

# **Supporting car share clubs: A worldwide review**

***Integration into Urban Planning Work Package***

***MOSES (Mobility Services for Urban Sustainability) Project***

***European Commission, DG TREN.***

**Presented at the 3<sup>rd</sup> MOSES ESG Meeting**

**20-22 February 2002**

**London**

**Final Report**

Dr Marcus Enoch,  
Energy and Environment Research Unit,  
The Open University,  
Milton Keynes MK7 6AA,  
United Kingdom.  
Tel: +44 (0)1908 652964.  
Fax: +44 (0)1908 654052.  
Email: [m.p.enoch@open.ac.uk](mailto:m.p.enoch@open.ac.uk).



## ***Car Share Clubs***

Car share clubs<sup>1</sup> have been successfully operating on a relatively large scale only since 1987, when the first scheme began in Switzerland, although prior to that there were several smaller scale projects (Markusson, 2001). Schemes then spread to Germany, Austria and the Netherlands. More recently, car sharing clubs have been established in the UK, Denmark, Italy, and Sweden, as well as in Canada and the USA. Interestingly, these clubs have developed (and are still developing) in a number of ways. Some schemes are community-level schemes with only one or two vehicles, while others are national organisations with many thousands of members. And some schemes are run by volunteers and are non-profit making, while others are commercial ventures run by international companies.

Despite such diverse beginnings, it is clear that the vast majority of schemes face similar problems in becoming 'successful'. One major barrier to this, has been the lack of involvement or support from local and national Government. Given the potential benefits of car clubs to deliver environmental and social improvements to communities<sup>2</sup>, this is somewhat surprising.

As experiences of car sharing in practice spreads this situation has begun to change, and there are signs that Government attitudes across the world are more enthusiastic to the idea of encouraging car sharing. The purpose of this paper is to identify cases where such a change in attitude has occurred, at how various levels of Government have translated this into action, and at what lessons could be learnt from each example.

This paper reports on a 'state-of-the-art' review of where car share clubs throughout the world have been supported by developers and local authorities. Specifically, this aimed to:

1. identify the various ways that developers and local authorities employ to support city car clubs; and
2. determine which of these were successful and which were not, and the reasons behind these outcomes.

## ***Support needs of Car Share Clubs***

From the case studies looked at, the research identified a number of issues where car clubs have benefited from the support of Government, local councils, and other bodies. The following list provides a list of how these could support car clubs.

- Intellectual backing

---

<sup>1</sup> Ball et al (2001) defines a 'car share club' as being: a 'pay-as-you-drive' club, that offers members access to a vehicle without ownership. Is also known as a 'city car club' or 'car sharing scheme'.

<sup>2</sup> Ball et al. (2001) notes that car clubs reduce car dependency, congestion, noise and air pollution, land needed for parking spaces, and increase public transport use. In addition, car clubs offer access to cars for people too poor to buy one, helping to reduce social exclusion.

## Supporting car share clubs

- Political support
- Provision of ‘usable’ parking spaces.
- Funds to help the club buy and run vehicles.
- Financial and organisational help to market schemes effectively.
- Tax breaks for car club users and/or operators.
- Links with public transport operators, so that new ticketing, information and marketing products can be developed.
- Finally, alterations to the planning code to allow developers to reduce the parking they are required to provide in return for help with any of the above.

## ***Intellectual backing – overcoming ignorance***

One key barrier facing car share clubs has been ignorance of what they are and what they are for.

In Switzerland, this dissemination process was aided by the Verkehrsclub der Schweiz (VCS) - the most environmentally aware motorists organisation in Switzerland. This organisation produced a manual for car sharing as early as 1989, produced a lot of publicity material and even helped start up car share clubs in some locations. Most importantly, VCS eventually became the main channel of communication between car share club operators and policy makers (Harms and Truffer, 1998).

A similar process occurred in Germany, where the role was taken up by the Verkehrsclub Deutschland (VCD). VCD developed a manual for car sharing, publicised the mode, and initiated the foundation of the Carsharing Germany Co-operative (CarSharing Deutschland Genossenschaft e.G.) an umbrella organisation for small local car sharing initiatives. It also supported research on car share clubs (Harms and Truffer, 1998).

In the Netherlands, the Government supported the establishment of the Stichtingvoor Gedeeld Autogebruik - The Foundation for Shared Car Use in 1995 with a number of mobility providers. This drew on a vague idea in the early 1990s that more could be done with cars than just buying and using them. The philosophy was that you “don’t need to own a car to drive a car”. The Foundation is a national independent organisation for mobility providers e.g. Greenwheels, and at an intellectual level stimulates and disseminates research on car sharing (Theunissen, 2001).

Overall, the formation of nation-wide organisations to ‘educate’ policy makers and the wider public as to the role and benefits of car share clubs appears to have been a key reason that such schemes prospered in Switzerland and Germany. It is interesting to note that one of the major barriers faced by car share clubs in Canada and the USA, where such knowledge is not yet widespread, is the ignorance of local authorities of the whole car share club concept.

Supporting car share clubs

## ***Political backing***

The most obvious way that Government can offer support is through policy statements describing how car sharing might help to achieve environmental, social or economic objectives for example.

At a national level, the Dutch Ministry of Transport was instrumental in supporting the establishment of the umbrella organisation - the “Stichting van Gedeeld Autogebruik” to develop a national car sharing strategy (Harms and Truffer, 1998). Specifically, this aimed to conduct five tasks:

- Information and communication (under a common logo and name – Autodate);
- Facilitation of private car sharing (contracts, assurances etc.);
- Linking private and business car sharing (setting up car share clubs for firms);
- Development planning (e.g. establishing car sharing in new residential areas)
- Quality protection (research and monitoring).

The Foundation for Shared Car Use is funded by national Government. The organisation is seen as important as it links municipalities, the market and consumers, thus allowing a whole network of car sharing clubs to be set up across the Netherlands (Harms and Truffer, 1998).

While no car share clubs have gone beyond the experimental stage yet in Italy, several cities are to introduce them soon with the full backing of the Ministry of the Environment (Belgrano, 2002). This is because the Government sees car share clubs as an integral part of wider sustainable mobility policies. To do this, the Ministry is helping to promote the ICS (Iniziativa Car Sharing) - a consortium devoted to the diffusion of car sharing systems built up from the municipalities of Bologna, Genoa, Florence, Modena, Rome, Turin, Venice, Brescia, Reggio Emilia, Parma and the province of Milan. In addition, another forty Italian cities, have expressed an interest in joining ICS.

The goal of ICS is to give support to the cities implementing car share clubs to develop national operational and technological standards and common procedures to promote the take up of the mode. Membership of ICS by the municipalities is free, and entitles those that meet set criteria to access funds. In particular, ICS provides the municipalities or the proposed car share operators with help with:

- introducing the service;
- legal and technical assistance;
- designing the systems and the car sharing service; and
- marketing and promotion at both national and local level.

It also co-finances base funding to a maximum value of 50% of the full cost of the service over the first three years of the service. ICS began operating in October 2000, which was when the Ministry of Environment issued the Detailed Operational Plan for the Project.

In Sweden, the Swedish Road Administration is conducting meetings on how to proceed strategically with car sharing.

## Supporting car share clubs

At the city level, car sharing is promoted in the City of Boston's comprehensive transportation plan – Access Boston 2000 – 2010 (Felix, 2001), while in Bristol, the City Council has 'recognised the potential of car clubs within the package of transport alternatives in its local transport plan' (Cox, 2001). Similarly, in Montreal car sharing is seen as a key instrument in reducing air pollution, and as such it features in the Action Plan for Reducing Greenhouse Gases (Roberts, 2001).

Meanwhile Toronto City Council adopted a report made to the Urban Environment and Development Committee to support car sharing (Stewart, 1999). This suggested that:

*“building on its support for such initiatives as Auto Share and FAAN, the City of Toronto should continue to encourage and promote the implementation of car sharing programs through the consideration of such measures as:*

- *providing start-up loans through the Toronto Atmospheric Fund;*
- *supporting the publicity and promotional efforts of car sharing programs;*
- *facilitating the provision of parking facilities for car sharing, and*
- *incorporating car sharing as an element of the City's wider "Moving The Economy" initiative to develop Personal Mobility Systems as part of the strategy to move towards a sustainable transportation system.”*

Finally, King County Metro (Seattle's major public transit agency) took political support a step further, and decided to take the lead in establishing a car sharing program for the region. The Agency sees itself as the regions 'mobility manager', and in that capacity it aims to expand mobility options in the area. It also has a very aggressive 'smart growth' initiative that encourages development of urban centres while aiming to preserve rural areas. Car sharing is a program that supports these aims and encourages the use of public transit. The City of Seattle joined with King County Metro as the public partners of a car-sharing program. Specifically, the City has identified car sharing as a transportation demand management element in its 1999 Transportation Strategic Plan and has pledged to encourage car sharing in new housing and commercial developments. It has also committed staffing resources to assist with parking and policy development (Lindmark, 2001; Kadesh et al, 2000).

In summary, explicit political support for car share clubs is crucial if they are to consistently attract the tactical support available from Government, local authorities and other bodies such as public transport operators or developers. The research shows that if this is not present, it is likely that while 'one-off' concessions are sometimes granted, developing a scheme is generally a struggle. Where car share clubs are explicitly recognised in policy documents, chances are that a far more coherent approach to developing car sharing results.

## ***Help with parking***

At a tactical level, provision of 'usable' parking is perhaps the key function that car clubs say they would appreciate support. There are several ways that this type of support can be offered. These range from providing parking (along with 'protection' of those spaces) to car sharing, through providing the

## Supporting car share clubs

spaces alone, giving parking permits, and giving discounts for parking permits, to just giving priority to car sharing clubs for any spaces that become available. In addition, local authorities can encourage developers or private parking companies to provide parking spaces for car sharing organisations.

In the Netherlands, there are national guidelines allowing car club vehicles to access on-street sites, and special signs have been drawn up to indicate areas where car club cars may be parked. One national car club company Greenwheels has worked for more than four years closely together with municipalities and national government now has over 200 kerbside parking spots in 14 cities that are enforced by municipalities (Borghuis, 2001; Traue, 2001). In addition, the Stichtingvoor Gedeeld Autogebruik helps lobby and convince local authorities that providing car sharing clubs with spaces is worth their while (Theunissen, 2001).

Meanwhile the UK, Italian and Belgian Governments are currently looking at how on-street parking for car share clubs can best be provided.

The City of Portland is one of the few cities in the USA that has provided a number of parking spaces to the local car sharing operator. This was done by using a process the same as how taxi stands are provided, i.e. by regulating parking for classes of vehicles but not specific vehicles. The City also enforces parking spaces as they are 'protected' by 'reserved signs' (CarSharing Portland, 2001; Brook, 2001; Martin, 2001).

The City of Seattle has provided financial and staffing resources - \$US60,000 (€69,000) over two years - to help secure parking for the car sharing club, and currently has three on-street parking spaces designated for Car Club vehicles. The vehicles do not have specific bays and are marked with a sign that is not much different than a time limit parking sign. It just says 'Car Share Vehicle Only - 24 Hrs'. (Patton, 2001; Kadesh et al, 2000).

City Council support for the "Cambio-city" scheme in Saarbrücken saw a number of public parking-lots on the kerb-side converted into car sharing parking spaces, the appearance and maintenance of which still rests with local urban planning policy officers (Traue, 2001; Fischer, 2001; Hartlaub, 2001). Meanwhile the City of Edinburgh Council 'donated' four on-street locations each with three or four spaces reserved for City Car Club vehicles, and introduced the Traffic Regulation Orders necessary for the spaces to be enforced by parking attendants (Saunders et al., 1999).

The Zipcar Car club operates in four cities in 'Greater Boston' – Boston, Cambridge, Somerville and Brooklyn. Outside the City of Boston, each of the other three cities help provide public parking spaces to car clubs through a competitive tendering process – although currently Zipcar is the only bidder. In addition, discount on monthly rates is sometimes offered on the off-street public parking lots. Interestingly, on-street spaces impractical due to street sweeping and snow ploughing. So far ten spaces are either free or discounted by the three cities. Parking can be worth up to \$US500 (€575) per month, but otherwise around \$US100-\$US200 (€115-€230). The discount was offered only after Zipcar applied to the local authorities requesting help, using the justification that car clubs reduced car traffic. Inside the City of Boston, the Boston Transportation Department is currently exploring the legal

## Supporting car share clubs

feasibility of a private company being granted designated parking spaces in a publicly owned and operated off-street parking lot (Chase, 2001; Felix, 2001).

In Toronto, car club Autoshare is given a 30% discount on monthly parking permits by the City Council. This is especially useful, as many of these parking lots are located near to the Toronto subway system. This allows car club members to use the subway as a back-up should there be no car available for any reason (Reynolds, 2001).

As in many cities, parking is seen as the main issue in Vancouver, British Columbia. To address this, the City Council operates resident parking zones in 19 areas where a permit is required to park. To help the car club, the Council allows it to buy a special permit covering all these zones, but it is not cheap. Other than that, Council support is limited. Indeed, it is far easier for the car club to go to private owners of parking garages and lots to rent spaces, as the city seems to put up all kinds of obstacles in the car club's way, to do with signage for example. Car club vehicles are also not permitted to park in commercial zones for more than the maximum 30-minute period. There is a newly developed area called Yalestown near to the Downtown. The population of around 50,000 estimated for this area is likely to be relatively affluent with low car ownership – ideal for a city car club. In addition, the City has reduced the amount of parking allowed per person from 1.8 spaces per person, while there is also very little additional on-street and off-street parking provision. Thus parking is becoming a massive problem. However, despite this, the City Council simply does not see that car clubs could help lessen the pressure on parking spaces and so car share club CAN remains on a number of waiting lists for parking with residents and businesses (Axelsson, 2001).

The city commission has taken zero interest in CarSharing in Traverse City, Michigan except for the county commission recently agreeing to provide a free parking space at the city-county Governmental Center, administered by the County. This though, was due to the personal efforts of a supportive county commissioner, rather than a coherent policy by the County (Flesher, 2001).

Very little help is offered by city authorities in Quebec City to car clubs, but one area where support is given, is where public parking spaces become available. Here, car clubs are now sometimes offered the space in preference to local residents (Poulin, 2001). The situation is slightly better in neighbouring Montreal. Here, practical support for Communauto consists of the Council (via a private parking contractor) giving the car club priority for parking spaces and allowing it to buy parking permits – something it would not do for other businesses (Roberts, 2001).

Provision of parking spaces is often the most important way that local authorities and developers can support car share clubs. Ideally, spaces should be accessible to members, perceived to be safe, be as close as possible to where members live and/or work, and be visible to prospective members. Where necessary, spaces should also be 'protected' from being used by other motorists by traffic regulations and traffic wardens. Discounts on rent for car club parking spaces is also appreciated.

## ***Financial support (including tax breaks)***

Financial support for car clubs has tended to be offered to help start up the club and to buy and run vehicles, plus financial and organisational help to market the scheme effectively. At a national or State level, tax breaks for car club users and/or operators has also been provided in at least one case.

In recent months, car sharing in Britain has been boosted by a number of financial grants being made available from Central Government (CCSN, 2001). These include:

- The Countryside Agencies Vital Villages scheme – Within this, the Parish Transport Grant of up to £10,000 (€16,200) can be used to support car clubs, providing it makes up no more than 75% of the total capital cost. At least 5% cash must be raised towards the funding, but other matched funding can be made in kind. A further £5,000 (€8,100) is also available from the Parish Plans Grant scheme.
- Around £100,000 (€164,000) has also been made available to the Community Car Share Network by the Department for Transport, Local Government and the Regions to expand its information programme. This is specifically targeted at rural car clubs and tackling social exclusion.
- Finally, the New Opportunities Fund SEED grant programme (of the Royal Society for Nature Conservation) is also funding car share clubs to help disadvantaged communities.

Public funding has been key in establishing the Edinburgh car club from the start. To begin with, the City of Edinburgh Council paid £48,000 (€78,500) to help kick-start the scheme, while £150,000 (€245,000) came from Central Government for technology and other set up costs, and £30,000 (€49,000) from the Scottish Executive to cover the cost of monitoring the project. Unfortunately, this first scheme had to be abandoned when car rental firm Budget decided to drop out, having decided that the operation was not commercially viable. As of September 2001, car share operator Smart Moves has taken over the contract, with the council agreeing to pay £40,000 (€65,500) over the next two years to help with publicity and marketing the re-launched scheme (Hobley, 2001). Additionally, the City Council guaranteed that it would use the service – effectively an indirect subsidy (Saunders et al, 1999).

ECS (1999) notes that the district authority of Ostholstein in Eutin, Germany was to transfer three of its vehicles to the control of StattAuto Kiel, while in 1997 the municipal administration in Cologne sold off its car fleet and its employees use StattAuto vehicles instead. North Rhine-Westphalia too was about to do the same, the first such arrangement at the regional state level.

Start up grants have been used elsewhere too. In Seattle, transit provider King County Metro has provided \$US400,000 (~€460,000) over a two year period for the Seattle car sharing project, while the City of Seattle is contributing \$US60,000 (€69,000) over the same period (Kadesh et al, 2000). And Toronto City Council provided a \$CAN20,000 (€14,400) loan to help the club ‘get off the ground’ from the Toronto Atmospheric Fund, and facilitated the relationship between the car club and the Toronto Transit Commission (Reynolds, 2001). In Chicago too, funding from the Federal Department of Transport is to help launch a car sharing scheme in autumn 2001. The CNT hopes to follow the San

## Supporting car share clubs

Francisco model (see later) of creating strong links with local Government, businesses, developers and transport operators (CNT, 2001; Cohen, 2001).

In the Netherlands, the Government does not 'give cash to exploit cars', as it cannot be involved in altering the market. It therefore does not give money for start up costs or buying cars, although indirectly it may have done initially through research grants for practical demonstrations. Dutch councils are also supporting clubs by using car share cars as pool cars. The Foundation for Shared Car Use also has an Autodate task force to help local authorities set up their own networks. This is useful because municipalities do not have the time or experience to establish car share clubs, so manpower is of great help in the initial stages (Theunissen, 2001).

Financial support can also be offered through private developers. In a one-off deal with a local building contractor, the Palmscher Park GBR in April 1999, car club Gemeinschaftsauto in Esslingen was provided with a fully paid for vehicle and free parking space, while the developer sold 'flats with car sharing'. No special planning rules were required (Mezger, 2001). Essentially, the process follows a pattern becoming increasingly common in Germany. This is described on the CarSharing in Europe CD-ROM (ECS, 1999), from which the following section (based on the Esslingen case) is taken.

### **The Model**

- CarSharing is available to apartment buyers as an integrated service
- The building management will finance up to two CarSharing vehicles for over 30 months
- The building management will co-ordinate the construction of parking spaces
- The management will be responsible for the maintenance of the vehicles
- The dwellers may use these vehicles at special conditions
- The VCD-Gemeinschaftsauto\* will handle all organisational transaction and expenses

### **Advantages for the Residents**

- The CarSharing vehicles are parked right in front of your door
- There are fewer vehicles in the housing area
- Reduced deposits and reduced membership-fees

### **Advantages for the VCD-Gemeinschaftsauto**

- Establishment of new user groups
- Parking space available
- Low financing

### **Advantages for the building management**

- Effective publicity
- Additional service

## Supporting car share clubs

- All organisational transactions are handled by VCD-Gemeinschaftsauto

The same process has also been used in Gießen in Germany. Here the Gesellschaft für soziales Wohnen (social housing association) became one of the first housing enterprises in Germany to provide its tenants with a car share vehicle as an additional service. The new service concept is called 'Incars', and was developed by the companies Consult 21 and Invers of Siegen. It was realised by the GSW under the name MieterMobil, and car club stadtmobil CarSharing GmbH. As of April 1999, after nearly eight months of successful operation, 35 of the 210 adult residents - i.e. 16% - had taken up the offer (ECS, 1999).

And in Deptford, in the London Borough of Lewisham, developer St James's and rental car company Avis have agreed to launch a car free club at 'One SE8' in spring 2002. Initially, there will be 19 cars on site. The developer will pay a £99 (€160) annual membership fee for one member of each household to join the car club in the first year. The developer approached Avis to establish the scheme to help deal with the tight parking standards of one space per two homes. The site is also near rail and light rail stations, and is well served by buses. Around 450 apartments are to be built by 2004 at the site (Bond, 2001). Meanwhile at the Stadthaus Schlump development, the developer negotiated a contract with Volkswagen to pay 50% of the cost of five car sharing vehicles and their administrative support - computers and staff time. However, they are now considering incorporating the scheme with StattAuto - the city-wide car share club (Scheurer, 2001).

The developer of the Buckman Heights development in Portland, agreed to cover the operational costs of three cars on the site for use by tenant members of the car share club as part of its marketing strategy for the first year (Brook, 2001; Martin, 2001; Tri-Met, 1999).

Also in Portland, or rather the State of Oregon as a whole, is the use of a more subtle form of financial support. Specifically, tax breaks have been enacted to encourage car sharing. Governor John Kitzhaber signed an energy conservation bill that includes tax credits that will help expand car sharing on June 25th 2001. Introduced by Portland representative Chris Beck, State Bill 521 expands the Business Energy Tax Credit program, which provides tax incentives to businesses that carry out certain energy-saving activities. The bill includes provisions that will allow CarSharing Portland to increase availability of parking spaces to locate its cars. This is a positive step, as one of the biggest hurdles in expanding car sharing in Portland has been convincing owners and managers of parking lots that placing car sharing vehicles in neighbourhoods will improve the parking situation (CarSharing Portland, 2001).

There are also tax advantages to car sharing in the Netherlands. One is that for company cars, the employee pays 25% tax of the value of the car if s/he drives too many private use kilometres in a year. However, this doesn't apply to Autodate cars since the law was changed after lobbying by the Stichtingvoor Gedeeld Autogebruik - The Foundation for Shared Car Use two years ago. Also, while conventional company cars are liable for VAT, companies whose employees use Autodate vehicles are not. This is because the Autodate contract is between the company and Autodate, and therefore the company is able to reclaim its VAT as it is not the end user - the employee is (Theunissen, 2001).

## Supporting car share clubs

Financial support for car share clubs is generally targeted to meet specific needs. Britton (2001) of the World Car Share Consortium sums this approach up nicely, noting that: “the kind of support that is needed for car sharing is quite different from the more traditional role between local government and the transportation system. Based on experience, it can be seen that what is needed is not great clots of taxpayer moneys to fund the whole thing, but rather an attentive and capable local administration that is ready to come in and provide a wide range of ‘softer’ support functions”.

### ***Forging links, publicity and marketing***

Another useful function for government, and indeed for private developers or companies, is to facilitate links between car clubs and public transport operators, so that new ticketing, information and marketing products can be developed.

Interestingly, from the start the car share clubs promoted in Italy by the ICS will be strongly integrated with the public transport system (Belgrano, 2002), targeting:

- car owners who think car sharing may be more convenient than a private car, e.g. people driving only short distances and families with second and third cars; and
- companies, professionals and public agencies, that would find car share club vehicles convenient either to integrate them into their vehicle fleets, or even replace them altogether.

Bremen and Stockholm are two cities where public transport, car share club vehicles and taxis can be taken using a smart card, while in Dresden too, the car club and public transport are strongly linked (Badenhop, 2001). Meanwhile Bristol City Council has provided advice, publicity, and technical and financial support to the Bristol Environmentally Sustainable Transport (BEST) Car Club since the scheme’s launch (Cox, 2001). And, local bus operator First Bristol offers 10% off its pre-paid fares for BEST car club members (Carplus, 2001).

In Seattle, the lead role of transit operator King County Metro of car sharing in the region, has therefore been able to integrate the concept with conventional transit operations from the beginning (Kadesh et al, 2000). Similar operator-led arrangements are also been developed in Italy and Belgium.

In Hull, Quebec the local public transport operator is to let members of a soon-to-be-launched car club to pay discounted fares on its buses. Essentially, the operator has agreed to let the Communauto Car Share Club register its members as ‘employees’, thus entitling them to a transit pass that gives a 15% fare discount (Roberts, 2001). There are also several local schemes in the Netherlands. For example Autodate customers in Rotterdam are eligible for discounted fares on RET services, while frequent RET riders are able to join the Autodate scheme at a lower rate (Theunissen, 2001).

The likely attractiveness of the presence of a car share to potential property buyers has also led to several cases where developers have initiated the link between car share operations and providers of public transport. For example, Gessner and Raap, the developer of Stadthaus Selump in Hamburg negotiated a deal with public transport provider HVV to supply annual public transport passes which were supplied to all residents as part of the rent without extra charge. However, as of January 2000, the

## Supporting car share clubs

car sharing, public transport and other benefits must be paid for separately at a cost of DM40 (€20) a month (Scheurer, 2001).

Similarly, residents of the Vauban project in Freiburg who join the Freiburger Auto Gemeinschaft car sharing club are, on payment of the DM700 (€360) joining fee (half of which is refunded when they leave), offered a special mobility package. This allows membership of the car sharing organisation together with a one-year free pass for all public transportation within Freiburg as well as a one-year 50% reduction on every train ticket in form of the “Bahncard.” (Forum Vauban, 1999; Scheurer, 2001).

Developers have also taken to promoting car share clubs, obviously in order to enhance the marketability of their development. This was certainly the case when developer Prendergast and Associates of the 144-unit Buckman Heights mixed-use development, where the presence of CarSharing Portland was prominently mentioned in its marketing material. At the time the deal was arranged, in June 1998, car sharing was a relatively new phenomenon, and so the local planning authority was not really involved (Brook, 2001; Martin, 2001; Tri-Met, 1999).

In Singapore too, the Co-op Car Club that was launched in 1997 benefited from the support of the developers of two neighbouring condominiums who saw car sharing as a way of adding value to their product. Residents of the developments automatically become members of the car club and have access to a fleet of a variety of types of shared cars. These members do not pay membership fees during the first years, but pay for usage. The developers of the two condominiums are each paying approximately \$SG100,000 (€62,800) towards this operation during the first three years of the program. As it expands, the intent is to provide one car for every 40 residents. More generally in Singapore car sharing lots are also being located near public transit stations, so users can rent vehicles at the end of a transit trip thus effectively physically integrating the mode with conventional public transport (Sperling, Shaheen and Wagner, 2001; Meng, 2001).

This physical integration of car sharing with the public transport network is also being pushed across the USA. In this guise, car share club vehicles are known as station cars. Developed in the USA since 1995, the station car concept places several to many vehicles parked at central locations such as airports, stations, college campuses, convention centres, etc., rather than a larger number of smaller sites being spread around neighbourhoods as with car sharing. Often, the station cars are funded by public transport operators, car rental firms, vehicle providers (sometimes electric or gas powered) as well as local, regional or federal government. As of March 2001, there were around a dozen such schemes in operation across the USA (NSCA, 2001).

Also at the national level, Dutch National Railways has a joint deal with mobility provider Greenwheels, where Greenwheels members get discount for rail trips, and frequent rail users get discount on Greenwheels membership. To support this, Greenwheels is aiming to establish car share networks at each of the 39 inter-city main stations in the country (Theunissen, 2001). Similar schemes are also been implemented by rail operator Deutsche Bahn in Germany, and between car share club Mobility and Swiss National Railways SBB in Switzerland (ECS, 1999).

## Supporting car share clubs

Such initiatives demonstrate that backing for publicity and marketing of car share clubs is one area that offers great potential. Many local authorities have strong links with public transport operators and are able to influence ticketing strategies to incorporate car share clubs. This makes good sense as having access to a car share club as an option if public transport is not suitable for a particular journey could provide a good reason not to buy or own a car. The link with local developers seeking planning permission is also a useful one for promoting car share clubs (see next section for more examples).

## ***Planning support***

Finally, alterations to the planning code to allow developers to reduce the parking they are required to provide in return for help with any of the above.

Perhaps the most active local authorities in integrating car clubs into development processes over the last year or so, have been the London Boroughs of Southwark and Sutton – both partners in the MOSES project. Specifically, these authorities have used planning agreements to secure funds to provide car spaces, signage, lighting, shelter, closed circuit TV cameras, lease vehicles, communications technology, residents membership for a limited period and funds to administer parking control. Planning agreements have also been used to make developers prepare Travel Plans and Transport Impact Assessments (Solman, 2002).

One example of this approach was for a mixed development of 221 flats, 19 live-work units, and offices with 173 parking spaces proposed for 211 Long Lane in Southwark. This was granted planning permission so long as the developer provided four dedicated parking bays solely for car share club vehicles, paid the first year membership of £150 (€243) for units with no allocated parking spaces, and paid £5,000 (€8,100) towards acquisition of the car share club vehicles (Solman, 2002). In Sutton, the setting up of a car club as part of a Green Transport Plan for the Beddington Zero Energy Development (BedZED), helped underpin an argument to the Borough Council for providing parking at approximately 50% of the current rate set out in Sutton's Urban Development Plan. The Travel Plan was drawn up by co-developers and sustainability consultants Bioregional (Taylor, 2001).

In the Netherlands there have been several attempts to integrate car clubs into new blocks of flats based on 100 flats at 5% membership supporting a car. But, to work well, Greenwheels (a Dutch car club) would ideally like five cars in a development. Because it hasn't happened without a planning framework, the Dutch Government has now created one. This says that where an appropriate area is redeveloped for housing [an 'appropriate area' being apparently 10,000-30,000 people] these must have a car share scheme from Day One (which is taken as when the first 500 homes/people are ready for occupation). As yet, no schemes have actually been introduced under these rules, although one example, a redevelopment at Eiber in Amsterdam is considering starting a car sharing scheme as one element of a mobility package for residents. This would involve the use of a smartcard that could be used on public transport, and for using car club vehicles. The consultant working up the plan for building in the next 3-6yrs is Decisio (Borghuis, 2001; Boekstal, 2001).

## Supporting car share clubs

One Dutch car free housing project that has included car sharing within it, is the 600-unit GWL-terrein project in the Westerpark district of Amsterdam. This is located about 3km from the city centre and was completed in 1998. The streets surrounding the development are controlled parking areas, and residents of the development are ineligible for permits. Around 10% of households have joined the car sharing scheme (Scheurer, 2001).

There is also a desire by the Foundation of Shared Car Use to see car share clubs as part of building neighbourhoods. For instance, the Liedsche Rijn on the edge of Utrecht city centre, will house 100,000 people on completion in five years time and has been designed to be car share club friendly. The site is the largest in the country and will incorporate the concept of mobility centres, where car sharing/bus stops/taxi stops are located near to people's homes. Interestingly though, as a rule developers are not really that involved in supporting car sharing in the Netherlands (Theunissen, 2001).

In Bremen, Germany, the City Council with the Municipal building association, the Department of Environmental Protection and Urban Development and the Department of Building tried to establish a car-free living housing estate of 220 units, with planning beginning in autumn 1992. This required a legal review, as under the Reichsgaragenverordnung (National Garage Order) of 1939, Bremen Building Regulations stated that a new housing estate of 220 units needed to have 180 to 220 individual car parking spaces. These rules were waived for the project, with tenants having to sign a contract pledging that they would not own a car. In the event, the economic recession and reduced demand for housing in general saw the project halted in early 1996. Despite this, a smaller scale project of 23 car free housing units in Grunenstrasse was completed in November 1995. A car sharing scheme was also supposed to be introduced at the site (Glotz Richter, 1996; Glotz-Richter, 1997; Badenhop, 2001).

One other example of a car sharing development in Bremen is known as Beginenhof. This mixed use scheme was pushed by the regional government's minister of women and was paid for by the regional and municipal governments. Overall, the parking requirement was cut from 75 to 45 parking spaces, and two shared cars are on site – to be increased to four in time.

The City of Hamburg has changed its binding regulations concerning the number of parking lots which need to be built with the construction of 'car-free' housing developments larger than 50 housing units. Car-free in this case means residents declare that they neither possess a car nor use one regularly. Parking is therefore reduced to 0.2 spaces per housing unit for delivery, car sharing and 'special cases in life', where a car has to be used for a limited time. While this regulation has been used in the Zelsewiese and Saarlandstrasse developments, neither has any special features in relation to car sharing (Schröter, 2001). One development that does, is known as Stadthaus Schlump. This 44-unit development in the Eimsbuettel Quarter opened in 1996. Car sharing forms part of the deal for tenants, and bikes are also available to rent. Facilities are easily accessible. Quality of environment is often cited as a reason for people, particularly families wanting to live there. Car ownership is one car per two inhabitants (Ball et al, 2001; Scheurer, 2001).

A car free housing development of some 350 residential units supported by a car share club is also proposed for the Nippes area of Cologne (Moellers, 2002). The City has been studying car free areas since 1994, and formed a special committee to look at potential car free locations in 1995. The plan for

## Supporting car share clubs

the Nippes scheme – the largest car free project so far in the city - was finalised in January 2002. It is hoped that the scheme will contribute to relieving congestion, reducing emissions and stimulating public transport use.

Residents of designated car free housing developments in the London Borough of Camden are not able to obtain residents parking permits. Developers are required, under the planning agreement, to make residents aware of this provision. However, the ability to enforce such contracts over time has not yet been tested (Hannon, 2001).

The developers of Hammarby Sjostad in partnership with Swedish company Statoil have established a car sharing scheme which as of spring 2002 has 20 users and two cars. The developers set aside a restricted parking space while Statoil arranges meetings with new households and provides information on the car sharing programme (Agren, 2002).

Toronto currently has lots of infill development occurring on former industrial sites, including a number of social housing schemes. These areas, such as a large site by the Waterfront, are well-served by transit, and will be developed as high density apartments. As a consequence, planning regulations with a maximum provision of 0.7-0.8 spaces per apartment are now in place, whereas formerly the ratio was closer to 1.2-1.5 (Reynolds, 2001). In planning terms, the City Council is therefore 'very excited' about incorporating car clubs in planning agreements, and is encouraging Autosshare to approach developers. The intention is for Autosshare to set up a deal with a developer to incorporate car sharing on-site (possibly by autumn 2001), which will then be used as a test case for altering the planning guidelines. The City Council is also understood to be looking at introducing mandatory planning rules to allow car clubs to be established in place of car parking spaces. However, while the Council is keen, developers are still not convinced that apartments with less parking spaces will sell. One argument to persuade them otherwise, will centre on the high cost of building parking spaces (typically \$CAN20,000-\$CAN25,000 (€14,400-€18,000) in Toronto, and probably far more if constructed beneath the waterline in the Waterfront area). Another is to highlight the marketing benefits of providing a car sharing station (Reynolds, 2001).

Portland, Oregon is somewhat more progressive than many US cities and has been allowing residential housing developers as low a 'floor area [to parking space] ratio' (FAR) as they want, and as their financing source will allow. However, as yet there is no designated FAR bonus in written into the building code. To that end, one city councillor is sponsoring a sort of 'focus group' with local developers to scope out the issues as they see them (Brook, 2001; Martin, 2001).

As yet, there have been no changes to any planning regulations in Seattle, although the City Council has recently asked for a few small changes in their parking requirements for builders who include car sharing in their developments. These proposals have not yet been acted on, and will be heard in Committee within the next month or so. When introduced, they are likely to be applied on a case by case basis, rather than systematically. In terms of encouraging car sharing, encouraging developers to think about car sharing schemes, or reducing conventional parking, and/or car trips, the city has had limited success so far with car sharing. Developers have expressed interest, but so far only one has been willing to try. Even here, problems due to other reasons make this scheme unlikely to happen. For the

## Supporting car share clubs

future, in the short term the City will continue to work the political issues, educate the neighbourhoods, and seek out progressive developers. Beyond that, it is looking at how other regulations can be changed, but first car sharing would have to demonstrate that it will be around for a long time (Lindmark, 2001).

Vancouver City Council has intimated a willingness to alter planning regulations to help support car sharing. But, a negative experience of tightening parking regulations in the Yaletown district of the city has discouraged it. In addition, developers are apparently not yet ready to risk opening a development with limited parking spaces as they are not convinced that people would buy them. On the other hand, some developers have considered allowing CAN to occupy parking spaces – even to the point of setting back parking gates to enable non-residents to access the car club vehicles. But, these advances are not really connected with parking quotas. This is despite developers being told of the millions of dollars of potential savings afforded by not building the full number of parking spaces (Axelsson, 2001).

Currently the City of Boston is actively asking developers to include car sharing provisions in its Transportation Access Plan Agreements – the legal contract that delineates mitigation measures for a specific development project. In addition, the Boston Transportation Department is in the process of co-ordinating with the Boston Redevelopment Authority to investigate the feasibility of zoning based incentive mechanisms to encourage the use of alternative modes of transportation (including car sharing) for new developments, as well as districts (Felix, 2001).

The 120-unit car-free Slateford Green housing scheme in Edinburgh was built by Canmore Housing Association on a 1.6 hectare site 4km from the city centre. The developer has powers to enforce that no vehicles can be parked on the site, although in practice minimal parking is available for disabled access and essential visitors. While there is no local on-street parking management, the site has limited road access. A primary motivation for the car free nature of the scheme was that the developer would have had to build a link road at its own expense otherwise. Schools and shops are located nearby, and there are two local bus services in the vicinity. Edinburgh City Car Club also used the site as one of its car share stations (Ball et al, 2001).

The Forum Vauban project is a City Council-led sustainable development project on a former military site in the University city of Freiburg. No parking is allowed on site, and vehicle owners have to buy a parking space in a multi-storey car park on a site adjacent to the development, and pay a charge of 30,000DM (about €15,300) – double the usual cost of parking in Germany). The development is the first in Germany to overcome the Federal Parking requirement that each apartment must have a parking space. Non-car owners are able to save this 30,000DM (€15,300), providing they sign a legal agreement not to own a car. They are organised in a special association that is granted exemption from the legal requirement to provide a parking space for each residential unit. But, the association is still required to buy a site that could be used for car parking should the number of non-car owning households increase beyond the capacity of the existing garages. Until then (maybe never) the reserve will be used as an open space. Car sharers will not be required to buy a parking space. This has been reserved adjacent to the existing parking but the land will be used for barbecues and as a playground

## Supporting car share clubs

and soccer field, and there may also be space for gardens for rent (Levett, 2000; Forum Vauban, 1999; Forum Vauban, 2001; Scheurer, 2001). Public transport provision is not yet very good, but car ownership is steadily decreasing. Currently 46% of residents do not own a car – while the same percentage are members of the site's car sharing club. The development is due to be completed by 2005, when it will be home to 6000 residents and 600 employees (Crawford, 2000). Nearly 90% of residents were attracted to live on-site by the car free element of the development (Ball et al, 2001).

The Green Party in Vienna sought to build a car free development for many years. But the project was stymied for a long time due to a legal requirement that one parking space was to be built for each apartment. Construction of a 250-apartment block – the Autofreie-Muttersiedlung housing development in Floridsdorf, some 9km from the city centre - began in 1997 when an exemption was obtained, and full occupancy was expected by 1999. Parking provision was reduced from 250 to 25 spaces which are exclusively for car club vehicles. Interestingly, this cut in parking provision saved the developer some ATS22m (€1.6m) – or 9% of the total construction budget. Free membership of the car club is offered for the first year, and 57% of households have taken up the offer. Facilities are nearby and public transport links are good. Over half of the residents cited the car free nature of the development as the reason for living there. Residents are obliged to abstain from owning a vehicle by an article in their lease. However, although Austrian law does not permit eviction if this clause is violated, as of October 2000 no enforcement had been required. Alternative instruments could include the withdrawal of housing subsidies or a forced apartment swap should the tenant refuse to give up their car (Ball et al. 2001; Crawford, 2000; Scheurer, 2001).

Because of the inclusion of a car share club scheme, the City of Berkeley, California allowed the developer of the Gaia Building and Cultural Centre, Panoramic Interests to include only one parking space per three residential units in the downtown location. Altogether, 41 parking spaces serve 91 apartments and a theatre, and as of spring 2002 the 237 residents are limited to 20 cars (Millard-Ball, 2002). Ratios as high as two parking spaces per unit are more typical. Thus this developer has more revenue producing space, and thus it provided the car sharing for free (NSCA, 2001). In addition, those who wish to rent a parking space must pay \$150 (€172) a month, while tight downtown parking restrictions stop residents parking on the street outside.

New planning guidelines limiting car parking in Traverse City, Michigan, meant that developers of the River's Edge development in the Downtown approached the local car club and asked to participate in the scheme. However, involvement in the car sharing element of the scheme is not mandatory. So far, two residents from the as yet unfinished development have joined the scheme (Flesher, 2001).

One potentially large development-related car sharing scheme currently being planned, is in the Berlin Borough of Panke. Located in the centre of the city with excellent public transport links, the 13.2 hectare site was once occupied by the Stadium of World Youth but by the mid 1990s was derelict. Following a competition, an organisation campaigning for the rights of pedestrians suggested the borough be car free. The development of the site is awaiting the go-ahead from the local council. It is intended that car sharing will be available to residents at some point. A larger car free scheme, again

## Supporting car share clubs

with car sharing, is also proposed on the outskirts of Berlin at Treptow. This would consist of around 1400 homes and occupy a 50 hectare site (Heller, 2001; WOA, 2001).

A 55 unit car free development project incorporating car sharing, was scheduled to be built beginning in March 1999 on the Unterneustadt in Kassel (WOA, 2001).

The technique of using planning guidelines to encourage car sharing schemes is not particularly advanced as yet. While relatively few local authorities have either changed or plan to change their planning rules to incorporate car share clubs, many more are slowly beginning to allow developers to negotiate deals where setting up car share clubs is an acceptable way of reducing the amount of parking required. There is also evidence to suggest that much of the pressure for setting up car share stations on developments is from the developer and not the local authority – with developers actually using the car share club as a selling point.

## ***A flavour of things to come?***

Perhaps the scheme that has made the most progress in these respects, is the San Francisco City Car Share. It is however, important to note that the scheme only began operating on 1<sup>st</sup> March 2001. The City Car Share is a not-for-profit organisation, and as of August 2001 has 25 cars for 625 members (White, 2001).

### ***San Francisco, California, USA***

San Francisco City Car Share works very closely with the City Council. Basically, The City acts as the delivery mechanism of a Federal Government grant of \$US750,000 (€863,000), and keeps track of how the money is being spent and how the scheme is performing. The City helps in two main ways. Firstly, it provides parking for free – quite a gift when spaces are rented at \$US200-\$US500 (€230-€575) per month. Second it helps deal with the media, promoting the scheme, etc.. So far the car parking spaces are all off-street, due to not enough spare on-street capacity, but when the car club expands into Berkeley and Oakland in the autumn there will probably be on-street spaces too as parking is not as scarce (White, 2001).

On the planning front, the City adopted a resolution in the autumn of 1999. This is to be found in Appendix A. As yet, the resolution has not been formally introduced into the planning codes, but it is expected that this will happen soon. Currently, the car club works with developers on a case by case basis. As there is quite a lot of opposition to new development by neighbouring sites across the city, it is relatively easy for the car club to make the scheme more palatable by using the car club as a reason to provide less parking spaces. The text from City CarShare publicity material aimed at property developers outlining the benefits of including a car club in a planning application can be found in Appendix B (White, 2001).

One example of where a developer and the City CarShare have worked together occurred in the Mission Bay area. This was formally an industrial site that is now been converted into a new residential neighbourhood. One particular 100-unit development of affordable housing is currently being built on

## Supporting car share clubs

top of shops and business units on the ground floor by the Mission Housing Development Corporation – a private non-profit organisation. Whereas the planning regulations called for at least 150 car parking spaces – one space per apartment plus one space for a specified area of commercial floorspace – only 96 spaces are to be provided. Three spaces will initially be set aside for the car club, although the developer is open to more being converted should the concept take off. One other innovative feature of the parking is that commercial and residential parking for the development has been combined (White, 2001).

Overall, the San Francisco experience illustrates that support from informed partners (in particular the local authority) can help accelerate the development of car share club schemes, and make their survival more likely.

## **Conclusions**

In conclusion, the case studies illustrate a wide variety of ways that government bodies and private developers in some cases can help support ‘successful’ car share clubs. Fundamentally, it is clear that an integrated approach is required if such schemes are to work.

In a number of cases (in particular in North America), it is clear that local authorities are unsure of how to deal with car share clubs, meaning that schemes have struggled to survive never mind develop. This indicates that the first stage in developing car clubs further, requires national Governments together with car sharing networks such as the World Car Share Consortium and European Car Sharing to publicise the benefits and needs of car clubs to policy makers.

Once this is achieved, car share clubs need to be recognised as an important element in the package of measures to reduce reliance on the private car – at regional and local levels too. With these strategic elements in place, it should then be easier for car share clubs to call upon further means of support (be they parking, planning, publicity, marketing, financial or whatever) where needed.

Overall, the Dutch and San Francisco experiences in particular illustrate that support from informed partners can help accelerate the development of car share club schemes, and make their survival more likely.

What appears to be the most appropriate form of support? The Dutch model is interesting because it combines a variety of local tactical measures with a strong, single-purpose, well funded ‘advocacy’ organisation. This ensures that there is appropriate support for local car clubs when they want local measures to be provided, but does not impose a standard package in all situations. This is important, because the needs of each car club, and its uses, will vary according to location. Finding a ‘local button’ to push that provides the car club with a special attraction seems crucial – as the benefit of free parking has proved in San Francisco, or the insurance deal in the Netherlands.

So local support measures, particularly those that give car club users an advantage over other motorists, could be the key to success. But these need to be tailored to local situations while being consistently supported by a ‘friend with clout’. Unfortunately, as yet outside of the Netherlands support measures

Supporting car share clubs

for car clubs are currently applied only in a piecemeal fashion rather than as part of a wider strategy, and no real champion has emerged to help them.

## **References**

### *Bibliography*

Agren J (2002) Personal communication, Environment and Health Protection Agency, Stockholm, Sweden, 12 March.

Axelsson T (2001) Telephone interview, CAN, Vancouver, 7 August.

Badenhop K (2001) Personal communication, Bremen Initiative Managing Agency and the Bremen Partnership Award Office, 4 October.

Ball C, Best W, Ray A, and Seasman A (2001) Achieving low car housing: the role of car share clubs, A good practice guide for planners and developers, Produced for the Regional Assembly for Yorkshire and Humberside by a working group led by the Community Car Share Network, June.

Belgrano G (2002) Personal communication, Comune di Genova, Genoa, January.

Boekstal S (2001) Telephone interview, Decisisio consultancy, Amsterdam, 6 August.

Bond R (2001) Housing developer signs deal for doorstep car sharing club, *Surveyor*, 13 September, pp.7.

Borghuis J (2001) Personal communication, Greenwheels, Rotterdam, July.

Britton E (2001) *CarSharing 2001: Some Questions and a Few Reflections on the Future of Carsharing*, The World CarShare Consortium, EcoPlan and The Commons, Paris. Visit <http://www.worldcarshare.com>. Accessed 13 July 2001.

Brook D (2001) Personal communication, CarSharing Portland, July.

Carplus (2001) UK round up, *Carplus the car club network update*, Winter.

CarSharing Portland (2001) Car Sharing in Portland. Visit <http://www.carsharing-pdx.com>. Accessed July 2001.

Center for Neighbourhood Technology (2001) Car Sharing, Chicago. Visit <http://www.cnt.org>. Accessed July 2001.

Chase M (2001) Telephone conversation, Zipcar Boston, 1 August.

Cohen K (2001) Telephone interview, CNT, Chicago, 10 August.

Community Car Share Network (2001) Funding Opportunities, *The Road Ahead*, CCSN newsletter, CCSN, Summer, Issue 4.

Cox A (2001) BEST experience from Bristol, *Town and Country Planning*, May, Vol.70, No.5, pp.145.

Crawford J H (2000) *Car Free Cities*, International Books, Utrecht.

## Supporting car share clubs

European CarSharing (1999) CarSharing in Europe, CD-ROM on CarSharing – the mobile alternative in Europe, European CarSharing (see <http://www.carsharing.org/>).

Felix A (2001) Personal communication, Boston Transportation Department, 20 September.

Fischer B (2001) Personal communication, teilAuto Biberach e.V., Biberach, July

Flesher S (2001) Personal communication, CarSharing Traverse, Traverse City, Michigan, July.

Forum Vauban (1999) Ecological Mobility: As few cars as possible, Freiburg, July. Visit <http://www.forum-vauban.de/downloads/mob-en.doc>. Accessed 12 September 2001.

Forum Vauban (2001) Sustainable Model District. Forum Vauban: An Overview, Freiburg. Visit <http://www.vauban.de>. Accessed 11 September 2001.

Glötz Richter M (1996) Car Free Housing – Steps towards an ecologically responsible lifestyle, Urban Nature Magazine, No.4, Autumn.

Glötz-Richter M (1997) Bremen: Urban district planning without cars, Extract from SURBAN – Good practice in urban development database, European Commission, DG XI, and Land of Berlin European Academy of the Urban Environment, Berlin, 6 August. Visit <http://www.eaue.de/winuwd/56.htm>. Accessed 2 August, 2001.

Hannon S (2001) Car-Free Housing (CFH) Project – Stage 1 Report, London Borough of Southwark, 31 October.

Harms S and Truffer B (1998) The emergence of a nation-wide Carsharing Co-operative in Switzerland: A case study for the project Strategic Niche Management as a tool for transition to a Sustainable Transportation System, EAWAG, Switzerland, March.

Hartlaub U (2001) Personal communication, Merckle; Carsten Noltenius, StadtMobil e.V. Pforzheim, July.

Heller M (2001) Car Free Planning in the Berlin Borough of Panke, Autofrei Wohnen. Visit <http://www.autofrei-wohnen.de>, last accessed 1 November 2001.

Hobley M (2001) Edinburgh finalises details for ‘more modest’ car sharing club, *Surveyor*, 6 September, pp.7.

Kadesh E, Lindmark R, Anderson C and Roach W T (2000) Public Agency Support for Car Sharing: The Seattle Experience, Transportation Research Board, 00-0953, Washington DC, January.

Levett R (2000) Millennium village of a different model, *Town and Country Planning*, September, Vol.69, No.9, pp.250-252.

Lindmark R (2001) Personal communication, Outreach Co-ordinator, King County Metro, July.

Markusson P (2001) Personal communication, Advice – Carsharing – Environment, Gothenburg, 19 September.

Martin R (2001) Telephone interview, CarSharing Portland, July.

## Supporting car share clubs

- Meng L (2001) Personal communication, NTUC Car Co-operative, Singapore, July.
- Mezger C (2001) Personal communication, VCD-Gemeinschaftsauto, Esslingen.
- Millard-Ball A (2002) Space limits tighten in land of the free, *Parking Review*, April, pp.28-29.
- Moellers J (2002) Personal communication, City of Cologne, January.
- National Station Car Association (2001) NSCA Information Pages. Visit <http://www.stncar.com>, last accessed 29 October 2001.
- Patton A (2001) Personal communication, City of Seattle, July.
- Poulin M (2001) Telephone interview, Communauto, Quebec, 2 August.
- Roberts B (2001) Telephone interview, Communauto, Montreal, 10 August.
- Reynolds E (2001) Telephone interview, Autosshare, Toronto, 9 August.
- Saunders J, Rye T, Celikel N A, Saleh W (1999) Edinburgh City Car Club goes live. *World Transport Policy and Practice*, Vol.5, No.3.
- Scheurer J (2001) Car Free and Car Reduced Housing Development, Murdoch University, Australia, 23 August. Visit <http://www.wistp.murdoch.edu.au/publications/projects/carfree/carfree.html>, last accessed 8 November 2001.
- Solman D (2002) Personal communication, Transport Group, London Borough of Southwark, March.
- Sperling D, Shaheen S, Wagner C (2000) *Car Sharing and Mobility Services: An Updated Overview*, Alameda, San Francisco, California. Visit [http://www.calstart.org/resources/papers/car\\_sharing.html](http://www.calstart.org/resources/papers/car_sharing.html). 18 February. Accessed 6 August 2001.
- Schröter T (2001) Personal communication, Department of City Planning, Hamburg, July.
- Stewart G (1999) *Car Sharing*, The Urban Environment and Development Committee, City of Toronto, Canada. Visit <http://www.city.toronto.on.ca/legdocs/1999/agendas/council/cc/cc990511/ud7rpt/cl001.htm>. Accessed 6 August 2001.
- Taylor J (2001) Personal communication, Bioregional, Sutton, July.
- Theunissen R (2001) Interview, the Stichtingvoor Gedeeld Autogebruik, Utrecht, 11 December.
- Traue R (2001) Personal communication, Cambio Mobilitaetsservice GMBH & Co, Bremen, July.
- Tri-Met (1999) *Community Building Sourcebook*, Portland, Oregon, September. Visit <http://www.tri-met.org>. Accessed 13 July 2001.
- White K (2001) Telephone interview, City Car Share, San Francisco, 7 August.
- Wohnen Ohne Autos (2001) Car Free Projects, Wohnen Ohne Autos in Munich. Visit <http://www.wohnen-ohne-autos.de>, last accessed 8 November 2001.

## *Useful websites consulted*

<http://www.ecoplan.org/carshare> - @World Car Share Consortium site.

## Supporting car share clubs

<http://www.agenda21.bremen.de/carfree> – European Car Free Cities site.

<http://www.carsharing.de> - The Bundesverband CarSharing e. V. (bcs) is an umbrella organisation of the German CarSharing organisations and a national division of the European CarSharing e. V. (ecs).

<http://www.mobilitet.dk> - Danske Delebiler is an umbrella organisation of the Danish CarSharing organisations and a national division of the European CarSharing e. V. (ecs).

<http://www.carshareclubs.org.uk> - The Community Car Share Network is a not-for profit organisation which promotes and supports the development of urban and rural car share clubs across the UK.

<http://www.carsharing.org> - European Car Sharing is an umbrella organization for car sharing groups with 68 members in seven European countries.

<http://www.smartmoves.co.uk> – British car club company.

<http://www.carsharing.net> - North American car sharing organisation site.

<http://www.mobility.ch/e/index.htm> – Swiss Car Sharing Co-ordinating body.

<http://www.greenwheels.nl/index2.html> – Car sharing organisation based in Rotterdam.

<http://www.carsharing-pdx.com> - Portland car sharing site.

<http://home.europa.com/~stscott/csbusplan.html> – Details about how the Portland car share scheme was introduced.

<http://www.tri-met.org> - Transport and planning authority for the Portland Metropolitan Area.

<http://www.autoshare.com> - Toronto car club site.

<http://www.city.toronto.on.ca> - city of Toronto site.

<http://www.flexcar.com> - Seattle car sharing site

<http://www.ci.seattle.wa.us> - Seattle City website.

<http://www.metrokc.gov/kcdot/tp/index.htm> – Seattle King County website.

<http://www.majornas-bilkoop.se/> - Car sharing in Gothenburg.

<http://www.cooperativeauto.net> - Vancouver-based car sharing scheme website.

<http://www.city.vancouver.bc.ca> - Vancouver City Council site.

<http://www.ura.gov.sg> - Singapore Urban Redevelopment Authority site.

<http://www.stockholm.se/english> - Stockholm Municipal website.

## **Appendix A – San Francisco CityCarShare Resolution**

### *San Francisco City Council (1999)*

Urging that car-sharing become a component of the city’s transit-first policy and urging various city departments to aid in the development and administration of the City carshare program.

WHEREAS, The City and County of San Francisco’s Transit-First policy is intended to reduce automobile dependency; and,

WHEREAS, Even under the best conditions of transit service, the City recognizes that San Franciscans occasionally require access to an automobile in order to reach areas which are not adequately served by transit or to transport bulky objects; and,

WHEREAS, Statistics show that in San Francisco most automobiles are only used an average of less than one hour per day and therefore sit idle for 23 hours per day, incurring parking costs; and,

WHEREAS, While there is a severe housing shortage in the City, the cost of providing parking for automobiles adds significantly to the cost of each new dwelling unit; and,

WHEREAS, The Board of Supervisors finds it necessary to encourage alternatives to make it possible for San Franciscans to have access to an automobile without the need for every person to purchase, insure, and make arrangements to park an automobile; and,

WHEREAS, Car-sharing is a neighborhood-based mobility service that makes cars and trucks available to people on a per-use basis, thereby making it practical for many City residents and workers to forego private automobile ownership; now, therefore, be it

RESOLVED, That the Board of Supervisors of the City and County of San Francisco urges that car-sharing become a component of the City’s Transit-First policy; and, be it

FURTHER RESOLVED, That the Board urges the San Francisco County Transportation Authority to seek viable funding from local, regional, state, and federal sources for the creation and operation of the City CarShare Program; and, be it

FURTHER RESOLVED, That the Board urges the Department of Parking and Traffic to make available parking spaces in publicly owned facilities for the City CarShare Program; and, be it

FURTHER RESOLVED, That the Board urges the Planning Department to initiate amendments to the Planning Code to reduce off-street parking requirements for housing developments that participate in a car-sharing program; and, be it

FURTHER RESOLVED, That the Board urges the Planning Department to include the City CarShare Program in the Transportation Demand Management program funded by Proposition B; and, be it

FURTHER RESOLVED, That the Board urges the Transportation Authority to consider the administration expenses for the City CarShare Program to be eligible expenses under the Transportation Demand Management program funded by Proposition B; and, be it

Supporting car share clubs

FURTHER RESOLVED, That the Board urges the Department of Parking and Traffic to become the contract administrator for the City CarShare program and the fiscal agent for any grants received for the City CarShare program.

## ***Appendix B – Car Sharing: An Invitation to Property Managers***

*Text taken from San Francisco City CarShare publicity information, 2001.*

City CarShare is pleased to announce a major new mobility innovation for San Franciscans: 24-hour, self-accessing car-sharing services.

Car-sharing is a decentralized, short-term vehicle rental service that makes cars available to people on a per-use basis. Members gain the benefits of access to a private car without the costs and responsibilities of ownership. Instead of owning one or more vehicles, a household or business can access a fleet of vehicles on an as-needed basis.

Car-sharing works like this: members book their vehicles through the Internet, walk to a nearby lot, use a key card to swipe themselves into the car they have reserved, and drive off. They are billed by mail or automatically with a credit card at the end of the month. In urban areas where people have good transit, bicycle, or pedestrian access to most destinations, car-sharing can support a move away from over-dependency on cars. Car-sharing allows employees to commute by public transit and still access a car during the day when needed.

City CarShare would like to work with San Francisco property managers to locate vehicles in residential and commercial buildings in San Francisco. Property managers will provide free parking spaces. City CarShare will take care of all the rest. We screen and sign up tenants and manage all aspects of the service from reservations to billing, tracking and customer service.

Car-sharing is a major benefit for your tenants: all the convenience of a car without the hassles of ownership. For many people, car-sharing will be a preferred lifestyle. Members don't worry about maintenance or insurance, and they have access to different kinds of vehicles depending on their need—sports cars, trucks, or smaller city cars.

### ***Two Models for Partnership with City CarShare:***

#### ***Option 1.***

The property manager provides parking spaces that are accessible to other car-sharing members, beyond tenants of your building. You also provide a phone and electrical hook up to the cars. We do the rest.

With this option, there is no ongoing fee for the car-sharing service.

#### ***Option 2.***

The property manager provides parking spaces that are dedicated to your tenants. This means that car-sharing members from outside the building do not have access to the vehicles. You also provide a phone and electrical hook up to the cars.

## Supporting car share clubs

With this option, there will be a variable monthly fee, depending on the utilization rate of the vehicles. If your tenants use car-sharing at a frequency high enough for City CarShare to cover the overhead of the cars (averaging approximately nine hours of use per car per day), there is no charge that month to the property owner. If the utilization rate is less, the building makes up the difference through a reasonable monthly fee. Note also that under option 2, tenant-members will still have access to the city-wide fleet.

Car-sharing is a way to offer your tenants a unique mobility service: access to a fleet of vehicles on-demand, without the costs or hassles of owning and maintaining their own cars. If you are able to allow car-sharing members from outside your building to get into your garage to access the vehicles, City CarShare can assume the responsibility for generating a high enough demand to pay the overhead costs of the vehicles. You also have the second option, which is to provide a dedicated pod of vehicles for the exclusive use of your tenants, which may cost a little more depending on how much your tenants use the cars.

## ***New Projects***

For developers of new buildings, car-sharing provides significant additional benefits beyond the attractiveness to your tenants or residents. First, when you commit to provide car-sharing, the Planning Department may grant you added flexibility in your project's parking requirements. Second, car-sharing is a very useful way to help generate community support for your projects.

### *Flexibility in Parking Requirements*

Parking spaces are expensive to build, ranging anywhere from \$US10,000 to \$US45,000 each. At the same time, there are locations where the site design would allow additional rentable space, but only if parking requirements are reduced. Car-sharing is a way to get the most out of your investment in parking spaces. The Planning Department is amending the Planning Code to give developers a break on the minimum parking requirements when they commit to provide car-sharing.

### *Community Support*

The environmental community views car-sharing as a major way to reduce the impact of automobiles on the urban environment. Developers who put car-sharing into their projects as a way to reduce the amount of parking they build may benefit from support during the approval process. And if the project is designed so that neighbors can have access to the vehicles, car-sharing stands out as a significant community benefit for the surrounding area. As a non-profit, community-based mobility provider, CCS is interested in working with developers to include car-sharing as a component of their projects. Talk to us about how we can help.

Please note: If you choose to include car-sharing in a new development, the design of the garage is important: making it publicly accessible while secure for your tenants is ideal for car-sharing.

### *Liability*

## Supporting car share clubs

City CarShare, a 501 (c) 3 corporation, has a comprehensive fleet insurance policy. Our package includes: Business, personal and property insurance; Garage keeper's liability insurance; General liability insurance; Comprehensive and collision coverage; Umbrella insurance.

Member eligibility will be carefully controlled. We will run a credit report and a MVR (Motor Vehicle Report) for every potential member.

*Join Us!*

City CarShare, P.O. Box 420442, San Francisco, CA 94142, (415) 255-2530, [www.sfcarshare.org](http://www.sfcarshare.org)