

A role model for car-sharing is targeting 20,000 users by 2020

The successful expansion of car-sharing in and around Bremen promoted by a partnership between the provider Cambio and the Bremen State authorities has shown the extent of congestion relief impacts possible with car-sharing schemes. When integrated within a well-planned and reliable intermodal transport system, car-sharing leads to an improvement of the parking and traffic situation, and lower pollution levels.

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Abstract

In 2009, Bremen adopted a new car-sharing action plan, which was to combine previous achievements in the area and coordinate future developments. Thus, car-sharing would expand and become an integral part of Bremen's transport system. The overarching goals are to lessen the effects of transport and improve the environment. For this purpose, the aim is to have 20,000 people in Bremen as customers of a car-sharing provider by 2020.

Accordingly, the 2009 Action Plan aimed to: strengthen the interaction and partnerships between public transport and private car-sharing schemes; establish common facilities; include the consideration of car-sharing in new construction projects; as well as offering interesting solutions for companies and authorities. This was all to be accompanied by a comprehensive public relations strategy.

Today, the plan and its goals have already to a large extent been realized. Cambio, Bremen's biggest car sharing provider has around 8,400 members. Approximately 2,000 cars, 2.32 million kg of CO² and parking infrastructure costs of at least 30 million euros are estimated to have been saved.

Introduction

Within the last few years, car sharing in Germany has experienced a tremendous boost. Particularly in metropolitan areas such as Berlin, Hamburg or Cologne customer registrations are rapidly increasing, while new registrations of private cars have fallen by around 15 percent (as of August 2013).

Given the benefits for customers, this development does not seem too surprising. True to the motto 'sharing is caring', the general costs of vehicle acquisition, taxes, insurance, maintenance and fuel are covered by the provider and distributed among members, and the user only pays for the individual car for the time it is used.

Also from an environmental and urban planning perspective car-sharing is highly advantageous. Congestion is relieved, less space is taken up by parked vehicles, the quality of public space improves and as traffic decreases, CO² emissions, noise pollution and accidents decrease as well.

Bremen is one of the pioneering towns for car-sharing, not only in Germany but throughout Europe. For years now, the Federal State has enforced a successful concept of sustainable mobility in which the "car on call" is playing a crucial role.



Population

547,976 (2012) / 652,182 (2011)
(city / federal state)

Land area

325 km² / 419 km²
(city / federal state)

Federal State budget

4,675 million (2012) (expenditure)



Bremen is an ICLEI member since June 1992.

Case Study

Bremen in context

Located in Northwestern Germany, the Freie Hansestadt Bremen is the smallest state of the Federal Republic. It consists of the two cities Bremen and Bremerhaven located 53km further north, which are separated from each other by the Lower Saxon region.

In the late 1980s the State Administration started to enhance environmental protection. In this framework, the first approaches to improve the traffic situation and inter-modality in the city of Bremen were implemented.

Meanwhile public transport was extended throughout the city. Construction was also started on new tram connections to suburbs and neighboring towns. Since 2006 the most environmentally friendly diesel buses, so called EEVs (Enhanced

Environmental Vehicle), which drive at a higher rate than the European-wide benchmark (Euro 5) demands, have been used in the public transport fleet. There are even serious considerations of establishing “trolley-battery-hybrid” bus lines. Bremen also restructured roads in a bicycle-friendly manner and developed car-free neighborhoods. Due to all these actions, today about 60% of all trips are either done by walking, cycling or public transport.

In this context, the promotion and integration of car sharing as a supplement has steadily expanded. Its primary goal was to help improve the parking situation, after studies on Bremen identified that many cars did not move for days and were therefore unnecessarily occupying public space.

Various car-sharing providers offer different services. While Flinkster, the car sharing service of the Deutsche Bahn, is mainly focused on connection upon arrival and therefore concentrated around the central train station, moveabout tries to explore the potential of combining electro cars and car sharing. However, the by far biggest and most important car-sharing provider is cambio. Founded in 1990 as "StadtAuto Bremen“, a project with only two vehicles, it was the first car-sharing initiative in Bremen and one of the first in all of Germany. By now they are offering around 185 vehicles at 50 stations to nearly 8,500 customers in Bremen, and increasing. Once registered, the customer can book a desirable car for a needed period of time, either by phone or internet. After that the customer’s member card gives easy access to the vehicle.



One of the cambio car-sharing stations

Sharing is caring

– integrating car-sharing into Bremen’s transport system

In its principles for urban development, "Bremen '20 - Komm mit nach morgen!" (which means Join us on our way to the future!), the city has set the objective to become an attractive and innovative economy and to provide residential neighborhoods with a high quality of urban life. Therefore, they adopted the 2009 "Action Plan for Car-sharing" to further expand car-sharing as an attractive alternative. By 2020, the aim is to have at least 20,000 persons become customers of a car-sharing provider - replacing more than 6,000 cars from Bremen’s streets.

Integrating accessible, reliable, convenient and affordable car sharing into a well-structured transportation system should help to overcome the dominance of private vehicles and lead to a new understanding of cars as an alternate mode of transport among others. To achieve this, the car-sharing Action Plan 2009 designated five essential elements to be implemented:

- » 1. Cooperation between public transport and car-sharing
- » 2. Expanded coverage of stations – in particular in densely populated inner city areas
- » 3. Incorporation into new construction projects
- » 4. Public Fleet Management
- » 5. Information and Public Relations for awareness-raising

Even if the above goals seem ambitious, they are not impossible. In particular, the success and experience of recent years prove that Bremen is doing right.

A plus for inter-modality

In 1998 the local public transport provider Bremen Straßenbahn AG , in collaboration with cambio, introduced the Bremer Karte plus AutoCard as an extension to the normal public transport ticket. For an additional membership fee of 30 euros a year, the customer gains access to the vehicles of the car-sharing fleet (renting and operation costs not included). Thus, public transport services can be supplemented, when trams or busses are not available or a car is needed for a special trip.

This also makes us think of trips combining multiple transport modalities. For example, a supermarket can be reached by train or bus, while the goods are brought back home by car.

Within Bremen’s politics and economics

There are even initial successes besides the public implementation, for example by integrating car sharing into the administrative sector. The Senator for Construction, Environment and Transport of Bremen established car-sharing in 2003 as an integral part of his department’s civil servant fleet management, which helped to reduce the costs of vehicle maintenance, management and use.

Also, the business sector has recognized the potential of optimizing fleet management through car sharing, as more flexibility in the vehicle availability and selection is provided – illustrated by preliminary discussions between the Bremen Chamber of Commerce and cambio.

The Mobil.punkt: A cross-modal node for speedy interchange

© cambio



Intermodal mobility stations include car-sharing and are clearly marked with the mobil.punkt sign post

That so many of Bremen's citizens have positively received the opportunity of car-sharing is also due to the successful implementation of so-called mobil.punkten (mobile.points). Since April 2003, "cross-modal mobility stations" with cambio car-sharing options were set up on main public roads. These stations are of good accessibility via tram or bicycle, and are well located to serve the needs of citizens in the densely populated areas.

The car-sharing parking places at the mobil.punkt stations are leased to the providers (currently only cambio) by a municipal parking company (BrePark) under specific conditions: the car-sharing provider is obliged to ensure 24/7 access; to guarantee market based public offers; to prove a sustainable parking relief effect in the neighborhood; and to comply with the requirements of the Environmental Label RAL UZ 100. In return for the rental fee, BrePark in turn must cover the costs of ensuring safety, street cleaning, winter maintenance, etc. This results in a classic win-win situation. The very positive experiences have led to 50 car sharing vehicles at 10 mobil.punkten allotted in the inner city of Bremen.

Built on the success of the mobil.punkte concept, 10 years later the City introduced the "little sister". The so called mobil.punktchen (diminutive, meanings smaller mobile.points) were designed especially for the narrow alleys in the city centre. Consisting of two vehicle and bicycle stands each, the stations will be installed in a way that they will avoid wrong parking and guarantee the minimum passing space for public service vehicles (i.e. busses, ambulances, fire trucks, etc.). The crossing areas for pedestrians and drag curves are kept free by bollards in front of and behind the car-sharing spaces. Within the next four years, around 10 mobil.punktchen are to be installed per year.

Considering car-sharing within new construction projects

In addition, car-sharing will be considered in all new construction projects. This is based on a revision of the previous state law ("Stellplatzortsgesetz") that obliges municipalities to guarantee parking space for vehicles and bicycles. Thus, the possibility should be created to suspend the "Stellplatzgesetz", if parking space requirements are expected to be reduced by special mobility management measures (e.g. by car-sharing and public transport). By integrating car-sharing into the planning of new developments, construction costs can be reduced, new options in urban design realized and transport services improved.

Public relations for park & ride

All these processes only work with the continuous participation of the population. In addition, citizens must be kept up to date with special offers and current developments. E.g. in the fall of 2012, cambio and BSAG had a joint promotional campaign to promote the use of car-sharing as a supplement to the BOB card (the Bremen non-cash ticket for public transport). In the context of EU-funded projects, a targeted publicity for eco-mobility was developed, which emphasized the benefits of car-sharing schemes.

Results

Even years before the 2009 Action Plan the city had already been laying the foundation to accept and integrate car-sharing as a cornerstone in Bremen's transport system. The subsequent efforts to implement car-sharing in the Bremen area have continued to evolve over the years and led to fascinating results:

Since the "**Bremer Karte plus AutoCard**" was implemented the number of car-sharers using a public transport annual season ticket has increased from 55 to 78% within 4 years. Furthermore the AutoCard has made private car use almost unnecessary. Around 80% of the households with AutoCard users used to own a car, whereas many have by now either gotten rid of it or at least not bought a new one.

The **mobil.punkte** promote similar developments. Two years after cambio and the City of Bremen established the first mobil.punkt the ten car-sharing vehicles replaced around 95 private cars within a radius of 500m. The so-called "car-replacement rate", i. e. whether and to what extent car sharing replaces the private car, is determined by annual surveys of new cambio customers that ask whether they possessed their own car before and during the use of the car-sharing service. Thus, according to own calculations cambio obtained a car-replacement rate of 37.1%, equivalent to about 11 replaced cars per car-sharing vehicle. This would mean that cambio alone got rid of approximately 2,000 automobiles in downtown Bremen. To achieve the same reducing effect by multistory and basement garages, investments of 30 to 50 million euro would have been necessary. Hence, car sharing also contributes to least-cost planning.

Incorporating high quality car-sharing into a comprehensive transport system, now allows customers to drive less and use public transport and bicycles instead. Thus, **the traffic situation and environment improves**.

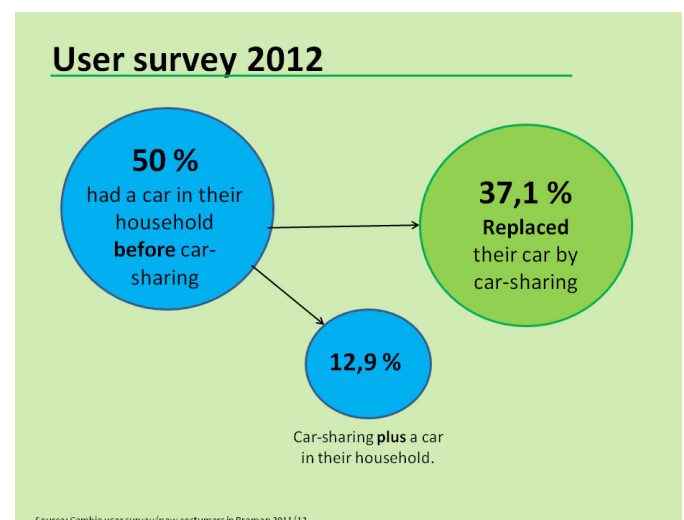
A survey of the Swiss Federal Agency for Energy indicates that each car-sharer saves at average 290 kg CO² emissions annually. If that is applicable to Bremen, the 8,000 cambio costumers in Bremen would not only have abolished 2,000 cars but would have reduced emissions by 2.32 million kg CO².

The 'Blaue Engel' (eng.: blue angel) is the first and oldest environment-related label for products and services. The seal was established in 1978 by the Minister of the Environment of the Federal Government and the federal states. Since, it is instrument of environmental policy, which emphasizes the positive characteristics of commodities and services on a voluntary basis.

In 1996 Bremen encouraged to adopt the eco-seal (RAL UZ 100) as neutral certification symbol for car-sharing. Since, the providers that comply with the specified requirements can be certified and obtain the seal.



Results from cambio's User Survey 2012



Awards and achievements:

- In 2006, the ADAC (German automobile club) awarded the ADAC-cities- prize to Bremen for integrating car sharing in parking management and air pollution control planning.
- In 2010, the Bremen car sharing system was selected as one of three worldwide examples of "Urban Best Practice" at the World Expo in Shanghai. The EXPO 2010 with its theme "Better City - Better Life" set a clear reference to sustainable urban development.

Lessons Learned

Public-private partnerships can with benefit work for encouraging car-sharing, as shown in Bremen. The inclusion of private actors such as cambio in urban and transport planning processes was efficient and contributed to the success of Bremen's car-sharing practices. This was due to two essential conditions: on the one hand, the strong political will of regional and local authorities to realize the project; on the other, that both sides, cambio and the Bremen authorities, were clear about the high quality needed and the unconditional willingness to cooperate.

Reliability of public transport alternatives to private car use is crucial. To make a private car driver a car-sharer who only uses shared cars when really needed, good public transport is needed to provide its passengers with fast and frequent connections, comfortable means of transport and all at a fair price.

On the other hand, there are other aspects for car-sharing providers to consider: In addition to a market based, public offer and 24/7 access, the **reservations and payment should be structured as simply as possible**, so the car on call can be assured. Furthermore the car sharing provider should vouch for adequate security and comfort.

The ease of inter-modal changes and seamless connection between public transport and individual transport (including car-sharing), is key. Therefore in addition to an integrated ticketing with incentives or advantages (Bremer Karte plus AutoCard), special transport hubs like the mobil.punkte are essential.

Further, it is important to coordinate the different modes of transport and to provide appropriate facilities to make the transition for users as easy as possible. E.g. information about facilities, stations and parking options shall be stated in integrated overview plans. Finally, the joint tariffs and offers of public transport and car-sharing must be widely disseminated.

However, these are only the most important basics. Through legislation more can be done to integrate and fund car-sharing stations along the same line as taxi points. Bremen's State and City authorities have since 2004 advocated for a revision of the German road traffic regulations for this end. Subsequently, the Federal Ministry of Works, Transport and Urban Development stated in 2012 that car-sharing stations are possible in public spaces according to the applicable traffic rules and road traffic regulations, if accompanied with appropriate additional signs, a clear definition of what a 'car-sharing vehicle' is and clear identification of the vehicles (e.g. certification) for monitoring. Taking this one step further, public authorities should strive towards the implementation of common standards that go beyond the boundaries of cities and countries in order to use car-sharing vehicles beyond a limited space. Synchronizing the different local offers could therefore be a long-term goal with a standardized and transnational access card.

Replication

Although an old local proverb says "*Dreimal ist Bremer Recht*" (Third time is a charm in Bremen), the city does not seem to have needed that many attempts. A year-long but steadily evolving development has meant that Bremen is today considered as one of the pioneers in the field of car-sharing.

However, Bremen's methods are neither unique nor non-transferable. Since 1999 Zurich has been offering the 'ZVV-Kombiabo', their equivalent to the 'Bremer Karte plus AutoCard'. Today the city of Zurich has a population of approximately 380,000 citizens and already more than 16,000 car sharing customers.

The basic requirement is the will of the local authorities and the population to consequently realize such a project irrespective of the costs that may arise (financial and change of habits). At the same time, concepts must be developed that facilitate such a process, and provide generate confidence about the results.

Budget and Finances

Car-sharing in Bremen does not receive any public subsidies. Therefore a medium-sized provider such as cambio must ensure that the service meets the customer's needs and is offered at the right locations. This is the big challenge when it comes to electric cars, as the operation is more expensive, but the customers do not want to pay more than for a comparable conventional car.

However, the city of Bremen financed the mobile points (with support from the EU). The cost for the transformation varies from 8,000 - 40,000 Euros per mobil. punkt (providing space for an average rate of five cars), bicycle racks and mobil. punkt sign posts included. Finally, the costs saved as a result from not having to create new parking places in the downtown areas is approximately 15,000 – 25,000 Euros.

Key Contacts

Michael Glotz-Richter

Freie Hansestadt Bremen
State Department for
Environment, Construction
and Transport
Spokesperson
for Sustainable Mobility

Ansgaritorstr. 2
28915 Bremen

Tel: +49 421 361 6703

Fax: +49 421 496 6703

Email:

michael.glotz-richter@umwelt.bremen.de

ICLEI World Secretariat (WS)

Capacity Center

Kaiser-Friedrich-Str. 7

53113 Bonn, Germany

Tel. +49-228 / 97 62 99-00

Fax +49-228 / 97 62 99-01

Email: capacity.center@iclei.org

www.iclei.org

Sources

- Department of Environment, Construction and Transport: <http://www.umwelt.bremen.de>
- ÖkoStadt Bremen: <http://www.oekostadt-bremen.de>
- Glotz-Richter, Michael (2012): Car-Sharing-Stationen im öffentlichen Straßenraum – Umsetzung des kommunalen Car-Sharing Aktionsplans, Bremen.
- Kreykenbohm, Marcel (2012): Präsentation - Parkraummanagement mit neuen „mobil.pünktchen“-Stationen – OA-Bereich Neustadt/Woltmershausen – 22. November 2012, Bremen.
- Freie Hansestadt Bremen - Deputation für Bau und Verkehr (S); Deputation für Umwelt und Energie (S) (2009): Aktionsplan „Car-Sharing für Bremen“, Bremen.
- Freie Hansestadt Bremen - Deputation für Umwelt, Bau, Verkehr, Stadtentwicklung und Energie (Stadt) (2013): Bericht der Verwaltung für die Sitzung der Deputation für Umwelt, Bau, Verkehr, Stadtentwicklung und Energie (Stadt) - Umsetzung des Car-Sharing Aktionsplans, Bremen.
- International Association of Public Transport - UITP (2002) BREMEN PAPER - Public Transport and Car-Sharing : together for the better

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