the ordinary driver, the only) motivation for using eco-driving techniques was a **cost saving** from reduced fuel consumption (and the less well-known) reduced maintenance costs.



**Safety** was deemed important and employers referred to their need to protect their drivers and duty of care to the public.

**Reducing CO2 emissions** ranked very low for ordinary drivers but was still considered important to larger employers with corporate social responsibility policies.

### **Enablers for take-up of an eco-driving post-test intervention**

**Financial incentives:** Drivers and employers only expressed interest in eco-driving training if this was accompanied with an assurance and a calculation of the cost savings or a financial benefit (e.g. a reduction in insurance or road tax).

**Social norms:** The extent to which eco-driving was viewed as acceptable, relevant or important within a community or a workplace was felt to affect the level of take-up; a perceived increase in the numbers of drivers employing these techniques would have a positive impact on the driving behaviour of their peers.

**Monitoring impact:** Providing concrete evidence of the potential savings would help companies and individuals see the tangible impact of their cost savings.

**Lack of confidence:** This was a motivator for those wanting to further their knowledge and improve their driving skills. This tended to be the 'novices' (younger females).

**Corporate image:** Some companies felt obligated to be concerned about environmental impact to protect their corporate image.

**An element of fun:** Training with an element of fun and the opportunity to showcase skills (particularly for the 'experts') was deemed more desirable.

### **Implications for policy and social marketing**

- Transport policies need to target both changing attitudes directly as a route to behaviour change, and changing behaviour first without necessarily changing attitudes.
- Behaviour change initiatives to promote low carbon behaviours need to be personally relevant, be seen as something that 'people like me do', be easy to adopt, be fun, and be opportunity orientated – for instance hook into other drivers of behaviour to achieve outcomes (such as saving money).

- The unified message to all groups needs to **emphasise the potential cost savings as the primary benefit** and any other benefits as secondary. The following could help:
  - The use of other terms with more suggestion of the cost saving will help this ('fuel efficient' driving).
  - Using tactics or systems to help both ordinary drivers and employers to see the tangible savings they could make – carbon calculators on websites, statistics.
  - Communications that include the full range of cost savings e.g. less wear and tear on the vehicle thus leading to less maintenance costs and delaying the need to purchase a new car as frequently.
- Changing the **social norms** around eco-driving will be very important to affect the sustained use of techniques and the spreading of messages. There are a number of factors needing to be specifically addressed to contribute to this:
  - Debunking the perceptions of eco-driving being seen as slow or unexciting driving (a view sometimes held by 'experts').
  - The risks of not driving safely.
  - Helping eco-driving to be seen as a part of being a skilled driver in being safe, smooth and socially responsible.
- Using the public to be messengers to spread and communicate eco driving messages could be an effective way to promote eco-driving and help to effectively change social norms. Drivers are more likely to adopt messages about cost savings from their peers than from government.
- **Post-test driver training** has a low take-up generally. The combining of eco-driving with other well known courses such as Pass Plus and Advanced Driver Skills training may be more appealing to drivers and employers than a stand alone eco-driving course. This would also help to seal messages about eco-driving being part of a skills toolkit for drivers. The take up of these courses could be encouraged by:
  - Offering financial incentives such as a reduction in insurance or road tax.
  - Measures of sustainability to persuade employers.
  - Addressing the view that drivers were already expert enough.
- **In-vehicle training** will appeal as an intervention for employees and those further towards the 'novice' end of the spectrum. This has the greatest potential for sustained behaviour change. However, it was generally felt that eco-driving techniques were simple to employ and could be easily and cheaply promoted through leaflets (this view was especially held by 'experts').
- Providing **the full list of eco driving techniques** may work well to educate drivers about the number of techniques that exist and to help them feel like a skilled driver. This list could be grouped into categories of 'those that are most well known' (you could do better), 'those that are fairly well known' (you are a

skilled, fuel efficient driver but have some improvements to make) and 'those that are least well known' (well done, you are a skilled, fuel efficient driver).

- A number of **touch points** in the driving or car buying process for messages to be delivered:
  - When renewing car tax - Direct Gov website or at Post Office.
  - When purchasing a new vehicle.
  - When obtaining car insurance - information or link on website.
  - When driving long distances and refuelling - at service stations.
  - When hiring a car - on website or pamphlet in vehicle.
  - When learning to drive.

# 1. Background and introduction

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## 1.1 Introduction

Transport is a major contributor to UK greenhouse gas emissions, accounting for around 22 per cent of all domestic emissions<sup>3</sup>. Road transport (both passenger and freight) has the biggest impact, being responsible for 93 per cent of all domestic transport emissions in 2009<sup>4</sup>.



The Climate Change Act (2008) sets a target to reduce UK greenhouse gas emissions by 80% by 2050, and by 34% by 2020, compared to 1990 levels. The Act also requires the Government to set and meet intermediate 5-year carbon budgets. Transport will make a major contribution to delivering the UK's Climate Change Act targets.

The Draft Government Carbon Plan was published by the **Department of Energy and Climate Change** in March 2011. It is a Government-wide plan of action on climate change, including domestic and international activity, which sets out department by department, actions and deadlines for the next 5 years. The Carbon Plan has been published initially as a 'draft' that takes account of the first three UK carbon budgets (covering the period 2008-2022), which have already been set. In recognition that the fourth carbon budget (2023-2027) will be set in law in June 2011, the Government plans to publish an updated 'live' Carbon Plan in October 2011 which takes the four carbon budgets into account.

### Complexity of transport behaviour change

For the most part, people are aware of climate change and accept that it is, to some extent, caused by human behaviour<sup>5,6</sup>. Furthermore, most recognise the negative impact of transport emissions with 59 per cent viewing road transport as a contributor to climate change<sup>7</sup>. However, this awareness has not necessarily led to a better understanding of the issues – particularly in terms of urgency and acknowledgement

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<sup>3</sup> Department for Energy and Climate Change (2011). *2009 UK greenhouse gas emissions – final figures*

[www.decc.gov.uk/en/content/cms/statistics/climate\\_change/gg\\_emissions/uk\\_emissions/2009\\_final/2009\\_final](http://www.decc.gov.uk/en/content/cms/statistics/climate_change/gg_emissions/uk_emissions/2009_final/2009_final).

<sup>4</sup> Ibid

<sup>5</sup> Lyons et al (2008). *Public attitudes to transport: Knowledge review of existing evidence*

<sup>6</sup> King, S., Dyball, M., Webster, T., Sharpe, A., Worley, A. & DeWitt, J. (2009). *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London

<sup>7</sup> Department for Transport. (2011). *Public attitudes towards climate change and the impact of transport 2010*. [www.dft.gov.uk/pgr/statistics/datatablespublications/trsnstatsatt/climatejan2011report](http://www.dft.gov.uk/pgr/statistics/datatablespublications/trsnstatsatt/climatejan2011report)

of how individuals contribute to climate change<sup>8,9</sup>. Specifically, there has been a gap between awareness of climate change and individual behaviour. The framing of the problem, with climate change portrayed as a complex global and long term threat, is disconnected from people's day-to-day concerns. This lack of personal relevance has had a negative impact on initiatives to promote pro-environmental behaviours – as Brennan & Binney<sup>10</sup> note ‘...*change directed at the individual (downstream) is not making satisfactory progress*’.

These themes have also been reflected in research exploring public attitudes to climate change and its impact on travel behaviour. An important study was conducted by Anable *et al* (2006).<sup>11</sup> They concluded that:

- There is evidence for a weak link between knowledge and awareness of climate change and travel behaviour at the individual level. Raising public awareness of this link is a necessary but not sufficient condition to bring about behavioural change – often described as the *attitude-behaviour gap*.
- Bringing about change in travel behaviour is complex and many factors need to be addressed at both the individual and collective levels. These factors will be different for different travel behaviours and for different people.
- Transport policies need to target both changing attitudes directly as a route to behaviour change, and changing behaviour *first* without *necessarily* changing attitudes.

King *et al* (2009)<sup>12</sup> found there was a limited understanding of the underlying causes of climate change. For example, there was a lack of clarity regarding the link between carbon dioxide emissions and climate change, undermining the importance of changing travel behaviour. Given the general lack of understanding regarding climate change, it is essential to increase public knowledge, however, this on its own is unlikely to bring about a change in driving behaviour. Rather, a range of motivations and personal benefits would need to be explored in order to promote lower carbon travel choices<sup>13, 14</sup>.

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<sup>8</sup> Coulter, A. Clegg, S., Lyons, G., Chatterton, T. & Musselwhite, C. (2007). *Exploring public attitudes to personal carbon dioxide emission information*.

<sup>9</sup> Roy, J. & Pal, S. (2009). Lifestyles and climate change: link awaiting activation in *Current opinion in Environmental Sustainability*, Volume 1 Issue 2, 192-200.

<sup>10</sup> Brennan, L & Binney, W. (2008). *Is it green marketing, or hogwash? We need to know if we want to change things: Partnerships, proof and practice – international non profit and social marketing conference 2008*. University of Wollongong

<sup>11</sup> J. Anable, Lane, B. and Kelay, T. (2006) *An evidence-based review of public attitudes to climate change and transport behaviour*.

<sup>12</sup> King, S., Dyball, M., Webster, T., Sharpe, A., Worley, A. & DeWitt, J. (2009). *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London

<sup>13</sup> Department for Transport. (2006). *An evidence base review of public attitudes to climate change and transport behaviour*.

<sup>14</sup> Coulter et al (2007) *Exploring public attitudes to personal carbon dioxide emission information*.

Changing travel behaviour - particularly in terms of mode choices - is likely to be challenging due to the requirement for lifestyle changes<sup>15</sup>. (While people seemed more capable of, and amenable to, making adjustments to their trip patterns and driving style than changing the transport they used – there are still significant barriers with a third of people stating that *'it would be difficult to change my driving behaviour even if it would help the environment'*<sup>16</sup>). Environmental issues are also not viewed as top of the public agenda for transport policy. In DfT's 2009 Citizen's Panel<sup>17</sup>, climate change was only the fourth most important of the government's transport goals, with the top three concerns regarding transport being reliability (including length of journey), affordability and convenience.

Despite these challenges, there is a range of research that highlights potential ways forward. In a review of literature in this area, Bhattachary et al (2008)<sup>18</sup> highlighted that behaviour change initiatives to promote low carbon behaviours need to be personally relevant, be seen as something that 'people like me do', be easy to adopt, be fun, and be opportunity orientated – for instance hook into other drivers of behaviour to achieve outcomes (such as saving money). For future eco-driving campaigns it would be therefore essential to promote *'behaviour change activities that seem to be more acceptable, have a range of benefits...and are perceived by participants as easy to incorporate within their existing lifestyles'*<sup>19</sup>.

### Eco-driving

As an agency of the DfT, the Driving Standards Agency (DSA) is incorporating safe and sustainable (eco-driving) driving techniques into the driving syllabus. Since 2008, eco-driving techniques have been informally incorporated as part of the driving test (although not as a pass/fail criteria). It is also a key component of the Certificate of Professional Competence (CPC) training for professional drivers<sup>20</sup>, albeit not mandatory. In addition, DSA is exploring opportunities for expanding voluntary post-test driver development to assist in improving road safety without imposing additional mandatory training requirements.

Whilst changes to the curriculum and testing regime for new drivers will help achieve the desired short-term step change in eco-driving behaviour, these changes will also require improvements in the standards of a significant proportion of existing drivers.

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<sup>15</sup> Department for Transport (2009) *Low Carbon Transport: A Greener Future*.

<sup>16</sup> Anable, J., Lane, B. & Kelay, T. (2006). *An evidence base review of public attitudes to climate change and transport behaviour*.

<sup>17</sup> Department for Transport (2009) *DfT's Online Citizen's Panel DaSTS Research –Wave 3*.

<sup>18</sup> Bhattachary, D., Angle, H., Acreman, S., Zambardino, A. and Peattie, K. (2008). *Selling sustainability. Seven lessons from advertising and marketing to sell low carbon living*. Nesta: London

<sup>19</sup> King, M et al (2009) *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London

<sup>20</sup> This includes LGV, CPV and taxi drivers

Recent survey research published by DfT<sup>21</sup> suggested that awareness of the specific terms *eco-driving* and *smarter driving* was generally low among current drivers (those with a full driving licence who have at least one car in their household):

- Around a quarter said they either knew a lot (five per cent) or a fair amount (20 per cent) about the terms.
- 40 per cent said they knew just a little.
- 35 per cent claimed they knew nothing about the terms (including 19 per cent who said they had never heard of them).

However, while awareness of the terms may be low, the survey suggested that people may be adopting a range of techniques which may fall under the umbrella of eco or smarter driving. When presented with a list of possible actions, nearly half (45 per cent) of those asked said that in the last 12 months they had been driving in a more fuel efficient manner. There was significant variation on this measure by age and gender – men were more likely than women to say they had done this (52 per cent compared with 36 per cent), younger people less likely than older people (34 per cent of under 30s compared with 47 per cent of those aged 30 and over).

Respondents were also asked to choose from a more detailed list of specific driving techniques that they had adopted. The list covered 10 different techniques, responses to which are shown in Table 1. Overall 89 per cent of respondents said they had adopted at least one of the techniques with checking tyre pressure, going easy on the accelerator and reading the road being the most frequently mentioned. Men were significantly more likely to have adopted each behaviour (92 per cent having adopted at least one and an average of four; compared with 86 per cent and an average of just over three for women).

Table 1: Driving techniques adopted Source: *Climate Change and Transport Choices (2010)*

	Total %	Gender	
		Male %	Female %
<i>Base</i>		1318	1243
<b>Adopted <u>any</u> of the listed techniques</b>	<b>89</b>	<b>92</b>	<b>86</b>
Regularly checking my tyre pressure	56	65	47

<sup>21</sup> Thornton, A. Bunt, K. Dalziel, D. Simon, A. (2010) *Climate Change and Transport Choices*.

Not accelerating too hard / going easy on the accelerator	56	61	51
Reading the road to avoid unnecessary acceleration and braking	51	55	47
Changing my speed to save fuel	47	51	41
Planning my journey to avoid congestion/road works/getting lost	41	43	38
Using air conditioning only when I really need it	38	39	37
Driving off from cold / Not warming up the car before driving off	28	30	25
Switching off my engine when stuck in a traffic jam	22	23	20
Checking revs / changing gear between 2000rpm and 2500rpm	22	26	17
Removing unused roof racks	7	10	5
None-I've not adopted any of them	10	7	12
Don't know	1	1	1

While the DfT research provides some useful measures, both of the extent of public awareness of eco or smarter driving and the extent to which current drivers have adopted eco-driving techniques, it does not indicate the respondents' motives for adopting these behaviours. Furthermore, while the findings indicate that people say they have adopted many eco-driving techniques, there may still be issues around the quality and consistency of such behaviour, which competence based driver development training could address.

## 1.2 Theoretical framework

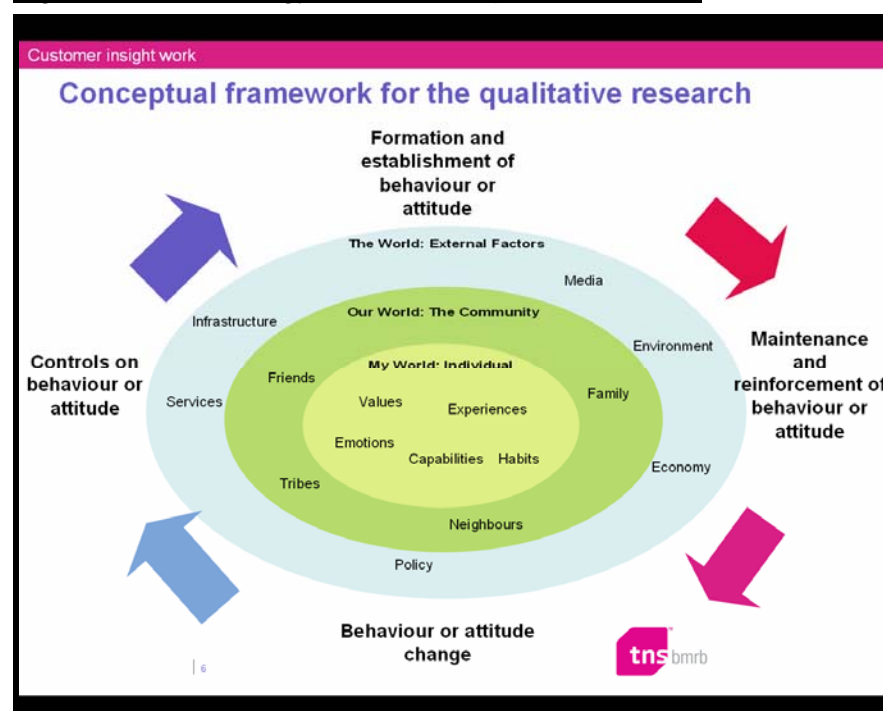
Traditional economic models of behaviour assume that individuals act rationally and make choices to maximise their utility. In this context, drivers would take up post-test interventions if they perceive them to be of benefit. This approach tends to lead to discussions about the cost-benefit ratio and how this can be incentivised to secure the greatest level of take-up. What this approach does not take into account is the impact of personal, social, and wider cultural/environmental factors that influence why people act in a particular ways.



Decisions to engage in a post-test intervention with a strong eco-driving focus will depend on a wide range of factors. By developing an understanding of how these factors interact, it will be possible to identify the approaches that are required to garner interest and uptake of post-test interventions.

Figure 1 illustrates a conceptual framework to map individual, community and external factors which together play a part in the formation and maintenance of attitudes and behaviours. At the individual level, factors such as values, emotions, experiences, capabilities and habits operate at a deep level and are more effectively approached through social marketing than traditional policy levers of legislation and enforcement. These are often reinforced (and sometimes challenged) at the community level through friends, family, neighbours, and the communities we belong to. External factors often act to change or control behaviour through media, environment, the economy, policy, services or infrastructure.

Figure 1: TNS 'ecology model' conceptual framework



Understanding these multiple influences on behaviour, allows the research to identify other measures beyond the traditional “stick and carrot” approach which could be used to promote eco-driving. For example, if the ‘carrot’ was that a driver would save £200-£250 per year<sup>22</sup> as a result of their participation in a post intervention, the research could identify other reasons they may have for not taking part: for instance

<sup>22</sup> According to figures produced by EST. (<http://www.est.org.uk/Travel/Drivers/Smarter-driving-training-for-employees>)

because they enjoy the exhilaration of driving; they are fearful of undertaking training; or because none of their friends have bothered, and so on. Interventions could then be developed to help address these barriers.

### 1.3 Research aims and objectives

The overall aim of the research was to explore how eco-driving could be provided and promoted in a more engaging way and increase take-up amongst all types of existing drivers with ordinary Category B driving licences - drivers of cars, taxis, light vans, minibuses with under eight seats.

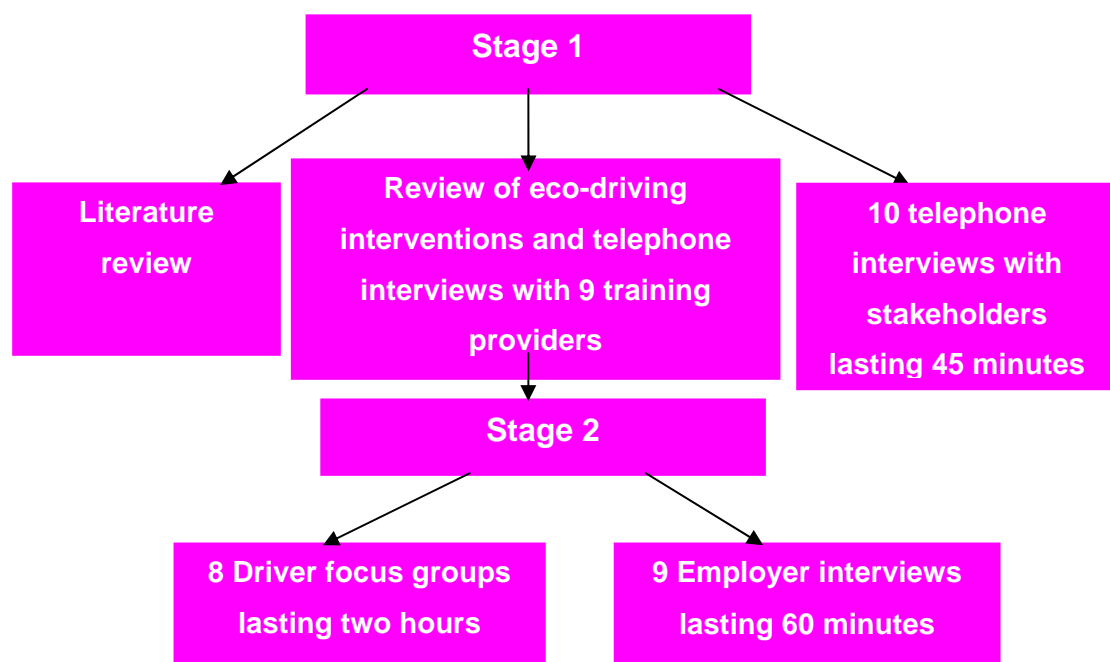
More specifically the objectives of the research were to examine:

- Specific factors that would encourage any class of driver to consider taking up a post-test driving intervention with a strong eco-driving focus.
- How eco-driving ranks alongside other factors for take up of post-test driving training with these driver groups.
- What incentives would encourage the take up of a post-test driving intervention with a strong eco-driving focus.
- What can be learnt from other eco-driving interventions.
- How DSA and DfT can market and promote eco-driving initiatives.

### 1.4 Research methodology

A program of research was conducted from August to October 2010. The research consisted of two stages as described in Figure 2:

Figure 2: Outline of research stages



Stage one comprised a literature review, a review of eco-driving interventions and stakeholder interviews. Stage 2 involved group discussions with drivers and interviews with employers to explore barriers and enablers to the take up of eco-driving interventions (illustrated in Figure 2 above).

These stages are explored in more depth below.

### **1.4.1 Stage one**

Stage one consisted of the following:

#### Short literature review

A short literature review focusing on how to encourage engagement with driver training, as well as attitudes towards environmental issues more specifically.

#### Review of current eco-driving interventions and telephone interviews with training providers

- Initial online search to identify relevant interventions.
- Nine semi-structured telephone interviews (45 minutes) with eco-driving training providers (mostly solo instructors and or owners of small companies) to obtain detailed information on the nature and effectiveness of these interventions and how they have been promoted.

#### Stakeholder telephone interviews

Ten semi-structured telephone interviews (45 minutes) were conducted with relevant stakeholders including transport delivery bodies, road safety organisations and trade unions. In addition to focusing on eco-driving generally, the discussions included issues relevant for each stakeholder's specific remit such as road safety, marketing, training, and drivers' interests.

### **1.4.2 Stage two**

Stage two consisted of the following:

#### Driver focus groups

Eight focus groups lasting two hours were conducted with drivers across the Midlands, the North and South of England, to highlight their understanding of, and interest in participating in post-test interventions around eco-driving. The groups were stratified by:

- Type of vehicle – car, light van and Taxi/Minibus up to eight seats. Light van drivers and taxi drivers were split into self-employed or employed.

- Whether they were driving for personal or commercial purposes.
- Age.
- The number of years qualified as a driver.

The sample profile of these groups can be found in Table 2 below:

Table 2: Sample profile for driver groups:

<b>Group</b>	<b>Vehicle</b>	<b>Driver</b>	<b>Use car for work</b>	<b>Location</b>
1	Car	Under 30 years Qualified 2-5 years	No	Midlands
2	Car	Under 35 years Qualified 2-10 years	Yes (mix of fleet and own care use)	North
3	Car	35 years and over Qualified 10 years plus	Yes (mix of fleet and own care use)	South
4	Car	35 years and over Qualified 10 years plus	No Yes	South
5	Light van	21 and over Qualified 2 years and over	Self-employed	Midlands
6	Light van	21 and over Qualified 2 years and over	Employed by company with fleet	North
7	Taxi/Minibus 8 seats or under	21 and over Qualified 2 years and over	Self-employed	South
8	Taxi/Minibus 8 seats or under	21 and over Qualified 2 years and over	Self-employed	Midlands

#### Employer/fleet manager depth interviews

Nine semi-structured depth interviews (60 minutes) were conducted with employers and fleet managers focusing on corporate motivators for eco-driving post-test driving interventions and promotion. These were split across the following (full quota available in Appendix 1):

- Employers with company vehicles that required a Category B license (Medium to large fleet - 26+ vehicles; Small fleets - 10-25 vehicles).

- Employers where employees drove own Category B vehicles only (Large employer - 200+ employees; Small/medium sized employer - 10-50 employees).
- Driving schools (Large - 25+ vehicles; Small/medium - 2-10 vehicles).

The interviews and discussions were recorded and transcribed and then analysed. Analysis consisted of matrix mapping, an iterative process of analysing content, identifying themes, and exploring by sub-group (full details in Appendix 1).

## **1.5 Report outline**

The remainder of this report is divided into six main chapters as follows:

- Chapter two outlines the key findings from the literature review in relation to segmentation studies, to help tailor interventions to specific audiences.
- Chapter three explores stakeholder and training providers' views of the effectiveness of eco-driving training, the current offering and take-up of interventions and the marketing and evaluation of these.
- Chapter four explores awareness and perceptions about the eco-driving concept and the relevant driving techniques as well as current usage of techniques and training opportunities.
- Chapter five explores the barriers and motivations impacting on take-up of eco-driving post-test training and preferences regarding the format of interventions.
- Chapter six makes recommendations for a social marketing approach aimed at increasing awareness and take-up of eco-driving techniques.

## 2. Literature review: Tailoring eco-driving interventions through segmentations

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### Key points:

- Three broad categories, in terms of people's likelihood to change their current travel behaviour and possible interest in eco-driving: low hanging fruit; open to change; and most challenging to change.
- The highest earners are more likely to be frequent drivers and should therefore be a key focus for eco-driving marketing.

### 2.1 Segmentations

The literature review found a number of helpful segmentation studies highlighting different attitudinal groups in terms of openness to travel behaviour change. These segmentations are difficult to project onto the national population in terms of identifying specific social groups for eco-driving training, due to a lack of reported differences in terms of socio-economics, demographics or life-stage; though the use of segmentation tools such as Mosaic has been of some use in this regard<sup>23</sup>. More generally, the differences in environmental attitudes and beliefs found in the segmentation groupings highlight three broad categories, in terms of people's likelihood to change their current travel behaviour and possible interest in eco-driving:

- Low hanging fruit.
- Open to change.
- Most challenging to change.

#### **Low hanging fruit:**

This category is the most likely to be interested in eco-driving training, as it would fit within their current lifestyle<sup>24</sup>, and their motivation would stem from the perceived environmental benefit, the 'feel good factor' and being part of something 'green'. They would already have the background knowledge of eco-issues and therefore understand why their behaviour needed to change. A possible barrier, however, could be that people may feel they are exhibiting eco-driving behaviours already<sup>25</sup>.

<sup>23</sup> See for instance:

[http://www.merton.gov.uk/living/transportstreets/transportplanning/lip\\_2\\_appendix\\_d.pdf](http://www.merton.gov.uk/living/transportstreets/transportplanning/lip_2_appendix_d.pdf)  
<http://www.dft.gov.uk/pgr/sustainable/travelplans/ptp/practitionersguide.pdf>

<sup>24</sup> Lyons et al (2008). *Public attitudes to transport: Knowledge review of existing evidence*.

<sup>25</sup> Defra. (2008). *A framework for pro-environmental behaviours*.

**Open to change:**

There were two groups who were *open to change*:

The first group were motivated by the idea of being environmentally friendly, but were reluctant to make major changes to their lifestyle<sup>26, 27</sup>. Therefore the message would need to be one of how easily and conveniently eco-driving could be incorporated into their existing lifestyle<sup>28</sup>. This group may also be more inclined to change their behaviour if the benefits were directly relevant to them. For example, Lyons et al<sup>29</sup> found that the key problems affecting peoples' lives included: exhaust fumes in towns (74 per cent), congestion in towns (73 per cent) and traffic noise in towns (51 per cent). Sustainable travel initiatives, such as increased eco-driving, could have a beneficial impact upon these concerns due to the reduced speed and CO2 emissions and interventions could be more effectively marketed to this group if they reflected these outcomes.

The second group consisted of fashion-conscious consumers, particularly the 'Now people' highlighted by Platt & Retallack<sup>30</sup>. This group are not motivated by environmental issues and are expressing weariness of the topic. Therefore eco-driving should be marketed as fun, desirable, and even fashionable in order to interest this group. For example, King et al<sup>31</sup> found that participants enjoyed trying to keep revs down to a minimum and research has found that dashboard technologies measuring engine revs were useful for maintaining interest; a technique which may appeal to this group as active consumers. Platt & Retallack<sup>32</sup> suggest that this group enjoy being in control, therefore a further benefit to highlight would be their control over petrol usage and the associated decreased costs<sup>33</sup>. Sustaining eco-friendly behaviours if there were no obvious savings would be difficult especially within this group<sup>34</sup>.

**Most challenging to change:**

There were two groups identified as the most challenging for an eco-driving marketing campaign to reach:

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<sup>26</sup> Lyons et al. (2008). *Public attitudes to transport: Knowledge review of existing evidence*.

<sup>27</sup> Defra (2008) *A framework for pro-environmental behaviours*.

<sup>28</sup> King, M et al (2009) *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London.

<sup>29</sup> Lyons et al. (2008). *Public attitudes to transport: Knowledge review of existing evidence.*]

<sup>30</sup> Platt. R & Retallack. S (2009) *How the public thinks lower-carbon behaviour could be made mainstream*: Institute for Public Policy Research: London.

<sup>31</sup> King, M et al (2009) *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London.

<sup>32</sup> Platt. R & Retallack. S (2009) *How the public thinks lower-carbon behaviour could be made mainstream*: Institute for Public Policy Research: London.

<sup>33</sup> Unfallkassen und Berufsgenossenschaften & Deutscher Verkehrssicherheitsrat (2009). *To the point 3: Studies on "Drive like a pro – safe driving, both in a professional and a private context"*.

<sup>34</sup> King, M et al (2009) *Exploring public attitudes to climate change and travel choices: deliberative research*: People Science & Policy Ltd: London.



The first group are motivated by belonging and need a sense of security that their behaviours are not unusual, they are watching to see if others will act, and so their motivation is to see eco-driving become the norm. This group tends to be lower income, so are most likely to be motivated by cost savings. They are less willing to act on an environmentally friendly motivation, but have similar beliefs around improving efficiency. Segmentation groups who would fall into this category would be: Settlers<sup>35</sup> (21 per cent of the UK population), the Waste watchers and Cautious participants, (16 per cent of the UK population) from the DEFRA segmentation<sup>36</sup>.

The hardest to reach group are those who are sceptical that human action impacts on climate change. This group may be influenced by cost and safety arguments but not environmental issues. Others within this group are those who are honestly disengaged and therefore simply do not wish to take action to help combat carbon emissions. Segmentation groups who would fall into this category would be: Deniers<sup>37</sup>, Stalled starters (10 per cent of UK population) and Honestly disengaged (18 per cent of UK population) from the DEFRA segmentation study<sup>38</sup>. Avery (2009) found those people who were less concerned about climate change and environmental issues were young people aged 16 to 24; those with no formal educational qualifications; those in semi-routine or routine occupations and; those who did not drive or fly<sup>39</sup>.

## 2.2 Communication

There were very few examples of communication methods that have successfully marketed eco-driving from the literature reviewed. Bringing about a change in travel behaviour is complex and many factors need to be addressed at both the individual and collective levels. These factors will be different for different travel behaviours and for different groups of people<sup>40</sup>.

The literature review has uncovered the following as important to consider when deciding on how best to communicate the benefits of eco-driving:

- Campaigns need to emphasise the ease of making small changes and each person's individual impact— *present lower-carbon choices as easy, normal and fun.*

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<sup>35</sup> Rose, C., Dade, P. & Gallie, N. (2005). *Climate change communications: Dipping a toe into public motivation.*

<sup>36</sup> Defra. (2008). *A framework for pro-environmental behaviours.*

<sup>37</sup> King, M et al (2009) *Exploring public attitudes to climate change and travel choices: deliberative research:* People Science & Policy Ltd: London.

<sup>38</sup> Defra. (2008). *A framework for pro-environmental behaviours.*

<sup>39</sup> Avery, L. (2009). *'Public attitudes towards climate change and the impact of transport: 2006, 2007 and 2008'* Department for Transport

<sup>40</sup> Anable et al. (2006). *An evidence based review of public attitudes to climate change and transport behaviour'.*

- Individual and local community benefits such as improved local air quality should be emphasised, but special attention should be paid to the financial benefits – *a more effective incentive than the environment for many, although for the highest earners the environment may be more compelling.*
- The actual term eco-driving was disliked and did not seem to fit with most people's impressions of their lifestyles, 'savvy driving' or 'stress free motoring' were preferred<sup>41</sup>.
- Carbon emissions were seen as meaningless, difficult to quantify and measure.
- Any future eco-driving campaign must justify claims that behaviours are eco-friendly or green with evidence, in order to prevent the campaign being disregarded as 'greenwash'<sup>42</sup>.
- The Government and employers should be leading by example, and so highlighting '*the practical things it has done to reduce its carbon consumption*', such as changing to hybrid cars or offering eco-driving courses for employees. This would allow the public to see that the Government and big businesses were also making an effort and so encourage individuals to adopt carbon reducing behaviour changes.
- Nine European countries took part in a project to promote eco-driving. They undertook a variety of different marketing initiatives, some targeted at fleet drivers, others at employers and others at the general public<sup>43</sup>. Within these campaigns, communication methods included: competitions, on-the-road training, promotions, road shows, simulators, and media advertising. There were a number of suggestions to help future eco-driving campaigns be more credible and successful: obtaining high level political support; seeking partnerships with appropriate organisations; winnable competitions; sufficient investment in training the trainers; and electing champions within organisations to promote the campaign internally.
- Lorenzoni et al<sup>44</sup> found a range of individual and social barriers to public engagement around climate change such as a lack of knowledge and scepticism. They suggested that softer approaches to encouraging the public to adopt eco-friendly behaviours should be accompanied by stronger regulatory and fiscal frameworks, such as incentivisation or punitive costs, to enforce change.

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<sup>41</sup> Futerra. (2007). *Words that sell: How the public talks about sustainability.*

<sup>42</sup> Futerra. (2007). *Words that sell: How the public talks about sustainability.*

<sup>43</sup> *Safety Campaigns* [online] available at [http://www.ecodrive.org/fileadmin/dam/ecodrive/Downloads/Ecodriven\\_WP10\\_Campaign\\_Catalogue\\_24March09.pdf](http://www.ecodrive.org/fileadmin/dam/ecodrive/Downloads/Ecodriven_WP10_Campaign_Catalogue_24March09.pdf).

<sup>44</sup> Lorenzoni, I., Nicholson-Cole, S. & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change* 17, 445-459.

## 2.3 Targeted marketing

In order to increase the take up of eco-driving training, it will be necessary to target communication or marketing campaigns effectively with different approaches for different groups. Therefore, for the greatest overall impact, future eco-driving marketing campaigns should be addressing the differences in environmental attitudes and beliefs found across these categories and other relevant segments identified.

In order to have the biggest impact on CO<sub>2</sub> emissions, interventions that aim to promote eco-driving should arguably target those who are more frequent drivers. DfT data<sup>45</sup> suggests that higher income groups tend to drive more frequently. In 2008, those drivers in the top 20 per cent of household incomes averaged 25 per cent more trips than those on the lowest incomes. Therefore, the highest earners should be a key focus for eco-driving marketing to consider in bringing about behavioural change.

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<sup>45</sup> Department for Transport (2009). *Transport trends: 2009 edition*. Available at: <http://www.dft.gov.uk/adobepdf/162469/221412/190425/220778/trends2009.pdf>

## 3. Stakeholder and training provider context

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**Key points:**

- Low take-up of post-test interventions due to current economic climate and high quality of the current standard driving test.
- Post-test interventions offering eco-driving alongside other training easier to sell than dedicated courses.
- Clear, tangible and specific emphasis on the cost saving of using eco-driving techniques will help providers to sell eco driving as part of their course offering.
- Lack of standardisation and monitoring of eco-driving training and feedback in the standard driving test.
- A challenge for trainers to overcome the issue of delegates reticence to feel like a '*learner*'.
- 'In-vehicle training' in driver pairs, with comparison of fuel consumption pre- and post-training, viewed as an effective, engaging and convincing format to create sustained behaviour change. This would be enhanced by measures and systems for drivers to keep track of their fuel consumption.

This chapter discusses the views of stakeholders and training providers in order to outline the current provision and context of interventions with a strong eco-driving focus. It will explore their views about eco-driving training, the current offering and the take-up of such interventions. Finally, perceptions about the marketing and evaluation of current interventions will be discussed.

As mentioned, the stakeholders included transport delivery bodies, road safety organisations and trade unions. The training providers were identified as those conducting an eco-driving intervention - whether a dedicated eco-driving intervention or as one aspect of a larger driver course, such as fleet driver training.

### 3.1 Views about eco-driving and policy

Largely positive and informed views were expressed by stakeholders and training providers regarding eco-driving aims.

Both audiences, and in particular training providers, demonstrated a high level of knowledge regarding eco-driving techniques.

A number of benefits for eco-driving were highlighted by both groups, including:

- Safety – fewer accidents due to increased road awareness and slower speeds.
- Cost savings – through reduced fuel consumption and reduced maintenance.
- Environmental benefits – through reduced CO2 emissions.

Though the above factors were interlinked, safety emerged as the most important. For example, key eco-driving techniques such as planning on the road (so as to avoid sudden braking) and the maintenance of a constant speed were acknowledged as being safe, helped to reduce fuel consumption and reduce CO2 emissions.

*"So it's all about planning as well. And eco-driver training is not just about saving fuel.... it's about being a safer driver because you're planning further ahead"* (Training provider).

However, stakeholders' interests differed depending on their remit of responsibility. Stakeholders' whose role included the promotion of safer driving were more likely to stress this aspect; while those protecting the interests of drivers more broadly were concerned about cost savings.

### **Eco-driving within the standard driving test**

Views were mixed about eco-driving featuring in the standard driving test. Some viewed the current practice of the driving test as counter intuitive to eco-driving aims and techniques, for example pulling away in first gear, and doing three point turns.

*"...in an open empty road [you] would virtually never do a 3 point turn to go back the way you came, you would probably turn off into a side street and go round the block, because not only is it more convenient but it's safer and it's more economic. Examiners should be giving pupils the opportunity to do that"* (Training provider).

Those who were more supportive of eco-driving being part of the standard driving test, were critical that not enough weight was given to this in the test and that the feedback given by driving instructors varied enormously. They did, however, feel that it was important for driving instructors to be offered a standardised course or qualification due to the variation in training on offer and the influence that instructors have in affecting new driver behaviour.

## Eco-driving standardised qualification or training

Whilst eco-driving was recognised as important by these audiences, they were not convinced about the need for a specialised eco-driving qualification for drivers distinct from the standard driving test.

A mix of providers and stakeholders viewed a qualification as unnecessary and eco-driving training and monitoring of this as the responsibility of the individual instructor or employer.

It was acknowledged that if left to employers or individuals then the quality of courses would vary and that standardised training and qualification offered by the government would address this.

*“So we really need to raise the bar, and only the DSA can do that, and of course that will cause a big outcry because people will say it's unfair for the DSA to do that, but I think you've got to raise the standard at some point, it starts and ends with DSA in my view”* (Training provider).

### 3.2 Current eco-driving offering

For the most part, training providers were not offering eco-driving training as a stand-alone course.

Driver training for Category B licence holders and larger advanced driving courses, such as fleet driver training contained aspects of eco-driving techniques. These were often referred to as defensive or safer driving rather than overtly labelled as 'eco-driving'.

*“I'm not actually pushing eco-driving when I'm training; I'm training safer awareness [...] eco-driving just follows on the coat tails of that”* (Training provider).

There is a risk that potential confusion might arise from the crossover between eco-driving techniques and those of safer or defensive driving, therefore it was suggested that eco-driving should be incorporated into safer or defensive driving courses.

Few providers had undergone any specific eco-driving training and their interventions were therefore largely based on their own experience or on the Safe and Fuel Efficient Driving (SAFED) programme. Across the course types (both stand alone eco-driving and wider courses) the following training formats were being used:

- In-vehicle training.
- Simulators.

- Presentations.
- Workshops.

A range of support materials were being used. These included lesson planners, handouts, online simulators and online materials. In-vehicle training was less likely to have accompanying material than presentations and workshops as it relied more on providing evidence of the impact on fuel consumption (see below).

However, it was suggested that there was a limit to the impact classroom training would have on sustained driving behaviour.

*"Doing it in a classroom is all well and good and people will give you the right answers, but classroom work is very very very limited in what effect it will have on their driving"* (Training provider).

The most effective method of intervention was generally said to be in-vehicle training using the following four step approach:

1. Short drive (15 minutes) using trip computer to work out miles per gallon used.
2. Drive same route and deliver training in eco-friendly techniques.
3. Drive same route and compare reading after training.
4. Work out potential savings of using eco-driving techniques.



Two key benefits of this method were highlighted:

- Both drivers and training providers identified the challenge in changing driving habits without instructor-led, in-vehicle training and practice, particularly for older drivers with entrenched driving habits and a lack of willingness to change. Teaching driver techniques in-vehicle was said to maximise learning, allow for practising techniques and would therefore be the most effective method of changing driving habits.
- The method allowed an opportunity to provide evidence for the potential reduction in fuel consumption and demonstrate the potential benefits of eco-driving even to initially sceptical drivers, thereby encouraging sustained behaviour change.

*"At the start of the session [people are thinking] maybe that is a waste of time ... at the end of the session they're very much convinced that [eco-driving] is a very...useful thing to have done"* (Training provider).

*"...I do a drive where we can drive round the block and then I will mark them for how many miles to a gallon they've done, and then we'll drive round again and see whether they can improve that. So that gives them quite a target, specific target to sort of beat really."* (Training provider).

Furthermore, conducting this training with a pair of drivers was felt to enhance the experience and therefore better embed the message whilst also allowing the cost of the training to be shared. It also brought an element of competition and comparison between the two drivers which increased engagement.

Providers highlighted the challenge of delegates being resistant to training due to being made to feel like a *'learner'* or viewed as incompetent. Trainers addressed this by building rapport and employing a coaching method where the instructor and drivers work together.

*"...from our point of view it doesn't work if you try and teach them to drive like a learner again or that there is an instructional process going on, that's the big issue we have with delivering that kind of training, it has to be done the right way"* (Training provider).

To encourage sustainability, providers recommended the development of a website where drivers could continue to enter their miles per gallon and work out their post-training savings.

The industry standard cost for an advanced driving lesson with or without an eco-driving element was given as £25-£30 per hour for an individual, while the cost for fleet training was generally slightly more due to increased travel and set-up costs. These prices had not risen over the past few years due to a reduction in the numbers of drivers doing advanced or fleet training.

### **3.3 Take-up of post-test driver training**

Training providers and stakeholders highlighted the extremely poor take-up of post-test training such as Pass Plus and advanced driving courses. For example, it was reported by one stakeholder that only 1% of the UK population underwent post-test training, a high percentage of which would be the result of mandatory training due to receiving a sanction for being caught speeding. Take-up of dedicated eco-driving courses was equally poor across all of the providers in the previous year, ranging



from a few courses being conducted to none. Even free courses had been poorly attended.

Looking across types of drivers there were three groups who could potentially undergo eco-driving training: ordinary drivers with a category B license; drivers who were part of a company fleet; and drivers who drove professionally but were not part of a fleet. These are discussed below:

### Ordinary drivers

The reasons for the poor take-up were attributed to a number of reasons. Most significant was the expense of additional driving lessons and a failure to see the benefits of this (especially as the standard driving test is viewed as sufficient).

*"The take-up on Pass Plus is absolutely abysmal. They think because, I've passed my test, I've got my licence; I don't need to do anything else"* (Training provider).

Although certain insurers offered a reduced rate for drivers with a Pass Plus qualification, this was said to be short-term and often drivers were unaware of this benefit. Providers felt that a reward or incentive would encourage take up, especially young people.

*"They don't walk away with anything, there's nothing in their hand, they haven't got anything and I think that's a big problem with trying to get young people to take on further training"* (Training provider).

Providers hoped that interest in eco-driving could be generated during the learning to drive process and the driving test for new drivers.

At the same time, there was doubt about the extent to which techniques learnt by new drivers were sustained as many new drivers display minimal interest in safe and environmentally-friendly driving and may lack the funds to pay for further training, it was suggested training aimed at slightly older, more experienced drivers would be more likely to result in sustainable driving behaviour.

*"I think if you wanted to get a good rate of return for your investment in marketing or whatever then actually over 25's you are going to get a better response from as people start becoming a bit more mature, a bit more financially aware"* (Training provider).

### Fleet drivers

Fleet drivers were said to be a primary focus for any eco-driving training. This was the result of a number of factors:

- Their high mileage and potential impact in terms of CO2 reduction.
- Employer receptivity and obligation to fulfil green policy / duty of care.
- Any perceived benefits may encourage the incorporation of these techniques into their personal driving habits.

Providers felt that, in general, employees were sent on advanced driving courses to fulfil company legal requirements regarding drivers' competence – not specifically to learn eco-driving techniques. However, once informed about the potential cost savings, employers were very positive about drivers incorporating these techniques during their working hours.

*"... when I'm teaching the eco-friendly driving to companies, I can show them how much money they can save. And it's generally on average 20% on their fuel bill. And that's quite a lot of money, you know, if you consider some companies are doing, you know, 30,000 miles with one driver, you know, that driver could easily save £1000 a year" (Training provider).*

Many local councils and police personnel were said to have been given eco-driving training through free courses run by the Energy Savings Trust.

A further suggestion, to minimise training spend for companies, was to have one driver attend the training and teach these techniques to the rest of the staff.

#### Professional drivers

For professional drivers, eco-driving is a component of the Certificate of Professional Competence (CPC) training. This group are viewed by providers as low priority due to their low numbers and therefore the impact on CO2 emissions would be minimal.

### **3.4 Marketing of post-test driver training**

Interventions were advertised through a variety of mediums. These included company websites, trade journals, word of mouth, local papers/radio, and mail-outs – all with varying levels of success. Although no official data was available, the overwhelming view was that the most effective advertising approach was online through company websites.

*"To be quite honest, we've tried loads of different marketing in different ways, papers, word of mouth leads, and things like that. Recommendations are good locally but the only thing that tends to really work for us as well is the internet" (Training provider).*

*"Internet is the way of contacting people in the 21<sup>st</sup> century....."* (Stakeholder, fleet organisation).

Concerns were highlighted by both stakeholders and providers regarding the current lack of available evidence demonstrating the link between eco-driving and a reduction in fuel consumption and CO<sub>2</sub> emissions. Aside from a lack of scientific evidence, another factor was fleet companies refusing to release results of the percentage improvement in miles per gallon after training in order to prevent poor initial results being shown. Without such evidence, it was felt that driver scepticism regarding the impact of eco-driving on fuel consumption could not be addressed, thus impacting on take-up of training.

*"Where is all the literature on it? Where are all the reports on it? Why have we not got it and why have we not put it out? Because anything that comes to us gets put out"* (Stakeholder, trade union representative).

In general, both stakeholders and providers felt that in any future eco-driving public campaign the emphasis should be on potential cost savings as the primary benefit and any other benefits as secondary. One stakeholder mentioned a very effective poster for a previous savings campaign which emphasised savings through the visual representation of a 'piggy bank'.

*"...main message is save money and I think a poster is actually a piggy bank with a hand going in and the pound coin, that's the way it's sold. So straight away people are looking and thinking oh yes I can actually save money doing it, how can I save money, and then you start going into your specific messaging about how they can save money"* (Stakeholder, fleet organisation).

*"I think the focus has to be on cost...research has consistently shown that try and focus on costs, what it could [do] for the consumer.... so eco-driving can save you lots of money and you will save the environment rather than the other way round"* (Stakeholder, road safety organisation).

### **3.5 Evaluation**

Evaluation of eco-driving interventions was virtually non-existent aside from the feedback from trainers to the employer, and in some cases, a brief courtesy call to the employer or delegate. The lack of formal evaluation was attributed to cost, given that the majority of the training providers were small businesses. Furthermore, the difficulty of proving the impact of the eco-driving intervention, rather than external factors, was highlighted.

*"We do track our fuel consumption but as I say it's affected by so many different variables over a very varied fleet, it's actually pretty difficult for a company to say 'well from this date onwards fuel consumption improved by a set percentage and it was all down to the SAFED driving'" (Training provider).*

## 4. Awareness, perceptions and usage of eco-driving

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### Key points:

- The term 'eco-driving' felt to be unclear and over-emphasise the environmental focus rather than the economical aspect.
- Four typologies emerged based on usage of techniques and extent of rationale - novices; followers; educated and experts.
- Male figures (fathers, brothers, male colleagues) and driving instructors acknowledged as being messengers in delivering driving information and advice.
- Employers with larger fleets using a number of strategies to promote and enforce fuel efficient and safer driving practices: fuel efficient satellite navigation systems, driving handbooks, restrictors, imposing speed limits, and fuel tracking devices linked to rewards.

This chapter will outline levels of awareness and perceptions about the eco-driving concept and the relevant driving techniques. It will then explore the current usage of these techniques by both ordinary drivers and employers.

### 4.1 Awareness and perceptions of eco-driving

The term 'eco-driving' caused some confusion for both ordinary drivers and employers. There was uncertainty about what it meant, and for others who had heard the term before, doubt about whether this referred to driving an environmentally-friendly vehicle such as a hybrid or fuel efficient car or if it referred to driving behaviour or both.

*"I've heard the term but I couldn't tell you what it means"* (Car driver, over 35).

It was suggested that the term over-emphasised the environmental focus rather than the economical aspect and there was a general fatigue with the environmental lobby. Possible alternatives suggested were less focused on the environmental aspect, and included: 'safer driving'; 'smarter driving'; 'cost effective driving'; 'fuel efficient driving' and 'economical driving'.

*"...connotations of like you know save the earth and preserve nature and, you know, just that kind of over-the-top goody, goody kind of thing"* (Car driver, under 30).

*"Eco-driving is a really naff name...If it was promoted more as a safe driver or economical driving, but have more of a name that would appeal" (Car driver, over 35).*

Employers with larger fleets of drivers were more familiar with the term 'fuel efficient driving' and had come across this term in trade press (Fleet News) and through trade events.

Awareness and knowledge regarding eco-driving aims and techniques differed considerably between drivers and employers. Overall, employers demonstrated higher levels of awareness, especially those with larger fleets.

Recently qualified drivers or LGV licensees were aware of the term and certain techniques as a result of their training and tests, which included an aspect of eco-driving. In comparison, most drivers tended not to have previously encountered the term 'eco-driving' and displayed minimal knowledge in terms of its meaning.

*"It's starting to creep into the Highway Code... I went and did my coach license last year" (Car driver, over 35).*

## **4.2 Eco-driving techniques**

It was evident that a number of eco-driving techniques were being practiced. These were not thought about within the context of the environment but simply as strategies to drive sensibly and or to save fuel and wear and tear on their car and therefore money.

These strategies had largely been passed down to drivers from their driving instructor and/or from friends and family or colleagues in the workplace. Interestingly, some referred to the fact that they had learnt about these from male figures in their community (fathers, brothers, male colleagues), implying that male figures were viewed as key sources of driving information and advice. While this was highlighted by both genders as key when learning to drive, with increased driving experience males appeared to grow in self-confidence and belief in their expertise while females were still likely to rely on male figures.

*"I heard if you slow down you use less petrol, my male colleague told me that" (Car drivers under 35).*

*"I can remember when I was taught to drive it was all, my dad taught me for a lot of it, it was all transition, pull away smooth, make sure you don't turn the corner in, you know all this kind of stuff" (Light van driver).*

*"I was always told by my driving instructor to put it into the highest gear to save more fuel and I've always done this" (Car drivers, over 35).*

#### **4.2.1 Driver's usage of eco-driving techniques**

Despite misunderstanding of the term, when prompted about various eco-driving techniques such as having the correct tyre pressure and changing gears in a block (rather than moving from one gear to another), participants were largely aware of these and acknowledged their importance for driving in a safe and sensible manner.

*"I always drop into neutral instead of going through the gears, yes I drop into neutral and then brake when necessary [eco-driving technique]" (Light van driver).*

Rather than being an attempt to drive in an 'eco-friendly' way, the utilisation of these techniques appeared to be a 'common-sense' approach towards vehicle maintenance and safer driving.

*"It's common sense - I think everybody knows what to do" (Car drivers, over 35).*

Generally, the techniques used the most were those that had been passed down by driving instructors e.g. changing gears one by one rather than as a block. Non eco-driving behaviours were ingrained through habit and cultural norms, such as warming the engines of cars up. Only a few were aware that for modern cars this was not necessary.

Most drivers were aware of some eco-driving techniques but not all were aware of the full range of techniques. The sample could be broadly split across a spectrum of usage into four categories with regards to their usage of these techniques and the extent to which they used these for a reason.

Table 3: Categories of drivers based of usage of eco-driving techniques and rationale

	Typology name	Usage	Rationale	Demographics
1	Novices	Using a few techniques	No rationale / habit	Younger females
2	Followers	Using some techniques	No rationale / habit	Mixed
3	Educated	Using some techniques	Limited rationale	Mixed
4	Experts	Using lots of techniques	Full rationale – more than one reason	Older males

The vast majority of the sample fell into the middle two categories in that they were using these techniques out of habit with no or little rationale. This will be explored further in Chapter 5 on motivations.

A slight age and gender split was apparent at the two ends of the spectrum with some younger females willing to admit ignorance about their knowledge about and usage of techniques. Some older males on the other hand were keen to stress their knowledge about and usage of eco-driving techniques. It was important to them to wear the badge of ‘expert’ and claimed to be using a variety of techniques. It was evident that older males have a need to appear knowledgeable and that this has implications for the way that they will need to be targeted.

### 4.3 Employer’s current promotion of eco-driving techniques

The key priorities for all employers, regardless of the size of their vehicle fleet, were that company drivers were driving safely and efficiently. This was in order to ensure:

- Driver safety.
- General public safety.
- A reduction in insurance costs.
- A reduction in fuel and maintenance spend.

However, larger employers and those with larger fleets had more resources and capacity for both training and monitoring of drivers.

Employers with larger fleets were using a range of methods to ensure that drivers were informed and monitored on safer and fuel efficient driving, including:

- Checking licenses.
- Issue hand books with information about safe driving.
- Recording offenses.
- Driver training.



- Tracking fuel efficiency.

Employers felt that many of the techniques aimed at safer and fuel efficient driving were already in practice as companies were keenly aware that reduced fuel consumption and wear-and-tear translated into cost savings and greater profit. Again this was pro-environmental behaviour without the accompanying attitudes as it was focused on cost savings and safer driving.

However, there were employers who were motivated by environmental concerns and were, therefore, already incorporating these into courses and requirements for their drivers.

*“As an organisation they are extremely green, we are part of the [deleted] group, and they want to cascade eco-driving throughout all their organisations... They have made an undertaking to the Dutch Government that they will reduce their carbon footprint”* (Employer, vehicle lease company).

Larger employers with bigger vehicle fleets were starting to introduce more actions and strategies aimed at fuel efficient driving. They were also targeting employees more directly, such as through monthly fuel efficiency tracking, to encourage greater fuel efficiency.

*“Its something we are starting to bring in now and get the message across and explaining that you can reduce costs.... I’m talking to managers now”* (Employer, large fleet).

One organisation had introduced a competition to encourage efficient driving whereby fuel efficiency was tracked for a period of time and the most efficient driver received a bonus. By introducing a competitive aspect, it was suggested that the inclusion of eco-driving techniques could be marketed as an enjoyable activity which improves driver morale.

*“Received quite well, the guys were very competitive and girls wanted to prove they could driver better than the guys, a lady actually won a prize for being the best”* (Employer).

Other actions highlighted included:

- Purchasing more fuel efficient cars.
- Adding fuel efficient driving messages to driver handbooks.
- Communicating with drivers about their fuel spend and reduction techniques.
- Imposing maximum speed/ installing speed restrictors in vehicles.

Most companies were already attempting to manage drivers' fuel efficiency by tracking fuel consumption through tracking devices or fuel company loyalty schemes. For example, in one loyalty scheme, drivers received efficiency training and monthly fuel consumption readout to compare against their odometer to measure fuel efficiency.

*"I went on a course that showed me how to drive like the revs....[Oil company] – invite to go to their centre and look at how they produce their fuel... a course on how to reduce your fuel. It was free mainly because we were looking to sign up to using shell only fuel cards"* (Employer, large fleet).

*"Basically they have a sim card which updates every 3 seconds so I can go in and look at your journey and how fast you were driving and if you were sat in traffic and whether engine was running so I might say you were stuck in traffic for 12 minutes and your engine was running. We could filter out all the drivers that went over 70 miles per hour or all the drivers sitting in traffic. It will give it you in a quick report"* (Employer, large fleet).

The use of satellite navigation systems or other in-vehicle devices measuring miles per gallon consumed were highlighted by some of the drivers or employers, suggesting the potential for more extensive domestic use.

## 5. Increasing take-up of eco-driving post-test driving interventions

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### Key points:

- Across the spectrum the main (and in many cases, for the ordinary driver, the only) motivation for using eco-driving techniques was a cost saving from reduced fuel consumption (and the less well-known) reduced maintenance costs.
- Safety was deemed as more important for employers.
- Reducing CO2 emissions ranked very low for ordinary drivers but was still considered important to larger employers with corporate social responsibility policies.
- In-vehicle training was viewed as appealing and deemed the 'gold standard' approach in getting the eco driving message across. However, certain drivers (the 'experts') felt that information on the techniques would be sufficient.

This section explores the barriers and motivations for individuals and employees to practice eco-driving, to take up either a post-test intervention or more specifically, a post-test eco-driving intervention. It then explores driver views and preferences regarding specific intervention formats:

- In-vehicle training.
- Simulators.
- CD-ROM/online test.
- Information leaflets.

Finally, options for the marketing of eco-driving interventions are explored.

### 5.1 General barriers towards eco-driving

There were very few barriers identified by respondents for practising eco-driving techniques. The following factors may affect the uptake and sustainability of eco-driving practices:

- Lack of awareness and knowledge.
- Social norms.
- Entrenched driving habits.
- Nature of business.
- Environmental views.

These are explored in more detail below:

### Lack of awareness and knowledge

Certain drivers and employers displayed a general lack of knowledge regarding the necessary skills and techniques for eco-driving as well as the potential benefits, particularly in terms of cost savings.

*"...it's so vague and people don't know what it is, so I think they need to start by actually educating people on what the hell eco-driving actually is before they can start trying to enforce it" (Car driver, under 30).*

### Social norms

Social norms were important in professional and personal contexts. For instance, within the workplace, a focus by management on the need for employees to get to destinations quickly, coupled with a lack of corporate interest in environmental issues acted as significant barriers. For individuals, the driving behaviour of others was said to have significant impacts on their own behaviour. There were many examples of these declarative norms: for instance having a driver speed past would encourage drivers to increase their own speed.

*"But he [my manager]...he'd say right we've had a thing from head office, there's the memo boys, sign that to say you are all eco-drivers, thank you very much. Stick that in the file. You have been told to be eco-drivers, you are late for that delivery again bonny lad and my size ten is right up your ....It just doesn't work" (Light van driver).*

*"But if there's someone revving next to you at the traffic lights you just want to put your foot down and go" (Minivan driver).*

### Entrenched habits

Drivers, especially more experienced and older drivers, felt that their current driving habits were so ingrained that incorporating new techniques would be challenging. For this group, habits were a significant barrier preventing the uptake of eco-driving techniques.

*"With driving you kind of go into a daze that you find you just end up kind of doing it without realising because it's so natural, you just do it and then get to the place you've got, you're there and you're just like you can't remember how you got there" (Light van driver).*

*".... So it will be much harder to re-teach... it would be better to start with the new people that... well obviously that's why we're here because we've all*

*passed recently... but I think it will be much harder with the older generation to try and re-teach them how to drive" (Car driver, under 30).*

### Nature of business

The nature and type of some business also impacted on the ability of drivers to employ eco-driving behaviours. Taxi drivers highlighted their difficulties with using these techniques, for example, with insufficient taxi bays in their town centre, they were forced to drive around whilst waiting for the next customer. In addition, they felt that customers had minimal interest in saving the environment and would rather reach their destination as quickly as possible.

*"If you have got to make the airport, you have got to make the train station; you are going to whack your foot down....That's when eco-driving goes right out the window doesn't it" (Taxi driver).*

*"It depends on the situation, really. I mean if you're going down the motorway then you can drive economically but really, when... I think the nature of taxiing is such that you don't really drive economically, really" (Taxi driver).*

### Environmental views

Although climate change was not really at the heart of why decisions were being made to use or not use these techniques, it was nevertheless part of the reasoning process. Drivers who did not believe in the impact of climate change or felt that humans could have little effect on climate change were less willing to change their behaviours. There appeared to be slightly more scepticism from the older participants.

*"I'm completely sceptical, I completely believe they've made it (global warming) all up, and they've got it wrong" (Car driver, over 35).*

*"I think for years we have been told you are killing the planet and the last couple of years they are saying it won't make much difference what you do so its mixed messages, I don't know quite what to believe" (Car driver, over 35).*

There was also scepticism around how much of an impact an individual's driving would make on climate change. This focus on people rather than institutions, together with the scale of the problem, also lessened the effectiveness of communications based on environmental impact. In particular, messages that made drivers feel guilty were unlikely to work as motivators.

*"There are vast amounts of the world where this hasn't even registered on the radar yet" (Employer).*

"...they need to concentrate on industry and the big polluters which they are not doing....if they [America] chopped down 30 million acres of woodland a year and they want us to use, you know, pump our tyres up, it is taking a dustpan and brush to an earthquake" (Car driver, over 35).

## 5.2 Specific barriers impacting on take-up of post-test training

The chief barriers impacting on take-up of post-test training were:

- Cost of any post-test driver training.
- Feeling expert enough in driving skill and fuel efficient driving.
- Doubts about sustainability of eco-driving practices learnt.
- Lack of evidence.

### Cost of training

For both drivers and employers, the primary barrier was financial, in terms of the cost of training. As mentioned, drivers and employers were unwilling to be out-of-pocket without evidence of reduced fuel consumption (employers) or a reduction in vehicle insurance (drivers).

There was an overwhelming sense that without financial incentives, drivers and employers were unlikely to view eco-driving training as a necessity, especially in the current economic climate where many could not afford unnecessary expenses.

*"If there was no tangible benefits, I don't think they'd [company] want to pay anything to be honest"* (Employer).

*"We will look again next year. We lost money for the first time in ages last year... we've had a few redundancies"* (Employer).

The importance of the financial impact overshadowed the other barriers and would be the key factor to address in attempting to increase take-up of post-test eco-driving training.

### Feeling expert enough

The current standard driving test was referred to many times as being high quality and sufficient, especially compared to previous years and other countries. As such, very few felt they were lacking in driving expertise to consider taking any post-test intervention.

As already mentioned, when probed further regarding eco-driving techniques, drivers believed they were already incorporating eco-driving techniques such as accelerating slowly and maintaining correct tyre pressure and did not require further training. This

impacted on their willingness to attend an eco-driving course as they felt they were already reducing fuel consumption as far as possible.

*"I do that stuff now [eco techniques] so you wouldn't get any more savings from me" (Car driver, over 35).*

This was coupled with the feeling that drivers feel they are merely lacking information about the full range of eco-driving techniques and that these were easy to adopt without the need for training. This view was especially held by the 'experts' within the driver's sample.

*"I [male] don't think it will be huge. Younger males wouldn't give a stuff they just want to impress the girls and zoom off and older men say they are experienced....I think women will be interested but not men" (Car drivers, over 35).*

#### Doubt about sustainability

There was a concern that many drivers would not maintain techniques after training, leading to a lack of sustainability. For the smaller companies with smaller fleets and without tracking equipment, it was virtually impossible to monitor sustainability of eco-driving techniques.

*"It's very difficult to enforce it. It's something we would ask our drivers to do" (Employer, large fleet).*

#### Lack of evidence

Proof that a reduction in fuel consumption or accidents was the direct result of eco-driving training rather than other mitigating factors, was considered by some employers to be very challenging.

*"...very hard to prove that introducing eco-driving has actually had a positive financial benefit because you are kind of trying to prove that you haven't had an accident or you are trying to prove that a drop in fuel consumption is entirely down to the eco-driving" (Employer, driving school).*

### **5.3 General motivations for using eco-driving techniques**

Across the spectrum, the main (and in many cases, for the ordinary driver, the only) motivation for using eco-driving techniques was a cost saving:

- Cost saving from using less fuel
- Cost saving from less wear and tear on vehicle

Of less significance to ordinary drivers but nevertheless part of the motivational mix were:

- Safety
- Reducing CO2 emissions
- Habits formed from mandatory training

A reduction in noise and the reduction of road rage were not mentioned as potential benefits. After probing, these were acknowledged as positive outcomes of eco-driving but they ranked as significantly lower than cost, safety and environmental issues.

### Cost saving

Both ordinary drivers and employers were strongly motivated by the cost saving from using less fuel. The impact of this was measurable and highly relevant against a backdrop of rising fuel prices.

*"People care about money. That's what they care about....Especially at the minute" (Car driver, under 30).*

*"The environment bit doesn't really matter does it...it's the money bits" (Car driver, under 35).*

*"I think if people realise that they could save money on maintenance...it is all about money at the end of the day..." (Own business, taxi driver).*

*"In the fleet industry at the moment it's got to be about saving money. If you said to a company that we will reduce your carbon footprint but there is no financial benefit then they would say no" (Employer, large fleet).*

The 'experts' within the sample were more likely to present a fuller rationale for why they were using eco-driving techniques. For them, the cost saving was not just about saving fuel but also reducing the maintenance costs of their vehicle. They were also more likely to refer to other reasons such as safety (both their own and that of others) and reducing CO2 emissions.

### Safety

Amongst non-professional drivers, safety was a higher priority than reducing CO2 emissions.

*"You see I wouldn't be bothered, nothing personal but I wouldn't be bothered about being eco-friendly driving, I'd like to be a safer driver" (Light van driver).*



Employers were far more conscious of the wider rationale for using eco-driving techniques and for them, the safety of their own drivers and the general public was just as important as the cost savings. They referred to 'duty of care' and legal responsibilities and potential financial consequences in the event of a driver being involved in an accident.

Larger employers were also obliged to meet green standards as part of their corporate social responsibility.

#### Mandatory training

The inclusion of eco-driving in the driving test was viewed as an opportunity to embed basic eco-driving techniques into the driving habits of new drivers and encourage sustainability after passing the test.

### **5.4 Specific enablers to encourage eco-driving post-test training**

It was generally felt that eco-driving as a stand alone post-test training intervention was not warranted and that if it was offered as training then this should be combined with or be part of other existing post-test driver training such as the Advanced Driver Skills training.

The following motivations were identified as affecting the take up of post-test driver training:

- Financial incentives
- Social norms
- Monitoring Impact
- Corporate image
- An element of fun

These are explored in more details below:

#### Financial incentives

Drivers and employers expressed interest in any post-test driver training or eco-driving training if this was accompanied with an assurance about the cost savings or a financial benefit such as an insurance reduction.

The most favoured incentives were a reduction in vehicle insurance or road tax, although it was recognised that insurance companies may not recognise the benefit of eco-driving.

If the training was offered for free or as part of buying something else then this was deemed an incentive. One driver had been offered a free place on the Advanced Driving Skills course after buying a car from new.

Some employers with larger fleets had looked into any kind of training with a safety element to see whether their premiums could be reduced.

#### Social norms:

The extent to which eco-driving was viewed as acceptable, relevant or important within a community or a workplace, was felt to affect the level of take-up, highlighting the impact of social norms on the behaviour of individuals. A perceived increase in the numbers of drivers employing these techniques would have a positive impact on the driving behaviour of peers.

*"I am sure there are a lot of people already using all those methods or some of those methods. If somebody is thinking: Well nobody drives like that therefore if everybody did it would make a big difference because people are using some of those techniques already" (Car driver, over 35).*

*"Your good driving technique might rub off on other people, especially if they've got kids..." (Car driver, under 30).*

#### Monitoring impact

As highlighted in the previous section, providing concrete evidence of the potential savings was an issue. If this could be addressed and companies and individuals could see the tangible impact of their cost savings this would increase the willingness of drivers and companies to pay for eco-driving training.

*"Cost implication of putting all our drivers on a course and taking them away from [their job] is actually quite substantial... You would have to show some kind of saving" (Employer, large fleet).*

#### Lack of confidence

A group existed of those who were receptive to post-test driver training due to a lack of confidence in their driving ability and a desire to further their skills. These tended to be the 'novices' within our sample and younger females.

*."I [female] would be very interested in a course like this... it will impact on my life; I'm always looking for way to improve myself... it's an excellent way to do your bit" (Car drivers, over 35).*

### Corporate image

Employers suggested that some companies were overly concerned about environmental impact due to their corporate image. It was felt that, for these businesses, eco-driving training would be viewed positively as it would demonstrate their commitment to their environmental policies and could have a beneficial impact on their corporate image.

*“A lot of companies now make a public statement on their website that they’ve got environmental policies [...] apart from the fuel and the cost savings on the vehicle [...] there’s the public image issue to say ‘look what we’re doing’ [...] They’re making a fairly public statement about their intention to become more eco-friendly [...] and that’s [driver training] another way of achieving it”* (Employer, fleet driver training).

### An element of fun

Training with an element of fun was deemed more desirable. As mentioned earlier, providers offering in-vehicle training felt that this offered more of an experience. Some drivers that had gone on post-test driver training, particularly the ‘experts’ had been motivated by parts of the training that enables them to show case their driving skills.

*“I did it (Advanced Driver Skills training) in the early nineties.... It was more for the fun of it and because everyone seemed to be doing it.... The skid pans were good”* (Driver, over 35).

## **5.5 Eco-driving intervention format preferences**

Both employers and drivers discussed a variety of different intervention formats. Employers were probed as part of the interviews while drivers were split into small groups to discuss their views towards four specific formats, namely:

- In-vehicle training – instructor led, face-to-face training conducted in a vehicle.
- Live simulator – computer which simulates live driving session.
- CD-ROM/online – could take different forms including more theoretical approaches or more practical on-line simulation games.
- Pamphlet – short document with relevant eco-driving information.

Drivers highlighted the benefits, disadvantages and expected cost of each and identified their preferences on handouts (illustrated in Appendix 2). These were used as stimulus to compare views within the larger discussion, as well as data for analysis purposes.

Table 4 demonstrates overall views for each of the interventions in terms of:

- Effectiveness – likely impact on driving habits and of sustainability.
- Cost – of intervention.
- Engagement –level of ‘fun’
- Flexibility – accessibility and ease of use.
- Potential coverage – size of reachable audience.

A higher number of stars represent a better score.

Table 4: Response to specific driving interventions

	<b>Effectiveness</b>	<b>Cost</b>	<b>Engagement</b>	<b>Flexibility</b>	<b>Potential coverage</b>
<b>In-vehicle training</b>	****	*	****	*	*
<b>Simulator training</b>	***	**	***	**	**
<b>Online/ CD-ROM training</b>	**	***	**	***	**
<b>Pamphlets</b>	*	****	*	****	****

The two most popular interventions – in-vehicle training and pamphlets with eco-driving information sit in opposition to each other. In-vehicle training scores very highly on effectiveness and engagement and poorly on cost, flexibility and potential coverage. While the pamphlet option scores highly on likely cost, flexibility and potential coverage and poorly on effectiveness and engagement. These are explored in more detail below:

**In-vehicle training** was viewed as a useful approach to teaching eco-driving due to its instructor-led hands on, practical and interactive method; particularly for less confident or experienced drivers.

As mentioned in Chapter 3, training providers were using this intervention successfully and the experience and element of fun helped to embed the messages.

A further benefit identified was the ability to demonstrate potential savings on fuel by calculating the miles per gallon saved after the techniques have been mastered. However, one negative aspect highlighted was the amount of time and effort required from drivers to attend lessons.

*"I think to get the best out of it, you'd be best of having it in a real life situation"* (Employer).

Furthermore, it was also identified as likely to be the most expensive option due to the cost of having an instructor, estimated at between £35 and £50. In spite of the largely positive view regarding this intervention, drivers tended to be unwilling to pay for training without an incentive such as reduced insurance/road tax. This has been discussed in the previous chapter.

*"...an incentive for insurance companies if the young driver takes it as an extra lesson that the benefits would be to lower their insurance..."*(Light van, self-employed).

*"It depends if your insurance was going to come down because it is not just about that, you are a safer driver. If you were going to get a voucher for fuel or... that is an incentive"* (Car driver, over 30).

The benefits of **pamphlets** with eco-driving information included the potential for high coverage with a small budget. In addition, a small pamphlet was viewed as easily digestible, able to be "*stuck on the fridge*" or put in the car as a visual reminder and could even be used as a means of advertising other interventions. Pamphlets were useful for drivers who were likely to be unwilling to attend or to pay for formal eco-driving training. However, concerns were raised regarding the potential for these to be easily disposed of, and the gap between reading information and translation into action was highlighted.

*"It would be put in the cupboard wouldn't it, put in the bottom of the drawer"* (Taxi driver).

In summary, in-vehicle training and pamphlets with eco-driving information were the most popular options; however, the reluctance of drivers to be out-of-pocket for training means that there is a need for careful consideration in order to achieve a balance between the effectiveness of the intervention and the cost and coverage. Going back to the typology discussed in Chapter 4, it appears that a mix of in-vehicle training and pamphlets would provide interventions suitable for all four of the driver categories. This is demonstrated in Table 5 below.

**Table 5: Typology format preference:**

Typology	Usage	Rationale	Demographics	Format preference
<b>Novices</b>	Using a few techniques	No rationale / habit	Younger females	In-vehicle training
<b>Followers</b>	Using some techniques	No rationale / habit	Mixed	Mixed
<b>Educated</b>	Using some techniques	Limited rationale	Mixed	Mixed
<b>Experts</b>	Using lots of techniques	Full rationale – more than one reason	Older males	Pamphlets

## 5.6 Mandatory post-test interventions

Enforcement of eco-driving training was not generally favoured and participants were more in favour of a ‘nudge approach’ to encourage drivers and companies to take-up eco-driving. Training after speeding though was deemed acceptable. For example, when given a ticket, instead of receiving points the driver should be given the option paying a fine and attending a course (which would include aspects of eco-driving).

## 5.7 Marketing eco-driving post-test interventions

### Source of the message

Concerns were highlighted regarding the government’s trustworthiness. Overall it was felt that the eco-driving message would have to be initiated by the government. There was some confusion over the roles of DSA, DfT and the DVLA but in general the DSA was said to be the most appropriate and acceptable agency to deliver the message to the public and businesses because it was perceived to be fairly independent from central government.

*“I think it should come from the government. The government need to drive it!” (Employer).*

**Appropriate ambassadors** were identified who could champion the eco-driving message. For both males and females, these tended to be focused on celebrities in the media that were connected with driving. Specifically, James May from Top Gear as known as ‘Captain Slow’. Price Charles was also put forward as a possible advocate as he was known already as an environmental advocate.

### Where and when to promote the message

There were also numerous suggestions of where promotion of eco-driving techniques or interventions could be targeted in both commercial and government settings in order to ensure a captive audience of drivers. These were predominantly focused on touch points through which drivers must pass and included:

- When renewing car tax - Direct Gov website or at Post Office.
- When purchasing a new vehicle.
- When obtaining car insurance - information or link on website.
- When driving long distances and refuelling - at service stations.
- When hiring a car - on website or pamphlet in vehicle.
- When learning to drive.

Some suggestions even included promoting eco-driving to children at school as part of the curriculum about climate change.

*“...if you can tell children right from a very early age that they need to nag their parents about this because that’s one of the sort of things that’s helped to reduce the smoking population, is if you like pester power from children” (Stakeholder, training).*

Employers suggested specific media channels. They included trade magazines and websites aimed at trade organisations.

*“Fleet news ... everyone in the industry tends to read – maybe doing something in there to highlight eco-driving would be good” (Employer).*

## 6. Implications for policy and social marketing

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Transport policies need to target both changing attitudes directly as a route to behaviour change, and **changing behaviour first without necessarily changing attitudes**. This section will discuss the recommendations for implementing post test eco-driving interventions within the TNS-BMRB social marketing framework and look specifically at targeting interventions with regards to 'who', 'what' and 'how'.

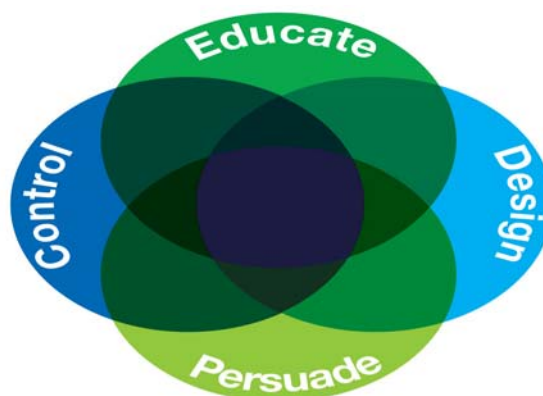
### 6.1 Behaviour change strategy

According to the TNS-BMRB social marketing framework there are four primary tools available to change peoples' behaviour:

- **Education** – providing information; making people aware; debunking myths and misconceptions
- **Persuasion** – engaging people and motivating them to change their beliefs or attitudes; persuading people that an issue is worth caring about (ie getting it on 'the social agenda').
- **Control** – including legislation, regulation, enforcement, and taxation.
- **Design** – the notion that changing the physical environment in some way can bring about changes to behaviour.

These four tools would be used to address the barriers to using eco-driving techniques and to taking-up an eco-driving post-test intervention, namely:

Figure 3: The TNS-BMRB social marketing framework:





## 6.2 Education and persuasion

### The message

The unified message to all groups needs to **emphasise the potential cost savings as the primary benefit and any other benefits as secondary**. This helps the message to be personally relevant. In using the cost saving as the primary message, a number of other changes will aid this:

- Addressing the economical emphasis of **the term 'eco-driving'** and considering using terms more salient and specific such as 'smarter' or 'fuel efficient' driving.
- Considering using tactics or systems to help both ordinary drivers and employers to see the tangible savings they could make, such as carbon calculators on websites, and statistics.

There was a general lack of awareness about the **different types of cost saving** beyond using less fuel. Communications could include the cost savings from less wear and tear on the vehicle thus leading to less maintenance costs and delaying the need to purchase a new car as frequently.

Educating the public about the **full range of benefits** will help to give drivers a fuller rationale for their behaviour to strengthen their resolve to use and maintain the techniques and help to make them more persuasive messengers. These benefits would include:

- Cost savings
- Reduction in maintenance costs
- Safer driving
- Environmental benefit through reduced CO<sub>2</sub> emissions

Changing the **social norms** around eco driving will be very important to affect the sustained use of techniques and the spreading of messages. There are a number of factors needing to be specifically addressed to contribute to this:

- Debunking the perceptions of eco-driving being seen as slow or unexciting driving (a view sometimes held by 'experts')
- The risks of not driving safely
- Helping eco-driving to be seen as a part of being a skilled driver in being safe, smooth and socially responsible.

Research by TNS-BMRB in 2010 discovered that the following techniques were claimed to be adopted more frequently:

- Regularly checking tyre pressure
- Not accelerating too hard
- Reading the road to avoid unnecessary acceleration and braking
- Changing speed to save fuel
- Planning journey to avoid congestion

Providing the full list of eco-driving techniques may work well in terms of helping people to adopt new behaviours. This list could be grouped into categories of 'those that are most well known' (you could do better), 'those that are fairly well known' (you are a skilled, fuel efficient driver but have some improvements to make) and 'those that are least well known' (well done, you are a skilled, fuel efficient driver). This device may help appeal to drivers needs to feel like an expert and a skilled driver.

#### The messengers

Messengers are important sources of information and have an impact on how a message is received and the normalisation of eco-driving and the changing of social norms. These should be sources that are already well-placed to deliver their message. Potential messengers to deliver the eco-driving message would be:

- **Driving instructors** were held in high regard by drivers and were already delivering aspects of eco-driving training. They would therefore be a key messenger.
- **Male 'experts'** (fathers, brothers, male colleagues) were acknowledged as being key sources of driving information and advice, especially by female drivers. Their 'expertise' could be increased to incorporate eco-driving techniques and used to educate.
- **Employers** had reason to promote eco-driving messages in an attempt to enforce good driving practice during working hours.
- **The Driving Standards Agency** was seen as a credible source for information and trusted more for seeming to be 'slightly removed' from central government. In using the DSA or government agencies as a source of the message, this might strengthen the environmental part of the message and potentially turn off some people from employing the techniques.
- **Government** as a messenger of the environmental benefits could couple this message with examples of strategy, innovation and technologies that are helping to address CO2 emissions. This would allow the public to see that the Government and big businesses are also making an effort and so encourage individuals to adopt carbon reducing behaviour changes.

## 6.3 Design and control

### Post-test mandatory intervention

**Enforcement** of eco-driving training was not generally favoured but there was receptiveness to the idea of training after speeding. For example, when given a ticket, instead of receiving points the driver being given the option of paying a fine and attending a course (which would include aspects of eco-driving).

### Post-test voluntary intervention

Behaviour change initiatives to promote low carbon behaviours need to be **personally relevant, be seen as something that ‘people like me do’, be easy to adopt, be fun, and be opportunity orientated** – for instance hook into other drivers of behaviour to achieve outcomes (such as saving money).

Interventions need to consider the need to create sustained change and help drivers to make using these techniques a habit.

**Post-test driver training** has a low take-up generally. The combining of eco-driving with other well known courses such as Pass Plus and Advanced Driver Skills training may be more appealing to drivers and employers than a stand alone eco-driving course. This would also help to seal messages about eco-driving being part of a skills toolkit for drivers. The take up of these courses could be encouraged by:

- Offering financial incentives such as a reduction in insurance or road tax.
- Measures of sustainability to persuade employers.
- Addressing the view that drivers were already expert enough.

**Interventions that are interactive or entertaining** help the driver to have an experience that may be more likely to lead to sustained behaviour change.

Examples of these are:

- In-vehicle training (especially when conducted with pairs of delegates).
- Competitions in the workplace with a rewards attached to eco driving behaviour.
- Quizzes and games.
- Broader post-driver training that involves fun activities.

**A number of general driving touch points** could work well as opportunities to communicate the eco driving message or interventions:

- When renewing car tax - Direct Gov website or at Post Office.
- When purchasing a new vehicle.
- When obtaining car insurance - information or link on website.

- When driving long distances and refuelling - at service stations.
- When hiring a car - on website or pamphlet in vehicle.
- When learning to drive.

## 6.4 Who to target and how

The usual suggestion for addressing and encouraging behaviour change in the public would be a large-scale publicity campaign funded and led by the government and including media advertising. However, within the current economic climate and amid the recent public spending cuts, this approach may not be feasible. Therefore, careful thought has been given to the recommended approach, by highlighting relatively inexpensive ways of communicating information or piggy-backing onto other activities. This is achieved through identifying key **target audiences** and **targeted messages** for different groups of driver.

### Target audiences

The literature review identified three categories of driver according to their receptiveness to take up eco-driving. This was based on environmental motivations which this research uncovered to not be the primary reason for engaging in eco driving techniques or interventions.

Distinct groups with different needs and behaviours are discussed in Table 6 below along with the issues to address and potential strategies to change their behaviour.

Table 6: Strategy to target different driver audiences

<b>Type of driver / typology</b>	<b>Issues to address</b>	<b>Strategy</b>
'Experts' – older males	The need to feel like an expert Already using eco-driving techniques	<ul style="list-style-type: none"> <li>○ Recruit as messengers</li> <li>○ Target using information and interventions to challenge and confirm their driving expertise</li> </ul>
'Novices' – younger females	Willing to admit their ignorance – not using many eco-driving techniques The need to feel empowered	<ul style="list-style-type: none"> <li>○ Most receptive to training</li> </ul>
Higher income groups	Less sustainable travel behaviour (most likely to own more than 1 car and have a	<ul style="list-style-type: none"> <li>○ Changing social norms: Environmental messages and focus on making eco-</li> </ul>

	high annual mileage). Maintaining lifestyle is priority over cost savings	driving part of being a socially responsible citizen
Learner drivers	Eco-driving habits started and positively reinforced whilst learning. Cost savings can be important to students and those on low wages.	<ul style="list-style-type: none"> <li>○ Receptive to driving instructors as messengers – expand the eco-driving training for instructors and the content in the test / highway code</li> <li>○ Recruit as messengers</li> <li>○ Information as opposed to post driver training for students and those on low wages</li> </ul>
25-40 year old drivers	Identified as a potential target group for post test driver training as young enough not to be entrenched in habitual driving patterns but more likely to have disposable income. However, this group is likely to be busy with children and work.	<ul style="list-style-type: none"> <li>○ May be more receptive to pay for post driver training</li> <li>○ Recruit as messengers</li> </ul>
Employers with large fleets	A receptive group that is already promoting and enforcing safer and more fuel efficient driving	<ul style="list-style-type: none"> <li>○ Communicate examples of the potential cost savings</li> <li>○ Receptive to In-vehicle training (in pairs)</li> <li>○ Provide help with systems for monitoring and enforcing eco driving</li> <li>○ Use trade press such as Fleetnews</li> </ul>
Driving instructors	A very influential and important group to target	<ul style="list-style-type: none"> <li>○ Recruit as messengers</li> <li>○ Consider systems to aid eco-driving being taught in a consistent way</li> <li>○ Ensure that instructors are educated on the full range of eco-driving techniques</li> </ul>
Car salesman	A possible target group of messengers. Purchasers of new cars will be receptive to ways to preserve their car. A	<ul style="list-style-type: none"> <li>○ Recruit as messengers</li> <li>○ Use as a distributor of eco-driving messages</li> </ul>

	new car purchase could be used as a pivot point for changing behaviour	
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# Appendix one - Qualitative recruitment and research methodology

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## Sampling

### Stage one

#### Training providers

Nine telephone interviews with eco-driving training providers.

#### Stakeholder telephone interviews

Ten telephone interviews with stakeholders.

### Stage two

#### Driver focus groups

Eight focus groups were conducted with drivers across the north and south of England, as well as the Midlands. The primary quotas were:

- 1) Type of vehicle – car, light van and Taxi/Minibus 8 seats.
- 2) A split between whether they were driving only for personal purposes or whether they drove commercially.

Additional quotas were age and number of years qualified as a driver which enabled a good spread of views from new and younger drivers as well as more experienced and older drivers. Light van drivers and taxi drivers were split into self-employed or employed.

#### Stage two quota drivers

#### Primary quotas – Final achieved sample

Group	Vehicle	Driver	Use car for work	Location
1 (7)	Car (7)	Under 30 years (7) Qualified 2-5 years (7)	No (7)	Midlands
2 (9)	Car (9)	Under 35 years (9) Qualified 2-10 years (9)	Yes (mix of fleet and own care use) (9)	North
3 (8)	Car (8)	35 years and over (8) Qualified 10 years plus (8)	Yes (mix of fleet and own care use) (8)	South

4 (9)	Car (9)	35 years and over (9) Qualified 10 years plus (9)	No (6) Yes (3)	South
5 (9)	Light van (9)	21 and over (9) Qualified 2 years and over (9)	Self-employed (9)	Midlands
6 (9)	Light van (9)	21 and over (9) Qualified 2 years and over (9)	Employed by company with fleet (9)	North
7 (9)	Taxi/Minibus 8 seats or under (9)	21 and over (9) Qualified 2 years and over (9)	Self-employed (9)	South
8 (9)	Taxi/Minibus 8 seats or under (9)	21 and over (9) Qualified 2 years and over (9)	Self-employed (9)	Midlands

### Secondary quotas – Final achieved sample

Total - 69	Male – 44 Female - 25	AB – 10 C1C2 – 32 DE - 27	Black African – 6 Black Caribbean – 1 White British – 50 White Irish – 2 White Other – 1 Asian Pakistani - 9
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### Employer/fleet manager depth interviews

Nine depth interviews were conducted with employers and fleet managers.

- Employers with company vehicles that require a Category B license (Medium to large fleet - 26+ vehicles; Small fleets - 10-25 vehicles).
- Employers where employees drive own Category B vehicles only (Large employer - 200+ employees; Small/medium sized employer - 10-50 employees).
- Driving schools (Large - 25+ vehicles; Small/medium - 2-10 vehicles).



Stage two: Employers achieved quota

	<b>Medium to large fleet (26+vehicles)</b>	<b>Small fleets (5-25 vehicles)</b>	<b>Total</b>
<b>Type of employer</b>			
Company vehicles requiring category B license	2	2	
	<b>Large Employer (200+ employees)</b>	<b>Small/Medium-sized employer (10-50 employees)</b>	
At least 10% of employees drive own category B vehicles	2	1	
	<b>Large (25+ vehicles)</b>	<b>Small/Medium (2-10 vehicles)</b>	
Driving schools	2	0	
<b>Total</b>	<b>6</b>	<b>3</b>	<b>9</b>

For firms where employees only drive their own vehicles, we set a minimum 10% of employees driving their own vehicles for business.

### **Recruitment**

The recruitment was managed by TNS-BMRB's internal field team. Field managers were fully briefed on the project and provided with detailed recruitment instructions and a screening questionnaire in order for recruiters to assess respondents' eligibility to participate in research. All recruiters are members of the IQCS (Interviews Quality Control Scheme).

Fieldwork was carried out by four experienced qualitative researchers, trained in the techniques of non-directive interviewing. Interviews took place in the South, the Midlands and the North of England at community centres, recruiter's homes and the offices of TNS-BMRB.





Verbatim quotations are used throughout this report to illustrate points made; such quotations are referenced according to relevant quota characteristics.





Qualitative analysis is essentially about detection and exploration of the data, making sense' of the data by looking for coherence and structure within the data. *Matrix*

*Mapping* works from verbatim transcripts and involves a systematic process of sifting, summarising and sorting the material according to key issues and themes. The process begins with a familiarisation stage and based on the coverage of the topic guide, the researchers' experiences of conducting the fieldwork and their preliminary review of the data, a thematic framework is constructed. The analysis then proceeds by summarising and synthesising the data according to this thematic framework using a range of techniques such as cognitive mapping and data matrices. When all the data have been sifted according to the core themes the analyst begins to map the data and identify features within the data: defining concepts, mapping the range and nature of phenomenon, creating typologies, finding associations, and providing explanations.

The mapping process is similar for both individual interviews and group discussions. The analyst reviews the summarised data; compares and contrasts the perceptions, accounts, or experiences; searches for patterns or connections within the data and seeks explanations internally within the data set. Piecing together the overall picture is not simply aggregating patterns, but it involves a process of weighing up the salience and dynamics of issues, and searching for structures within the data that have explanatory power, rather than simply seeking a multiplicity of evidence.

## Appendix two – Driver group handouts

Eco-driving interventions — Priority; Costs; Benefits; incentives; different groups	
	<p><b>In-vehicle training</b></p> <p>Good for all age ranges            Effective - Biggest impact            Expensive            People reluctant to take part - price driving habits            Time consuming            Incentive: practical and hands on</p>
	<p><b>Simulator training</b></p> <p>Expensive            Practical to take part in            More for younger generations            Not real! Not real driving environment            Incentive: looks fun, computer game feel?</p>
	<p><b>Online/cd-rom training</b></p> <p>Cheaper than previous 2 T            Accessible            Appeal to wide range            Less incentive to complete            Boring, tedious            Incentive: Cheap</p>
	<p><b>Information pamphlet</b></p> <p>Cost effective            Not intrusive or pushy            Keep for reference            can be posted <del>up</del> out on mass            Eye catching &amp; interesting</p>

Eco-driving interventions — Priority; Costs; Benefits; incentives; different groups	
	<p><b>In-vehicle training</b></p> <p>②</p> <p>Expensive Personal Discount on insurance of younger Lasting effects</p>
	<p><b>Simulator training</b></p> <p>③</p> <p>Expensive compare + improvement younger more private men</p>
	<p><b>Online/cd-rom training</b></p> <p>④</p> <p>Convenient Education do in your own time 30's + 50's you can review</p>
	<p><b>Information pamphlet</b></p> <p>①</p> <p>Free for customer Bigger awareness Everyone reread</p>

## Appendix three – Topic guides

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## Topic guide: DSA/DfT eco-driving - stakeholders

**Aim:** TNS-BMRB have been commissioned by the Driving Standards Agency/Department for Transport to conduct research to explore how eco-driving training can be provided and promoted in a more engaging way and take-up increased amongst all types of existing drivers with ordinary licences. The research will help inform the style of product and how it might best be promoted.

'*Eco-driving*' is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving. For example one technique would be to accelerate smoothly and progressively to minimise fuel consumption.

### 1. Introduction

- TNS-BMRB independent research agency; working on behalf of DSA/DfT
- Purpose of the interview (see box above)
- Recording interviews; explain recordings are only available to the research team
- Confidential – their views will be used, but not identifiable
- They can stop the interview at any time
- Duration of interview (45 mins)

### 2. Background

**Researcher note:** Only give the definition of '*eco-driving*' above if the participant obviously does not understand. First encourage them to give their ideas of what it consists of. Section 1 to 4 should be asked of all participants. Section 5 – 7 are focused on specific areas and should only be asked if relevant.

- What is your professional background?
  - Structure and remit of organisation
  - Own role
    - Background in eco-driving (courses attended, previous experience, other relevant roles etc.)
    - Length of time in role

### 3. Current awareness & role within eco-driving

- What do you understand by the term eco-driving? (What behaviours would this include?)
- What are your organisation's priorities /main concerns in relation to environmental issues?
- Where do environmental concerns fit in the organisation's hierarchy of priorities? (Do they prioritise other issues such as safety?)
- What is your organisation's involvement in eco-driving (e.g. training, development, delivery, evaluation, marketing etc.)?
- What is your personal involvement in eco-driving (e.g. training, development, delivery, evaluation, marketing etc.)?
- Who are you primarily interested in promoting eco-driving to? (employees, customers, public)
- Has there been an increased interest in eco-driving training/information/efficiency savings/safer driving in recent years.
- Does your organisation do any eco-driving marketing currently? If yes, what does it consist of?
- What works well? Spontaneous – then probe marketing techniques, encouraging behaviour change.
- What works less well? Spontaneous – then probe marketing techniques, encouraging behaviour change.
- Does your organisation support any similar initiatives? If yes, what are they and what support is provided?
- What do you think could be done to improve the situation ?
  - In your organisation
  - more broadly across industry

### 4. Future plans

- What plans, if any, does your organisation have regarding its future involvement with eco-driving – (training, development, delivery, evaluation, marketing etc.)
- How do you think your organisation can be encouraged to support eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think other employers can be encouraged to take-up eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think the public can be encouraged to take-up eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think future driving campaigns should be organised?

- Content
- Marketing approach
- What role should be played by? (spontaneous then probe – development, funding, marketing, delivery, regulation, monitoring):
  - Content
  - Government (given current financial constraints)
  - private sector
  - third sector
  - public
- What role should your organisation play in future eco-driving campaigns?
  - Role in terms of internal employees; Role in terms of the wider public; Providing funding
- What are the potential benefits for your organisation? (spontaneous then probe):
  - Public relations/marketing; Corporate Social Responsibility; More opportunity to sell training to customers; Safer roads; Another accreditation to offer;
  - Money saved
  - Less wear in vehicles
- What are the potential challenges for your organisation? (spontaneous then probe): Financial/resources; Practical; Cultural/attitudinal (e.g. scepticism, other priorities)

## 5. Training provider organisations

### POST-TEST TRAINING IN GENERAL

- What is your current target audience for post-test training?
  - New drivers, older drivers, fleet drivers etc; Why these groups
- What is the current take-up of post-test training?
  - Volumes; Type of driver (new drivers; older drivers; fleet drivers etc); Motivations(whether different for different types of driver); Views on most appropriate means of encouraging take-up
- What is the cost of the training?
  - How did they come up with existing rate structure/charges (market research; taken from other training?); Affect of cost on take-up of training
- Do you have any cross-partnership collaborations?
  - Collaborations with any partners
  - Role played
- What marketing methods are currently used to promote training?
  - Leaflet drops, web-site advertising, adverting in the multi-media, through specialist publications etc; Most useful methods. Why?; Views on most appropriate means of marketing programme

### ECO-DRIVING

- Do you think there is a need for specialised eco-driving qualifications?



- benefits for drivers/instructors/training providers; negatives for drivers/instructors/training providers
- In your opinion, who should be funding eco-driving training for drivers and instructors? (Spontaneous then probe – government; drivers; providers etc.)
- How do you feel about introducing eco-driving into the driving test?
- If your organisation gave its support to eco-driving training, what impact could that have?
- How should eco-driving training be positioned for marketing and funding purposes? (govt initiative, corporate partnership, social issue or another way)

## 6. Road safety organisations

### POST-TEST TRAINING IN GENERAL

- What is the level of take-up of post-test training
  - Volumes
  - Type of driver (new drivers; older drivers; fleet drivers etc)
  - Views on most appropriate means of encouraging take-up
  - Motivations(whether different for different types of driver)
- Do you have any cross-partnership collaborations?
  - Collaborations with any partners
  - Role played
- What marketing methods are currently used to promote training?
  - Leaflet drops, web-site advertising, adverting in the multi-media, through specialist publications etc
  - Most useful methods. Why?
  - Views on most appropriate means of marketing programme

### ECO-DRIVING

- How do you feel about introducing eco-driving into the driving test?
- Do you think there is a link between eco-driving and road safety? Why?
- Do you think there is a need for specialised eco-driving qualifications?
  - benefits for drivers/your organisation
  - negatives for drivers/your organisation
- To what extent does your organisation support training?
  - Support/ recommendation of traininggenerally; Likelihood of support for eco-driving in future
- How should eco-driving training be positioned for marketing and funding purposes? (govt initiative, corporate partnership, social issue or another way)?

## 7. Fleet operatives/Unions

- How do you feel about introducing eco-driving into the driving test?

- Do you think there is a need for specialised eco-driving qualifications?
  - benefits for drivers/your organisation
  - negatives for drivers/your organisation
- To what extent does your organisation support training?
  - Support/ recommendation of training generally
  - Likelihood of support for eco-driving in future
- Possible motivations for members (organisations/individuals) to take-up eco-driving training
  - Corporate Social Responsibility (for fleets); Monetary savings; Training;
  - Environmental factors
- Views on most appropriate means of encouraging take-up
  - Leaflet drops, web-site advertising, adverting in the multi-media, through specialist publications etc
  - Most useful methods
  - How should eco-driving training be positioned for marketing and funding purposes? (govt initiative, corporate partnership, social issue or another way)
- Any current cross-partnership collaboration
  - Collaborations with any partners
  - Role played

## **8. Closing**

- Thank you very much for your time

## Topic guide: DSA/DfT eco-driving – training providers

### 1. Introduction

**Aim:** TNS-BMRB have been commissioned by the Driving Standards Agency/Department for Transport to conduct research to explore how eco-driving training can be provided and promoted in a more engaging way and take-up increased amongst all types of existing drivers with ordinary licences. The research will help inform the style of product and how it might best be promoted.

*'Eco-driving'* is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving. For example one technique would be to accelerate smoothly and progressively to minimise fuel consumption.

- TNS-BMRB independent research agency; working on behalf of DSA/DfT
- Purpose of the interview (see box above)
- Recording interviews; explain recordings are only available to the research team
- Confidential – their views will be used, but not identifiable
- They can stop the interview at any time
- Duration of interview (1 hour)

### 2. Background

**Researcher note:** If necessary explain that *'eco-driving'* is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving.

**Be aware that eco-driving may form part of a larger post-test course**

- What is your professional background?
  - Structure and remit of organisation
  - Own role
    - Background in eco-driving (courses attended, previous experience, other relevant roles etc.)
    - Length of time in role
    - Current involvement in general driving courses/lessons (development, delivery, evaluation, marketing); Involvement in eco-driving courses/lessons (development, delivery, evaluation,

marketing); What is your eco-driving offer? (intervention, information, training etc.);

### 3. Current awareness & role within eco-driving

- What do you understand by the term eco-driving? (What behaviours would this include?)
- What are your organisation's priorities /main concerns in relation to environmental issues?
- Where do environmental concerns fit in the organisation's hierarchy of priorities? (Do they prioritise other issues such as safety?)
- What is your organisation's involvement in eco-driving (e.g. training, development, delivery, evaluation, marketing etc.)?
- What is your personal involvement in eco-driving (e.g. training, development, delivery, evaluation, marketing etc.)?
- Who are you primarily interested in promoting eco-driving to? (employees, customers, public)
- Has there been an increased interest in eco-driving training/information/efficiency savings/safer driving in recent years.
- What works well?
- What works less well?
- Does your organisation support any similar initiatives? If yes, what are they and what support is provided?
- What do you think could be done to improve the situation?
  - In your organisation
  - more broadly across industry

### 4. Development

- What is the format of the eco-driving intervention?
  - interactive taught module (face-to-face);
  - distance learning through interactive website/CD/DVD programme ;

- live or simulated lessons;
  - part of broader course or dedicated (e.g only part of driving test course or post-test training or dedicated stand-alone programme);
  - Views on most appropriate means of developing programme
- What support materials have been developed for the eco-driving intervention?
    - lesson plans, presentations, DVDs etc;
    - validity testing and reviewing prior to delivery
  - Who is involved in course/materials development?
    - Internal staff, consultants;
    - Role, qualifications

## 5. Delivery

- Where is the eco-driving intervention located?
  - local college, at home, driving school, other
  - Views on most appropriate means of delivering programme
  - Views on most appropriate location to deliver programme
- Who runs the training course?
  - Qualifications
  - Facilitators views regarding eco-issues (beliefs; concerns; whether motivating factor; competing priorities)
- What is the structure of the programme?
  - Clear aims and objectives
  - Specific modules
  - Other
  - Views on most appropriate way to structure programme
- What is the current take-up of post-test training?
  - Volumes (how recorded)
  - Type of driver (new drivers; older drivers; fleet drivers etc)
  - Motivations(whether different for different types of driver)
  - Views on most appropriate means of encouraging take-up
- What is your current target audience for post-test training?
  - New drivers, older drivers, fleet drivers etc
  - Why these groups
  - Who's actually participating
- What was their target for take up (Hard numbers if they have them)  
What are they actually getting?

- What is the cost of the training?
  - How did they come up with existing rate structure/charges (market research; taken from other training?);
  - Affect of cost on take-up of training
- Do you currently have any cross-partnership collaborations?
  - Collaborations with any partners
  - Role played
  - Benefits/disadvantages
- What is the duration of the programme?
  - Number of days; Length of time (e.g. over six weeks)

## 6. Evaluation

- Do you collect any customer feedback?
  - Evaluation questionnaire, or on-line survey, any others
  - Findings available (ask for any reports etc.)
- What impact does the programme have?
  - On trainee
    - Short/long term behaviour change
  - On environment
    - Short/long term; local/national/global
  - Whether evaluated for either user or psychometric validity
  - Whether evaluated for impact on the environment
  - Useful findings (ask for any reports etc.)
- Has your eco-driving offering changed due to demand from your clients?
  - What other changes have they made?

## 7. Marketing

- What marketing methods are currently used to promote training?
  - Leaflet drops, web-site advertising, adverting in the multi-media, through specialist publications etc
  - Benefits highlighted to public
  - Most useful methods. Why?
  - Views on most appropriate means of marketing programme
- Does your organisation do any specifically eco-driving marketing currently? If yes, what does it consist of?

- Were user profiles completed prior to developing the intervention?
  - If so was marketing adapted to these
- Have your marketing methods been reviewed?
  - If so have approaches varied as a result. How.

## 8. Future plans

- Do you think there is a need for specialised eco-driving qualifications?
  - benefits for drivers/instructors/training providers
  - negatives for drivers/instructors/training providers
- In your opinion, who should be funding eco-driving training for drivers and instructors? (Spontaneous then probe – government; drivers; providers etc.)
- How do you feel about introducing eco-driving into the driving test?
- If your organisation gave its support to eco-driving training, what impact could that have?
- How should eco-driving training be positioned for marketing and funding purposes? (govt initiative, corporate partnership, social issue or another way)
- What plans, if any, does your organisation have regarding its future involvement with eco-driving – (training, development, delivery, evaluation, marketing etc.)
- How do you think your organisation can be encouraged to support eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think other employers can be encouraged to take-up eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think the public can be encouraged to take-up eco-driving training? (more information; improve policy; incentives; punitive measures; improved marketing etc.)
- How do you think future driving campaigns should be organised?
  - Content
  - Marketing approach

- What role should be played by? (spontaneous then probe – development, funding, marketing, delivery, regulation, monitoring):
  - Content
  - Government (financial constraints)
  - private sector
  - third sector
  - public
  
- What role should your organisation play in future eco-driving campaigns?
  - Role in terms of internal employees
  - Role in terms of the wider public
  - Providing funding
  
- What are the potential benefits for your organisation? (spontaneous then probe):
  - Public relations/marketing
  - Corporate Social Responsibility
  - More opportunity to sell training to customers
  - Safer roads
  - Another accreditation to offer
  - Money saved
  - Less wear in vehicles
  
- What are the potential challenges for your organisation? (spontaneous then probe): Financial/resources; Practical; Cultural/attitudinal (e.g. scepticism, other priorities)

## 9. Closing

- Thank you very much for your time



**DSA/DfT eco-driving topic guide – drivers**

	<b>Notes</b>	<b>Approx timing</b>
<b>1. Introduction and background</b>		<b>10 mins</b>
<b>1.1 Scene-setting</b> <ul style="list-style-type: none"> <li>About TNS-BMRB – independent research agency</li> <li>TNS-BMRB have been commissioned by the Driving Standards Agency/Department for Transport to conduct research to explore how eco-driving training can be provided and promoted in a more engaging way and take-up increased amongst drivers with ordinary licences.</li> <li>'Confidentiality –views will be used, but not identifiable</li> <li>Recording group – recordings only available to the research team</li> <li>Length of discussion approx. 2 hours</li> </ul> <b>1.2 DSA/DfT Introduction</b> <ul style="list-style-type: none"> <li>Welcome and introduction to DSA /DfT staff / observers</li> </ul> <b>1.3 Group introductions</b> <ul style="list-style-type: none"> <li>Participants introduce themselves to the group. Ask participants to give their first name and if you were a car what car would you be?</li> </ul>	<p>WELCOME: Orientates interviewee, gets them prepared to take part in the interview</p> <p>Outlines the 'rules' of the group (including those we are required to tell them about under MRS and Data Protection Act guidelines)</p> <p>INTRODUCTION: provides contextual background information about the interviewee and helps respondent become more at ease with discussing issues.</p>	<p><b>5 mins</b></p> <p><b>5 mins</b></p>
<b>2. Views about driving</b>		<b>10 mins</b>
<ul style="list-style-type: none"> <li>How does driving make you feel? <ul style="list-style-type: none"> <li>Likes/dislikes</li> </ul> </li> <li>How many hours would you say you drive in a typical week? <ul style="list-style-type: none"> <li>Number of hours per week (for personal and work)</li> <li>Types of trips made e.g. commute, school run, professional driver (at home and at work)</li> </ul> </li> <li>How would you describe what type of driver you</li> </ul>		<p><b>5 mins</b></p> <p><b>5 mins</b></p>

<p>are?</p> <ul style="list-style-type: none"> <li>○ Cautious; eager; slow; safe; dangerous; economical; uneconomical etc.</li> <li>○ Does it vary? Why?</li> <li>● Who or what influences your views about driving? <ul style="list-style-type: none"> <li>○ Media; friends and family; own beliefs; access to vehicle; cost of driving etc.</li> </ul> </li> </ul>		
<p><b>2. Views about eco-driving</b></p>		<p><b>15 mins</b></p>
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><i>Don't read out definition of eco-driving in the beginning unless participants obviously don't understand.</i></p> </div> <ul style="list-style-type: none"> <li>● Have you ever heard about eco-driving? <ul style="list-style-type: none"> <li>○ Where from (media, friends, family, driving courses etc)?</li> </ul> </li> <li>● What do you know about eco-driving? <ul style="list-style-type: none"> <li>○ Reasons behind taking up eco-driving - climate change / improved economy</li> <li>○ Potential benefits such decreased air pollution and cost savings</li> </ul> </li> <li>● What do you think about the term 'eco-driving'? <ul style="list-style-type: none"> <li>○ Connotations – positive/negative?</li> <li>○ Likely public response to term</li> </ul> </li> <li>● How do you feel about the theory that human behaviour causes climate change? <ul style="list-style-type: none"> <li>○ Sceptical about/believe in climate change</li> <li>○ Sceptical/believe that humans have an impact</li> </ul> </li> <li>● Do you believe there is a link between driving and climate change? <ul style="list-style-type: none"> <li>○ Yes/no. Why?</li> <li>○ Refer to post-its with different drivers</li> </ul> </li> </ul>		<p><b>15 mins</b></p>

<ul style="list-style-type: none"> <li>• Returning to eco-driving - in practical terms, what do you think eco-driving consists of? <ul style="list-style-type: none"> <li>○ Specific actions / behaviours such as: driving at lower speeds/the most efficient speed; correct tyre pressure; smooth acceleration etc.</li> </ul> </li> </ul>		
<p><i>INTERVIEWER - IF NOT READ OUT ALREADY, READ OUT:</i>  <i>'Eco-driving' is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving. For example one technique would be to accelerate smoothly and progressively to minimise fuel consumption.</i></p>		
<ul style="list-style-type: none"> <li>• Thinking about what eco-driving entails practically, do you think there might be a better way, other than 'eco-driving', to describe it? <ul style="list-style-type: none"> <li>○ Spontaneous then probe: safer driving; defensive driving; etc.</li> <li>○ What would be best way to describe it?</li> </ul> </li> </ul>		
		<b>25 Mins</b>
<ul style="list-style-type: none"> <li>• How skilled do you think you are at employing eco-driving techniques while driving? <ul style="list-style-type: none"> <li>○ No idea what it would involve</li> <li>○ Already use techniques/could easily incorporate.</li> </ul> </li> <li>• Where were these skills obtained? <ul style="list-style-type: none"> <li>○ Media, internet, driving course, own experience.</li> </ul> </li> </ul>		<b>5 mins</b>  <b>10 mins</b>
<p>Hand out 'The smarter driving challenge' and read through together.</p>		
<ul style="list-style-type: none"> <li>• Has your opinion of your skills changed after reading the hand-out? <ul style="list-style-type: none"> <li>○ Your strengths/weaknesses</li> </ul> </li> <li>• What do you thinking your learning needs are after you have read the hand-out?</li> <li>• What are the learning needs of others?</li> <li>• What are the benefits of eco-driving for you? <ul style="list-style-type: none"> <li>○ Environmental benefit of decreased CO2</li> </ul> </li> </ul>		<b>10 mins</b>



business etc.)		
<i>Trade-off exercise</i>		
Break into 3 small groups and handout trade-off exercise sheets. Discuss different interventions, costs and benefits. Then each group reports back to main group.		
<ul style="list-style-type: none"> <li>• Discussion of different interventions, costs and benefits (tailored for different groups). <ul style="list-style-type: none"> <li>○ Which are high and low priorities?</li> <li>○ Costs <ul style="list-style-type: none"> <li>▪ How much would each option cost?</li> <li>▪ How much would you be willing to pay?</li> </ul> </li> <li>○ Benefits</li> <li>○ What incentives would be needed to encourage take-up for each? <ul style="list-style-type: none"> <li>▪ Insurance reduction; tax rebate; etc.</li> </ul> </li> <li>○ Whether different for different groups?</li> </ul> </li> </ul>		
<b>5. Communicating and marketing eco-driving</b>	Flipchart to record	<b>20mins</b>
<ul style="list-style-type: none"> <li>• Will marketing be needed to promote eco-driving training to the public? If so, why?</li> <li>• What marketing methods should be used to promote eco-driving training? <ul style="list-style-type: none"> <li>○ Leaflet drops, web-site advertising, advertising in the multi-media, through specialist publications etc</li> <li>○ Views on most appropriate means of marketing programme</li> </ul> </li> <li>• What messages should be used with the public? <ul style="list-style-type: none"> <li>○ Key communication message</li> <li>○ Positioning <ul style="list-style-type: none"> <li>▪ Government led; social issue;</li> </ul> </li> </ul> </li> </ul>		

<p>business led etc.</p> <ul style="list-style-type: none"> <li>○ Benefits that should be highlighted <ul style="list-style-type: none"> <li>▪ Environmental benefit of decreased CO2 emissions</li> <li>▪ Cost savings on fuel and maintenance</li> <li>▪ Noise reduction</li> <li>▪ Safer driving</li> <li>▪ Corporate Social Responsibility</li> </ul> </li> <li>• Who should be delivering the message?</li> </ul> <p>Employers, Local Authorities; driving schools; government; celebrities.</p>		
<b>6. Wrap-up</b>		<b>5 mins</b>
<p>Final thoughts / questions  <b>THANK AND CLOSE</b>  <i>[Handout incentives]</i></p>		

## Topic guide: DSA/DfT eco-driving - employers

**Aim:** TNS-BMRB have been commissioned by the Driving Standards Agency/Department for Transport to conduct research to explore how eco-driving training can be provided and promoted in a more engaging way and take-up increased amongst all types of existing drivers with ordinary licences. The research will help inform the style of product and how it might best be promoted.

*'Eco-driving'* is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving. For example one technique would be to accelerate smoothly and progressively to minimise fuel consumption.

### 1. Introduction

- TNS-BMRB independent research agency; working on behalf of DSA/DfT
- Purpose of the interview (see box above)
- Recording interviews; explain recordings are only available to the research team
- Confidential – their views will be used, but not identifiable
- They can stop the interview at any time
- Duration of interview (45 mins)

### 2. Background

- Please tell me about your organisation and your role within it?
  - Length of time in role
- What is the size of your fleet/how many employees drive their own vehicles for work purposes – not just commuting? (ask relevant)
- Do employees driving company/own vehicle have to meet certain standards of driving? (ask relevant)
- Do employees driving company/own vehicle attend driver training? (ask relevant)

- If so, who does this training? (in-house, driving school etc.)
- What does this training consist of? (in-vehicle, online, simulator etc.)
- Frequency
- What are your organisation's priorities in relation to driver training?
  - Safety; minimising costs; etc?
- Are there "success" criteria applied that must be met before an employee can drive for the business.
- Are there retraining requirements for drivers who have an accident at work?

### 3. Awareness of eco-driving

**Researcher note:** Only give the definition of '*eco-driving*' above if the participant obviously does not understand. First encourage them to give their ideas of what it consists of.

- Have you ever heard about eco-driving?
  - Where from (media, friends, family, driving courses etc)?
- What do you know about eco-driving?
  - Potential reasons for taking up eco-driving - climate change / improved economy
  - Potential benefits such decreased CO2 emissions and fuel/maintenance savings
- How do you feel about the phrase 'eco-driving'?
  - Connotations – positive/negative?
- How much of a priority are environmental issues to your organisation?
  - What (if there are any) are your organisation's priorities in relation to environmental issues?
- How do you feel about the theory that human behaviour is causing climate change?
  - Sceptical/believe in climate change theory
  - Sceptical/believe that humans have an impact



- Do you believe there is a link between travel behaviour (such as driving) and climate change?
  - Yes/no. Why?
- Returning to eco-driving - in practical terms, what do you think eco-driving consists of?
  - Specific actions / behaviours such as: driving slower/appropriate speed; correct tyre pressure; smooth acceleration etc.

*INTERVIEWER - IF NOT READ OUT ALREADY, READ OUT:*

*'Eco-driving' is a term used to describe techniques for enabling more efficient use of all types of vehicle; reducing fuel consumption, costs and emissions as well as wear and tear on the vehicle. Eco-driving techniques are also synonymous with safer driving. For example one technique would be to accelerate smoothly and progressively to minimise fuel consumption.*

- Do you personally have any previous experience in eco-driving (courses attended, previous experience, other relevant roles etc.)
- How skilled do you think your staff are with eco-driving techniques?
  - No idea what it would involve
  - Already use techniques/could easily incorporate.
- Where were these skills obtained?
  - Media, internet, driving course, own experience.

#### **4. Interventions**

- Would you be interested in having your staff participate in an eco-driving training intervention of some kind?
  - Should this intervention be combined with other driving areas / techniques such as safety?
- How would you like staff eco-driving training to be conducted?
  - As part of larger course/stand alone course
  - Online/cd-rom training; in-vehicle training; simulator; workshop; pamphlet
- What, if any, do you see as the benefits of eco-driving training?

- For individuals/employees?
- For employers such as yourselves?
- Turning to the costs of providing eco-driving training...
  - How much do you think each (Online/cd-rom training; in-vehicle training; simulator; workshop; pamphlet; etc) would cost?
  - How much, if anything, would you as an employer be willing to pay to fund eco-driving training for its employees?
  - How much, if anything, would you personally be willing to pay to receive eco-driving training as an individual?
- Assuming employers such as yourselves were required to pay for eco-driving training for their staff...
  - What, if any, incentives would be needed to encourage take-up?
    - Insurance reduction; tax rebate; etc.
- Are you aware of the advanced driver course, SAFED (Safe and Fuel Efficient Driving course, which teaches safer driving skills)?
  - Would you be interested in your drivers participating in something similar?
- What do you think the likely take up of eco-driving training would be?
  - Whether different for different groups (ages; SEG; etc)

## 5. Marketing

- Thinking about what eco-driving entails practically, do you think there might be a better way, other than 'eco-driving', to describe it?
  - Spontaneous then probe: safer driving; defensive driving; etc.
  - What would be best way to describe it?
- Will marketing be needed to promote eco-driving training to employers? If so, why?
- What marketing methods should be used to promote eco-driving training?
  - Leaflet drops, web-site advertising, advertising in the multi-media, through specialist publications etc

- Views on most appropriate means of marketing programme
- What messages should be used with businesses?
  - Key communication message
  - Positioning
    - Government led; social issue; business led etc.
  - Benefits that should be highlighted
    - Environmental benefit of decreased CO2 emissions
    - Cost savings on fuel and maintenance
    - Noise reduction
    - Safer driving
    - Corporate Social Responsibility
- Rank benefits listed
- Who should be delivering the message?
  - Employers, Local Authorities; driving schools; government; celebrities.

## **6. Closing**

- Thank you very much for your time

## Appendix four - References

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- Anable, J., Lane, B. and Kelay, T. (2006). *An evidence base review of public attitudes to climate change and transport behaviour*. Department for Transport. Available at: <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/sustainable/climatechange/iewofpublicattitudestocl5730.pdf>
- Bhattachary, D., Angle, H., Acreman, S., Zambardino, A. and Peattie, K. (2008). *Selling sustainability: Seven lessons from advertising and marketing to sell low carbon living*. Nesta: London
- Brennan, L. & Binney, W. (2008). *Is it green marketing, or hogwash? We need to know if we want to change things: Partnerships, proof and practice*. International non-profit and social marketing conference 2008, University of Wollongong.
- Colins, J., Thomas, G. & Wilsdon, J. (2003). *Carrots, sticks and sermons: Influencing public behaviour for environmental goals*. A DEMOS/Green Alliance report produced for DEFRA.
- Coulter, A. Clegg, S., Lyons, G., Chatterton, T. & Musselwhite, C. (2007). *Exploring public attitudes to personal carbon dioxide emission information*. Available at: <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/sustainable/climatechange/co2attitudes>
- Defra. (2008). A framework for pro-environmental behaviours. Available at: <http://www.defra.gov.uk/evidence/social/behaviour/documents/behaviours-jan08-report.pdf>
- Department for Transport. (2009). *DfT's online Citizen's Panel DaSTS research: Wave 3*. Available at <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/scienceresearch/social/citizenspanelDaSTS/researchreport.pdf>
- Department for Transport. (2009). *Low Carbon Transport: A Greener Future*. Available at: <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/sustainable/carbonreduction/low-carbon.pdf>
- Department for Transport. (2009). *Public attitudes towards climate change and the impact of transport: 2006, 2007 and 2008*. Department for Transport. Available at: [http://www.dft.gov.uk/adobepdf/162469/221412/221513/4387741/climatechng and transport.pdf](http://www.dft.gov.uk/adobepdf/162469/221412/221513/4387741/climatechng%20and%20transport.pdf)
- Department for Transport. (2009). *Transport trends: 2009 edition*. Available at: <http://www.dft.gov.uk/adobepdf/162469/221412/190425/220778/trends2009.pdf>

Department for Transport. (2008) *Attitudes to climate change and the impact of transport (2006-2007)*.

Department for Transport. (2008). *Carbon Pathways Analysis: Informing Development of a Carbon Reduction Strategy for the Transport Sector*. Available at: <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/sustainable/analysis.pdf>

Department for Transport. (2008). *Delivering a sustainable transport system: the logistics perspective*. Available at: [http://www.dft.gov.uk/pgr/freight/dasts\\_logistics/dastslogisticsperspective.pdf](http://www.dft.gov.uk/pgr/freight/dasts_logistics/dastslogisticsperspective.pdf)

Department for Transport. (2008). *Transport Statistics Bulletin: National Travel Survey 2007*. Available at: <http://www.dft.gov.uk/adobepdf/162469/221412/221531/223955/3227431/NTS2007.pdf>

Ecodriven. (2008). *Eco-driven Campaign Catalogue for European Eco-driving & Traffic Safety Campaigns*. Available at [http://www.ecodrive.org/fileadmin/dam/ecodrive/Downloads/Ecodriven\\_WP10\\_Campaign\\_Catalogue\\_24\\_March\\_09.pdf](http://www.ecodrive.org/fileadmin/dam/ecodrive/Downloads/Ecodriven_WP10_Campaign_Catalogue_24_March_09.pdf)

Futerra. (2007). *Words that sell: How the public talks about sustainability*. Available at <http://www.futerra.co.uk/downloads/Words-That-Sell.pdf>

King, S., Dyball, M., Webster, T., Sharpe, A., Worley, A. & DeWitt, J. (2009). *Exploring public attitudes to climate change and travel choices: Deliberative research*. People, Science & Policy Ltd: London

Lorenzoni, I., Nicholson-Cole, S. & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17, 445-459.

Lyons, G., Goodwin, P. Hanly, M., Dudley, G., Chatterjee, K., Anable, J., Wiltshire, P. & Susilo, Y. (2008). *Public attitudes to transport: Knowledge review of existing evidence*. Available at: <http://www.dft.gov.uk/pgr/scienceresearch/social/evidence.pdf>

Platt, R & Retallack, S. (2009). *How the public thinks lower-carbon behaviour could be made mainstream*. Institute for Public Policy Research: London

Rose, C., Dade, P. & Gallie, N. (2005). *Climate change communications: Dipping a toe into public motivation*. Available at: <http://www.campaignstrategy.org/values/voters/climatechangecommunications.pdf>.

Roy, J. & Pal, S. (2009). Lifestyles and climate change: link awaiting activation in *Current opinion in Environmental Sustainability*. Volume 1 Issue 2, 192-200.

Thornton, A. Bunt, K. Dalziel, D. Simon, A. (2010). *Climate Change and Transport Choices*. Available here:

<http://www.dft.gov.uk/pgr/scienceresearch/social/climatechangetransportchoices/>

Unfallkassen und Berufsgenossenschaften & Deutscher Verkehrssicherheitsrat (2009). *To the point 3: Studies on "Drive like a pro – safe driving, both in a professional and a private context"*.