

# A step change for Britain's buses Maximising the economic, social and environmental potential



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### **Forewords**



The transport community has been pre-occupied with railways over the last few years leaving, by comparison, the mounting problems facing bus passengers firmly under the radar. This report attempts to fill this void and is a rallying call for everyone who is concerned about the future prognosis for bus passengers to unite behind a growth agenda for the sector and to highlight the damaging impact of further cuts in public sector funding.

The presentation of a united front to central government to promote the interests of bus passengers is essential. There has sometimes been an adversarial relationship between local authorities and bus operators, but all the evidence of success makes for a strong partnership between the two. This united front needs to start with a resolute and robust defence against further cuts in Bus Service Operator's Grant (BSOG). The prospect of a 20% cut next year in BSOG along with less support for tendered services and concessionary travel re-imbursement to operators will lead to a downward spiral of decline. Rising fares, less investment in new vehicles and cuts in route mileage will lead to patronage decline, which in turn will lead to declining profitability, further fare hikes, less investment and further cuts in mileage. It is little wonder that the House of Commons Transport Select Committee has condemned the "parlous state of the nation's bus services" and highlighted their concern that at least 7 out of 10 local authorities have made, or are planning to make, cuts in local bus services. PTEG have also called for action to prevent a "bus meltdown" in metropolitan areas.

This report highlights that instead of a vicious spiral of decline it is possible to achieve a virtuous growth spiral with rising patronage, higher investment, lower fares, higher frequencies and more extensive route mileage. However it requires local authorities, PTEs, bus operators and central government working together and each delivering their part of the bargain.

If we get this right the prize for the UK is considerable with improved access to job markets, economic stimulus, less pollution and a more inclusive society. Political

priorities change. A decade ago social inclusion was top of the agenda. Five years ago it was climate change. The worst recession in living memory now means that kick-starting economic growth has leapt to the top of the agenda. While the case for the bus has been well made in the past as a way to reduce both pollution and social exclusion, what has been less clear is the contribution the bus can make to stimulate economic growth. This report rectifies this void and highlights that pro-bus measures are a quick and highly cost effective component of an economic growth strategy.

The Greener Journeys advisory group comprises representatives from PTEs, TfL, CPT, bus operators, Campaign for Better Transport as well as respected academics. It shuns tribal positioning and endeavours to put the interests of bus passengers first. If the bus is to make the contribution it can to the country's economic, environmental and social objectives then this approach has much to commend it.

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**Professor David Begg**Chair, Greener Journeys Advisory Board



Greener Journeys came into being as a response to the UK's imperative to reduce carbon emissions from transport. It was recognised by the partners that the bus offered a quick and immediate low cost solution through modal shift from the car. However, the importance of our campaign is now greatly heightened by the economic crisis: buses have a crucial role to play in facilitating economic recovery. In transport policy terms the bus is seen as the poor relation of the other modes, in spite of the fact that two thirds of all public transport journeys are by bus. There is insufficient appreciation of the contribution the bus makes to the economy and reducing carbon emissions, as well as facilitating social inclusion and helping to maintain the fabric of our communities. 25% of households do not have access to a car and are completely reliant on the bus for many of their essential journeys.

Especially underestimated is the contribution the bus has to play in facilitating economic growth. Buses provide essential access to labour markets, are crucial to relieving congestion on key corridors and provide vital support to local businesses and retail economies to name just a few key areas. This report attempts to address some of these areas however, the benefits buses bring to the economy need to be more fully quantified to help Government make best use of this important mode. The important piece of the jigsaw missing in existing research is an analysis of the link between better bus services and growth of GDP/GVA. Greener Journeys is taking up the challenge of filling this crucial gap and will report in more detail later in 2012.

Greener Journeys is a coalition of Britain's leading bus companies and other supporters committed to encouraging people to travel more sustainably. We have set a target to take a billion car journeys off our roads by 2014, which effectively just involves car drivers switching one journey a month from car to bus. The consumer insight commissioned for this report highlights some of the key areas that need to be addressed if consumers are to be persuaded to switch some of their journeys. As our report outlines, achieving significant modal shift will deliver enormous benefits but we need everyone to play their part. This is an opportunity not to be missed.

**Claire Haigh** 

Chief Executive, Greener Journeys

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### **Greener Journeys Advisory Board Members**



**David Brown**Director General, South Yorkshire PTE



Professor Stephen Glaister CBE Director, RAC Foundation



Stephen Jospeh OBE Executive Director, Campaign for Better Transport



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Steven Salmon
Director of Policy Development,
Confederation of Passenger Transport UK

### **Executive summary**

Buses are the lifeblood of the UK's transport networks, but their true impact is felt far wider. Buses are the most cost-effective, flexible and immediate way the transport sector can support productive labour markets, reduce economically wasteful congestion and carbon emissions, facilitate social inclusion and help maintain the fabric of our communities. Maximising their potential through public funding and incentives would deliver change fast and for good returns.

However, the industry currently finds itself facing the greatest financial challenge for over a generation. The combination of the reduction in local authorities' revenue expenditure; a cut of £54 to £100m to public expenditure on concessionary fares from 2011; and the 20% reduction in BSOG in 2012-13 will put further pressure on bus services. The loss in revenue will result in higher fares and lower patronage which will lead to further cuts in services. This will critically undermine the progress made by the bus industry and local government in the last few years. It will also jeopardise the chance that bus has to support Britain's economic recovery; help the government meet its carbon reduction pledges; deliver better public transport provision to consumers; and make our communities more inclusive, less congested and safer places to live.

Buses are vital to the conditions for economic growth. In order for any economy to grow it requires access to a large and skilled labour market. Buses provide the means by which the labour market can be accessed, filling in the gaps where car access is limited and where local rail, metro and underground systems are lacking. Buses are also a major feeder to the rail network with 11% of rail passengers travelling to the station by bus. Through facilitating access to employment, buses also help reduce the burden on taxpayers from welfare benefits. Buses also play a vital role in reducing congestion which itself limits economic competitiveness, by making efficient use of scarce road space when compared to the carrying capacity of a car. Buses also provide vital support for local businesses and retail economies with bus passengers shopping more frequently in town centres than car-borne shoppers who both spend similar amounts. Bus companies are themselves local businesses and make a vital contribution to employment. There are around 123,000 employees in the bus industry. In addition the bus industry provides over £2.5 billion worth of services to a range of suppliers.

Modal shift from car to bus provides an immediate and low cost means of reducing carbon emissions from transport. The CO<sub>2</sub> per car passenger kilometre is 130g compared to approximately 100g per average bus passenger, and 30g per average coach passenger. This benefit becomes more marked with greater modal shift.

Around 40% of all transport carbon emissions are from short trips under 10 miles. Key opportunities lie in encouraging sustainable transport modes for these shorter trips. CO<sub>2</sub> savings can be boosted by the congestion reduction benefits of switching from car to bus, since congestion dramatically increases emissions from road vehicles. The bus industry is also working towards a shift in low carbon bus vehicles and greener bus technology.

Buses have a vital role to play in maintaining the fabric of our communities. They are able to meet important social and community needs. Indeed, for people on low incomes and without access to a car the bus remains an essential means of accessing work, education, health care, shopping, social and leisure activities. It is the poorest households which make greatest use of the bus network: 44% of which use buses at least once a week compared to 28% of the overall population. However, this important social access is being threatened as a direct result of changes to BSOG which is regrettably leading to fares increases - a serious barrier for lower socio-economic groups who rely on the bus the most. A recent report from the Transport Select Committee also highlights how isolated many places will become as a result of the seven in ten local authorities having already decided to reduce funding for supported services as a direct result of budgetary pressures. Rural, evening and Sunday bus services will be particularly badly affected.

The vital contribution made by the bus to economic, environmental and social objectives makes growing its mode share a priority. Achieving a step change in bus use is key to this growth and is key to breaking the dominance of the car as the default mode of transport choice. New ethnographic analysis undertaken in this report shows there is a variety of key consumer priorities in deciding whether to switch from car to bus. These are based around speed and convenience, ticketing and payment, information, journey experience and image. New quantitative surveying also in this report found 53% of car drivers said they would use the bus more if bus routes were more convenient to them and 36% would if they were faster (e.g. more bus lanes or express lanes). 21% would use the bus more if they didn't have to pay first (e.g. could use a pre-paid system or pass), 23% would if there was better/clearer service information. 14% would use the bus more if the vehicles were more modern and 16% would if they felt safer travelling by bus.

While the research shows that it is the perceived inconvenience of the bus that is a major barrier to use, it also illustrates how there is no silver bullet for motivating people's conversion from car to bus. The complex combination of entrenched emotional factors together with practical factors means that a wide range of interventions and a package of measures are needed. The varied scale of these measures means that a joined-up approach is required, that the bus industry and local and central government must work together in partnership to deliver the right

conditions needed for modal shift. Advances and investment made by the industry is already transforming the on-the-road transport offer to customers: simplified ticketing, new greener vehicles, improved passenger information, development of smartcard products. There is also much encouragement to be taken from the fact that levels of satisfaction with bus services have increased over time with 54% of bus users stating that they were very or fairly satisfied in 2003, to 69% in 2008 (Office for National Statistics 2009). Most recently research in 2010 by Passenger Focus across 14 areas found that passenger satisfaction ranged from 84% to 92%.

The vital conditions for modal shift are only possible with the existence of a public policy framework that supports the enhancement of bus services and bus travel. This framework must be built on: sufficient allocation of road space for bus passengers; thoughtful application of sustainable planning principles to land use development; measures to level the playing field of pro-car measures such as free parking with pro-bus measures such as tax incentives for bus season tickets; and inclusion of the true economic and environmental costs in the pricing of different transport modes.

Failing to act now to support the bus sector, will mean missing the most immediate and cheapest opportunities at our disposal for boosting economic growth, and tackling congestion, transport social exclusion and carbon emissions.

### 1. Why a step change in bus use is essential



Stephen Jospeh OBE
Executive Director,
Campaign for Better Transport

"Buses matter. They take people to work, education, and shops, and they link communities. This report shows how important they are and what needs to be done to enhance buses and get more people using them.

"As the report makes clear, this is not just a "transport" issue to be left to the Department for Transport - a step change in the use of buses will help achieve other Government objectives, notably getting unemployed people access to work and training, supporting high streets and improving the environment.

"I hope the messages in this report will reach other Government departments, including the Treasury."

The importance of buses to the fabric of British society is heavily underestimated. Buses are vital facilitators for economic growth and provide an immediate low cost means of reducing carbon emissions from transport. Buses also play a pivotal role in connecting people with jobs, health care, education, leisure and social networks. Indeed for the quarter of UK households without access to a car, buses remain a critical way of providing these connections. Buses also connect people to other transport modes and networks such as rail and tram stations.

### 1. 1 Buses are vital to the conditions necessary for economic growth

#### 1.1.1 Buses provide access to labour markets vital for economic growth

Transport connectivity is a major determinant of economic growth. The most successful city economies in the world are those with the highest percentage of public transport users. London, Tokyo and New York all share excellent transport infrastructure.

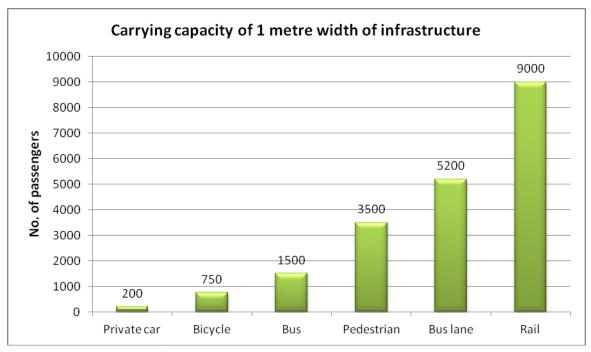
In order for any economy to grow it needs a large and skilled labour market. It naturally follows that cities with transport capacity constraints and high levels of car dependency lack access to this vital resource, which in turns acts as a constraint on growth. Where there are insufficient local rail or subway systems, buses can assist by providing access to those labour markets essential to achieve economic growth. Buses also facilitate connections to other transport modes and networks. 11% of rail passengers travel to the station by bus. A third of people would be more likely to

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<sup>&</sup>lt;sup>1</sup> Passenger Focus Report, 'Getting to the Station', August 2011

use the bus to access the rail station if better connections with the train, or more frequent services, existed.<sup>2</sup>

Allowing more people to access the same area (e.g. business district) can help increase labour markets. The concentration of economic activity and the clustering of offices, shops, entertainment centres and other land uses around public transportation stops generate significant productivity and agglomeration benefits.



G1.1.1. Source: Commission for Integrated Transport, 2001

The above graph shows the number of passengers that can be carried per metre width of infrastructure. It highlights that the car is a very inefficient use of road space compared with public transport.

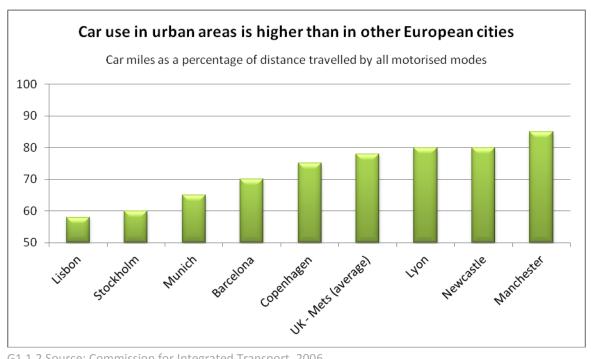
Mainland Great Britain is a densely populated island and has some of the most heavily used roads in Europe. Road space is therefore a finite resource. Buses have a far greater carrying capacity than a private car and can therefore increase the capacity of existing road networks by making more efficient use of the road space available.

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<sup>&</sup>lt;sup>2</sup> Ibid.

### 1.1.2 There is the potential for buses to play a central role in supporting growth in our city economies

The UK has relatively low public transport usage compared with the rest of Europe. Car use in urban areas in the UK is higher than in other European cites<sup>3</sup>



G1.1.2 Source: Commission for Integrated Transport, 2006

There is the potential for buses to play a central role in supporting growth in our city economies. The UK's cities are already by far the most important source of economic growth. Nearly 80% of people in the UK live in an urban area and cities, even though urban areas only cover 9% of land mass<sup>4</sup>. Successful city economies require high volumes and densities of face-to-face contacts between firms, and access to wide pools of skilled labour.

Already over a guarter of the working population in cities such as Liverpool, Manchester, Birmingham, Sheffield and Leeds travel to work by bus<sup>5</sup>. There is the scope to increase this market share and deliver major economic benefits. One study has calculated that business in Leeds would receive over £1 billion in productivity benefits over 60 years if bus journey times were reduced by 15-20%. A further £305 million benefits would be generated for firms located outside Leeds<sup>6</sup>.

<sup>&</sup>lt;sup>3</sup> European Best Practice Update, Commission for Integrated Transport 2006

<sup>&</sup>lt;sup>4</sup> ONS The UKs Major Urban Areas

<sup>&</sup>lt;sup>5</sup> The Eddington Transport Study, 2006

<sup>&</sup>lt;sup>6</sup> Transport for Leeds Study, 2010

### 1.1.3 Buses are crucial to relieving congestion on key corridors

The economic consequences of congestion are well documented accounting for a third of the measurable costs of transport in urban areas<sup>7</sup>. Not only is excess delay costing our urban economies £11 billion per annum but carbon emissions impose a cost to society equivalent of up to £4 billion a year. The costs to the health of our communities are even greater – up to £25 billion per year on the costs of physical activity, air quality and noise, and £9 billion on road traffic accidents.<sup>8</sup>

These consequences are well understood by the public. 87% of people believe that congestion is a serious problem for the country and 77% believe that it is important for Government to tackle congestion<sup>9</sup>. Average delay due to congestion is forecast to rise by some 35% by 2025<sup>10</sup>.

Good connectivity is vital to the future economic growth of urban areas, and bus services have a key role to play by reducing congestion through modal shift. Diverting a single five mile journey from car to bus will deliver average decongestion benefits of £5.50 in urban areas<sup>11</sup>, which is equivalent to benefits of around £2,350 per annum if this represents a commuting trip. High productivity and economic benefits exist from improved connectivity: a 10% reduction in travel time is forecast to increase productivity by 0.4%-1.1% <sup>12</sup>.

A comprehensive review by the International Union of Public Transport (UITP) in 2009 showed that signal priority systems, when well optimised for bus services, can achieve as much as a:

- 9.5 second reduction in delay per bus per junction (Southampton);
- 24% reduction in overall bus travel time (Toulouse);
- 49% reduction in bus travel time variability (Sydney);
- 42% increase in bus patronage (Zurich).

Evidence from five cities (Cardiff, Gothenburg, Portland, Seattle and Los Angeles) has also shown a negligible impact on delays for other traffic although this obviously depends on local circumstances and the degree of bus priority provided.

<sup>&</sup>lt;sup>7</sup> Urban Transport Analysis, Cabinet Office, DfT et al 2009

<sup>&</sup>lt;sup>8</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

<sup>&</sup>lt;sup>9</sup> ONS Omnibus Survey Oct/Nov 2007

<sup>&</sup>lt;sup>10</sup> The Eddington Transport Study, 2006

<sup>&</sup>lt;sup>11</sup> SU Analysis of WebTAG 3.9.5 - 2010 prices and values

<sup>&</sup>lt;sup>12</sup> The Eddington Transport Study, 2006

Bus priority measures also play a role in helping to improve operational efficiency of bus services, a factor which becomes of even greater importance in economically challenging times.

**Professor Stephen Glaister CBE**Director, RAC Foundation

"For all the debate over dubious grands projets like high speed rail, ministers need to keep one foot on the ground and remember where the vast majority of travel takes place: by bus and car on the roads. RAC Foundation research has shown the often poor quality of the road network is a major concern amongst the Great British public.

"Amongst its many crucial messages, this report highlights the importance of bus journey reliability to users. If more drivers are to be encouraged out of their cars, congested, pothole strewn roads will do little to help. The message is clear: before embarking on hugely expensive infrastructure schemes of arguably marginal value, let's preserve what we have already got – to the benefit of us all."

### 1.1.4 Buses provide vital support for local businesses and retail economies

Research has identified that High Street turnover increases by between 5% and 15% following investment in schemes to improve the public realm<sup>13</sup>, and that people who travel to the shops on foot, by cycle or by public transport spend as much as if not more than those who travel by car<sup>14</sup>

High streets will lose out if cuts to public spending cause services to be withdrawn and fares to go up. Bus users spend on average £29.90 per shopping visit, and around 120-150 shopping trips per year, suggesting an average spend of £3,630 to £4,545<sup>15</sup>. Moreover bus passengers shop more frequently in town centres than car borne shoppers. Half of all weekday shoppers visit the town centre by bus three or more times per week, whereas only a third of car borne shoppers do<sup>16</sup>.

Transport is the primary concern when the business community are asked how cities could be improved<sup>17</sup>.

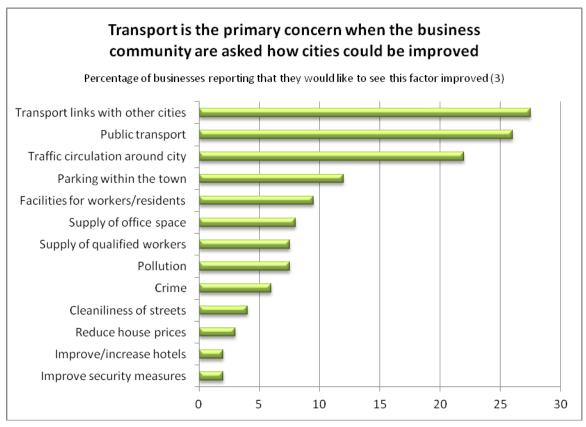
<sup>&</sup>lt;sup>13</sup> London Development Agency 2010

<sup>&</sup>lt;sup>14</sup> Transport for London 2002, 2009; Sustainable Transport Choices and the Retail Sector, CfIT, 2006; Geeson & Grohmann 2002

<sup>&</sup>lt;sup>15</sup> The Value of Buses to the Economy, Confederation of Passenger Transport, 2010

<sup>&</sup>lt;sup>16</sup> The Role of Bus in the Urban Economy, Confederation of Passenger Transport, 1994

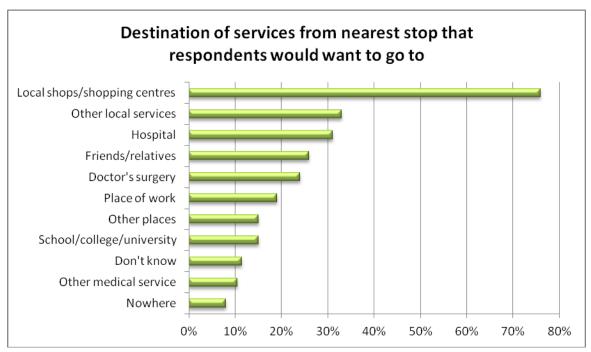
<sup>&</sup>lt;sup>17</sup> UK Cities Monitor 2008



G1.1.4 Source: UK Cities Monitor, 2008

Bus companies are themselves local businesses and make a vital contribution to employment and other local businesses. In total there are around 123,000 employees in the bus industry, who spend an estimated £2.1 billion in the economy and contribute £0.67 billion in income tax and national insurance contribution. In addition, the bus industry provides over £2.5 billion worth of services to a range of suppliers<sup>18</sup>.

 $<sup>^{18}</sup>$  The Value of Buses to the Economy, Confederation of Passenger Transport, 2010



G1.1.4 (i) Source: NS Opinions February 2009

### 1.2 Buses provide an immediate low cost means of reducing carbon emissions from transport

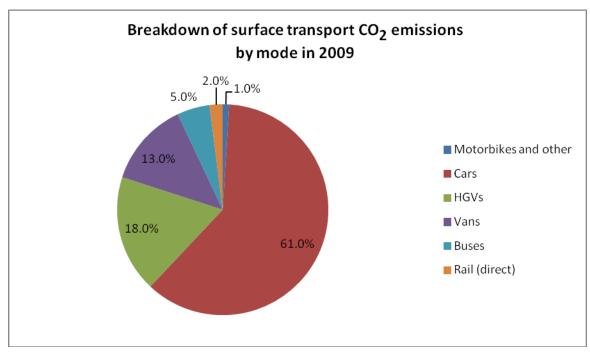
### 1.2.1 Passenger cars produce 61% of CO<sub>2</sub> emissions from surface transport

Domestic transport emissions currently account for around 25% of total UK CO<sub>2</sub> emissions and 21% of all Green House Gas emissions in the UK<sup>19</sup>. Carbon emissions impose a cost to society equivalent to £4 billion per annum<sup>20</sup>. Passenger cars produce 61% of UK surface transport emissions compared to 5% from buses<sup>21</sup>

<sup>&</sup>lt;sup>19</sup> Meeting Carbon Budgets, 3<sup>rd</sup> Progress Report to Parliament, Committee on Climate Change

<sup>&</sup>lt;sup>20</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

<sup>&</sup>lt;sup>21</sup> Meeting Carbon Budgets, 3<sup>rd</sup> Progress Report to Parliament, Committee on Climate Change: Source DECC (2011) 2009



G1.2.1 Source: DECC (2011) 2009 UK greenhouse gas emissions, final figures

### 1.2.2 Modal shift from car to bus provides an immediate and low cost means of reducing carbon emissions from transport

Modal shift from car to bus provides an immediate and low cost means of reducing carbon emissions from transport, and could make a real impact to total emissions reduction in the UK.

Average number of people in a car is 1.58, compared to 32 of a coach $^{22}$ . At 30g CO $_2$  per passenger kilometre the express coach is the most carbon efficient form of motorised transport resulting in less than a quarter of the emissions per passenger than equivalent journey by car $^{23}$ . The average number of passengers on a bus is  $9.3^{24}$ . Average CO $_2$  per bus passenger per km is approximately 100g CO $_2$ . In a city a journey by bus can result in half the CO $_2$  emissions per passenger compared to the car and this differential would become much greater with modal shift. Thus, a passenger swapping from car to bus immediately achieves a carbon saving from the car as there is virtually no carbon cost of extra bus passengers.

Department for Transport analysis indicates that a substantial proportion of drivers would be willing to drive less, particularly for shorter trips, if practical alternatives were available.<sup>25</sup> Around two in every three trips we make are under 5 miles in

<sup>24</sup> DfT, National Travel Survey 2009

<sup>&</sup>lt;sup>22</sup>Carbon Pathways Analysis, National Travel Survey

<sup>&</sup>lt;sup>23</sup> ECCM, Defra, DfT 2006

<sup>&</sup>lt;sup>25</sup> British Social Attitudes Survey, 2009

length, many of which could be easily cycled, walked or undertaken by public transport<sup>26</sup>. 87% of households in Great Britain are within a 6 minute walk of a bus stop.<sup>27</sup>

People are travelling for a broad spectrum of reasons on predominantly short trips (under 10 miles). Around 40% of all transport carbon emissions is generated by these trips, with trips in the 2 to 5 mile category contributing 40% of these emissions. However, with the exception of the very shortest trips, the private car remains the mode of choice. Key opportunities lie in making alternative modes more attractive when it comes to these shorter trips<sup>28</sup>.

### **Case Studies**

**Arriva Midlands**' telemarketing campaign in Derby underpinned a £7m improvement package of 59 new buses, customer service training for drivers and improved infrastructure as well as offered a week's free bus travel to non bus users. 99% of former non users that took up week's free bus travel enjoyed experience, 79% made at least 4 return journeys and 94% claimed would continue to use bus on regular basis.

**Stagecoach**'s Ecodrive campaign promoted the benefits of green transport and pushed bus use as one of most effective ways of reducing carbon emissions. Using direct mail and telemarketing, it offered 75,500 people across South Yorkshire and North East Derbyshire seven days free bus travel – over 18% took advantage of offer compared to 2% anticipated by Direct Marketing Association.

**Metro**'s 'Give Your Car a Break' campaign was designed to reduce carbon dioxide emissions attributable to work-related travel and used the added incentive of free public transport tickets. Post campaign research showed that up to 82% of drivers issued with free ticket continue to use public transport after their ticket had expired. Approx 65 tonnes of CO<sub>2</sub> were saved during ticket validity period of these campaigns and the 'converted' public transport users will have saved approx 130 tonnes in the first year. Many participants have since bought annual Company MetroCards or operator season tickets.

 $<sup>^{26}</sup>$  Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

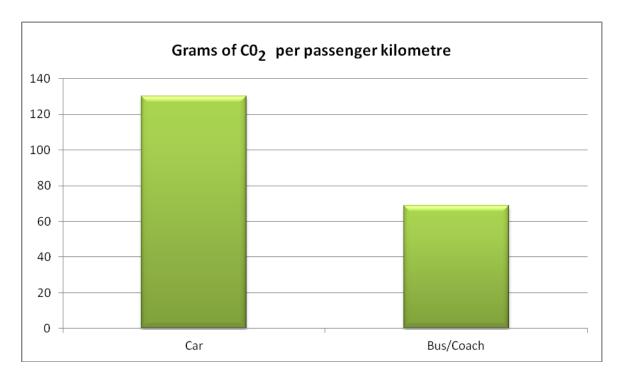
<sup>&</sup>lt;sup>27</sup> DfT, National Travel Survey, 2009

<sup>&</sup>lt;sup>28</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

### 1.2.3 Modal shift from car to bus can deliver further CO<sub>2</sub> savings by reducing congestion

Modal shift from car to bus can also deliver further significant savings in CO<sub>2</sub> by reducing congestion. Congestion dramatically increases emissions from road vehicles. Under heavily congested conditions tail pipe emissions can be increased by as much as 3 or 4 times<sup>29</sup>.

Over the past decade congestion has also caused the speed of bus travel to fall by between 10% and 20%, causing operators to have to run extra services just to maintain timetables.



G1.2.3 Source: Carbon Pathways Analysis, DfT. Data NAEI 2006

### 1.2.4 Greener Journeys' "ONE Billion Challenge"

In 2009 Greener Journeys launched The ONE Billion Challenge. It was estimated that if car drivers switched from car to bus or coach for just one journey in 25 it would mean one billion fewer car journeys on our roads and a reduction of 2 Million Tonnes of CO<sub>2</sub> <sup>30</sup>. This would deliver an additional 50% reduction in CO<sub>2</sub> from domestic transport to the reductions planned over the same period by current Government policies <sup>31</sup>.

<sup>&</sup>lt;sup>29</sup> Bell M.C. Environmental Factors in Intelligent Transport Systems, IEE Proceedings 2006

<sup>&</sup>lt;sup>30</sup> The Road to a Carbon Efficient Britain, Greener Journeys 2009

<sup>&</sup>lt;sup>31</sup> Low Carbon Transport: A Greener Future 2009, Department for Transport

It is intended that this target will be achieved through increasing average loadings, with the help of bus priority and other policy measures to make it easier for people to travel by bus and coach, along with national and regional consumer awareness campaigns. These measures would make a significant difference to existing passengers and would create a virtuous circle, whereby both existing and new passengers would choose to travel more often by bus or coach instead of car. It is anticipated that with the widespread application such measures there is the opportunity to go further, potentially taking billions more car journeys off the road and making greater inroads into delivering on the Government's carbon reduction targets.

### 1.2.5 A shift towards low carbon buses, greener bus technology and carbon efficiency

The bus industry has already been working hard to reduce its carbon footprint.

Operators have been achieving savings in fuel consumption with fuel efficient driver training. The use of alternative fuels has generated carbon savings of up to 80% from bio-fuels made from recycled waste. Improved site efficiency at depots and other premises have produced savings of up to 20% and the use of renewable energy at some sites has seen 70% of the energy consumed is from wind-power, hydro-power or bio mass. The industry is also investing in cleaner vehicles, which, over the last five years, has had a real impact on lowering local emissions. Low carbon buses use a third less fuel and emit 30% less CO<sub>2</sub> emissions than diesel equivalents.

### **Case Studies**

**Stagecoach** has launched a fleet of greener buses powered by household rubbish and animal waste. The converted vehicles are expected to deliver at least a 40% carbon saving compared to standard buses as well as improving fuel consumption. In 2007 it launched the UK's first bio-bus which operates on 100% bio-fuel made from used cooking oil and other food industry bi-products which has reduced CO<sub>2</sub> emissions from the vehicles by 80%. It has also installed a bio-blender at one of its depots in order to mix its own biofuel.

**FirstGroup** introduced DriveGreen technology to all its UK buses in early 2010. LED displays on the dashboard help the driver drive more fuel-efficiently. A £2 million reward pool was established to motivate drivers to reach the highest standards. An independent review has shown that in practice it is achieving improvements in the region of 2.3% which represents about 16,000 tonnes of carbon dioxide. It is now exploring how it might adapt the system to achieve further

fuel efficiency improvements. Investment in cleaner vehicles has resulted in a reduction in emissions since 2006. Carbon monoxide emissions from its UK fleet

fell by 31% from 896 tonnes to 617 tonnes. Particulates fell from 110 tonnes to 66 tonnes, Hydrocarbons were reduced from 262 tonnes to 165 tonnes and Nitric oxides from 4427 tonnes to 3435 tonnes.

**Arriva**'s EcoManager system provides drivers with real-time feedback on their driving performance using an LED display. A 2008 trial resulted in fuel savings of up to 12% and is now being deployed across all its UK operations. It is estimated that this has saved more than 1,500 tonnes of carbon dioxide. Arriva has reduced its carbon emissions by 4%, equivalent to almost 20 thousand tonnes of CO<sub>2</sub> through investment in fleet modernisation, bio-fuels and the EcoManager system.

**Go-Ahead** has achieved a two per cent improvement in bus fuel efficiency. This has been achieved through a continued focus on fuel efficient driving and the introduction of engine idle shut-down systems to cut fuel wastage and minimise emissions. Progress in reducing emissions is also being made through investment in cleaner vehicles, the use of intelligent lighting in bus depots and a new car scrappage scheme.

**National Express** Group has fitted Traffilog system for real-time tracking of driving techniques combined with driver training. Initial evaluation results showed an average of 11% improvement in fuel consumption.

### 1.3 Buses are crucial for tackling social exclusion

Buses meet important social needs and are often an integral part of the local community. They have a vital role to play in maintaining the fabric of our communities, but this role is being threatened as a direct result of changes to BSOG which is regrettably leading to fares increases - a serious barrier for lower socioeconomic groups who rely on the bus the most. A recent report from the Transport Select Committee<sup>32</sup> also highlights how isolated many places are going to become as a result of the fact that over 70% of local authorities have already decided to reduce funding for supported services as a result of budgetary pressures, and that in rural areas, evening and Sunday bus services will be particularly badly affected.

<sup>&</sup>lt;sup>32</sup> House of Commons Transport Select Committee Report, 'Bus Services after the Spending Review', 2011

### 1.3.1 Buses are essential for people on low incomes

People on low incomes without access to free travel are at risk of being priced out of transport. The relatively high level of bus use amongst the poorest households reflects poor accessibility to other modes. Just over half the poorest households do not have access to a car compared to the national average of 25%. It is the poorest households which make greatest use of the bus network: 44% of the poorest households use bus services at least once a week compared to 28% of the overall population.

Research by the Passenger Transport Executive Group (pteg) shows that the minimum income required for an acceptable standard of living has risen steeply compared to general inflation because of significant rises in the price of certain commodities that are heavily represented in a minimum budget, such as food and transport. Their findings suggest that low income families are already struggling to keep pace with rapidly rising bus fares. More fare hikes could push these families still further away from what their peers consider to be an acceptable living standard<sup>34</sup>.

### 1.3.2 Lack of transport can be a serious barrier to looking for work and accessing further education

In 2008, 44% of workless households did not have access to a car or van (compared with 22%) of all households<sup>35</sup>. Nearly two-thirds of people claiming income support or jobseekers allowance do not have access to a car or licence to drive it<sup>36</sup> Two out of five jobseekers say lack of transport is a barrier to getting a job, and one in four jobseekers say that the cost of transport is a problem in getting to interviews<sup>37</sup>. 13% of people say they have not applied for a job in the last 12 months, and this rises to 18% for people living in low income areas.<sup>38</sup>

Not only does poor transport act as a significant barrier to employment, it is also linked to low participation in post-16 education. More than one in five students have considered dropping out of further education because of financial difficulties and transport costs are the biggest expenditure associated with post-16 education <sup>39</sup>. 6%

<sup>&</sup>lt;sup>33</sup> Equality, Work and Welfare, Campaign for Better Transport, 2010

<sup>&</sup>lt;sup>34</sup> Report on the effect of bus fare increases on low income families, PTEG 2010

<sup>&</sup>lt;sup>35</sup> Office for National Statistics, 2008

<sup>&</sup>lt;sup>36</sup> 21<sup>st</sup> Century Welfare White Paper, cited in Equality, Work and Welfare, Campaign for Better Transport 2010

<sup>&</sup>lt;sup>37</sup> Making the Connections, SEU 2003

<sup>38</sup> Ihid

<sup>39</sup> Ibid

of 16-24 year olds turn down training or further education because of transport problems<sup>40</sup>.

For these groups the bus is vital to providing access to employment.

#### **Case Studies**

Evaluation of WorkWise schemes (which combine a number of elements to help people overcome transport barriers to employment) run by **Centro** have shown that 70 per cent of beneficiaries are still in their new jobs after six months and 80 per cent would have struggled to reach employment opportunities without WorkWise support.

As part of **South Yorkshire PTE**'s Access to Opportunities initiative, its Travel Advice team has provided nearly 3,000 personalised journey plans to individuals seeking work, training or education. Nearly 4 million passenger journeys have been made on the three enhanced services to the employment zone in the Dearne Valley (represents about 20% growth).

**Metro**'s Travel for Work project funded by Yorkshire Forward and a partnership with employers and JobCentrePlus involved 4,250 jobseekers being assisted into employment by addressing information and cost barriers to their travel. This was achieved by providing a free countywide ticket for first month of employment and personalised travel information, pre and post take up of employment. Feedback from questionnaires sent 13 weeks after receipt of a ticket revealed 23% wouldn't have been able to accept the job, 66% were still working for the same or other employer and 76% of those still working were continuing to travel by bus. At the end of project a 33% discount on tickets was agreed with the bus and train operators and the discounted tickets can now purchased by Job Centre Plus.

### 1.3.3 Lack of transport opportunities creates a vicious cycle leading to social exclusion

Some 44 per cent of people without access to a car find it difficult to get to the doctors or to hospital - particularly true for the lowest income families, over half of whom lack access to a car<sup>41</sup>. 31% of people without a car have difficulty travelling to their local hospital, compared to 17% of people with a car<sup>42</sup>. Missed outpatient

<sup>40</sup> Ibid

<sup>&</sup>lt;sup>41</sup> Making the Connections, SEU 2003

<sup>&</sup>lt;sup>42</sup> Defra 'Sustainable Development Indicators in your Pocket 2009'

appointments alone cost hospitals £600m a year (£100 in lost revenue per missed appointment)<sup>43</sup>.

16% of people without cars find access to supermarkets difficult, compared to 6% of the population as a whole. <sup>44</sup> 18% of people without a car find seeing friends and family difficult because of transport problems, compared with 8% of car owners <sup>45</sup>. People without cars are also twice as likely to find it difficult getting to leisure centres and libraries <sup>46</sup>. Children from the lowest social class are five times more likely to die in road accidents than those from the highest social class <sup>47</sup>.

The bus can be easily deployed to provide effective access solutions.

#### **Case Studies**

**Centro** together with Wolverhampton Primary Care Trust and Wolverhampton Community Transport delivered a new bus service to connect disadvantaged communities in Wolverhampton to a health centre for children and young people. As a result, non-attendance at the centre's clinics reduced by 60 per cent.

Peterborough City Council, Peterborough & Stamford Hospitals Trust & Stagecoach in Peterborough recognised the increasing importance of the city's two strategic hospitals, Edith Cavell and District, to patients and an ever growing need for staff to travel between the two sites. A brand new dedicated bus service was launched with Stagecoach offering their tickets to the Trust at a reduced cost along with discounted return tickets to allow staff 'free' travel between the two hospital sites. There has been a 334% growth since sales began in 2005.

<sup>&</sup>lt;sup>43</sup> Dr Foster Health and the NHS Information Centre, 'Outpatient appointment no-shows cost hospitals £600m a year' (http://www.drfosterhealth.co.uk/features/outpatient-appointment-no-shows.aspx)

<sup>&</sup>lt;sup>44</sup> Making the Connections, SEU 2003

<sup>&</sup>lt;sup>45</sup> Ibid

<sup>46</sup> Ibid

<sup>47</sup> Ibid

### 1.4. Buses bring many wider positive health and environmental benefits to individuals and society

### 1.4.1 Buses have a major role to play in reducing costs of transport arising from poor air quality, ill health and road accidents

Costs to society of poor air quality, ill health and road accidents in urban areas are each similar to congestion, exceeding £40bn<sup>48</sup>. Travelling by bus or coach is eight times safer than travelling by car<sup>49</sup>. By supporting a more efficient use of road space and reduction in congestion, buses can play a key role in reducing the damage to health caused through road transport by poor air quality.

The value of preventing all accidents that were reported across the UK in 2009 is estimated at £16 billion. Buses' role in helping to reduce the number of vehicles on the roads should have a tangible effect on the reduction of pedestrian accidents.

Air pollutants from transport negatively affect both short and long term health. The estimated health cost of particulate pollution alone is between £4.5bn and £10.6bn per annum<sup>50</sup>. Again, through its role in reducing congestion and encouraging modal shift, the bus is able to have a positive impact on transport emissions.

### 1.4.2 Contribution of bus to active travel agenda

Bus has a key role to play in encouraging more active travel, as most bus journeys involve a walk to and from the bus stop compared with the much more sedentary experience of travelling by car.

A new study conducted on behalf of Greener Journeys shows how just taking the bus five times a week provides an effective and accessible means for people to get half their recommended 30 minutes of moderate physical activity at least five times a week. One hundred participants using pedometers across the UK showed how a return journey on the bus involved walking 1.3km versus 0.3km if taking the car. This would burn 62 calories versus the 16 calories for the car<sup>51</sup>.

Department for Transport analysis indicates that a substantial proportion of drivers would be willing to drive less, particularly for shorter trips, if practical alternatives were available. <sup>52</sup> Around two in every three trips we make are under 5 miles in

<sup>&</sup>lt;sup>48</sup> Urban Transport Analysis, Cabinet Office, DfT et al 2009

<sup>&</sup>lt;sup>49</sup> DfT, Transport Statistics Great Britain

<sup>&</sup>lt;sup>50</sup> The Air Quality Strategy, Defra 2007

<sup>&</sup>lt;sup>51</sup> Mindlab International, August 2011

<sup>&</sup>lt;sup>52</sup> British Social Attitudes Survey, 2009

length, many of which could be easily cycled, walked or undertaken by public transport<sup>53</sup>. 87% of households in Great Britain are within a 6 minute walk of a bus stop.<sup>54</sup>

Physical inactivity is conservatively estimated to cost the economy £9.8 billion per annum. This does not include the cost of obesity, which also represents a significant cost to the economy. Greater use of active travel modes could potentially reduce these costs substantially.

Even minimal adherence to current recommendations for physical activity would lead to a 20-30% reduction in risk of all causes of death. The recommended levels of activity can be achieved by walking 30 minutes on most days. These exercise times do not have to be taken in a single block: a ten minute walk three times a day is all that is needed.

People acknowledge the wider benefits of walking. Over 90% of adults consider that everyone should be encouraged to walk to help their health, help the environment and to ease congestion. One third of adults indicate that their only form of exercise in a typical month is walking for more than 10 minutes at a time.<sup>55</sup>

### 1.4.3 Making our towns and cities more pleasant places to live

Buses have a vital role to play in making our towns and cities less congested and less car dependent, and more pleasant places to live. Local transport is one of the main issues which directly affects people's quality of life and also indirectly affects many of the other issues which contribute to it. 85% of people feel that the quality of public space impacts directly on how they feel<sup>56</sup>. Poor transport can contribute to negative experiences of urban streets and public spaces which whilst so far unquantifiable are of major concern to those who live and work in cities.

Clean streets, public transport and lack of congestion are among the attributes seen as important in making places good to live in. Traffic is the sixth most mentioned issue affecting people's own quality of life. And nine out of ten people in England say that road traffic is fairly or very important to quality of life<sup>57</sup>

<sup>&</sup>lt;sup>53</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

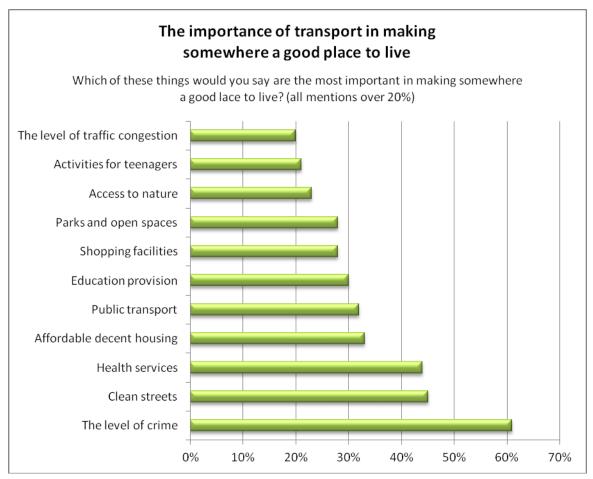
<sup>&</sup>lt;sup>54</sup> DfT, National Travel Survey, 2009

<sup>&</sup>lt;sup>55</sup> Public Attitudes to Transport, Department for Transport 2008

<sup>&</sup>lt;sup>56</sup> Streets of Shame, CABE 2002

<sup>&</sup>lt;sup>57</sup> Anti-Social Behaviour and Respect: People, Places and Perceptions, Ipsos Mori 2007

In the last national noise attitude study it was found that 84% of the population hear traffic noise and around 40% are bothered, annoyed or disturbed by it<sup>58</sup>. Indicative estimates by the Interdepartmental Group on Costs and Benefits Noise Subject Group have suggested that annual cost of traffic noise was in the region of £3-5 billion<sup>59</sup>. Transport features strongly in the list of factors that "make somewhere a good place to live" (see graph).



G1.4.3 Source: Department for Communities and Local Government, 2008

Transport is one of the most important factors in urban areas that affects enjoyment of space. Spaces that are more enjoyable can have economic and social benefits. The positive impact of urban quality improvements (e.g. pedestrianisation) on economic activity can be highly significant. Retail footfall can be increased by 20 to 40% and retail turnover by 10 to 25% 60

<sup>&</sup>lt;sup>58</sup> Grimwood and Skinner 2005, cited in Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

<sup>&</sup>lt;sup>59</sup> Department for Environment, Food and Rural Affairs 2010

<sup>&</sup>lt;sup>60</sup> The effect of urban quality improvements on economic activity, Whitehead et al 2006

Beautiful spaces provide higher recovery from stress and mental fatigue, faster recovery from illness and long-term health improvements. In one study, heavy traffic resulted in longer recuperation time from stress compared to a traffic-free area<sup>61</sup>

Research carried out by the University of Sussex found that motorists face a hidden mental health impact from the stresses of driving, while bus travel can produce long-term health benefits. The study found that driving produced significantly greater amounts of stress than taking the bus which was 33% less stressful<sup>62</sup>.

<sup>&</sup>lt;sup>61</sup> Health effects of viewing landscapes, Velarde 2007 cited in Urban Transport Analysis

<sup>&</sup>lt;sup>62</sup> University of Sussex, 2010

## 2. Influencing public behaviour: consumer priorities in switching from car to bus



**David Brown**Group Chief Executive,
Go-Ahead

"High quality services combined with good marketing and promotion of buses have got people thinking seriously about the way in which they travel. There is now a real chance to achieve unprecedented levels of modal shift from car to bus, and the opportunity must not be missed.

"Policy and support from national and local government will assist in providing better bus services – for example through the provision of more bus priority lanes on the roads and an understanding of the role of bus passengers in helping to create vibrant local economies. That kind of support is fundamental to encouraging people out of their cars."

### 2.1 Understanding how consumers decide which mode of transport to use

### 2.1.1 Context for decisions

Travel choices are influenced by a range of motivations, but a key factor in determining which mode of travel a person will decide to use is **habit**.

Orthodox approaches to understanding travel behaviour have often focussed on monetary cost and time cost. In addition, convenience, reliability, comfort and status play a role in determining why, where, when and how people travel. The reasons for having (or changing) particular travel motivations are also a consequence not only of personal preferences but of the views of others<sup>63</sup>.

However, evidence suggests that people take "short-cuts" in the decision-making process. This results from using heuristics (rules-of-thumb) in assessing options and also in assuming that once a decision has been made it is applicable to similar future scenarios. Research in Darlington suggests that, whilst 40% of people have at some point given serious thought to their regular journeys, for the last journey 90% had given no thought at all<sup>64</sup>

Interventions need to challenge pre-conceived views and irrational habits. The existence of habit can be problematic for interventions to change travel behaviour. Habit suggests an elasticity in why, where, when and how people travel: even if the relative cost, reliability, comfort and convenience of a person's choices change, it takes time for those changes to lead to different travel behaviour<sup>65</sup>.

<sup>&</sup>lt;sup>63</sup> Enhancing the Effectiveness of Urban Transport by Better Understanding of Travel Choices, Phil Goodwin 2009

<sup>&</sup>lt;sup>64</sup> Steer Davis Gleave

<sup>&</sup>lt;sup>65</sup> Enhancing the Effectiveness of Urban Transport by Better Understanding of Travel Choices, Phil Goodwin 2009

### 2.1.2 Approaches to changing behaviour

There are broadly two ways of thinking about changing behaviour: the rational cognitive model, and the context model <sup>66</sup>. The former is the standard model in economics, and the presumption in this approach is that people will act in a way that reflects their best interests. The latter model relies on the more automatic processes of judgement and influence, what Robert Cialdini calls the "click, whirr" processes of the mind<sup>67</sup>. This approach focuses attention away from facts and figures towards altering the context within which people act. The context model recognises that people are sometimes seemingly irrational and inconsistent in their choices, often because they are influenced by surrounding factors. Therefore it focuses on "changing behaviour without changing minds".

These insights are very helpful in the context of changing travel behaviour as people's travel habits can be deeply engrained, and if they are to be persuaded to switch from car to bus a wide range of interventions and package of measures is needed. An effective approach needs to use such insights to inform awareness campaigns, supported by measures such as allocation of road space for buses, or fiscal measures to encourage consumers to choose bus for work travel.

It is important that context model approach does not attempt to replace traditional ways of changing behaviour through legislation, fiscal measures and incentives. Rather it needs to extend and enhance them, adding new dimensions that reflect fundamental, but often neglected, influences on behaviour<sup>68</sup>.

### 2.2 Experience from previous modal shift/travel behaviour campaigns

#### 2.2.1 Case Study 1: Sustainable Travel Towns

The experience of the Sustainable Travel Towns initiative demonstrates that travel habits are more likely to be challenged when people are in the process of changing other aspects of their lives such as moving home, job or school. Targeting interventions at people with a greater propensity to change travel behaviour will make interventions more efficient and cost effective.

In total £15 million of local and government funding was invested in the three towns: Darlington, Peterborough and Worcester over a five year period 2005 to 2009. The

<sup>&</sup>lt;sup>66</sup> MINDSPACE: Influencing behaviour through public policy, Cabinet Office 2010

<sup>&</sup>lt;sup>67</sup> MINDSPACE: Influencing behaviour through public policy, Cabinet Office 2010

<sup>&</sup>lt;sup>68</sup> MINDSPACE: Influencing behaviour through public policy, Cabinet Office 2010

effectiveness of a "package" approach with Smarter Choices or "nudge" measures was explored, and by the end of the period travel behaviours were shifting towards sustainable modes. The interventions were demonstrated to be high value for money, resulting in reductions in congestion and CO<sub>2</sub> emissions, and increases in physical activity. Across the three towns there was a reported reduction of 7-9% in the number of car trips, an increase of 10-22% of bus trips per person, an increase of 26-30 % in cycle trips per person and a 10-13% increase in walking trips per person.

### 2.2.2 Case Study 2: Smarter Travel Sutton

Smarter Travel Sutton was a three-year, £5m project, funded by Transport for London (TfL) and delivered in partnership with the London Borough of Sutton, local businesses and the local community. A three-year social marketing project which ended in 2009, it was aimed at reducing congestion through behavioural change. Results include a 6% modal shift away from car use, a 16% increase in bus patronage, 5% reduction in number of pupils travelling to school by car, 75% increase in cycling and a 3% increase in walking mode share.

#### 2.2.3 Case Study 3: Greener Journeys 2010 pilot campaigns

Last year Greener Journeys launched the first-ever national consumer marketing campaign to persuade people to get out of cars and on to buses. A four year campaign, it aims to change people's behaviour towards travel, to increase people's understanding of the benefits of taking the bus and to encourage people to consider buses as a greener travel option for trips where it makes sense e.g. shopping in town, heading to a restaurant. The campaign consisted of a national PR campaign, a pilot in three areas, a ticket giveaway and lobbying for increased bus priority measures.

The three regional pilots focussed on Exeter, Norfolk and Milton Keynes. Post-campaign analysis found that 6/10 people agreed the bus can be better for certain journey, 54% said they would consider taking the bus for certain journeys in future and more than a third had seen or heard of the campaign. While each area is immensely different with its own regional infrastructure and travel behaviour, Greener Journeys was encouraged to find that:

- Norwich: after experiencing 5% decline year on year, passenger numbers remained constant during the campaign when combined with local activity undertaken by FirstGroup.
- Milton Keynes: this city, so famously built for driving, experienced 3% growth during the campaign, which coincided with significant improvements to local services undertaken by Arriva.
- **Exeter**: investment in regional press drove over four passengers per pound invested.

### 2.3 Greener Journeys 2011 ethnographic research: "Why not take the bus?"

**Dr Jillian Anable**Senior Lecturer, Aberdeen
University

"The novel consumer research presented in this report confirms that increasing bus patronage will require more than a gentle nudge to overcome existing inertia in travel behaviour. But, combined with evidence from real world successes, it also shows that practical, fiscal and emotional barriers to bus travel are all surmountable with the right combination of push and pull.

"The evidence about what works is robust. The benefits of investment in bus travel are far reaching. Car use is peaking. Carpe diem."

#### 2.3.1 Insight from ethnographic research

In 2011 Greener Journeys commissioned ethnographic research to understand more about the barriers to bus use and how more people could be persuaded to choose the bus, "Why not take the bus?" Ethnographic research involves studying people's existing habits and behaviour, then studying some new behaviour and inviting them to reflect and comment on this experience. This is called the "co-discovery" approach, and it is particularly helpful when applied to people's travel choices and habitual behaviour as it uncovers often unconscious behaviour and assumptions and provides a richer understanding of the issues involved in, for example, switching from car to bus.

The underlying assumption of ethnographic research is that people tend to act in their own self-interest, to be set in their habits and resistant to change. Applying insights from behavioural economics, people make (often irrational) choices which are convenient or easy to them, which save them time and mean they don't have to think too much. People often have misapprehensions about things they are less familiar with (availability error). All of these factors mean that a study of how people

make transport choices needs to be firmly grounded in the reality of what they currently do, needs to take into account the options available to them and needs to include relevant incentives, triggers, barriers and other behaviour change mechanisms.

### 2.3.2 How transport choices are made in car-owning households

The research demonstrated that transport choices are largely made through habit, the most common habit for Greener Journeys' ethnographic sample is to take the car. People did not make a 'considered', calculated transport choice, they simply do what they did last time. Habit and familiarity meant that the 'choice' was highly 'loaded.'

#### 2.3.3 The convenience of the car makes it the "default choice"

The car is clearly the default choice. The car defines or conditions 'convenience' and is the transport mode against which others are compared. It is perceived as having strong practical and emotional benefits. It is considered 'part of the family' with it being a permanent feature on the drive or directly outside on the road. Indeed, it is viewed as part of the home in that the car keys are kept permanently inside the home and owners' personal items are often stored within the vehicle. It is immediately accessible, weather proof, can take you exactly where you want to go whenever you want to go, can make multiple stops and can carry heavy items and other people. It is regarded as safe and secure, liberating and status affirming. The car is also perceived to be cheaper than public transport. Indeed, the cost of motoring is largely unnoticed, except when filling up with petrol or paying parking fees / fines. People feel as if they have 'already paid' for using the car in terms of vehicles purchase costs and advance payment of road tax, car insurance and MOT. This is despite the fact that bus travel is a proven good value option with discounted weekly travel available right across the UK for low costs. However, the ethnographic research revealed that car drivers are more likely to consider switching to using the bus is services were improved (67%) than if costs are addressed (53%).

#### 2.3.4 Lack of familiarity with bus travel

Everything that makes the car feel familiar, safe and convenient, is what makes the bus feel the more 'alien' choice of travel. The bus is perceived as being only accessible far from the home, that its routes are not direct to where people want to go and that it can be unreliable and therefore rarely used for work or for when deadlines applied. For many it was the lack of familiarity with using the bus that generated many of the negative notions such as being unsure of where to find service information and once found, did not always understand it.

#### 2.3.5 Key barriers/priorities for encouraging modal switch

The ethnographic research revealed that there are five main factors that play a major role in influencing the travel mode decisions of car drivers and which therefore represent the key areas around which interventions should be applied so as to encourage consumers to switch some of their journeys to bus:

#### Key 'switch' factors in shifting from car to bus:

- 1. **Speed/convenience** no matter how good the bus experience could be made, the bottom line was that if it took participants considerably less time to drive to their destination than the bus, then the bus lost out. Many felt more bus priority systems like bus lanes, more direct A to B services and more frequent services especially at peak times were part of the answer. Additional quantitative research also showed that 53% of car-driving respondents said they would use the bus more if bus routes were more convenient to them and 36% would if they were faster (e.g. more bus lanes or express lanes).
- 2. Ticketing/payment participants found their first act of engagement with the bus, the 'pain of paying' immediately detracted from the overall journey experience. The uncertainty about the exact fare for the journey, whether change was given or 'exact fare only' was in operation, appeared to many to be inconvenient and an outdated concept. A means of 'pay as you go' was desired and seen as the best way of overcoming the initial 'pay first' barrier. Additional quantitative research also showed that 21% would use the bus more if they didn't have to pay first e.g. they could use a pre-paid system or a pass.
- 3. Information participants identified three main places where service information is required: at home; at the bus stop; and on the bus. There is confusion about who is the most appropriate provider for service information. Timetables are thought to be confusing e.g. buses every 15 minutes until 5pm then buses at 5:13, 5:23, 5:38 as is bus stopping etiquette. The on-bus experience also generated anxieties about where the bus is currently on route and which is the right stop for the desired end location/venue. Additional quantitative research also showed that 23% of car drivers would use the bus more if there was better/clearer information about the bus services.
- 4. Journey experience while participants reported having had a 'better than expected' bus journey experience immediately afterwards, later evaluation showed some of the positives had worn off with nobody having yet been 'converted' to replace car journeys by bus and that it would take more

experience to get into the bus habit. Some pointed to the need for more direct services from A to B and for the driver to act as a better 'host'.

5. Image – many seemed to rely on their past memories of buses/bus travel, viewing them as not yet having adapted to 21st century in terms of a service ethic or hospitality comparable to trains or planes and in harnessing new technologies. Bus use was also associated with less affluent citizens: pensioners, teenagers, unemployed who have no choice but to go by bus.

A poor perception of safety and anti-social behaviour on buses existed, that trouble-makers travel by bus and that travelling late at night would not be desirable. Additional quantitative research also showed 14% of car drivers would use the bus more if the buses were more modern with 12% associating the bus as old-fashioned. 16% would use the bus more if they felt safer while on the bus.

#### Respondent insights from the ethnographic research

#### General

"The car is convenience really. It is just there. If the children want to go into town, I have not really thought about them going by bus. We just take the car."

(Basingstoke, Malcontented Motorist)

"There is this perception that drivers are being forced off the road by costs, which have gone through the roof. (But) people are still taking the car and putting convenience above cost." (Car Complacent, Glasgow)

#### Speed / Convenience

"Local authorities will need to help and improve the service. The government has got to be able to subsidise a bus service." (Manchester, Malcontented Motorist)

"I wouldn't travel by car to Edinburgh, I would take the train. I think more bus lanes in Glasgow would help a great deal." (Glasgow, Car Complacent)

#### **Ticketing/payment**

"I have paid my insurance and road tax ... it's already paid in advance; if you have the bus every week, I would pay for it upfront." (Car complacent, Manchester)

"If they [bus companies] did a saver thing, or something where you pay for what you use that would be even better." (Car Complacent, Sheffield)

"I thought because it was £4... to go by bus I didn't think it was worth doing by bus and there's not much difference once you've paid for the parking and go by car." (Malcontented Motorist, Basingstoke)

#### Information

"I am very confused. The 4:35 then the 5:05 then the 5:41 then the 6:30... so is it 5 past or 35 past the hour? I have no idea... I take it is the No.10 bus I need... I don't know what that 10 means." (Malcontented Motorist, Basingstoke)

#### **Journey Experience**

"Getting the bus was actually much more relaxing than I thought and it will just get there when you get there." (Malcontented Motorist, Glasgow)

"It's more convenient and less aggravating, going to Brighton at 11am on a Saturday it's virtually impossible to get a parking spot." (Malcontent Motorist, Brighton)

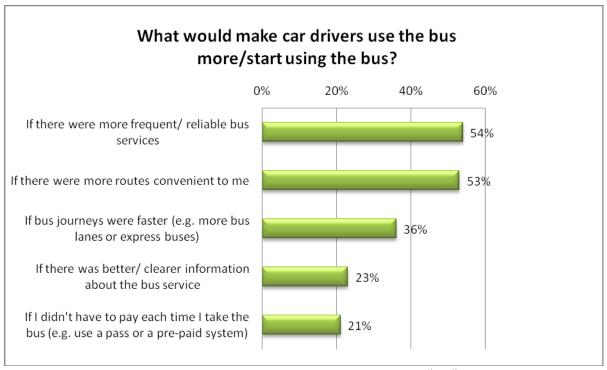
#### **Image**

"I think young kids and old people use (buses). And, because she's an exception and doesn't drive, people like my wife use it." (Brighton, Malcontend Motorist)

"The bus? It's a peasant wagon! It's just the people who use it! I want it to get me from A to B without any trouble." (Birmingham, Malcontented Motorist)

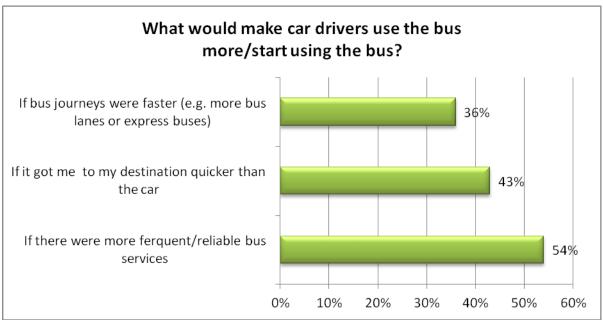
## 2.4 Key findings of supporting quantitative research (Omnibus survey) to quantify key findings from ethnographic research

#### 2.4.1 Perceived inconvenience of the bus is a major barrier to bus use



G2.4.1 Source: YouGov Plc 2011. Total sample size 2004 adults, fieldwork undertaken 5<sup>th</sup> – 8<sup>th</sup> August 2011

#### 2.4.2 Speed and reliability of journeys are key



G2.4.2 Source: YouGov Plc 2011. Total sample size 2004 adults, fieldwork undertaken 5<sup>th</sup> – 8<sup>th</sup> August 2011

# What do car drivers think about the cost of public transport? The alternatives to driving are too expensive If I could get discounted bus tickets I would use the bus more I would use the bus more if it were cheaper than using the car 0% 5% 10% 15% 20% 25% 30% 35% 40% 45%

#### 2.4.3 Car drivers perceive the cost of public transport as expensive

G2.4.3 Source: YouGov Plc 2011. Total sample size 2004 adults, fieldwork undertaken 5<sup>th</sup> – 8<sup>th</sup> August 2011

#### 2.5 Implications of 2011 research (ethnographic and quantitative) findings

The research shows that there is no silver bullet for motivating people's conversion from car to bus. The complex combination of entrenched emotional factors together with practical factors means that a wide range of interventions and a package of measures are needed.

The varied scale of these measures means that a joined-up approach is required, that the bus industry and local and national government must work together in partnership to deliver the right conditions needed for modal shift.

#### **Creating the Right Conditions to Achieve Modal Shift**

#### Local government needs to:

- Build consideration of buses into all planning decisions and engage with operators where necessary early in the process
- Seek opportunity to improve priority and ensure proper enforcement of these measures
- Consider parking policy in the context of promoting public transport use
- Work with operators to develop integrated ticketing, information systems etc.
- Ensure infrastructure supports effective public transport delivery

#### Operators need to:

- Continue to enhance their service offering with increased emphasis on customer service
- Continue to work with LAs to improve reliability and punctuality of service
- Continue to work with partners to develop ticketing solutions etc
- Develop ways to use new technology to provide information on services to customers
- Take account of research in marketing and campaigns to get more people to travel by bus, in particular seeking to remove barriers related to unfamiliarity etc.

#### Central government needs to:

- Provide adequate public funding and incentives to support bus industry e.g. fair concessionary reimbursement, BSOG and sufficient local funding for supported bus services,
- Provide tax incentives for consumers to travel by bus (e.g. bus season tickets/salary sacrifice schemes)
- Provide targets for modal shift.

There are many examples of where successful bus partnerships in the UK have already been delivering quality services and increased patronage levels.

Partners	Improvements	Results
East Yorkshire Motor Services Stagecoach Hull City Council	<ul> <li>Major new transport interchange</li> <li>Progressive service policies</li> <li>Improved fares structures</li> <li>Park and Ride schemes</li> <li>Extensive bus priority</li> <li>Awarding winning marketing campaigns</li> </ul>	<ul> <li>Major impact on perception of bus services within the city</li> <li>21.6% growth between 2004 and 2008</li> </ul>
Blackpool Transport Blackpool Borough Council Lancashire Council	<ul> <li>Focussed networking</li> <li>Increased frequencies</li> <li>Strong branding</li> <li>Improved ticketing and marketing</li> </ul>	<ul><li>4.8% growth</li><li>Network expanded beyond original core area of Blackpool</li></ul>

Brighton & Hove Brighton & Hove City Council	<ul> <li>Pioneering fare initiatives</li> <li>Award winning         branding/marketing</li> <li>Extensive bus priority</li> <li>Improvements to         passenger facilities</li> <li>Increased frequencies on         busy routes</li> <li>Cleverly marketed as         simple network</li> </ul>	<ul> <li>5% growth since 1993.</li> <li>3% reduction in city centre traffic since 2004.</li> </ul>
Stagecoach Cambridgeshire County Council	<ul> <li>Citi network</li> <li>Simplified network and fare structure</li> <li>Innovative marketing</li> <li>Range of bus priority measures</li> <li>New fleet</li> <li>Park and ride</li> </ul>	77% growth between 2001 and 2006
Blazefield Lancashire County Council	<ul> <li>Pioneered luxury fleet</li> <li>Improved frequencies</li> <li>Innovative branding and marketing</li> <li>Service simplification</li> <li>Innovative ticketing initiatives</li> </ul>	<ul> <li>Significant growth across network.</li> <li>Changed whole journey experience and perceptions of bus travel.</li> <li>24% growth on Witch Way service X43.</li> </ul>
Trent Barton Nottingham City Council Nottingham County Council	<ul> <li>State-of-the-art fleet</li> <li>Faster travel times</li> <li>Innovative marketing</li> <li>Integrated transport initiatives</li> <li>Extensive bus priority</li> </ul>	Consecutive year-on-year growth over 6 years.
First York City of York Council	<ul> <li>Park and ride schemes</li> <li>New quality vehicles</li> <li>Futuristic ftr service</li> <li>Simplification of routes/services</li> <li>Extensive bus priority</li> <li>Staff training</li> </ul>	<ul> <li>56% growth between 2001 and 2006.</li> <li>Reversed downward spiral of the 1990s.</li> </ul>

# 3. Analysis, policy implications & recommendations



# "This report sets out a very good case for how important buses are in the wider economic, social and environmental context.

#### **David Brown**

Director General, South Yorkshire PTE

"The importance of this wide range of attributes being delivered as a complete package, looking beyond previously held historic approaches will be absolutely essential to maximise the role of bus in delivering a wide range of policy objectives.

"A focus on the delivery of that complete package of network, fares, customer service etc is far more important than the mechanism by which it should be delivered."

# 3. 1 Public policy framework that supports a strong business case for the provision and enhancement of bus services

#### 3.1.1 Allocation of road space

A public policy framework that supports bus travel crucially depends on sufficient allocation of road space for buses. The current predominance of the car is an extremely inefficient use of road space. It is neither sustainable nor feasible to go back to the days of "predict and provide". Bus priority measures are essential to ensure an efficient use of road space which is after all limited resource.

#### 3.1.2 Encourage sustainable behaviour

Modal choice is also currently skewed by pro-car measures such as the provision of "free" parking to car drivers, which effectively becomes a subsidy from non-car drivers to car drivers. Often people find themselves "locked in" to consumption patterns that are unsustainable through perverse incentive structures – economic constraints, institutional barriers, or inequalities in access that actively encourage unsustainable behaviours.

#### 3.1.3 True economic and environmental costs to be built into price

The true economic and environmental costs need to be built into the price of different modes of travel. The combined cost of motoring (covering purchase price and running costs) has actually fallen in real terms over the past decade by 11% against the general rate of inflation<sup>69</sup>.

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<sup>&</sup>lt;sup>69</sup> Urban Transport Analysis, Cabinet Office, DfT et al, 2009

#### 3.1.4 Feedback and incentives

In their influential book *Nudge* Thaler and Sustein describe the environment as the outcome of a global choice architecture system in which decisions are made by all kinds of actors, from consumers to large companies to governments. Markets are a big part of this system and they highlight two key problems. Firstly, incentives are not properly aligned, something they describe as the "tragedy of the commons". Secondly, people do not get feedback on the environmental consequences of their actions<sup>70</sup>.

#### 3.1.5 Government to take leadership role

There is a "value-action gap" between people's attitudes, which are often proenvironmental, and their everyday behaviours. Whilst voluntary industry initiatives are an important ingredient in encouraging more sustainable travel, it is essential that Government takes a leadership role as "choice editor" providing future market certainty via fiscal and regulatory frameworks<sup>71</sup>. As psychologist Aric Sigman puts it "Choice is beneficial up to a point. But limitations, restrictions and boundaries can have a strangely liberating effect"

#### 3.2 Significant issues need to be addressed

#### 3.2.1 In built bias in favour of the convenience of the car

Large scale modal shift from car to bus is unlikely to occur unless the car becomes less convenient, and this will necessarily involve some kind of car restraint. The recent White Paper makes clear that the Government is committed to enabling choice following the provision of better information and education.<sup>73</sup> It does not want to restrict or eliminate choice, but some kind of interventions beyond provision of better information is likely to be needed if people are to be persuaded in large numbers to drive less.

Percentage of people reporting main reason for not using local bus services (more often)<sup>74</sup>

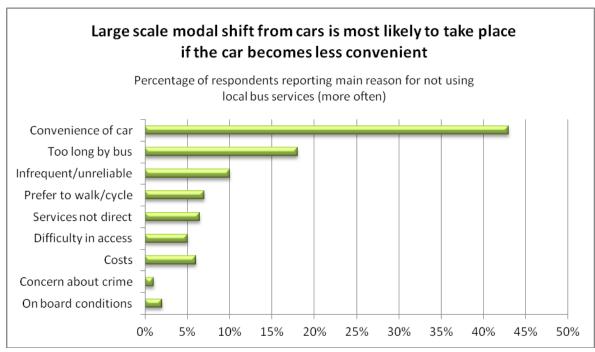
<sup>&</sup>lt;sup>70</sup> Nudge: Improving decisions about health, wealth and happiness, Thaler & Sustein 2008

 $<sup>^{71}</sup>$  I will if you will: Towards sustainable consumption, Sustainable Development Commission and National Consumer Council 2006

<sup>&</sup>lt;sup>72</sup> The Explosion of Choice: Tyranny or Freedom, A Sigman 2004

<sup>&</sup>lt;sup>73</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

<sup>&</sup>lt;sup>74</sup> Public experiences of and attitudes towards bus travel, DfT 2009



G3.2.1 Source: Public experiences of and attitudes towards bus travel, DfT 2009

The convenience of the car is most challenged by the fundamental requirement for the delivery of a good bus service: the provision of sufficient road space in the form of bus priority measures.

Road space is a finite resource and is one which for the most part, is monopolised by the car even though the bus has a far higher carrying capacity.

Bus priority therefore has a vital role to play in the efficient movement of people on limited road space, thus reducing congestion. Crucially, bus priority also provides what consumers are looking for: faster journey times that can rival the car.

#### **Case Studies**

#### A259 bus lane, Brighton

The installation of a bus lane has allowed the 12X bus service travelling along same route to reach its destination some 26 minutes earlier, equating to a 29% journey time saving and the 12A bus service to reach its destination 15 minutes earlier, equating to a 23% journey time saving. This time savings has resulted in higher frequencies of bus services and increases in service provision. Monitoring on this route showed that buses carried 36% of the people on 0.7% of the vehicles using the route, whilst the average occupancy per car/van was 1.3.

#### A47 Hinckley Road with-flow bus lane, Leicester

Bus journey times during the morning inbound peak saw a 22% reduction and

during the afternoon peak, by 23%. During the morning inbound peak hour, the corridor saw a 17% reduction in vehicles with a similar reduction in the afternoon outbound peak. Average journey times on park and ride services using the corridor were reduced by 12%

#### St Albans Road Green Route, Watford

Average southbound bus journey times on the southern part of the Green Route were reduced by 12% in the morning peak and in the northbound direction, by 17%.

A comprehensive review by the International Union of Public Transport (UiTP) in 2009 showed that signal priority systems, when well optimised for bus services, can achieve as much as a:

- 9.5 second reduction in delay per bus per junction (Southampton);
- 24% reduction in overall bus travel time (Toulouse);
- 49% reduction in bus travel time variability (Sydney);
- 42% increase in bus patronage (Zurich).

Modal choice is also currently skewed by pro-car measures like the provision of "free" parking to car drivers, which effectively becomes a subsidy from non-car drivers to car drivers. This "free" parking does not take account of the opportunity cost of the land nor the maintenance costs of car parks and skews modal choice towards solo car. Free parking is in fact a cost paid by those who do not drive, and this is economically inefficient and inequitable<sup>75</sup>.

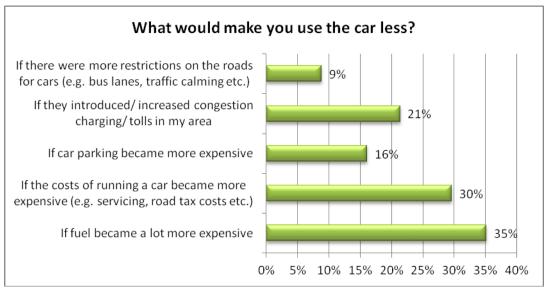
The incentive of free-parking for car drivers is not currently matched by any similar incentive for public transport users, for example, tax incentives for travelling by bus (bus season tickets / salary sacrifice schemes etc.).

One of the key conclusions from the Sustainable Travel Towns initiative was that locking in benefits of measures to encourage mode shift and promote lower carbon options is essential to maximizing benefits of any package. Without these there is the danger that measures can simply release road space, which is quickly occupied by more traffic<sup>76</sup>. Non-users or infrequent bus users report that they are more likely to increase bus use if car parking is restrained than if buses were cheaper, quicker or more frequent<sup>77</sup>.

<sup>&</sup>lt;sup>75</sup> Urban Transport Analysis, Cabinet Office, DfT et al 2009

<sup>&</sup>lt;sup>76</sup> Delivering Sustainable Travel, DfT 2009

<sup>&</sup>lt;sup>77</sup> Urban Transport Analysis, Cabinet Office, DfT et al 2009



G3.2.1 (i) Source: YouGov Plc 2011. Total sample size 2004 adults, fieldwork undertaken August 2011

#### 3.2.2 Impact on bus travel of fall in cost of motoring and rising car ownership

The attractiveness of bus travel continues to fall relative to motor cars because of a combination of rising fares and greater car ownership. The number of households with access to at least one car has increased from 70% to 75% in last 10 years. Over the same period motoring costs fell 13% between 1997 and 2008, and bus fares rose by 17% in real terms over the same period.<sup>78</sup>

According to the Retail Price Index, the cost of buying a car fell by 29% in cash terms between 1999 and 2009 while general RPI inflation over the same period was 29%. However, the cost of car maintenance, petrol and oil, and tax and insurance all increased markedly faster than general inflation. The "combined" cost of motoring (covering purchase price and running costs) fell by 11% to the general rate of inflation. Over the same period rail fares rose by 43% and bus and coach fares rose by 58%. Despite this trend, bus travel remains a good value option, with weekly travel available in locations right across the UK for low costs.

## 3.2.3 Cuts to public spending will potentially have a very damaging effect on bus services

Bus services are under threat from the combined impact of multiple funding cuts. A 28% cut to local authority transport revenue funding is putting in jeopardy many bus services provided by local authorities. A 20% cut to Bus Service Operators Grant (BSOG) from 2012, combined with a cut of £54 to £100 million to annual public expenditure on statutory concessionary journeys from 2011, will put further pressure

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<sup>&</sup>lt;sup>78</sup> Urban Transport Analysis, Cabinet Office, DfT et al 2009

on bus services. The loss in revenue will result in higher fares and lower patronage and will lead to further cuts in services.

It is predicted that next year's 20% cut to BSOG and changes in the way it is rebated could mean that services are cut by 10% and fares increased by 10%. Higher fares and reduced services will impact on operators, but ultimately it is bus passengers who will suffer <sup>79</sup>.

Results of the first Passenger Focus national bus passenger survey show consistently high levels of overall satisfaction throughout England (outside London). However, the lowest ratings were for value for money. Higher fares levels resulting from cuts to BSOG would clearly impact further on the passenger perspective of local buses.

According to the House of Commons Select Committee, the combination of the reduction in local authorities' revenue expenditure and changes to the Department for Transport's concessionary fares reimbursement guidance in 2011-12, together with the 20% reduction in BSOG in 2012-13, has created the greatest financial challenge for the English bus industry for a generation. Over 70% of local authorities have already decided to reduce funding for supported bus services (House of Commons Transport Select Committee Report, Bus Services after the Spending Review, 2011).

BSOG also helps to support 170,000 jobs in the bus industry and thousands of others in bus manufacturing and support services. Its withdrawal will result in operators running fewer services, leading to the loss of up to 17,000 jobs of the people employed directly and in directly by the bus industry (CPT 2010).

BSOG cuts will have the greatest impact amongst independent and smaller operators who make up a quarter of the industry, many of whom run rural and tendered services

#### 3.2.4 Impact of localism agenda on delivery of public transport

Devolving responsibility for local transport to the local level is a key part of the Government's local transport agenda<sup>80</sup>. The Government expects Local Enterprise Partnerships to form a view on the strategic transport priorities which best support sustainable growth in their areas and to play a key role in implementing significant devolution of transport decision making to local areas.

<sup>&</sup>lt;sup>79</sup> Confederation of Passenger Transport Analysis 2011

<sup>&</sup>lt;sup>80</sup> Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, 2011 Department for Transport

LEP's will be 'bottom-up' business-led partnerships with councils and the voluntary sector which can bid for resources from the new Regional Growth Fund. They will not cover all of the country and will have access to significantly lower resource levels than the RDAs – about £400m per annum in total. In 2010 the nine RDAs had a combined budget of over £2 billion per annum.

The existing local government performance framework which contained a number of provisions on local action on carbon reduction and environmental protection has been abolished, and Government has not yet demonstrated how its new system will deliver on legally binding commitments such as the Climate Change Act. A report by Sustrans and Friends of the Earth<sup>81</sup> found that the "hands off" localism isn't delivering sustainable transport. It recommends therefore that Local Authorities should produce climate change strategies for their local area to ensure that Government targets for cutting carbon emissions from transport are met.

In a report commissioned by Friends of the Earth, Tony Travers of LSE makes the point that there is the risk of a 'free-rider' problem where people may feel that good environmental practice is a waste of time because other areas do not take action. "It is almost certain that there will be sharply reduced budgets in relation to the environment and carbon reduction at the local government level in the years 2011-12 to at least 2014-15" The Sustrans and Friends of the Earth Report Choices at least match those in the Sustainable Travel Towns pilots of £5.65 per capita per year, in order to deliver the repeated recommendation for a national roll out by the Committee on Climate Change.

#### 3.2.5 Nudge interventions effective but only as part of a wider package of measures

The Government wants to encourage and enable more sustainable transport choices by "enabling choice". Enabling choice, which is epitomised by the "nudge concept", works with human behavioural tendencies to encourage "good" choices. To count as a nudge an intervention must be easy and must not forbid choice.

However, there is the risk that this approach could replace rather than support other essential measures to encourage sustainable travel. The central finding of the recent report on Behaviour Change by the House of Lords Science and Technology

<sup>&</sup>lt;sup>81</sup> Moving Towards Smarter Travel? LTP3 and Smarter Travel Choices Assessment, Halcrow for Sustrans and Friends of the Earth, 2011

<sup>&</sup>lt;sup>82</sup> Local Action on Climate Change: An Analysis of Government Policies, Professor Tony Travers London School of Economics 2011

<sup>&</sup>lt;sup>83</sup> Moving Towards Smarter Travel? LTP3 and Smarter Travel Choices Assessment, Halcrow for Sustrans and Friends of the Earth, 2011

was that non-regulatory measures used in isolation, including "nudges" are likely to be less effective. To be effective, such interventions need to be part of a range of policy interventions, incentives and regulatory measures<sup>84</sup>.

Experiences from behavioural change interventions in other policy areas can help inform the development of interventions to support modal switch from car to bus and other lower carbon forms of transport. The overwhelming evidence suggests that a holistic approach is necessary. A mixture of smarter choices and infrastructure development is required, which deliver demand and supply-side interventions within different parts of an individual's cultural decision-making framework<sup>85</sup>

<sup>&</sup>lt;sup>84</sup> Behaviour Change: 2<sup>nd</sup> Report of Session 2010-12, House of Lords Science and Technology Committee

<sup>&</sup>lt;sup>85</sup> Achieving Cultural Change: A Policy Framework, Strategy Unit 2008

#### **Conclusions**

Buses are the lifeblood of the UK's transport networks, but their true impact is felt far wider. Buses are the most cost-effective, flexible and immediate way the transport sector can support productive labour markets, reduce economically wasteful congestion and carbon emissions, facilitate social inclusion and help maintain the fabric of our communities. Maximising their potential through public funding and incentives would deliver change fast and for good returns. It is therefore essential that we have the right public policy framework to support, rather than undermine, bus travel.

#### Central Government (DfT) to protect BSOG from further cuts

BSOG plays an important role in lowering the cost of providing services, resulting in lower fares, a more comprehensive network of services, greater social inclusion, less congestion on our roads and a better and healthier living environment in our communities. BSOG represents also high value for money with DfT analysis and LEK finding that it has a benefit cost ratio of between 3 and 5.

Government cuts to BSOG mean a loss in revenue which will very regrettably result in higher fares and lower patronage which will lead to further cuts in services. This will critically undermine the progress made by the bus industry and local government in the last few years. It will also jeopardise the chance that bus has to support Britain's economic recovery; help the government meet its carbon reduction pledges; deliver better public transport provision to consumers; and make our communities more inclusive, less congested and safer places to live.

Higher fares would be a serious barrier for lower socio-economic groups who rely on the bus the most. A recent report from the Transport Select Committee also highlights how isolated many places will become as a result of the fact that over 70% of local authorities have already decided to reduce funding for supported services as a result of budgetary pressures, and that in rural, evening and Sunday bus services will be particularly badly affected.

# Local government to provide adequate road space for bus use and apply sustainable principles to land use planning policy

Research shows that consumers place bus journey times and reliability high up on their agenda when considering whether to convert a car journey to one by bus. Evidence clearly shows the speed and reliability of services can be improved through bus priority measures<sup>86</sup> and that bus use can dramatically increase when bus priority measures as part of a package of measures is implemented<sup>87</sup>. Modal shift to bus provides real benefits in terms of reduction in car use, congestion and CO<sub>2</sub>.

The current review of the planning policy framework offers a potential opportunity for transport emissions impacts to be more fully accounted for in land-use planning decisions. Local authorities should continue to use thoughtful application of planning conditions for proposals for expanded and new out-of-town retailers/supermarkets. These conditions include that where possible developments should be made around existing public transport hubs and around networks of small, local retail and leisure facilities linked to centralised services and that any new developments on green field sites should be matched by the provision of comprehensive public transport services and infrastructure underpinned by green travel planning to promote public transport use. These conditions should be made a specific requirement of the LEPs.

## HM Treasury to give tax incentives to consumers to travel by bus e.g. bus season tickets / salary sacrifice schemes

The economic consequences of congestion created by high levels of private car use are well documented. Not only is there a financial cost to the economy but congestion is also a constraint on economic growth. However, modal choice is currently skewed by pro-car measures like the provision of "free" parking to car drivers, which effectively becomes a subsidy from non-car drivers to car drivers. This also helps to cement the car as the default choice of mode and certainly helps to act as a disincentive for any modal shift. The incentive of free-parking for car drivers is not currently matched by any similar incentive for public transport users whose modal choice actually reduces congestion as well as carbon emissions. For example, tax incentives could be offered for travelling by bus (bus season tickets / salary sacrifice schemes etc.) which conveys a positive signal on modal choice and would have a tangible effect on modal switch.

<sup>&</sup>lt;sup>86</sup> Bus Priority: The Way Ahead, DfT 2004

<sup>&</sup>lt;sup>87</sup> On the Move: Passengers, partnerships and growth, CPT 2006

#### Summary:

- Central Government (DfT) to protect BSOG from further cuts
- Local government to provide adequate road space for bus use and apply sustainable principles to land use planning policy
- HM Treasury to give tax incentives to consumers to travel by bus e.g. bus season tickets / salary sacrifice schemes

### **Appendix – Research Sample and Methodology**

Why not take the bus? Greener Journeys Research into Switching from Car to Bus

# Prepared for Greener Journeys by Wardle McLean Strategic Research Consultancy, August 2011.

We held 10 extended home visits, lasting about 3 hours or more. They were held across the UK with car owners, which we divided into 3 types: *Malcontented Motorists*, *Aspiring Environmentalists* and *Car Complacents*.

We designed the research to get 'under the skin' of people's transport choices and understand how they *really* used and viewed cars compared to buses? We spoke to people in their own homes firstly and we then accompanied them on a journey by bus which they would normally have made by car or taxi. These types of journeys were typically home from work, going into or back from town or going out socially.

We spoke to them about their experiences during their journeys and also once we got back to their home. We also telephoned them one week later to get a further reading on their views and reflections on their experiences.

Fieldwork was conducted in Birmingham, Glasgow, Manchester, Sheffield, Basingstoke, Bristol and Brighton in June and July, 2011. All fieldwork was conducted by Kevin McLean, Simon Lamey and Scott Jones.

#### Car Segments Explained

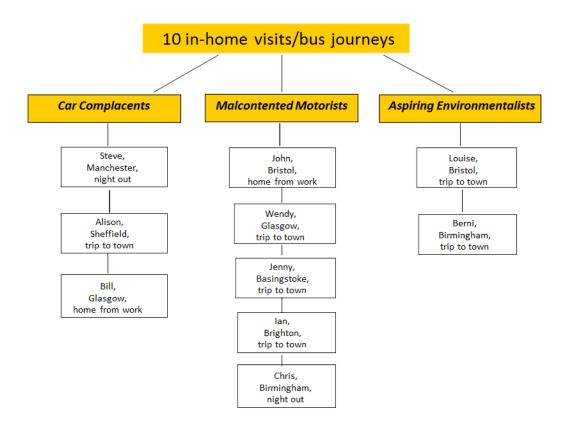
Sample consisted of 3 segments of car owners.

One segment was the *Malcontented Motorists*. This segment tended to find driving increasingly stressful but felt some moral responsibility to use the car. There was some willingness to sacrifice the car for the environment and reducing CO<sub>2</sub> emissions, but guilt was felt when the car was used unnecessarily.

A second segment, the *Car Complacents*, was different. They did not see problems with cars and traffic congestion as stressful, but this didn't mean they 'loved' their cars. They saw little motivation to reduce the use of the car and were motivated by cost more than environmental reasons. The car was central to their life, which meant they had made no attempt so far to reduce their car use. As for using public transport, they felt indifferent about it but they didn't hate it.

The third segment, the Aspiring Environmentalists, had a more practical approach to car use. They already had reduced their car use and wanted to reduce it more if they were given more of a chance. They didn't find car travel as enjoyable as other segments, often preferring cycling or train travel instead. They also felt a responsibility for combatting any environmental problems.

#### A summary diagram of sample



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- Why not take the bus? Greener Journeys, 2011

## **Notes**

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