

Department for **Transport**

Making Car Sharing and Car Clubs Work

Final Report

December 2004



Department for Transport

Review of Formal Car Sharing and Car Club Schemes in Closed Communities, Including the Workplace (UG 513)

Making Car Sharing and Car Clubs Work

FINAL REPORT

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EXECUTIVE SUMMARY

This study has assessed the effectiveness of *closed community* car sharing and car club schemes across the UK. It has been compiled through a two stage information gathering process:

- ❑ firstly, a comprehensive literature review examining over 1,000 documents, and identifying over 500 active schemes across the UK; and
- ❑ secondly, 20 case study interviews to explore the key factors for success (and failure).

In addition, the research has been supported by discussion and dialogue with a number of researchers, practitioners, software and hardware providers.

The findings of the research are presented in full within this final report, with a supporting technical note presenting the detail of each of the case studies examined. In addition, a stand-alone best practice guide has been produced drawing upon the key findings and experience of the case study implementations.

The key findings under each of the objectives for the study are summarised below.

Identify current approaches to car sharing, for both individual organisations and area based schemes, covering local authority-led initiatives, employer and school schemes.

- ❑ Car Sharing schemes apply to a range of 'community' types, and are generally differentiated by both: a technical approach (i.e. the matching process); and a range of toolkit measures.
- ❑ The application of these technical approaches and toolkit measures is determined by the local characteristics of each site, the aims, objectives and targets, and available budgets.
- ❑ Local Authorities generally provide support to employers through the deployment of the skills of officers, the establishment of travel plan networks, dissemination of marketing and publicity material, and through 'bulk purchased' discounted software licenses.
- ❑ There is little evidence of the effective delivery of formal school car sharing schemes, with activity tending to focus upon wider travel planning information provision, and informal matching arrangements.

Assess the effectiveness of these approaches to car sharing in reducing: total car use; parking space requirements; and individuals' travel costs. Identify key reasons for achieving success and key barriers.

- ❑ Whilst the technical approach does not appear to have a direct impact on car sharing activity, there are concerns regarding the accuracy of some of the car sharing matching systems, and this is having an impact on the quality and credibility of the schemes.
- ❑ There remains a limited amount of evidence on the effectiveness of car sharing schemes (the number of 'actual' journeys made), with a greater focus placed upon membership levels rather than the number of trips shared.

- ❑ Of the limited number of case studies reported, the average increase in multi-occupancy trips was 21 percentage points (a range of between 3 percentage points increase and 68 percentage points increase).
- ❑ The greatest success is delivered when a range of toolkit measures are effectively delivered, and supported by a wider package of measures branded under a travel plan.
- ❑ The most important factors of success are: an effective enforcement policy, a well motivated and influencing administrator (with time and budget), full support from the senior management team, and priority parking for sharers (with parking restrictions for single occupancy vehicles).
- ❑ There is insignificant evidence to suggest that car sharing replaces trips by other sustainable modes.

Examine whether, and how, formal car sharing schemes have been successfully integrated, packaged and promoted.

- ❑ There is a great degree of variance in the quality of car sharing promotion and marketing – anecdotal evidence suggests that those with the highest degree of quality have tended to achieve the greatest degree of modal shift.
- ❑ There is a general view amongst car sharing administrators that marketing activities have a direct impact on uptake levels.
- ❑ A strong marketing campaign will have a clear aim, well defined target audience, strong branding, a defined timetable for implementation, and a range of communication tools and networks.
- ❑ There is an increasing move towards individualised marketing campaigns to reach marginal users.
- ❑ Marketing which focuses upon the financial savings is considered to be particularly effective.

How effective have those car sharing schemes been which link closed communities into wider internet-based databases, what further potential is possible, and what special factors need to be addressed?

- ❑ Many of the internet providers that offer private groups enable access to a wider network of users registered on their open networks.
- ❑ Logic suggests that access to this larger pool should increase matching possibilities.
- ❑ Of the case studies examined, the focus was to protect the *closed community* to ensure security, integrity and deliverability, and enable effective monitoring.

- ❑ The requirements for closed and open groups are different, particularly with regard to meeting requirements, and this needs to be addressed if a *closed community* is going to extend into an open car sharing group.
- ❑ The greatest potential would appear to be for small / medium sized businesses within closely defined geographic locations.
- ❑ There is a need for greater evidence on the effectiveness of open schemes in order to persuade *closed community* providers of the opportunity (in terms of actual shared trips made).

Identify potential perceptual barriers to the use of car sharing schemes by individuals, and whether and how any schemes have overcome these.

- ❑ The range of perceptual barriers is great, and reflects individuals' desires to travel alone, and maintain personal space and flexibility.
- ❑ All of the perceptual barriers identified can be addressed, but that does not necessarily satisfy those potential sharers that expressed that concern.
- ❑ The tools most effective in overcoming perceptual barriers are personal involvement in the matching process by an administrator, offering 'one week trial sharing', utilising corporate databases to offer added information about potential sharing, stressing the security of the data held within the scheme, encouraging sharing amongst known groups / departments, and providing adequate filtering information to ensure compatible matches.
- ❑ The issues for schools are different from those for organisations, reflecting the particular safety concerns of parents (Note: these have not been addressed in this research due to the lack of case study examples).

Assess how implementation of and participation in car sharing schemes may be encouraged in the future. What additional expansion may be possible?

- ❑ There is a great deal of scope to increase car sharing activity – both the take-up of new schemes, and the improved performance of existing and new schemes.
- ❑ Effective delivery needs actions across a range of organisations, including national and local government, businesses and organisations, and car sharing service providers.

Identify the types of car club organisation which have been, or could be, designed specifically to apply to closed communities.

- ❑ Car clubs can be developed using a particular approach (organisation structure), and for particular environments (*closed community* group).
- ❑ There is a clear difference between the approaches taken for urban and rural schemes.
- ❑ Partnerships lie at the heart of all car club schemes.

- ❑ All car clubs operate within a wider transport network, and seek to enhance the mobility choice for members.
- ❑ There is an increasing trend for *closed community* car clubs in urban areas to amalgamate with wider open car clubs for a city / town.

Assess the effectiveness of such approaches in encouraging membership, enabling efficient club operation, promotion of sustainable transport choices, and meeting members' travel needs.

- ❑ As with car sharing, the effectiveness of a scheme relates not to the organisational structure, but to the blend and application of a range of toolkit measures.
- ❑ Comprehensive information already exists on the establishment of car clubs through the CarPlus toolkit.
- ❑ Similar to car sharing, the skills, commitment and enthusiasm of the coordinator have a strong influence on overall effectiveness.
- ❑ There are clear traits in urban areas as to the effective drivers for car clubs, including a good local representation of housing and commercial development, an effective local integrated public transport network, a range of social demographics, on-street parking controls, and limited off street parking provision in surrounding residential areas.
- ❑ Rural schemes are generally not able to operate without subsidy, although the pioneering schemes are now starting to operate in a sustainable way, and have a vision to extend this in coming years.

Identify potential barriers to the set-up and use of car clubs in closed communities, and any potential solutions.

- ❑ The barriers are generally well known, including: lack of funding (particularly for rural scheme start-up); social / cultural factors; perceptions of cost; complicated cost structures; apathy / lack of public interest; lack of political support; lack of 'long term buy-in' by developers; lack of technical knowledge; lack of support from public transport operators; difficulty in securing on-street spaces; ability to lease vehicles as a new start up company; and insurance.
- ❑ Similarly, the potential solutions are well addressed by the commercial providers of car clubs. More needs to be done to spread this knowledge amongst the wider population (for example businesses with fleet cars).
- ❑ Some of these solutions require policy interventions or national support, some require investment in general awareness-raising and marketing, and others require an evolving change in behaviour / lifestyle.

Assess how implementation of and participation in car clubs in closed communities may be encouraged in the future. What additional features or associated services or facilities may assist?

- ❑ There is scope for the increase and enhancement of car club activity for closed communities across the UK.
- ❑ This requires action across a range of organisations including national and local government, service providers (car clubs and public transport), the car industry and IT developers.
- ❑ CarPlus and the car club service providers have a key role to play in facilitating this development, both in providing technical guidance and support, and lobbying for local scheme development.

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APPENDICES

Appendix A: Example Car Sharing Cost Savings

References

1 INTRODUCTION

- 1.1 Integrated Transport Planning Ltd., in partnership with Richard Armitage Transport Consultancy Ltd., Cleary Hughes Associates and John Austin, has been commissioned by the Department for Transport to undertake a 'Review of Formal Car Sharing and Car Clubs Schemes in Closed Communities, Including the Workplace'.
- 1.2 For clarity:
- ❑ 'car sharing' refers to the use of a single private vehicle (generally a car) to transport a driver and passenger(s) on a trip of a similar origin (or along the line of travel) and destination.
 - ❑ 'car clubs' provide members with flexible access to the 'hire' of a vehicle. Vehicles are parked in reserved parking spaces, close to homes or workplaces and can be used, and paid for, on an hourly (or in some cases, half hourly), daily, or weekly basis.
 - ❑ '*closed community*' refers to a scheme that is limited by defined boundaries - either geographically, or more typically, by an operating unit (e.g. business(es), school(s), public sector organisation(s), academic institutions). We have only included geographically-defined areas as closed communities where we regard the area to be small enough and well-defined enough to have a feeling of local identity, e.g. a village or a recognisable suburb of a town. To some extent, therefore, our definition of closed geographical community is subjective.
- 1.3 It is widely recognised that both car sharing and car clubs can provide significant opportunities for reducing single occupancy car use, contributing to the Government's objectives contained in the 1998 and 2004 Transport White Papers and the 10-Year Plan. However, despite significant levels of uptake, it is still unclear as to how successful schemes have been at influencing modal choice away from the single occupant private car, and whether more could be done to encourage the greater use of such schemes.
- 1.4 This study report therefore seeks to examine best practice in car sharing and car clubs, explore in detail the levels of uptake, and critically appraise the successes and failures to date (primarily focused upon the UK, but drawing upon overseas experience where appropriate). In addition to these full research findings, the outcome of the study is supported by case study summaries, and a best practice guidance note for existing and future developers of car sharing and car club schemes.
- 1.5 This document represents the Final Study Report, and summarises the findings of the first stage literature review, the detailed case study interviews, and discussions with leading practitioners. The document firstly confirms the study objectives, before clarifying in Chapter 3 the study methodology. Chapter 4 summarises the extent of schemes identified by the literature review. Chapters 5 to 10 examine each of the car sharing objectives in detail, followed in Chapters 11 to 14 with a similar assessment of the car club objectives.

2 STUDY OBJECTIVES

- 2.1 The specific objectives of the study were defined in the Department for Transport brief, and for clarity, are as follows:

Car Sharing

1. Identify current approaches to car sharing, for both individual organisations and area based schemes, covering local authority-led initiatives, employer and school schemes.
2. Assess the effectiveness of these approaches, in reducing total car use (while minimising effects on public transport and other sustainable modes), reducing parking space requirements, and reducing individuals' travel costs. Identify both key reasons for achieving success and key barriers.
3. Examine whether, and how, formal car sharing schemes have been successfully integrated, packaged and promoted.
4. How effective have those schemes been which link closed communities into wider internet-based databases, what further potential is possible, and what special factors need to be addressed?
5. Identify potential perceptual barriers to the use of schemes by individuals and whether and how any schemes have overcome these.
6. Assess how implementation of and participation in car sharing schemes may be encouraged in the future, for example using overseas experience. What additional expansion may be possible?
7. Draft new guidance for employers, schools and local government on the effective implementation of car sharing schemes, built around case studies involving individual organisations, schools and area based schemes.

Car Clubs

8. Identify the types of car club organisation which have been, or could be, designed specifically to apply to closed communities, including any additional transport arrangements made to assist the club's operation.
9. Assess the effectiveness of such approaches in encouraging membership, enabling efficient club operation, promotion of sustainable transport choices, and meeting members' travel needs.
10. Identify potential barriers to the set-up and use of car clubs in closed communities, and any potential solutions.
11. Assess how implementation of and participation in car clubs in closed communities may be encouraged in the future. What additional features or associated services or facilities may assist?

3 STUDY METHODOLOGY

3.1 The study is divided into four distinct phases:

- ❑ Stage 1: A comprehensive literature review, which seeks to identify the scale and scope of car sharing and car club schemes, and provide basic details on each of these.
- ❑ Stage 2: Based upon the evidence of the literature review, to identify 20 sites (more than 20 sites were ultimately selected) suitable for detailed case study interview.
- ❑ Stage 3: To undertake and report on the 20 detailed case study interviews, to examine in detail the successes and failures associated with each, and to explore issues relevant both to the scheme developer / promoter and to the user.
- ❑ Stage 4: To produce best practice guidelines for use by local authorities, businesses and other organisations, schools and colleges.

Detailed Methodology: Stage 1 Literature Review

3.2 The Literature Review was undertaken during a 6-week period, commencing mid-April 2004, and an internal project report was submitted to the Department for Transport in June 2004. The material reviewed as part of the study was as follows:

- ❑ A comprehensive review of all 85 English Local Authority Local Transport Plans and subsequent Annual Progress Reports. A limited search of Welsh Local Transport Plans and Scottish Local Transport Strategies was also undertaken.
- ❑ Published journals, including Local Transport Today, TEC, Surveyor, Parking Review and Transportation Professional.
- ❑ Material on Department for Transport and other government websites, including the Travel Plans and School Travel sections of the DfT website, the Scottish Executive, the Commission for Integrated Transport and Transport Energy (Energy Savings Trust).
- ❑ Sources identified in the ITP Index, a catalogue of websites assembled over several years detailing resources for sustainable transport.
- ❑ Publicity and promotional material relating to travel plans, including: Travel Plan Resource Pack; Making Travel Plans Work: Best Practice Guidelines and Case Studies; Travel Plan News; Using the Planning process to Secure Travel Plans.
- ❑ E-mail requests to the development profession, through a blanket e-mail to an independent land-use planning consultancy.
- ❑ Requests for case studies through the Association of Commuter Transport.
- ❑ Requests for case studies from UKLAST, through e-mails and attendance at meetings.
- ❑ Requests for case studies in the transport, land-use and property development journals, through a press release to Local Transport Today, Surveyor, Planning, Highways and Transportation, Estates Gazette.
- ❑ Requests for case studies from the Transport Energy travel plan consultants panel.
- ❑ Case studies compiled from the personal knowledge of the study's team of consultants.

- ❑ Additional Web-site searches, including European and North American Research. It should be noted that much of the European findings (for example the MOSES project), whilst reported in outline in the literature review, were not studied in detail as they applied primarily to 'open' schemes, hence did not directly relate to the issues specifically associated with closed communities.
- ❑ Supplementary Information, including follow up telephone discussions.

Detailed Methodology: Stage 2 Selection of Case Studies

- 3.3 Based upon the schemes identified in stage 1, the case studies were selected in consultation with the Department for Transport, with consideration of the following factors:
- ❑ Geographic region
 - ❑ Scale of scheme
 - ❑ Type of organisation
 - ❑ Urban / rural location
 - ❑ Scheme Performance.
- 3.4 The case study sites were split between car sharing and car clubs at a ratio of 4:1, recognising the significantly greater number of car sharing schemes currently in place in the UK.
- 3.5 The initial brief for the study suggested the case studies would incorporate school car sharing sites. However, despite significant efforts, no school sites were able to be selected for interview, the main reasons being:
- ❑ The champion / promoter had left the school and/or the scheme had since been disbanded;
 - ❑ It was too early in the process of establishing a car sharing scheme for schools to report any significant findings;
 - ❑ The scheme was no longer actively promoted; or
 - ❑ The school(s) were unaware of any best practice guidance that could be extracted from their case study site.
- 3.6 The study team continued to contact practitioners in this field via telephone calls and e-mails to understand issues relevant to school sites, although detailed case studies were not conducted.

Detailed Methodology: Stage 3 Case Study Interviews

- 3.7 Interviews were held with both the scheme promoter and 3 typical scheme users (selected by the scheme promoter, but with guidance provided by the project team on selecting a range of users). This enabled a rounded assessment to be made of the scheme, from a range of different perspectives.

- 3.8 A standard interview pro forma was adopted across all sites to collate basic and consistent data, supplemented by open discussion to explore local issues arising. The case studies are reported in a separate technical note entitled 'Case Study Summaries', and have been audited by the sites themselves prior to publication.

Detailed Methodology: Stage 4 Best Practice Guidelines

- 3.9 The final stage of the study involved the preparation of best practice guidance to either enhance existing schemes, or advise those currently embarking upon scheme development. These draw directly upon the best practice findings of the study.

4 REPORTED SCHEMES (DESK STUDY)

- 4.1 As a result of Stage 1 of the study, some 1,000 documents, websites, articles, database reports, and requests for case studies were reviewed. From these, the study team identified:
- ❑ some 480 reported UK-based closed car sharing schemes (including groups of closed schemes within open car sharing schemes); and
 - ❑ 29 reported UK based car club schemes (of which 26 were active).
- 4.2 In addition, over 40 open car sharing schemes were also identified.
- 4.3 Of these closed schemes, only a limited number were reported in sufficient detail to enable a fully informed decision to be made regarding either their effectiveness, or their suitability for further detailed case study. In addition, some open schemes also appeared to demonstrate particular areas of excellence and uniqueness. These two groups of schemes together were classified as 'Category 1' schemes, suitable for consideration for detailed case study, and comprised in total 45 car sharing schemes and 18 car clubs. A comprehensive database of all 'Category 1' schemes was prepared. This enabled the information to be filtered effectively, and enabled key themes and concepts to be easily drawn from the extensive number of case studies identified.

Case Study Schemes

- 4.4 As a result of the desk study and the criteria defined in section 3.3, the case studies selected for interview are presented in the following table:

| Case Study | Region |
|---|----------|
| CAR SHARING | |
| Norfolk County Council, Norwich | E |
| Mid Essex Hospitals, Broomfield Hospital | E |
| Barclaycard, Northampton | MID |
| Powergen, Coventry | MID |
| Land Rover (Ford), Gaydon, Warwickshire | MID |
| British Gas, Blythe Valley Park, Solihull | MID |
| Halton Journey Share | NW |
| BAA Heathrow Airport | SE |
| Park Royal, NW London | SE |
| Met Office and London Electricity Group, Exeter | SW |
| GCHQ, South Gloucestershire | SW |
| Somerset County Council, Somerset | SW |
| MBNA, Chester * | NW |
| Marks and Spencer Financial Services, Chester * | NW |
| Orange * | NE / S |
| Scottish Courage * | Scotland |
| Meetings / Discussion with other relevant parties... | |
| Liftshare.com | |
| NetFM | |
| CAR CLUBS | |
| Our Car Your Car, Colne Valley, Yorkshire | NW |
| Zed Cars, South London | SE |
| A2B Cars, Bradford on Avon, Wiltshire | SW |
| Moorcar, Ashburton, Devon | SW |
| City Wheels Car Club, Swansea | WAL |
| Stockholm City * | Sweden |
| Edinburgh City Car Club * | Scotland |
| Meetings with other relevant parties... | |
| CarPlus | |
| Smart Moves | |
| Cranfield University | |
| WhizzGo | |

* additional sites to original brief, covered by brief visit and / or telephone interviews.

- 4.5 Each of the schemes is reported in detail in a separate technical Appendix entitled 'Case Study Summaries'.

5 CAR SHARING – OBJECTIVE 1

Identify current approaches to car sharing, for both individual organisations and area based schemes, covering local authority led initiatives, employer and school schemes.

Summary

- ❑ Car sharing schemes apply to a range of 'community' types, and are generally differentiated by both: a technical approach (i.e. the matching process); and a range of toolkit measures
- ❑ The approach to delivery is determined by the local characteristics of each site, the aims, objectives and targets, and available budgets
- ❑ The role of local authorities is generally to provide support to businesses through the skills of officers, and through discounted purchase of software
- ❑ School activity is limited, and tends to focus upon information provision, and informal matching arrangements

5.1 Car sharing schemes can clearly apply to a wide range of *closed community* groups. These generally comprise:

- ❑ Individual employers, operating on a single site
- ❑ Business Park comprising several different employers
- ❑ Individual school
- ❑ Group of schools in close neighbourhood proximity
- ❑ One-off sports, music or cultural events (not covered by the scope of this research, but a viable and active market for car sharing schemes).

5.2 Activity relating to the development and promotion of car sharing schemes for these *closed community* groups has risen in recent years, as demonstrated in the increasing references within Local Transport Plan Annual Progress Reports. This is a direct result of national and local policy interventions, promoting sustainable transport choice through a combination of:

- ❑ Initiatives to encourage the voluntary take-up of travel plans and associated measures. For example:
 - ❑ the Government's Transport Energy programme offering free consultancy advice to businesses developing and implementing travel plans
 - ❑ TravelWise, and other local publicity campaigns
 - ❑ the work of the travel plan coordinators employed by local authorities
 - ❑ growth in the number of travel plan networks (of which there are now over 100 in the UK), encouraging activity between employers
 - ❑ direct business-related initiatives and guidance promoting the financial and employer benefits associated with car sharing schemes

- ❑ Mandatory powers to influence the uptake of sustainable travel initiatives through the planning and development control process (for both individual sites and business parks as a whole), and the wider promotion of travel plans through the planning process, as a result of published best practice guidance and seminars.

5.3 This research has examined the approaches that closed communities have adopted in the development of their car sharing schemes. The different approaches can be categorised into 2 distinct areas:

- ❑ Firstly, technical approaches covering the deployment of the 'matching capability' of the scheme
- ❑ Secondly, tools and toolkit measures that have been used to support the technical approach.

5.4 The following section discusses the technical approaches and toolkit measures, followed by a commentary on how these approaches have been deployed by the different categories of closed communities.

TECHNICAL APPROACHES

5.5 In general, *closed community* car sharing schemes have adopted one of the following technical approaches (primarily focused upon the 'matching capability' of the scheme):

| Types of technical approach | |
|-----------------------------|--|
| 1 | The use of <u>secure private groups</u> on large scale commercial 'open' car sharing web-sites (for example, ASDA and KPMG in Leeds, powered by Liftshare.com) |
| 2 | The use of <u>commercial car sharing software</u> (for example, Worcestershire County Council has used Jambusters software to offer car sharing matching for all council staff). |
| 3 | The development and application of <u>bespoke software</u> designed specifically for that purpose (for example, E.ON UK (Powergen) in conjunction with Datasphere developed it's own software and data models to undertake and manage the matching function and scheme management process) |
| 4 | Use of <u>spreadsheet and database programmes</u> , modified to reflect local needs (for example, the approach used by British Gas at Blythe Valley Park). |
| 5 | The use of an <u>informal car sharing register</u> (often map based), with participants self-matching (for example, an informal car sharing chat forum acting as a notice-board) |

1. Secure Private Groups

5.6 The use of a secure private group within a wider internet 'open' scheme is one of the simplest approaches to developing a *closed community* car sharing scheme. There are several UK service providers that offer this service, such as Liftshare.com, 234car.com and shareajourney.com. The package offered by the different suppliers varies according to specific needs (for example, whether an organisation requires administrative and helpline support). However, in most cases, the closed group must adapt to the registration rules of

the wider open group (for example, there is generally less flexibility to ask specific sharing questions).

- 5.7 Suppliers offer a variety of services to help groups of people find travelling companions for journeys made by car. Liftshare.com defines a group as ‘any population of people who are able to share cars to mutual benefit’. The most common journey that groups of people can and do share is the commute to work, but the on-line services are also used to match journeys to festivals, events, universities and other destinations.
- 5.8 This market would appear to be demonstrating the greatest level of growth. For example, Liftshare.com currently has over 350 private groups registered on its on-line service (in addition to 400 public groups). These groups include local authorities, hospitals and health sector sites, universities, schools and colleges, and large, medium and small-scale businesses.
- 5.9 The advantages and disadvantages of the approach are presented below:

| Advantages | Disadvantages |
|---|---|
| <ul style="list-style-type: none"> ❑ Cheap and easy, quick to establish ❑ Provides a self-matching function reducing staff administration time ❑ Provides a national brand and identity, which can be built upon by the closed scheme ❑ Offers support functions, services and advice ❑ Possible to offer members of the closed scheme access to wider sharing possibilities through the open parent scheme ❑ Provides credibility through reliable and tested technology | <ul style="list-style-type: none"> ❑ Not specifically tailored to the needs of the closed group ❑ Lack of control over the future development of the software ❑ Requires open internet access ❑ Lack of data on the actual take-up and matching success rates, making effective monitoring difficult ❑ Security concerns, especially amongst financial services employers, about possible breaches of their firewall ❑ Perception of users that their data may be made more widely, or even publicly, available |

- 5.10 The costs for establishing a closed group vary between the different on-line providers, and according to the scale of the organisation.
- 5.11 The following describes the approach taken by two sample suppliers, Liftshare.com and Shareajourney.com.
- 5.12 Liftshare.com offers three different services for groups:
- ❑ Public groups – members enter their data into the database and any other members can see information about their registered journey.
 - ❑ Private groups – this group scheme is likely to be used by individual organisations and communities (businesses, councils, hospitals, industrial estates and so on). The

service comprises a facility to restrict access to only those members who are part of the private group. These private groups may be considered as closed schemes.

- ❑ Branded car sharing schemes – these schemes are designed to meet all the requirements of a client and can be integrated into existing websites or intranet. These schemes can have public or private access.

5.13 All of the schemes form an intrinsic part of the Liftshare.com network, which shares one database. The benefits of branded regional / county schemes are cited as:

- ❑ Local websites with a local feel and local information
- ❑ The websites are easier for the local authority to market at the local level
- ❑ A bigger critical mass of car sharers and journeys for each of the members to choose from
- ❑ Neighbouring regions sharing data, facilitating cross-regional travel
- ❑ Any improvements to one scheme (including a growth in membership) benefit all others simultaneously
- ❑ Any marketing by one community in an area automatically benefits all other schemes.

5.14 Members who have the opportunity to enter a private group contained within one of the county or regional schemes, depending on the settings chosen by the administrator, are given a choice concerning the visibility of their journey details to others. They can either restrict their journey details to other members of the private group, or any linked groups (for example other businesses on a business park), or allow their journey details to be shown publicly on the national scheme. To demonstrate, it is possible for a member who is part of a private group to register their journey to work only amongst the private group, and to register a different journey, say to a national event, and allow this one to be shown publicly.

5.15 Three systems may be employed to restrict access to the private groups. The private group may use just one system or a combination of the three. The systems are:

- ❑ Password restrictions: only individuals with the group password can join the group
- ❑ E-mail ending: only individuals with the relevant e-mail ending (for example, @devon.gov.uk) are able to join the group

IP Restriction: individuals can only join through a PC with a certain IP (internet protocol) address.

5.16 Shareajourney.com offers a similar service to Liftshare.com, but it differs in the fact that registration is only open to employees, visitors, delegates, season ticket holders or a parent of a pupil of an organisation that has become a Corporate Member. The issuing of a company name and password ensures this. Individuals who have access to the company name and password then register individually, and through the registration process, create their unique user name and password. Registered users of an organisation enter details of their journey requirements: similar journeys are then automatically listed for users and it is up to individuals to contact one another by e-mail.

2. Commercial Car Sharing Software

5.17 Several software providers, such as Jambusters and Intrinsica, offer clients the opportunity to purchase dedicated software to manage their car sharing requirements. The premise behind this approach is that the software can be installed within a corporate environment (securely located on an Intranet behind a corporate firewall), and offers a high degree of security and site specific information, whilst benefiting from the research and development undertaken by the software provider.

5.18 The advantages and disadvantages of this approach are presented below:

| Advantages | Disadvantages |
|---|--|
| <ul style="list-style-type: none"> ❑ Can be purchased 'off the shelf' and quickly established within a corporate environment ❑ Generally offers enhanced matching capabilities, including 'on-route' matching and GIS map based schedules. ❑ Reasonably cost effective for medium / large sized organisations – increasing efforts placed on offering "packages for small organisations" ❑ Can work with differing levels of human intervention, for instance ensuring that staff without access to a PC can use the matching service ❑ Secure ❑ Offers good level of technical support | <ul style="list-style-type: none"> ❑ No opportunity to integrate with wider open groups ❑ Can be expensive for smaller organisations (commercial operators are currently addressing these issues) ❑ Generally requires staff to have PC access ❑ Some systems have been known to take up to one hour of staff time to process a new registration, from first contact to offering matches |

5.19 The costs for commercial software vary according to the scale of the organisation. In some cases, local authorities seeking to promote car sharing amongst local businesses will often bulk purchase licenses, and then either sell these on to local businesses at discounted rates, or offer 'early bird' incentives.

5.20 For example, in Worcestershire, the package offered to employers is as follows:

| No. of employees | Cost (ex VAT) | Maximum cost per employee |
|------------------|---------------|---------------------------|
| 0-49 | £165 | |
| 50-99 | £220 | £4.40 |
| 100-149 | £330 | £3.30 |
| 150-249 | £440 | £2.93 |
| 250-499 | £605 | £2.42 |
| 500-999 | £1100 | £2.20 |
| 1000-2499 | £1925 | £1.93 |
| 2500+ | £2475 | £0.99 |

5.21 A further discount of 10% is offered for employers that have an approved travel plan.

5.22 New product launches and product upgrades are continuing to reach the market. For example, NetFM, who already provides services to Vodafone (Newbury) and Orange, only works with strictly *closed communities* and offers a high degree of security. In addition to a conventional car share matching function, NetFM also offers 'Just in Time' car sharing, utilising the latest mobile technologies (positioning and SMS messaging), enabling car sharers (or, indeed, sharers of any sustainable mode) to match up for 'last minute' trips, or 'on route' pick-ups (as part of their Journey2share software), combined with systems to combine car sharing and parking allocations.

3. Bespoke Software

5.23 In some instances, organisations elect to develop their own dedicated car sharing software to service their precise needs. Good examples of this approach include Powergen and IBM. In these cases, the organisation develops its own flow process to establish the brief for the scheme (to directly meet its own particular needs), and generally uses its in-house IT support teams to develop and apply the software. Powergen also commissioned Datasphere to establish the user terminals, as these extended beyond the remit of their in-house software developers.

5.24 The advantages and disadvantages of this approach are presented below:

| Advantages | Disadvantages |
|--|---|
| <ul style="list-style-type: none"> ❑ Product is specifically tailored to the needs of the site ❑ Makes best use of in-house resources and technology ❑ Provides a fully flexible solution ❑ Can ensure monitoring and performance management are intrinsic parts of the scheme (particularly where planning conditions are required to be met) | <ul style="list-style-type: none"> ❑ Can be more expensive than off-the-shelf packages ❑ Only suitable where an in-house IT capability exists ❑ Requires steep learning curve, and replicates development work already undertaken by commercial developers ❑ Can delay implementation of car sharing offer, whilst the in-house package is developed ❑ Difficult to integrate with wider open groups ❑ Generally requires staff to have PC access |

5.25 This development path is often explored due to the lack of perceived alternatives to meet a specific need. Car sharing remains a relatively new science in the UK, with few service providers (commercial software or internet based) established before 1997. Hence, for organisations that have been pioneering the application of car sharing, the development of their own in-house solutions has been their only viable option. Despite the lack of alternatives when such schemes were first established being the *raison d'être* for this, the organisations interviewed that have taken this approach all held the view that they would still have adopted the same approach had they been developing the solution in the current market.

5.26 Additionally, many of the bespoke solutions utilise the data held within the in-house corporate database relating to staff profiles. This provides a ready-made resource relating to staff preferences, including in most cases personal photographs, which can be a very useful means of providing additional information to users on potential sharing partners. It also significantly reduces the time needed to register with the car sharing scheme, as most of the background details are already on an in-house database, and stored in accordance with strict data protection guidelines.

5.27 The costs for bespoke software will vary for each organisation. In most cases, the software development costs are 'hidden' amongst the on-going IT support function, hence it is not possible to estimate a cost associated with development. At Lancaster University, where car sharing software is under development, the project fitted with research and development commitments within the IT department.

4. Spreadsheet and Database Programmes

5.28 This approach relies upon the use of commercial office software (for example FileMakerPro, Microsoft Excel or Microsoft Access), to match potential car sharing partners. People register using a paper-based system, and details are input into the spreadsheet or database by a coordinator, who then undertakes a manual search of the system to identify suitable partners. This approach has been deployed very successfully indeed by British Gas at their Blythe Valley Business Park site, and by MBNA in Chester.

5.29 The advantages and disadvantages of this approach are presented below:

| Advantages | Disadvantages |
|---|--|
| <ul style="list-style-type: none"> ❑ Cheap to establish ❑ Simple to use and administer ❑ Provides a flexible solution that can change over time to meet new demands ❑ Can be deployed very quickly ❑ The data can easily be transferred to a new off-the-shelf or bespoke system at a later stage ❑ Appropriate for smaller firms and organisations | <ul style="list-style-type: none"> ❑ Requires a coordinator to manage the software and ensure reliable matches (staff intensive) ❑ Requires good coordination between paper and electronic processes ❑ Relies on manual interpretation to ensure matches, hence it is generally not capable of undertaking 'on-route' matches (although the coordinator may be able to achieve some of these, based on her or his own local knowledge) ❑ Prone to data corruption as the scale of the scheme grows |

5.30 The costs for this approach relate to the staff time to administer the scheme, as opposed to the capital costs of software or license purchase. Typically, such an approach will require at least one full or part-time coordinator to manage a site that exceeds 500 staff.

5. Informal Car Sharing Register

5.31 This approach relies upon a centralised bulletin board (either physical or electronic) where potential sharers log their details, and request car sharing partners to contact them directly. In most cases this approach is supported by a basic location plan, with sharers invited to log their details adjacent to their home location.

5.32 The advantages and disadvantages of this approach are presented below:

| Advantages | Disadvantages |
|---|---|
| <ul style="list-style-type: none"> ❑ Cheap to establish ❑ Simple to use and administer ❑ Locates any data protection issues with the individual, leaving it a matter of personal choice as to what information is provided ❑ Very easy to publicise | <ul style="list-style-type: none"> ❑ No automated means of monitoring performance or effectiveness ❑ Lack of credibility amongst some users ❑ Most unlikely to work effectively amongst a large population, thereby minimising the probability of successful matches ❑ Enforcement issues (if they arise) are difficult to police, due to the informality |

5.33 The study identified little evidence of this approach being adopted, although one market where it is likely to be deployed is within schools and universities. For example, a school provides a basic location plan in the main reception area, and invites parents to register their interest. This reduces the onus and responsibility upon the school itself, as it is merely acting as the facilitator and therefore has no direct responsibility for the effectiveness of the scheme.

Relational Approaches

5.34 The likely application of the different technical approaches to each of the defined groups of closed communities is demonstrated in the following matrix.

| Technical Approaches Matrix | Secure Private Groups | Commercial Car Sharing Software | Bespoke Software | Spreadsheet and Database Programmes | Informal Car Sharing Register |
|--|-----------------------|---------------------------------|------------------|-------------------------------------|-------------------------------|
| Individual employer, operating on a single site | ✓ | ✓ | ✓ | ✓ | ✓ |
| Business park comprising several different employers * | ✓ | ✓ | ✓ | ✓ | |
| Individual school | ✓ | | | ✓ | ✓ |
| Group of schools in close neighbourhood proximity | ✓ | | | ✓ | |
| One-off sports, music or cultural events | ✓ | ✓ | | | |

* One of the major issues associated with the development of business park schemes is the need for coordination from the outset, with all parties adopting a common platform or technical approach. It is very difficult to retrofit a solution once each organisation has developed its own approach to car sharing.

TOOLKIT MEASURES

5.35 Irrespective of the technical approach taken, each car sharing scheme exhibits certain characteristics that contribute to its overall effectiveness. These attributes are defined in the following table.

| Toolkit Measure | Description |
|--|---|
| Management support and commitment | Whatever the motivation, the scheme has the full backing of the senior management team, with active car sharers amongst the senior management team. |
| Administrator (with budget and time) | A specific individual (or team) is responsible for managing the car sharing scheme, with a (realistic) time and budget allocation. |
| Cascade approach to management and promotion | Middle managers are guided in promoting the car sharing scheme amongst staff at all levels, sharing the burden of making the car sharing scheme work. |
| Incentives | Rewards are offered for car sharing. These can include financial payments, vouchers, prize draws, reduced or free parking, extra holidays, etc. |
| Priority parking | Allocating designated parking bays for use by car sharers only. |
| Supporting travel plan | The car sharing scheme forms part of a wider package of measures to promote sustainable transport to or from the site. |
| Guaranteed ride home | Offering staff a taxi ride to or from work should they be stranded by their car sharing partner for whatever reason. |
| Enforcement | Ensures that the priority spaces are used only by car sharers, that incentives are awarded fairly, and that the system is not abused. Can be either self-enforcing (i.e. through staff involvement and feedback), or through a managed enforcement programme. |
| Effective matching system | The technical approach is effective for the scale and location of the site. |
| Marketing strategy | A comprehensive, multi-layered and professional marketing strategy, appropriate for the target audience, is used to promote the car sharing scheme to staff. |
| GIS interface | The ability to match sharers using a digital mapping system. |
| User group | Staff have the opportunity to feed into the on-going development of the scheme. |

5.36 The application of these attributes to each of the case study sites is shown in the following table, whilst the contribution that each characteristic has towards effectiveness is discussed in the following chapter.

| Toolkit Measures: Application at Case Study Sites | Management support | Coordinator (with time and budget) | Management cascade to promote scheme | Financial or other incentives | Priority parking | Travel plan | Guaranteed ride home | Enforcement | Effective matching system | Marketing strategy | Total score |
|---|--------------------|------------------------------------|--------------------------------------|-------------------------------|------------------|-------------|----------------------|-------------|---------------------------|--------------------|-------------|
| Barclaycard | | ✓ | | ✓✓ | ✓✓ | ✓ | | | ✓✓ | ✓✓ | 5.0 |
| British Gas | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | | ✓✓ | ✓✓ | ✓✓ | 9.0 |
| Broomfield Hospital | ✓✓ | ✓✓ | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | 8.5 |
| GCHQ | ✓ | ✓✓ | ✓ | ✓✓ | ✓✓ | ✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | 8.5 |
| Halton Journey Share | ✓ | ✓✓ | | | | | | | * | | 1.5 |
| Heathrow Airport | ✓✓ | ✓✓ | | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓ | ✓✓ | ✓✓ | 8.5 |
| Land Rover | ✓ | ✓ | | | | ✓✓ | | | ✓ | ✓ | 3.0 |
| MBNA | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | 10.0 |
| Met Office | ✓✓ | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓✓ | ✓ | ✓ | ✓✓ | 7.5 |
| Norfolk County Council | ✓ | ✓ | | | | ✓✓ | ✓✓ | | ✓✓ | ✓ | 4.5 |
| Park Royal | ✓✓ | ✓ | | | ✓ | | | | ✓ | ✓ | 3.0 |
| Powergen | ✓✓ | ✓✓ | | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | 9.0 |
| Somerset CC | ✓ | ✓ | | | ✓✓ | ✓ | ✓✓ | ✓✓ | ✓ | ✓✓ | 6.0 |

Note: ✓ - **some support** ✓✓ - **strong support**

* Halton Journey Share only had 14 registered users at the time of the case study interview, hence it is not possible to assess the effectiveness of the matching system

School Specific Issues

5.37 Many parents and guardians use informal car sharing as a valuable means of reducing the impact of the school run on their daily lives and their neighbourhood. Evidence from practitioners suggests that this is generally undertaken in known groups (either with family members or close friends), and is typically organised through friendship and local knowledge. National and local policy interventions are continuing to promote more sustainable travel behaviour for the journey to/from school through the development of school travel plans and safer routes to school strategies. Local authority transport teams are now well versed in the requirements of this approach, and are able to offer support and advice on how to best establish and run a school travel plan for a specific school site.

5.38 As a result of this activity, local authorities are now claiming increases in car sharing levels as a result of their guidance and assistance to schools that are developing school travel

plans. Despite this apparent rise in car sharing levels, this study was unable to identify any particular school car sharing scheme (as opposed to a school travel plan) that had successfully resulted in modal shift changes.

- 5.39 It is recognised this is an area currently experiencing on-going development work. The School Travel Advisory Group (STAG) and the UK Local Authority School Travel group (UKLAST) continue to develop best practice guidance in this area. In particular, UKLAST is currently developing guidance that will seek to clarify the procedures necessary to produce a successful school run car sharing scheme. Many local authorities have produced their own guidelines for schools and parents on best practice – in particular the liability issues associated with car sharing. A good example of this is Oxfordshire's guidance under the 'Better Ways to School' initiative.
- 5.40 Following the car sharing pilot with 15 schools in Bromley, Schoolrun.org is being launched nationwide, set up and run by Liftshare.com, to enable parents doing the school run by car to see if they can share the journey with other parents who live nearby and have children at the same school (the website is in the early stages of development at present). This scheme has required Liftshare.com to set up a separate database to its main one. School-run.org contains information and advice aimed at resolving worries parents may have, in particular over security issues. The registration process contains a step where parents are sent a Criminal Record Bureau check to complete. Once the parent is approved, the parent is 'activated'. Each school is a private group with a school password (at least) as the restricted access measure. However, it may be possible for schools in close proximity to exchange passwords, therefore widening the database of parents willing to car share.
- 5.41 Whether this formal approach to car sharing in schools will overcome the barriers expressed by parents and transport professionals is yet to be seen. Key concerns raised include:
- ❑ In rural areas particularly, but also some urban ones, will more car sharing lead to fewer children (especially secondary school pupils) using the bus to get to school?
 - ❑ In a similar vein, will car sharing reduce the number of pupils that experience public transport at this formative stage in their lives?
 - ❑ School travel plans have been most successful where they have promoted cycling, walking and public transport, all of which contribute to children gaining their independence. Little enthusiasm has been shown for car sharing to date.
 - ❑ Formal car sharing matching services might be considered irrelevant for children of primary school age (and probably for junior pupils too), largely because of parents' doubts about the condition of other parents' cars and about the quality of their driving skills.
 - ❑ The Criminal Records Bureau check is likely to be expensive and time-consuming to administer, as well as being fundamentally off-putting to many parents.

Local Authority-Led Schemes

- 5.42 In general, it was found that a local authority can lead in five ways:

- ❑ Being a catalyst for various organisations coming together, especially other public sector bodies.
- ❑ Taking the lead in setting up county-wide schemes, which may be closed or open (for example, CarShareDevon, WorcestershireCarShare, and Norfolk Carshare.to).
- ❑ Being a promoter of experimental or demonstration initiatives, or providing specific assistance to small organisations, e.g. schools.
- ❑ Being a major employer itself with a vested interest in taking a lead in travel plans.
- ❑ By extending car sharing to counter social exclusion.

5.43 Local authorities have had a pivotal role to play in developing the market for car sharing schemes, through the sustainable transport objectives contained within their LTPs. Local authorities offer *closed communities* varying degrees of support, covering:

- ❑ Technical guidance
- ❑ Marketing and promotion
- ❑ Access to national travel awareness campaigns
- ❑ Finance
- ❑ Coordination and management skills.

5.44 This support is typically offered through the sustainable transport team within each highway or transport authority, and is the main mechanism by which car sharing schemes are promoted and developed nationally. Evidence from the case studies has clearly identified that officers within local authorities have proved invaluable in both establishing the car sharing concept within *closed communities*, and in assisting with their technical development.

5.45 Area-wide car sharing schemes are operated by approximately 50% of all shire county councils. Good examples include Somerset Carshare, Carshare Cornwall and Bucks Car Share. Many of the regional and county car sharing schemes are powered by larger specialist companies (for example, Liftshare.com and shareajourney.com), and driven by internet based software. In most cases, a 'private group' can be established within these county car sharing schemes, enabling them to be used by *closed communities*, generally at a low cost, or free. These private groups are fully secure, and can only be accessed by members of the *closed communities* with appropriate passwords for access. The employer decides the level of security implemented in order to prohibit 'outsiders' from joining the private group.

5.46 There are, however, a few schemes at the county level that are fully closed, for example Kent Carshare. To join this car sharing scheme you must be an employee at one of the registered employers. When entering personal details, prospective car sharers are asked to choose their employer from a list. When picked, the last part of the email address for that company will appear in the relevant part of the form, and applicants have to add their name to complete the email address. A similar method is employed for Bristol Carshare and Oxshare, both of which use 234car technology.

Rural schemes

- 5.47 The other main type of *closed community* for car sharing is to be found in rural areas, involving residents from one village or a group of surrounding villages. Many people from these settlements are making the same journey to local centres for work, shopping, health, and recreational activities. Buckden Village Carshare has been organised especially for members of the community who travel to St Neots rail station on a daily basis to continue their onward journey, typically, to the workplace. It should be noted that only two of this scheme type were identified, and this category of scheme is not specifically dealt with in the brief for this study. However, car sharing schemes have been set up in regions and counties that have local centres but are relatively rural in nature: for example, Norfolk, Wiltshire, Tees Valley and Buckinghamshire. 15 of these schemes were identified.

Funding for car sharing

- 5.48 There are a number of funding organisations and resources that have generally supported the establishment of *closed community* car sharing schemes to date, including developers, employers, and local authorities.
- 5.49 Through a planning condition or section 106 planning agreement, local authorities are increasingly requiring developers to fund and implement a 'travel plan' which will include a car sharing scheme. Employers that are building new premises are also being required to have travel plans with car sharing matching services. For example, this happened when Orange built new premises at Temple Point, Bristol, close to Temple Meads railway station. Bristol City Council received a £5,000 contribution from the company, then gave it back for travel planning, and also awarded them an additional £5,000 towards implementation, from the Council's own 'travel plan grant scheme'.
- 5.50 Some of the funding provided by developers is likely to be used for the initial set-up costs of a car sharing scheme. The running costs of a car sharing scheme, or more specifically a commuter or travel coordination centre that runs it, may be met by firms located on a business park: for example, the Commuter Centre that is funded by Stockley Park Consortium. In addition to this, companies at Stockley Park pay a service charge, which goes towards maintenance of the business park as a whole (including transport provision).
- 5.51 Local authorities can provide funding to organisations implementing car sharing schemes through LTP funds or Travel Plan grant schemes. For example, Nottinghamshire TransACT offers direct grant support to small businesses to develop their travel plan initiatives, including car sharing matching systems. Transport for London is funding the London car sharing schemes currently being rolled out. There has to be a concern about the future of all such funding arrangements, as much of this funding has yet to make it into mainstream budgets.
- 5.52 Local authorities can also make 'in kind' contributions, such as providing advice and support to organisations setting up car sharing schemes.
- 5.53 However, in most cases, an employer-based car sharing schemes is funded by the employer, as part of a package of measures branded under their site-specific travel plan.

5.54 Membership of *closed community* car sharing schemes is normally free to individual users. There are, however, still some internet based systems that are charging private individuals for the matching services, such as www.roadpals.com which requires an annual £20 registration fee.

Cost Structures

5.55 Car sharing schemes have two key cost areas:

- ❑ the purchase of technology and software, and any annual licence payments thereafter
- ❑ the wages and associated office overheads of any staff input into the scheme.

5.56 The cost of each of the different technical approaches is summarised in the table below:

| Approach | Typical Start Up Costs (2,000 staff) | Typical Annual Costs (2,000 staff) |
|-------------------------------------|---|--|
| Secure Private Groups | £500 - £1,000 | £300 - £500 |
| Commercial Car Sharing Software | £300 to £20,000 (depending on scale of operation) | Ongoing maintenance – typically 5-15% per year |
| Bespoke Software | £5,000 to £30,000 for software and supporting hardware (depends on financing of internal IT function) | £1,000 to £3,000 depending on precise design of scheme |
| Spreadsheet and Database Programmes | Salary costs only, typically 10 person days | Salary costs only, typically 1 person full time |
| Informal Car Sharing Register | Salary costs only, typically 2 person days | Minimal staff time to maintain register |
| Car Sharing Coordinator | Salary costs only, typically 5 person days | Salary costs only, typically 1 person part time |

6 CAR SHARING – OBJECTIVE 2

Assess the effectiveness of these approaches, in reducing total car use (while minimising effects on public transport and other sustainable modes), reducing parking space requirements, and reducing individuals' travel costs. Identify both key reasons for achieving success and key barriers.

Summary

- ❑ Whilst the technical approach does not have a direct impact on car sharing activity, there are concerns regarding the accuracy of some of the car sharing matching systems, and this is having an impact on the quality and credibility of the schemes
- ❑ There remains a limited amount of evidence on the effectiveness of car sharing schemes (the number of actual journeys made), with a greater focus placed upon membership levels rather than the number of trips shared
- ❑ Of the limited number of case studies reported, the average increase in multi-occupancy trips was 21%
- ❑ The greatest success is delivered when a range of toolkit measures are effectively delivered, and supported by a wider package of measures branded under a travel plan
- ❑ The most important factors of success are: an effective enforcement policy, a well motivated and influential administrator (with time and budget), full support from the senior management team, and priority parking for sharers (with parking restrictions for single occupancy vehicles)
- ❑ There is insignificant evidence to suggest that car sharing replaces trips by other sustainable modes.

6.1 When assessing the effectiveness of car sharing schemes, a key attribute is the relationship between scheme membership levels (the number of users registered), and scheme usage (number of matches achieved, and the number of shared trips undertaken). In general, the sites studied both through the literature review and the case studies showed a greater propensity for reporting of membership levels (although even this was scarce), rather than usage levels. This is likely to reflect the following:

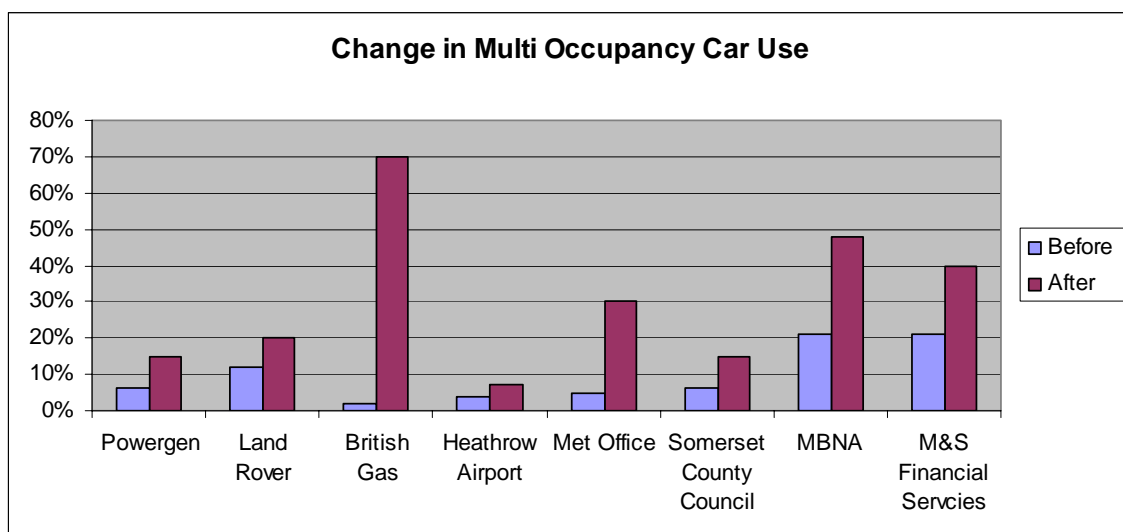
- ❑ LTP and APR reports naturally focus upon the positive aspects of scheme delivery. Increases in membership of the car sharing scheme are easy to report and can look very positive.
- ❑ The car sharing software currently available is geared up to reporting membership levels quickly and easily.
- ❑ Rising membership is seen as a straightforward concept that will be readily understood by the public at large.
- ❑ If the software or other technical approach cannot deliver statistical information about actual matches and the number of shared journeys, then surveys to record usage are required. These are expensive to conduct, and are not necessarily a high priority for

closed communities (although they may be very important to performance assessment by local highway and planning authorities).

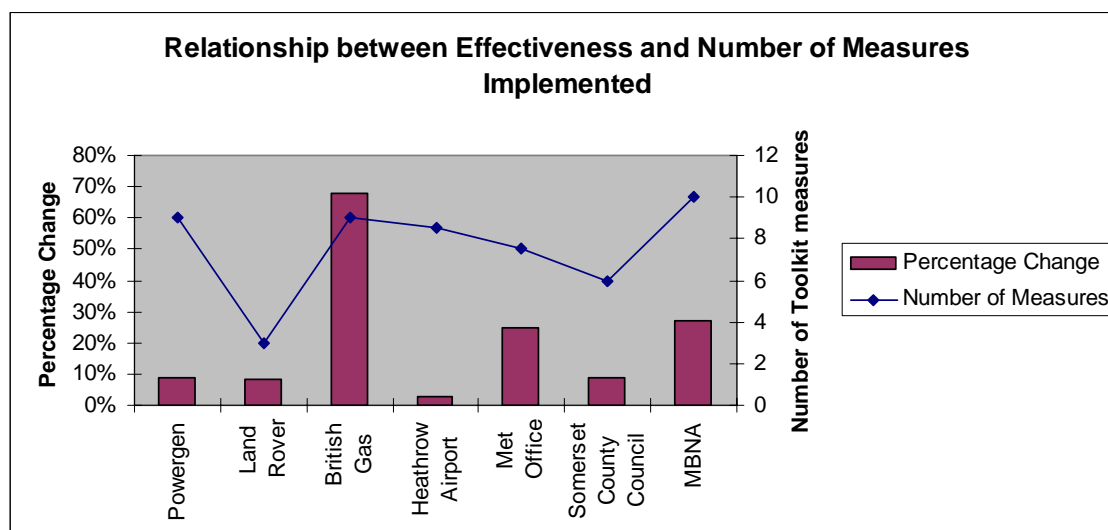
- 6.2 The exceptions to the current trend were, significantly, at locations where the car sharing scheme is having a verifiable and noticeable impact on modal shift. For example, both BAA Heathrow and MBNA collect statistics about actual matches and the number of shared trips on a regular basis.
- 6.3 It is important to recognise throughout this chapter that the collective results relate only to a limited number of case study sites, and hence do not provide a statistically reliable assessment, but serve to give an indication of the collective experience of those case studies.

Impact on Car Use

- 6.4 From the case study interviews it was possible to examine modal shift in some detail, although even for these chosen sites, only eight had good reliable before and after like-for-like data on which to report. For those sites, the following graph demonstrates effectiveness.



- 6.5 The increase in multi-occupancy car use as a direct result of the car sharing intervention was in the range 3% to 68%, with an average increase in multi-occupancy car use of 21% (Note: these represent percentage point changes).
- 6.6 A test was also carried out as to whether the type of technical approach adopted had any impact upon effectiveness. Whilst this study does not endeavour to produce statistically reliable results, the study team found no evidence of a relationship between the technical approach adopted and the performance of the scheme.
- 6.7 A further test was undertaken to examine whether the number of toolkit measures that a site adopts has any bearing upon overall effectiveness. The results are shown in the graph below.



6.8 Whilst this graph suggests some relationship between the number of toolkit measures implemented, and the effectiveness of a scheme, it would appear from the qualitative assessment that effectiveness is influenced by the application of a limited number of fundamental measures. The relative contribution of each of the toolkit measures to overall effectiveness is demonstrated below (figures refer to broad categories of the average increase in multi occupancy car use prevalent at sites deploying the particular toolkit measure).

| Toolkit Measure | % Increase in multi occupancy car use |
|--------------------------------------|---------------------------------------|
| Enforcement | >25% |
| Administrator (with budget and time) | >25% |
| Cascade approach to promotion | >25% |
| Management Support and Commitment | >25% |
| Priority Parking | 20-25% |
| Strong Marketing strategy | 20-25% |
| Effective matching system | 20-25% |
| Supporting Travel Plan | 20-25% |
| Guaranteed Ride Home | 10-20% |
| Incentives | 10-20% |
| User Group | <10% |

6.9 A further commentary on the value of each of the toolkit measures is given below.

Management Support and Commitment

- 6.10 This is a fundamental factor across all successful case study sites for a number of reasons:
- ❑ Managers who car share to work set a positive example for other employees.
 - ❑ Management support enables budgets to be allocated for supporting measures, both time and cost.
 - ❑ Management support enables the culture of car sharing to flourish, and for other business practices to assist in uptake, such as flexible working practices, and staff being encouraged to 'leave on time', all of which strengthens the drive for an improved 'work-life balance'.
- 6.11 The study has found several good examples of management commitment and support for car sharing, including at British Gas; Broomfield Hospital, Chelmsford (MEH NHS Trust); MBNA; and Powergen.

Car Sharing Coordinator and/or Administrator (with budget and time)

- 6.12 The second fundamental factor across all successful case study sites is the employment of someone (or in the case of some of the case studies, several people across the organisation) in the role of car sharing coordinator and/or administrator.
- 6.13 Schemes that deploy a car sharing coordinator have combined this toolkit measure with most of the technical approaches listed earlier. They have often started out with a coordinator operating a paper-based matching system (for example a simple index of cards containing staff details), or making use of a spreadsheet or database to assist in the filtering of information (see Spreadsheets and Databases in the technical approaches section, above).
- 6.14 The advantages and disadvantages of providing a car sharing coordinator and/or administrator are presented below:

| Advantages | Disadvantages |
|--|---|
| <ul style="list-style-type: none"> ❑ Provides 'personal touch'. ❑ Generally provides the most accurate form of matching, based upon a range of criteria including home location, shift patterns, and route to work, combined with local knowledge and experience. ❑ Generally considered by staff to be more reliable than fully automated systems ❑ Ensures the matching service is able to respond quickly and pro-actively to events (e.g. fuel shortages), incidents (e.g. "the M4 is closed at Junction 3 this afternoon"), and trends (e.g. "we are recruiting a lot of people from this new residential development") ❑ Creates someone within the organisation with a vested interest in 'hard' data about the effectiveness of the car sharing service | <ul style="list-style-type: none"> ❑ Cost of employing staff and cost of the associated overheads ❑ Difficulty recruiting suitably qualified and motivated staff to the job, especially if it is only seen as a temporary post ❑ Can appear to be an unnecessary expense, compared with signing up for an automated system |

6.15 At BAA Heathrow, for example, there is a staff team responsible for operating the car sharing scheme. Not only does the team ensure the software matching service runs smoothly, but it is closely involved in the promotion and marketing of the scheme as well. In particular, the team spends significant time away from the office, meeting people working at the airport face-to-face.

6.16 It is important to recognise the difference between a car sharing administrator (which for the purpose of this research we have defined as the person responsible for undertaking the matching function), and a car sharing scheme coordinator (who might also be an administrator, but has a wider remit for development and promotion of the car sharing scheme as a whole).

6.17 Whilst car sharing schemes can run technically without the need for an administrator, the experience from the case study sites suggests that this role is pivotal for success. The administrator's role is generally to:

- ❑ Enhance the electronic matching system to ensure its effective and efficient use
- ❑ Act in an advisory role in response to specific queries from car sharers
- ❑ Ensure data protection issues are adequately dealt with
- ❑ Maintain the quality of the data contained within the system
- ❑ To promote and market the car sharing database to staff
- ❑ To Monitor effectiveness, and produce management reports on usage.

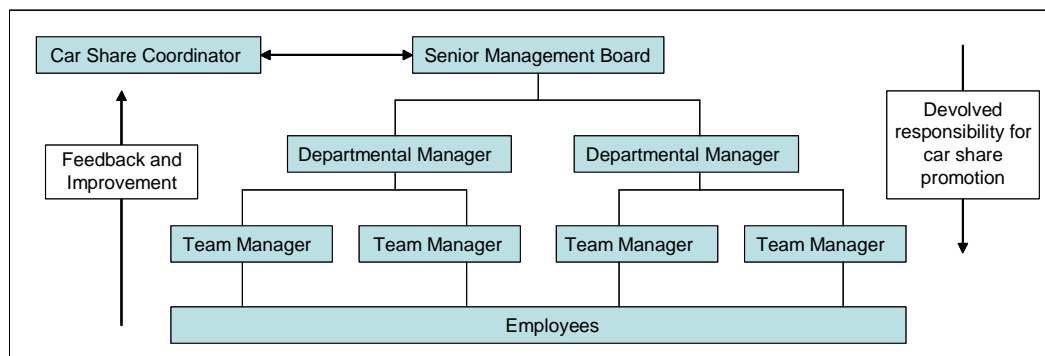
- 6.18 The administrator can be deployed through different mechanisms to meet the particular needs of the site. The options are presented below:

| Site Type | Options for Coordination |
|--|--|
| Individual employer, operating on a single site | <input type="checkbox"/> Appointed staff member (full or part time) <input type="checkbox"/> Travel Plan Coordinator |
| Business Park comprising several different employers | <input type="checkbox"/> Appointed staff member from lead organisation <input type="checkbox"/> Mobility Centre, managed on behalf of all organisations |

- 6.19 Interestingly at Mid-Essex Hospitals NHS Trust, the roles have been split between a car sharing administrator (TravelShare Essex) who manages the database, and a local travel plan coordinator, who promotes it on-site. This provides a local focus for marketing, whilst database management is undertaken by one unit for several organisations. The partners have different, but complementary objectives: MEH NHS Trust seeks to deal with a parking problem, and TravelShare Essex seeks to reduce car use for wider congestion and environmental reasons.
- 6.20 Allocating staff resources (with dedicated time to work on the car sharing scheme) is evident across all of the successful case study sites. Whilst it is not possible to quantitatively assess the performance of individuals in this respect, it is clear from the case study interviews that passion, commitment, communication skills, and ability to influence those around them, are all traits expressed by the high performing sites, and these traits have been fundamental for the long-term success of these schemes.
- 6.21 One of the major concerns of the poorer performing sites has been the lack of staff time allocated to the administrator role, or that the administrator did not have:
- ☐ a suitable budget,
 - ☐ enough time, or
 - ☐ the full support of the management team, or access to other skill areas within the organisation (e.g. marketing).
- 6.22 A further concern was the long-term nature of the administrator role. For example, at one of the case study sites, the administrator has been in place for 2 years, yet remains a temporary employee. Such uncertainty about the future of the role can lead to discontented staff, and therefore reduced commitment to the job.

Cascade approach to management and promotion

- 6.23 This has been a particular trait within large organisations. Cascading knowledge and understanding of the car sharing concept across the whole workforce represents an effective means of managing and promoting it. In these cases, the car sharing coordinator reports to the senior management board, and local managers are then given the responsibility to disseminate information more widely. This model is illustrated below:



6.24 This approach has been used particularly successfully by Scottish Courage in the promotion of their car sharing initiative, and by MBNA, where managers' own performance is dependent partly on their ability to meet targets for reductions in the number of staff from their section driving to work alone in their cars.

6.25 Similarly, the study identified that organisations that promote 'canteen culture', encouraging staff to take regular breaks, and enabling them to get to know colleagues on an informal basis, were more likely to experience higher levels of car sharing activity, in particular, informal car sharing amongst staff.

Incentives

6.26 Incentives form an important component of most of the successful case studies. Examples of incentives for the case study sites included:

☐ Financial:

- Powergen - 10 car sharing points (equivalent to 50p per day) for access by sustainable modes, translated into vouchers for high street stores and on-site restaurant;
- Heathrow Airport - prize draws for airline tickets;
- Barclaycard – prize draws;
- Orange – monthly prize draws with prize of HMV vouchers worth £15;
- GCHQ – one-off incentive payment, to join and stay in the green parking allocation category, of £400 (taxable);
- MBNA – 1 point per day earned by staff travelling to work by a mode other than 'driver alone'; 30 points = £20 into salary; thereafter, £90 for every 120 points collected.

☐ Other:

- Priority car sharing spaces in a location near to main entrances to buildings (this incentive is in operation at British Gas, Barclaycard, Met Office, EDF Energy in Exeter, Somerset County Council, and MBNA);
- British Gas - AA health checks for car sharing vehicles;

- Powergen – one-off incentives, such as double and triple points, use of company chauffeured vehicle, executive staff offering to clean employees' cars.
- It would seem that the effectiveness of the incentive is not necessarily related to the size of the financial contribution. In the case of Powergen, research was undertaken at other sites, including Pfizer at Sandwich (who at that time offered a £2 per day payment to car sharers), before the figure of 50p per day was selected. In discussing this issue with car sharers, the payment was seen as a goodwill gesture; initially, it encouraged uptake. Once sharing patterns were established, most car sharers found the reduction in daily travel costs to be much larger (and therefore more important) than any financial incentive being offered.

Priority Parking

- 6.27 Whilst priority parking can be classified as an incentive, we have included it here as a separate category, in recognition of its specific ability to influence modal choice. Providing priority parking has two main benefits:
- Firstly, it ensures car sharers can be offered a guaranteed space; and
 - Secondly, it conveys a strong message to staff on the importance placed upon car sharing within the organisation.
- 6.28 Priority parking also provides immediate and straightforward visual proof that car sharing is being taken seriously at that site, and a full car sharing section in the car park provides instant feed-back about take-up.
- 6.29 In the case of British Gas, parking spaces are only permitted for car sharers on site, and this presents the strongest possible message to staff (single occupancy vehicles are not permitted, and there is no local off site parking availability). Here, the priority parking has directly determined car sharing take-up, with a reduction of 58% in single occupancy vehicles for travel to and from work. The British Gas car sharing scheme was introduced at the same time as an office move, hence the reduction in car parking spaces was forced upon the organisation. The impact of this upon staff was mitigated by the introduction of the car sharing scheme, but carefully managed and implemented through staff consultation.

Supporting Travel Plan

- 6.30 All of the case study sites had implemented car sharing as part of a wider package of sustainable transport measures, branded through a site specific travel plan (or they were in the process of completing the travel plan). In general car sharing is considered within this wider context, and recognition is placed upon the need to access sites in a sustainable way (walk, cycle, public transport, car sharing). Improving other sustainable transport options makes it easier to promote car sharing, as it offers alternatives should the car sharing scheme be unsuitable on particular days. For example, staff at Norfolk County Council demonstrated that they shared car journeys on some days, and used public transport on others (depending on whether their car sharing partner was available on certain days). There was a clear recognition by these users that the availability of information on alternative modes was important in helping them make this decision, and that the travel plan had enhanced the provision of such information.

Guaranteed Ride Home

- 6.31 This remains an important aspect of the promotion of car sharing, providing reassurances to staff that are concerned about being stranded at home or work. The majority of case study sites had a guaranteed ride home in place. Whilst significant budgets had been allocated to this support function, the typical amount called off against the guarantees did not exceed £50 per site per year. This is consistent with research undertaken by the Association for Commuter Transport. ACT examined a wider selection of sites to identify the actual levels of financial contributions required to administer such schemes. 20 sites responded to the request (specifying a value), with the costs ranging from £0 to £1800 per year. The average cost (excluding the two organisations with costs of £1500 and £1800) was £48 per year.
- 6.32 Clearly these costs are low. It is therefore suggested that a guaranteed ride home should form part of any car sharing scheme, given how little it costs to administer, compared to the high value placed on it by car sharers, for whom it provides much-needed reassurance. For car sharing organisers it is an important marketing tool.
- 6.33 The official tax position is given in Inland Revenue leaflet IR 176, and is stated as follows:
- *“What help is there to encourage car sharing?*
Employees will not have to pay tax or NICs if their employer provides alternative travel arrangements when employees cannot car share as usual due to exceptional events. For example, if an employee who normally shares a car has to go home early because of a domestic emergency, and the employer pays the cost of the journey home, the concession would apply. It does not apply if the unusual circumstances could have been anticipated and planned for.
This concession applies to a maximum of 60 journeys per employee in one tax year.”

Enforcement

- 6.34 The scope of enforcement measures varies between:
- Self-enforcement, where staff are encouraged to police car sharing schemes themselves;
 - Random enforcement, where checks are made on an ad-hoc basis; and
 - Automatic enforcement, where physical entry to car parking areas is restricted to car sharers only (e.g. when staff form a car sharing group, their car park barrier magnetic swipe cards are grouped together in a set, and only one card will lift the barrier to that car parking area at any one time).
- 6.35 Evidence from the case study would suggest that care needs to be taken over the issue of enforcement. The most important factor is to ensure that the enforcement regime is clearly understood and accepted by car sharers and other drivers, and that it is then enacted fairly and consistently. If parking infringements are allowed to go unchallenged, despite a published set of rules, this will have an adverse impact on the car sharing scheme and other travel planning initiatives.

- 6.36 The study has highlighted the difficulties encountered at sites where the car parking is managed by a third party organisation, such as a car parking management company that is employed by the landlord on an industrial estate, and with whom individual firms and organisations based on the estate have no direct relationship. In these cases, the terms and conditions are generally specified from the outset of the car parking management contract. Amending these in mid-term can often be difficult, particularly if there is a requirement to enforce more restrictive car parking rules, when previously there had been free, unregulated access. The car parking staff may have received little or no training in enforcement, despite there being the possibility of some degree of conflict with car drivers. Whilst this had not occurred in practice, some of the case study sites expressed concerns for the future.

Effective matching system

- 6.37 This is the third fundamental aspect of any car sharing system, and should operate in a straightforward manner given the technical developments that have taken place in recent years. However, despite this, many users expressed concerns over the ability of automated systems to match effectively. In some cases, car sharers had been matched with inappropriate partners, and this fault applied to all of the technical approaches that were studied. It was generally due to geographical mis-matches. One effective way of overcoming this, and to ensure data protection measures are addressed, is the approach developed by Powergen, which requires car sharers to submit the first three digits of their postcode, and then asks for voluntary data (e.g. the individual's full home address) and/or a local landmark (e.g. a public house). This landmark is a very helpful and swift way for sharers to check that a potential match is viable.
- 6.38 Despite advances in technology, the most effective matching systems are those that utilise a coordinator, emphasising the value of human intervention. In the case of one of the case study sites, the organisation has moved from a manual to an automated system, and, whilst this has improved many areas of the scheme (including credibility for new members), the general view from car sharers was that the matching facility was less accurate than before.
- 6.39 Evidence from the case studies also indicated that whichever technical approach is taken, the effectiveness of the matching capability is significantly enhanced if a geographical interface is provided (either for car sharers or coordinators). These are generally provided by GIS (Geographical Information Systems), and link the car sharing database with a digital map, enabling users to see clearly a sharer's location. This not only assists in a matching process based on common origins and destinations, but also enables car sharing to take place on the line of travel, picking up passengers along the way.

Marketing strategy

- 6.40 Within the scope of this research it is not possible to fully assess the impact of car sharing marketing campaigns upon overall effectiveness. However, discussions with the case study coordinators emphasised strongly the need for high quality marketing materials in order to both launch the scheme, and to maintain its momentum. An important lesson, put across especially firmly by some private sector sites, was the need to present a professional image of car sharing. The use of standard photocopied posters, for instance, was dismissed as inappropriate at Powergen, in favour of a purpose-designed publicity campaign, reflecting

the corporate image of the organisation: it had to be good enough to convince senior managers that car sharing is a credible option.

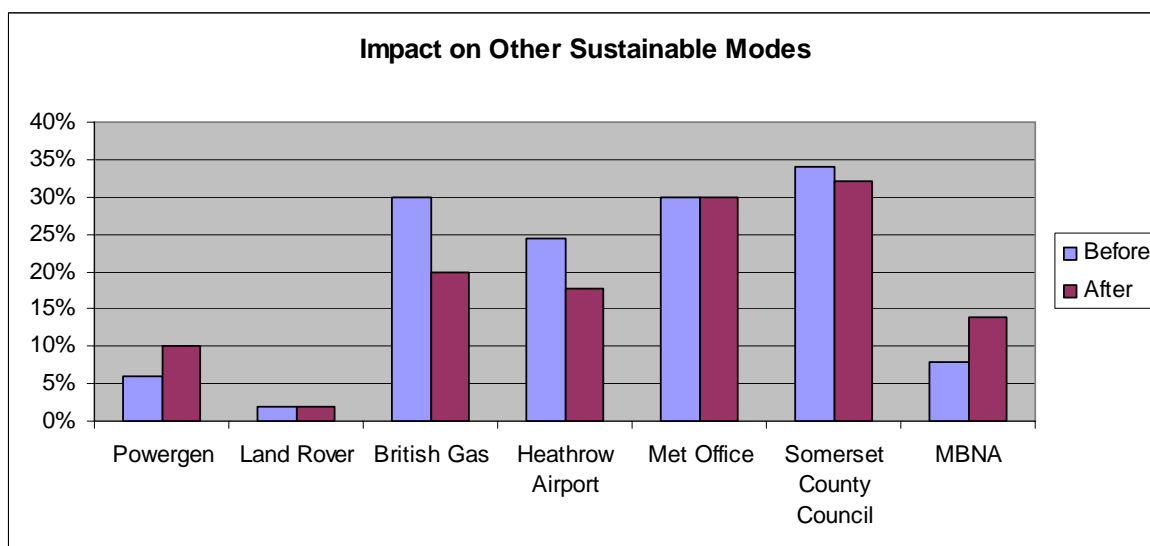
- 6.41 Coordinators at some of the case study sites raised concerns about what they felt was the inappropriate nature of some campaign material being used to promote car sharing. For example, it is well known (as highlighted in the case study interviews with users) that some potential car sharers have concerns about their own personal security, especially women. It was felt to be very counter-productive, therefore, to have national publicity that joked about this perceived threat, using crude innuendo about what might happen if a man and a woman were to share a car journey to work.
- 6.42 One of the most powerful marketing tools would appear to be the use of 'road shows and coffee mornings' to facilitate matching on a one-to-one basis. For example, this forms a central component of the toolkit deployed at BAA Heathrow. This personal contact was considered important to enable potential sharers to assess suitability, without having to commit to sharing through e-mail or telephone contact alone. There was evidence from the case studies that whilst general publicity and marketing arouses interest in car sharing, the face-to-face contact converts this interest into action, and therefore 'clinches the sale'.
- 6.43 Further discussion relating to marketing is covered in the next Objective.

User group

- 6.44 Involving staff at all stages of development is an aspect of all car sharing schemes. Most users felt they had the ability to comment on, or criticise, the system through the coordinator directly, even if a specific user group had not been established. To be effective, a car sharing system must meet car sharers' needs and provide direct feedback to the scheme's developers and promoters. All organisations interviewed for the case studies demonstrated openness in this respect, and tried to respond with appropriate alterations to their scheme.
- 6.45 One of the exceptions to this is the use of private groups on wider internet-based car sharing sites. These sites generally offer a standard car sharing product, with local branding and identity (which enables them to offer the service at a competitive price, and for the closed groups to integrate with the open network of users). Hence, if a site adopts a private group as its technical approach, then it will generally not be possible to modify certain aspects to meet evolving user needs. This issue was identified as a major problem by Halton Council, in their scheme to promote social inclusion, whereby the filtering criteria included very specific details on disability and about all individuals' personal circumstances, that were considered inappropriate for their specific scheme and possibly for the open one too.

Relationship with previous travel mode

- 6.46 It is important to understand how adopters of car sharing travelled previously. One of the objectives of car sharing is to reduce overall car use, which will only happen if sharers previously travelled by car, driving alone. The literature review found little evidence or data about how car sharers travelled before, but the case study interviews enabled this area to be explored in more detail. The findings of this are shown in the chart below.



6.47 This chart demonstrates no direct relationship across the case study sites, with two sites showing an increase in sustainable modes, three showing a reduction in sustainable modes, and two remaining the same. The biggest impact was seen at British Gas, where bus travel reduced by 10 percentage points. This was a direct result of the firm's office move, which rendered redundant some of the bus routes used by staff before the move. It also reflects the fact that car sharing attracted such a significant proportion of the workforce (i.e. a 68 percentage point increase in car sharing).

Relationship with motivations

6.48 The motivations of firms or organisations for establishing car sharing in *closed communities* varied according to each case study site, and these were discussed in detail at each site visit. A brief assessment has been made as to whether these motivations have any influence over effectiveness, with the results presented in the following table.

| Reason for Establishing Car Sharing / Motivation | % Increase in multi occupancy car use |
|--|---------------------------------------|
| Local Congestion | >25% |
| Enables a more productive use of land | >25% |
| Union / Staff Issues | >25% |
| Recruitment | >25% |
| Car Parking Problems | 20-25% |
| Planning Approval | 20-25% |
| Environmental | 10-20% |
| Cost Savings | <10% |

6.49 From this table it can be suggested that those schemes that are motivated by local congestion or the need to make better use of available land, which tackle staff issues directly, and which facilitate recruitment campaigns, are the most effective in influencing travel mode. However, any scheme which is driven by parking pressures and planning controls also demonstrates high levels of effectiveness.

Parking Space Reductions

6.50 Effective car sharing systems can result in significant reductions in the level of car parking provision. It is also important to recognise the opportunity that car sharing provides for increasing staff densities on sites, without the need for further investment in car parking provision.

6.51 Examples from the case studies are shown below.

| Car sharing and staff parking: changes in ratio of staff to parking spaces | Before | | | After | | | Absolute difference in spaces |
|--|--------------|-----------------|------------------|--------------|-----------------|------------------|-------------------------------|
| | Staff Number | Car Park Spaces | Spaces per staff | Staff Number | Car Park Spaces | Spaces per staff | |
| Barclaycard | 2,300 | 2,000 | 0.87 | 3,000 | 1,900 | 0.63 | -100 |
| British Gas | 1,923 | 2,000 | 1.04 | 1,923 | 386 | 0.20 | -1,614 |
| EDF Energy | 780 | 378 | 0.48 | 1,000 | 378 | 0.38 | 0 |
| GCHQ | 4,500 | 3,400 | 0.76 | 4,500 | 1,800 | 0.40 | -1,600 |
| M&S Financial | 1,400 | 922 | 0.66 | 2,000 | 922 | 0.46 | 0 |
| MBNA | 750 | 750 | 1.00 | 5,200 | 750 | 0.14 | 0 |
| Met Office | 1,200 | 770 | 0.64 | 1,200 | 770 | 0.64 | 0 |
| Powergen | 600 | 600 | 1.00 | 1,000 | 450 | 0.45 | -150 |
| Scottish Courage | 400 | 280 | 0.70 | 650 | 280 | 0.43 | 0 |
| Average | | | 0.79 | | | 0.42 | |

6.53 The reduction in the average staff to car parking space ratio of 0.79 spaces per staff to 0.42 spaces per staff represents a significant gain in terms of the productive use of land (it should be recognised that at some locations, most notably MBNA, the gains are a result of a wider package of measures, including the introduction of shift working to increase site capacity).

Impact on Car Sharers' Travel Costs

- 6.54 The impact on car sharers' travel costs was assessed through discussions with the various case study scheme users. This identified a common position with regard to travel costs, in that users generally did not consider the precision of the financial saving, other than recognising that a clear saving had been made (and in some cases that saving had been the key factor in deciding to car share).
- 6.55 For the purpose of this study, we have assessed the relative savings that might be accrued for different journey lengths, and for different vehicle types. Full details of this analysis are presented in Appendix A, with example data presented below.

| Cost of car | Distance (miles) | Number of Sharers | Saving Per Sharer (per year) |
|---------------|------------------|-------------------|------------------------------|
| <£10,000 | 20 | 3 | £889 |
| £10 - £13,000 | 20 | 3 | £969 |
| £20 - £30,000 | 20 | 3 | £995 |

- 6.56 In addition, some car sharers told us they had made an annual saving on their car insurance premiums as a result of the reduced mileage undertaken each year.
- 6.57 Where car sharers are predominantly the passenger, and therefore money changed hands, the average payment made to the driver was between 5p and 15p per mile. This was agreed locally, and reflects the need to ensure that car drivers do not make a profit from car sharing. Where the car is shared with more than one passenger, the costs were generally shared equally.

Development Control

- 6.58 One of the main reasons for significant changes in travel mode is external pressure faced by employers from development control and planning conditions. This approach enforces conditions upon sites, and demands solutions which deliver tangible outcomes. In some cases, the situation is self-enforcing. For example, at British Gas the physical number of spaces determines the level of car sharing activity. At other sites, the situation is monitored and performance assessed by the local planning authority. This is the case at Land Rover, whose planning permission stipulates the modal split targets that must be met.
- 6.59 Discussions with practitioners during this study highlighted great potential for growth in car sharing through the development control process, through:
- ❑ Improved enforcement mechanisms;
 - ❑ A better understanding of monitoring; and
 - ❑ Effective car sharing delivery mechanisms.

Shared Responsibility

- 6.60 The setting up of a Transport Forum is a useful platform where local employers may meet on a regular basis to discuss travel issues faced by their companies and disseminate best practice to each other. For example, the Bracknell Business Travel Forum was established by local businesses and the Borough Council and provides the opportunity to share best practice and experience on a range of transport issues including travel plans, joint travel initiatives and car-sharing. Over 100 specific travel plan networks now exist across the UK.
- 6.61 However, it should also be noted that in parts of the country where there is strong competition for key workforce skills and qualifications, such as that experienced by businesses requiring specific IT skills, there is a general reluctance for employers to promote car sharing between different business groups. Typically, human resources managers say they are worried that the car sharing matching service may put their firm's staff in the same

cars as employees from their competitors, and they fear this could lead to staff being 'head hunted'. The study could find no evidence to support this theory. There is evidence that staff retention and recruitment can be improved by the implementation of travel planning measures. In the BAA Heathrow case study, one user reported in detail how car sharing had made it practical for her to move to her job at the airport.

Other Supporting measures

- 6.62 Whilst the study focused upon *closed community* schemes, the opportunity was taken to discuss wider supporting measures with scheme promoters. One of the issues raised was the provision of High Occupancy Vehicle lanes, and the benefits to site specific car sharing schemes. Evidence from overseas (in particular the USA), suggests that such infrastructure not only increases levels of-site specific car sharing, but can influence informal car sharing (for example amongst family members or friends). All the sites welcomed the prospect of more HOV lanes, and would use such provision in their marketing campaigns.
- 6.63 In addition, many of the sites recognised the potential for more 'road charging' schemes, and would clearly welcome an exemption for multi-occupancy vehicles. This was expected to have a significant impact upon take-up levels for site-specific car sharing schemes within charging zones.

Barriers

- 6.64 Up to this point, we have focused upon the strengths of effective car sharing schemes. The following table summarises the scheme weaknesses identified during the study, and the mechanisms by which these weaknesses have been overcome.

| Weaknesses | How Addressed |
|--|---|
| Slow initial take-up, resulting in low matching rate for initial users | <ul style="list-style-type: none"> • Ensure high profile launch • Patience amongst initial sharers • Visible designated parking bays influencing informal sharing from the outset |
| Difficult to monitor how many people are continuing to car share | <ul style="list-style-type: none"> • Enhance statistics provided by software provider with site or user travel habit surveys • Encourage matching feedback to administrator • Monitor car sharing daily, using car park barrier magnetic swipe card (or smartcard) |
| Non-car sharing employees still benefit from free parking | <ul style="list-style-type: none"> • Clearly defined strategy for allocating priority and enforcement of parking spaces • Introduce area-wide parking charges with exemptions for sharers • Put non-sharers in car park furthest away from staff entrance |

| Weaknesses | How Addressed |
|--|---|
| No guaranteed taxi home | <ul style="list-style-type: none"> • Offer guaranteed ride home in recognition of the low costs associated with this approach • Use car sharing coordinator to match emergency ride home requests with existing car sharing groups |
| Problems with ride matching software | <ul style="list-style-type: none"> • Change providers • Deploy car sharing coordinator(s) to ensure reliable matching |
| Adverse perceptions by staff of the scheme, concerned that personal data will be insecure, misused or otherwise 'will end up in the wrong hands' | <ul style="list-style-type: none"> • Ensure data is used strictly in accordance with Data Protection Act, and explain this clearly in all publicity • Keep to a minimum the mandatory personal data required by the matching system and combine this with a request for voluntary supporting information • Make clear what will, and will not be done with personal data |
| No incentives or weak incentives | <ul style="list-style-type: none"> • Strong marketing campaign to encourage take-up, focusing on personal travel cost savings • Introduce cost-free or very low-cost incentives, such as priority parking for car sharers |
| Sharers who are not driving that particular trip are concerned about the security of their cars, if they have to be parked on-street all day (e.g. near their car share partner's home or at the agreed collection point en-route) | <ul style="list-style-type: none"> • Suggest meeting at a car share partner's home, park the car on the drive, or outside the property, which can add to the perception of security at the house itself, by giving potential intruders the impression that the house is occupied |
| Staff feel scheme will reduce their flexibility and freedom | <ul style="list-style-type: none"> • Encourage car sharing as part of work-life balance initiatives, and emphasise that sharers will be encouraged to leave on time • Market scheme on a flexible basis (i.e. you do not have to share 5 days a week) |
| Poor awareness and low profile of car sharing scheme | <ul style="list-style-type: none"> • Obtain senior management support and use this explicitly in scheme promotions • Adopt cascade approach to promoting and marketing the scheme, from senior managers downwards • Use cheap or very low cost methods to promote and encourage car sharing, such as staff newsletter, staff bulletin, intranet, posters, leaflet with the wage slip, team briefings, and press coverage |

7 CAR SHARING – OBJECTIVE 3

Examine whether, and how, formal car sharing schemes have been successfully integrated, packaged and promoted.

Summary

- ❑ There is a great degree of variance in the quality of car sharing promotion and marketing – anecdotal evidence suggests that those with the highest degree of quality have tended to achieve the greatest degree of modal shift
- ❑ There is a general view amongst car sharing administrators that marketing has a direct impact on uptake levels
- ❑ A strong marketing campaign will have a clear aim, well defined target audience, strong branding, a defined timetable for implementation, and a range of communication tools and networks
- ❑ There is an increasing move towards individualised marketing campaigns to reach marginal users
- ❑ Marketing which focuses upon the financial savings is considered to be particularly effective

7.1 To be successful a car sharing scheme needs to be effectively integrated, packaged and promoted to the target audience.


7.2 The marketing strategy for a car sharing scheme will contain the five basic elements:

1. A clear aim.
2. A target audience.
3. A brand.
4. A timetable for promotional activity, usually in the lead-in times to the launch of a car sharing scheme.
5. A set of communication tools and networks.

7.3 The case studies showed the more successful car sharing schemes had developed all of these aspects in a thorough way.

7.4 A number of marketing guides are available through the commercial car sharing matching service providers and local authorities, which set out the framework for an effective campaign.

A Clear Aim and A Target Audience

- 7.5 One of the strong messages arising from the case study interviews was the need to promote car sharing on the basis of the personal financial savings that can accrue. Practitioners felt that only a small proportion of target audiences would 'buy into' the environmental and societal benefits; the main motivation for people to car share will be personal financial gain. It is often the case that these financial gains are not easily identifiable to a user until they have tried car sharing out for themselves. Research elsewhere has documented how the general costs of motoring remain hidden to the user, despite motoring costs accounting for 12% of average household expenditure. Therefore, the aim, and approach taken to marketing, need to reflect this accordingly - the explicit stating of financial saving is likely to have a direct influence on uptake.
- 
- 7.6 A good example of targeted marketing was the campaign launched by Powergen. They considered their campaign very carefully, and developed a high quality marketing strategy that sought to capture all levels of staff (junior and senior), enabling car sharing to take place across the company as a whole. As a result they elected not to use pre-printed materials, but to use their own posters, leaflets, and other campaign material to ensure consistency and clarity (and quality) in the message that was portrayed.
- 7.7 Another common theme amongst the case studies was the need to stress that sharers do not have to share every day, and that car sharing can be a flexible means of transport, overcoming the perceived concerns of lack of independence / flexibility. Again, this message was one of the aims of the marketing strategy, addressing a particular target audience.

A Brand

- 7.8 Establishing a car sharing brand is likely to be the starting point of any marketing campaign. Branding is important because a consistent message aids recognition and builds awareness. In the case of *closed community* schemes that exist within a wider car sharing scheme, the *closed community* will often use the branding of the provider to support its own aims (for example, 'powered by Liftshare.com'). Good examples include Carsharedevon and Carsharecornwall, who use strong branding to promote their countywide schemes, enabling employers to establish their own local 'closed community' initiative, and take full advantage of the countywide branding and publicity.
- 7.9 Branding is often transferred onto stationery including mouse mats, pens, rulers, keyrings, mugs, stress balls and car air fresheners, with these products provided in welcome packs, and general prize draws / promotional events. In many cases, the car sharing branding forms part of a family of sustainable transport tools, that are integrated through a travel plan, with common branding to identify the consistent theme.

- 7.10 Branding and marketing is less important at very closed communities with circumstances such as those at MBNA for example, but are critical at multi-occupancy sites like BAA Heathrow and Park Royal.

Slogans

- 7.11 Slogans are a useful tool to aid the recognition of a car sharing scheme. They have been employed by Devon County Council who produced the following slogans for their car sharing campaign:

- ❑ 'Seats spare, car share'
- ❑ 'He who wins, shares'
- ❑ 'Jam today, share tomorrow'

- 7.12 Other effective slogans included:

- ❑ 'Start the day with a pick me up' and
- ❑ 'Have you the drive to make our sharing work'

A Timetable for the Coordination of Activities

- 7.13 All of the coordinators recognised the value of on-going and regular communication channels. A clearly established strategy detailing what tasks will be undertaken, by whom, when and with what budget ensures marketing remains active throughout the lifetime of the scheme. Whilst activity is likely to be high prior to the launch of a car sharing scheme, all of the coordinators interviewed had long term strategies in place to maintain momentum, and refresh the marketing material.

A Set of Communication Tools and Networks

Advertising

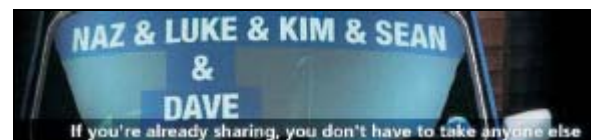
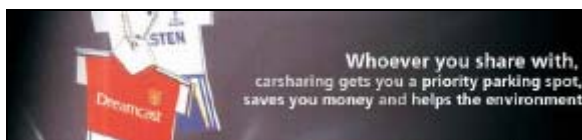
- 7.14 Advertising campaigns are an essential and valuable medium through which to promote car sharing schemes. In general, advertising uses the following media:

- ❑ Posters – generally displayed on staff notice board areas and in communal areas. They give general information about the car sharing scheme, or specific events / promotions. Innovative schemes include the use of 'moving billboards' that can be located at various locations around a particular site in order to capture a larger market audience.
- ❑ Website – generally hosted on a specific web-site dedicated to the car sharing scheme, with links via corporate home pages. Some of the more innovative schemes use car sharing branding on the home page, combined with animation, to attract the eye to the car sharing campaign.
- ❑ Newsletter – often issued quarterly, the most successful approaches combine information with feedback mechanisms for staff comment or surveys. A newsletter can be distributed in paper or electronic format (to suit local needs of workers). This is a popular way to report progress and performance statistics.

- ❑ Radio – seen as an effective means for promoting the uptake of *closed community* schemes, particularly for Local Authority led initiatives. Evidence from Norfolk County Council and Liftshare.com suggested that this approach significantly increased the hit rate of the web-site.
- ❑ TV – this media has yet to be explored, and has only limited opportunity for *closed community* groups.
- ❑ Notice boards and display areas – these provide a highly visible opportunity to promote car sharing activity, and have been used by a number of sites to both host posters advertising the scheme, and to provide a simple matching service, particularly in small companies.
- ❑ Regular road shows / coffee mornings – these have proved to be a particularly successful means of promoting car sharing, because they allow sharers to meet each other, and encourage discussion of car sharing between staff. These events keep car sharing fresh in people's minds, and allow individuals who could not attend the first event to come and find out information, or perhaps some people were not interested at first but may have talked to other colleagues etc. who are supportive of the scheme. Promoters of area-wide schemes need to visit the sites of all major employers in the area to make them aware of the scheme and the benefits it may hold for the employer and employees alike. To give a promotional event more influence and relevance, promotional events are often timetabled to coincide with national campaigns for example, National Liftsharing Day (which in 2004 was held on June 14th).



7.15 Innovative, eye catching advertisements are proven to work best, for example the high quality campaign launched at Heathrow Airport (examples below).



- 7.16 The most effective campaigns made good use of all of the above tools, and have developed a structured framework on how the advertising campaign is implemented, including an assessment of target groups. A particularly eye-catching approach was that adopted by Powergen, who issued a series of 'anticipatory advertising' messages, pre-empting the launch of the car sharing scheme. This approach significantly increased the levels of 'chatter' amongst office staff, such that when the scheme was launched, it had already established itself as a concept.
- 7.17 To support local campaigns, there have been a number of supporting national advertising and marketing campaigns (for example TravelWise events, National Liftsharing Day, etc.).
- 7.18 Temporary road signs provide an effective method in order to publicise and promote area-wide car sharing schemes. For example, South Gloucestershire Council used temporary

road signs to advertise the 2+ lanes of the A4174 Ring Road. They also distributed 2+ parking signs for major employers including Rolls Royce and Telewest.

- 7.19 It should be noted that advertising campaigns must take account of concerns about personal safety and in particular the concerns that women may have in sharing with men. It was noted within the case study interviews that some national advertising campaigns had been insensitive to this issue, and in some cases had presented a distasteful image, which was seen as damaging rather than beneficial.

Individual Marketing

- 7.20 Within a *closed community*, in particular, means of promotion may also take on a more personal and informal approach. Group e-mails, e-newsletters, presentations to colleagues and literature presenting the personal benefits (including calculated costs) of the car sharing scheme, and highlighting successes gained by individual champions, will reach staff and raise their awareness of the car sharing scheme. Employers should also provide information concerning the car sharing schemes as part of the staff induction packages (for example British Gas at Blythe Valley Business Park).
- 7.21 A good example of this approach was seen at GCHQ, which deployed a team of 'Pathfinders' to work with staff on particular corridors to meet potential car sharing partners. The staff had local knowledge and experience, and served as promoters of the car sharing scheme, cascading responsibility amongst a wide range of staff. Similarly at Heathrow, a team of advisers are deployed to work on the promotion and development of the car sharing scheme, enabling advice to be directed at the individual.

Evidence of effectiveness

- 7.22 It is very difficult to evaluate the effectiveness of any particular marketing campaign, although the anecdotal evidence of the case study interviews suggests that those sites with the greatest success all have well rounded and targeted campaigns.
- 7.23 CarShareDevon undertook citizens' surveys to measure the public's awareness of the scheme. This identified that from a survey of approximately 1600 people a high percentage (79.2%) of people had heard of the car sharing scheme, reflecting the fact that the advertising campaign had been successful in raising awareness generally.
- 7.24 Similarly, anecdotal evidence from the TravelWise officer working in Devon and the school travel plan advisor in Cambridgeshire shows that the launch of a car sharing scheme stimulates discussion amongst staff and parents, and this behaviour itself can lead to an increase in informal car sharing.

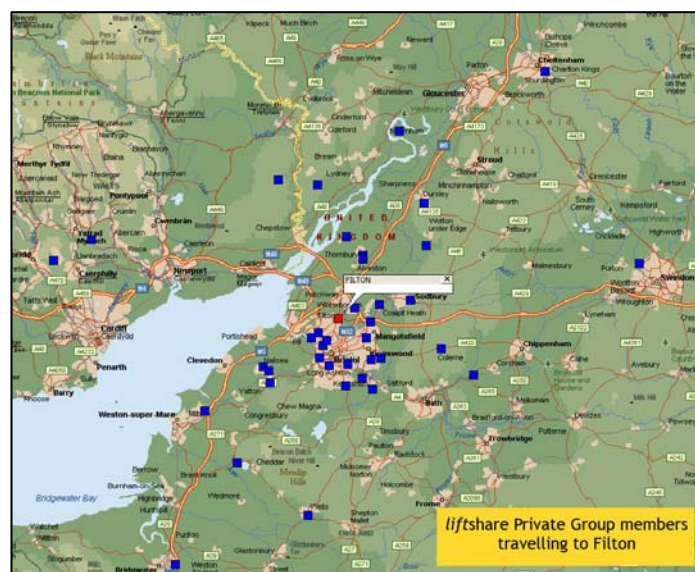
8 CAR SHARING – OBJECTIVE 4

How effective have those schemes been which link closed communities into wider internet-based databases, what further potential is possible, and what special factors need to be addressed?

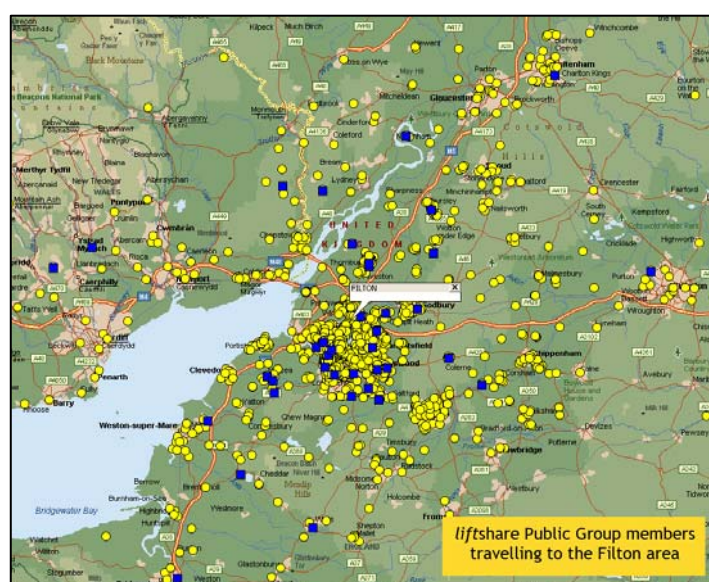
Summary

- ❑ Many of the internet providers that offer private groups enable access to a wider network of users registered on their open networks
- ❑ Logic suggests that access to this larger pool should increase matching possibilities
- ❑ Of the case studies examined, the focus was to protect the *closed community* to ensure security, integrity and deliverability, and enable effective monitoring
- ❑ The requirements for closed and open groups are different, particularly with regard to meeting requirements, and this needs to be addressed if a *closed community* is going to extend into an open car sharing group
- ❑ The greatest potential would appear to be for small / medium sized businesses within closely defined geographic locations
- ❑ There is a need for greater evidence on the effectiveness of open schemes in order to persuade *closed community* providers of the opportunity (in terms of actual shared trips made)

- 8.1 There is a growing number of internet based schemes that offer closed communities / private groups access to a wider pool of potential sharers who are registered with the national service of their chosen scheme provider. Car sharing service providers are continuing to explore how this market could be developed further. For example, experience from users in Norwich indicated a high level of integration between County Council and City Council employees. Despite slight differences in working hours, employees had managed to make the car sharing arrangements work, and this demonstrates how wider integration can be effective.
- 8.2 As an example of the potential gain that could be derived from linking open and closed schemes, the following screenshot demonstrates the location of registered users for a Liftshare.com closed group, with an employment base in Filton (images provided courtesy of *Liftshare.com*)



8.3 The following screenshot overlays open registered members of Liftshare.com with a common destination of Filton.



8.4 Clearly, this demonstrates that the potential for matching is significantly enhanced once the membership to the open scheme is introduced. For example, the first image shows only one staff member living and registered in Swindon, hence no opportunity to share exists for that individual. Once the wider open group members are added, then this identifies a further 12 individuals that could potentially share from the Swindon area. It should also be noted that these represent only the sharers registered with Liftshare.com (that has nearly 60,000 members nationally), and would be further enhanced if the overlay included those registered with other open service providers.

8.5 One of the difficulties in developing this market further is concern about data protection issues. In many cases closed communities take a strong corporate responsibility on the use of personal staff information, and would be reluctant to release this to an open group. The advice offered by national car sharing schemes also differs significantly from the advice offered to *closed community* members (where the membership base is clearly restricted to

the *closed community* itself). This is particularly the case with regard to security, release of information, and techniques for meeting up with a sharer for the first time. These issues are not covered in detail within this study, although they do represent a barrier to the further integration between closed and open communities.

- 8.6 It is also important to relate the use of information to the motivations of the individual scheme developers. Large scale employers who consider that their scheme is already effective, may see little advantage in promoting car sharing more widely, as this would entail the need to downgrade their current approach; for example, where the current sharing system matches information taken from a corporate database.
- 8.7 The greatest potential market would appear to be car sharing amongst small and medium sized businesses that do not have the critical mass of staff to ensure effective matching, and would therefore gain significantly by becoming part of a wider internet based group. The current market is operated by several providers, without a single consolidating body overseeing the coordination of data. Hence, at present, a user may elect to register with only one of the national open group providers, and unless a potential sharer also matches with the same provider, their details will not be 'paired' and no match will take place.

Development of Secure Smartcards

- 8.8 There is some indication that the wider uptake of secure smartcards could assist in improving the interface between open and closed schemes. The strict adherence to the use of such secure smartcards might result in closed car-sharing schemes allowing their 'closed groups' to have access to open groups and incorporate the latter in their available 'pool' of car-sharers. For example, a car-sharer could enter their PIN number into a secure website accessed through a PC before a personalised itinerary / reference number was produced by the website and sent as an E-mail. Lift-givers would be advised not to allow other car-sharers into their car until the personalised reference number was produced. The lift-givers would also have a record of that reference number from the website, and would require the smartcard (again with a reference number on it) to be produced by the passenger.
- 8.9 The existence of such secure systems would encourage people to register for each individual journey, not just register their name in the database and would encourage take-up of car-sharing incentive schemes, that reward on the basis of usage. Administrative costs could be covered by micro-payments for registering a journey. SMS text messages could be used for cancelling car-sharing arrangements that had previously been made.

9 CAR SHARING – OBJECTIVE 5

Identify potential perceptual barriers to the use of schemes by individuals and whether and how any schemes have overcome these.

Summary

- ❑ The range of perceptual barriers is great, and reflects individuals' desires to travel alone, and maintain personal space
- ❑ All perceptual barriers can be addressed, but that does not necessarily satisfy those potential sharers that expressed that concern
- ❑ The tools most effective in overcoming perceptual barriers are personal involvement in the matching process by an administrator, offering 'one week trial sharing', utilising corporate databases to offer added information about potential sharing, stressing the security of the data held within the scheme, encouraging sharing amongst known groups / departments, and providing adequate filtering information to ensure compatible matches
- ❑ The issues for schools are different from those for organisations, reflecting the particular safety concerns of parents (Note: these have not been addressed in this research due to the lack of case study examples)

9.1 In addition to the technical and operational barriers that prevent the growth of car sharing and of car sharing schemes (which have generally been overcome by software / system providers), it is important to take into consideration perceptual barriers that individuals have cited as reasons for their lack of uptake. These perceptual barriers, and how they have been overcome, are described below.

General Perceptual Barriers

Fear of sharing with strangers

9.2 This issue was cited by many of the case study sites, and has been tackled in several different ways, as follows:

- ❑ Providing personal 'matching sessions' (coffee mornings, road shows), enabling potential sharers to get to know each other prior to sharing their journeys together. These are undertaken in an informal environment, with no pressure to share with any particular user (just seeing the person face-to-face was cited by users in large organisations as a significant comfort factor).
- ❑ Using corporate databases, including staff photographs, to familiarise potential sharers with the person identified as a suitable match.
- ❑ By utilising a car sharing coordinator to offer personal advice, support and assistance, and providing general background to the individuals involved.

- ❑ Offering 'one week trial' car sharing incentives, with a no obligation agreement to continue or otherwise.
- ❑ Organising car sharing groups (where possible) within team or common working area environments, such that sharers are all familiar with each other through their day-to-day working environment (although does limit the potential for matching).
- ❑ Using case study examples in marketing material to demonstrate where friendships (or in one case a marriage) had been established as a result of strangers car sharing.
- ❑ The use of 'pathfinders' to work with individuals on a common geographic area.

9.3 In general, it was concluded that this perceptual barrier can be overcome for most staff, although there will always be some potential sharers that are not comfortable with sharing with strangers. However, having engaged the interest of these staff members, it is hoped that their awareness will have been raised, and they will consider sharing with colleagues or family members if the opportunity arises.

Individuals not believing they will find a match

9.4 This is a significant barrier in the registration of new users to a scheme, and directly affects the potential viability of a scheme. Clearly, the ability to achieve a high matching rate depends directly upon the number of registered users, hence, it is essential that as many users register as possible in order to establish a viable scheme. Sites have used the following tools to address this issue:

- ❑ Marketing material which demonstrates less obvious sharing partnerships
- ❑ Issuing of maps showing the home postcodes of all staff, to demonstrate where the potential lies, and enable sceptical users to identify the scale of the catchment area
- ❑ Encouraging users to register with open groups if they cannot find a match within the *closed community*
- ❑ Streamlining the registration process such that it is very quick and easy to register.

The gender of the car sharing partner, in particular a reluctance amongst women to share with (unknown) men

9.5 This remains a valid issue for many car sharers, that they have preferences for sharing in single sex cars. In all of the case studies examined, this issue was addressed as part of the registration process by asking a simple question relating to sharing preferences. In order to get this message across to staff, sites generally produced marketing material which explicitly stated the criteria for car sharing, and also used case studies and photographs of successful single sex car sharing groups. In addition, sites generally include the preferences for car sharing on their 'Frequently Asked Questions' pages of their car sharing site.

9.6 It should be recognised however, that by filtering information in this way, the potential match rate is reduced.

Personal safety and security issues

- 9.7 Interestingly, whilst this is clearly a perceptual barrier, many of the users expressed the view that they felt more safe and secure as a result of their car sharing arrangement. For example, in the case of motorway driving, users felt re-assured that should they break down, they are more likely to use the combined skills of the car sharers to fix the problem (for example to change a punctured tyre), or if waiting for the emergency services, felt more secure in a group rather than as an individual.
- 9.8 Coordinators had generally addressed concerns about personal security through the use of examples in marketing material, and using the car sharing administrator to reassure potential sharers that all users were members of the closed group, and hence had already been considered appropriate for employment with the particular site.

Smoking

- 9.9 All the schemes in the study included a question about sharing with a smoker or non-smoker all schemes interviewed. This barrier is overcome by ensuring the marketing and promotion material clearly ensures that users are aware that certain criteria are asked, and by providing a 'cooling off period' after the first week's car sharing, where staff can elect to be removed from the scheme, or select alternative partners.
- 9.10 In one case, a user had not completed the registration process fully, and had not declared any preference in this respect. This was a fault of the software that had since been corrected, as completion of this field should be mandatory in the registration process.

Concern over poor driving / speeding

- 9.11 This is a valid concern, and one which is difficult to overcome. In many cases, this was also a real as well as perceived barrier, with users expressing that they had swapped car sharing partners as a result of feeling intimidated by driving style. There was little evidence from the case studies where this issue had been directly addressed, however, the flexibility to change partners in the more progressive schemes, and to feedback concerns confidentially to the scheme administrator, meant that users had confidence in joining the scheme knowing that they could change if they were at all uncomfortable about driving style.

The ability to break away from an existing car sharing partner, without losing friendship

- 9.12 Whilst this is relevant for a very few potential sharers, it was not considered a significant issue by scheme developers and promoters. In general the friendship would mean that the car sharing partnership would flourish, and any difficulties (for example late pick-ups), would be addressed in a friendly way between the parties involved. Should the issues be unresolvable, then experience suggests that alternative excuses are used by sharers to break away from the sharing arrangements without affecting the friendship.

Concern over being stranded at work / home / arriving late / leaving meetings early

- 9.13 This is a common concern, and is generally addressed in one of the following ways:

- ❑ The stated provision of an emergency ride home (free, and easy to administer for staff)
- ❑ Senior management support for car sharing, and a corporate culture that supports car sharing use (i.e. an acceptance that staff will leave on time to meet car sharing partners)
- ❑ Flexibility to change car sharing partners if the arrangement continues to cause problems in this respect.

Misunderstandings about car insurance

9.14 Staff are often concerned that they will need to pay more for their car insurance if they share with a partner – this is generally not the case, and indeed, in many instances users will pay less for their insurance as they will reduce the amount of miles travelled a year (assuming they split the driving activity). Schemes have overcome this issue by:

- ❑ Issuing standard letters to be sent to insurance companies that they are part of a formal car sharing scheme
- ❑ Reassuring staff that they will not have to pay more for insurance (and indeed are likely to pay less)
- ❑ Ensuring that the issue of car insurance is covered in marketing material, particularly newsletters where the financial gains associated with car sharing can be described in more detail.

Uncertainty over sharing payment of travel costs

9.15 Whilst this was raised as an issue, it did not generally rank highly amongst the concerns of either staff or scheme promoters. The issue was addressed through the publication of general guidance in this area, either:

- ❑ Stating that the financial costs of running the vehicle should be shared between sharers, but that no financial gain can be made; or
- ❑ Stating typical mileage payments for sharers, depending upon vehicle size, mileage and number of sharers.

9.16 These issues were covered in newsletters and the Frequently Asked Questions page of the supporting website or notice board.

Concerns over the taste of music played or radio choice

9.17 There are inevitable annoyances with sharing a car, with the choice (and volume) of music potentially being one of these (particularly as some sharers will be travelling in the vehicle for several hours a week). This is generally addressed by:

- ❑ Ensuring a flexible approach to sharing that enables users to change partners in such circumstances
- ❑ Offering one week trials / cooling off periods to test compatibility
- ❑ Offering optional free text input for general comments in the registration process that enables sharers to inform partners about their music preferences.

Needing to have access to the internet and confidentiality issues.

- 9.18 Many car sharing schemes use a corporate intranet, or wider internet access to match partners, and this can result in some employees feeling excluded (for example, if they do not use a PC at work). In these cases, staff are invited to register either through colleagues, or detail is input directly by the administrator (from information provided on a paper based registration form), and the communication channel between partners is stated as phone call or memo / letter.
- 9.19 The issue of confidentiality remains a significant barrier. In general this is overcome by:
- ❑ Adhering strictly to data protection criteria (and stating this to staff), only seeking mandatory data that meets this requirement.
 - ❑ Asking for voluntary information if the user is comfortable to enhance the matching capability (for example providing details of a local landmark, that enables potential users to see if a person is a suitable geographic match).
 - ❑ Stressing the security checks that are done on the system to ensure data is not passed to third parties (it was noted that in one of the case studies users had expressed concern that having registered with a car sharing scheme they had started to receive increasing levels of third party marketing e-mails).

Cultural factors – independence, and associated lack of convenience, flexibility and reliability

- 9.20 It can be argued that cultural expectations in modern society promote a high level of independence, self-reliance and convenience. The development and growth of car sharing partly involves overturning these expectations to a certain degree by publicising the financial, social and environmental benefits that car sharing can deliver to individuals. These cultural expectations are probably the hardest to overcome as they require a change in attitudes and it is likely this will only occur when people are well informed about car sharing through a widespread marketing campaign.
- 9.21 Perceptual barriers that have arisen due to the cultural expectations noted above are that people associate car sharing with a lack of convenience, independence, flexibility and reliability. Essentially, people are compromising their independence, for example, for their journeys to work. Individuals feel duty-bound whether they are the driver or passenger, and people have reported the stress and vulnerability experienced in detouring or waiting to be picked up.
- 9.22 Stressing the need for communication between the car sharing partners has been effective in helping to alleviate any problems, although this remains an area where further work is required. In addition, stressing that car sharing doesn't have to occur everyday to be effective, and combining car sharing with other work-life balance incentives encourages staff to understand the way in which car sharing can be introduced into a flexible working life.

10 CAR SHARING – OBJECTIVE 6

Assess how implementation of and participation in car sharing schemes may be encouraged in the future, for example using overseas experience. What additional expansion may be possible?

Summary

- ❑ There is a great deal of scope to increase car sharing activity – both the take-up of new schemes, and the improved performance of existing and new schemes
- ❑ Effective delivery needs actions across a range of organisations, including national and local government, businesses and organisations, and car sharing service providers

10.1 The following sections deal with each aspect of this objective separately, namely:

- ❑ How can implementation of car sharing schemes be encouraged?
- ❑ How can participation of car sharing schemes be encouraged?
- ❑ What additional expansion is possible?

How can implementation of car sharing schemes be encouraged?

National Government Issues

10.2 The following summarises the issues relevant to National Government.

- ❑ Clarity of definition - one of the issues identified through the study, particularly in relation to pan-European compatibility, is the lack of a clear definition and brand for car sharing nationally (ridesharing, liftsharing, carsharing all add confusion and dilute the overall message). It would be beneficial to adopt a standard terminology and branding for car sharing generally, so that product recognition can be more easily achieved (this is similar to the approach that the commercial software providers are taking with national open schemes and *closed community* branded schemes).
- ❑ Improved skills transfer to site specific developers and promoters – the best practice guide produced as part of this study will assist in this area. The Energy Savings Trust already funds a team of advisors to provide site specific advice for travel plans. In many cases, car sharing is identified as a viable option, although only limited technical advice can be provided as a result of the limited time available to cover a range of travel plan initiatives. This could be extended such that in certain cases, additional time could be secured where specific opportunities arise, to guide and assist the implementation of an effective car sharing scheme.
- ❑ Standard DfT road signs to indicate car sharing parking spaces. Car sharing parking bays are increasingly common, but usually in off-street non-residential parking, that is not owned or regulated by a council. Nonetheless, a standard sign indicating spaces for car sharers would be enormously beneficial, providing proper brand recognition, the absence of which has been commented on by so many car sharing coordinators and

promoters involved with the case studies. The 2+ sign would be an obvious candidate, and it is recommended that such a sign is adopted by the Department for Transport in consultation with experienced car sharing organisers. The same sign could, with minor adaptation, be used for High Occupancy Vehicle lanes or High Occupancy Toll lanes.



- ❑ Inclusion of environmental travel and transport strategy as part of ISO14001 would encourage take-up more widely, and ensure car sharing becomes an integral part of business practice. Whilst ISO 14001 is a voluntary standard, more prescriptive mandatory requirements on sustainable transport within the standard would raise the profile within those organisations that consider the standard to be important to their business.
- ❑ Specific reference to the contribution of 'soft measures' in the final Second Local Transport Plan Guidance (currently out for consultation in draft). Whilst the guidance provides a platform for car sharing, it does not provide specific triggers to raise the profile, and ensure car sharing becomes a mainstream activity.
- ❑ Promotion of High Occupancy Vehicle Lanes. To assess the opportunities nationally based upon overall car sharing uptake, and focus investments alongside corporate commitments to car sharing (i.e. supporting specific business parks, where the organisations devise and implement the car sharing database, and the local highways authority supports the implementation with HOV lanes to target congestion hotspots).
- ❑ Assessing Job Centre Plus on their work in partnership with local authorities to make access to transport to work initiatives such as car sharing database links available at Jobcentres.
- ❑ Reducing taxation disincentives for car sharing promotion (benefit-in-kind taxation).
- ❑ National Government to lead by example on travel planning. This would involve ensuring that all travel plans at Government Offices are effective, by:
 - ❑ Including rigorous modal shift target setting for government office travel plans. For example, setting maximum levels for driver alone figures.
 - ❑ If appropriate, introducing staff car parking charges at Government Office locations.
 - ❑ Ensuring that the compulsory hierarchy of travel choice for employees on Government business (that encourages public transport use as the preferred mode) is administered effectively.
 - ❑ Ensuring that responsibility for promoting sustainable travel to staff is part of each Department's remit.
 - ❑ Including financial penalties for failure to meet basic travel plan targets.
 - ❑ This would allow the Government to include the targets and incentives they have experienced in action, and relate these to Good Practice Guides, Local Transport Plans and other Guidance for local government, National Health Service organisations and others, cascading the experience and benefits.

Local Authority Issues

- 10.3 Local authorities need car sharing, if their policies on transport, the environment, regeneration and economic development, and tackling social exclusion are to be successful. Even where this has been openly acknowledged, councils appear to be having difficulty getting practical results out of car sharing initiatives. Some councils lack staff (especially ones with the skills and experience to be able to promote car sharing effectively); some simply lack the money to hire suitable staff, whilst others cannot get political and senior management support for car sharing. In the circumstances, it is hardly surprising that many councils appear to be 'privatising' their car sharing support; buying in an area-wide internet-based matching service and then doing little or nothing further.
- 10.4 In practice, there are many things councils can do which will create an environment in which car sharing (and car clubs) can flourish:
- ❑ Setting and implementing maximum car parking standards for new developments which exceed national targets.
 - ❑ Insisting on travel plans as part of the planning process with built-in penalties for failing to meet targets.
 - ❑ Leading by example with effective travel plans for their own staff.
 - ❑ Review of essential and casual car user allowances to ensure that excess mileage is discouraged and car sharing is encouraged.
 - ❑ Introducing car parking charges for staff, with exemptions for sharers.
 - ❑ Supporting employer travel planning in their area with travel plan networks, specialist advice and low cost buy-in to local car sharing schemes.
 - ❑ Promoting car sharing as a tool to increase social inclusion – providing access to car sharing schemes at job centres, local colleges, and community centres.
 - ❑ Much greater emphasis on travel planning, car sharing and other 'soft measures' in Local Transport Plan 2.
 - ❑ Introduction of High Occupancy Vehicle Lanes on key local routes, especially to Business Parks and City Centre locations.
 - ❑ Better use of Local Strategic Partnerships to promote and develop car sharing activity.

Issues for businesses and organisations

Making the business case for promoting car sharing

- 10.5 In order for businesses, employers and other traffic-generating organisations to promote and encourage car sharing, they will need a business case for doing so. Therefore, information must be provided to them about the financial, operational and developmental benefits of car sharing. Much of this is already available (to a lesser or greater extent) within the body of advice about travel plans. However, car sharing is intimately connected with car parking arrangements and parking space availability, so it is suggested that the material needs a closer focus on parking issues directly.

10.6 Key issues are:

- ❑ Understanding of all costs related to providing car parking.
- ❑ Understanding of planning and car parking restrictions that are likely to impact on business development.
- ❑ Calculation of the opportunity cost of providing an extra parking space, and therefore the value of a regular car sharing arrangement.
- ❑ Understanding of the costs to business and employers of local congestion.
- ❑ Discussion of the impact of parking availability and cost on recruitment.

10.7 Although conserving the environment by creating more sustainable lifestyles is an important long-term objective, businesses and organisations need to be sold travel planning, of which car sharing is an important component part, as a site management tool. Assistance should be made available to businesses through Business Link and other economy-based services to ensure the business case for car sharing is prominent.

Whole organisation involved in making the shift to car sharing

10.8 Introducing any change in the workplace requires careful planning, staff consultation, senior management buy-in, motivated middle management, and the necessary non-staff resources for the job. The study shows that where car sharing is introduced properly an organisation gets impressive results; where it is not done wholeheartedly, the impact can be negligible.

10.9 In management terms, the promotion and organisation of car sharing requires action by every section or department within the company or organisation. It may be sensible for one department to lead on car sharing, but good results only come if action is taken by all departments. On the surface, this point may seem obvious, but it is in fact a key organisational issue: for example, introducing a change to a product line may require linear action, department by department, with R&D inventing the new product, technical design working out how to produce it, engineering solving the issues of how to change the factory line and layout, and so on. Car sharing, on the other hand, requires simultaneous action by all departments, who also need to be 'singing to the same hymn sheet' as far as the reasons for its introduction are concerned.

Issues for software and internet service providers

10.10 Evidence from this study has suggested that the market for car sharing software is buoyant, with healthy competition amongst providers, and a diversity of software packages to meet the needs of a particular site.

10.11 One area that was highlighted by many of the users was a continued concern over the accuracy of the matching function, and that inappropriate matching had devalued their experience of the system. This is an area that is continuing to be developed by the software providers to improve the matching capabilities of their products.

10.12 There was also an identified lack of good quality monitoring data with which to benchmark performance, with many providers recording matching rates, or membership levels as a

benchmark for success. More work is needed in this area to marry these statistics to actual usage levels, and provide stronger case history of the real effectiveness of deployment of such schemes.

- 10.13 The evidence gathered during the study also suggests that despite technological efforts, there are still perceived concerns about the security of commercial service providers that link closed and open communities. This is particularly relevant for employers who are heavily reliant on a secure, virus-free, hacker-proof information and communication technology environment. For example, in MBNA's case – one of the most successful examples of car sharing found in the study – the firm is about to introduce its own bespoke car sharing software as a direct result of this problem.

Attention to the human factor

- 10.14 One of the difficulties with developing a car sharing scheme is the trade off between the cost of the software, the target performance level, the need for security, and the possibility of integrating with area wide schemes. This presents a dilemma for both the developer and the purchaser, in that compromises are inevitably made. This study does not seek to compare different commercial products, but does make the following general observations about the market generally based upon the interviews with developers, promoters and end users:

- ❑ Unclear instructions, explanations and forms. All car sharing websites should be accessible to all. They should, for example, be accredited with the Plain English Campaign Crystal Mark.
- ❑ Unnecessary questions on the registration form. People are, quite understandably, very wary of giving out personal details, especially on the internet.
- ❑ Discriminatory questions and terminology. Providers must seek to promote anti-discrimination practice, and comply with existing or planned legislation, if they are to engage with communities at all levels.
- ❑ Ensuring that marketing and advertising is carried out sensitively and is appropriate for purpose.

Other ways to travel together

- 10.15 It is noted that there is a gap between those systems that can and those that cannot extend matching services to cover other sustainable modes (such as travelling with someone else by taxi, on foot, by bicycle, or using public transport). More emphasis needs to be placed on matching 'sustainable journeys' in this way, particularly based upon the context of car sharing within a sustainable transport strategy for a particular site (branded as a travel plan). This will also promote social inclusion by increasing transport options for families on low incomes.

Events and clubs

- 10.16 There appears to be a big opportunity for internet-based car sharing solutions for people making occasional one-off trips to sports, music and other major public events, and regular non-work trips to sports clubs and so on.

Use of technology

- 10.17 There is an increased acceptance of mobile technologies amongst the population, and opportunities to integrate car sharing with these mobile communications provide new avenues for the delivery of timely information across a range of modes.

Other General Issues

- 10.18 Car parking and congestion problems have to be extreme before many organisations are prepared to tackle employee travel to work issues in a serious manner. Organisations do respond to maximum car parking standards set by local councils (see Chester Business Park and the MBNA response). Companies are prepared to take serious action to reduce car parking demand on site, where this is to their commercial advantage: for example, where they are already established, have a trained and experienced workforce and wish to expand on an existing site. In these circumstances companies are unlikely to opt for relocation to another area where planning and parking restrictions are less stringent.

How can participation of car sharing schemes be encouraged?

- 10.19 Despite growing awareness of the benefits of car sharing amongst businesses, car sharing remains a topic where marginal understanding exists, and therefore scheme developers will require good, reliable guidance on which to build their schemes (hence the outcome of this study is the publication of a best practice guide in this area). By improving the quality of the schemes delivered, the uptake levels for sharing will increase, particularly if this is supported by:

- ❑ Generally improved integrated transport networks, enabling users to have a genuine choice of travel mode;
- ❑ Improved infrastructure provision aimed at supporting car sharing activity (including greater levels of dedicated parking spaces enforced through the planning process, and the deployment of high occupancy vehicle lanes in congested networks);
- ❑ Greater tax incentives to enable employers to offer 'tax free rewards' for the use of sustainable modes.

Tax Liability

- 10.20 The current tax position enables car sharers to charge passengers for the use of the car to cover the reasonable cost of use. In most cases, costs are simply shared, as drivers and passengers equally undertake to drive their own vehicle. Whilst this is a fair and equitable approach, further discussions on tax concessions may be required if specific financial incentives are to be provided for car sharing participants (currently, financial incentives for sharing are subject to tax and National Insurance contributions). This area has been the subject of less scrutiny than other travel plan measures, largely as a result of the financial gain that car sharers receive as a result of participating (hence additional financial incentives are considered less relevant than other travel plan measures).

- 10.21 Whilst a 'guaranteed lift home' is exempt from tax and national insurance contributions, this research has identified that in all cases, the sums payable in this respect are minimal (£50

per organisation per year). Hence, this doesn't necessarily provide any tangible benefits that can be used to actively promote car sharing (although it does raise awareness more generally, and answers a specific concern about the provision of free lifts in this context).

What additional expansion is possible?

10.22 There is clearly a significant market for car sharing, and a growing understanding of the tools necessary to make car sharing schemes effective. The following table (taken from the 2002 National Travel Survey), demonstrates the difference in sharing rates for different trip purposes.

| Trip Purpose | Average Vehicle Occupancy Rates |
|---------------------|--|
| Business | 1.2 |
| Commuting | 1.2 |
| Shopping | 1.7 |
| Personal Business | 1.5 |
| Leisure | 1.8 |
| Education | 2.1 |
| Holiday / Day Trip | 2.1 |
| Other | 1.9 |
| All | 1.58 |

10.23 This clearly illustrates that individuals are prepared to share for certain purposes, with commuting the lowest occupancy rate at 1.2 people per vehicle.

10.24 It is also interesting to note the change in occupancy rates over time, as shown below (also taken from the National Travel Survey).

| Year | Average Vehicle Occupancy Rates |
|-------------|---------------------------------|
| 1985 / 86 | 1.64 |
| 1989 / 91 | 1.62 |
| 1992 / 94 | 1.62 |
| 1996 / 98 | 1.60 |
| 1999 / 2001 | 1.59 |
| 2002 | 1.58 |

10.25 The main concern is that the occupancy rates have declined steadily in recent years, coupled with increased independent mobility – the challenge for car sharing is to create the right environment to be able to reverse this trend. That is dependent upon the work of many agencies, including software providers, closed communities, local transport policy makers, land use planners, public transport providers and many others.

Innovative Ideas and International Experience

10.26 The literature review identified a number of international initiatives, the pertinent ones of which are mentioned briefly below.

Park and Share

10.27 The concept of park and share is slowly becoming a reality. A park and share scheme has been set up as part of the South Gloucestershire car sharing scheme and the idea is being explored by a number of Local Authorities. This could provide significant advantages for individual scheme promoters, as it potentially removes the dispersal of trip origins, and overcomes one of the user concerns relating to the safety of vehicles parked on the street at a location where sharers meet to join up and share the journey.

10.28 A research study was undertaken as part of the TAPESTRY Project to investigate the likely use of Park and Share / Car Sharing in Belfast and surrounding areas of Northern Ireland. Two test sites were chosen, namely Price Waterhouse Coopers and the University of Ulster.

10.29 Park and Share began as an unofficial activity whereby commuters would meet at a roundabout some distance from Belfast City, park one or more cars and continue the journey into the city in one multi-occupancy car. To facilitate the car sharing arrangements, the Transportation Unit of the Roads Service provided free parking at 12 areas outside the city.

10.30 The investigation concluded that regular car commuters are less likely to share whilst more infrequent and occasional drivers would be more likely to Park and Share. A female bias for interest in car sharing was observed. The following recommendations were drawn up for future travel planning in Belfast:

- ❑ Target specific audiences, in this case female, administrative and clerical
- ❑ Provide enabling measures such as a car sharing website, preferential parking etc

- ❑ Institute restrictive controls
- ❑ Manage the whole process as an integrated campaign with appropriate campaign and brand management
- ❑ Make communications both informative and effective.

High Occupancy Toll lanes (HOT)

10.31 This concept is relatively new in the USA, and is a progression of the conventional High Occupancy Vehicle lane concept. HOT lanes are dedicated for the use of high occupancy vehicles, but can also be used as toll lanes, for single occupancy cars willing to pay for the use of the lane. Their use is regulated through an active pricing policy, such that the lane always remains free flowing (i.e. if the level of traffic flow begins to approach capacity, then access is restricted to high occupancy vehicles only). This approach seeks to make the best use of the available resource, and provides choice for the motorist. This option might prove to be palatable to local authorities seeking to introduce charging policies (through their second Local Transport Plans), by offering choice to the motorists to either:

- ❑ share a car (and have free unrestricted access), or
- ❑ travel as a single driver, and either
 - ❑ pay a toll charge (assuming spare capacity on the HOT lane); or
 - ❑ accept the travel conditions on the 'free network'.

11 CAR CLUBS – OBJECTIVE 1

Identify the types of car club organisation which have been, or could be, designed specifically to apply to closed communities, including any additional transport arrangements made to assist the club's operation.

Summary

- ❑ Car clubs can be developed using a particular approach (organisation structure), and for particular environments (*closed community* group)
- ❑ There is a clear difference between the approaches taken for urban and rural schemes
- ❑ Partnerships lie at the heart of most car club schemes
- ❑ All car clubs operate within a wider transport network, and seek to enhance the mobility choice for members
- ❑ There is an increasing trend for *closed community* car clubs in urban areas to amalgamate with wider open car clubs for a city / town

11.1 Car clubs can bring a number of benefits to both the individual and the community. Work undertaken by CarPlus has identified the benefits of car clubs generally as follows:

“Environmental benefits:

- ❑ *the separation of car usage from car ownership, so members can make balanced decisions about how to make each journey*
- ❑ *encouraging car-owning households to function with fewer or no cars, and make significantly more of their journeys by public transport, cycling or on foot.*

Personal benefits:

- ❑ *enabling people without the use of a car (for all or part of the time) to meet travel needs which can only be met by a car*
- ❑ *lessening financial hardship for low income households by removing the need for private car ownership*
- ❑ *access to a range of efficient, reliable cars that are available to use without the hassles of ownership*

Social benefits will be delivered as people reduce their dependency on the car, thus increasing the viability of public transport, as well as allowing local shops and services to flourish.”

11.2 In general, the development and operation of ‘*closed community*’ car clubs has followed one of the following approaches:

- ❑ Commercial operator (e.g. Smart Moves, Streetcar, Urbigo, Whizzgo)
- ❑ Community group / partnership / not-for-profit organisation
- ❑ Cooperative

- ☐ Employer operated scheme (e.g. expansion of pool cars fleet)
- ☐ Informal residents group
- ☐ Management group (on behalf of a development).

11.3 These represent a simplification of the approaches taken, and are defined as suitable categories for the purposes of this study. For example, the definition of community group / partnership / not-for-profit organisations covers a whole range of detailed operating models to suit the particular local need.

11.4 These approaches can be applied to the following environments:

- ☐ Further Education Sector
- ☐ Low car or car-free urban housing / mixed use developments
- ☐ Other housing / mixed use development
- ☐ Rural communities
- ☐ Socially excluded areas
- ☐ Urban community
- ☐ Workplace.

11.5 The current mix between the car club approach and the car club environments is presented in the following table (note, this does not represent the future potential, but the current state of the market):

| | Commercial Operator | Community Group | Cooperative | Employer | Informal residents group | Management Group |
|-----------------------------|---------------------|-----------------|-------------|----------|--------------------------|------------------|
| Further Education Sector | ✓ | | | ✓ | | |
| Low car or car-free housing | ✓ | | | | | |
| Other housing / mixed use | ✓ | | | | | |
| Rural communities | ✓ | ✓ | | | ✓ | |
| Socially excluded areas | | ✓ | | | | |
| Urban community | ✓ | | ✓ | | | |
| Workplace | ✓ | | | ✓ | | |

Workplace Schemes

11.6 Workplace schemes are generally either managed by a commercial operator or by the employer themselves. Many workplaces provide and use pool cars for business trips. The concept of introducing more sustainable travel options for the journey to work highlights and

offers the opportunity for companies to examine their current practices concerning business travel. For example, by providing pool cars for business use, an employer can dissuade at least some staff classified as 'essential car users' from bringing in their own cars to the workplace. If the pool of cars grows, and employers are keen to gain best value from this commodity, then a natural transition might be to extend the use of the pool car to members of staff for everyday life, including outside of business hours.

11.7 An example of such a scheme can be observed at the Oxfam Headquarters where over 500 employees are able to use pool cars when not in work use. This arrangement has been operating for the last 10 years. Cars are booked on a first come first served basis for 52p / mile. Another example exists in Edinburgh where the City Council is a member of the newly re-launched Edinburgh Car Club. The council block-books 6 cars that are parked adjacent to the Council's offices for use by staff undertaking business trips during work hours. The cars are then available for use by the general public in the evenings, at weekends and on public holidays.

11.8 Work undertaken by CarPlus has identified that a number of options are available to operate a workplace car club such as:

- ❑ *a company could make its own fleet of pool cars available to staff for out of hours use utilising the same administration system used for business travel bookings*
- ❑ *a club could be set up and run by an independent car club operator; businesses in the same area could join together to make the scheme more viable*
- ❑ *a company could enrol as a corporate member of a local car club and block-book vehicles during working hours; the vehicles could be parked on-site*
- ❑ *a smaller company or self employed person could register as a member with a local car club and use the club's cars for business and personal use.*

11.9 Workplace car clubs have many benefits for both employers and employees. Staff can benefit from a range of choices (including the car club) for their personal travel needs.

11.10 Employers can enjoy a number of benefits including:

- ❑ reducing the need for employees to commute by car or even own a car
- ❑ reduced pressure on parking at the workplace
- ❑ increased viability of other sustainable modes
- ❑ a new income source from the private use of existing pool vehicles out of business hours
- ❑ an added benefit for employees that may aid recruitment and retention
- ❑ availability of car club vehicles allows a corporate or municipal fleet to be down-sized
- ❑ use of car club cars is more tax efficient than company cars.

11.11 In order to operate effectively as a tool to reduce car commuting to/from the workplace, such schemes need to operate within an environment that offers good viable alternatives (e.g. bus, train, walk, cycle, and car sharing incentives). It is important that staff have access to a

range of alternatives, reducing reliance upon the private car – in this respect the car club forms part of an integrated transport strategy for the site. Any measures that can enhance the integrated network add to the value of the car club.

11.12 It is interesting to note an increasing emphasis placed upon *closed community* schemes that integrate with wider open community schemes. This is an area being developed by the commercial operators, and is likely to grow in importance (not least because of the ability to make such schemes financially viable). For example, BioRegional offer their employees access to the London City Car Club for work related purposes (covering the monthly membership charge and all business use), and enabling staff to take advantage of the vehicles (at their own cost) outside of work hours. This has proved to be a very effective means of delivery, and has enabled the commercial operator to achieve high vehicle utilisation rates, which is fundamental to securing long term financial viability.

Rural Communities

11.13 Car clubs can have an important role in rural communities. Research undertaken by the Countryside Agency in 2000 reported that transport was the single most important concern of people living in rural areas, and this has been subsequently reinforced by the strategy work undertaken by Local Authorities in the production of Local Transport Plans and Community Strategies. Rural car clubs can help to promote social inclusion and reduce car dependency by facilitating access to private vehicles, and work well alongside other rural transport solutions.

11.14 There are currently 8 pilot rural transport schemes being evaluated by the Countryside Agency (as part of a pilot programme established in 2002, initially involving 13 sites), all of which are the subject of a detailed evaluation to be reported in Spring 2005. All of these schemes received grant support to establish the scheme in response to the social needs for each particular area, to increase accessibility, and offer transport choice.

11.15 In general, rural car clubs are managed by local community groups, or local transport partnerships, with just one of the pilot schemes (A2B Bradford-on-Avon) originally managed by a commercial operator. It is interesting to note that this scheme is currently under review, with the possibility of extending its operation to neighbouring schemes, and possibly attaching it to the local urban scheme, in order to improve financial performance in an attempt to make the scheme financially viable. This scheme also attempts to offer a greater degree of integration between the car club service, and other aspects of the transport networks (including enhanced provision of information on local services).

11.16 Most rural car clubs are the subject of extensive feasibility studies, in order to ensure the operating conditions are viable for the car club to establish itself, beyond any initial, start-up grant funding. These feasibility studies will generally explore a range of characteristics, including:

- ❑ Is there a sufficient population base within a closely defined geographic area, combined with a strong sense of community engagement and informal networks?

- ❑ Do local journeys (current and perceived future journeys) cover a range of trip types, and carried out across the daytime and evening periods (i.e. not concentrated just on the peak)?
- ❑ Are the Local Authority and public transport operators supportive?
- ❑ Is there a demand and interest in the car club concept (i.e. is there a realistic opportunity that the scheme will be utilised?)
- ❑ Are local issues causing people to re-assess their transport arrangements?
- ❑ Are there suitable locations to safely manage the storage of vehicles?
- ❑ Is there a local champion that will promote and enhance the scheme?

11.17 The literature review stage of this study identified examples where feasibility studies have indicated that car clubs are not the right solution, and this is valuable since it enables initial investment to be placed in areas of greatest potential for success (car clubs are not suitable for all rural locations). As the market for rural car clubs grows, and experience of successful operation grows, it is likely that car club feasibility studies can (and will) become much more streamlined, focussing upon the key drivers for success. Concern was expressed by rural car club operators that the current cost of feasibility studies was high, and the money might be better invested in just 'giving the scheme a go'.

Low car or car-free urban housing developments

11.18 There is a growing interest in low car and car free housing developments. PPG 3 (Housing, 2000) and PPG 13 (Transport, 2001) contain key Government policy objectives that seek to reduce car dependence, make more efficient use of land and reduce the amount of parking in new developments. The concept of city living has no doubt contributed to these types of developments as significant gentrification and regeneration is being planned or developed in towns and cities across the UK. These urban sites are under pressure to deliver higher housing densities and a better quality of life. Current examples of low car housing car clubs include a club formed at the prestigious OneSE8 development in Deptford, developed by St James Homes developers. The establishment of the car club enabled higher densities to be developed as well as using the extra space for amenity areas, open space and landscaping. Close proximity to the Docklands Light Railway, in addition to the car club, has increased the saleability of the units.

11.19 In the case of BedZED (South London), the car club has experienced an interesting life cycle:

- ❑ The concept was originally envisaged to support high density mixed use development, located in an accessible area of south London. The car club concept was a key reason for gaining planning permission with reduced parking space allocation.
- ❑ The initial promotion of the scheme was through a green lifestyle officer appointed by the development group, through grant funding.
- ❑ The scheme is managed by Smart Moves, a commercial car club operator.
- ❑ In parallel, the London City Car Club was being developed by seven London Boroughs, to offer vehicles across the London area.

- ❑ The BedZed scheme has now integrated fully with the London City Car Club, giving users access to a far greater pool of vehicles, located throughout the city.

11.20 The market for car clubs in these city environments, particularly where a wider citywide club exists, looks very strong, with keen interest being expressed by major development groups. BedZED has certainly proved an important case study in this respect, and has demonstrated to other developers how effective such an approach can be in both securing planning consent, and offering a viable / saleable development site.

Socially Excluded Areas

11.21 Lower income households who either run one car, are struggling financially to run a car, or have no car, are potential users of a car club. The car club would offer them access to a vehicle in order for them to reach essential facilities such as health care, shops, job interviews or social activities. The difficulty in serving socially excluded areas is that they may not demonstrate all of the traits that make them attractive to the commercial operators, hence require a more investigative approach to the business model and development options available. Commercial operators would need to look at the cost and the likely utilisation of car club cars by the most socially excluded. Local Authorities also need to decide whether a car club is the best choice of investment in socially excluded areas where there are low disposable incomes, low license holdings and a cash economy etc..

11.22 Car clubs operating in these environments have focused generally upon lower monthly membership levels, and slightly higher usage rates, recognising the difficulties that low income families have in meeting monthly payments. They also enable higher numbers of members per car, enabling better utilisation rates to be achieved – this reflects the fact that with paying a higher rate for usage, with low monthly charges, the incentive is very much on reducing car use for essential journeys only.

Further Education Sector

11.23 Another specific type of organisation that has developed the car club concept is higher education institutes, more specifically universities. Cranfield University, in Bedfordshire, is a leading example of how a car club can operate successfully in such circumstance. Cranfield has operated an on-site car club for staff and students for several years. The fleet comprises 7 cars, and is currently managed by a local car club operator. Different membership options are available to suit individual needs (generally staff and students have different requirements). Booking is made through an on-line web page. Users gain access to the vehicles through keys kept in a safe adjacent to the parking stations. Usage is monitored through on-board recorders, and charges are made by the hour and for mileage undertaken. Payment is made monthly, based on usage (varying with vehicle type), with costs covering time and mileage: staff can also book against university business cost codes. All of the vehicles are well used, and the scheme operates on a commercial basis.

11.24 Whilst Cranfield possesses particular circumstances that may have led to the success of the scheme (located within an isolated rural community with a fairly minimal bus service) it demonstrates a successful model that could be replicated at similar sites. One of the barriers that other universities encounter (and not directly relevant to Cranfield due to the

'post graduate' nature of the university) is the difficulty in insuring car club drivers under the age of 23 years.

Informal

11.25 Car club arrangements do not necessarily need to be arranged on a formal basis. It is possible to set up car clubs with friends, neighbours or colleagues using cars already owned by members of the group or purchasing a car together. Some groups may even advertise for people unknown to the current members to join the club. 'Informal' arrangements such as those detailed above are often more flexible in nature as the car club can be shaped around members' needs. An example of this model of car club is the Rusty Car Pool Club operating in Leicester which runs older cars at a minimum cost. The club is built on trust and a strong sense of community with members voluntarily taking on responsibility for the day to day running of the club.

Technology Options

11.26 A simplified list of 'general options' available to a car club operator is presented below:

| | Option 1 | Option 2 | Option 3 |
|---------------------------------|---|--|---|
| Booking System | Internet / intranet based | Paper based schedule, completed by the operator on request | Paper based schedule, completed by the user |
| Vehicle Access System | Smartcard access, with keys in car | Keys kept by designated person (for example, receptionist) | Keys kept in secure box adjacent to car |
| Invoicing System | Fully automated | Manual production based upon recorded log | Manual production based upon recorded log |
| Maintenance and Cleaning | Managed by operator | Managed by operator / organisation | Undertaken by coordinating group |
| Fuelling | Fuel card kept in car, or issued to users | Fuel costs reclaimed by staff / users | Undertaken by users with local account card |
| Marketing and Promotion | High quality, large distribution, developed by operator | Focused marketing towards potential users within <i>closed community</i> | Word of mouth with some paper based local advertising |
| Cost | High | Medium | Low |

11.27 The choice of technology is driven by the needs of the specific site. Advice on the approach to be taken is generally determined through the scheme feasibility study.

Toolkit Measures

11.28 Similar to car sharing, irrespective of the operating structure of the club, some of the key drivers for success relate to the delivery of toolkit measures. These include:

- A clear champion and strong coordinator with drive and vision

- ❑ A strong brand and marketing campaign
- ❑ A critical mass of initial users
- ❑ Dedicated parking spaces adequately enforced
- ❑ Funding
- ❑ Effective partnerships
- ❑ Affordability

11.29A comprehensive 'toolkit manual' has been prepared by CarPlus which sets out the steps necessary to launch a car club. This study does not set out to replicate this work, but under the following objective, seeks to establish the relative importance of each of the above areas to overall success.

Costs

11.30The case study interviews enabled the research team to examine the costs for membership. These are summarised as follows:

| | Our Car Your Car | MoorCar | A2B | BedZed | City Wheels |
|------------------------------------|-----------------------------|----------------|------------------|------------------|-------------------------|
| Joining Fee (one off) | | £10 | | | £40** |
| Registration fee (one off) | £25 | | | | |
| Membership (annual) | £90 - £200 | £100 | | | |
| Membership (monthly) | | | £12 | £15 | £10 |
| Refundable Deposit | | £50 | £100 | | |
| Time charge per hour* | £2 | £1 - £2.50 | £2.50 upwards | £2.50 - £3.00 | £1 (Mon – Fri AM/PM) |
| Mileage charge* (includes fuel) | 12p – 15p | | 16p upwards | 17p – 19p | 15p |

*Depends on vehicle type and time charged

** Includes charge for vehicle and safe keys

11.31 This shows some level of conformity between the sites. It does, however, highlight one significant issue, the point on the fixed membership cost / usage cost trade-off where car clubs have chosen to set their fees. This represents a philosophical difference between some of the sites, and between the commercial operators themselves. In general, those schemes that seek a high joining fee, or a high monthly membership cost, have a strong belief in the concept of a 'club culture' between members. This differs from those schemes that offer lower monthly costs, but higher usage charges, that generally see the market as being nearer to 'flexible hire car' and seek to meet the needs of new urban lifestyles.

11.32 However, Whizzgo (currently operating the Leeds City Car Club) has established a different pricing model, charging a small one-off payment for the initial smartcard combined with a refundable deposit, with a range of flexible pricing policies to reflect personal expectations of use (for example flat hourly rates and inclusive mileage and time rates). This approach is similar to that used by mobile phone operators, reflecting a range of flexible tariffs to suit individual needs.

Other Relevant Issues

Partnerships

11.33 Partnerships are generally fundamental to the development of any car club scheme. These partnerships can include:

- ☐ Local Authorities
- ☐ Chamber of Commerce
- ☐ Public Transport Operators
- ☐ Charities
- ☐ National Agencies

11.34 One of the difficulties associated with establishing such partnerships is the human resources required to broker, foster and develop these often complex partnerships. The partnerships are required to facilitate access to funds, to widen the knowledge base, to market the car club across wide community groups, to ensure complimentary transport services are provided, and to enable marketing to be undertaken in a cost effective manner.

Car Plus

11.35 Whilst not a specific provider of car clubs, it is important to recognise the role that CarPlus plays in promoting car clubs generally. CarPlus (formerly called the Community Car Share Network up to November 2001) takes on the role of the UK's network for car clubs. CarPlus is a not-for-profit organisation that works with local authorities, communities and partners to support and promote the development of car clubs. CarPlus has been split into 2 organisations; CarPlus Trust, which forms the charitable arm of CarPlus and deals with work concerning information and development, and CarPlus UK, the trading organisation that deals with leasing and insurance schemes. Partners and funders include Department for Transport, Sustrans, Countryside Agency, Vauxhall Motors Ltd and the European Commission Interreg III Community Initiative. Car Plus offers a variety of services:

- ❑ Support and technical assistance to set up a car club
- ❑ Discounted car club services, including leasing and insurance
- ❑ Marketing materials, including a video, displays and leaflets
- ❑ A network linking interested parties and sharing information.

11.36 CarPlus is currently expanding its remit to cover both car clubs and car sharing, re-branding this activity under the concept of 'rethinking car use'.

11.37 In particular CarPlus has developed a 'Car Club Toolkit', which details all of the stages necessary to develop and implement an effective scheme. This is a very detailed resource, and the interviews with the case studies had used this resource to their advantage, combining this effectively with the skills of the CarPlus officers. It is clear that the uptake of car club schemes matches the geographical areas where CarPlus have been able to provide officer support. This support not only assists with clubs establishing themselves in a particular region, but can lobby and market car clubs within local authorities to both members and officers.

Car Rental

11.38 A new player in the car club market is emerging in the form of the vehicle rental sector. The costs of rental and minimum time periods offered by vehicle rental companies have been reduced and tailored for the modern customer's requirements. A spokesman for the industry body British Vehicle Rental and Leasing Association (BVRLA) said "...firms saw it as a natural evolution".

11.39 easyCar, part of the easyGroup, has launched a car club following the successful operation of an experimental club in central London launched in February 2003. The pricing model used follows the easyGroup template: the earlier a customer books, the less they pay.

11.40 However, for the purposes of this study, such schemes are not classified as 'closed' schemes, hence are not assessed in detail.

Integrated Smartcard Ticketing

11.41 This is considered important in enabling ease of use between car clubs and between car clubs and external public transport provision. Whilst there are no active schemes in the UK, the BedZed scheme through its involvement with the London City Car Club, is looking to integrate its smartcard access system with the 'Oyster' card for public transport use.

Inter-operability amongst car clubs.

11.42 There is clearly scope for members of specific *closed community* car clubs to gain access to vehicles provided by other local clubs that are run and managed in separate geographical locations. This is particularly the case as the market grows, and more regions establish themselves with local car clubs (once a member of a local car club, this entitles use of other car club vehicles for example whilst on holiday or visiting an area). The current obstacles to this approach currently working are:

- ❑ Different billing systems (i.e. the systems do not talk to each other, and if it is not automated then it is likely to be too expensive to administer);
- ❑ Different charging regimes;
- ❑ Incompatibilities between smart card access systems and registered account users;
- ❑ Different insurance rules;
- ❑ Different car security systems e.g. key safe instead of smart card.

Public Transport

- 11.43 An important consideration for the development of car clubs is the standard of provision and choice of other sustainable modes of transport; namely, public transport services, walking and cycling. Car clubs are not a stand alone solution: they work best in areas where there are good quality alternatives to the private car: good local facilities, regular and reliable public transport links and safe, pleasant cycleways and walkways. It is essential to have all relevant information, timetables etc. within easy access. Of these alternatives, public transport links are perhaps the most important and relevant to support a car club.
- 11.44 However, successful negotiation between car clubs and the public transport operators resulting in suitable outputs is not always achieved, and there is little evidence in the UK where this has been successful. Some evidence would suggest that this is occurring in London (an open scheme generally supported by TfL) and in Bristol (see below). Evidence from Europe supports the view that closer cooperation between car club providers and public transport operators is crucial to success (for example in Bremen, Germany).
- 11.45 The main role of public transport operators will be to find ways to integrate the mobility 'menu' and therefore to help the customer, or user, to be able to travel to certain destinations in an easy and stress-free manner. Public transport operators, for example, could support car clubs by offering special incentives such as reduced ticket costs for members of the car club. An example of this can be observed in Bristol where public transport operator First supports the Bristol City Car Club scheme by providing reduced rate bus travel to members. It is, however, interesting that a discount scheme was offered for BedZed car club members, but was unsuccessful in securing any level of uptake.
- 11.46 It can be suggested that integration between public transport and car clubs really needs to be initiated by the local authority, not the bus operator. One possibility in this respect might be the establishment of mobility centres that coordinates mobility services in real time on behalf of all operators (hence would need to be facilitated by local authorities). This could prove to be a valuable step in creating a climate in which car clubs can flourish and in which deals between bus operators and car clubs become attractive to all parties.

12 CAR CLUBS – OBJECTIVE 2

Assess the effectiveness of such approaches in encouraging membership, enabling efficient club operation, promotion of sustainable transport choices, and meeting member's travel needs.

Summary

- ❑ As with car sharing, the effectiveness of a scheme relates not to the organisational structure, but to the blend and application of a range of toolkit measures
- ❑ Comprehensive information already exists on the establishment of car clubs through the CarPlus toolkit
- ❑ Similar to car sharing, the skills, commitment and enthusiasm of the coordinator have a strong influence on overall effectiveness
- ❑ There are clear traits in urban areas as to the effective drivers for car clubs.
- ❑ Rural schemes are generally not able to operate without subsidy, although the pioneering schemes are now starting to operate in a sustainable way, and have a vision to extend this in coming years.

12.1 All of the case studies examined had experienced growth, and were currently operating 'live' schemes. A summary of the uptake of the case studies is presented below.

| Scheme | Scheme first conceived | Launch date | Number of members | Number of cars | Members per car |
|------------------|------------------------|-------------|-------------------|----------------|-----------------|
| A2B | 2001 | Nov 2002 | 20 (August 2004) | 3 | 5.7 |
| BedZED | 2000 | 2002 | 50 | 2 | 25 |
| City Wheels | 2000 | Feb 2001 | 40 * | 5 | 8 |
| Moor Car | N/A | Oct 2002 | 30 | 4 | 7.5 |
| Our Car Your Car | 2001 | Mar 2003 | 34 | 4 | 8.5 |

** Includes Swansea Housing Association staff who use car club as a pool car. True membership is 14, or 2.8. members per car*

12.2 Through discussions with the case study operators, a number of fundamental determining factors of success have been identified. In general, these are generic factors, that relate to car clubs as a whole, and hence, rather than assessing the effectiveness of particular approaches, this objective examines how effective the tools that make up a car club scheme have been in:

- ❑ Encouraging membership
- ❑ Enabling efficient operation

- ❑ Promoting sustainable transport choice
- ❑ Meeting members travel needs

12.3 The tools that are examined are:

- ❑ The role of the champion / coordinator
- ❑ A strong brand and marketing campaign
- ❑ A critical mass of initial users
- ❑ Dedicated parking spaces adequately enforced
- ❑ Funding
- ❑ Effective partnerships
- ❑ Provision of a suitable number of vehicles

12.4 Extensive work has already been undertaken by CarPlus in this area, through the production of their 'car club toolkit'. This describes in details the processes and procedures to establish a car club, and discusses operating structures, legal issues, the business case and toolkit measures in detail. Hence, we do not repeat coverage of those areas here, but demonstrate the relative importance of particular areas to the success, or otherwise, of the case study schemes.

The role of the champion / coordinator

12.5 This is a fundamental determinant of success in all of the schemes examined. Those sites that have strong, visionary champions / coordinators, with full support of the car club promoting organisation, are generally proving the most successful. This is considered the single most important success factor. However, there is a concern, that, certainly for the rural schemes, the coordinator is often employed part-time, and doesn't have the resources and recognition necessary to develop all of his / her ambition for the scheme. In many cases, coordinators are undertaking many hours of unpaid overtime each week in order to move the scheme forward – this is simply not sustainable in the long term.

12.6 Champions and successful coordinators need a blend of skills that enable them to capture and maintain new members. Unlike many areas of transport delivery, this is often a hands-on role, with many sites deploying direct marketing techniques, knocking on doors, and handing out leaflets in the streets. Providing support and guidance to these champions and coordinators, in order to ensure their efforts and enthusiasm are channelled into effective delivery mechanisms, should be a priority, and the organisation CarPlus (suitably funded) could be well placed to do this.

A strong brand and marketing campaign

12.7 A high quality, diverse and visual marketing campaign is essential to success. Marketing campaigns include:

- ❑ Posters distributed amongst the catchment group (either within an organisation or a wider community area)

- ❑ Leaflets distributed to staff and residents
- ❑ Roadshows and community events (for example open day promotions)
- ❑ Press, radio, TV – this is a particularly effective communication process for car clubs, as these are generally positively reported by the media, who are keen to report on new and innovative ideas.
- ❑ Individual marketing (to staff or residents)
- ❑ Newspaper advertisements
- ❑ Vehicle, and car club parking bay branding
- ❑ Word of mouth (essential in many of the rural schemes)

12.8 Whilst it is difficult to assess the contribution of marketing material to uptake, discussions with car club operators have portrayed the relationship as a strong one. The key issue is that car clubs remain a new concept in the UK, and like any new product launch, require extensive marketing to raise overall awareness. The growing development of open car club schemes is seen as a positive move in this respect, raising awareness amongst the population as a whole.

12.9 Our Car Your Car demonstrates a particularly strong example, and has established professional material, which clearly demonstrates the advantages of membership across a broad spectrum of users (interestingly, its research demonstrated that there is not a predetermined catchment market, but that car clubs can appeal to any sector of society, hence the marketing material was established accordingly). It was able to achieve a high quality campaign as a result of the strong partnership working arrangements through the Penistone Line Partnership – securing the in-house marketing skills of Kirklees Council to develop and print the material on its behalf. Our Car Your Car has also used the local media to its advantage, and has reported anecdotal increases in membership as a direct result of media coverage.

A critical mass of initial users

12.10 Car clubs generally take time to establish themselves. Evidence from the case studies indicates that the lead-in time can be between 9 and 18 months, and that in many cases, users that had expressed strong interest during the feasibility stage did not immediately join, either because they had moved out of the *closed community*, or their commitment in principle had simply not been delivered in practice. In many cases, potential users will seek assurance that the scheme is operating effectively before they commit financially to it – after all, membership of a car club is promoted as a ‘change of lifestyle’, hence it is unreasonable to expect users to adopt this immediately.

12.11 This causes a financial dilemma for car club operators and developers. There is a need to ensure that vehicles are available from ‘Day 1’, with costs for leasing or purchasing the vehicles accruing from that point. However, utilisation of the vehicles (and hence financial return) is likely to take time to build up (as members join the scheme, get comfortable with its use, and possibly dispose of their (second) car). Therefore, in most cases, some level of pump priming money is required to establish and support the scheme in the early days (the

only exception to this was BedZED, where membership levels were secured from Day 1 of the implementation).

- 12.12 This pump priming can come from a number of sources, and for rural schemes has generally been provided by the Countryside Agency Grants over a three year period. In some cases, the three year period is enough to secure sufficient membership levels to enable the scheme to operate on a self financing basis, whereas other schemes require up to five years to fully test whether sustainability can be achieved. Even if schemes can demonstrate that they are self financing, they are unlikely to be able to cover additional staff costs to continue to support and promote the scheme still further.
- 12.13 Whilst grant funding has ensured the establishment of the limited number of car clubs to date, should this be removed, then the possibility for future schemes to be established (particularly in rural areas) is limited. This is not least because those groups that have the desire, passion and commitment to make the scheme work might not necessarily have the finances (or are prepared to risk their own investment to underwrite any commercial loan) to establish the scheme in the first place. This is particularly the case given the lack of defensible cases in rural areas where schemes can become both self financing, *and* pay back the initial investment. In order for the market for rural car clubs to grow, it is likely that support funding will be required in the long term – although the degree of funding is likely to be small, and far less than most other rural transport services.
- 12.14 For employer car clubs, the situation is somewhat different, as in many cases the opportunity can arise as a result of an existing vehicle fleet that can be converted for use as car club vehicles. This, combined with a ready-made target audience for car club membership, means that the finances become much more attractive. In these cases, there is a need for better and more information to fleet managers on the possibilities that are available to them, and this is covered in the following objectives.

Dedicated parking spaces adequately enforced

- 12.15 The parking pressure experienced daily in many of our towns and cities is one key reason why car clubs are likely to be successful. This is especially true where there is traditional terraced housing, with no off-street parking, and relatively narrow streets that were never designed to have cars parked on both sides of the street at the same time. Existing car clubs wishing to develop in such areas require designated parking spaces in order to function, and in turn, if these are to be on street, this means Traffic Regulation Orders (TROs) are needed.
- 12.16 At present, the process generally takes from three to six months, allowing for consultation and the level of objections (if any) received. However, there have been instances where the time taken is considerably longer. Poor communication and poor relationships between a council's parking services section and its legal services department have been known to hold implementation of a TRO up for months. The inability of a council to predict accurately when a TRO will be in place for a particular car club bay is an obstacle to the development of a car club, as the operator is unable to place an order for a car for that bay with any certainty.

- 12.17 Several councils already have experience of implementing TROs for car clubs, including Bristol, Ealing, Edinburgh, and Kensington & Chelsea, either as stand-alone actions or as part of controlled parking zones (CPZs). The cost varies, but in general should be less than £2,000 per space, and lower still if several can be put through at once. It is particularly cost effective for designated car club bays to be put through as part of a CPZ, as they will be integrated into the parking review, and in these cases, the experience is costs in the order of £1,000 - £1,500 per bay (or even less in some cases). Transport for London is now stipulating that in future CPZ parking reviews must make provision for car club bays, even if they have to lie dormant until there is demand for them.
- 12.18 The first time a council undertakes this exercise tends to be a learning experience for all parties. Issues that need to be taken into account include:
- ❑ Bay markings and signs
 - ❑ Permit system
 - ❑ Effective survey work
 - ❑ Enforcement
 - ❑ Visibility
 - ❑ Access
 - ❑ Personal safety considerations of the car club user.
- 12.19 Off-street parking for car club vehicles is also a matter for councils, when it involves the planning process. Car club parking bays need to be stipulated and designated in low-car housing and low-car mixed developments, sometimes as part of a Section 106 Planning Agreement (Section 75 in Scotland). One example of this trend can be found at the Grand Union Village site in west London, currently being built by Bryant Homes and with the first homes already occupied.
- 12.20 The importance of on-street spaces cannot be underestimated both for open and closed schemes, not least because they provide a very visible image of the presence of a car club, and demonstrate direct benefits for potential users. The provision of free car club parking spaces in city centres will be a major issue in increasing take-up. This applies to both closed and open schemes, although evidence from this research would suggest that many of the closed urban schemes, are likely to join the wider open schemes for that particular location. Indeed, many of the open scheme providers also offer guidance and support to closed communities (particularly employers) looking at ways to better manage the pool vehicle fleet, or to incorporate the pool vehicle fleet within the wider open car club.

Funding

- 12.21 Funding remains a major issue for all car club developments. The availability of secured funding enhances the chance of long term success – schemes that develop on low or inadequate budgets will generally fail to establish themselves in the long term. In some cases, feasibility studies had been overly optimistic, and the expected take-up rate had been slower than anticipated. In these cases, it was essential that support funding could be secured in order to maintain the scheme in the long term. Generally, those schemes that

were founded on good solid partnerships have been able to secure funding through a variety of sources in order to make up any shortfall of expectation.

Effective partnerships

12.22 Through the development of an effective partnership, any *closed community* enhances the possibility for success. This is more noticeable for rural schemes (particularly for funding and promotion, but also to improve coordination of other support services), but is equally relevant for urban, employer and development-led schemes. One of the key issues associated with car clubs is the move towards a more sustainable lifestyle, utilising public transport, walk, cycle and car club in a responsible and effective manner. These supporting networks can best be enhanced to meet car club members' needs if they form part of a partnership for the car club as a whole. In all of the case study user interviews, members expressed that they had changed the way they use supporting transport networks, and had become more aware of the possibilities for them. They also felt that the car club offered a platform to invoke change in these networks (through the collective views and needs of the members), and that they had a better chance to secure improved accessibility generally on the back of the car club service.

Provision of a suitable number of vehicles

12.23 This is a very basic requirement of any car club, and directly affects whether the club can meet user needs. Car club users will only support the scheme if they feel that a vehicle will be available for them, when they need it.

12.24 Interestingly, all of the case study users raised this as an issue, but expressed the view that their particular club worked effectively for them, and that only on very few occasions had they experienced difficulty in accessing a vehicle. In these cases, users had either:

- ☐ Hired a car (generally at a discount secured by the car club)
- ☐ Taken a taxi (again, generally at a discount secured by the car club)
- ☐ Taken public transport
- ☐ Arranged a lift with a friend / colleague
- ☐ Used a vehicle from the open car club scheme (in the case of BedZED)
- ☐ Not taken the trip at all, or delayed to a more suitable time when a car club vehicle was available

12.25 The key issue is being able to establish a balance between the need to achieve high vehicle utilisation rates, and high numbers of members per car club car, with the ability to service users needs effectively. It is this issue that leads us to conclude that car clubs are more effective when the travel demands of users are diverse (possibly covering a mix of employment, residential and leisure uses), spread across the entire 24 hour day.

Development Issues

12.26 It is worth noting the additional benefits that *closed community* car clubs can bring specifically to new development areas. Car clubs provide the opportunity to develop, with

confidence, residential and commercial units with high densities and low car parking allocations, thus ensuring the usable space is maximised. This has the ability to transform the way in which urban areas are planned, and can assist considerably in meeting the demands of housing identified through the Government's growth strategies, whilst reducing the impact upon green space development. This is a significant issue, and one which is worthy of further exploration.

12.27 The only case study site where this was fully explored was BedZED, which operates on a commercial basis, with success attributed to the following factors:

- ❑ Strong partnership working between key agencies (see above)
- ❑ Strong marketing and awareness raising campaign (including one-to-one sessions with residents)
- ❑ Good mix of residential and commercial developments, enabling vehicles to be used throughout the day and evening
- ❑ Strong public transport connectivity of the site
- ❑ Good level of environmental awareness amongst residents of BedZED (strong element of 'socially conscious / active citizens' who were 'early adopters').
- ❑ Physical costs (and constraints) of on-site car parking spaces
- ❑ Good mix of vehicle types (including initially an estate vehicle)
- ❑ Integration with London City Car Club
- ❑ The presence of a strong and well informed 'Champion' for the scheme
- ❑ Travel surveys used to improve scheme performance (for example, by offering on-site delivery services to reduce the need for supermarket trips).

12.28 The car club was fundamental in enabling the development to offer an increased floor area per unit (usable space), and convince prospective buyers that they could lead a sustainable lifestyle through membership of the car club.

12.29 One of the issues raised by the scheme developer was the certainty of the car club over the long term (if the car club no longer existed for whatever reason, then it would severely compromise the strategy to make the development work as a whole).

Affordability

12.30 In order to be effective, car clubs must offer members an affordable product that is seen to compete with private car ownership. This is particularly important in disadvantaged communities. In many such areas, residents can purchase a second hand vehicle at very low cost (during one of the case study interviews, second hand cars were noted for sale for £150), making the financial savings associated with car club membership less apparent. Evidence from the rural operators suggested that membership remained price-sensitive, and that an ongoing effort was placed upon value-pricing strategies. This has a knock-on effect with regard to the commercial feasibility of the scheme, and requires that the scheme increase demand either through higher utilisation rates per vehicle, or higher numbers of members per vehicle.

12.31 Many of the case study users recognised that they were receiving 'very cheap motoring' and the car club enabled them to drive a modern vehicle at low cost. This remained an important factor in them maintaining membership of the car club.

13 CAR CLUBS – OBJECTIVE 3

Identify potential barriers to the set-up and use of car clubs in closed communities, and any potential solutions.

Summary

- ❑ The barriers are generally well known, as are the potential solutions
- ❑ Some of these solutions require policy interventions or national support, some require investment in general awareness raising and marketing, and others require an evolving change in behaviour / lifestyle.

13.1 The tables on the following pages summarise the potential barriers to take-up, combined with a commentary on the potential solutions to each.

| Barrier | Explanation | Potential Solutions |
|--|---|--|
| Funding (rural schemes) | <ul style="list-style-type: none"> ❑ Costs required to establish scheme (set-up), including feasibility, design, business case, marketing and promotion, car purchase, booking system ❑ Lack of long term certainty over grant support funding | <ul style="list-style-type: none"> ❑ Partnerships - for example 'Our Car Your Car' based in Colne Valley, Yorkshire. The car club was initiated by a local community trust, which formed a steering group of interested individuals led by an enthusiastic officer of the trust. They commissioned and raised funds for a feasibility study which reported that a car club was a viable option. No further local development input was available at this point; however the Penistone Line Partnership (PLP) stepped in to continue the work. PLP is a community rail partnership with the main aim of helping to develop the use of the Penistone line between Huddersfield and Sheffield. ❑ More flexible access to Government Grant Funding |
| Social / Cultural Factors | <ul style="list-style-type: none"> ❑ Seen as being too green by users ❑ Perceived by transport planners / developers as threat to conventional approach ❑ Reduced independence ❑ Reduced status (especially in the UK where there is a cultural attachment to cars as status symbols and access to freedom) ❑ Lack of willingness to change lifestyle ❑ Seen as providing support to the better off by councils | <ul style="list-style-type: none"> ❑ Improved promotional material / national campaigning to raise awareness, and promote benefits. ❑ Greater focus upon financial savings in marketing material ❑ Greater variety of car club vehicles, satisfying both practical and lifestyle demands ❑ Higher pricing on other private car use (congestion charging?) ❑ Improved knowledge of car clubs within both the transport planning, and land-use planning sectors |
| Perceptions of Cost by (potential) members | <ul style="list-style-type: none"> ❑ Perceived as high cost, whilst the cost of owning and maintaining a car is not taken account of by users. | <ul style="list-style-type: none"> ❑ Off the shelf financial models to demonstrate financial impact ❑ Flexibility in the choice of membership options (i.e. select your 'pay as you go' tariff) |

| Barrier | Explanation | Potential Solutions |
|--|---|---|
| Complicated Cost Structures | <ul style="list-style-type: none"> ❑ Charging mechanisms that offer variable rates for use, and cause confusion over the amount used per trip | <ul style="list-style-type: none"> ❑ Clearer and simpler payment structures, yet maintaining incentives for off-peak, and fuel efficient vehicle use. |
| Perceptual Issues | <ul style="list-style-type: none"> ❑ Difficulty in accessing parking stations ❑ Frustration when all car club cars have been booked ❑ Technological unreliability ❑ Irresponsible behaviour of other club members | <ul style="list-style-type: none"> ❑ All can be addressed by a well formulated strategy in response to user needs. Needs strong marketing of these areas when developing scheme detail ❑ Clearly defined rules of membership, with well developed cleaning and maintenance regime. ❑ Warning and exclusion for members that infringe rules ❑ Technology is becoming more reliable and readily available 'off the shelf' |
| Social Exclusion | <ul style="list-style-type: none"> ❑ Car Club model does not directly suit areas / populations most at risk from social exclusion (e.g. low density rural areas / elderly) | <ul style="list-style-type: none"> ❑ Should be considered as part of a strategy offering increased accessibility through a range of measures ❑ Membership levels need to reflect economic status of area (reduced membership, with higher hourly charge rates, and greater number of members per car) |
| Apathy / Lack of public interest / not addressing User Needs | <ul style="list-style-type: none"> ❑ For example in Holbeach, Lincolnshire, where funding was secured, but the scheme was 'shelved' as a result of lack of interest (despite a high quality promotional campaign) | <ul style="list-style-type: none"> ❑ Use of feasibility study to determine whether a scheme is viable ❑ Better understanding of the mechanisms that result in an effective scheme ❑ Strong campaigning, and recruitment of influential champion |

| Barrier | Explanation | Potential Solutions |
|--|--|--|
| Political | <ul style="list-style-type: none"> ❑ Lack of national and local support / profile | <ul style="list-style-type: none"> ❑ Improved political lobbying at local level ❑ Improved understanding amongst members as well as officers at the local authority level of the potential to cut local journeys, and short term funding and pump priming that is likely to be needed ❑ Ensuring car clubs are part of the LTP process |
| Lack of 'long term buy-in' by developers | <ul style="list-style-type: none"> ❑ Perception that developers support the case pre-planning permission, but do not offer support long term. Often, no viable management group that can facilitate car club in long term. | <ul style="list-style-type: none"> ❑ Change in planning process ❑ Increased resources for planning departments to deal with enforcement issues / support ❑ Increased awareness raising with development profession |
| Lack of technical knowledge | <ul style="list-style-type: none"> ❑ Very little UK experience, with no real operating experience amongst local authorities. | <ul style="list-style-type: none"> ❑ Best Practice Guidance produced as part of this study will improve understanding of the principles and process ❑ Lobbying role for CarPlus to engage local authorities and spread best practice |
| Lack of public transport support | <ul style="list-style-type: none"> ❑ Potential users feel unable to commit to the car club, due to the lack of public transport alternatives should the scheme be unable to meet their particular travel needs. Particularly relevant in rural areas. | <ul style="list-style-type: none"> ❑ Closer partnership working with bus operators ❑ Use of quality contracts through the Second Local Transport Plan, to ensure service delivery meets necessity criteria ❑ Standard protocols for integrated smartcard ticketing will assist in coordination. UK based case study needed on effective integration |
| Securing on-street spaces | <ul style="list-style-type: none"> ❑ Lack of control over the ability to deliver on-street spaces ❑ Long lead in time to achieve traffic regulation orders | <ul style="list-style-type: none"> ❑ Local authorities to streamline the process of TRO for car club spaces ❑ Ensuring car clubs are part of the LTP process, and hence part of the integrated transport strategy for the area |

| Barrier | Explanation | Potential Solutions |
|---|--|---|
| Ability to lease vehicles as a new start up company | <ul style="list-style-type: none"> Leasing companies often require stringent rules on the financial backing of an organisation before a lease is agreed | <ul style="list-style-type: none"> Will require some degree of underwriting, even with a viable business case. CarPlus could act as a broker in this respect, provided a critical mass can be established |
| Insurance | <ul style="list-style-type: none"> The UK insurance market, unlike Europe, focuses upon the driver and not the vehicle Excessive paperwork to enable members to join | <ul style="list-style-type: none"> Insurance industry to be made more aware of growing prominence of car clubs, and the need for flexible insurance deals Some clubs have classed their members as employees, hence covered under corporate policies (for example where a car club utilises fleet vehicles) One car club operator has recently been authorised by its insurer to undertake delegated processing of member insurance details. This is leading to a faster turnaround of membership applications. There is also evidence that, as the insurance industry gains actuarial experience of car clubs, the age envelope is widening: <ul style="list-style-type: none"> at least one operator can now take 21 – 23 year olds, provided they have a clean licence, slightly more driving experience, and the operator is willing to accept a bigger excess (which can be passed on to the individual member or spread across all members); and this operator can put forward 70 – 75 year olds, albeit still on a case by case basis. |
| Emergence of more flexible rental market | <ul style="list-style-type: none"> More flexible car hire services (for example, by the hour payment) removes attractiveness of joining car club. | <ul style="list-style-type: none"> Whilst car hire companies have explored the market, there are no real operations at present that compete in the same market as car clubs (particularly for rural areas) |

14 CAR CLUBS – OBJECTIVE 4

Assess how implementation of and participation in car clubs in closed communities may be encouraged in the future. What additional features or associated services or facilities may assist?

Summary

- ❑ There is a great deal of scope for the increase and enhancement of car club activity for closed communities across the UK
- ❑ This requires action across a range of organisations including national and local government, service providers (car clubs and public transport), the car industry and IT developers.
- ❑ CarPlus and the car club service providers have a key role to play in facilitating this development, both in providing technical guidance and support, and lobbying for local scheme development.

14.1 There is clearly a great deal of scope for the enhancement and growth of car clubs for closed communities. The following provides a commentary on the key issues:

Strategic Issues

14.2 Car clubs have been operating successfully in northern Europe and North America for many years, but are – as yet – under-developed in the UK. Establishing car clubs in the UK is not for the faint-hearted, with service providers and other promoters facing obstacles that are not experienced abroad.

14.3 These obstacles are long-term and institutional, such as:

- ❑ The driver rather than the car needing to be insured, and other insurance-related difficulties (e.g. driver age restrictions, lack of actuarial experience in the insurance industry, and so on);
- ❑ Particularly outside London, the requirement for partnership working between many different organisations in order to achieve good quality integrated public transport, and the challenges inherent in this, make it difficult to put together a joint public transport / car club offering, a key element in many successful schemes abroad.

14.4 Despite UK drivers regularly experiencing serious congestion, parking shortages, and all the additional stress these imply, it would seem that the conditions for establishing car clubs are far from ideal. It is therefore proposed that the guidance should focus on creating the right environment in which car clubs – no matter how they are operated or owned – can flourish.

14.5 It is more appropriate for CarPlus and the car club operators themselves to put together examples of best operational practice and operational guidance (for example, the CarPlus Toolkit already covers all aspects of operational development). Nonetheless, we have

provided a number of suggestions and recommendations for car club operators themselves as part of this study.

Local Government Actions

- 14.6 If local authorities are to genuinely see the establishment and long term survival of car clubs as important components of their integrated transport strategy, then they need to make it practical for car club operators to be effective (i.e. create the right local environments).

Local Transport Plans

- 14.7 Many local authorities can include car clubs in their LTP2, due for completion by 31st July 2005 (Provisional). Advice on car clubs needs to be incorporated into the final version of the LTP2 guidance.

Council staff car pool

- 14.8 Local authorities (and their partner organisations) should consider car club cars for use as staff pool cars wherever possible. For example, the City of Edinburgh Council has been evaluating the use of Edinburgh City Car Club vehicles to substitute for part of its pool car fleet, and is currently moving this evaluation on to a next stage of monitoring and analysing the use of these cars in more detail, with the aim of maximising the overall benefits.

On-street parking

- 14.9 Local authorities should review their TRO processes, to ensure that the provision of reserved car club-only on-street parking spaces can be put in place in a more timely and cost effective manner (see discussion in Section 12.17). The proposed Accreditation Scheme for car clubs should assist with this.

Rural areas: wider social objectives

- 14.10 Local authorities in rural areas need to consider whether there is a sound case for funding car club development (i.e. a car club coordinator/promoter with some 'gap' funds to cover the start-up deficit, when member revenues do not cover car costs), and where it is feasible to establish car clubs that meet wider social (rather than just environmental) objectives.
- 14.11 There will be instances, as has been the experience with some Wheels To Work moped hire schemes, where it may even be practical to subsidise trips at a rate equivalent to or better than can be done by commissioning socially necessary public transport in the same area or neighbourhood. This would still mean the council was promoting the bus, as it is clear from research elsewhere that car club users also make extensive use of public transport.

Government Action at National Level

National promotion

- 14.12 Many comments were received during the study about the need to educate everyone about the difference between car sharing (i.e. sharing a particular car journey) and car clubs (i.e.

sharing use of a particular fleet of cars). The Government could assist greatly here by getting key stakeholders together and ensuring there was a coordinated and concerted campaign to promote better use of the car.

- 14.13 Any national promotion of car clubs should concentrate on cost savings and health benefits for individuals. It should appeal to the wallet and offer people lifestyle enhancements.

Road signs and parking bays

- 14.14 Since the introduction of TSRGD 2002 on 31 January 2003, signs indicating that on-street parking bays are reserved for car club vehicles do not need authorising, but the road markings indicating 'Car Club' do require authorisation.

- 14.15 In discussion with car club operators, the study revealed consensus that there is a need for a standard car club parking bay sign, and for parking bay road markings. In Edinburgh, it is understood that a proposal for a such a sign is being put to the Scottish Executive.

- 14.16 Anyone implementing and enforcing car club parking bays faces similar difficulties to those experienced with designated parking for disabled people. It is not just about requiring a 'big stick' to be wielded, as it is clear that some people park in a bay reserved for a car club vehicle by accident, not just maliciously. As with many aspects of modern life, car club bays need brand recognition, hence a standard approach to signing and lining for car clubs nationally would assist greatly.

- 14.17 The Institute of Highway Incorporated Engineers is proposing to publish a Design Guide on Car Club Parking in 2005, which will be hopefully be welcomed by car club operators and councils alike.

Financial support for car club start-ups

- 14.18 The new Transport Innovation Fund (proposed in The Future of Transport, July 2004) should have room for supporting the development of car clubs. However, we recommend that this funding should only be spent on car club development where the council can demonstrate unequivocally that car club members are going to be offered a reasonable 'deal' on public transport in the area. Quality contracts could assist in this area.

Low car ownership and development control

- 14.19 Car clubs have a significant role to play in enabling higher density development, through reduced car parking allocations. As such, a key driver for the delivery of car clubs could be the development control process, and the enforcement of reduced car parking allocations, particularly in dense urban developments (this is particularly the case where a city wide open car club exists). In this respect there is a dual responsibility for both the ODPM and local government planning departments to encourage the development of low car ownership housing through planning regulations.

Other areas of national support

- 14.20 Given that many local authorities, government offices and other public sector organisations currently operate their own vehicle fleets (pool vehicles), these sites should be encouraged to consider the establishment of staff based car club cars wherever possible and feasible. This would assist in providing a greater degree of understanding of the processes to establish clubs, and would serve to strengthen the case study experience of delivery for closed communities.
- 14.21 Finally, the current consultation draft of the Local Transport Plan 2 guidance makes no reference specifically to car clubs. It is considered that whilst the guidance is generally not 'mode specific' there is a case for including car clubs specifically, given that they are a relatively new concept to the UK, and may not be recognised as a tool within the integrated transport network unless specific reference is made to their role.

Car Club Service Providers

- 14.22 The media is a significant ally of car clubs, hence car club providers should continue in their efforts to gain coverage in local and national media. There have been some good examples of press coverage in recent months, such as the back page of the Guardian, the lifestyle section of The Times, and a feature in The Dalesman (Yorkshire). However, car clubs need to be seen in the public arena through popular light entertainment programmes (such as daytime TV entertainment / news shows).
- 14.23 The Countryside Agency's support scheme for rural car clubs is currently being evaluated by consultants. Their report is not due for completion until 2005. Nonetheless some interesting differences in the membership profiles of urban and rural car clubs are beginning to emerge. Current membership of urban car clubs broadly reflects the experience in Europe with early members coming chiefly from managerial and professional groups. The membership profile of rural schemes is far more diverse, attracting members from across the social scale. This project has also examined the point at which potential members take the decision to sign up. 77% of rural car club members join at a point of change in their lives. This may in part explain the slow initial take-up of car clubs. The general process can be summarised as follows;
- ☐ People become aware of the car club
 - ☐ At that time they may be running an old car, have a company car, and generally be able to afford to run the car comfortably
 - ☐ At this point they do not change their travel habits
 - ☐ But then their circumstances change, owing to retirement, moving house, changing jobs, children having grown up and left home, and so on
 - ☐ It is at this moment that it can be appropriate or even necessary to re-evaluate their travel choices
 - ☐ The car club means that it is possible for them to give up owning a car or manage without purchasing a second car.

14.24 A sound pattern of scheme development in rural areas may be being suggested by the Our Car Your Car experience, starting with a small successful rural car club scheme, and then extending it to nearby towns and villages. Without this kind of pattern of development it will be difficult to support the work of the car club coordinator in rural areas.

14.25 Car club service providers should continue to provide more information on the cost of running a car and the proportion of household income spent on personal car ownership, to ensure people have the information to make more rational travel choices.

14.26 UK-wide, and then internationally, the car club providers need to work together to promote and develop the inter-operability of car club schemes.

Car industry

14.27 The car industry does have a role to play in the establishment of successful car clubs. The likely roles of the respective parties are outlined below.

Car manufacturers

14.28 The first in-car remote access control system for car clubs to be fitted in the UK was for Budget's Edinburgh City Car Club operation. At the time, it cost over £2,000 per vehicle. The current cost of fitting the Drive-IT system is in the region of £1,000 per car. Although the cost is coming down over time, it remains a barrier to entry into the car club market.

Car manufacturers could significantly reduce the capital cost of the introduction of car clubs by supplying cars already fitted with the relevant electronic equipment for remote access to the immobiliser and engine management system. Besides benefiting car clubs, this will have other applications as well, notably providing increased security.

14.29 Both of the above would greatly assist smaller car club developers in particular.

Car rental companies

14.30 It is often assumed that car clubs are just a new type of car rental company, but in practice they are two distinctly different types of operation. A car club does not want its vehicles clocking up hundreds of miles a day, nor does it want one member to book out a car for many days at a time, hence a car club needs to have a good relationship with an appropriate car rental company (i.e. one that is within reach of the car club's members, geographically and financially). For longer journeys and longer hire periods, car club members must be able to acquire a rental car from the car club's rental partner quickly and easily, with a minimum of fuss and at a competitive rate. Therefore, increased car club use is likely to increase the market for hire cars as car club members are more likely to use hire cars for holidays in the UK.

Motor car insurance

14.31 Motor insurance companies are currently showing little interest in the development of car clubs. In the immediate future, as the volume of trade car clubs represent is very small, this

is no doubt understandable. Taking a longer view, however, insurance companies ought to find car club insurance a useful niche market.

14.32 To date, the insurance arrangements have been cumbersome, taking too much time to process. They are also restrictive, with most car clubs struggling to increase the 23 – 70 years age envelope. This is particularly relevant as evidence emerges that younger drivers and older drivers could well be key segments of the car club market.

14.33 Of particular interest, is the Norwich Union trial of pay-as-you-drive insurance. The company says that by the end of October 2004, the first 5,000 motorists will have had a “black box” (GPS tracking using mobile phone technology to transmit data) fitted in their cars. The real-time vehicle data collected through the system will allow monthly insurance payments to be calculated based on how often, when and where the vehicle is used. The volunteers’ insurance premiums will not be changed during the pilot programme, so the switch to monthly billing on a pay-as-you-drive basis will only be theoretical at this stage.

Human resources and personnel

14.34 At present, some employment practices and terms and conditions of employment can act against the use of car clubs and car sharing by employees. For example:

- ❑ A requirement for an essential car user to undertake a minimum amount of business travel by car in order to retain ‘essential’ status.
- ❑ A requirement that essential car users bring their cars to work every day, rather than when it is essential.
- ❑ Travel expenses reimbursement processes that do not allow claims to be made for car club use.
- ❑ Poor management, that encourages long-hours or “I’ve no idea when I’ll be home from work” culture, thereby making it difficult for car sharing to work.
- ❑ Low staffing levels and high levels of sickness, leaving workers with no option but to work extra hours with little or no notice.
- ❑ Middle managers and supervisors unable to deal with car sharers and car club users needing to stick to an external timetable.

Public transport operators

14.35 Public transport has a key role to play within the integrated transport network, and should be seen as a complimentary service to that provided by car clubs. As such, local authorities, working with local public transport operators should:

- ❑ Be progressive in the scope of bus quality partnership, involving any local car club operator within the partnership framework
- ❑ Consider inter-operability issues when developing smartcard applications
- ❑ Consider car clubs as a viable addition to the public transport network
- ❑ Consider joint marketing of car clubs in rural areas

- ❑ Offer discounts to car club users (and vice versa)

Information and communications technology

14.36 The effective use of modern information and communications technologies will have a considerable bearing on the success of car clubs. The appropriate application of ICTs will:

- ❑ Minimise the car club operator's transaction costs for both bookings and invoices.
- ❑ Maximise the ability of the car club to mirror as closely as possible the traditional car paradigm of spontaneous travel, by allowing members to make bookings from within the car on a speculative basis.
- ❑ Allow inter-operability between different car club operations in different parts of the country and, ultimately, elsewhere in the world.

14.37 ITSO (Integrated Transport Smartcard Organisation), the DfT backed non-profit-distributing organisation, has laid the foundations for smart card use in public transport. There is no reason why the ITSO standard should not also be applied to car club smart cards, especially as car club members are very likely to be public transport users.

14.38 The ability to use the same smart card as a catch-all 'electronic purse' for all public transport, parking, car club, taxi and other travel arrangements will help make car club membership more attractive.

Other issues - car club standard development path and start-up funding

14.39 It is difficult to generalise about how car clubs develop. Nonetheless, a pattern is apparent, and it is worthwhile taking a look at this against a likely timescale.

| Activity | Timescale |
|--|----------------|
| Baseline assessment & survey work to determine location of first parking bays | 1 – 6 months |
| Preparation of business plan and/or proposals | 2 – 3 months |
| One-off infrastructure work | 3 – 12 months |
| Car club operator selection - tender process, if required (e.g. as part of planning agreement) | 2 – 4 months |
| Car club operator commences investment, first cars on street | 2 – 6 months |
| Steady growth until car club is viable | 18 – 36 months |

14.40 Some of the activities can be undertaken in parallel, and therefore there are bound to be variations in time. Nonetheless, in current conditions, it is unlikely that a car club will become viable in a specific area in less than three years, and it can take at least five years.

14.41 There is considerable evidence for this kind of development path outside the UK. In the UK, it poses a major problem for any public sector body wishing to underpin the development of

car clubs in its area. Funding streams lasting more than two or three years are very hard to come by, especially revenue funding.

14.42 However, car clubs are being established with a firm eye on achieving viability, meaning financial self-sufficiency. The business model for most car clubs is one where the initial investment period leads to financial stability and further expansion can be fuelled from internal resources. This is a critical difference when compared to conventional subsidised public transport, as it means that public sector funding should be being directed to car clubs from capital, not revenue, programmes. It is not apparent that this has been widely appreciated, and it is certainly not recognised in the draft guidance for LTP2.

15 CONCLUSION

15.1 This Final Report has presented a summary of the study findings. The pertinent issues are summarised as follows:

Car Sharing

- ❑ There is significant activity in the uptake in schemes across the UK, although only limited evidence can be found to substantiate the effectiveness of many of these schemes. There is an indication that a number of car sharing schemes simply 'go through the motion of providing a car sharing database', without following up with real commitment to change travel behaviour. This is a particular concern where such schemes have been implemented as part of a planning condition, or where the scheme is delivered by a local authority, acting as a best practice advisor for wider employer schemes.
- ❑ A range of models already exist to support car sharing across the spectrum of closed communities. These vary in scale, cost, and appropriateness (to the needs of a particular site).
- ❑ Whilst we might have expected the technical barriers to have all been addressed by scheme providers, evidence from scheme promoters indicates that there is still more to be done to improve the matching capability of (some) automated systems.
- ❑ The main issues associated with uptake relate to perceptual and societal barriers, including a general lack of willingness to change existing travel behaviour and sharing their vehicle. In most cases this is only broken down once travelling conditions become intolerable (for example in areas with acute parking problems or congestion), or where sufficient personal incentives are provided.
- ❑ In general, successful schemes demonstrate: a committed, enthusiastic and influencing scheme administrator / champion; full management support and commitment; and genuine need in terms of site parking problems; a strong marketing campaign; and a mix of suitable incentives to encourage staff take-up.
- ❑ Infrastructure changes at the national level including HOV lanes and congestion charging (with exemptions for sharers), are likely to further increase the uptake of *closed community* car sharing schemes.
- ❑ Little evidence was found of the use of user needs analysis to determine strategies to increase usage (other than simple questionnaires and GIS postcode plots).
- ❑ In most cases, car sharing schemes are implemented as part of a wider package of measures, promoted under a branded 'travel plan'.
- ❑ Evidence from practitioners suggests that car sharing could unlock access to work opportunities for those job seekers currently excluded due to a lack of transport provision. This need to be addressed at the time of seeking employment, requiring closed schemes to be more actively promoted through Job Centre Plus.
- ❑ The processes to support car sharing in schools are generally more informal, and at the individual school level are less well reported. There would appear to be less scope to

extend formal car sharing schemes to the school environment, primarily due to parental fears (although pilot schemes are currently being implemented to test how these can be best addressed).

Car Clubs

- ❑ There are a limited number of car clubs in the UK, although the number is slowly rising. This slow early growth curve is reasonably consistent with the growth curves experienced in Switzerland and Germany, where membership levels have now reached several thousand members.
- ❑ Joining a car club as a substitute for an existing car or as an alternative to purchasing a car, is likely to mean participating in a multi-modal lifestyle if this decision is to be a success, and is also likely to mean participating in a more sustainable lifestyle.
- ❑ The strongest potential for commercial car clubs lies in densely urban areas where parking is minimal, public transport provision is good and the lifestyle of members, in totality, produces an un-peaked demand for cars.
- ❑ Rural car clubs have a role to play in increasing accessibility in rural areas, although will require some level of support funding for both start-up and on-going operations (in the long term, rural clubs might become entirely self funding, as the network of clubs grows, and services become generally more integrated).
- ❑ Up-front car club membership fees and deposits may be (unintentionally) serving to exclude the socially and economically disadvantaged individuals that a car club has been designed to assist.
- ❑ Car clubs are likely to require pump priming for up to five years after starting out.
- ❑ Support from potential users from the outset is crucial to the successful implementation and operation of a car club. Local Authorities and their partner organisations could assist by becoming corporate members from the outset (possibly using their own vehicle fleet as car club vehicles).
- ❑ Car clubs demand a change in lifestyle by the user, which inevitably takes time to achieve – this needs to be recognised when understanding the lead in times required for self financing operation.
- ❑ Perceptual barriers form an important obstacle to the increase in membership of existing car clubs and to the formation of new car clubs.
- ❑ Marketing techniques and campaigns complemented by detailed (related) information are key to increasing the profile of car clubs and addressing perceptual barriers.
- ❑ More needs to be done to integrate car clubs into local transport planning.

Appendix A:
Example Car Sharing Cost Savings

Assumptions:

- Savings based on return journeys to and from workplace
- Estimated running costs include: Petrol (unleaded, 81.3p per litre), tyres, service labour costs
- replacement parts, and parking and tolls
- They exclude fixed running costs: road tax, insurance, cost of capital, depreciation and breakdown cover
- Annual savings based on 44 weeks sharing per year
- New car running costs only

| Based on AA figures (2004) | |
|----------------------------|----------------------------|
| Miles | AA estimated running costs |
| up to 10,000 | £0.1517 |
| 10,000 -13,000 | £0.1653 |
| 13,000 - 20,000 | £0.1957 |
| 20,000 - 30,000 | £0.2263 |
| 30,000 + | £0.2675 |

| Cost of car new up to £10,000 | | | | | |
|-------------------------------|----------------|---|---------------------------------------|--|---------------------------------------|
| Distance to work (miles) | Number sharing | Weekly cost per person (single occupancy) | Weekly savings per person (car share) | Monthly savings per person (car share) | Annual savings per person (car share) |
| 5 | 2 | £ 7.59 | £ 3.79 | £ 13.91 | £ 166.87 |
| 5 | 3 | £ 7.59 | £ 5.06 | £ 18.54 | £ 222.49 |
| 5 | 4 | £ 7.59 | £ 5.69 | £ 20.86 | £ 250.31 |
| 10 | 2 | £ 15.17 | £ 7.59 | £ 27.81 | £ 333.74 |
| 10 | 3 | £ 15.17 | £ 10.11 | £ 37.08 | £ 444.99 |
| 10 | 4 | £ 15.17 | £ 11.38 | £ 41.72 | £ 500.61 |
| 15 | 2 | £ 22.76 | £ 11.38 | £ 41.72 | £ 500.61 |
| 15 | 3 | £ 22.76 | £ 15.17 | £ 55.62 | £ 667.48 |
| 15 | 4 | £ 22.76 | £ 17.07 | £ 62.58 | £ 750.92 |
| 20 | 2 | £ 30.34 | £ 15.17 | £ 55.62 | £ 667.48 |
| 20 | 3 | £ 30.34 | £ 20.23 | £ 74.16 | £ 889.97 |
| 20 | 4 | £ 30.34 | £ 22.76 | £ 83.44 | £ 1,001.22 |
| 25 | 2 | £ 37.93 | £ 18.96 | £ 69.53 | £ 834.35 |
| 25 | 3 | £ 37.93 | £ 25.28 | £ 92.71 | £ 1,112.47 |
| 25 | 4 | £ 37.93 | £ 28.44 | £ 104.29 | £ 1,251.53 |
| 30 | 2 | £ 45.51 | £ 22.76 | £ 83.44 | £ 1,001.22 |
| 30 | 3 | £ 45.51 | £ 30.34 | £ 111.25 | £ 1,334.96 |
| 30 | 4 | £ 45.51 | £ 34.13 | £ 125.15 | £ 1,501.83 |

| Cost of new car £10,000- £13000 | | | | | |
|---------------------------------|----------------|---|---------------------------------------|--|---------------------------------------|
| Distance to work (miles) | Number sharing | Weekly cost per person (single occupancy) | Weekly savings per person (car share) | Monthly savings per person (car share) | Annual savings per person (car share) |
| 5 | 2 | £ 4.13 | £ 4.13 | £ 15.15 | £ 181.83 |
| 5 | 3 | £ 2.76 | £ 5.50 | £ 20.18 | £ 242.20 |
| 5 | 4 | £ 2.07 | £ 6.20 | £ 22.73 | £ 272.75 |
| 10 | 2 | £ 8.27 | £ 8.27 | £ 30.31 | £ 363.66 |
| 10 | 3 | £ 5.51 | £ 11.01 | £ 40.37 | £ 484.40 |
| 10 | 4 | £ 4.13 | £ 12.40 | £ 45.46 | £ 545.49 |
| 15 | 2 | £ 12.40 | £ 12.40 | £ 45.46 | £ 545.49 |
| 15 | 3 | £ 8.27 | £ 16.51 | £ 60.55 | £ 726.59 |
| 15 | 4 | £ 6.20 | £ 18.60 | £ 68.19 | £ 818.24 |
| 20 | 2 | £ 16.53 | £ 16.53 | £ 60.61 | £ 727.32 |
| 20 | 3 | £ 11.02 | £ 22.02 | £ 80.73 | £ 968.79 |
| 20 | 4 | £ 8.27 | £ 24.80 | £ 90.92 | £ 1,090.98 |
| 25 | 2 | £ 20.66 | £ 20.66 | £ 75.76 | £ 909.15 |
| 25 | 3 | £ 13.78 | £ 27.52 | £ 100.92 | £ 1,210.99 |
| 25 | 4 | £ 10.33 | £ 30.99 | £ 113.64 | £ 1,363.73 |
| 30 | 2 | £ 24.80 | £ 24.80 | £ 90.92 | £ 1,090.98 |
| 30 | 3 | £ 16.53 | £ 33.03 | £ 121.10 | £ 1,453.19 |
| 30 | 4 | £ 12.40 | £ 37.19 | £ 136.37 | £ 1,636.47 |

| Cost of new car £13,000 - £20,000 | | | | | |
|-----------------------------------|----------------|---|---------------------------------------|--|---------------------------------------|
| Distance to work (miles) | Number sharing | Weekly cost per person (single occupancy) | Weekly savings per person (car share) | Monthly savings per person (car share) | Annual savings per person (car share) |
| 5 | 2 | £ 4.89 | £ 4.89 | £ 17.94 | £ 215.27 |
| 5 | 3 | £ 3.26 | £ 6.52 | £ 23.89 | £ 286.74 |
| 5 | 4 | £ 2.45 | £ 7.34 | £ 26.91 | £ 322.91 |
| 10 | 2 | £ 9.79 | £ 9.79 | £ 35.88 | £ 430.54 |
| 10 | 3 | £ 6.52 | £ 13.03 | £ 47.79 | £ 573.48 |
| 10 | 4 | £ 4.89 | £ 14.68 | £ 53.82 | £ 645.81 |
| 15 | 2 | £ 14.68 | £ 14.68 | £ 53.82 | £ 645.81 |
| 15 | 3 | £ 9.79 | £ 19.55 | £ 71.68 | £ 860.22 |
| 15 | 4 | £ 7.34 | £ 22.02 | £ 80.73 | £ 968.72 |
| 20 | 2 | £ 19.57 | £ 19.57 | £ 71.76 | £ 861.08 |
| 20 | 3 | £ 13.05 | £ 26.07 | £ 95.58 | £ 1,146.96 |
| 20 | 4 | £ 9.79 | £ 29.36 | £ 107.64 | £ 1,291.62 |
| 25 | 2 | £ 24.46 | £ 24.46 | £ 89.70 | £ 1,076.35 |
| 25 | 3 | £ 16.31 | £ 32.58 | £ 119.47 | £ 1,433.70 |
| 25 | 4 | £ 12.23 | £ 36.69 | £ 134.54 | £ 1,614.53 |
| 30 | 2 | £ 29.36 | £ 29.36 | £ 107.64 | £ 1,291.62 |
| 30 | 3 | £ 19.57 | £ 39.10 | £ 143.37 | £ 1,720.44 |
| 30 | 4 | £ 14.68 | £ 44.03 | £ 161.45 | £ 1,937.43 |

| Cost of new car £20,000 - £30,000 | | | | | |
|-----------------------------------|----------------|---|---------------------------------------|--|---------------------------------------|
| Distance to work (miles) | Number sharing | Weekly cost per person (single occupancy) | Weekly savings per person (car share) | Monthly savings per person (car share) | Annual savings per person (car share) |
| 5 | 2 | £ 5.66 | £ 5.66 | £ 20.74 | £ 248.93 |
| 5 | 3 | £ 3.77 | £ 7.54 | £ 27.63 | £ 331.57 |
| 5 | 4 | £ 2.83 | £ 8.49 | £ 31.12 | £ 373.40 |
| 10 | 2 | £ 11.32 | £ 11.32 | £ 41.49 | £ 497.86 |
| 10 | 3 | £ 7.54 | £ 15.07 | £ 55.26 | £ 663.15 |
| 10 | 4 | £ 5.66 | £ 16.97 | £ 62.23 | £ 746.79 |
| 15 | 2 | £ 16.97 | £ 16.97 | £ 62.23 | £ 746.79 |
| 15 | 3 | £ 11.32 | £ 22.61 | £ 82.89 | £ 994.72 |
| 15 | 4 | £ 8.49 | £ 25.46 | £ 93.35 | £ 1,120.19 |
| 20 | 2 | £ 22.63 | £ 22.63 | £ 82.98 | £ 995.72 |
| 20 | 3 | £ 15.09 | £ 30.14 | £ 110.52 | £ 1,326.30 |
| 20 | 4 | £ 11.32 | £ 33.95 | £ 124.47 | £ 1,493.58 |
| 25 | 2 | £ 28.29 | £ 28.29 | £ 103.72 | £ 1,244.65 |
| 25 | 3 | £ 18.86 | £ 37.68 | £ 138.16 | £ 1,657.87 |
| 25 | 4 | £ 14.14 | £ 42.43 | £ 155.58 | £ 1,866.98 |
| 30 | 2 | £ 33.95 | £ 33.95 | £ 124.47 | £ 1,493.58 |
| 30 | 3 | £ 22.63 | £ 45.21 | £ 165.79 | £ 1,989.45 |
| 30 | 4 | £ 16.97 | £ 50.92 | £ 186.70 | £ 2,240.37 |

| Cost of new car £30,000+ | | | | | |
|--------------------------|----------------|---|---------------------------------------|--|---------------------------------------|
| Distance to work (miles) | Number sharing | Weekly cost per person (single occupancy) | Weekly savings per person (car share) | Monthly savings per person (car share) | Annual savings per person (car share) |
| 5 | 2 | £ 6.69 | £ 6.69 | £ 24.52 | £ 294.25 |
| 5 | 3 | £ 4.46 | £ 8.91 | £ 32.66 | £ 391.94 |
| 5 | 4 | £ 3.34 | £ 10.03 | £ 36.78 | £ 441.38 |
| 10 | 2 | £ 13.38 | £ 13.38 | £ 49.04 | £ 588.50 |
| 10 | 3 | £ 8.92 | £ 17.82 | £ 65.32 | £ 783.88 |
| 10 | 4 | £ 6.69 | £ 20.06 | £ 73.56 | £ 882.75 |
| 15 | 2 | £ 20.06 | £ 20.06 | £ 73.56 | £ 882.75 |
| 15 | 3 | £ 13.38 | £ 26.72 | £ 97.99 | £ 1,175.82 |
| 15 | 4 | £ 10.03 | £ 30.09 | £ 110.34 | £ 1,324.13 |
| 20 | 2 | £ 26.75 | £ 26.75 | £ 98.08 | £ 1,177.00 |
| 20 | 3 | £ 17.83 | £ 35.63 | £ 130.65 | £ 1,567.76 |
| 20 | 4 | £ 13.38 | £ 40.13 | £ 147.13 | £ 1,765.50 |
| 25 | 2 | £ 33.44 | £ 33.44 | £ 122.60 | £ 1,471.25 |
| 25 | 3 | £ 22.29 | £ 44.54 | £ 163.31 | £ 1,959.71 |
| 25 | 4 | £ 16.72 | £ 50.16 | £ 183.91 | £ 2,206.88 |
| 30 | 2 | £ 40.13 | £ 40.13 | £ 147.13 | £ 1,765.50 |
| 30 | 3 | £ 26.75 | £ 53.45 | £ 195.97 | £ 2,351.65 |
| 30 | 4 | £ 20.06 | £ 60.19 | £ 220.69 | £ 2,648.25 |

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Hour Car (Calder Valley / Hebden Bridge, Yorkshire): www.hourcar.org.uk/index.htm

London Borough of Lewisham (OneSE8, Deptford): www.urbigo.com/flash.htm

Manchester Airport - car club for staff: www.carclubs.org.uk/carclubs/workplace-clubs.htm

Moorcar: www.moorcar.co.uk

Our Car Your Car: www.ourcaryourcar.co.uk

Streetcar: www.mystreetcar.co.uk

Stroud Valleys Car Club: www.carplus.org.uk/stroud/stroud.htm

Zed Cars (now part of London City Car Club): www.carclubs.org.uk/information/case-studies.bedzed.htm

2scompany: www.2scompany.org.uk/default

Heathrow Airport Carshare: www.airportcarshare.co.uk

Bassetlaw Share a Ride: www.retfordactioncentre.org.uk.sharearide.htm

Blythe Valley Park: www.carshare.blythevalleypark.co.uk

Bristol International Airport: www.bristol-city.gov.uk/traffic/pdf/tt_airsurface_strategy.pdf

Bromley school run: www.bromleyschoolrun.org

Buckden Village Car Share: www.buckden-village.co.uk/carshare

Bucks Car Share for Schools: www.buckscarshare.co.uk

CamShare: www.camshare.info

Carshare Bristol: www.234car.com/bristol

Carshare York: www.carshareyork.com

Carshare Devon: www.carsharedevon.com

Chester Business Park (Smartways): www.chesterbusinesspark.com/Pages/carscheme.html

East Midlands Airport Car Share Scheme: www.ematraveltowork.com

Halton journeyshare: www.haltonjourneyshare.com

Kent carshare: www.kentcarshare.org.uk

Met Office and London Electricity Group (SWEB): www.met-office.gov.uk/corporate/pressoffice/202/pr20021122.html

Norfolk Car Share: www.carshare.to

Oxshare: www.brookes.ac.uk/services/travel/234car_share/introduction.html

Park Royal CarShare:
www.parkroyaltravel.org.uk/ecp/EcpWeb.dll?File&Action=overview&Stylesheet=GenericLO&path=Site\Park_Royal

Pfizer: www.transport2000.org.uk/goodpractice/Private_Companies.htm

Royal Bank of Scotland Group (South Gyle):
www.transport2000.org.uk/goodpractice/Private_Companies.htm

School Run: www.school-run.org

Shareajourney: www.shareajourney.com

Somerset Car Share: www.somersetcarsharescheme.co.uk

South Gloucestershire Rideshare Scheme: www.2carshare.com

Stockley Park: www.stockleypark.co.uk/commuter_centre

Swansea Bay Alternative Travel Forum: www.234car.com/swansea

Tees Valley: www.2plustravel.com

The Mary Erskine and Stewart Melville School: www.saferoutestoschool.org.uk/index.php?p=CS19

Travelshare Essex: www.travelshare-essex.com

West London Car Share: www.westlondoncarshare.com/default.asp

Wiltshire County Council: www.wiltshire.gov.uk/index/transport/wccstravelplan.htm

York Independent Schools (The Mount School): www.mount.n-yorks.sch.uk/carshare.htm

