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1st. Prize

Mobility Car-Sharing (A)

From Ecopreneurial Start-up to Commercial Venture

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Draft version

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Mobility Car-Sharing (A)

From Ecopreneurial Start-up to Commercial Venture

Case N°

This case was written by Kai Hockerts, Adjunct Professor and Research Programme Manager of the Centre for the Management of Environmental and Social Responsibility (CMER), INSEAD, as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The case has received the 2003 oikos Best Case Award www.insead.edu/CMER/publications/OikosAward.htm.

Learning to Drive a Co-operative

> *"If you buy a lawn mower with three neighbours, this does not mean that you want to set up a business for lawn mower sharing. You think: 'I need a lawn mower and that's it.' As the model works others come and want to join as well."*
>
> (Heusi, 2002, interview)

The Vierwaldstädtersee situated in the heart of Switzerland is probably one of the most beautiful and serene lakes of Europe. However, Peter Muheim was not able to appreciate the magnificent landscape in the summer of 1993. Sitting on his balcony he was immersed in a discussion with Rolf Fischer and Conrad Wagner. Together the three constituted the management of *ATG • AutoTeilet Genossenschaft* one of Switzerland's two car-sharing co-operatives. With about 80 cars (that were jointly used by 1500 clients) the organization was no longer the hobby it had been when Wagner and Fischer started it six years back. Wagner, the managing director, and Fischer, the head of administration, had come to meet Muheim, in charge of car fleet management, to debate the possibility of a merger with ShareCom, Switzerland's other car-sharing co-operative.

While the three from ATG were sitting together, Charles Nufer was looking unseeing over another expanse of water – the lake Zürich. Nufer had founded ShareCom in the same year ATG started and his co-operative was now roughly the same size. Both organizations were complementary in the area they covered. ShareCom was mainly present in Zürich and its surroundings, while ATG had its clients in smaller cities in the countryside. However, as car-sharing became more popular, their territories began to overlap. St. Gallen in the western part of Switzerland, for example, was served by both organizations. Combining the two fleets would considerably extend the network and thus increase the attractiveness.

How Car-Sharing Works

> *"We keep [durable goods] by us even if we do not want them at the moment. But their utility will of course increase the more often we use them. So it is often better to hire, or to buy and sell, or to make various arrangements for common usership."*
>
> (Jevons, [1871] 1965)

Private car-ownership can be a costly form of individual mobility (see **Exhibit A1**). It binds a substantial amount of capital and causes the owner recurring annual costs for taxes, insurance, and maintenance. However, most of the time cars sit around idle taking up scarce parking space. When used they cause air pollution, noise, traffic congestion and accidents. Nonetheless, cars are the preferred choice of transportation in most parts of the developed world.

Automobiles dominate the planning of inner cities. Even when promoted by policy makers, public transport struggles to compete with car ownership.

However, in the 1980s the automobile finally began to choke on its own success. With the cost of car-ownership increasing and parking space in inner cities decreasing, demand emerged for more efficient solutions, linking sporadic car use with public transport. Car-rental – the traditional alternative to car ownership – was not well suited to meet this demand. Most people did not live close enough to car rental outlets to make rental a viable everyday solution. Furthermore, given their cost structure, most rental firms did not find short-term rental to be profitable. In fact most car-rental firms made money through long-term rentals, offering one-day hire as a loss-leader to complement their program. Accordingly, traditional car rental was primarily aimed at multi-day business clients and holiday travel. It was not an option for the occasional trip to the supermarket or picking up the kids from school. Car-sharing emerged as a way to meet the demand for occasional short-term car usage that could not be satisfied through traditional car rental.

The ***unique attributes of car-sharing*** were accordingly a focus on short-term rental (cars were available for as short a time as 30 minutes), and decentralized availability of cars (most clients had a vehicle within walking distance of their home). The operational details differed from one car-sharing organization to another. However, many car-sharing schemes included the following elements:

- ***To join,*** clients bought a share in a co-operative (which they could sell back to the organization when leaving the scheme) or they paid a recurring annual fee. Most car-sharing organizations offered shares for between 500 and 700 Euros, or charged between 70 and 150 Euros for an annual membership.

- ***Cars were located*** in central places such as train stations or in residential areas. The number of cars in given locations ranged from one or two to a dozen or more in prime locations such as the train station. Most clients lived within walking distance of at least one location.

- The actual ***rental cost*** depended on duration (about 1.5-2.0 Euros/hour) and distance traveled (about 0.2-0.5 Euros/km). Thus for occasional short-term requirements car-sharing was cheaper than car-rental or car ownership. For trips of more than 200 kilometers car-rental was more cost-efficient. The economic break-even between car-sharing and an own car was at 9000 km per year. The average car-sharing client usually drove about 800 km per year.

- In the early days of car-sharing the ***reservation system*** was very informal. Each car had an administrator whom members could call to book a trip. They would retrieve the car key from a safe deposit box near the car. Each member had a key that opened all deposit boxes. After each trip they returned the car and noted in the board book the distance and time of their journey.

ATG and ShareCom Invent Car-Sharing in Switzerland

Joint ownership of cars is not a new invention. For decades cars have been used jointly by family members or friends when no money was available to afford several cars. However, such informal solutions were not without problems. One car-sharing pioneer recalls his experiences as follows:

> *"Jointly using a car among neighbours can easily strain the relationship when problems arise. For example, when the car breaks down the owner often has unrealistic expectations as to the residual value of the car. So I did not hesitate to join [a formal car-sharing group] when it became available."*

In 1987 two car-sharing co-operatives were founded independently of each other in Switzerland. The "***ATG • AutoTeilet Genossenschaft***" grew out of an informal car-sharing scheme in Stans (Kanton Lucerne). Rolf Fischer, one of the original eight founders, recalled:

> *"From the outset there was both an ecological and an economic motivation. On the one hand we were critical about car ownership from an ecological point of view. Thus car-sharing allowed us to meet an occasional need without having to actually own a car. On the other hand some among us were attracted to car-sharing because they would not have been able to afford a car by themselves." (Fischer, 2002, interview)*

Conrad Wagner (Wagner, 2002, interview), another ATG founder, added that he was attracted by the flexibility of a sharing system. Rather than having only one type of vehicle ATG offered him access to a compact car, a van, as well as a cabriolet.

The co-operative "***ShareCom***" was also motivated by ecological reasons. Charles Nufer described the ShareCom philosophy as follows:

> *"Our approach was motivated by the environmental crisis of the early '80s. The desire to own more and more things was increasingly causing environmental problems. I felt that we could solve these [problems] only by separating ownership and usage, hence our motto 'Use it – but don't own it!' (Nutzen statt Besitzen)." (Nufer, 2002, interview)*

ShareCom differed from ATG in two aspects. Firstly, it offered to share all kinds of durable goods (not only cars), and secondly was deeply rooted in the idea of mutual self-help. Accordingly ShareCom relied strongly on voluntary work by members. By spreading the responsibility for product maintenance, Nufer hoped to motivate members to look after the products as they would look after their own goods (Nufer, 2002, interview). The ShareCom system consisted of "user groups". Members of each group knew each other well and also often interacted outside the ShareCom system. This social interaction component became an important element of ShareCom's philosophy. The position of user group administrator was rotated on an annual basis and members would take weekly turns to wash a car and clean the interior. "The co-operative was about sharing and not rental," summarised Nufer (2002, interview) the ShareCom approach.

Both co-operatives quickly realized that their offers struck a nerve with many people. In the first six years they doubled their size nearly every year, although they spent hardly any funds on ***advbertising***. Co-operative members attracted new users by word-of-mouth alone. This was supplemented by a considerable amount of media attention both at the national and local level. Often when a user group was founded this was greated by an article in the local or regional newspaper.

Very quickly other players remarked the potential of car-sharing. In 1989 the small ***Verkehrs-club der Schweiz (VCS)***, Switzerland's "green" traffic club, began to systematically support car-sharing. It promoted the two co-operatives among its members, who were naturally predisposed to be interested in an offer like car-sharing. Probably the most important contribution of the VCS was its role in initiating a co-operation between ATG, ShareCom and the Bundesamt für Energie (BFE), the Swiss Federal Office of Energy. In 1991, the BFE had launched ***Energie2000***, a program aimed at promoting energy efficiency and renewable energy sources so as to reduce the amount of CO_2-Emissions caused from fossil fuel consumption. The VCS proposed car-sharing as one of the projects funded under the program and offered to act as project manager between the BFE and the two co-operatives. One outcome of this project was the first systematic analyses of car-sharing (Muheim and Inderbitzin, 1992).

Joining Forces?

Inevitably the close co-operation under the Energie2000 program and a constant prodding by Monika Tschannen the head of the VCS, led to discussions about ***merging the two co-operatives***. However, these talks quickly became stuck due to philosophical and personal difficulties. Conrad Wagner and Charles Nufer both recalled these discussions as very problematic.

ShareCom felt that its central contribution lay in a neighborly self-help philosophy that encouraged people to freely share goods. Cars were the most successful item. But the organization also offered to share electrical equipment, sports gear, and holiday homes. Its mission was to form small groups of users who would share many things in a communal alternative to the all-pervasive consumer society. Cross usage from one group to another was rare. Only a few vehicles in the city center were actually used by all members. Nufer was afraid that "by losing the voluntary element, we would just become another car rental firm" (Nufer, 2002, interview).

Wagner and the ATG team on the other hand were clearly committed to commercialization and positioned ATG as a car-sharing service provider. They saw self-help as a form of self-exploitation (Muheim, 2002, interview). Although ATG had initially relied on voluntary contributions by all members, the organization quickly decided to appoint professionals to take care of cars and over time moved towards a system whereby these persons were paid and employed by ATG. Obviously these costs had to be covered by the users, thus driving ATG's user costs up.

As the sun vanished behind the mountains Muheim's balcony fell into shadows. He wondered: Should the two co-operatives join forces? Looking at other countries did not seem to make a merger the logical choice. Both the Netherlands and Germany (the only two other countries with noteworthy car-sharing activities at the time) had a largely fragmented market. In Germany, independent co-operatives existed in many large cities. And although some had co-operation agreements members rarely used cars in another city. After all, car-sharing seemed to be a primarily local need.

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Exhibit A1
Total Cost of Mobility

	100% Own car	100% CS	50% CS + 50% PT	25% CS + 75% PT	100% PT
5‘000km	6`300.-	4‘300.-	2‘700.-	1`800.-	950.-
7‘500km	6`800.-	6`400.-	3`800.-	2`600.-	1`400.-
10‘000km	7`300.-	8‘500.-	5‘200.-	3`600.-	1`900.-
15‘000km	8`100.-	12‘800.-	7`800.-	5`300.-	2`850.-
20‘000km	9`000.-	17‘000.-	10`300.-	7‘100.-	2‘850.-

Source: Mobility CarSharing Schweiz, 2003

The table compares different alternatives for meeting mobility needs either through car ownership, car-sharing (CS) or public transport (PT) or a mix of CS and PT. The calculation assumes CHF 6’000.- (~€3’600) p.a. fix cost for a compact car (parking, taxes, insurance, depreciation).

Exhibit A2
Time Line of Car-Sharing in Switzerland (1987-1993)