

8. Car clubs

8.1 Introduction

The basic idea of a car club is that people can have access to a car in their neighbourhood without having to own it. Typically, car club members pay an annual membership fee to an operator (in the order of £100-£200) who provides and maintains a range of vehicles in their neighbourhood. Members then pay by the hour and mile when they use a vehicle. Some operators prefer to charge a higher hourly rate and do not ask for a membership or mileage fee. The combined costs of membership and use are intended to be cheaper than personal car ownership, for car owners who do not do a high mileage, and to encourage the adoption of relatively diverse personal transport strategies. The idea was imported from mainland Europe in the late 1990s.

In June 2004, Carplus, the umbrella organisation for UK car clubs, was aware of at least 25 car clubs in the UK with a reported combined membership of 1165 (Kirkbride 2004). Clubs range from city-wide schemes run in conjunction with local authorities (e.g. Bristol) to independent clubs with only a few cars based in villages and market towns (e.g. Moorcar in Ashburton, Devon). Some clubs have particular features. For example, Hour Car at Hebden Bridge in West Yorkshire uses vehicles that run on bio-diesel; Rusty CarPool in Leicester involves renovation of older vehicles and a scheme set up in a low income area of Manchester forms part of a Local Exchange Trading Scheme, so that vehicles are available to people with little cash. In terms of mainstream schemes, key operators in the UK at the moment are Smart Moves, Urbigo and EasyCar. Details of many of the clubs can be found on the Carplus website www.carclubs.org.uk.

Most UK clubs have been developed from the bottom up: that is, projects have emerged from local interest. Usually, vehicles are distributed around the local neighbourhood in convenient locations, members are attracted by advertising and word-of-mouth, new cars are added to the scheme as membership grows sufficiently to support them, and there is a sense of belonging to a 'community club'. In 2003, the vehicle rental firm EasyCar decided to trial their own version of a car club, by introducing 27 vehicles at one site near Edgware Road in central London. They then invited 3000 people to join, who were regular customers of their conventional car rental service who always returned their cars on time, in good condition. To some extent, this stretches the definition of 'car club', being more akin to a rental depot loyalty scheme (LTT 2003, Meaton 2003).

The potential for car clubs in the UK was reviewed by Bonsall (2002) in a report commissioned by DTLR and the Motorists' Forum. The report was deliberately cautious in nature, avoiding drawing many conclusions, with the author highlighting that "the literature on car clubs is limited in nature. Much of the documentation issued in recent years is produced by those with interest in the field and is poorly referenced. There is little academic work on the subject of car clubs and it has not been possible to examine and substantiate all the claims that have been made for the success of car clubs." However, whilst the report itself avoided many definitive statements, the

Motorists' Forum (2002) subsequently produced a summary report with more specific conclusions. In particular, they argued:

"Our view is that car clubs are most likely to succeed organically in dense urban areas where there is good public transport provision and parking constraints... However, we do not believe that the perceived benefits of car clubs are presently sufficient to warrant a significant injection of public money to support individual projects without further research."

In their response to the report, the government essentially accepted this view and has not provided mainstream support for individual car clubs, although they continue to support the umbrella organisation, Carplus.

Although the support for Carplus is welcomed, the car clubs community has expressed disappointment at the general conclusions, with a formal rejoinder by Kirkbride 2003. This emphasised the reported benefits from car clubs, their potential to be a complementary element of a sustainable transport policy and argued that they are likely to be appropriate in more locations than the Motorists' Forum believes. In particular, Kirkbride highlighted ongoing work between the Countryside Agency and Carplus to introduce 13 pilot car clubs in rural areas, of which five are now operational. He states that membership growth in these pilot rural clubs (in terms of new members per year per car) is typically higher than in many urban clubs. According to Carplus (forthcoming), currently, in the UK, on average 4.5 members are joining per car per year in urban areas, whilst 8.2 members are joining per car per year in rural areas.

In the remainder of this chapter, Sections 8.2-8.4 primarily explore the international evidence that is available about the scale and impacts of car clubs. The subsequent sections report on our detailed examination of experience in Edinburgh and Bristol, together with some available material from other UK car clubs.

8.2 Literature evidence on growth of car clubs

Car club membership in Switzerland has been growing rapidly since the mid-1990s. Membership growth has been helped by the various car clubs joining forces to form a national organisation, Mobility CarSharing Switzerland, and by initiatives such as a combined season ticket marketed with Swiss Railways. In 1990 the number of members of car clubs in Switzerland stood at about 500 (similar to numbers in the UK in 2002). By 1997 it had increased to more than twenty times this figure, and by 2003 it had grown more than a hundred-fold to 58,000 members.

Growth has also been rapid in Germany, although there the pattern has been slightly different, with a number of car clubs in existence. The German umbrella association for car clubs reported a total membership of 55,200 in 2001, following growth of over 20% a year for several years. Membership is conservatively estimated to reach over 200,000 people by 2010, (Bundesverband CarSharing 2002). Although there are many car clubs operating in Germany, the trend is towards consolidation and merging, so that around 65% of German car club members are served by companies with over 2000 members, and only 13% are served by companies with less than 500 members (Traue 2001).

Data was also obtained for growth of car club membership in one city in Germany, Bremen, (Glotz-Richter 2003). The car club in Bremen was launched in 1990, with three cars and 28 members. Initial growth was slow, increasing to 500 members by 1994 and 1200 members by 1998. This was followed by a membership surge (to 1900 members in 1999) and then growth of about 200 – 250 members per year, reaching 2900 members in September 2003.

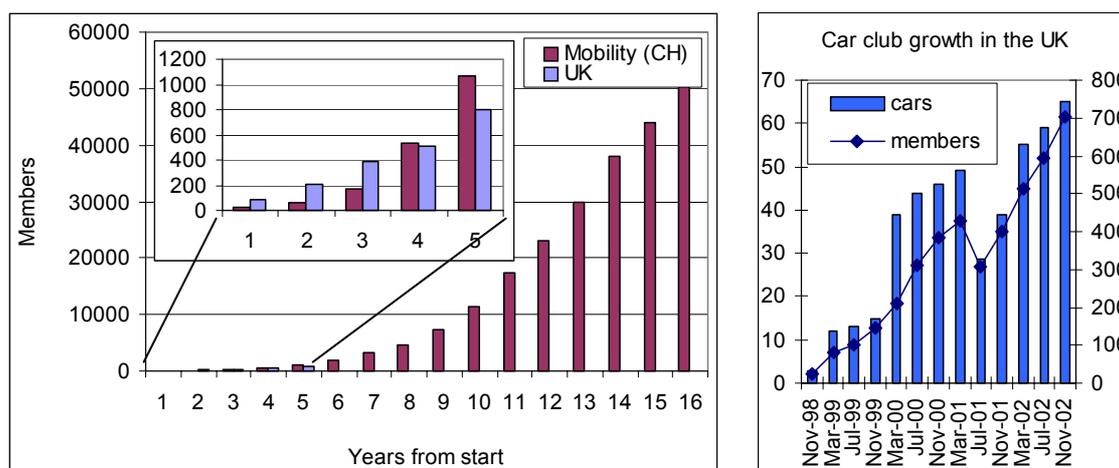
Car clubs in North America took off in the late 1990s, and Shaheen et al. (2002) report that by mid-2002 US car clubs had between them approximately 11,500 members, and Canadian car clubs reported a total of 5065 members. By winter 2003/04, the Carplus newsletter reports that US car clubs in 8 cities served by the three main players (Zipcar, Flexcar and City Carshare) had over 30,000 members. Communauto in Québec (Canada) has grown to over 3000 members in 7 years, and Zipcar in Boston attracted an impressive 4000 members in its first 3 years.

In both Germany and North America, most of the growth in membership has been a consequence of established car clubs getting larger or expanding to new cities, rather than new organisations being set up. For example, there are 14 car clubs in the US, but 92% of US car club members belong to the three main players, City CarShare, Flexcar or Zipcar, all of which operate in several cities (Shaheen et al 2002). In Germany, the largest 13 car clubs (out of 66 belonging to the German car club association) serve 85% of all members, but these are spread right across the country with almost all cities of over 200,000 people now having a car club, (Bundesverband Carsharing 2002). In Switzerland, the national car club Mobility claims a presence in 390 communities, (Mobility 2002).

It is noteworthy that car clubs have been promoted in different ways in different countries. For example, in Germany, they have been targeted at the environmentally aware. In contrast, for example, in Boston, they have been marketed as a smart feature of city living.

Figure 8.1 shows that the growth in number of UK car club members is comparable to the early years of the Mobility club in Switzerland. The inset suggests that the rate of growth of UK clubs is falling behind that of Switzerland; this is mainly due to the members lost between the collapse and re-launch of the Edinburgh car club. The UK data do not include members of the Easy Car initiative in London.

Figure 8.1: Car club membership growth in the UK compared with Switzerland



Source: Kirkbride 2003. Figures exclude members of the EasyCar scheme

8.3 Literature evidence on the target market for car clubs

In Switzerland, Muheim (1998) estimates that approximately 9% of the population are potential car club members. This is based on an evaluation of the number of people whose personal circumstances mean they could benefit from a car club, combined with survey data which found 36% of potential users were very or fairly interested in the idea.

In the US, Sperling et al. (2000) found that 15% of an experimental group in an area well-suited to a car club became members of car club, CarLink, after receiving targeted information and personal contact. She postulates that intense marketing of car-clubs to a carefully selected target population can elicit up to 15% participation.

Both these estimates of the potential for car clubs are broad-brush, but they are in line with estimates from a more detailed Austrian study (Steininger et al. 1996). Steininger surveyed 198 members of Austrian car clubs to identify the characteristics of “pioneer” car club members, or early adopters, and from this developed a profile for people most likely to join a car club:

- Age 25-43
- Highly educated (university degree or university entry level)
- Own at least one car, but not in a high price bracket
- Yearly car mileage for one car below 15000 km
- Less than 33% of trips currently made by car (based on car modal share for car club members *after* joining)
- Currently involved in environment-protective action.

He then surveyed 350 non-car-club members in two urban residential areas of Graz, and found that in one area, deemed an “average” urban residential area, 8.8% of residents had the right profile to be car club early adopters. In the second area, with a high academic population, the figure was 16.0%. Steininger argues these figures are probably an underestimate. Some residents in the areas surveyed were excluded because they made more than a third of trips by car, and yet their car modal share could be expected to fall once they joined a car club. Taking account of these extra

people, the pioneer potential in the first residential area rose to 17.7% and in the second area to 37.6%. Steininger further argues that this is not the absolute upper limit for car clubs: once it becomes a familiar concept it may expand to other groups and social segments, and its attractiveness will also grow if the “complementary good” of public transport becomes better.

Carplus (2004) provide data on their website for a sample of car club members in the UK, who belonged to clubs using cars sourced through the partnership between Carplus and Vauxhall Motors Ltd. 258 members were surveyed in August 2002. The social profile that emerged was remarkably similar to that shown in the Austrian study. In particular:

- 77% of members were aged 23-49 (including 12% aged 23-29; 38% aged 30-39 and 27% aged 40-49), and
- 86% of members were in professional and managerial jobs (55% recording themselves as professional, 22% as managers and administrators and 9% as associate professional and technical)

However, again, it should be noted that this is the profile of existing UK car club members, who, by definition, can be defined as city-based ‘early adopters’, since car clubs are relatively new in the UK and have largely been developed in cities. Carplus (forthcoming) report on a survey of 36 rural car club members (who were surveyed on joining one of five clubs between October 2003 and March 2004). Although only a small sample, it suggests that rural car club members tend to be slightly older, and from a much broader range of social classes, including more housewives and retired people. In particular, about only 60% report that they are in professional jobs (and no managers have yet joined).

In brief then, international literature suggests that perhaps 9% of the population might be attracted to car clubs, rising to as high as 38% in certain areas. UK data of car club member profiles suggest that the UK experience of city car clubs is similar to elsewhere, although car clubs in rural areas may appeal to a slightly different social profile.

8.4 Literature evidence on the effect of car club membership on car use

Several studies have evaluated “before” and “after” levels of car use amongst people who join car clubs. Briefly, these studies demonstrate that members who give up their car on joining a car club are able to reduce their car mileage by 60 – 70%. Car club members who do *not* give up a car (either because they never had one or because they are treating car club membership like a second household car) seem not to significantly alter their travel patterns. The main studies are Muheim (1998) and Meijkamp et al. (1997), and their findings are summarised in table 8.1.

Table 8.1: Distance travelled by car before and after joining a car club

Average annual km of...		Muheim (1998)	Meijkamp et al. (1997)
Members who give up a car on joining the scheme	before	9300	13380
	after	2600	4730
Change in km driven		-72%	-65%
Non car owners	before~	3100	5360
	after	3100*	3820
Change in km driven		little change	-29%
Members who keep their car on joining the scheme	before		21700
	after		22386
Change in km driven			+3%
The average car club member	before		8450
	after		5660
Change in km driven			-33%

* Car mileage of non-car owners after joining car club is inferred. Muheim (1998) reports this group only slightly changed their travel behaviour on joining the club.

~ This includes getting lifts and borrowing vehicles from friends and family

Muheim (1998) analysed the travel patterns of 511 car club members and 340 potential members in Switzerland, and found that members who gave up their own car were able to reduce their car mileage by an average of 72%, from 9300 km per year to 2600 km per year. This brought their level of car use into line with non-car owners, who, despite not owning cars, still travelled about 3100 km a year by car (for example getting lifts or borrowing vehicles from friends or family). Muheim reports that people who did not own a car before joining a car club, or who used a car club in addition to their own car, only slightly changed their travel behaviour.

Meijkamp et al. (1997) undertook a similar analysis of reported mileage before and after joining a car club, amongst 337 members of Dutch car clubs. For car club members taken overall, the *average* reduction in distance driven was 33% or 2790 km (from 8450 to 5660 km per year). However, this masked substantial differences according to whether or not people had owned a car before joining, and whether they kept it once they were members. People who gave up their car on joining the car club (“substituters”) reduced their car mileage by 65%. Those who used the car club in addition to their own car slightly increased their overall mileage by 3%. Surprisingly, Meijkamp et al. found that car club members who had previously been without a car (“new car drivers”) *reduced* their car mileage by 29% on joining. (One plausible explanation for this apparently counter-intuitive result may be that car club membership encourages more conscious choice of mode and increases knowledge of the actual cost of driving a car. This seems to be borne out by an attitudinal survey of the people in Meijkamp’s study.)

Reports for the EU MOSES research project (Traue (2001) and MOSES / UITP (2002)) quote several figures for reductions in car mileage: a reduction from 13000 car driver km per year before joining to 3000 km per year afterwards, representing a reduction of 77% and 10,000km (Munich); a decrease in car driver mileage of 71% (cambioAachen); a decrease of 57% (Swiss study); and a decrease of 50% (German study). While these broadly corroborate the studies by Muheim and Meijkamp, it is not clear whether these figures refer to the average change for all car club members,

or the change for members who have given up a personal car. Carplus (2004) report that, in Berlin, the average mileage per car club member dropped from 5425 miles to 2560 miles, a reduction of 53% or 4,600km; and that in Bremen, the mileage of the average car club member has fallen by 3,500 miles (5,600km).

Given the substantial differences in car mileage between those people who give up their personal car and those who do not, it becomes important to know what proportion of car club members fall into each category. This issue is explored by Meijkamp and by several other German studies, summarised in Sperling et al. (2000) and listed in table 8.2.

Table 8.2: Vehicle ownership patterns before and after joining a car club

	Wagner (1990)	Hauke (1993)	Baum and Pesch (1994)	Meijkamp et al. (1997)
Would never buy a car (%)	37	36	13	71
Gave up car independent of car club (%)	31		30	
Foregone planned car purchase due to car club (%)		16	32	
Gave up private car because of car club (%)	26	42	23	21
Continue to own private car (%)	6	6	3	9

Adapted from Sperling et al. (2000)

Although there is a lot of variation in the figures, it seems that:

- Between 35% and 71% of car club members previously did not own a car: either they had never owned one, or they had sold it some time earlier. Although the evidence from Meijkamp's study suggests this group might reduce their car mileage, it seems safer to assume that they will *not* do so.
- A much smaller percentage, 3 – 9%, continued to own a car after joining a car club. From the evidence presented by both Muheim and Meijkamp it seems likely their car mileage will go up a little, but they make up such a small proportion of car club members that this will have little impact on total "after" mileage.
- The remainder, between 21% and 58%, either gave up a car when they joined a car club, or chose car club membership instead of buying a car. For this group, it seems reasonable to assume a substantial reduction in car mileage, of the order of two-thirds, compared to what would have happened if a car club had not been available.

In summary, it seems reasonable to expect somewhere between a fifth and a half of car club members will give up their cars as a direct result of joining a car club, and as a consequence of this will reduce their car mileage by a substantial margin of around two-thirds. Car club members who do not give up a personal car will not change their travel patterns very much on joining a car club.

8.5 Selection of car club case studies

Car clubs are still in their infancy in the UK. The most substantial and longest established is the Edinburgh car club, which was therefore a clear case study choice. The Edinburgh club began in March 1999, received a substantial blow when Budget,

the car rental company, dropped out in March 2001 (due to international financial problems) and has since re-established itself as a partnership between the council and the company Smart Moves.

Other clubs that were looked at as potential case studies for this project were based in Bristol, Bath, Oxford and London. In the end, Bristol was chosen, given that it is reasonably well established (having been launched in July 2000), and we were interested in the potential synergy with other initiatives taking place in Bristol. The main drawback of this decision was the similarities between the Edinburgh and Bristol schemes, as both operate in conjunction with Smart Moves. The other main national players are Avis car hire, who are involved in schemes in Oxford and London using the brand name Urbigo, and EasyCar, with their new model of car club, (as described in the introduction). Both of these organisations may also play an important role in how car clubs expand in the UK.

During the course of the case study work, it emerged that Cambridge may be considering a car club for one of its residential areas in the future, and that the Milton Keynes car share scheme was originally set up with a car club element (although this proved unsuccessful - largely, according to the organisers, because the hire cars were available close to people's workplaces rather than their homes).

In summary, the main case studies for car clubs were:

- Bristol City Car Club
- Edinburgh City Car Club.

From the other case studies, there was some information from:

- Cambridge
- Milton Keynes.

As part of the shortlisting process, we collected limited information from:

- the Bath car club, run by Envolve, a local environmental charity
- Urbigo car club in Oxford, involving Avis
- Urbigo car clubs in Sutton and Southwark, involving Avis
- London City Car club, involving Smart Moves, with sites in Camden, Kensington and Chelsea, Islington, Lambeth, Merton, Ealing and Brent.

There was also some available information about car clubs registered on the Carplus website, and we received some material from their forthcoming report about their pilot work on rural car clubs, being undertaken with the Countryside Agency.

8.6 Details of chosen car club case studies

Edinburgh: The Edinburgh City Car Club was the first major car club in the UK. It was launched in March 1999, with financial support totalling £253,000 from the city council, Scottish Office and DETR. Initially it was operated by Budget Rent a Car, who over a period of two years grew the operation to 170 members, 22 vehicles and 23 sites. However, Budget abandoned the car club in March 2001. In October 2001, the Car Club was re-launched by Smart Moves with a development grant of about £40,000 from Edinburgh City Council, and considerable work was needed to regain

members. At the time of the case study interview (July / August 2003) the club had 215 members and 17 cars at 15 sites around the city. By April / May 2004 there were 317 members and 19 cars.

Bristol: The Bristol car club originated through a partnership between a voluntary group (Bristol Community Car Club Association) and Bristol City Council. It was launched as BEST (Bristol Environmentally Sustainable Transport) in 2000, and re-named Bristol City Car Club in 2001, when Smart Moves took on a more instrumental role in its operation. The council agreed a four-year funding package, starting in 2002, totalling £160,000. At the time of the case study interview (July 2003) it had 92 members and six cars. By April 2004, there were 160 members and 11 cars. Members of the scheme are entitled to a 10% discount on tickets on First Bus.

8.7 Staffing and budgets for car clubs

Table 8.3 compares the staffing and budgets for the Edinburgh and Bristol car clubs.

Table 8.3: Comparison of staffing and budgets for car clubs

	Edinburgh	Bristol
Length of time scheme has been running	2 years*	3 years
Number of car-club members registered~	215	92
Number of regular users ~	Not known	60
Staff time at local authority once scheme established	Very low	Very low
Staff time at car club operator ~	2 fte	1.5 fte
Start-up grant	£48,000 invested in Budget scheme#, plus £39,750 grant to Smart Moves scheme	£50,000 grant so far, with another £110,000 committed
Other annual costs to local authority +	£6000	No costs apart from core grant
Total cost to date	£99,750	£50,000

* Current scheme operated by Smart Moves

~ Figures are for time of case study interview (July 2003)

Funding for feasibility study and parking infrastructure

+ Note that the cost of designating car parking bays was not separately identified by the case study local authorities, but other local authorities have identified this as a significant cost, at least in the initial stages of establishing a car club.

Both clubs have rather low staff time requirements within their respective local authorities, as day-to-day management is carried out by Smart Moves staff. The main roles of council officers are involvement in steering groups; liaison between the car club and other parts of the local authority; and arrangement of traffic orders and signing for car club parking spaces.

The car clubs themselves each have a full-time co-ordinator, and in Edinburgh there is also a part-time assistant. Both clubs receive some support from the Smart Moves head office in Coventry, including call-centre support.

The current car club in Edinburgh has benefited from the research and investment that led to formation of the previous car club, operated by Budget. This totalled £253,000, of which £150,000 covered initial set-up costs, £55,000 was for monitoring and evaluation, and £48,000 (in kind) was for a feasibility study and the cost of parking infrastructure at car club stations. In addition, over £200,000 was spent on promotional activities while Budget was operating the car club. It is difficult to estimate the value of this investment to the current car club. Key benefits were that the current club inherited 60 members from the Budget car club, and that car parking bays were already designated. However, Smart Moves were not able to use the original Budget technology, and had to invest in new technology themselves – highlighting that equipping each car with the relevant technology typically costs £1000. They also had to overcome the reputation of the previous scheme of being unreliable. We therefore tentatively assume that the £48,000 spent on feasibility work and parking infrastructure might reasonably be considered to have been of direct benefit to the current car club, but that other investment in the Budget scheme has not resulted in any particular benefit to Smart Moves.

City of Edinburgh Council subsequently provided Smart Moves with a grant of £39,750 to cover operating deficits in the first two years (from May 2001). The business plan at that time forecast that the club would be able to operate without financial support after two years, and would move into profit in 2003/04. Membership growth has been slower than forecast in the business plan, and, at the time of our case study interview, the club was intending to seek further development funding from the city council. However, it expected to reach break-even point (around 500 members, representing about 7% of current car owners) by the end of 2004. In addition to the grant of £39,750, the city council contributes about £6000 per year towards promotional costs such as printing leaflets. Some costs are also associated with preparation of traffic orders for parking spaces. These are met from the parking budget.

In Bristol, there is also financial support from the local authority, but it is at a higher level and spread over a slightly more generous timescale: £50,000 a year for two years, then £30,000 a year for two years, totalling £160,000 over four years. A quarter of this grant is from the European VIVALDI programme. Funding is linked to a target of achieving 1000 members by the end of the funding period. As in Edinburgh, there is an expectation that the club will become self-funding and then move into profit.

It is too early to say at what point the Edinburgh and Bristol car clubs will reach the number of members required to break even, and the timing will depend on a number of factors, both within and outside the clubs' control, which are discussed below. However, it is noteworthy that car clubs should not require ongoing public funding. In this, they differ from most other soft measures, potentially offering 'traffic reduction for free' to the local authority once break-even point is reached. This makes them a potentially attractive investment prospect for influencing travel behaviour.

In addition to the information from the two main case studies, it should be noted that Bath car club started with a £30,000 grant from the council (for effectively one year) although further funding may be sought. The Oxford scheme expected to be loss-making for the first three years. For the London City Car Club run by Smart Moves, Transport for London provided an initial grant.

Meanwhile, the economics for rural car clubs may be substantially different, where they use a different operational model. Carplus (forthcoming) provides anonymous data for two existing rural clubs, which suggests that they may be able to break even with considerably fewer members than urban car clubs, following smaller start-up subsidies in the order of £60,000. Carplus believe that this is due to two reasons. First, members of rural car clubs typically drive much further in the vehicles, so the incoming money to the club is greater. Second, rural car clubs' overheads tend to be much lower. For all car clubs, overheads typically comprise the salary costs of management, and lease charges (including insurance). In the case of rural car clubs, ventures are typically being run as independent community initiatives, involving a local part-time person, less technology, and are not part of the more formal, official schemes promoted by the main players. Consequently, their overheads are much lower, and break-even point can be reached much more quickly.

To some extent, it is perhaps inevitable that small, rural clubs can run on a much more informal, lower-overhead basis, than larger urban clubs. Presumably, in the case of the smaller rural clubs, there is much more scope for personal arrangements and trust, which obviates the need for some of the more formal, hi-tech booking systems and arrangements of the larger, urban clubs. Urban clubs, by nature of their size, must tend to be more anonymous and therefore, conversely, presumably require these arrangements. However, this is a hypothesis only, and it remains to be seen how the different models evolve.

Finally, it should be noted that public subsidy elsewhere for car clubs has often been considerably more substantial. Enoch (2002) reports that City CarShare in San Francisco benefitted from a federal grant of \$750,000 (currently equivalent to £430,000), and the free provision of off-street parking bays. Carplus (spring 2003) report that the Italian government has put 10 million euros into setting up clubs in 16 cities (equivalent to about £420,000 per city)

8.8 Comparison of case study findings on scale of implementation

The Carplus website lists all car club schemes that they are aware of in the UK. This shows that, in the UK, the number of car clubs appears to be growing over time. Specifically, Carplus list 4 schemes that launched in 2002, 7 that launched in 2003 and 12 that have launched in 2004.

They also provide data about the size of the clubs, and the number of vehicles. This information (for all clubs except our case studies), is given in Table 8.4

Table 8.4 Scale of UK car clubs (as of May 2004)

Club	Launch date	Cars	Members	Ratio of members to cars
London City Car Club, London	Mar-03	15	159	11
Urbigo, Oxford	Summer-00	6	60	10
Manchester Airport	2000	n/a	60	n/a
Campus Cars, Cranfield	1996	4	58	15
Urbigo, Sutton & Southwark, London	Sep-01	8	40	5
City-Wheels, Swansea	Jan-01	5	40	8
Your Car, Bath	May-01	2	36	18
Moorcar, Devon	Sep-02	4	27	7
Stroud Valleys Car Club, Stroud	Jun-03	3	26	9
Brighton & Hove City Car Club, Brighton	Sep-03	3	23	8
Rusty Car Pool, Leicester	1990	6	20	3
OurCarYourCar, West Yorkshire	Mar-03	4	19	5
Car Share Lewes, Sussex	1994	1	18	18
A2B, Wiltshire	Nov-02	3	16	5
Co-Drive, Leeds	1998	1	15	15
Hulme, Manchester	May-02	1	10	10
Hour Car, West Yorkshire	Jan-04	2	8	4
Exe Car Club, near Exeter	Jan-04	1	4	4
Woodgate Car Club, Leicester	Jul-00	1	3	3
Clay Wheels, Cornwall	Mar-03	1	2	2
Hour cars, Salisbury	Jul-03	3	2	1
Media Centre Car Club, Huddersfield	Jan-04	1	13	13

Source: Carplus website, accessed May 2004.

The table gives a mixed picture. It shows that most of the recent car clubs are still relatively small, although there are now at least 16 with more than 10 members (in addition to the EasyCar scheme and our two case studies). The Edinburgh interviewee stated that 15 to 20 people per car is seen as optimum in the initial phase of development, based on European experience, and there are four clubs with this ratio. Generally, the bigger clubs are getting at least 8 members per car, and this is also the rate reported for the newly emerging rural car clubs, as highlighted in section 8.1.

In addition to this information, we had more detailed insights from our case studies, which can be compared with international experience. Table 8.5 and Table 8.6 summarise data on the scale of the Edinburgh and Bristol car clubs, in comparison with international data. Meanwhile, Figure 8.2 shows the growth rates of the UK schemes.

Table 8.5: Scale of case study car clubs compared to international schemes

	Start date	Duration	Latest data		Historical data
			No. of cars	No. of members	
Edinburgh (Budget scheme)	Mar 99	24 months	22*	170*	Started with 35 members and 6 cars. 95 members by end of year 1.
Edinburgh (Smart Moves scheme)	Oct 01	30 months	19	317	Restarted with 60 members (40 from the old club) and 10 cars. 95 members and 10 cars by March 02, 131 members and 13 cars by July 02, 156 members and 15 cars by Nov 02, 170 members and 15 cars by March 03 and 203 members and 17 cars by July 03.
Bristol	July 00	46 months	11	160	In the first year, there were 20 members sharing 2 cars. By July 03, 92 members and 6 cars (including 60 regular users).
Mobility Switzerland	1987	17 years	1700	58000	Started with 28 members and 2 cars. 23000 members and 1050 cars (1998); 44,000 members and 1650 cars (2001).
Bremen (Germany)	1990	14 years	About 100	2900	Started with 28 members and 3 cars. 500 members (1994); 1200 members (1998); 1900 members (1999).

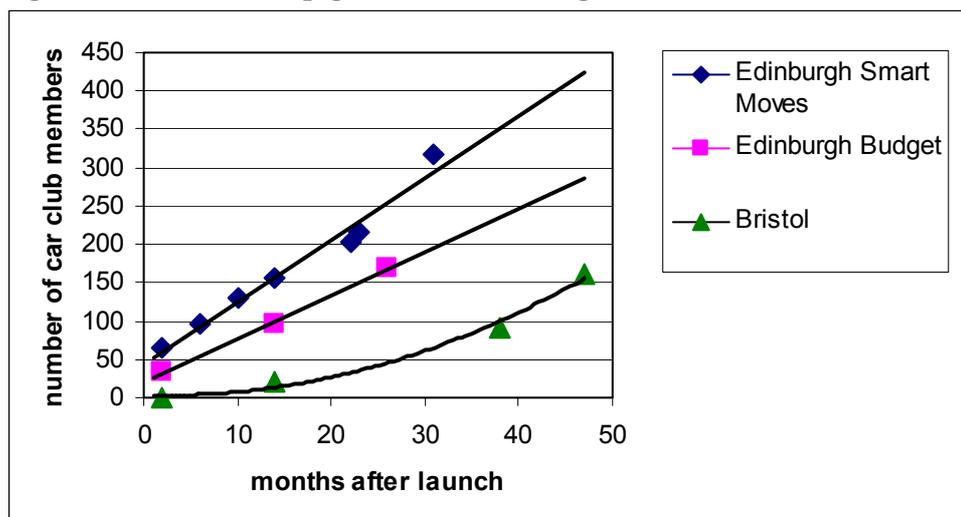
* Figures for Edinburgh (Budget scheme) are for 2001, when the company pulled out.

Table 8.6 Key indicators for case study car clubs compared with international clubs

	Edinburgh (Budget)	Edinburgh (Smart Moves)	Bristol	Mobility Switzerland	Bremen, Germany
Starting membership	35	60	20	28	28
Ratio of members to cars in the first year	5.8	6	10	14	9.3
Average annual 'starting' growth*	75	147	68	174	125
Current ratio of members to cars	7.7	16.7	14.5	34	28

* For Edinburgh (Budget), this is the figure for the last year of the scheme. For Edinburgh (Smart Moves), it is the growth between March 03 and April 04. For Bristol, it is the growth between Jul 03 and April 04. For Mobility Switzerland, it is the average growth between 1987 and 1990. For Bremen, it is the averaged growth between 1990 and 1994.

Figure 8.2: Membership growth in Edinburgh and Bristol car clubs



The following conclusions emerge:

- The Edinburgh interviewee suggested that at the current stage of development in the UK, 15 to 20 people per car is seen as optimum, based on European experience. However, it is rare for schemes to have this ratio when they start. Both Bristol and Edinburgh started with considerably fewer members per car than this, but are now reaching the lower end of the range. Meanwhile, evidence from Switzerland suggests that as schemes become very large (over about 20,000 members), this figure rises to about 20 people per car, and continue rising to over 30.
- Growth rates of the case study schemes seem broadly comparable - somewhere in the order of 70-150 members a year, providing that car availability is increased in parallel. It may be that this growth only occurs after an initial period when schemes become established. For example, it took about a year before the Bristol club started to grow steadily. For comparison, the Bremen scheme grew at just over 100 members per year in its first four years of operation, with more rapid growth later on.

In summary then, there are an increasing number of car clubs setting up in the UK. Meanwhile, the ratios of members to cars, and the rates of growth, of the case studies, which are some of the oldest clubs in existence in the UK, appear comparable with the early years of European experience.

As well as membership figures, which clubs consider to be an important indicator of their success, they are also concerned about the use of car club vehicles, since this partly determines how much money they make, and their financial viability. Smart Moves estimates car club vehicles must be used for 40% of their chargeable time (6.4 of the 16 hours between 7.30 am and 11.30 pm) in order to be self financing.

The Bristol scheme was reporting average utilisation rates of 39% in July 2003 (15.3 members per car). Edinburgh has reported utilisation rates of 37% in March 2002 (9.5 people per car), 42% in July 2002 (10.1 people per car), 35% in November 2002 (10.4 people per car) and 40% in March 2003 (11.3 people per car). The Edinburgh interviewee commented that the scheme has attracted fewer members than expected,

but higher usage per member than expected, such that the financial viability of the scheme looks reasonably healthy. These figures take into account that five vehicles are not available to members during the day, as they are used by Edinburgh City Council as a car pool. However, being able to lease the vehicles to the council has clearly increased the viability of the scheme. In Bath, leasing car club vehicles to local businesses and the council during the working day is being investigated as a strategy to help sustain the club. The Edinburgh interviewee also commented that as new car club sites (or 'stations') are added, average usage drops until the new site becomes established.

In conclusion, both Edinburgh and Bristol car clubs seem to be achieving the level of use required to achieve financial viability, despite the relatively low ratio of people to cars in Edinburgh (in the order of 10 people per car). In addition, the Edinburgh club's viability is helped by leasing the car club vehicles as local authority pool vehicles during the day.

8.9 Comparison of findings on effects on car use

There is relatively scant data from the UK about how car club membership has affected the car use of its members. Table 8.7 summarises what is available.

Table 8.7: Effects of car clubs on car use

Edinburgh (Budget)	<p>Members were seen as being divided into two groups:</p> <ul style="list-style-type: none"> • Non car owners, who joined to gain access to a vehicle for journeys that were difficult or expensive by other means - e.g. the trip to IKEA - which were previously made by day car hire or borrowing a friend's car • Ex car owners who had already minimised their driving, who had old cars that were due for replacement, and who viewed the car club as an experiment or a point of transition between vehicles. <p>A Scottish Executive report (Hope 2001) concluded that 'the increased car use by the non car owners appears to have matched the reduced use made by those who joined when they gave up a car'.</p> <p>A survey of 38 members found that 12 had disposed of a car as a result of joining the car club – i.e. about a third of the sample.</p>
Edinburgh (Smart Moves)	<p>In terms of use, the cars are not used for commuting, however they are used for business trips, trips to IKEA, shopping, garden centres, meetings, weekend and day trips, and taking children to school. The interviewee estimated that one car club vehicles typically replaces five cars, although the main impact is an alleviation of parking problems rather than a reduction in traffic.</p> <p>In terms of car ownership, the interviewee's opinion is that:</p> <ul style="list-style-type: none"> • Very few members are using the car club for a second vehicle • The majority of members were previously non car owners • Those that have given up a car tend to be giving up an older vehicle. <p>She also commented that car club members use the vehicles more than they think that they will.</p> <p>Each car club vehicle averages 16,100 kilometres per year.</p>

Bristol	<p>Of the 60 regular users (with 92 members in total), 30 are thought to have got rid of a car (often a 'horrible old car'), and another five are considered to have joined the club rather than buying a car. One example was given of a family generally using cars less as a result of changing from private ownership to car club membership. In terms of journey purposes, the vehicles are not used for work or very short local trips (e.g. going to the corner shop), but possibly divided into two types:</p> <ul style="list-style-type: none"> • People living close to a car station use the cars for short journeys and specific purposes • People living further from the car station use the cars for longer journeys (day trips, weekend trips) and/or for chained journey purposes. <p>Each car club vehicle averages 19,300 kilometres per year.</p>
Bath	<p>A survey was carried out with 22 respondents in 2003. This showed that 7 (32%) only use the vehicles for business, 4 (18%) only use the vehicles for personal use, and 11 (50%) use the vehicles for both. In terms of car ownership:</p> <ul style="list-style-type: none"> • 11 (50%) were non car owners before joining although four mentioned that they had access to another car belonging to friend, family member or employer • 4 (18%) owned a car before joining the club, which they have kept • 7 (32%) either gave up their car, or joined the club instead of buying a car. (Of these, 1 gave up the car sometime before joining the club, 2 gave up the car on joining the club, 1 joined the club instead of buying a car, and 3 joined the club instead of buying a second family car).
Rural car clubs	<p>Carplus (spring 2004) report that in their recent survey of 36 rural car club members:</p> <ul style="list-style-type: none"> • 6% would otherwise have bought a car • 23% are expecting to get rid of a car as a result of joining

This evidence suggests the following:

- Car club vehicles often replace older, more polluting vehicles.
- Car club vehicles are rarely used for commuting, although they are used for business trips. They tend to be used for journeys that would be awkward by other means (e.g. to visit IKEA), for journeys that are not made regularly, and for day or weekend leisure trips.
- About 30-40% of members gave up a privately-owned car when they joined the car club or joined the club as an alternative to plans to buy one.
- The rest (60-70%) either did not previously own a car, or kept their own car when they joined the car club.

The high proportion of car club members who previously did not own a car is within the range reported in the literature (section 8.4). Some commentators have expressed concern that car clubs may encourage car use in this group. The opposing argument is that a car club enables a household to continue without owning a private vehicle, whereas otherwise they might have purchased one at some point in the future, with a far more substantial impact on their travel behaviour.

The simplest way to calculate the impact of a car club on its members' overall car mileage would be to find out the distance travelled by a sample of car club members before and after joining the scheme. Unfortunately, this data were not available for any of the UK schemes. We therefore looked at the available data on the average distance travelled per car club vehicle, and the car ownership and use profile of club members for our case studies. In summary, our approach was to estimate how many privately-owned vehicles are replaced by each car club vehicle, and how many former non car owners use each car club vehicle. The calculation is shown in table 8.8.

Table 8.8 Calculation of effect of car clubs on annual car mileage of all members

		Edinburgh Smart Moves	Bristol
A	Number of privately-owned vehicles given up, per car club vehicle	5	5.8*
B	Number of members who previously did not own a car, per car club vehicle	7.6~	4.2#
C	Average annual car kilometres before joining club, for members who gave up their car+	12580	12580
D	Average annual car kilometres before joining club, for non car owners+	225	225
E	Average annual car kilometres per car club vehicle	16100	19300
F	Number of vehicles in car club fleet	17	6
	Net distance saved in most recent year (km) **	824670	327654

* 35 people gave up a car, or did not buy a car, on joining the Bristol club, and it had 6 vehicles.
 ~ In July 2003 there were 17 cars and 215 members. The case study interviewee estimated each car club vehicle replaced five private cars, implying 85 members had given up a car. At the maximum, this leaves 130 members who previously did not own a car, or 7.6 per vehicle.
 # In July 2003 there were 6 cars and 92 members, of whom 60 were active users. 35 active users had given up a private car, or not bought one. At the maximum, this leaves 25 active users who previously did not own a car, or 4.2 per vehicle.
 + Average annual car kilometres from National Travel Survey 1999/2001
 ** Net distance saved in most recent year = (E – [A x C] – [B x D]) x F

It suggests that the Edinburgh car club saved roughly 825,000 car kilometres per year in 2003, and the Bristol car club roughly 328,000 kilometres. These figures do not take account of any car club members who keep their car on joining the club. However, assuming that this group is small in size, is unlikely to substantially increase their personal car mileage after joining the car club and may even use the car club vehicle more and their personal car less, the effect of incorporating them into the calculation is likely to be relatively neutral.

In terms of kilometres saved per member, the figures work out at approximately 3,800 for Edinburgh and 3,600 for Bristol. This is a bit higher, but the same order of magnitude, as the figure of 2,790 quoted by Meijkamp et al (1997), and is lower than all the figures quoted in the MOSES and Carplus reports.

A final point in relation to the effects of car clubs is that, perhaps counter-intuitively, their impact mainly tends to be on the types of journeys that they are not used for. Typically, their impact is most likely to be to reduce car use for regular trips and those where alternatives are most readily available, (such as commuting, school escort trips

and shopping and other personal business purposes). The rationale is that car club membership enables people to drive for journeys which are heavily car-reliant, such as transporting a heavy load or escorting an elderly relative. This then reduces the overall need to own a car and leads to other journeys to be made by non-car modes. A number of car clubs in Europe and the USA have specific arrangements with the local public transport operator, and, for example, Carplus (2004) report that there has been a 28% increase in walking and cycling, and a 35% increase in public transport use amongst car club members in Berlin. Some UK car clubs have started to develop arrangements with public transport operators, as discussed in section 8.11.

8.10 Other effects of car clubs

In terms of other effects, the following are reported:

- **Greater choice, less hassle and reduced financial costs to the individual**
Much car club publicity highlights the benefits of not having to personally tax, service and repair a vehicle, and of potentially being able to have access to different types of vehicles for different occasions. Urbigo estimate that the owner of a 1.4 litre Astra who drives 5000 miles a year would typically save £2,255 over three years by joining a car club, and Bonsall (2002) reports on literature evidence that membership of a car club will be cheaper than car ownership for people whose annual mileage is less than 8000 miles. However, in his conclusions, Bonsall argues that this will not necessarily be so for people who buy and run old vehicles over a long period of time, given that depreciation of such vehicles is minimal.
- **Increased sense of community and communal responsibility**
This benefit was reported in both the Edinburgh and Bristol case studies. Specifically, the Bristol interviewee commented that the car club provides a sense of shared ownership and communal responsibility, as well as acting as a social focus in the community, encouraging a sense of civic and community pride.
- **Impacts on social inclusion**
In Edinburgh, it was noted that the scheme has not currently increased social inclusion, because the initial phase of establishing the club has mainly focused on relatively wealthy, inner-city areas of Edinburgh, and both the cost of membership and insurance approval have potentially limited its accessibility. However, there are plans to work with job centres and the unemployed, and to obtain vehicles for the mobility impaired. In Bristol, the aim of increasing mobility for those who cannot afford a car was also mentioned as a potential future benefit of the club.

However, there are other schemes where there have been clearer social inclusion benefits. Kirkbride (2003) highlights that a significant number of members of the Co-Drive scheme in Leeds come from lower-income estates, whilst the Carplus website features 'City-Wheels' in Swansea, a scheme specifically set up to serve social housing residents. Carplus (2004) identifies the people most likely to benefit from car clubs as lower income households with no car, or struggling to run a car; households where the only car is used for the daily commute, leaving others with no access to a car; less mobile or less active people, e.g. elderly or disabled people; people setting up a small business, and those seeking employment.

In contrast, Carplus also highlight that plans to introduce a car club in Northwest County Durham partly failed because poverty is so serious that a car club was still felt to be out of reach of many people. Bonsall (2002) highlights that car clubs do offer the potential to reduce social exclusion for some groups of people but that there may be problems introducing them in relevant areas (such as high insurance costs, vandalism and difficulties for poorer people in raising the membership fee).

8.11 Synergies between car clubs and other transport policies

The following synergistic (or non synergistic) effects were noted:

- **Interaction between car clubs, parking policy and road user charging**

Both Bristol and Edinburgh mentioned that dedicated spaces for club vehicles and shortage of parking are key factors in the success of car clubs. The Edinburgh interviewee also thought that the club could potentially have been used to mitigate some of the criticisms of the council's parking strategy, although this had not been done. In Edinburgh, the issue of road user charging was also raised. The interviewee felt that exempting members from the charge might increase the popularity of membership, and, conversely, aid the acceptability of charging. These issues are discussed further in section 8.14.

- **Value of the car club for winning support for other transport policies**

In the case of Bristol, the interviewee noted that 'a car club sidelines the idea of a binary split between private car and public transport', and that this could help to encourage people to re-evaluate their travel choices. In Edinburgh, the club was considered useful because 'it is a pro-car initiative'. This was felt to be useful in a climate where some people saw the council's transport strategy as anti-car.

- **Interaction with workplace travel plans and fleet management**

As discussed in section 8.8, leasing car club vehicles to employers during the day, to form part of a car pool, is one way of considerably increasing the viability of car clubs. This in turn could work well with workplace travel plans, where providing a vehicle for journeys during the course of work can help to reduce the need for the individual to commute by car.

- **Interaction with transport publicity and personalised travel planning**

In Edinburgh, inclusion of the car club in the council's general 'On route' campaign, that publicises the local transport strategy, is seen as benefiting the club. In Poole, Western Challenge Housing Association have worked in partnership with the council to put together a residential travel plan for a new development. A car club is seen as underpinning a raft of other measures including individualised travel planning, a travel information pack, discounted bus tickets, secure cycle storage, broadband installation and an electric car recharging point, (Carplus spring 2004).

- **Synergy benefits from reduced car ownership**

The Bristol interviewee commented: "By providing a good quality alternative to owning a car, the car club makes it possible for marginal car users - those who need a car from time to time - to avoid having to buy a car, or keep a second car. This in turn

encourages people to look at alternative modes of transport when planning journeys, rather than immediately using the car. It is hoped that this will lead to more thoughtful and sustainable car use.”

- **Interaction with public transport**

Bonsall (2002) notes that there is usually "considerable mutual advantage from co-operation between public transport operators and car club organisers". There are a number of examples where car clubs work in partnership with public transport operators to get benefits for their members, who are, in turn, expected to use public transport more. Specifically, First Bus in Bristol offers a 10% discount on tickets to car club members. In Edinburgh, Lothian buses provide Daysavers packs (7 Daysavers worth £2.50 each) to new car club members. Deals on bus and train passes are being negotiated. In the Edinburgh interview, Smart Moves reported that West Yorkshire Metro were interested in being involved in a Leeds car club, and they have also worked with Brighton buses and Thameslink in London (who provide a £50 discount on season tickets for London car club members). The Bristol interviewee notes that availability of good public transport will be one of the factors that encourages people to join a car club.

- **Potential negative effects on other soft measures**

It was noted that a car club has the potential to undermine other soft measures, for example where car club vehicles are used to transport children to school.

8.12 Relationship between spending on car clubs and impact

In evaluating the relationship between cost and impact for the Edinburgh and Bristol car clubs, we estimated the total car mileage saved over the period each scheme has been running, based on the assumption that impact increased linearly, from zero in the first year to the levels recorded in the interviews. Even if no more money were to be spent, we assume there would be some impact in subsequent years, but that this would decline at the rate of 40% a year. We treat all spending as revenue. Table 8.9 shows the calculation.

Table 8.9: Calculation of relationship between cost and impact for car clubs

	Edinburgh Smart Moves	Bristol
Net distance saved in most recent year (km) *	824670	327654
Total car distance saved ~ (km)	2061675	982962
Total cost to date	£99,750	£50,000
Cost per km saved (pence)	4.8	5.1

* See calculation in table 8.6

~ 'Total car distance saved' assumes linear behaviour change in car kilometres saved, from zero in year 1 to current year figure, plus some behaviour change in future years, declining by 40% per year after current year if no further money is spent.

The cost-impact figures suggest that so far, car clubs are costing about 5 pence per car kilometre taken off the road. As the car clubs expand, this figure will fall. Eventually, both the Edinburgh and Bristol car clubs aim to become self-financing. If they are successful in reaching this stage, previous grants from their local authorities might be

considered as one-off capital funding, and the cost-impact ratio will effectively become zero – i.e. a reduced volume of traffic at no cost to the local authority.

This logic should also apply to rural car clubs once they break even, although the economics for the period before this happens may be significantly different (as discussed in section 8.7). We did not have enough data for rural clubs to enable the calculation of alternative cost-impact assessments.

8.13 Future impact of car clubs

The future impact of car clubs depends on:

- The rate at which existing (and new) car clubs grow.
- The rate at which new car clubs are successfully established.
- The maximum size of the target market.

The case studies provide information on the rate at which existing and future car clubs may grow, and this is evaluated below. They also provide some useful information on the likely target market. They do not help assess the rate at which new car clubs may be established, or the maximum size of the target market. We use data from national car club umbrella organisation Carplus and material examined during the course of the literature review to evaluate these factors.

8.13.1 Future rate of growth of existing car clubs

The Edinburgh and Bristol car clubs have both set themselves ambitious growth targets. In Edinburgh, the car club had 203 members at the time of the case study interview (July 2003), and aimed to reach 450-500 (the break even point at which the club will be financially self-supporting) by the end of 2004. The original business plan projected another doubling of membership in 2005, and again in 2006. The latest estimate (received from Ball, 2004) is that the club will have 700 members by October 2005.

To reach these targets will require a higher growth rate than the club has achieved so far, or than was achieved by Budget in the original scheme. This will depend on overcoming some barriers to expansion, which are discussed below. The club is also hoping for some planning-led support through developers, and assumes that there will be some additional revenue from a large corporate user. If these barriers are not overcome, or the anticipated additional support does not materialise, the club may continue to grow at its current rate of just over 80 members per year, taking until 2006 to reach 500 members and become financially self-supporting.

The Bristol car club had 92 members at the time of the case study interview (July 2003), which had risen to 160 members by April 2004. At the time of the interview, it had a target to reach 1000 members by 2006. The most recent growth projection is for 750 members by the end of 2005 (Ball, 2004). Again, these are ambitious goals, and those running the scheme argue that they partly rely on overcoming problems with parking supply. The current rate of growth is about 90 members per year, and at this rate, the club would only have about 400 members by 2006.

In the longer term, the Edinburgh interviewee felt that the market for car clubs might reach 4,000 by 2010 although the potential number of people who could eventually become members was much more. The Bristol interviewee suggested that as many as 5,000 people might become members in the longer term.

We conclude that UK car clubs feel considerable pressure to set ambitious targets in order to demonstrate their credibility in the face of some scepticism. They also face pressure to reach financial viability over short timescales, with local authority start-up funding under threat of withdrawal if high growth rates are not achieved in the first year (as has happened in London).

However, the current growth rates in Edinburgh and Bristol are respectable and bear comparison with growth rates achieved in the early days of individual car clubs in Switzerland and Germany. The size of the long term potential market in both Edinburgh and Bristol is also clearly perceived to be considerable. The expansion of car club membership in other European countries has been a product of two things: steady growth (rather than 'exponential' growth) at individual locations, coupled with an expansion of the number of towns with car clubs. For example, the Bremen car club (as reported in section 8.8) achieved growth rates of just over 100 people per year in its first four years.

It should be noted that a steady rate of growth within a club is partly to be expected, given that the decision to join the car club may be dictated by the pace of other things happening in people's lives. Specifically, for example, the recent research on rural car clubs has shown that 77% of joiners had undergone some sort of life change that influenced their decision to join. These included moving house (25%), selling a car (19%) and changing job (14%), (Carplus, spring 2004). In Edinburgh, the interviewee commented that there are a few members who join for a short period of time to coincide with a stay in the city, whilst there are some who leave the club because they move away, or get a company car, or have children.

Meanwhile, as highlighted in section 8.8, the number of car clubs starting in the UK seems to be growing. Moreover, there is starting to be synergy between them. Carplus (winter 2003/04) report that members of Smart Moves car clubs in Edinburgh, London, Bristol, Brighton, Bradford-on-Avon or Stroud can all book vehicles from each other clubs. Carplus (spring 2004) report that members from all other UK car clubs can now book a vehicle from Clay Wheels car club in St Austell, Cornwall. This might apply, for example, should car club members happen to be on holiday in Cornwall.

8.13.2 Target market

To judge the potential for car clubs it is important to know what types of people are attracted to them, and the size of the target market.

- **Type of people**

As discussed in section 8.3, there is a certain type of person who typically joins a city car club – aged 25-45, from a managerial or professional occupation, undertaking relatively low car use and with some degree of environmental awareness. The type of people joining car clubs in Edinburgh and Bristol is similar.

In Edinburgh, members of the Budget scheme were typically 'young professional households with lower than average car ownership and higher than average incomes'. Similar, the profile of the Edinburgh Smart Moves members is middle class, professional, with higher than average educational attainment, and high levels of environmental awareness. There is a wide spread of ages, from 21 to 75. A few foreign or temporary visitors to the city have joined. As mentioned earlier, it was also noted that there is the degree of churn, with people leaving as well as joining. It should be noted that the Edinburgh scheme was partly initially targeted at people unable to afford a car, although this group does not seem to have constituted a high proportion of the resulting membership (as discussed in section 8.10).

In Bristol, car club members similarly have higher than average incomes, liberal attitudes and above average educational attainment.

Environmentally-aware, middle-class, well-educated households may be the social group most likely to join car clubs at present, but this does not mean that car clubs will always be confined to this group. Other factors, such as the proportion of households that would gain financially from car club membership, are also likely to be important in determining the maximum potential of car clubs, and the profiles of those attracted to car clubs may be different in different areas (as discussed in section 8.3).

- **Types of location**

Locational factors such as parking shortage or availability of other means of transport may affect the success of a car club. In Edinburgh, areas of low housing density with plenty of parking are not regarded as fertile territory, whereas the city centre (which is compact and densely populated with a shortage of resident parking) is more promising. In Milton Keynes, the provision of a car club in the central area (associated with a car sharing scheme) was considered a failure, because of the lack of residential land use in the centre, such that the car club vehicles were only in reach of people's work places, rather than their homes.

New residential developments are seen as opportunities to set up car clubs in Cambridge and elsewhere. Bonsall (2002) commented that "the potential for incorporating car clubs into new low-car developments is particularly attractive". In London, Urbigo has established a scheme on a housing development in Deptford. In addition, Smart Moves is working with a developer at three locations in Brent. They operate a car club in association with BedZED (Beddington Zero Energy Development) in Sutton, and, at a new development in North Ealing, they secured Section 106 funding to provide a car club of eight vehicles (at Grand Union Village). However, surprisingly, Edinburgh's car club vehicle stationed in the UK's first car free residential area (Slateford Green) has not proved very attractive to residents.

Both Edinburgh and Bristol partly attributed the success of their car club to the fact that the cities are relatively environmentally aware, and progressive in terms of transport policy.

In addition to city centre and low-car housing locations, Carplus also believe that car clubs can be feasible in rural areas, as discussed in the introduction, and there are now five clubs operating which they expect to break even within a relatively short space of

time. Meanwhile, it is interesting that their pilot work has also identified some areas where car clubs are not feasible. Specifically, in Windermere, in the Lake District, serious interest was mainly from young residents for whom securing insurance would be difficult. In Holbeach, the planning of the club was overtaken by the introduction of a demand responsive bus. Third, as already mentioned, in North-west County Durham, widespread poverty, the fact that the local area operates on a cash-based economy and a desire to prioritise other transport options have all meant that the car club is not seen as appropriate.

8.14 Key issues for scaling up car clubs

Both car clubs reported constraints which were making it difficult to expand their membership, potentially jeopardising targets to become self-supporting. In addition, Enoch (2002) provided a worldwide review of mechanisms for supporting car clubs. The following issues emerged as key factors determining the success of car clubs:

- **Designation of car park bays**

In the UK, it appears that the biggest constraint on car club expansion in cities is the length of time it takes to designate parking bays to be car club stations. In Bristol, it took more than two years to designate the first six dedicated parking bays (although this was partly because a major increase in streetworks caused a backlog in the Traffic Regulation Orders process). Another 12 parking bays are needed as part of the club's expansion plans, but because of delays, expansion into new areas was not being actively pursued at the time of the case study interview.

In Edinburgh, it takes about nine months to get new parking bays opened. One of the Edinburgh interviewees explained the difficulty: putting cars in a new locality before members are recruited is expensive, so interest in the car club must first be gauged and potential members recruited. However, the time lag can sabotage marketing efforts – by the time the cars finally arrive, potential members may have lost interest.

It is also clearly important that the car parking bays are in appropriate locations. Some bays in Edinburgh are not considered to be in viable locations, and, as previously mentioned, an attempt to set up a car club in association with the car sharing scheme in Milton Keynes was a failure because people could not access the vehicles from their homes. The Bristol interviewee commented that it is important to choose locations where there are unlikely to be major objections during the consultation period, as this can result in delays to the designation of spaces. Enoch (2004) comments that it is important not to spread the distribution of car club cars too thinly – if there is only one car located in a neighbourhood, people may be concerned about its likely availability, whereas more concentrated provision may provide reassurance. He argues that car club operators should work with councils to set up a rolling programme of traffic regulation orders for car club spaces radiating out from centres of existing car club membership. These could be initially suspended, but then quickly be brought into use when needed.

- **Car supply**

In the UK, there have also been delays obtaining cars. At the time of our interviews, both case study car clubs used vehicles provided by Vauxhall under a leasing arrangement organised via Carplus. Interviewees said that in the past the supply of

cars had been unreliable, although the agreement between Vauxhall and Carplus was being renegotiated and this was expected to resolve the problem. Sources of vehicles for the biggest car club operator, Smart Moves, have broadened since the case study interviews: as of July 2004, Smart Moves leases only a quarter of its fleet from Vauxhall, with the rest coming from three other contract hire sources. In Bristol, the interviewee noted that it would be useful to have a depot, to enable better management of the fleet.

- **Time profile of car club use**

Members' use of car club vehicles is mainly at evenings and weekends, and the lack of use during the day can make cars uneconomic. In Edinburgh the council has helped solve this issue by block-booking five vehicles during weekdays as a car pool for its staff. The car club is hoping to enter a similar arrangement with the university, and is also interested in the small business sector. In Bristol, the car club is working with North Bristol NHS Trust, although this initiative has experienced delays.

- **Planning guidance for new developments**

In both case study cities, there is potential to develop car clubs as part of new housing developments. In Edinburgh the council feels there are many new developments in the pipeline where this would be appropriate. However, it is not automatic that car clubs will be considered. Interviewees felt stronger planning guidance to encourage incorporation of car clubs into residential developments would be helpful. As previously mentioned, Smart Moves is expecting to access Section 106 funding to provide a car club in North Ealing, London. Meanwhile, the London Borough of Islington has Supplementary Planning Guidance on 'car-free and car-reduced housing' within its Unitary Development Plan. They aim to develop such housing in all suitable areas, and their design guidance states that at larger sites, developers may be asked to provide or contribute towards a car club, (Carplus 2004).

- **Fiscal incentives for car club members**

Interviewees also felt the government could help car clubs develop more quickly by looking at fiscal incentives. For example, tax or duty exemptions for car club vehicles would help increase financial viability. Exempting car club members from future road user charges in Edinburgh is seen as one way of making the scheme more attractive. In Southwark, car club members are exempt from the congestion charge. The pricing regime of the scheme – that is, the balance between fixed costs of membership and the cost per unit of use – may also affect its attractiveness, and, in Edinburgh, there are plans to evaluate the current regime. Enoch (2002) reports that the car club in Portland has benefitted from a system of tax credits from the Energy Conservation Bill, which encourages managers of parking lots to add spaces for the club.

- **Initial budget and staffing constraints**

Both case study car clubs operate on small budgets and low staffing levels, probably because the perception that car clubs are unproven makes it difficult to secure more start-up funding. The expectation placed on the clubs to deliver rapid expansion in a short timescale on a low budget seems very challenging. However, both clubs have proved that they can successfully grow their membership, and targeted increases in public funding might now enable them to reach break-even point more quickly. However, the Bristol interviewee commented that the success of the scheme is critically dependent on Smart Moves, which is a small company, and therefore

vulnerable to short-term changes. She also argued that the club might scale up far more quickly if it was possible to 'flood the market' with car club vehicles - for example, by having three stationed in every neighbourhood - and that this would change the public and political dynamic of the scheme.

- **Importance of a local presence**

Both car clubs feel that a local presence is important, and that it would be more difficult to resolve problems and recruit new members without a local base.

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- **Importance of a 'green' culture**

In both cities, it was noted that environmental awareness among some social groups is quite high, and that this has helped provide the initial supply of car club members. As mentioned in section 8.3, high levels of environmental awareness were also found to be a characteristic of early car club members in Austria. However, this may partly relate to how schemes are marketed. As mentioned in 8.2, European clubs have often been marketed at the environmentally aware, whereas, in the USA, they are often marketed as a smart feature of city living. Enoch (2004) argues that the US model of promotion may also prove effective in the UK.

- **Importance of avoiding customer dissatisfaction**

Member satisfaction is important, both to retain existing members and to attract new ones by word of mouth. In Edinburgh there was a high level of dissatisfaction with the original scheme run by Budget, partly because of technical problems. Smart Moves has greatly reduced the number of customer complaints. Increasing the range of cars available is seen as a future step to increase customer satisfaction.

- **Importance of publicity, local authority and national commitment**

Both the Bristol and the Edinburgh interviewees highlighted the importance of publicity for the car club to attract new members, and to increase the acceptability of on street parking spaces being designated for the club. They also felt it would be useful if government provided a national lead on this issue. In Edinburgh, the £6000 per year provided by the council for publicity material is seen as very useful. In Edinburgh, it was also notable that the club feels it would be valuable to advertise the benefits of the club to members of the council, to local politicians and to council staff. Enoch (2002, 2004) also highlights the importance of political support, publicity and marketing. He highlights that clubs could consider putting more marketing material onto the vehicles themselves (to help identify that they are car club cars), and making the on-street changes relating to the car club spaces a more visible reminder of the scheme. He argues that car clubs need a national symbol, and reports that Carplus are working on this.

8.15 Policy implications relating to car clubs

- Once 'break-even' point is reached, car clubs offer the potential to sustain reduced traffic levels at no cost to the local authority.
- Explicit support from national government for car clubs, highlighting that they can contribute to a sustainable transport strategy, could help to gain local political support and acceptance for schemes.

- The process of preparing traffic orders for car club parking spaces could be fast-tracked, which would help to reduce the long time gap between canvassing potential car club members in a new locality and providing a car. National guidance on this might help.
- Tax and duty exemptions for car club vehicles would increase financial viability and could enable clubs to reach break-even point more quickly. In London, exemption from the congestion charge is seen as one way of making car club membership more attractive, and such exemptions could also be incorporated in road pricing schemes elsewhere.
- Local authorities could be given greater encouragement to consider making car clubs a condition of planning permission through S106 agreements in new residential developments.
- Greater availability of start-up funding, for a realistic period of time, could help many more schemes to become established. It is not helpful if funding bodies set or expect unrealistically high growth targets in the early stages of car clubs.
- Encouraging employers (particularly in local authorities and the health sector) to consider the use of car club vehicles as pool cars during the day could help to make car clubs more viable. Inclusion of this issue in guidance on workplace travel plans might be helpful.
- A national symbol for car clubs might be helpful.

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