



Union Internationale des Transports Publics
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BREMEN PAPER

Public Transport and Car-Sharing : together for the better

This paper has been prepared by the UITP Secretary General, in the framework of the moses project. It follows the UITP Workshop on "Public Transport and Car-Sharing : together for the better", held in Bremen, 4-5 December 2002.

Introduction : combined mobility



The steady growth in car-ownership is a well-known obstacle for achieving sustainable urban development. Transport-related problems of our cities and towns are not only due to the growth in traffic (resulting in accidents, noise, emissions) but also to the consumption of space required by the car and related infrastructure. The strengthening of the quality of life in our cities and towns increasingly depends on regaining street space for pedestrians, cyclists, children and greening....

In parallel, the organisation of transport in general, and public transport in particular, has fundamentally changed in recent years. The public transport sector has developed to provide answers to regular daily journeys like home – work, home – school. Yet, the urban rhythms have sped up, most cities are now “open” 24 hours 7 days a week, to answer the demand of the city users, who want to access urban services when and

where they want. This results in more frequent and diverse trips many of which cannot be provided by public transport.

Public Transport is being challenged to become a key party in providing ever diverse mobility services, covering more than ‘just’ the operation of busses, trams and/or trains – bound to lines and fixed timetables. The need of modern mobility is based on flexibility and a high level convenience. Demand-respond services, taxi, car-rental, integration of bike-orientated services, etc. are supplementary services to the classic line and timetable-bound services. These new forms of mobility are not to be considered as competitive but can be mutually reinforcing. Integrated Services providing such mobility can compete with the private owned car in terms of convenience and cost-structure and can help improve the quality of life in our cities.

Car-Sharing as mobility insurance



One of the parts of such integrated systems is Car-Sharing. Car-Sharing refers to short period automobile rental services intended to substitute private vehicle ownership. It gives access to a vehicle whenever it is required, while providing an incentive to minimise driving and rely on alternative travel options as much as possible. To be efficient, the system needs to be :

- Accessible (within easy walking distance of people’s homes)

- Affordable (reasonable rates, suitable for short trips)
- Convenient (vehicles that are easy to check in and out at any time)
- Reliable (vehicles that are available and a dependable booking and access system).

The main principle is thus to offer the freedom of a car, without the hassle of ownership. Therefore, Car-Sharing is a modern mobility service, which can change mobility patterns drastically.



moses is a research and demonstration project supported by the European Commission under the Fifth Framework Programme and contributing to the implementation of the Key Action "City of Tomorrow and Cultural Heritage" within the Energy, Environment and Development.



It is designed to explore the prospects for developing and expanding Car-Sharing in real-life locations across Europe: Italy (Genoa, Palermo, Turin), London (Southwark, Sutton), Stockholm, Bremen, Walloon Region (Namur, Louvain-la-Neuve, Dinant) and Bucharest. moses intends to contribute to a more sustainable future by achieving 12.000 Car-Sharing users by the end of 2004. moses sees an option for the replacement of 10% of private cars in the urban areas of Europe by innovative mobility services and supportive framework conditions within one decade. This would lead to an energy saving of around 6 to 8 million tons of CO₂. See: www.moses-europe.org

Whereas for a car-owner, Public Transport has usually only the role of a stopgap measure, car-sharers do use the more environmentally friendly modes of PT, bike etc. as their basic modes with Car-Sharing providing a kind of mobility insurance : A car is available when the other modes are not offering sufficient service or convenience. Car-Sharing schemes generally reduce car ownership and therefore stimulate a more environmentally attuned choice of transport modes.

Regarding the cost structure of the main transportation options, Car-Sharing is a middle option for the user, between having no vehicle and owning one. With its low fixed costs and high variable costs, Car-Sharing offers medium convenience at a lower cost than the private car for those driving less than around 12.000 – 15.000 km per year.

For the community, the main benefits of Car-Sharing are:

- The reduction in the number of cars, as cars are idle on average 22 out of 24 hours a day¹
- The use of newer, smaller cars with higher environmental standards
- The reduction in car person-km and consequent reductions in emissions of CO₂ and other pollutants. It appears that after joining a car sharing scheme, most members drive less than before (57% in Switzerland² and 50% in Germany³).

One study estimated that if car sharing was used in an optimal way in Germany, there could be a reduction of numbers of cars of 1.2 million and consequent, a reduction of the distance driven by car of around 7 billion km per year and a commensurate increase of almost 4 billion public transport kilometres⁴.

1 United States Department of Transportation (USDOT), NPTS Databook, Washington DC, 1995.

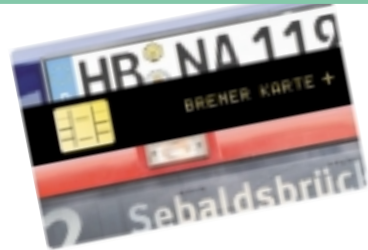
2 P. Muheim, Mobility at your convenience – Project Energy 2000, Swiss Ministry of Transport, Berne, 1998.

3 H. Baum & St. Pesch, Untersuchung der Eignung von car-sharing im Hinblick auf Reduzierung von Stadtverkehrsproblemen, Forschungsbericht FE-Nr 70421/93 im Auftrag des Bundesminister für Verkehr, Bonn, 1994.

4 H. Baum & St. Pesch, op cit.



Public transport and Car-Sharing, common benefits



Although only some 10 years old, Car-Sharing has already proved its potential ability to supplement Public Transport in an ideal way. The combined offer Public Transport – Car-Sharing creates a win-win situation for both transport modes, who are stronger together than separately. On one hand, Public Transport will gain more customers as car-sharers tend to have more intelligent mobility patterns and use less the car than car owners. On the other hand, Car-Sharing will be quicker and stronger to break through the market if combined with Public Transport.

The main role of the public transport operator in Car-Sharing schemes is to find

ways to integrate the mobility ‘menu’, and therefore to help the customer - or user - to find his or her way around in an easy and stress free manner. It can only do so by combining public transport with individual transport modes, such as car sharing, car leasing, taxi and bicycle.

In this context, many cities in Germany, Switzerland, Austria as well as other countries, have introduced co-operation between Public Transport and Car-Sharing. In most cases, PT operators co-operate with Car-Sharing providers – offering special incentives (reduced tariffs) for the combination of both services.

In June 1998, Bremen introduced a combined offer StadtAuto/BSAG, with the monthly or annual pass for public transport including the electronic car-key : the "Bremer Karte plus AutoCard". It has led to an increase of the number of car-sharers using a public transport annual season ticket (from 55% to 78%). Based on this experience, the authorities are now introducing one combined smart card for the electronic public transport ticket, the Car-Sharing facilities and shopping (e-purse).

⁵ e.g. previous footnotes, H. Wilhite & S. Attali, Car-sharing in France: a study of the potential benefits, barriers and alternatives, ADEME, Paris, 2000.

There are also cases, where the PT operator directly becomes the Car-Sharing provider (e.g. Wuppertal) or at least a shareholder of the Car-Sharing operator. The framework of co-operation might be different, but for the customer there is a similar comprehensive 'product' available.

Various studies ⁵ have shown that Car-Sharing clients who earlier have been car-owners have changed their mobility patterns. They have reduced the mileage driven by car and use Public Transport much more often.



In 1999, the VBZ won the "UITP Secretary General's Price for Innovation in Public Transport" for the implementation of its new combined mobility offer "zürimobil", now changed into ZVV-Kombiabo. The results of the zürimobil-initiative are a more frequent use of public transport by these customers, even though they can obtain a car near where they live. In the years 1996-1998 research had been done and showed, that car-sharing-customers learn to use "their" cars more efficiently and therefore lowered car-sharing travel distance by some 20%. They also buy more subscription tickets after joining zürimobil : a 14% increase.

The strategy of the VBZ, the public transport operator, is to develop the company into a comprehensive customer-oriented service supplier. Therefore the company co-operates with specialised partners such as Europcar and Mobility Car Sharing Schweiz to offer the following products:

- A dense public transport network, with a distance of maximum 330m to the nearest stop, a frequency of 6-7 minutes during rush hour and not less than 15 min. in off-peak hours, an integrated fare structure
- A dense network of Car-Sharing stations: 450 vehicles available at 250 locations in the city
- Some additional services like car-rental for holidays, cargo vehicles, bicycle rental, etc.



These products are supported by a customer-oriented approach, with a city information system on mobility, a 24-hour reservation and information as well as a 24-hour car ordering in a self-service system.

Such Car-Sharing schemes need to be fully integrated in the town-planing and housing policies of each specific city. Car-Sharing tends to be most effective and appropriate in higher density and middle income residential areas, where there are good alternatives to driving. In this sense, urban plans of a city should, for example, plan the

construction of Car-Sharing stations in new housing development in a geographical distribution which optimises access to the car sharing service. As part of an overall plan, Car-Sharing can also be implemented at major public transport stations, in commercial centres and tourist spots.



Mobility CarSharing, the Swiss national Car-Sharing scheme, has signed, in 2000, an agreement with the supermarket brand Migros to have Car-Sharing stations in their car parks : 75 VW Lupo have been located in front of the supermarkets in the city centres. It is also part, with the Swiss railways (SBB CFF FFS) and Daimler-Chrysler, of a scheme, which offers 120 cars ("Smart" type) at 55 of the largest train stations in Switzerland. Today, Mobility CarSharing counts approximately 48,000 members and 2,000 vehicles.



Guidelines



1. The first guideline for a successful co-operation between public transport and Car-Sharing would be the **implementation of services of high quality from both operators.**

This means, for **Public transport** operators and authorities, to offer a service that truly responds to the customers' needs and is sufficient for the regular needs.

In general terms, these customers' needs could be stated as:

- as short a trip time as possible;
- a high frequency of service;
- clear and reliable information;
- a comfortable ride;
- a clean and nice environment to travel in,
- an acceptable level of security.

By doing so, public transport actors make sure that the car-sharer can rely on an efficient service and will need a car only on very specific occasions.

For the **Car-Sharing** provider, the key criterion is a user-friendly offer, mainly linked to the technology implemented. The following requirements have been defined in the official German Eco-Label "Blue Environmental Angel" certification:

- a 24 / 7 day service (booking and access) in order to be a real alternative to the private car at any time
- a 'pay-as-you-drive' tariff structure without free mileage to make the trip-related costs transparent and give an incentive to drive less.
- short-time reservation (1/2 hr) and usage (up from 1 hr)
- a fleet that fulfils certain environmental requirements.

2. One essential element of the co-operation between public transport operators and Car-Sharing providers is in **the introduction of combined season tickets**, making the use of both systems cheaper but mainly a lot easier.

3. To ensure seamless mobility, it is fundamental that **the information on the different modes of transport is centralised and well disseminated.** A city information system on mobility should be set up to provide information on each public transport, all locations of Car-Sharing vehicles, all taxi stops, all parking facilities, all pedestrian areas and walking paths within the city and all bicycle paths. It should be disseminated through several channels, for example as a printed city map in all the information (included tourist offices) and tickets selling points, on Internet and at all public transport stops and Car-Sharing stations.

4. In order to become attractive, Car-Sharing needs to be widely advertised. For many, the idea of "sharing" implies a second-hand service and a sacrifice of freedom. Thus **marketing** is needed both to make people aware of the existence of Car-Sharing and to draw out a positive image. It should definitely not be perceived as the stopgap, for those who can not afford a car. Public transport actors can support the marketing of Car-Sharing substantially as a broad target group can be reached at public transport stops and in the vehicles.

5. Finally but probably the most important : a successful Public Transport – Car-Sharing co-operation requires a **strong political support** from national, regional and local authorities, in order to change the mentalities and to overcome the critical phase before reaching the break-even point. The co-operation between both modes make them stronger in a sustainable transport policy, while offering the citizen a global service without reducing his mobility. In this framework, public authorities should also encourage the implementation of common standards for all European Car-Sharing schemes, in order to simplify the system and to allow the use of cars in different cities and countries with one access card.

