Car-sharing Workshop Report

On Thursday, November 7, the Circular Economy Policy Research Centre presented a study at STUK in Leuven that analyzed the environmental impact of car-sharing. The main takeaway is that car-sharing will only have distinctive positive consequences if it leads to the decrease of privately owned cars. If, however, car-sharing will be used as an additional method of transportation, there will be no automatic reduction in environmental cost.

The day started out with a networking lunch, after which the 42 participants made their way to the wooden auditorium, one of the most charming and historic auditoria the KUL can boast to own. This is where professor **Karel Van Acker**, chairman of the Circular Economy Policy Centre, welcomed the attendees. He quickly outlined the context of this research: if you want to understand circular economy, it is vital to study the latest business models which facilitate shared ownership. In order to look into the effect of these new business models, we should examine what is already out there. Car-sharing, then, provides an ideal subject.

German car-sharing tradition

After these words of welcome, former managing director of the Bundesverband CarSharing Germany **Willi Loose** delivered a keynote talk on car-sharing in Germany, where there is a longstanding tradition of car-sharing: more than 2 million people participate in some form of other of car-sharing. “Car-sharing is not the reason why people are getting rid of their cars, but it is a reason why people aren’t purchasing new ones,” he noted. “During the year preceding people’s membership of an organization, something had often happened related to their car ownership: the car broke down, or someone was left without a car after a divorce. Car-sharing provided the solution that allowed these people not to have to buy another

car. Currently, car-sharing in Germany leads to 15,3 cars being replaced by just one car, although the number shifts wildly from one area to the next."

"There is no such thing as one kind of car-sharing, and it's important to emphasize the difference in environmental impact between these different types." Loose added. He differentiated between cars with a fixed storage location, free floating cars, peer-to-peer sharing, and systems that combine these methods. Only cars with a fixed location, and combined systems have a high potential of replacing privately owned cars. "If you don't differentiate between these types in your study, your results will not be reliable," said Loose.

Study by Circular Economy Policy Centre

Donald Chapman and **Raïsa Carmen**, researchers for the Circular Economy Policy Centre, then took the floor and presented the results of their in depth study of the current position of car-sharing in Flanders. The results are based on over 2000 responses to a survey, and lengthy interviews with three car-sharing service providers, as well as Autodelen.net.

Some noteworthy conclusions: people who have the strongest inclination towards car-sharing are men, people with higher levels of education, and city dwellers. Those who are retired, or own a company car, are less inclined to participate. A strong majority of the respondents named ecological concerns as a key motivation. It also turned out that both people who car-share and people who don't, are perfectly willing to pay a little extra for electric vehicles. "This could be interesting for the electrification of the fleet," researcher **Raïsa Carmen** stated.

Car-sharing only leads to a significant decline in greenhouse gas emissions in users who sell their car or don't replace their current one when it ultimately breaks down. However, for a large portion of users, car-sharing is an *additional* method of transportation. "It is exactly this that policy should try to discourage," researcher **Donald Chapman** indicated. "Car-sharing can play an important role in the transition to a multimodal way of getting around, by preventing car ownership. However, if we follow that line of

thinking we can also consider decreasing the cost of car-sharing, through subsidies for example, which will discourage the use of public transportation, and promote the use of cars, which is not the intention."

Panel talk

The presentations were followed by animated debate led by Sjoukje Smedts, in which different stakeholders - government, knowledge institutions, private businesses, and users, - were represented: Brigitte Mouligneau, Transition Manager Circular Flanders; Cathy Macharis, professor of mobility and logistics at the Vrije Universiteit Brussel; Nick Van den Eynde, City Manager Antwerp of the car-sharing business Poppy; and Jeffrey Matthijs, coordinator of the Flemish car-sharing network Autodelen.net.

Cathy Macharis emphasized the importance in mobility policy, of making the distinction between different forms of car-sharing. "Research into the situation in Brussels shows that the users of the free float system mostly appear to be young men with one or two cars of their own, who look for additional options. Contrastingly, the demographic using a fixed location system consists of mainly older women who don't own a car. We can also observe that users of the free-float system use public transportation less. They don't showcase the multimodal behavior that we aim for." Macharis argued for a closer monitoring of these distinctions, and to adjust mobility policy at the city level accordingly.

Brigitte Mouligneau looked at this issue from a different angle, namely of looking at cars as a collection of materials: "Let's express it in terms of weight. When I walk, I need about 1,5 kg in quality shoes. When I use a bicycle, I'm transporting around 20 kg. A car weighs somewhere between 1500 and 2000 kg. Therefore, considering materials efficiency, you should be aware that every vehicle owner is collecting materials which need to be produced, and which cause CO2 emissions when moving them. Additionally, the actual material use goes beyond just the car, you need a lot of infrastructure: a parking place, a driveway, a carport, or a larger house with a garage."

So how do private businesses see the future of car-sharing? “From this research, I think we can conclude that we have to create a stronger link with public transportation.” **Nick Van den Eynde** remarked. “In recent years, Poppy expanded its car-sharing fleet with electric motorcycles and scooters, so people can make the journey of a few hundred metres to their cars in comfort. Our younger customers who don’t have a license yet, will also be more likely to take a car-sharing subscription when they grow older if there is a low threshold.”

One of the key conclusions of the study was that subsidies for car-sharing are not necessary, because they could make this method cheaper than public transportation which will in turn incentivize the use of cars. 91% of car-sharers responded in the survey that they car-share because it’s cheaper than owning a car of their own. Implementing subsidies could make it too cheap. Though, our panelists did add some nuance to this: they all agree that the consumers should not pay less for these services, however, small car-sharing businesses starting out could absolutely use the additional support. “I support subsidies for car-sharing services, but specifically in regions with less population density. In these areas, businesses should be able to receive support from the local government for one or two years in order to get started properly. Of course, I am convinced that public transportation should remain the backbone of society.” **Jeffrey Matthijs** concludes.

In short: car-sharing can be a blessing for the environment, but only if it’s a step forward towards fewer cars in total. Achieving this requires smart policy that discourages car-sharing as an additional method of transportation rather than a replacement for car ownership.