**Transport Visions**

# Local Travel

**The fifth of eight reports from the Transport Visions Network**

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# Preface

**Futurology -** *the study or prediction of the future of mankind.*

1. At the beginning of the 21st Century, the UK transport profession in all its guises is very active. A Transport White Paper in 1998[1] set a new agenda to address the burgeoning levels of travel demand and motorised traffic. In the face of short-term workloads and objectives it is tempting to put to one side the potentially distracting business of transport futurology. After all, has not the time for debate and imaginative forward thinking now passed with the publication of the White Paper and 'Transport 2010'[2] which outlines the Government's £180 billion spending plan for transport? Is it not now time to begin 'bedding in' the new policies and practices that will serve us for the next decade or two? The answer is no. While action is urgently needed to address present-day problems, debate is also necessary to avoid complacency about the future and the transport challenges it will bring. Hence forward thinking remains crucial.

2. Reports documenting attempts to set out transport visions are not new and examples are plentiful. In the run up to the new millennium, many people contemplated the future of transportation and numerous documents were published presenting predictions and visions. In the UK, the RAC Foundation[3] convened an advisory group in 1992 to assess the relationship between cars and the environment and to identify research priorities. Then in 1997 the Engineering Council[4] set up working groups to examine challenges and solutions for the UK's future transport needs. They started with a simple vision of 'access for all' and 'transport without costs' and identified what was required to realise the vision, including a timetable for action. Within the Department for Trade and Industry's (DTI) Foresight Programme of 1999 a task force examined the implications for transport of four different 'environmental' futures for the period 2010-2040. The task force produced recommendations for policy and research that were designed to be robust against each of the futures.

3. The Institute for Transport Studies at the University of Leeds[5] attempted to provide a vision for the future of transport in Britain for the next thirty years by interviewing transport stakeholders about what might happen and how it could be achieved. The Europe 2020 group[6] considered the future of transport and communications in Europe. They looked at the impacts on population, lifestyles, economy, environment, regional development, urban and rural form, goods transport, passenger transport and communications of three different scenarios relating to economic growth and environmental futures.

4. David Banister[7] presented a 'Eurovision' for sustainable urban development and transport in 2020 developed by specifying environmental, regional development and efficiency targets, tracing two paths towards the targets and back-casting to determine actions required to achieve them. William Garrison and Jerry Ward[8] offered their visions of transportation systems that will better serve the future needs of the United States. They include better ways of managing congestion, new types of vehicles, new possibilities for cities designed to meet the varied needs of their inhabitants and different ways of moving people and freight over long distances.

5. What, then, is the justification for yet another transport visions report or indeed a series of reports? There are three principal justifications. Firstly, the world is an ever-changing place and attempts at transport visions must be regularly revisited and revised in light of the developments we experience in society, such as the emergence of mobile communications. Also the uncertainty of the future means that no single vision can claim to be accurate. The only certainty is that transport and travel patterns will always be dynamic. Visions from a variety of perspectives enable a more informed consideration of the future.

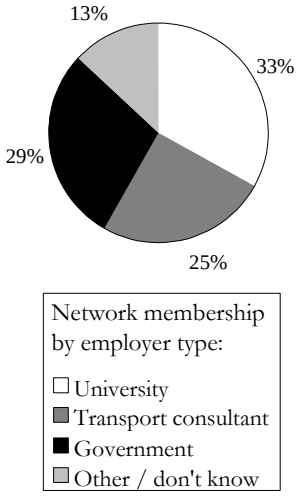
6. Secondly, we are at a propitious point in time in the UK. The present and pending acuteness of car dependence, traffic congestion and their associated effects has pushed transport high on the public and political agenda. Longstanding solutions to problems are no longer appropriate (at least by themselves) and politicians and other key decision-makers are prepared to listen to new and possibly radical propositions. The time is ripe for the imaginative thinking and innovation that can be derived from transport futurology.




7. Thirdly, almost without exception, all previous vision documents have been the product of senior professionals. Listed in the acknowledgements of such reports are the likes of Professors, Chief Executives, Chairmen and Directors. Conspicuous by its absence is the explicit acknowledgement of young professionals. All the reports in this series have been produced exclusively by young professionals - men and women aged 35 or under. Being 'young' does not give any special insight into the future. However, with young professionals comes the prospect of new ideas and perspectives that can potentially challenge existing mindsets. Furthermore, the young professionals of today will be the decision makers of tomorrow with a responsibility for delivering effective solutions. It is hoped that the act of engaging young professionals in a transport visions debate will in itself be of value to the individuals concerned by assisting in their professional development

and the forging of new professional relationships with important future influence.

8. This report and others in the series are a product of the Transport Visions Network. The Network was conceived by Drs Glenn Lyons, Kiron Chatterjee and Greg Marsden of the Transportation Research Group (TRG) at the University of Southampton. The TRG has been responsible for securing funds for co-ordinating and reporting on the Network. Funding has been kindly provided by the Engineering and Physical Sciences Research Council, the Rees Jeffreys Road Fund and the Department for Transport. The Network was established at the end of 1999 and formally began its operations in February 2000 with the aim of addressing and reporting on eight transport Themes during a 36 month period. Membership of the Network has been open to anyone aged 35 or under. The membership predominantly consists of transport professionals who have a range of background disciplines and experience. Membership has totalled around 260 people with local authorities, transport consultancies and universities all well represented alongside other organisations.




9. The reader will find that the discussion is focussed on visions for the United Kingdom, reflecting the fact that the Network's founders are UK based, as are the majority of its members. Nevertheless, during its lifetime Network membership also has had representation from a number of other countries including: Australia; Austria; Belgium; Brazil; Canada; Chile; Czech Republic; Denmark; Finland; Former Yugoslav Republic of Macedonia; France; Germany; Greece; Hong Kong; India; Indonesia; Italy; Japan; Malaysia; Mauritius; Netherlands; New Zealand; Norway; Pakistan; Portugal; Republic of Ireland; Romania; Russia; Singapore; South Africa; South Korea; Spain; Sweden; Switzerland; Taiwan; Turkey; United Arab Emirates and the United States of America.

10. So, what do we hope the value and impact of our reports will be? Pragmatists might be anxious to determine whether or not the reports can shed any light on solving today's problems. Others might expect that our reports should abandon convention and offer truly provocative and far-fetched forays into a distant future. Perhaps we have been able to reconcile both of these aspirations. Our principal goal is to challenge existing mindsets and to reinforce the importance of forward thinking in transport research, policy and practice. We hope to reach a wide variety of audiences and provoke fresh ideas and perspectives. If we have been successful then our reports should help to influence current policy debate. We hope they will also inspire a stream of adventurous research proposals.

# Introduction

## To the reader in a hurry -

This report presents the Network's views on the future of local travel. It begins with a discussion of the defining characteristics of local travel. It then considers present policy approaches to the problems of local travel before introducing the Network's own policy approach - the 'Toolkit for Local Travel'. The Toolkit is formed from a consideration of twelve different facets of local travel based upon the Network's twelve Transportation Requirements[9]. The Toolkit discusses ways to achieve local travel that is sustainable both in terms of its levels and its modal distribution and to mitigate adverse effects of local travel on communities and the environment. The report concludes with an overview assessment of the Toolkit and a consideration of implementation issues.



11. The Transport Visions Network is exploring the future of transport in the 21st Century. The first report in this series, *Society and Lifestyles*[10], considered a myriad of issues and trends that are shaping or have the potential to shape the way we live in the future and our travel needs. It presented six different scenarios for the future. In the second report, *Transportation Requirements*[11], the Network set out twelve guiding principles for the design of future transport systems. These are listed at the end of Section 1.

12. The third report in the series, *Land Use Planning*[12], considered the role of land use planning in shaping transport. Visions were developed for four different aspects of land use planning. The fourth report, *Vehicles and Infrastructure*[13], examined ideas for vehicles and infrastructure that could apply to the UK surface transport network in the future. Six visions of how vehicles and infrastructure might change to meet current and future transport were developed.

## Local Travel- The Network Approach

13. This report considers the nature of local travel and how it may be influenced. The report will seek to provide a Network perspective upon local travel and this will be presented in the form of a 'Toolkit for Local Travel'. The Toolkit is a collection of concepts and ideas associated with the Network's own transportation requirements. As such the Toolkit represents a shopping list rather than a recipe for success. It should not be assumed that all Toolkit components are complimentary to one another. The Network agreed upon a collective headline objective

for developing this Toolkit derived from its transportation requirements:

**To achieve local travel that is sustainable[14] both in terms of its levels of provision and its modal distribution and to mitigate the adverse effects of local travel on communities and the environment.**

14. The emphasis upon local *travel* rather than local *transport* reflects the Network's aim to look at the behavioural and social factors that give rise to and influence decisions concerning local travel. The Network believes that addressing these issues is a fundamental prerequisite to achieving effective transport solutions. In essence, we need to fully consider why we travel locally in the ways that we do, before we can address how we can travel locally in a more sustainable fashion: "*I see that one of the problems of designing policy is the complexity of society, and that many arbitrary decisions have been made in the past to deliver what seems like a rational and clear cut answer. I think the Transport Visions Network needs to think more laterally around this problem*".

15. This report has been assembled from the contributions of a wide range of individuals from the Transport Visions Network, through structured e-mail debate and a workshop. The suggestions put forward do not necessarily reflect a consensus of opinion. Quotations appearing in the text of the report without any attribution, as above, are statements made by Network members during either email or workshop discussion.

16. During the period of e-mail discussion Network members were first presented with a series of weekly fact sheets accompanied by questions and issues. This was designed to prompt discussion and was organised under the following headings:

- Defining and understanding local travel
- Local travel and settlement type
- Local travel behaviour
- Local travel impacts

17. Over the following two weeks, Network members were asked to offer their ideas for solutions to the problems associated with local travel. Thereafter a workshop of Network members took place to discuss these ideas and develop a Toolkit for Local Travel. A thematic framework for the Toolkit was provided by the Second Report of the Transport Visions Network entitled *Transportation Requirements*[15], which produced a set of twelve guiding principles for future visions and developments in transport and these are listed at the end of section 1.

# 1 The Context for Local Travel

## What is Local Travel?

**Local**[16] (area)
Adjective (not gradable)
From, existing in, serving, or responsible for a small area, esp. of a country

**Travel**[17]
Verb
To move or go from one place to another, to make a journey

18. If we are bounded by narrow dictionary definitions of local and travel then it could be argued that the phrase is somewhat antithetical. The word local is associated with a defined area, with places and people, with relationship and responsibility. By contrast, travel when considered as being merely the process of getting from A to B, involves the disassociation of the individual from a particular physical space, it is impersonal and temporary. Terms like local travel and local transport are widely used in society and in government policy and practice. Indeed, the job titles of many Network members are prefixed by such terms, and yet ironically, these terms are rarely defined or explained by government or the transport planning profession.

*"The first Tube station ever opened was Baker Street in 1863.*
*What was the point of that?*
*Where would you go?*
*What was the rush hour like?*
*By the way I live locally.*
*Well I always have lived locally.*
*Wherever I live I always make damn sure its local.*
*There's no point in living ten miles from your house.*
*You'd never get back at night."*

Extract from Paul Merton monologue[18].

## How We Travel Locally

19. In order to shed some light on the defining characteristics of local travel it would be useful to examine how we currently travel locally. The following statistical information is drawn from the Government's 'Focus on Personal Travel'[19], a report based on the

findings of the National Travel Survey (NTS) for which individuals in 9,390 households completed a seven day travel diary, covering all travel over 50 yards in distance during the period January 1998 to December 2000 (all statistics relate to the period 1998/2000 unless otherwise stated).

1. The average UK resident travels 6,843 miles per year, an increase of 38% since 1978/1979. The average trip length has increased by 40% in the same period from 4.7 miles to 6.6 miles.

2. 43% of all trips are less than 2 miles in length, 59% of these trips are undertaken by foot, 35% by car, 3% by bus, 2% by bicycle and 1% by taxi.

3. 24% of all car trips are less than 2 miles in length compared to 96% of trips by foot, 56% of bus trips, 20% of bicycle trips and 33% of taxi trips.

4. 62% of all trips are undertaken by car. Men aged under 17 and over 70 undertake 51% and 56% of their trips by car respectively compared to 73% in the 30-49 age group. Women aged under 17 and over 70 undertake 51% and 45% of their trips by car respectively compared to 69% in the 30-49 age group.

5. 26% of all trips are undertaken by foot. Men aged under 17 and over 70 undertake 35% and 32% of their trips by foot respectively compared to 17% in the 30-49 age group. Women aged under 17 and over 70 undertake 38% and 35% of their trips by foot respectively compared to 23% in the 30-49 age group.

6. 6% of all trips are undertaken by bus. Men over 70 and aged 17-29 conduct 8% and 9% of their trips by bus respectively, compared to 2% in the 30-49 age group. Women over 70 conduct 15% of their trips by bus compared to 4% in the 30-49 age group.

7. 2% of all trips are undertaken by bicycle with only men aged under 17 and aged 17-29 exceeding this figure with 3% and 3.5% respectively. Women of all ages only conduct 1% of trips by bicycle.

20. Points 1 and 2 above illustrate the high proportion of our travel undertaken over relatively short distances. The average trip distance of 6.6 miles is likely to be considered local travel by a high proportion of the population. Even more significant is the fact that 43% of all travel is under 2 miles in length and 69% is under 5 miles

in length. It is therefore clear that the kind of travel which is undertaken over short distances represents a significant majority of trip making in the UK.

21. In terms of mode choice for short trips it is clear that for journeys under 2 miles in length, walking and the car are by far the most popular choices accounting for 94% of trips. Point 3 shows that almost all walking trips and nearly a quarter of car trips are under 2 miles in length.

22. Points 4 to 7 illustrate that when looking at mode choice for all trips there is considerable variation by both age and gender. Car use is greatest for both men and women in the 30-49 age group with people aged under 17 and over 70 most likely to use alternative means for trip making. This pattern is reflected when looking at walking with the 30-49 age group in both sexes falling way below the average for all ages in terms of the proportion of their trip making conducted by foot. Again it is the under 17s and over 70s who exceed the average for all ages.

23. The statistics on bus travel follow the trends for travel by foot. People aged 30-49 are least inclined to use the mode for trip making although women in this group are twice as likely as men to travel by bus. Similarly in the most popular age group for bus use, the over 70s, the proportion of trips made by women is 60% higher than that made by men. Whilst women are more likely to walk or travel by bus, they are less inclined to travel by bicycle than men are.

## Why We Travel Locally

24. Although it is informative to look at how we travel locally, to really understand the dynamics of local travel it is necessary to look at what generates local travel demand. In effect, to ask why we travel locally. The statistics presented below are again drawn from the 'Focus on Personal Travel'[20].

8. 31% of all trips are for leisure purposes of which 58% are to visit friends. 21% of all trips are conducted for shopping of which 55% are for food shopping. 16% of all trips are for commuting, 11% to access education and 3% for business purposes.

9. In spring 2001, 70% of commute trips were undertaken by car, 11% by foot, 8% by bus, 6% by rail and 3% by bicycle.

10. 56% of journeys to primary school (children aged 5-10) are made by foot, 36% by car, 7% by bus, and less than 1% by bicycle. The average journey to primary school is 1.5 miles in length and 12% of children travel alone.

11. 43% of journeys to secondary school (children aged 11-16) are made by foot, 32% by bus, 19% by car, 2% by bicycle and 2% by rail. The average journey to secondary school is 3 miles in length and 39% of children travel alone.

25. Point 8 reveals commuting and travel to access education, likely to be highly repetitive and time specific in character, constitute only 27% of all trips whilst more random travel purposes such as leisure travel and shopping represent a majority (52%) of all trips. Points 9 to 11 illustrate the ways in which the commute and access to school are undertaken. In seeking to reduce car dependence and encourage travel by more sustainable means the Government have sought to target these trip types. These journeys contribute to what has been traditionally seen as the principal congestion based traffic problem, the morning and evening peaks. The regularity and predictability of these trip types have been seen to render them most amenable to modal change. Point 9 reveals the dominance of the car as mode choice for commuting. Point 10 shows that despite the very short distances involved in travelling to primary school, the car remains a popular option, whilst the contribution of cycling is negligible. Travel to secondary school in statistic 11 shows the bus as the second most popular modal choice; children are as likely to travel to secondary school by train as they are by bicycle.

## Constraints Upon Local Travel

26. In order to achieve an informed picture of the local travel context it is necessary to examine some of the constraints that influence people's travel choices. The following statistics are again taken from the 'Focus on Personal Travel'[21] unless otherwise stated.

12. 28% of households do not own a car, 45% own 1 car, 22% own 2 cars and 4% own 3 or more cars. 16% of people in rural areas do not own a car compared to 36% in Greater London and other metropolitan areas. 34% of people in rural areas own 2 cars compared to 16% in Greater London and 19% in other metropolitan areas.

13. People living in households without a car make 32% fewer trips per year than people in households with a car. This includes 27% fewer leisure trips, 7% fewer shopping trips, 60% fewer commute or business trips and 16% fewer trips to access education.

14. 98% of households in larger urban areas are within 13 minutes walk of a bus stop with at least an hourly service. In rural areas only 50 per cent of households have this level of bus service.

15. In 1989/91, 88% of UK households lived within 13 minutes walk of a food store. This was true for 85% of households in

small urban areas, and 69% in rural areas. By 1998/99, only 82% of UK households lived within 13 minutes walk of a food store, reducing to 76% in small urban areas, and 60% in rural areas[22].

16. 14% of adults have mobility difficulties. 72% of people aged 85 and over reported some difficulty compared with only 5% of those aged less than 50.

27. Points 12 and 13 demonstrate the significant variations in car ownership in the UK and the implications this has for travel behaviour. Variation in ownership is most marked between rural and large urban areas. Living in a household without a car can impact on the ability to participate in employment and economic related activities as well as leisure and social activities.

28. The variation in accessibility to bus services and food stores between rural and urban areas shown in points 14 and 15 may go some way to explaining the variations between rural and urban car ownership levels in point 12. Whilst point 16 highlights that 1 in 7 adults are reported to have mobility difficulties, only 1 in 20 adults under 50 fit into this category. However, in an increasingly ageing society it seems likely that this issue will grow in significance in the future.

## Defining Characteristics of Local Travel

29. In order to develop targeted, effective solutions to problems associated with local travel the Network believed that it would be useful to explore what actually constitutes local travel. It was also felt that with long distance travel as the subsequent theme for Network discussion, developing some boundaries would be helpful. Listed below are possible defining characteristics of local travel, which are discussed in this section.

- Distance and Time
- Journey Purpose
- Modal Options
- Administrative Boundaries
- Convenience
- Familiarity
- Proximity
- Personal Perspectives

30. Any examination of these characteristics must first acknowledge that local travel is multi-faceted and that achieving a single, catch-all definition would be unhelpfully simplistic. Instead, an exploration of some of the multiple meanings and definitions of local travel should ensure that the Network's thinking and solution formulation

is robust against a range of considerations and perspectives and well informed of the complexity of the local travel context.

## Distance and Time

31. Several Network members felt that distance was the key determinant of local travel. It was argued that any other measure was open to individual perception and would not serve as a good indicator: *"Distance, for me, defines the local (with traffic congestion as bad as it is, time just doesn't cut it. It might take me 1/2 an hour to go one mile by car). An approximate mile radius from home is "local" for me. I can walk this comfortably, and am familiar with all the streets, landmarks, and feel of the entire area. There are plenty of services and retail facilities within this mile radius, and I can go weeks without having to go farther afield"*. However, when one delves beneath the surface of the above statement it can be seen that this person's definition of local travel by distance is contingent upon factors such as personal fitness, familiarity, land use and settlement type.

32. Local journeys are often considered to be confined to trips of less than 5 miles - a threshold used in several studies examining short journeys for the former DETR[23]. Non-motorised modes (cycling and walking) are particularly suited to short, local journeys. The effective upper thresholds for cycling and walking are 5 miles and about 1 mile respectively[24].

33. Time and distance are not linearly related. A bus journey of 2 miles may require a 10 minute wait for a bus followed by a 5 minute journey, whilst in the same time period a car journey of 7-10 miles could be made. Similarly, someone might happily walk for 20 minutes to visit a local pub, but 20 minutes in their car could get them to another town. Of course, it would be inaccurate to portray the car as always extending the bounds of locality. In periods of congestion, particularly in urban areas, it is not uncommon for car users to experience standstill conditions whilst cyclists and motorbikes weave their way through the traffic. These conditions might lead the car user to interpret the boundaries of their local travel more narrowly than users of other modes.

34. Notions of time and distance are further subverted if they are not confined to the consideration of physical travel. Virtual mobility can mean that for some activities our spatial range is only limited by the size of the planet. Many have noted that as time goes on the spatial range of what 'feels' local is increasing. Such developments can have profound consequences for society. One potential outcome of our lust for faster access to information and travel is that the concept of local may become irrelevant as all trips become feasible and therefore labels such as local, medium or long distance journeys become extinct, as a trip just becomes a trip.

## Journey Purpose

35. The Network considered that in many cases local travel was strongly associated with a range of specific journey purposes. It was suggested that local travel incorporated those journeys necessary as part of an individual's daily range of activities. These trips might be summarised as follows:

- grocery shopping;
- access to education;
- access to work; and
- access to leisure.

36. When reflecting upon this list the Network felt that it was difficult to argue that any of these trips were exclusively local in nature. People are prepared to travel considerable distances to access work on a daily basis, for example 16% of all trips over 50 miles are commute trips. Similarly, leisure travel cannot be considered as an exclusively local activity as 55% of all trips over 50 miles were undertaken for leisure purposes[25]. Parental freedom of choice in education provision has meant that the notion that children attend their local school is not a universal given.

37. The relationship between journey purpose and notions of local travel varies amongst individuals: *"My view of 'local' does depend on trip type - the idea of driving to Southampton to go shopping on a Saturday rather than going locally to Salisbury would certainly seem to me a long distance rather than local choice. However, I contentedly do the same journey 'locally' several times during the week as a commute"*.

## Modal Options

38. Certain mode choices, like journey purposes, can be strongly associated with local travel for many people. On its website the DfT lists buses, trams, walking and cycling as constituting local transport modes[26]. Although this list is admirably sustainable in its emphasis upon collective and non-motorised modes it ignores the reality shown in the 1998/2000 National Travel Survey Update that 51% of all trips under 5 miles are undertaken by private car. Similarly, 75% of trips undertaken by taxi and 33% of motorcycle trips were under 5 miles in length[27].

39. Within the bus industry local services are considered to be those which link communities, an outstanding example of this being the Village Link System in Essex[28] which operates infrequently over large areas linking isolated communities and yet is considered local. By contrast, the former DTLR defined a local bus service as a service: "where passengers may travel a radial distance no more than 24 kilometres (15 miles) from the point of boarding"[29].

40. It was suggested that local travel could be best described based on mode choice and journey time.

- *Just around the corner: within five minutes walk - the sort of journey you wouldn't unchain your bike for - the local shop at the end of the street.*
- *Handy*: within fifteen minutes walk or five minutes cycle the sort of distance you wouldn't (or shouldn't) consider driving.*
- *Walking distance: within thirty-forty minutes walk, ten minutes cycle or a short bus/tube/tram ride.*
- *A short trip: within thirty-forty minutes cycle, ten minutes by car/taxi or a fifteen minute bus/tube/tram ride.*

** As in "handy for the shops"*

41. A problem with this interpretation is that people's willingness and ability to travel by different modes is highly variable. For example, a senior citizen might consider a 40 minute cycle trip as beyond the realms of local travel (although this could equally be the case for the sedentary teenager or adult!).

## Administrative Boundaries

42. Administrative boundaries are often used by authorities to determine what is considered to be local travel. There is often a considerable divergence between the perspectives of authorities and citizens on the value of this means of classification: *"Living on the east coast of the US where jurisdictional or "district" boundary markers come fast and furious (every neighbourhood has its own ward number and name,) boundaries mean relatively little to me in terms of how I move through my local space. I work a short five minute walk from my home, yet walk through three very distinct "districts" on my way to the office".*

43. Administrative boundaries can be just as irrelevant to transport planners as they are for the local population. *"Suffolk has a number of towns along its borders with Cambridgeshire and Norfolk and the traffic flows from those towns are largely into the neighbouring counties. This inevitably leads to cross-authority working or inter-authority conflict when trying to develop plans for such locations. As part of the national travel hotline project, Norfolk, Suffolk & Cambridgeshire have been grouped together as a region. They are working to produce public transport information to the same standard. The ultimate aim is to re-draw some of the boundaries to avoid producing duplicate information in such border areas. Certainly it would save money and it is also what the people seem to want (based on anecdotal evidence, letters and calls to individual travel lines). This shows that what is local is not determined by what the lines on the maps say".*

44. Defining locality by administrative boundaries can be harmful as well as irrelevant. Children may not be able to go to their nearest school because it is in a separate administrative district or to the nearest doctor's surgery because they are in the wrong postal district. Allocating local facilities on the basis of administrative boundaries may be convenient for authorities, but it does not

necessarily result in the most efficient spatial distribution of services for the local population.

## Convenience

45. The Network considered that convenience was an important determinant of local travel: *"The local newsagent is the most convenient newsagent and the local swimming pool is the most convenient swimming pool. Almost every journey involves choices based on convenience"*.

46. Accessibility and effort are key determinants of what constitutes convenience. For example, for those living in central London, local travel can be considered as travel that is conveniently accessible. This might mean that destinations along a particular line of the London underground are considered to be local travel whilst journeys to places which are geographically near but are less well served by transport links may not be considered local at all.

47. An analysis of local travel based around notions of convenient accessibility renders locality itself a dynamic not static concept. It suggests that destinations previously not considered to be local can become so through the provision of new or improved transport infrastructure such as better public transport connections, the introduction of an Light Rapid Transit system, a cycle path or a pedestrian bridge.

48. It was suggested that the amount of preparation or effort that an individual has to make for a trip could serve to distinguish between local travel and other types of travel: "*If you have to fill your petrol tank, phone the AA for route guidance, pack a lunch, phone relatives to tell them you may be some time, arrange for someone to walk the dog or feed the fish, then the journey is not local. If you can jump in the car and go or set off with no more planning than deciding to take a brolly, then it's local*".

49. Network members suggested that the notion of effort was useful in determining whether a certain trip constituted local travel. Focus was placed on the commute. It was suggested that a commute trip could be gauged as local or not depending on how inconvenient it would be if the commuter had to return home to get something that they had forgotten, or how big a chunk it would take out of their working day, or how worthwhile it would be to go into work if they had to wait at home for an appointment.

## Familiarity

50. Some Network members considered familiarity to be a key descriptor of local travel. Inherent to familiarity are notions of regularity and habitual behaviour and an appreciation of the fact that travel choices are not always rationally decided upon on a day-to-day basis. Less tangible associations include ease in the surroundings, depth and presence of social networks and memories. Under this analysis, local travel would include a regular train or bus journey where the traveller sees friends, familiar faces and the same

staff: *"I have in the last few months spent about half my time in Maastricht and there are a number of areas, routes, places in and on which I feel comfortable and familiar, and so might perhaps be considered 'local' to me, and yet of course they are hundreds of kilometres away from where I am (Lancaster) the rest of the time"*. However, even a short car journey into a new area would not be familiar and therefore not local.

51. Innovative though this understanding might be, it would prove highly problematic to develop solutions for local travel if we were to subscribe to the view that Maastricht for some can be 'local' if you live in Lancaster. An assessment of local travel based solely upon notions of familiarity would be highly subjective eschewing concepts of distance and time. Promotion of a familiarity-based definition of local travel could encourage travellers to carry on doing what they are doing anyway because they are familiar with it rather than promoting more sustainable local travel.

## Proximity

52. Proximity to facilities is likely to be a key determinant of what constitutes local travel for many people. Proximity differs from distance in that it is determined by land use and topography. It was suggested that local travel could be defined according to the proximity of essential basic requirements. In this category might be included health provision, education and food. However, personal choice can mean that these requirements are not necessarily accessed by local travel.

53. Proximity, like any other characteristic, cannot offer a definitive measure of local travel. However, proximity to facilities is intrinsically linked to land use and settlement type, which are crucial considerations when seeking to develop targeted solutions to local travel problems. It is essential to appreciate that there are profound differences in how local travel is defined and understood between rural and urban settlements.

54. In general terms, activity centres and facilities are likely to be more dispersed and remote in rural areas than in urban areas, creating a greater need for travel. As a consequence, rural dwellers who do not own a car are more likely to suffer from mobility related exclusion than if they lived in urban areas (although it is also possible that there may be more of a sense of community in rural areas which could mitigate such exclusion).

55. As transport networks have developed and satellite towns have merged into metropolitan cities the perception of locality has changed. For example Bolton, Bury, Oldham and Rochdale have now all but merged into Manchester and local journeys between them are frequent and quick, reflected in the local bus, tram and rail services. Yet 20 years ago such journeys may not have been deemed to be local.

56. It was argued that when considering urban settlements that a local trip would be one within the 'boundaries' of a centre, which is sufficiently self-supporting to cater for daily needs of living. The definition of the boundaries could be a function of time, cost and necessity: *"I don't consider myself on my current trip to be a commuter (from the outskirts of Nottingham to the city) as I am local to my workplace. I have a number of travel options between work and home including bus, cycle, local train and car. When I travelled in from Loughborough (15 miles) I felt I did commute as I could only realistically use the train or the car, which I consider longer distance forms of travel. If I lived out of the city/town boundary I would say I commuted in and was not local"*.

57. Proximity to facilities as a measure of local travel can also be qualified by a range of mitigating factors. A prime example of this is topography: *"I walk to work in Bristol, my 20 minute daily journey involves walking up and down a big hill, something that an older person would not consider to be a local journey. Similarly local conditions can help non-motorised modes. In UK cities such as Oxford and Cambridge and countries like the Netherlands cycling is an accepted part of the transport infrastructure as the relative flatness helps to encourage non-motorised transport"*.

58. Land use, like topography can also play an influential role in determining the suitability of non-motorised modes for local travel. The local shops might be a 10 minute cycle ride from an individual's home. However, en-route to the shops there might be a busy main road serving long distance travel. People might also adjust their perception of locality, regardless of proximity to facilities for a variety of non-transport related reasons. For example the local shops may be in a run down and unsafe environment, or they may be more expensive or offer less choice than shops that are located further away.

## Personal Perspectives

59. *"Local is defined by an individual's perception, my uncle has always lived in the same village in Norfolk, and has not travelled further than 17 miles from his home in over 40 years. I once met someone on a plane who sold medical equipment around the world, and she considered anywhere within an hour's flight as local"*.

60. Recognising that there are different perspectives about what constitutes local travel is an important first step to formulating responsive solutions to local travel problems. Indeed, it was considered disappointing that acknowledgement of the fact that there were different perspectives was often seen as a problem: *"It is all very well to think about how short distance journeys could be walked or cycled given the willingness of the general public (or other sticks to beat them with), but individual perceptions are a valid consideration even if this doesn't immediately help those trying to make clear cut policy decisions"*.

61. Acknowledging that the perceived boundaries of local travel vary for different life stages or personal circumstances offers the prospect of more effective and inclusive solutions to local travel problems. For example, demographic trends indicate that the UK is set to have an increasingly ageing population. The average age of a UK citizen is predicted to increase from 37.4 years in 2000 to 42.4 years by 2025[30], as the number of older people increase relative to the number of young people. Policy needs to consider how local public transport will serve the elderly of the future who are likely to be more used to a more mobile lifestyle and are likely to want to travel locally in a much more flexible way than today's senior citizens. The Government has also identified improvements in public transport as a means to reduce social exclusion[31].

62. There is a great difference in perception of what is local according to different modes of travel used. Car drivers are likely to consider that local travel has a significantly wider spatial range than those who depend upon non-motorised modes. However, even amongst non-motorised mode users there can be widely varying perspectives: *"Some people habitually go for hundred mile cycle rides and would consider twenty miles by cycle as a reasonable commute. On the other hand, I consider forty minutes walking to be at the outside of what I want to do as a transport rather than leisure activity"*.

63. This exploration of a range of defining characteristics associated with local travel has revealed the diversity and the complexity of the subject matter, an appreciation of which is fundamental to formulating effective policy solutions. Before discussing the ideas contained within the Network's Toolkit for Local Travel it is useful to consider how current local transport policy is formulated.

## The Local Transport Plan Approach

64. The principal policy framework within which the government addresses the problems of local travel is through Local Transport Plans[32] (LTPs). LTPs deal with local travel according to jurisdictional boundaries as each local authority is responsible for managing its own local transport. The LTP process was first announced in the 1998 Transport White Paper[33]. The Transport Act 2000[34] placed a statutory duty upon local authorities in England to prepare and implement a LTP. The LTP focuses on local transport needs. It sets out a five year strategy and a statement of resources required for delivery. The strategy is prepared in consultation with the local community. The resulting LTP is submitted to Government for approval and includes targets and performance indicators that Government can use to monitor the local authority's progress towards delivering its strategy objectives (in London, boroughs prepare Local Implementation Plans that identify how the borough will achieve the objectives in the Mayor's Transport Strategy).

65. LTPs replaced the Transport Policies and Programme[35] (TPP) system of bidding for capital resources. Under TPP, authorities were allocated funding for individual schemes. Government took decisions on very small schemes, often costing as little as a few thousand pounds. Decisions were taken in isolation, often on purely financial grounds, rather than on their contribution to a wider strategy.

66. The LTP Settlement in December 2000 provided £8.43 billion over 5 years in support of the LTPs[36]. Concerns remain that the additional revenue required to maintain the new capital projects, for example ongoing provision of information to a new public transport information system, will come from the local authorities account and it is not clear that the local authorities have the necessary funding in place to satisfy this new ongoing requirement.

67. LTPs are required to be consistent with the Government's integrated transport policy and the objectives governing the New Approach to Appraisal[37]:

- To protect and enhance the built and natural environment;
- to improve safety for all travellers;
- to contribute to an efficient economy, and to support sustainable economic growth in appropriate locations;
- to promote accessibility to everyday facilities for all, especially those without a car; and
- to promote the integration of all forms of transport and land use planning, leading to a better, more efficient transport system.

68. LTPs must also acknowledge and support the hierarchy of plans and actions co-ordinated by Central Government which form its overall integrated transport policy. These include local planning policies as set out in Structure Plans[38] and Regional Planning Guidance[39]. LTPs also need to take account of Regional Transport Strategy. For example, the Counties in the South West of England are subject to four key issues identified in the South West Regional Plan, namely the need to take action to reduce the impact of traffic in the principal urban areas; the need for investment in key transport networks; the management of the needs of remoter and rural communities; and the need to develop sustainable transport solutions that recognise the role of walking, cycling and public transport[40]. Other regions have similar strategies. The Government states that LTPs should also be consistent with European policies that can affect local transport policies and strategies[41].

69. As well as having to complement other existing policies, LTPs must be consistent with the detailed and prescriptive guidance

contained within the Government's Guidance on Full Local Transport Plans published in March 2000[42]. The guidance covers the process of preparing the Plan, its scope and its relationship with the Road Traffic Reduction Act 1997[43]. It lists specific topics that the Government expects LTPs to cover and is prescriptive in detailing the methods it is appropriate to use. It states that LTPs should contain five key elements:

- "Objectives consistent with the Government's integrated transport policy and commanding widespread local support;
- An analysis of problems and opportunities;
- A long-term strategy to tackle the problems and deliver the LTP objectives. In developing the strategy, the range of potential solutions will need to be tested to establish the best combination of measures;
- A costed and affordable 5-year implementation programme of schemes and policy measures; and
- A set of target and performance indicators and other outputs which can be used to assess whether the plan is delivering the objectives"[44].

## A Toolkit for Local Travel

70. In seeking to develop its own solutions to the problems of local travel the Network considered mirroring the Local Transport Plan approach. It was suggested that the Network might construct its own model Local Transport Plan. However, it was felt that for the Network's LTP to be truly comparable with LTP submissions it would have to adhere to Government guidance. The quantity and prescriptive nature of the Government guidance for LTPs would restrict innovative thinking and confine the Network to solutions applicable only within the present day or a five year timescale.

71. It was resolved instead that the approach that would be most consistent with the aims of the Network would be for the Network to develop its own Toolkit for Local Travel within which the scope for innovation would be bounded only by the Network's own guiding principles for future transport solutions.

72. In the second report[45] of the Transport Visions Network a set of twelve guiding principles (Transportation Requirements) for future transport solutions was developed and these are listed below. In sections 2.1 to 2.12 the Transportation Requirements offer a thematic framework for the Toolkit. In each section the Network's ideas are explored and Toolkit components identified and summarised. Suitable combinations of Toolkit components are not prescribed. The intention is to offer a set of ideas and options which given local areas could make use of as they see fit and according to their own local circumstances and aspirations.

## Transportation Requirements

**1** There should be an equitable distribution of access to a range of key real and virtual destinations that support people's quality of life.

**2** The absolute level of resource use for transport activities should be controlled and the resource efficiency of mobility should be maximised.

**3** Users should pay the full internal and external costs of transport and these should be made transparent. Where appropriate, transport uses or users providing external benefits should be subsidised.

**4** In the provision and operation of transport systems the adverse effects on the environment should be minimised according to agreed principles and targets.

**5** There should be discrimination and prioritisation between different types of trips and activities.

**6** Transport should not exacerbate the adverse effects of lifestyle on health and safety and should aim to reduce these effects wherever possible.

**7** Electronic and other non-mobile means of communication should be considered as transport options and treated accordingly in policy and practice.

**8** Land use efficiency should be maximised and net land take by the transport system minimised.

**9** The reliability of the transport system and its operation should be regarded as a fundamental system management goal.

**10** Transport should not exacerbate problems of social participation and should aim to reduce these problems wherever possible.

**11** Stakeholders should play an integral role in the entire life cycle of problem identification, solution formulation, implementation and evaluation.

**12** Transport users should be enabled and encouraged to make fully informed choices.

# 2.1 Accessibility

***"There should be an equitable distribution of access to a range of key real and virtual destinations that support people's quality of life."***

## Proximity and Accessibility

73. Personal travel is derived from the need or desire to access goods, people, services and opportunities. With regard to quality of life, access must relate to both the proximity and quality of destinations associated with goods, people, services and opportunities. Proximity refers to nearness in space or time. Whilst proximity in space terms is absolute, it is nearness in time that is likely to be more important to the individual. This form of proximity can vary for a given destination depending upon the means of travel used or available to gain access and the associated level of service. This has been discussed already in the Introduction to this report in terms of how 'local' is defined. For example, a given destination may be deemed accessible to someone who owns a car and yet considered inaccessible to someone reliant on public transport.

74. Achieving an equitable distribution of access can be addressed through either improving availability and choice of means of travel to destinations supporting quality of life or changing the number and spatial locations of such destinations such that they 'move' nearer to the individual. Some strong support for the latter option was expressed: "*sustainable development policies of our government fail to grasp the nettle  sustainable development means a radical change in urban patterns and form and not promotion of buses, walking and cycling*".

75. A present concern is that economies of scale are encouraging a trend of centralisation of publicly provided services such as healthcare and education and privately provided services like banks and retail outlets. Discussion over the merits of local services as compared to centralised services raised conflicting viewpoints and this was highlighted during a discussion about community hospitals[46]. Advantages of a community hospital include it being more local, reducing travel time for visitors and having stronger community support and identification. Disadvantages include the high capital costs and a lack of specialist medical expertise. Decisions in recent years appear to have been driven principally by commercial and financial considerations with a focus on best value purely in terms of delivery of the service itself. Issues of accessibility

and quality of life appear to have received much less attention. For substantial proportions of the population it might be that 'centralised + car = accessible'. However for those without access to a car, centralisation is likely to equate to declining levels of access.

## Settlement Type and Access Needs

76. The Network was anxious to distinguish between urban and rural locations in terms of accessibility. It was suggested that: "*one of the key differences in rural and urban 'local' travel is the number of potential destinations. Particularly in remote rural areas a 'local' trip may get you to work, school, a pub and a local convenience store, if you're lucky. In many areas even this will be beyond a 'local' trip. Urban areas offer a much wider choice of travel destinations, particularly for leisure and shopping activities.*" The density of people and activities in urban areas results both in better availability of public transport as a means of access and shorter distances required to be travelled to attain access rural residents travelled an average of 8052 miles by car in 1997/99 (87 per cent of all distance travelled) compared to a national average of 5334 miles by car (78 per cent of all distance travelled)[47].

77. The Network felt that the Transport White Paper[48] had too much emphasis on physical mobility (how to move people to jobs, services and facilities) and too little emphasis on measures that might reduce the need for physical mobility (bringing jobs, services and facilities closer to people). However, the subsequent Rural White Paper[49] placed a high degree of emphasis upon the use of virtual services to provide access to goods and services for rural communities and thereby reducing the need to travel. Particular emphasis was placed on the role of post offices, village shops and pubs in rural areas as community lifelines whose long term survival could be assisted by diversification into other services such as banking and internet access portals. It also promoted the 'direct' provision of health, social and legal services by phone and/or Internet.

## Compact Settlement Form

78. The viability of local public transport is enhanced by compact settlement form. Newman and Kenworthy[50] have noted that for cities of higher density dependence on the car is less as the critical mass needed to support widespread public transport use is achieved. In advance of achieving more compact settlement form, three options were put forward in relation to motorised accessibility:

i) provide public transport services to all (rural) areas to ensure coverage whatever the cost;

ii) provide high level/volume services to compact rural settlements and targeted demand-responsive services to dispersed settlements; or

iii) cancel or restrict public transport provision to dispersed settlements on the understanding that those living there have chosen to rate accessibility by means other than the car as a low priority in their lifestyle choices.

79. Equity of provision would clearly be an issue for options ii) and iii) and indeed such options (in isolation) would perhaps reinforce dependence on the car rather than encourage residential relocation or changes in settlement form. If future provision of public transport as a means to improve accessibility is to be economically viable then land use planning and residential location decisions must be encouraged to play their part.

## Decentralised Services

80. The Network was keen to see the trend in centralisation reversed. It was suggested that this might be achieved whilst still retaining economies of scale. New approaches to service and business operations could be considered, building upon already changing practices in some sectors and taking advantage of telecommunications. In essence the goal would be to provide multiple points of delivery/contact with the public/customers so that services become local and accessible whilst separating out and centralising as many 'back office' tasks as possible. This had already been seen in the banking world where the service essentially concerns information management. With the use of telecommunications, information exchange and management can be handled remotely from the point of physical interaction with customers.

81. Whilst decentralisation should in principle bring services closer to the people, concern was raised over whether this improved accessibility would be taken up by the public. Specifically, even though local services and facilities would be available, people might choose to travel further afield to neighbouring alternatives that they perceive to be better. In the light of this concern the Network proposed that decentralisation be supported through the use of 'service area' policies as discussed below.

## Service Areas

82. Enforcing a requirement for people to only use facilities and services in their local area was considered too restrictive on choice. The proposition instead was to encourage use of facilities within service areas through the use of economic instruments. For example, using a local doctor would be free but using a doctor in a neighbouring community would incur a premium of £10. Similarly there could be a premium of £1000 a year for a child to go to school in a different service area. In the light of concerns over administrative boundaries discussed in section 1 of this report, service areas might be defined in relation to each household in terms of a spatial and/or temporal range. At a detailed level,

implementation would need to address concerns over inequality (e.g. how would market forces respond to this economic instrument?) and delivery (notably how to administer household-specific charging).

83. The revenue from such premiums would be used to invest in the services and facilities within the service area. For example, if the standard of education in a neighbouring community is deemed to be superior, then those choosing to send their children out-of-service area would provide sufficient funds for new teachers and resources in the school(s) within their own service area. Since many decisions to use out of service area facilities and services will arise from perceptions of differing quality of service, then hypothecation as described should serve to equalise quality of service across neighbouring communities thereby reducing levels of out-of-service area travel over time.

**Toolkit Components**

- Consolidate patterns of settlement (especially in rural areas) to better enable every settlement to become a viable node within a public transport network.

- Decentralise services and facilities and thereby bring them closer to the people and engender a greater sense of local community.

- Encourage the use of facilities and services within households' local service areas through economic instruments.

# 2.2 Mobility

*"The absolute level of resource use for transport activities should be controlled and the resource efficiency of mobility should be maximised."*

## Inefficient Mobility

84. The way in which a high proportion of local travel is conducted in the UK today runs counter to the objective of resource efficient mobility expressed above. This is evidenced by the fact that cars were used for 18% of trips under 1 mile and for 62% of trips of between 1 and 2 miles in 2001[51]. The inefficiency of such short car journeys can often be compounded by low levels of vehicle occupancy. Such travel choices represent a powerful barrier to the achievement of more sustainable patterns of local travel.

## Encouraging Cycling

85. In seeking to maximise the resource efficiency of local travel the Network considered ways of encouraging the use of alternatives to car travel for local journeys. For local travel, cycling is resource efficient and beneficial in both health and environmental terms. The Transport White Paper states that: "The National Cycling Strategy (NCS) published in 1996 highlighted the potential of cycling as a flexible, relatively cheap and environmentally friendly way to travel with important health benefits for people of all ages. We agree. Cycling, however, has been in decline nationally, even though more cycles are owned than ever (and annual sales of bicycles outstrip the number of new cars sold). But this doesn't have to be the case if we make it easier and safer to cycle"[52] The Network discussed a number of issues relating to cycle use and how it might be increased (this issue is also explored in section 2.6).

## Proficiency Testing

86. Perceptions of cycling safety have tended to discourage parents from allowing or encouraging their children to cycle. Teaching children how to cycle is a positive step forward. It was suggested within the Network that parents should also engage in cycling lessons and proficiency tests alongside their children to gain first hand experience and dispel misconceptions concerning cycling as something dangerous and to be avoided.

87. A general scheme for proficiency testing at a relatively early age would also increase confidence to allow children to cycle to primary school, which is currently banned by most primary schools in the UK, but commonplace in many other countries where cycling levels are much higher. There was a feeling in the group that using

bicycles as a mode of transport at an early age would result in more people using it in adulthood. It was also acknowledged, however, that the lack of adequate infrastructure in the UK would still act as a barrier for parents to allow their children to cycle to school.

## Facilities for Cycling

88. The suggestion was made that some of the exhortations made by the cycling lobby are unhelpful in promoting cycling. Calls for employers to provide showers and changing facilities might in fact convey the message that cycling was not appealing and was a hassle: "*who wants to be so exhausted and sweaty after cycling that they have to shower or change before starting work?*". Instead it was advocated that attempts should be made to change the cycling experience such that showering and changing might not be a necessity (weather permitting!).

89. In countries where dedicated segregated cycle lanes are provided, cyclists do not need to weave in and out of traffic and have the opportunity to enjoy a leisurely journey arriving fresh at work. A Dutch Network member pointed out that in the Netherlands (where cycle use is much higher than in the UK) shower facilities are not generally provided. However, beyond this there is an important distinction in the Netherlands between leisure and utility bicycles. The latter (with their luggage carrying capability) are mostly used for local cycle journeys for commuting, education and shopping. With their mudguards and chain-guards, there is also a reduced need for the cyclist to have a change of clothes at the destination.

## Cyclescapes

90. The Network believed that addressing such practical obstacles to cycling should form part of an overall strategy for making cycling an aspirational travel choice. Integral to achieving this goal would be a strong emphasis on improving the quality of vehicles and infrastructure for cycling through innovative and practical design. In terms of infrastructure, cyclescapes - high quality cycling environments, could be created through the provision of a range of bicycle amenities like drinking fountains, resting areas, weatherproof locking stations, dedicated lanes or striped streets. In terms of vehicles the potential for advancement in levels of comfort and utility remains and the prospect of an increasing proliferation of power assisted (electric) bicycles could reduce the physical demands of cycling.

91. Such a design led approach to improving the viability of cycling would have to address the difficult and important challenge of cultural norms in the UK. Whilst in the Netherlands it is considered very normal to commute on a bicycle (even for professional people) and to do small amounts of grocery shopping or to visit friends and

relatives, such behaviour is considered alien by a significant proportion of the UK public.

## Public Transport

92. In considering future solutions to improve the resource efficiency of mobility, attention was also paid to ways of promoting greater public transport use in place of car use for local journeys. Promoting greater use should not only be concerned with increasing the level of service provision, but it should also consider how to promote greater use when increased provision is achieved. This point was illustrated as follows: "*even here in Finland with a very low population density and high ratio of car ownership we enjoy excellent public transport services provided by private companies. I live in a country village 50km outside Helsinki. Still I can take a bus from about 500m outside my home door -either the milk run or an express coach- to the city. Service is generally every 30 min during daytime and even 3 buses between midnight and 5 a.m. However: despite this excellent system I still don't use it - and here lies the challenge in my opinion. Why can't we just assume that public transport could in principle be excellent and consider how we would act if this was the case.*"

## Mobility Pricing

93. The Network's proposed approach was to introduce variable distance-based pricing for both car and public transport use. The pricing mechanisms are illustrated in a basic form in Figure 1 below.

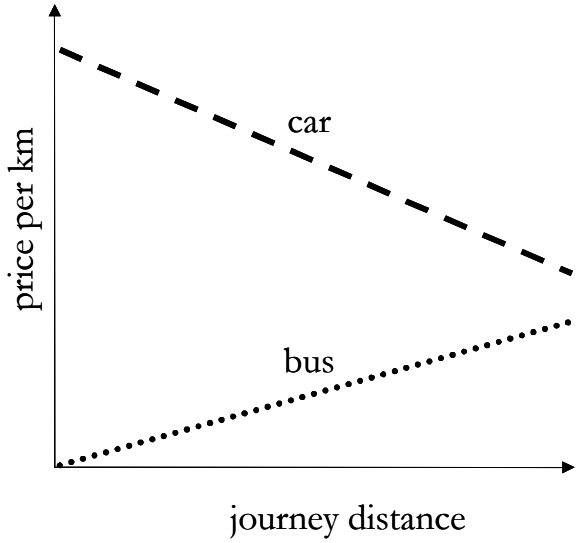



**Figure 1: Variable distance-based pricing**

94. The rationale for the above is that people travelling short distances are likely to perceive the cost of using the car as negligible, even though over such short distances use of alternative modes (bus, cycle or even walk) should be possible. The pricing mechanism attaches a high premium to very short journeys by car such that it becomes disproportionately expensive to make a short journey by car compared to a longer one. The mechanism is such that for longer distance journeys the premium on car travel diminishes. This is a reversal of how, for business travel, the

payment rate for car use is often applied - a higher rate for the first so many miles is paid and then for all subsequent miles for a given round trip the rate reduces to a lower rate deemed to be comparable with the cost of public transport. The price mechanism for bus use above seeks to positively encourage bus use rather than car use for local travel. Revenue from such a pricing mechanism for car use could subsidise operators if necessary for the reduced public transport fares. People would still have the choice of whether to cycle or walk at no cost as an alternative to using their car (or the bus) for local travel.

95. A challenge to this proposition comes in the form of how it could be operated in practice. With the emergence of smart-card ticketing for public transport it should be a simple matter in due course to price bus journeys according to the distance travelled. For car journeys the difficulty would be how to identify and record discrete trips and distinguish between individual trips and trip chains. A combination of GPS tracking and milometer readings linked to smart-card debiting should make the application of this pricing mechanism feasible. If such a system were technically and legally implementable then it would pave the way for considering a whole range of additional and potentially more sophisticated pricing mechanisms.

**Toolkit Components**

- To oblige adults to participate in cycling proficiency testing alongside their children thereby encouraging parental acceptance of cycling.

- Facilitate widespread cycle use through the promotion of utility oriented bicycles and the creation of cyclescapes high quality cycling environments that are clean, comfortable and attractive.

- Introduce mobility pricing to make local journeys by car disproportionately expensive compared to public transport options.

# 2.3 Costs

***"Users should pay the full internal and external costs of transport and these should be made transparent. Where appropriate, transport uses or users providing external benefits should be subsidised."***

## Fixed and Variable Costs

96. The Network's attention with regard to costs focused principally on the problems of the high fixed costs of motoring and the distorting effect of the company car regime on payments made by individuals for their use of motorised transport.

97. During its debate, the Network mourned the loss of one of its members to the car dependent club:

"*I've just bought my first car because I genuinely cannot effectively sustain my lifestyle without one and it has set me back about £6000 to acquire it, £900 per year to insure it (don't ask) and £105 a year to tax it. Now, it doesn't matter how good public transport becomes, how seductive the advertising, how draconian the prohibitions, for as long as I have to pay that much just to get on the road, I will always predominantly use my car even when it's not the most appropriate mode. And this is the problem: now that I have committed to such a large outlay, I am going to remain very inelastic to behavioural, fiscal or any other change measure as long as I have to maintain that commitment. Its not that I am insensitive to the environmental or lazy or uneducated etc., it's just that I cannot afford not to use my car!*"

98. Car owners face two sets of expenses: operating costs (variable - per kilometre) which include fuel and oil, maintenance and tyres; and ownership costs (fixed - per year) which include insurance, road tax, depreciation and finance expense (car loan)[53]. High ownership costs create a situation for the owner in which the total per trip cost is often perceived to only relate to the operating cost. This has an adverse effect particularly on local travel choices. It was suggested, for short, local journeys that whilst travel by public transport had a transparent cost associated with it (the ticket price), travel by car was often perceived to be free (particularly where no parking charge is incurred).

99. The Network expressed serious concern over the inability for motorists to identify the true cost per trip of using their cars. In turn this presents a serious difficulty for Government in determining how to charge the motorist in a publicly acceptable way

such that full payment of the internal and external cost of making a journey is made. Although the choice to travel by car is not governed by perceived monetary cost alone, the perception of local car travel being virtually free must contribute to the high incidence of car use for short journeys and the absolute number of short journeys made.

100. In light of the considerations above, it was suggested that public transport might need to become free for all at the point of use (i.e. have a zero variable cost for the user) (this idea is developed further in section 2.5). This might be facilitated through hypothecated resources from charging for the full cost of car trips or alternatively through a form of additional tax imposed on the electorate. This reflects the Network's vision in its previous report[54] for a community future regarding the operation of vehicles and infrastructure. An alternative approach, and one more commonly advocated as a means to 'level the playing field' in per-trip comparisons of cost between public and private transport, is to reduce the fixed cost of motoring and increase the variable cost. The Network's ideas for this approach are set out later in this section.

## Company Cars

101. By the Government's own account in its 1998 Transport White Paper:

> "Company cars account for almost 20% of car mileage and over half of new cars are first registered in a company name.
>
> Around 1.65 million company cars are available for private use. These drivers also tend to drive significantly further to and from work and those who receive free fuel drive further still."[55]

102. The UK's company car regime further exacerbates the problem of actual and perceived costs of making a journey by car for the motorist. Concern over the adverse effects of company car use on patterns of travel and car use is not new. Indeed beyond the transport issues, company cars are claimed to have a distorting effect on the economy. According to Transport 2000[56] the UK Treasury was losing over £1 billion per year in taxes on company cars in 1995.

103. Until 6 April 2002, taxation of company cars in the UK involved a perverse incentive, in some cases, to drive more on business and simultaneously a disincentive to use public transport for business travel. From 6 April there will no longer be an adjustment to tax payable for business mileage. However, for 2001-02 the car benefit (the amount on which employees have to pay tax) was[57]:

- 35% of the price of the car if it was driven less than 2,500 business miles during the tax year;
- 25% if driven 2,500 to 17,999 business miles; and
- 15% if driven 18,000 or more business miles.

104. Not only does the company car regime further cloud perceptions of the real cost of motoring, but in terms of the full costs, company car drivers are disproportionately involved in accidents. Although "the reasons for company car drivers' increased accident liability are poorly understood"[58], the higher than average involvement in accidents means that company car drivers are imposing costs on other road users and society as a whole[59]. This is not an issue that is transparent to the public at large.

## Cheap Cars

105. The Network considered a number of ways of overcoming the high fixed cost of motoring and shifting more of the cost onto per-use payments. The first notion was to produce a 'budget' car priced new at perhaps £2000. This would be a very basic vehicle with limited range and moderate speed capability (i.e. reduced engine size). It was suggested that motor manufacturers might then be prepared to provide these to the public for free (particularly as the issue of depreciation would be marginalised) and levy a charge instead each time they were used. Insurance could also be applied on a per mile basis rather than as a lump-sum annual cost, a scheme that is already operating in the US[60] and will soon be applied in Europe[61].

106. This proposal would be likely to widen car ownership. However, German experience has shown that this need not necessarily correspond to an increase in car dependence[62]. Rather it would retain an individual's option of personal motorised mobility for certain journeys whilst diminishing the compunction to always use the car because of high fixed costs. Pricing per trip or distance travelled for car use could then be set such that other alternatives (notably bus for local travel) would become truly viable modes at least in terms of comparison of monetary cost. The 'budget' car would mean that the opportunity to own a car is widely available even if it is not to everyone's taste. It was remarked that: "*you could still buy your BMW for long-distance and leisure travel where you felt the need to look like an idiot*!"

107. Widened and increased car ownership could have land use implications in terms of residential parking requirements, particularly in dense urban areas. The 'cradle-to-grave' environmental impacts of (more) cars could also be a significant consideration with requirements placed upon new manufacturing processes and the increased use of recyclable components.

108. Indeed, there are precedents that suggest 'budget cars' may find a future niche. In some retirement communities in the US electric golf carts are the preferred mode of transport. These vehicles often cost as little as US$1,500, are energy efficient, and relatively safe as they can only reach speeds of 30-35mph, as a Network member stated: *"On a recent visit to my grandparents home in Sun City West, AZ (population 48,000), I was surprised to stop by the post office only to find 12 parking spaces dedicated to electric golf carts, 10 to handicapped permit holders, and 5 to regular gas-guzzling cars."*

## PFI Car Use

109. This approach could still be used with the range of vehicles available on the market today. The up-front purchase cost, as in the case above, will be removed and motor manufacturers will instead be required to provide cars to the public free of charge or for a nominal sum. Costs will be recovered and profits made by charging the owner a cost per mile. All individuals will then have a greater incentive to use their cars less. Charging will be such that even with reduced use, motor manufacturers will still have a reasonable reassurance of recouping their outlay and making a profit. The public will still have the choice of which car to own, paying higher per-use charges for higher performance/priced vehicles. In effect this proposition is analogous to the pay-as-you-go mobile phone services where the handset is purchased at a low price with revenue generated from usage. Indeed the idea could be considered as a private finance initiative (PFI) to provide the public with the choice of personal motorised mobility i.e. the private sector provide and pay for the public 'service' and then over a period of years recover their investment. Such an approach is not dissimilar to a taxi cab operation where the service provider meets the cost of vehicle purchase and recoups that cost through high per-use charges.

## Poundometer

110. To reinforce the effectiveness of the above proposal it will be important not only for costs to be transparent but readily apparent to the traveller regardless of mode choice. Therefore all new cars in this scheme will have a modified dashboard to include an enlarged console to display the cost incurred per trip.

## Company Car Share

111. The Toolkit proposes to ensure that the principle of PFI car use also covers, or rather is not compromised by, the current company car regime. It was suggested that most company cars are considered necessary for carrying out company business. However, this necessity only applies to a (small) proportion of all trips then undertaken with that vehicle. It is therefore proposed that substantially extended company car pools could be provided for business use and then also made available to employees at non-working times for personal use on a pay-per-use basis operating as a company car share club. This approach is derived from the community car share club concept already in favour and use. The

Network agreed that community car share clubs were an excellent approach and advocated that all possible encouragement should be given to them. In the Company Car Share scheme the community is effectively defined as those individuals who work within a given company or collection of companies.

112. The Network recognises that its propositions in this section rely upon a radical change at a national policy level including substantial new primary legislation and remodelling of the motor industry financial operations. Nevertheless, we believe substantial benefits in terms of 'fair and efficient pricing' could then be enjoyed by all local authority areas.

**Toolkit Components**

- PFI car ownership and use scheme delivers low cost access to personal motorised mobility and more representative per-use costs to the public.

- With the substantial proportion of motoring costs now accounted for by the variable costs, cost per trip by car should be made readily apparent via in-vehicle displays.

- Company Car Club schemes augmented company car pools with vehicles available to employees for personal use outside of their working hours.

# 2.4 Environment

***"In the provision and operation of transport systems the adverse effects on the environment should be minimised according to agreed principles and targets."***

## Environmental Imperatives

113. The preservation and enhancement of local environments should be major considerations when planning local travel. Environmental concerns are numerous: greenhouse gases, local air quality, noise, landscape, townscape, biodiversity, loss of natural resources, etc. Reducing the output of man-made greenhouse gases is an issue facing all of us. It requires concerted action at a global level with local planning policies needing to play their part. $CO_2$ is an important greenhouse gas and transport is the third largest source of emissions of $CO_2$ in the UK behind energy production and industrial combustion[63]. Air quality is a concern in many built-up areas, even though technological improvements are reducing the amount of emissions produced by vehicles. The DETR noted in 1998 that: "*the deaths of between 12,000 and 24,000 vulnerable people were brought forward by the effects of air pollution from all sources*"[64].

## Preserving Quality

114. It is important to recognise that we already have many valuable environments both in built up areas and non-built up areas of the UK. These include countryside, parks, heritage sites, commercial centres, community amenities, housing estates and streets. Valued environments need to be preserved while lower quality environments need to be improved. There are many economic, social, cultural and environmental factors that influence the quality of local environments and these factors have a large influence on people's willingness to participate in activities within their local environment. Transport infrastructure and vehicles often have a detrimental environmental impact. Many of the environmental problems experienced at a local level result from too much traffic and congestion. Local strategies are required to address this.

## Through Traffic

115. The streets in built up areas have increasingly become used as through routes with local people (those who live in an area) being affected adversely by through traffic and often benefiting little from the transport infrastructure. These streets formerly may have been used as public space for informal activities such as chatting, meeting, children's play, entertainment, demonstrations, etc. Generally the amount of space used for movement in built-up areas has increased at the expense of 'exchange space'[65]. There is a need

to change the balance and create more exchange space. The amount of land area used for transport is considered in its own right in section 2.8.

## Enviroscores

116. The Network supported the idea of local authorities measuring the quality of their environments through an "Enviroscore" process. The Enviroscore measurement process would not be based on national benchmarking but on a local determination of environmental measurements that should be made. In section 2.10 it is discussed how local participation can be used in the application of the Enviroscore process. The purpose of the Enviroscore process would be to:

i) Provide information to citizens, businesses and other interested parties concerning the environmental quality of local areas; and

ii) Focus attention on local environmental problems to assist local actors in taking steps to improve quality.

117. The Enviroscore process would be expected to consider many different aspects of environmental quality and might include the following transport-related aspects:

i) Air quality and vehicle emissions;

ii) Proportion of dwellings lying within People Zones (where speed limits of 15 mile per hour apply and a specified standard for footpaths, cyclepaths and public space is achieved);

iii) Proportion of school travel undertaken by walking and cycling;

iv) Proportion of travel undertaken by low emission/low energy vehicles.

v) Visual impact

118. The Enviroscore would need to be simple to understand for citizens. There should be a headline value covering all environmental aspects as well as separate scores applying to different areas (e.g. transport, energy, waste/recycling, etc). The transport environmental rating would be referred to as the Transport Enviroscore. Regional planning authorities would be expected to prioritise the distribution of transport investment funding to local authorities who have made a sound case for how funding will be used to improve their Enviroscore and who have involved their citizens in the process.

## Access Restriction Schemes

119. Network members argued that local access restriction schemes would be an effective way of improving the environment of local areas. There should be People Zones for which through traffic is prevented or discouraged from entering. Within these areas an emphasis should be made on promoting the availability of exchange space. Speed limits of 15 mile per hour or below should be imposed. Vehicles that do not meet required standards for emissions, fuel type, noise, etc. would be banned. Vehicle parking space would be minimised. The People Zones concept is similar in character to existing policy of Urban Clear Zones[66], but the key difference is that People Zones would apply to ALL liveable environments and not just in urban contexts.

120. To maintain good access for visitors from outside areas it might be necessary to have access nodes within the People Zones or on the edge of the zones. Public transport interchanges can play a useful role here. If these are at ground level then these should be designed so that public transport vehicles travel slowly within the zone.

121. Access restriction areas can be used to protect the environmental quality within specified areas but strategies are also required to deal with transport outside these areas. Roads lying outside access restriction areas need to be able to handle both through traffic and local traffic, while avoiding having a detrimental impact on their local environments (in built up areas speed limits should not exceed 20 miles per hour and provision needs to be made for non-motorised modes and public transport vehicles). Where high volumes of through traffic have to be handled, segregated lanes may be provided. Charging for use of these lanes might be introduced as outlined below in order to discourage excessive through traffic.

## Through Traffic Charging

122. A road charging strategy could be developed to help to achieve the local area's environmental goals. This might run in conjunction with the mobility pricing system described in section 2.2, which serves to discourage short car trips. A system would be developed to charge private vehicles passing though local areas and would be implemented on roads outside access restriction areas. Vehicles would be identified automatically through their identification numbers as being non-local and charged accordingly. This would change the current situation where through traffic imposes excessive costs through its impacts upon local environments (pollution, severance, safety concerns etc) without paying for these costs in any way. Such discouragement of through traffic could be seen as an attempt to reinstate the use of roads according to their original classification i.e. access roads to be used for access and not through traffic. Areas would have the legal right to charge a

premium fee to discourage undesirable through traffic and to fund mitigation measures. It is assumed that in terms of implementing such a charging strategy it would be possible to distinguish between non-local vehicles travelling through the area and those travelling to it.

**Toolkit Components**

- Enviroscore a locally defined means of assessing the quality of environments at a community level.
- Local access restriction schemes (People Zones) where people are given priority over traffic.
- Through traffic charging to discourage excessive through traffic and to provide revenue for environmental mitigation measures.

# 2.5 Trip Type

*"There should be discrimination and prioritisation between different types of trips and activities."*

## Deciding Priorities

123. Providing universal access to the transport network leads to over use at certain times. Congestion is rarely a sufficient disincentive to persuade users to alter their trip making. By examining the different types of travel undertaken (in terms of length, mode, time of day/week, purpose, etc.) it should be possible to discriminate and prioritise types of travel to beneficially influence local travel patterns and enable a more efficient use of capacity. It was recognised by Network members that consultation with the public would be required on the relative importance and flexibility of different types of travel.

124. Investment in high capacity inter-urban networks, while making no equivalent investment in local networks, adds to congestion on local transport networks, which typically accommodate the start and finish elements of the inter-urban journey. As long as travellers have local destination options it is desirable to promote their use over long distance destination options. It is important to have measures in place that promote local travel over long distance travel. Toolkit solutions presented in other sections of the report address this issue (e.g. through traffic charging system in section 2.4) and two more ideas are outlined below.

## Sustainable Sundays

125. 'Sustainable Sundays' is an initiative aimed at promoting local travel. It is based on the premise that on Sundays most people's travel is discretionary and they will be more willing to change their travel behaviour than at other times of week. There are different possible versions of 'Sustainable Sundays' depending on the degree of coercion involved. At the 'lighter' end are awareness campaigns, exhorting local citizens to be loyal to their locality by spending time there on Sundays. At the 'heavier' end is the banning of non-commercial private motorised travel on Sundays, involving a large degree of enforcement. Somewhere in between there could be a mix of discouragements (e.g. high parking charges) and inducements (temporary pedestrianisation).

126. Before introducing 'Sustainable Sundays' initiatives it is vital to establish improved public transport services on Sundays so that alternative means of travel are available for necessary travel.

Increased use of public transport on Sundays should enable vehicles to be used at a time when they would not be used otherwise. Liaison should be made with public transport operators to look into the possibility of offering free travel on Sundays as a marketing initiative to encourage greater use at other times.

127. It would take some time for people to adapt to the restriction on their mobility but it is expected that they would be able to adapt by fitting in some activities at other times of the week, carrying out new and former activities locally on Sundays and making use of public transport and taxis. The public need to accept the arguments for 'Sustainable Sundays'. Sundays could be used to carry out repairs of highways in a similar way that they are used for rail engineering works.

## Free Local Public Transport

128. The mobility pricing scheme described in section 2.2 discourages short journeys by car by introducing high charges/mile for the first mile or so of journeys. At the same time it introduces low charges/mile for the first mile or so of public transport journeys. An alternative method of discouraging short journeys by car would be for use of local public transport services to be free at the point of delivery in a similar way to health services in the UK (through the National Health Service). Local residents could pay an annual contribution for the services from their property taxes or salaries. This approach could be applied as a voluntary or compulsory system depending on local needs. When local residents use public transport to travel outside the local area charges would then apply.

## Local Yellow Network

129. The Network believes that targeting repeatable travel such as commuting, business, education and grocery shopping offers very good scope for producing permanent changes of behaviour. This type of travel makes the largest contribution to peak period congestion and many travellers will be willing to use alternative options that might reduce time spent and frustration experienced in these forms or travel. Also successful targeting of these types of travel could reduce the need for private ownership of vehicles which will result in greater opportunities for alternative modes being used for other types of travel.

130. The Network's view is that it is not feasible to permit or forbid travellers with particular journey purposes from using road networks. Many journeys are carried out with more than one purpose. The Network's view is that the best way of influencing the way in which repeatable travel is conducted is through local areas establishing a dedicated network of roads/lanes for sustainable, local transport modes (which might include cyclists, buses, trams, multiple occupancy private vehicles). The Network could be called

the Local Yellow Network to provide a mental link to the Yellow Pages and Yellow School Buses. Local Yellow Networks need to be introduced in a short period using existing and new roads and infrastructure to form a comprehensive and visually distinctive transport network.

131. When the Local Yellow Network is first introduced it may be sensible to operate it during peak periods only so that repeatable travel is targeted and there is not a serious under usage of the network at other times. It is important that other measures are introduced at the same time so that the network is acceptable to the public. These measures might include new public transport services/offers and deals with employers, businesses and activity centres to provide inducements to use the network.

## Premium Charges

132. The Local Yellow Network may offer excellent travel conditions but there may be some people who have an urgent need to travel but are ineligible to use it (single occupant car users, for example). It may be worthwhile to offer them the opportunity to pay premium charges to use the network. Those travellers who perceive their travel to be very important will be able to experience a higher level of service for their travel than is possible on the general network. This avoids the need for the transport planner and operator to decide which types of travel should have priority. Such a system is already operated in the USA in the form of value pricing where a premium charge can be made by single occupancy vehicles to use high occupancy vehicle facilities[67].

**Toolkit Components**

- Sustainable Sundays banning private motorised travel on Sundays to promote use of local facilities.
- Public transport for local residents and employees free at the point of delivery and funded through taxation in a manner comparable to the UK National Health Service.
- Local Yellow Networks to provide comprehensive and visually distinctive transport network for sustainable, local transport modes.
- Premium charges payable to allow those ineligible to use Local Yellow Network.

# 2.6 Health and Safety

***"Transport should not exacerbate the adverse effects of lifestyle on health and safety and should aim to reduce these effects wherever possible."***

## Unhealthy Local Travel

133. According to the Transport White Paper[68] the way we travel is making us a less healthy nation, primarily because we drive too much when we could walk or cycle. Local travel offers greater opportunity for the use of non-motorised modes of transport than longer distance travel. The Government's health argument is given weight by the British Medical Association: "Shifting from healthy and more environmentally benign modes produces health problems - obesity, heart disease, stroke, depression and stress. In the normal public health accounting terms these account for far more life years lost than road traffic accidents"[69].

134. The White Paper[70] also indicates that many of the environmental impacts of the way we travel have direct consequences for public health. Road traffic is a major contributor to air pollution and up to 24,000 vulnerable people are estimated to die prematurely each year, and similar numbers are admitted to hospital, because of exposure to air pollution. Traffic contributes substantially to the noise that has become part of the everyday environment and can seriously compromise both people's health and quality of life.

## Unsafe Local Travel

135. The most direct way in which the way we travel can impact on our health and safety is through road accidents. Although serious road casualties have declined, many people are still killed or seriously injured on our roads (more than 120 people every day in 1997) and in other transport accidents[71]. People are particularly vulnerable to road accidents when using non-motorised transport. Over 4,000 children and 8,000 adults are killed or seriously injured every year by cars or lorries while walking or cycling[72]. Despite a 6% fall in child casualties on the roads in 2000, 1 in 15 schoolchildren will be injured in a road accident before they are 17, some fatally, and in 2000, 191 children were killed on our roads[73].

136. Network members felt that road safety has a major influence on how local trips are conducted. This has had particularly severe consequences for the ways in which children travel: *"The UK has low levels of walking and cycling to school because it has the second highest child*

*pedestrian fatality record in Western Europe. Thus parents increasingly drive their children to school, which causes other parents to then drive their children to school. It is a vicious circle, the roads are unsafe because all those parents are thinking they are unsafe and driving their cars. If everybody agreed at the same time not to drive their car to take the children to school there wouldn't be the cars on the road that are knocking children down and therefore stopping them walking or cycling to school, it's catch-22".*

137. Such travel decisions are reinforced by other societal influences, as other perceived dangers are associated with the journey between home and school. Parents are acutely aware of the threats that exist to personal security in the wake of high profile assault, abduction and paedophilia cases in recent times and this serves as an effective deterrent to unaccompanied local walking or cycling trips by children. Statistical evidence regarding the very low risk of such eventualities is often given short shrift in a climate where the distinctions between perceived and actual danger are not appreciated.

138. It is perhaps ironic that a local travel decision, such as driving your child to school, can be justified on the basis of preserving or enhancing health and safety when it is these very concerns that can be most compromised by the decision. As an ever increasing proportion of children are driven to school the opportunities for exercise and personal fitness offered by activities such as walking and cycling are reduced: *"The result is a demographic time bomb of very unfit and overweight children, who are suffering chronic health problems"*. Similarly, a survey of primary school teachers undertaken during 'Walk to School week' in 2001 revealed that 93% of teachers believed that walking to school makes children more aware of road safety issues[74]. The very process of cocooning children in cars serves to heighten the risk they face when walking and cycling because they have little experience of the local traffic environment and are unable to make safe assessments of the prevailing conditions.

## Lifestyle Choices

139. Of course, other, lifestyle based choices can determine whether parents drive their children to school. There is a strong correlation between household car ownership, especially multiple car ownership, and school travel mode. Households with two or more cars are twice as likely to make the school journey by car when compared with households with one car[75]. Trip 'chaining' is also important in explaining the increases in travel to school by car (i.e. parents driving their children to school as part of the journey to work). Any attempt to influence travel to school must acknowledge the connection between the journey to school and the journey to work[76]. It has already been acknowledged in section 2.1 that parents also have the choice to send their children to a school other than

the one nearest to their house. This trip often requires a car journey because it is too far to walk or cycle.

140. Adult health and fitness is also compromised by reluctance to use non-motorised modes of transport. Physical exercise has become primarily a leisure pursuit rather than a consequence of meeting our access needs: *"The least healthy modes get you to where you want to go quickest, lifestyles dictate we haven't enough time to do anything and the last thing we want to do is walk at a leisurely pace for half an hour to get to work"*. Many people in the UK see time spent on a journey only as time wasted. This is reflective of the general time pressure culture in the UK evidenced by the longest working hours in the European Union[77].

## Insecure Local Travel

141. Personal security concerns serve to inhibit the local travel options of adults as well as children. Many people would consider walking and cycling at night as a danger to personal security. Such perceptions as much as the actual risk serve to restrict these forms of travel. Often the actions of authorities in response to crime can serve to exacerbate fears, for example, the reflex response to crime by some councils of closing rights of way on foot can appear to be a retreat rather than a solution[78].

## Footscapes

142. Creating 'footscapes' - environments in which walking is perceived as a safe, secure, convenient and attractive travel choice would make a substantial contribution to tackling many of the health and safety concerns raised in this section. This would require a challenge to the hierarchy of priority that practically exists over much of the transport infrastructure for local travel. Network members stated that achieving a fast flow of motorised traffic seemed to have been the first priority for our transport infrastructure: *"In Bristol, the authorities decided to remove zebra crossings which gave priority to pedestrians and replace them with pedestrian crossings and make pedestrians wait. This gives less priority to pedestrians and encourages more car use, making it easier and faster to drive, and less safe for pedestrians, policy is going in the wrong direction"*.

143. The Network advocated that this hierarchy of priority should be reversed. In infrastructure terms this could be achieved by the deployment of People Zones as detailed in section 2.4. Such a clear change of priority away from motorised modes would serve to create a safer and healthier local travel environment. A further measure to enhance pedestrian safety would be to make drivers consider the walking environment and the interaction between vehicles and pedestrians as part of the driving test. This consideration could take the form of thirty minutes walking in a busy urban centre where vehicular-pedestrian interaction is relatively intense.

144. Other safety and security issues that can be addressed at the local level, like adequate street repair and lighting, attractive landscaping and pedestrian amenities like telephones, benches and information kiosks along the route may contribute to the general feeling of security in the area, which can facilitate walking.

## Promoting Cycling Awareness

145. Awareness of the perspective of cyclists is also important. This too could be part of the driving test so that drivers would have to cycle for an hour through a town centre before obtaining their licence. Such an approach would enable drivers to appreciate the road traffic environment from the perspective of the cyclist. First hand experience from a more vulnerable road user's viewpoint might raise the driver's awareness of safety issues when they return to the cocooned environment of the car. Alternatively, obtaining a driving licence could be dependent upon having first passed a cycling proficiency test.

146. The Network was also keen to address the anomaly that the purchase of bicycles was subject to taxation. People should be encouraged to undertake the healthy and beneficial activity of cycling by removing tax on bicycles and consequently making them cheaper to buy. After all, an increase in cycling levels should save the Government money by improving the health of the nation and thus reducing pressure on the NHS and other social services.

## Creating a Cycling Culture

147. Any attempt to promote the use of non-motorised modes needs to address lifestyle as well as safety issues. The constraint of time pressure in the UK could be addressed by creating a culture, as in Mediterranean Europe, where at lunchtime in every workplace it is assumed that everyone will stop work for an hour and a half. During this time people could walk and cycle in their local environment as well as eating and socialising. Over time people would become so accustomed to cycling that it would be natural to undertake other local travel by that mode. Indeed, this approach could lead to the development of 'park and cycle' initiatives comparable to present day 'park and ride' facilities.

148. The benefits of initiatives to promote cycling would not only be felt by the individual alone. It is becoming increasingly accepted that a fit and healthy workforce is likely to be an efficient and productive workforce. In such a context it would be possible to develop a business case to encourage employers to provide incentives for employees who cycle to work. Of course, commuting is viewed as a private and not a business cost in the UK[79]. This situation had, until recent years served to restrict efforts to promote travel plan measures to promote alternatives to single occupancy car use for commute trips. However, from 1999 the Government has acted to remove tax and national insurance liability from a range of

facilities which promote such alternatives including: work buses with 12 or more seats, workplace parking for bicycles and motorcycles, subsidies to public bus services and alternative transport for car sharers to get home in exceptional circumstances. The Network would like to see these changes taken further; to the point where there are tax incentives for employees to use more sustainable options for commuting. This would mean that commuting is viewed not as a private or business cost, but as a social, environmental and economic cost to the country as a whole. Such legislation would compliment other Toolkit measures such as mobility pricing (see section 2.2) and through charging (2.4), which seek to better reflect the external costs of car travel.

149. In seeking to create a cycling culture it was argued that travel at work as well as travel to work should be addressed where possible. Companies should be encouraged with incentives, as they are in relation to company cars, to provide a fleet of 'company bikes'. These company bikes would then replace the use of company cars for business trips wherever possible.

## Promoting Walking and Cycling to School

150. In terms of addressing the particular problem of the school run, Network members believed that many of the solutions already presented would help to create a more favourable environment for walking and cycling to school. A further measure would be to ensure that all roads in the immediate vicinity of schools would be People Zones (see section 2.4) and restricted to speed limits of 15 mph or less.

151. Fundamental to achieving a culture of walking and cycling to school was the process of education itself. Children should be taught the health benefits of such travel from as early an age as possible. Schools should also play their part in encouraging walking and cycling by providing necessary facilities such as lockers and bicycle storage facilities (the mechanism proposed for engaging schools, pupils and their parents in achieving change in school travel is the sustainable school travel contract detailed in section 2.11). The Network agreed that the collective movement of children under adult supervision provided by walking bus[80] schemes was an excellent approach and advocated that all possible encouragement should be given to such initiatives. Cycling buses[81] represented the logical extension of walking buses enabling children to safely travel longer distances.

**Toolkit Components**

- Footscapes - high quality walking environments created through the provision of amenities and the orientation of infrastructure priority to enhance safety, security and attractiveness of this travel choice.

- Cultivate awareness and first hand knowledge of walking and cycling perspectives on local travel by incorporating both the theory and practice of walking and cycling within the driving test.

- Make the purchase of bicycles free from taxation.

- Help create a cycling culture by provision of park and cycle facilities and the provision of tax incentives for employees to cycle to work.

- Fleets of company bikes should be provided for local business travel.

- Pupils to be educated about the health benefits of walking and cycling to school and schools should commit to providing on-site facilities to enable such travel choices.

# 2.7 Electronic Communication

***"Electronic and other non-mobile means of communication should be considered as transport options and treated accordingly in policy and practice."***

## Access Not Mobility

152. It is not readily apparent that integrated transport policy should consider the Internet. After all, transport policy is surely about mobility and the means to exercise mobility. However, fundamentally the demand for such mobility is derived from the need to access people, goods, opportunities and services situated in alternative locations. Ultimately it is access that is important and physical mobility is one means to attain access. An alternative means is to remotely access people, goods, opportunities and services through use of the Internet. Hence, the Network's belief that the Internet should play its part in integrated transport policy. The Internet is not the only medium of remote communication and access - the telephone and postal service have been with us for some while. Nevertheless, the Internet marks a revolution in the flexibility and capability of remote access (for those with access to the Internet itself).

## Teleshopping and Teleworking

153. Going shopping (usually a local travel activity) accounts for 21% of all journeys and 58% of those journeys are undertaken by car[82]. The form of shopping that is most frequently undertaken is grocery shopping. In the UK, grocery shopping has been largely focused on out-of-town supermarkets since the late 1980s. This, along with the almost universal proliferation of refrigerators and freezers[83], has facilitated a change from frequent small scale shopping to less frequent shopping trips where the quantity of goods bought has meant that the car has been used increasingly. Prior to the Internet there was not an easy means to undertake grocery shopping remotely. The huge and continually changing range of products that a typical supermarket provides, coupled with continually changing prices renders the catalogue plus phone operation used for clothes shopping inappropriate. Grocery shopping over the Internet is now a reality in the UK with all the major supermarkets offering such a service.

154. The Institute of Grocery Distribution (IGD)[84] suggests that at present remote grocery shopping sales represent only a small fraction of one per cent of total sales. However, it cites a number of reasons why it expects remote shopping demand to rise:

- An increase in personal disposable income with greater capacity to pay for home delivery;
- growing affluence of retirees – the group who find shopping most physically tiring;
- an increase in length of the average working week leaving less time for shopping;
- increasing numbers of people in work – particularly women;
- a growing number of leisure options making it worthwhile to save time shopping; and
- a proliferation of home delivery services for other products (books, pizzas, CDs etc.) which help accustom people to the benefits.

155. 70% of commute trips are made by car and commuting (usually local travel) accounts for 16% of all journeys made. Teleworking has long been recognised, in principle, as an alternative or substitute for the commute trip. However, hitherto various issues including misunderstanding of the forms it can take, working practices and cultures, managerial resistance and availability and affordability of home office computing with Internet access have limited uptake. In recent years, however, circumstances appear to have changed and an increasing number of people are choosing to work from home on an occasional basis (at least one day per week) using a computer and Internet connection. Specifically, the number of occasional homeworkers in the UK has increased from 357,000 in 1997 to 513,000 in 1999 (a growth of 44%)[85].

156. Internet access is rapidly moving from the preserve of the minority to an opportunity for the majority. For the second quarter of 2001 it was estimated that 9.4 million UK households had access to the Internet (up from 2.2 million for the same quarter in 1998) 35% of households had access from home computers [86]. 51% of adults have accessed the Internet at some time. The Government has set a target of universal Internet access in the UK by 2005[87].

157. Even in the absence of explicit Government transport policy concerning the Internet it would seem that teleservices are becoming an integral part of everyday lives for a growing proportion of the population. It is important to stress that use of the Internet as a substitute for physical (motorised) mobility is not seen by the Network as an all-or-nothing option. For some people, on some occasions and for some activities the Internet and

teleservices can and will provide a suitable and chosen alternative to use of the car.

158. One of the problems of Internet use is uncertainty about its effects on personal travel. History might suggest that increasing use of the Internet is not likely to lead to an overall reduction in travel and can therefore do little to support local transport policy in its aims of reducing the length and number of motorised trips. Indeed society appears to have an inherent need or desire for mobility. Yet we cannot ignore that in terms of specific activities, such as shopping and working the Internet is enabling virtual access to substitute for physical access and in many cases removing trips by car from our roads. It would appear that the problem arises in the consequent generation of new trips enabled by virtual mobility's saving in travel time. Crucial to whether or not the Internet can make a positive contribution to transport policy objectives is whether the newly generated trips are undertaken by car.

## Virtual Tracers

159. Present uncertainties about nature and scale of impacts of Internet use can make it difficult to pinpoint strategies to positively exploit its role in terms of local travel. Yet the very nature of information and communications technologies and the electronic monitoring and connectivity they introduce to society provides the prospect of resolving this difficulty. When we go about our everyday lives and activities we increasingly engage in electronic transactions - purchases on the Internet, mobile phone calls on the move, email communication at work. In effect we leave an electronic trace of where we have been and what we have been doing. The Network recognised the civil liberties and privacy issues associated with making use of this. Nevertheless, it felt that use of such information without the need to identify individuals was worthwhile. 'Virtual tracers' were proposed and each local authority would possess one. A virtual tracer would be a centralised system linked to all forms of electronic transactions that would assemble electronic records of individuals' movements and activities. Automated interrogation of resulting databases would then allow levels of virtual mobility to be pinpointed and more importantly the pinpointing of consequential effects on physical local travel. The virtual tracer would, in effect, be a powerful means of tracking the evolution of the information society and its associated physical travel demands.

160. The Network determined that, with virtual tracers in place, two complementary components to a local travel policy were required to deliver value from Internet use, namely 'virtual mobility accelerators' and 'secondary effect steering'.

## Virtual Mobility Accelerators

161. Virtual mobility accelerators refer to local strategies determined through insights from the virtual tracer that are designed to accentuate the positive effects of substitution of physical travel for virtual alternatives. For example, in areas where the frequency of Internet grocery shopping is high or growing, private non-residential parking charges for out-of-town supermarkets could be introduced to discourage car journeys when the alternative of virtual access is available (see also section 2.10). Such charges could then be used to subsidise store access via public transport for sectors of the public who either do not have home Internet access or access to a car. Alternatively, charges might also subsidise renewal and expansion in the number of smaller city/town centre grocery retailing outlets.

## Secondary Effect Steering

162. Secondary effect steering concerns the refinement and extension of existing policies to ensure that any newly generated travel demand prompted by virtual mobility is met as far as possible through greater use of cycling, walking and public transport use and that other 'secondary' effects are suppressed. For example, parking charges in city centres might be increased with major leisure attractions encouraged or required to build the price of public transport access to the attraction into the overall ticket price. Such measures would encourage the public to invest their saved travel time and cost (accrued from substitution) more sustainably. The potential secondary effect of residential relocation further from the workplace arising from increasing amounts of teleworking could be suppressed by fiscal incentives for either employers or employees to live within a specified distance from the workplace.

**Toolkit Components**

- Monitor and interpret the effects of Internet use on patterns of everyday activities and travel using virtual tracers - local authority systems to centrally track and record patterns of individuals' electronic transactions.

- Virtual mobility accelerators - local strategies designed to accentuate the positive effects of substitution of physical travel for virtual alternatives.

- Secondary effect steering - the refinement and extension of existing policies to ensure that any newly generated travel demand prompted by virtual mobility is met as far as possible through greater use of cycling, walking and public transport use and that other 'secondary' effects are suppressed.

# 2.8 Land Use

*"Land use efficiency should be maximised and net land take by the transport system minimised."*

## Reconfiguring Land Use

163. As car ownership and use has increased, settlement patterns have become more dispersed which has further increased reliance on car travel. Planning policy is reversing the process of land use dispersal by requiring new development to be built in existing built-up areas. New development includes the four million new homes that are expected to be built in the UK by 2021[88].

164. The main imperative for rural areas is to preserve their character and value by assisting their guardians (notably farmers and managers of attractions) in the viability of their businesses. New developments and business activities should not be promoted unless they serve existing members of the local community or increase the viability of existing settlements.

165. Higher density developments than before will be required in urban areas to accommodate new homes and other development. It will be impossible to provide the same level of roadspace and parking provision per citizen as in the past if severe traffic congestion is to be avoided and the character and environmental quality of built-up areas is to be safeguarded. Streets, housing estates, shopping centres and other developments will have to be redesigned to cater for alternative modes of access. Restricted levels of private car ownership and use will be part of this.

## Residential Parking Allocations

166. Residential parking allocations are one possible means of managing car ownership levels in urban areas. They will be particularly important if the cost of buying new cars decreases (as would be the case for the new models of car ownership outlined in section 2.3). The process of acquiring the rights to use a private, residential parking space (off-street or on-street) could be included as part of the legal processes involved in moving into a new home. A charge for the parking rights could be made according to the total allocation number in the area and the resulting, prevailing market price. If this system is to work properly, it will be important that management and enforcement regimes are put into place for general public parking spaces so that these are not used for residential parking.

167. High density development on its own does not guarantee reduced car travel if it is single use (e.g. housing estates) and large distances are required to access services and facilities. There is little reason in an economy based on the service and technology sectors why land use functions cannot be more highly mixed in the future. High density, mixed use development provides people with options to carry out their activities locally but does not mean that they will choose to do so. Additional steps may be required to encourage people to use local services and facilities.

168. Ideas on how to develop urban form in the way described above are set out in the third report of the Transport Visions Network, *Land Use Planning*[89]. For towns and cities, a dense urban core of mixed use development, high capacity radial transport links, satellite centres, green wedges and greenbelt garden villages are possible elements.

169. Setting appropriate planning policy in place is one important step. However, ensuring it is fulfilled is also crucial. What can be more difficult is developing the transport infrastructure to serve new forms of development. It can take many years to complete a new transport infrastructure project given the typical length of the planning process. The government is looking into reducing the length of the planning process in its Planning Green Paper in the wake of the Heathrow Terminal 5 inquiry[90]. This is a crucial barrier to achieving the transport aims of new forms of land use development. Beacon projects are required to showcase the merits of high density, mixed use development established alongside high quality transport infrastructure and services. Where successful, these examples of innovation will encourage other areas to hasten their plans and will reduce future obstacles in the planning process.

## Obtaining 'Air Rights'

170. An example of an initiative that might be examined in this way is the building of developments above existing transport infrastructure or other structures. Charing Cross and Liverpool Street have office complexes built over them. With escalating land values, it becomes viable for developers to consider such types of location for housing and for developers to seek to acquire the 'air rights' to carry out the construction[91].

171. To ensure that high density, mixed use development achieves the aim of more sustainable travel choices it is vital that the other strategies identified in this Toolkit for Local Travel are implemented.

**Toolkit Components**

- Higher density, mixed use development to facilitate local travel, the viability of high capacity public transport and the use of non-motorised modes of transport.

- Residential parking allocations in urban areas with new residents acquiring parking rights as part of legal processes in moving to new home.

- The introduction of 'air rights' to enable developers to consider building housing and other development above transport infrastructure.

# 2.9 Reliability

*"The reliability of the transport system and its operation should be regarded as a fundamental system management goal."*

## Reliability is Critical

172. Lack of reliability is a problem for any mode of transport but it is a more poignant issue for local travel where it has a relatively more significant effect. For a 10 minute journey by bus, a delayed bus arrival of 20 minutes results in a substantially longer journey. For multi-modal journey options the unreliability of any one of the component modes is likely to discourage their use and encourage use of a single mode alternative. This indicates that public transport reliability should be considered as a matter of priority by transport planners.

## Dedicated Facilities

173. Dedicated facilities for public transport through fixed infrastructure (rail, guided buses) or priority facilities (trams, bus lanes, signal priority) are effective in ensuring more reliable journey times. Other aspects of public transport management and operations are also important in achieving good reliability (e.g. spare vehicles, good maintenance, availability of replacement staff). Reliability becomes less of an issue if public transport services are frequent.

## Sacrificing Journey Time

174. Achieving journey time reliability might need to be at the expense of other attributes of a journey, notably journey time. Such trade-offs have to be considered when attempting to improve reliability. Without a comprehensive system of bus lanes or bus priority, reliability in times of congestion can only be achieved by increasing dwell time at stops. Passengers will not be happy about long dwell times, but they are likely to find them preferable to unreliability. Reliability is likely to depend upon the availability of spare capacity in the transport system that can be used to absorb unforeseen events or incidents. Travellers are often inclined to add a 'float time' to their journey time estimate because of a perceived or actual lack of reliability. Potentially by introducing a more reliable but slower transport system, the opportunity to reduce float times might lead to an overall reduction in total time set aside for a journey.

## Reliability Information

175. Much publicity is given to punctuality and reliability figures for rail in the UK. National targets for bus reliability have also been set[92]. Equivalent information is not made available about road use.

Reliability information should be collected and disseminated about all modes in local areas. Special effort should be made to get the information to private motorised vehicle users. Alongside improvements to local public transport, this will bring to the attention of car drivers that they can experience less stressful travel by public transport.

176. One option would be to use overhead or roadside variable message signs on key arterial or orbital routes to indicate travel time reliability and other comparative information for driving and alternative forms of travel. This would be helpful in circumstances when there are alternatives that are competitive with the car and have sufficient spare capacity. Such information might serve not only to achieve mode shift from car to public transport but also to reinforce the travel choices made by public transport users.

**Toolkit Components**

- The deliberate introduction and retention of 'slack' in the local transport system to improve reliability of journey times.
- Comparative reliability information to be widely available to travellers during their journeys.

# 2.10 Social Participation

*"Transport should not exacerbate problems of social participation and should aim to reduce these problems wherever possible."*

## Disassociation Through Travel

177. In the introduction of this report it was noted that notions of locality and the process of travel were, to some extent, antithetical. It was stated that the act of travelling disassociates people from places and communities. It is not only the process of travelling that can adversely impact upon social participation, the way in which our transport systems are designed and used can also cause problems in this area.

## Community Severance

178. The most visible way in which transport exacerbates problems of social participation is through the physical severance of communities by transport infrastructure. This is placed in historical context by the Pedestrian Association: "For most of human history streets in villages, towns and cities were the place for socialising, children's play, public meetings, entertainments, demonstrations and social change. Streets are now traffic corridors, cutting swathes through local communities. Official attention is concentrated on passing traffic, not local lives. Streets have become dirty and dangerous. Communities everywhere are affected, but more seriously in towns and cities and in low-income areas" [93]. Generally the amount of space used for movement in built-up areas has increased at the expense of 'exchange space'[94].

179. A study of three similar streets in San Francisco by Donald Appleyard[95] found that there was a direct correlation between social participation and the impact of transport infrastructure. The greater the levels of traffic, the less people knew their neighbours. He accounts for this by stating that traffic can inhibit social participation by preventing vulnerable sectors of the population (e.g. children and the elderly) and those responsible for their care from engaging in social activities (including walking and cycling) in their community.

180. Problems of social participation exacerbated by transport infrastructure can be further compounded by associated environmental impacts. The air and noise pollution which traffic brings are often disproportionately concentrated upon communities who themselves contribute very little to that pollution: "although it is true that poor people are far more likely to be living next to waste

dumps, polluting factories and other scenes of environmental devastation than are wealthy people, this doesn't mean that they are major consumers of the products in those factories"[96].

## Car Dependency

181. The way in which we conduct our local travel can have negative consequences for transport users as well as the communities through which they travel in terms of social participation. Ease of mobility has enabled people to travel increasing distances to undertake their activities and this has served to further disassociate them from their local communities: *"People are not involved in their own community because they get in the car to go anywhere, so they don't see their neighbours and their local shops. Walking gives a more detailed view"*. This can have particularly negative consequences for social interaction. Children are particularly affected as they are often driven to traffic free areas to play. This can prevent children from interacting, slowing down the development of their social skills, although they may find plenty of opportunity for social interaction in other contexts. In many other European countries children can play in their local streets and in playgrounds on the streets.

## Car Oriented Planning

182. In this culture of car dependence, those people who do not have access to a car are vulnerable to being socially excluded. A key example is the proliferation of out of town retail facilities, which are designed to accommodate and encourage access by car. Although recent planning policy is attempting to arrest this land use trend, a legacy has been created that will have long lasting impact. This situation is exacerbated by cultural assumptions: *"Those who have cars sincerely believe that everyone else does too. Planning decisions are made on the assumption that everyone does have a car: My district council office is located where no bus service existed until two years ago. Since then it has a daytime service, but not one to take you to and from a council meeting held at 6pm"*. Such a perception of car ownership is not accurate. A significant minority of the UK households (about 27%) do not own a car[97]. Indeed, even within car owning households the car is rarely available to all members due to age, capability, or the fact that it is in use by other household members.

183. The declining demand for public transport associated with high levels of car ownership combined with a deregulated and privately run bus industry has caused many services that enabled social participation, particularly in the evenings, to be withdrawn. This situation can be particularly acute in rural areas where desired activity centres are likely to be more dispersed and further away than in urban areas. This creates a greater need for car use and those without access to a car are more likely to suffer from mobility-related exclusion. The relationship between transport and social exclusion is the subject of a current Social Exclusion Unit study in the UK. This identifies three types of barriers to accessing

work, learning, health care and other key activities: access and availability; cost; and travel horizons ("people are unwilling to travel long journey times or distances, or may lack trust in, or familiarity with, transport services")[98].

## Reinventing Localism

184. In attempting to identify solutions to problems of social participation the Network needed to address the problems of the communities themselves. One approach would be to encourage people to conduct more of their activities (social participation) in the immediate vicinity of where they live. This could be addressed by investing heavily in campaigns to reinvent localism. This could teach people of the benefits of being involved in their local community and establish opportunities for local participation. Parallel investment could be made into promoting more local activities rather than just the occasional bring-and-buy sale or coffee morning. Indeed, events like festivals or carnivals could be arranged to act as triggers to local participation. Community websites could be used as a means to promote localism and pride in knowing about and belonging to a local community.

185. Demographic change might help to encourage localism, for example, an increasingly aging population might take a leading role in developing community activities. It was also noted that having children was an inadvertent way of developing a sense of community: *"I did not get familiar with the place I live in, my children did and I followed suit, because it required contact with their school, their leisure activities, and, as a result, the parents of their friends and organisers of the activities. Small children also act as a passive localiser. You take walks in the vicinity of your home and whilst sitting around a playground you start chatting with your neighbours. In short, you start focusing on things close to you. The best way to promote localism is to promote having children. Focus on family support systems, medical services and primary education. In the mid 1980s there were posters around France advertising "Il n'y a pas que le sexe dans la vie - la France a besoin des bebes" (Sex is the best thing in life - France needs babies). Perhaps a similar campaign could be used in the UK".*

## Local Goods and Services

186. An alternative approach might be to place emphasis on the local provision and use of a diverse range of facilities (see sections 2.1 and 2.8) to promote social participation rather than to campaign for community involvement. It might be unwise to assume that everyone would want to participate (exclusively) in their local community. Many people will have social networks outside of the locality in which they live and may have no desire to change this.

187. Given this situation it is likely that many people might more easily be persuaded of the benefits of accessing local facilities than of the concept of community involvement: *"People may not 'need' local involvement, but they can see benefit in being able to walk to the shops, cinema*

*or pub. Having local facilities is an obvious, easily explained benefit"*. In this way the objective of increased social participation at a local level could be achieved indirectly: *"If services are local and you can walk or cycle to them you are going to feel more involved in the society than if you are travelling 10 miles to work through a different town centre or a different area of town. You lose a lot of the participation within your community if you are out of it all day"*.

## Community Loyalty Schemes

188. A stimulus to local participation could be provided by the promotion of community loyalty schemes. These schemes could run along similar principles to loyalty card systems run by supermarkets and other large retail companies. Residents would be provided with a loyalty card that would be credited with points whenever they used local goods and services. Points could be redeemed against participation in local activities such as a discount on the price of theatre tickets or swimming pool admission. Allied to the scheme could be promotions such as 'keep it local' campaigns advocating the benefits of community participation.

## Penalising Car Oriented Planning

189. In considering the problem of car oriented land use planning the Network broadly welcomed the Government's commitment to reverse trends towards out of town retail development. However, in order to address the problem of access to facilities already in existence for non-car users other measures could be applied. There was considerable support for the notion that car users should directly subsidise the mobility needs of non-car users where possible. One example might be to charge car users for parking in out of town developments (see also section 2.7), a mechanism that is rarely applied, and use the revenue to fund public transport services to enable non-car users to access such facilities.

**Toolkit Components**

- Encourage greater engagement in the local community through increased provision of local goods and services.
- Introduce a loyalty card scheme through which benefits are derived from the patronage of local goods and services.
- Introduce parking charges at out-of-town non-housing developments directed at motorists with hypothecation of revenue to provide public transport access to such sites.

# 2.11 Stakeholders

***"Stakeholders should play an integral role in the entire life cycle of problem identification, solution formulation, implementation and evaluation."***

## Stakeholder Apathy

190. Achieving effective involvement of stakeholders in the process of decision making about transport problems and solutions has historically proved to be frustratingly elusive in the UK. The following account from a Network member reveals a typical experience of stakeholder involvement: *"We have a day where we go down to the local city hall and have an open day and 3 old people will come along and whinge about their streets and go home and the consultants or local authority haven't got better solutions and the silent majority are none the wiser as to what's going on. The NIMBYs have just had the personal satisfaction of airing their views".*

191. Community apathy represents one of the major obstacles to achieving community buy-in for transport policy decisions. People are likely to participate in a consultation process to oppose transport proposals where there is a perception that a proposal will harm the community in some way. However, if proposals are perceived to be free from controversy then people are reluctant to get involved. This reluctance to participate means there is little sense of community ownership of transport solutions.

## Lack of Awareness

192. To class non-participation as being indicative of apathy may be too simplistic. People can often be unaware that an opportunity actually exists to participate in a consultation process. They may believe that solutions are simply imposed by local authorities and that they are genuinely helpless to influence, change or improve their living environment. This sense of helplessness can be compounded if there is not a culture of community action in an area or if the individual has very limited experience of involvement in their local community: *"If you felt part of your community you might feel more inclined to be a voice for that community whereas since you commute every day and don't meet your neighbours why should you stand up and shout about local transport policy".*

## Complexity of the Issues

193. The act of participating in a consultation process itself can discourage people from future engagement. Participation processes can have unforeseen consequences that can demoralise participants. Consultation may begin with a sense of broad community

agreement around a single agenda but as the complex issues are discussed unity can break down as different priorities are asserted by different stakeholders. This can then inhibit discussion and limit progress towards effective decision making. This situation can be compounded when, over a series of meetings, it becomes apparent that there are not any simple catch-all solutions to transport problems that everyone supports. This can often lead to people being less willing to participate, particularly where people's lifestyles dictate that the amount of time that they are prepared to devote to community activities is limited.

## NIMBYism

194. Another common problem associated with stakeholder involvement is engaging a representative range of community opinion. It is likely that those people with the time, interest and inclination to participate in a consultation process will not constitute a representative cross-section of the community. Indeed, involvement can often be motivated by very clear personal interests rather than from a concern for the community as a whole. Such circumstances mean that proposals can be skewed to represent the wishes of certain vested interests leading to partial and divisive solutions being applied: *"The poor single parent with two kids isn't going to come to a meeting to say a bus service would change my life. Instead, you get interest groups, very organised, all middle class who have the time and ability to lobby for things to improve the attractiveness of their area. Meanwhile its the lower income groups that walk and cycle more and suffer greater accidents and they are less likely to attend but more likely to support public transport"*.

## Community Local Travel Audit

195. The problem of obtaining stakeholder involvement in identifying transport problems and developing solutions could be addressed by introducing a process of community auditing of the local travel environment. This is based on the assumption that those people who use the local transport infrastructure and services on a daily basis are ideally placed to help identify problems and formulate solutions. As a result, their solutions are likely to be highly intuitive and the process of engagement should ensure greater identification with and support for implemented measures from within the community. This process would ensure that every area received special attention and that local needs were fully considered.

196. Community members would perform an audit to assess the quality and performance of local travel infrastructure and services using a prepared form. Within the form there would be opportunities for all sectors of the community to contribute their perspective with sections for the general public, children, parents of young children, the elderly, the disabled, etc. The form would incorporate a range of assessment categories such as physical quality of infrastructure, safety and security, coordination of land uses,

availability of transport services, access to amenities, etc., each of which would be broken down into a number of sub-sections.

197. When undertaking the audit, people would rate their local travel environment in terms of each of these sub-sections. They would then sum up the sub-sections for each category to see how they compared to each other, and then prioritise the category areas (or even prioritise elements within categories) in terms of what changes they feel are most necessary to improve the local travel environment. The assessments would include conclusions and priorities in the form of recommendations. These recommendations would then go forward to the local authorities to represent the community priorities for policy and investment decisions.

198. The auditing scheme would be promoted at community activity centres like schools, social clubs, doctor's surgeries and post offices. Each centre would distribute audit forms so that a broad representation of the community has the opportunity to become involved. The promotion of the auditing process in community contexts like schools and social clubs should generate community support and a sense of the need and benefits of participation. In order to ensure as informed a level of participation as possible, training sessions by the local authorities would be held to advise on relevant standards and policies that could impact upon the acceptability of suggested solutions. A health and safety assessment of the on-street, or in-bus auditing process would also be carried out. Where action might affect more than one geographical area, communities could come together to propose joint solutions.

199. The Community Local Travel Audit differs from conventional forms of consultation due to its proactive and participative character. Community members would actually go out and perform the audit either as part of their daily travel or as a special trip, perhaps as part of a collective auditing team. This contrasts markedly with the traditional questionnaire received in the post with no associated activity or community pressure to participate. The audit is about active engagement on the ground, not passive box ticking from the armchair.

## Sustainable Local Travel Contracts

200. As a corollary measure to the community local travel audit, sustainable local travel contracts could be used to ensure that the most sustainable travel practices are adopted using the improved local travel infrastructure. These contracts would be between people and local activity centres. The contracts would propose that sustainable travel options are used when accessing local activity centres and would commit both parties to endeavour to ensure these options are used. Activity centres would commit to facilitating the provision and operation of sustainable travel options and

providing incentives for their use where possible. In response, people would commit to using those options.

## Consultation Methods

201. In seeking to address the problem of getting effective stakeholder involvement in consultation processes the Network suggested that quality rather than quantity of involvement should be the benchmark of success. The Network questioned the value of techniques like distributing 30,000 tick box questionnaires, even if they constitute the cheapest and simplest method of consultation: *"If you can't get hundreds of people to express their views effectively then perhaps there's a more sensitive selection process. You should randomly pick people so you get a truer picture. You could talk to 20 people and the insight into their daily lives and what they confront. You might not get the desired level of community buy in but the quality of the input would be much higher and this would enable more intuitive solutions to be developed"*.

## Citizen's Transport Jury

202. Asking a random selection of community members to advise on transport solutions is a similar approach to the jury system used in UK courts of law. It was proposed that transport juries, operating on terms comparable with legal juries would be an innovative solution to the problem of stakeholder involvement. The jurors would have a much heightened sense of involvement and responsibility because they are genuinely involved in the decision making process. Doubts were raised about the dangers of being committed to the decision the jury takes. It was suggested that there should be the safeguard of a kind of senior chamber, a transport committee of councillors and representatives from the citizen's jury who actually make the final decisions.

**Toolkit Components**

- Stimulate stakeholder participation in the improvement of the local travel environment through an auditing process carried out by community members.
- Sustainable local travel contracts - shared obligations between activity centres and their users whereby the activity centre commits to providing sustainable travel options and the user agrees to use these options to access the site.
- Directly involve community members in the decision making process regarding local travel issues by creating citizen's transport juries to operate in a manner comparable to juries in a court of law.

# 2.12 Information

*"Transport users should be enabled and encouraged to make fully informed choices."*

## Inaccessible Information

203. Network members considered that information was a key area where significant improvement could be made to enable more sustainable levels of local travel. In order to achieve progress a number of residual problems need to be addressed. A prime concern identified was a general lack of accessible information on local travel choices. This problem was seen to be particularly acute in relation to public transport. Many people were deterred from using public transport because of the lack of easily available information. For example, many bus stops do not advertise service timetables or fare information and because there are rarely any route maps it can be unclear as to which side of the road the user should wait. In such conditions a high degree of uncertainty is likely to be associated with travel by public transport for the uninitiated user and this represents a significant barrier to use.

## Fragmented Services

204. The problems associated with public transport information provision are further compounded by the economic context for service operation. As the public transport industry operates in a fragmented free market, private companies compete to provide services. Information provision is inextricably linked to marketing and companies rarely cooperate to provide integrated information. This obstructs users seeking information for journeys that involve the use of more than one mode or service provider. This situation restricts the capacity of public transport to compete with the car by acting as a barrier to attaining the kind of seamless door-to-door travel experience offered by the car.

205. Significant progress is already being made to address this problem. Through a process of partnership the UK Government has fostered the development of a national public transport telephone information service. The service, traveline, seeks to provide the public with a single point of contact for all public transport timetable enquiries. Web access to the traveline service is also being developed[99]. Further to this, the flagship of UK information systems developments is now a Government-led initiative called Transport Direct. It is an ambitious Programme to provide the UK with a travel information service that can present the public with the opportunity to compare travel options across public and private transport modes. Using the Internet as its principal delivery medium it seeks to offer a one-stop-shop journey

planning, booking and payment service, complemented with real-time update information[100].

## Personal Perception

206. Habit also impacts on our ability to make informed decisions. People are often reluctant to consider alternative methods of fulfilling their mobility needs. This may be because of perceptions they have about the quality, convenience and viability of different transport modes: *"People are comfortable with familiar behaviour patterns and rarely consider alternative choices, they have to have an initial interest to seek out information even if it is available and accessible"*.

207. Habitual behaviour can limit where we travel as well as the modes we use to travel. A lack of awareness of services and facilities in the locality can cause people to make longer and less convenient trips to undertake activities than may be necessary. This can also be caused by a lack of accessible information on local facilities. Many information services are marketed towards long distance travellers who are visiting an area rather than to the local population: *"When accessing leisure attractions, people are travelling further afield because they assume there's not enough on their doorstep. I keep discovering things within 5 miles of where I live and it's taken 7 years"*.

## Advertising and the Media

208. Advertising and the media are crucial determinants of the effectiveness of information provision. In the transport sector the most obvious problem to achieving more sustainable travel is the dominance of the car in advertising and the media. The Government's expenditure on advertising and promoting public transport and other alternatives to the car is a drop in the ocean compared to the advertising budgets of motor manufacturers. Motor manufacturers sell high quality products, which are advertised as lifestyle accessories epitomising individual freedom which reinforce car dependency and the belief that travel by other modes is an inferior experience.

209. In contrast to the motor manufacturers, public transport operators are rarely able to cultivate favourable public perception of their products and services through advertising and the media. In some respects this may be due to the nature of their products, which seem unable to provide levels of service comparable to the car[101]. All brands have to be aspirational, but it would be unwise to have a large scale promotional campaign for local public transport unless the product matched the sales pitch. One Network member suggested that, to some extent, the public transport sector had admitted defeat in this area and were not intending to compete with car advertising: *"I went to a seminar where top dogs from the Bus Industry gave presentations on 'can public transport really be an alternative to the car?'. When asked about target groups for advertising and marketing strategies, the audience were told that this was an academic methodological issue and not*

*something they wanted to look at, their concern was primarily with retaining their existing customers. They argued that marketing/advertising campaigns were too costly to run, particularly when the local authorities should be doing more, and their market share would be affected in the short term if the campaigns didn't work".*

## Visible and Accessible Information

210. The Network saw the provision of visible and accessible travel information as fundamental to enabling fully informed local travel decisions to be made. At a very basic level this should equate to simply having bus timetables, route maps and fare information available at clearly visible bus stops. A more simplified and visual approach to bus services would also be helpful, particularly to those who have difficulty reading and understanding bus timetables. For example, bus services (including bus stops and the buses themselves) could be colour coded rather than numbered. The problem of timetable planning and the necessary flexibility of being able to use buses on different routes could be avoided by enabling buses to change colour when changing route. Route maps could also be promoted much more heavily: *"Everyone knows what the London underground map looks like, strive to attain similar association with maps of bus stops"*. Initiatives in this direction are now occurring with the bus company First Group promoting 'overground' maps of bus routes in many towns and cities[102]. Visible and accessible information should also be provided for walkers and cyclists. In this regard the Network supported the Pedestrian Association's Living Streets Manifesto: "Clear, helpful signs help rebuild pride in a local community. Review local signs from a pedestrian's-eye-view as part of their local walking strategies. We want new local transport investment to include improvements to signage, to display local street maps and 'places of interest' signs that show people exactly where they are and how to reach their destinations"[103].

## Effective Pre-trip Information

211. The Network recognised the importance of effective pre-trip information in facilitating informed local travel choices. However, rather than choices on a trip by trip basis, the Network saw the function of pre-trip information as being to influence longer term decision making. In this respect information could be used to break undesirable habitual travel behaviour and replace it with sustainable habitual travel behaviour. Information should therefore seek to reflect the impacts of local travel choices and encourage people to take more sustainable options.

212. Tackling habitual behaviour is easiest if it can be done before the habit has become established. Therefore information should be targeted to coincide with stages of lifestyle change wherever possible. For example, information should be provided to businesses to enable employees to make fully informed local travel decisions when moving to a new job and considering where to live.

Similarly schools, new housing estates and universities would be ideal receptacles and brokers for such information. Even non- life changing decisions, such as where to do your grocery shopping, or how you travel to watch your local football team, could be informed by targeted traveller information.

## On-Street Travel Counsellors

213. The Network considered innovative approaches to how we receive local travel information. It was argued that, even at a time of rapid technological advancement with huge implications for travel information products and services, human interaction could have a significant role to play in enabling more informed local travel choices. Indeed, this had been proved by the success of travel blending, an initiative pioneered in Australia by Steer Davies Gleave[104]. This concept involves in-home personal travel marketing as travel counsellors visit people at home and talk to them about their travel needs and suggest solutions to any travel problems. They provide bespoke transport information based on these interviews and follow up on people's travel behaviour after a suitable time interval.

214. The Network saw the potential to build on existing initiatives to provide a new, more immediate form of personalised information service- the on-street travel counsellor: *"We were trying to find a pub last night and we asked for directions. It worked and it was far better than getting our mobile phones out and trying to look at a GPS map. Human directions are incredibly visual and effective. Relying on highly technological solutions isn't always the answer. Maybe we should have a 'talk to strangers' campaign"*. The on-street travel counsellor would be easily identifiable by a uniform and equipped with a thorough knowledge of local travel options (bus services, car parking, etc.) and would advise people with immediate travel queries as well as seeking to influence longer term travel choices with additional information. It was suggested that travel counselling might suitably become an extension of the role of traffic wardens. Indeed, in Salisbury traffic wardens are already called 'City Ambassadors'!

## Responsible Car Advertising

215. A more responsible approach to car advertising is required to enable more informed local travel decisions. Attention was drawn to an example where public transport services were strictly held to account on these grounds. The BAA Heathrow Express rail service was ordered by the Advertising Standards Agency to desist from using advertising stating that the service took only fifteen minutes to complete its route from the airport to central London[105]. Whilst car advertisements are not allowed to promote speeding or dangerous driving, it is suggested that these guidelines could be developed to further discourage undesirable perceptions of car travel. This could include the prohibition of the depiction of single occupant driving and of scenes where the car is on an empty road.

216. A further stage might be to put government health warnings on all forms of car advertising. Slogans could include: "Protect children - do not make them breathe your exhaust fumes." "Driving Kills." "Driving is a major cause of death and environmental damage." Anyone who smokes in the current climate is fully informed of the potential consequences of their decision, the same cannot be said for people driving a car.

## Raising the Media Profile of Public Transport

217. Redressing the balance between the profile of the car and alternative travel options is required in advertising and the media. In 2000-1 the then DETR spent £15,330,974 on advertising. £8,396,179 was spent on road safety campaigns and £5,587,672 was spent on the environmental campaign 'Are you doing your bit?'[106]. This illustrates that safety and environmental objectives dominated DETR advertising investment priorities obtaining 91% of total advertisement funding. It was suggested that a strong case could be made for campaigns to promote Public Transport use for local travel, which would be fully commensurate with these objectives and therefore could have a claim on such expenditure resources.

218. Indeed, so compelling were these aims that the Network believed funding should be reinforced from alternative sources, particularly as it was believed that considerable investment would be needed to first raise the quality of the services and products to be promoted. It was argued that revenue from advertising on the sides of buses and at bus shelters should be ploughed into such advertising. There was further support for a tax on car advertising with proceeds hypothecated to advertise and promote public transport and other alternatives to the car.

**Toolkit Components**

- Bus stops to become one-stop-shops for bus travel information providing access to timetables, route maps and fare information.
- Colour coded bus services including stops, printed information and the buses themselves. Buses would change colour when operating on different routes.
- Provide information on travel choices at activity centres which generate habitual travel (schools, workplaces, supermarkets etc.) before behaviour becomes established.
- On-street travel counsellors to advise on local travel options and services.

- Enforce more responsible standards of car advertising which take account of sustainability issues including government health warnings.

- Reinvest bus and bus-shelter advertising revenue in public transport advertising and promotion.

- Impose a tax on car advertising with proceeds ring-fenced to advertise public transport and other alternatives to the car.

# Conclusion

219. The process of designing the package of measures contained within the Network's Toolkit for Local Travel was guided by an attempt to fulfil the Network's headline objective for the theme of local travel:

**To achieve local travel that is sustainable both in terms of its levels of provision and its modal distribution and to mitigate the adverse effects of local travel on the communities and the environment.**

220. This headline objective can be considered to have four aspects:

- Sustainable levels of provision for local travel this encompasses reducing the need to travel wherever possible and the encouragement of necessary travel to be undertaken as locally as possible.
- Sustainable modal distribution of local travel.
- Mitigating the adverse effects of local travel on communities.
- Mitigating the adverse effects of local travel on the environment.

221. The Toolkit has produced 45 components across the 12 sections. The table below demonstrates how each of the Toolkit components attempts to address one or more of the aspects of the headline objective as its primary aim.

| Toolkit Component | Levels of Provision | Modal Distribution | Community Impacts | Environmental Impacts |
|---|---|---|---|---|
| **Accessibility** | | | | |
| Consolidated development patterns | ✓ | ✓ | | |
| Decentralised services and facilities | ✓ | | ✓ | |
| Local service areas | ✓ | | ✓ | |
| **Mobility** | | | | |
| Adult + child cycling proficiency testing | | ✓ | | |
| Utility bikes and cyclescapes | | ✓ | | |
| Mobility pricing | | ✓ | | |
| **Costs** | | | | |
| PFI car ownership and use | | ✓ | | |
| In-vehicle display of trip costs | | ✓ | | |
| Company Car Clubs | | ✓ | | |
| **Environment** | | | | |
| Enviroscore | | | | ✓ |
| People Zones | | | ✓ | ✓ |
| Through traffic charging | | ✓ | | ✓ |
| **Trip type** | | | | |
| Sustainable Sundays | ✓ | | ✓ | |
| Public transport funded by taxation | | ✓ | | |
| Local Yellow Networks | | ✓ | | |
| Premium charging | | | ✓ | |
| **Health and safety** | | | | |
| Footscapes | | ✓ | | |
| Walking and cycling within the driving test | | | ✓ | |
| Tax free cycle purchase | | ✓ | | |
| Park and Cycle + tax incentives for commuting by bike | | ✓ | | |
| Company bicycles | | ✓ | | |
| **Electronic communication** | | | | |
| Virtual tracers | | | ✓ | |
| Virtual mobility accelerators | ✓ | | ✓ | |
| Secondary effect steering | ✓ | ✓ | | |
| **Land use** | | | | |
| High density, mixed use development | ✓ | | | |
| Residential parking allocations | | ✓ | | |
| Air rights | ✓ | | | |

| | | | | |
|---|---|---|---|---|
| **Reliability** | | | | |
| Slack introduction and retention in local transport systems | ✓ | | | |
| Comparative reliability information available during travel | | ✓ | | |
| **Social participation** | | | | |
| Local provision of goods and services | ✓ | | | |
| Local loyalty card scheme | ✓ | | ✓ | |
| Parking charges at out-of-town developments hypothecated to fund public transport access | | ✓ | | |
| **Stakeholders** | | | | |
| Community local travel audit | | | ✓ | |
| Sustainable local travel contracts | | ✓ | | |
| Citizen's transport juries | | | ✓ | |
| **Information** | | | | |
| Bus stops become one-stop-shops for bus information | | ✓ | | |
| Colour coded bus services | | ✓ | | |
| Travel information at activity centres | | ✓ | | |
| On-street travel counsellors | ✓ | ✓ | | |
| Responsible car advertising | ✓ | ✓ | | |
| Bus/bus shelter advertising revenue reinvested in public transport advertising | | ✓ | | |
| Public transport advertising funded by hypothecated tax from car advertising | | ✓ | | |

✓ = Primary aim of Toolkit component

**Table 1 The primary aim(s) of the toolkit components**

222. It can be seen that a large proportion of the components are primarily designed to achieve a sustainable modal distribution of local travel. This might suggest an uneven coverage of the four aspects of the headline objective. However, where sustainable modal distribution is seen as the primary aim it is likely that a contribution towards the achievement of all three other aspects of the headline objective would be a secondary benefit of the component. Similarly, whilst very few components were designed specifically to address the environmental impacts of local travel this

aim is a likely secondary benefit of almost all measures directed to achieve the other three aspects of the headline objective.

223. The range of components that address the different aspects of the headline objective illustrates that many different combinations of Toolkit components could be brought together to achieve the aims of the Network regarding local travel. This suggests that the Toolkit offers a high degree of flexibility and diversity in terms of the approaches that could be undertaken by local areas when seeking to deploy solutions. In this regard the Toolkit accommodates the high degree of variability that can exist in terms of the circumstances and aspirations of different local areas when seeking to address the problems of local travel.

# Epilogue: Implementation Issues

224. In considering local travel problems the Network recognised that implementation issues were an important factor in achieving successful solutions. Whilst the Network attempted to take into account implementation issues when designing the individual solutions contained within the Toolkit for Local Travel there was a feeling that for substantial change to be achieved in the quality and sustainability of our local travel then a visionary approach to implementation may need to be developed. The Network attempted to envisage a mechanism for the implementation of a step change in the nature and quality of local travel and this is detailed below:

225. Published in *The Times Mobility Supplement*, Wednesday, 21 October 2044: "Government has expressed concern that local travel plans in recent years have not gone far enough to tackle the epidemic of mobility addiction that is now gripping most parts of the UK. With its new 'authoritarian but benevolent' credentials, the Government is taking the unprecedented step of launching a scheme that will simultaneously introduce a colossal stick AND carrot to local travel.

226. It is argued that for too many years governments have shied away from a better transport future because of the difficulty of making the stark transition from one state to another (and fear over public resistance during the period of transition itself). The Government scheme has been likened to the Big Bang - it will achieve an almost instantaneous step-change in local travel. Please read on.

227. A mobile rapid action task force (RAT-F) is being set up. RAT-F has been given special powers by central government to waive national legislation and policy in order to administer Big Bang treatment of local travel at selected sites. RAT-F is also equipped with a state-of-the-art fleet of 1000 collective transport vehicles complete with drivers highly trained in the art of customer service.

228. RAT-F's task, like that of school/prison inspectors will be to identify 'failing' local travel environments and take 'special measures' to rectify the situation. The force will enter a town or city and deploy its fleet of vehicles which will operate to a pre-planned service configuration that ensures all feeder links within the local travel catchment for the town/city are provided with a high

frequency of free collective transport. This will operate 24/7. Leaflet drops and blanket local media coverage will ensure everyone is fully aware of the newly available mobility service.

229. The force will deploy some or all of its stock of 5,000 state-of-the-art rapid assembly 'boarding ports' - high quality waiting points at which to board/alight vehicles. The colossal carrot will then be in place. RAT-F will then, working with the local authority and law-enforcement bodies, introduce the colossal stick. A draconian road user charging system will be set in operation with further RAT-F resources used to deploy the technology for the system alongside enforcement measures and staff.

230. Temporary collective vehicle priority measures will be widely deployed, substantially reducing capacity for other motor vehicles. Implementation of the charging system will be accompanied by further high quality local media coverage and publicity to maximise public awareness and understanding of the scheme set in place and the rewards for the local community that will be enjoyed in the wake of RAT-F's arrival and subsequent departure.

231. The road user charging system to be used is still being finalised by government ministers but it is believed to fly in the face of conventional wisdom. Rather than promoting peak spreading it will seek to achieve quite the reverse - 'peak narrowing'. Charging levels will be set so that travel by low occupancy motor vehicles outside the defined peak periods is prohibitively expensive. This will force motor traffic to 'fight it out' in the peak periods leaving large parts of the day virtually free from traffic (and hence noise, air pollution, and degradation of local amenity and safety). Intolerable conditions in the peak periods will be accompanied by further media coverage spelling out that what is being experienced in the peaks would be a taste of things to come should the Government's RAT-F scheme not have been introduced to tackle the problem of mobility addiction. Simultaneous with these intolerable conditions would be the availability of the high quality collective transport service offering a local travel experience more palatable than that before the arrival of RAT-F; the local community would also be experiencing an unprecedented improvement in the quality of the local environment.

232. The force is expected to remain in place for up to 6 months. During this time it would work with local authorities and private sector companies interested in running the RAT-F type model on a commercial footing. RAT-F would help identify the business case for this to be achieved with central government subsidy made available if necessary (although high demand for collective transport

resulting from the Big Bang would be likely to create a highly lucrative business opportunity with no need for subsidy).

233. Once things were in place, the force would leave. RAT-F will then move on to the next 'failing' local travel environment and begin its work once again. Government predicts that the effect achieved by the force in its first three years of operation would be sufficient to act as a catalyst for many more local areas to voluntarily pursue the 'Colossal Carrot and Stick ' model.

234. It is estimated that the RAT-F scheme will have a capital cost of in excess of £400M and running costs of £50M per year. However, the CBI has predicted that if the scheme is successful it could save the UK £30bn over the next ten years through reduced congestion and improved journey times."

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