



Shared Mobility: A Part of a Low Carbon Culture

THE RISE OF THE SHARING ECONOMY

Sharing is nothing new. However, since 2010, different media and authors have shown an increased interest in the trend for sharing. Sharing, or collaborative consumption has been defined as: a class of economic arrangements in which participants share access to products or services, rather than having individual ownership.

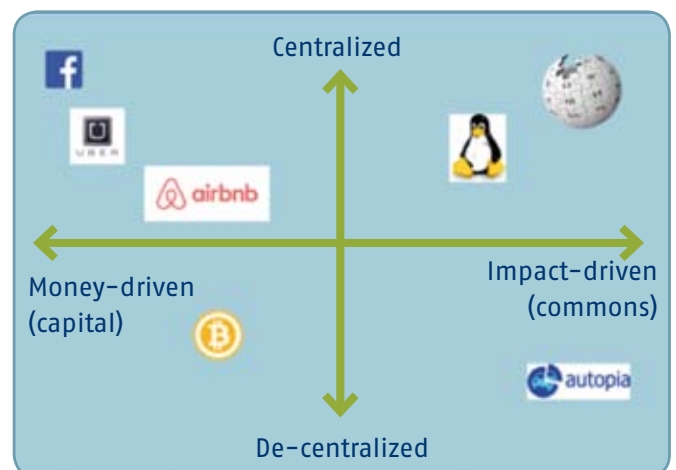
The rise of the sharing economy has many reasons:

- A shift in priorities from owning to simply wanting to use an item
- Increased awareness on climate change and scarcity of space and resources
- Financial crisis and the high costs associated with owning items that are seldom used
- Access to technology and social media makes sharing more convenient than owning.

For generations growing up with internet and social media, sharing is not sorry, it's "sexy". However, sharing is not just for young people, it can provide mobility solutions for all ages.

There are many different kinds of sharing: Money-driven vs. impact driven, and centralised vs. decentralised. This paper will focus on the impact-driven sharing economy (also known as "initiatives of local resilience") through discussing the most prevalent forms of shared mobility: Car sharing,

ride-sharing and bike sharing while providing definitions, examples, describing benefits and policy recommendations.



Source: Michel Bauwens, Peer-to-Peer Foundation

CAR SHARING

Car sharing (also known as car clubs in the UK) is a model of car rental where people rent cars for short periods of time, often by the hour. They are attractive to customers who make only occasional use of a vehicle, as well as others who would like occasional access to a vehicle of a different type than they use day-to-day. The organisation loaning the cars may be a commercial business or the users may be organised as a company, public agency, cooperative, or ad hoc grouping.

There are 4 different types of Car sharing:

1. Fleet-owned station-based Car sharing: Here, operators offer a fleet to their users. The cars always have a fixed car sharing station. The cars have to be brought back to the same station. Examples: cambio (Germany, Belgium), Co-Wheels (Scotland), Greenwheels (Netherlands).

2. Fleet-owned free-floating car sharing (one-way): In this kind of program, cars can be picked up at point A and dropped at point B in a certain zone. There are no dedicated parking lots. Examples (Car2Go, Germany, Netherlands). A German study (http://matters.civcity.de/index_en.html) on free floating car-sharing has shown that the average distance of free floating car-sharing is 5 km. Like that, one-way car-sharing is also competition for urban public transport, taxi, walking and biking. Nevertheless, it creates a positive image on shared mobility and it might have an impact on car-ownership as well.

3. Centralised peer-to-peer car sharing: An operator of peer-to-peer car sharing offers an open platform to bring private car-owners in contact with users. An online platform brings offer and demand together. The operator skims a

certain percentage of the transaction cost between the owner and user to provide an appropriate insurance, and the operating costs. Examples: Tamya (Germany), Mywheels, Snappcar (Netherlands).

4. Decentralised car sharing: This is the most spontaneous form of sharing private cars. This type of peer-to-peer car sharing doesn't deliver an open platform but supports groups who are sharing their car in their neighbourhood. Examples: Autopia (Belgium)

What's the difference between sharing and renting a car?

CAR SHARING

Pay-as-you-go
(distance related price)

Long term customer relation
(subscription, season price, ...)

Short trips (mileage and time)

Short reservation procedure
and access technology

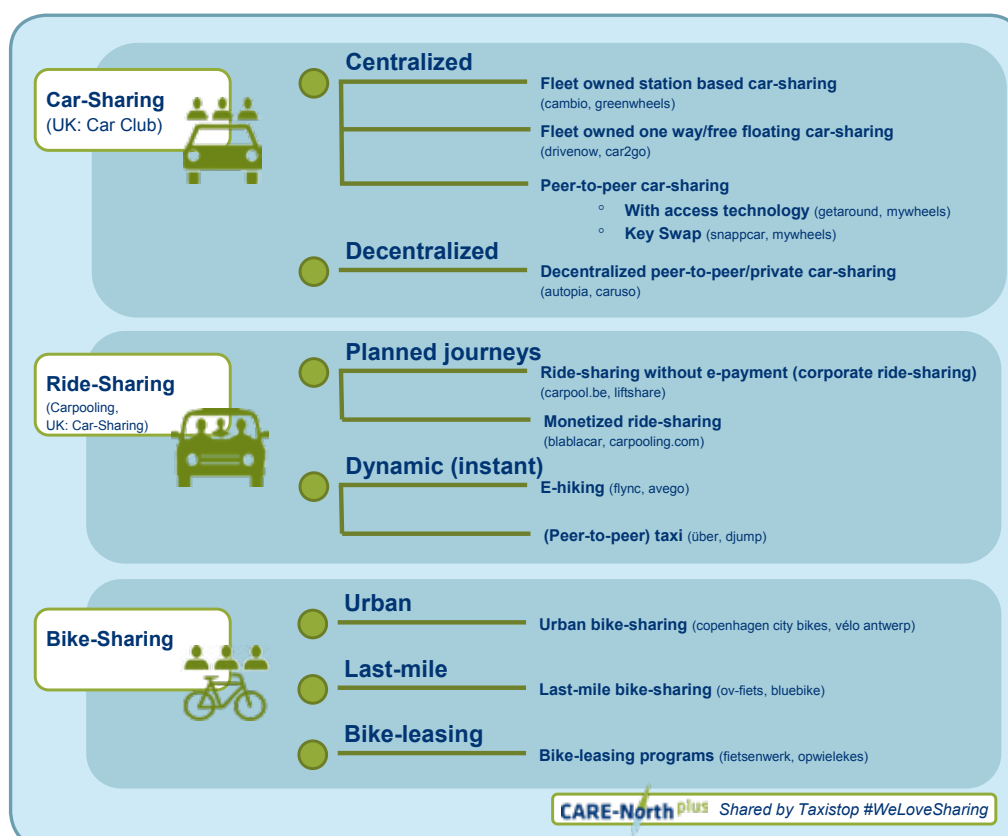
CAR RENTAL

Duration related price

Customer relation related
on transaction

Long trips

Contract handling and
key swap



CASE STUDY:

Station-based Car Sharing in Bremen

The base of car sharing users in Bremen and in Germany in general is increasing steadily.

Bremen's ambitious Car Sharing Action Plan seeks to promote the broad scale deployment of Car sharing in the city in order to reach 20,000 users by the year 2020.

Street space in Bremen is scarce and the number of cars lead to various problems, such as illegal parking which hinders pedestrians, cyclists and the passage of large vehicles (i.e. fire trucks and trash collection trucks). By increasing the available supply of car sharing offers, residents who do not need their cars on a daily basis are presented with a transportation alternative and are able to get rid of their own car, save time and money. Customer surveys in Bremen show that one car sharing vehicle replaces 10–11 private cars.

The car sharing offers in Bremen are station-based and generally located near bus and/or tram stations to encourage multi-modal travel.



Example of a new "small" mobility station in a neighbourhood with narrow streets and a high demand for parking space. Test drive at new mobility station, to show the benefits of keeping intersections free of illegally parked vehicles (Autumn 2013).

"The already existing mobil.punkte (Car sharing stations on public street space) verifiably relieve pressure on the parking situation in our neighbourhoods. We want to expand on this success story and continue to provide space for Car sharing on public street space."

Joachim Lohse, Minister for the Environment, Construction and Transportation, Free Hanseatic City of Bremen.



"I'm on my way to [see] you": Car sharing promotes multimodal journeys in Bremen.

In addition to the conventional car sharing stations, a pilot E-Mobility Sharing Station was also opened in Bremen in 2014: the first of its kind to feature such a broad mix of vehicles! The "Vahr Vernünftig" Project is a cooperative venture between the local transit organisation (BSAG), a housing society based in Bremen (GEWOBA) and the electric car sharing provider, Move About.

The sharing station is located near a tram stop, is easily accessible and allows users to continue their individual, low-emission journey through the rental of the vehicle suited best for their continued journey: be it an e-bike, cargo

In October 2014, Filip Watteeuw, Counsellor for Transport of the City of Ghent, announced the Ghent Car Sharing Action Plan. The very ambitious plan set the goal of growing from 4.000 car-sharers to 20.000 by 2020. This Car Sharing Action Plan was inspired by Bremen, through CARE-North **plus** dissemination activities.

CASE STUDY:

City Car Club schemes in West Yorkshire, UK

Leeds was one of the first cities in the UK to embrace the car club model in 2004. As a result, there are currently more than 2,000 City Car Club members in Leeds using a network of 32 pay-as-you-drive vehicles. City Car Club has also proved to be a valuable transport option for people visiting the city, with tourists and businesses making hundreds of trips and adding to the city's thriving economy. Leeds City Council has worked in close partnership with the operator City Car Club to deliver and grow the scheme.



City of Ghent: Subsidies for electric cars if you share them with your neighbors.

How can you combine car sharing and the promotion of electric vehicles? The City of Ghent has an answer: It provides subsidies if you buy an electric car, but only if the car is offered to others. Car sharing operators can enjoy these funds in addition to private persons.

All types of car sharing have the potential to incite people to make a shift from ownership to sharing because they create a shift from mobility as a reflex (hop in your car at your front door anytime) to mobility as a rational process (the journey made, the type of mode used or even the type of car used is well-considered). This can lead to a modal shift from car use to more frequent use of environmentally friendly modes (walking, cycling and public transport).

CASE STUDY:

Decentralised Car-Sharing through Autopia

Autopia, a Belgian non-profit organisation, offers tools for sharing own private cars in local communities to neighbourhoods, cities and organisations. Their ultimate goal is to enhance sustainable mobility, particularly through private car sharing. Autopia's activities include: supporting new and existing groups of people who want to share their own cars by developing tools such as contracts, online reservation tools, schedules to determine and calculate prices and online search engines to find other candidates for car sharing; lobbying for incentives and a legal framework and innovative experiments.

Some results of Autopia's efforts include:

1. **Parking incentives** for private car-sharers. Due to lobby-work, private car-sharers have dedicated parking lots, or a free parking permit for the whole city in various Flemish cities (Antwerp, Mechelen, Hasselt).



2. **Home-parties.** People can invite neighbours and other friends and acquaintances to their house for a peer-to-peer informational session about car sharing.
3. Some municipalities are too small for commercial car sharing operators. Autopia supports those municipalities to share the **municipal car fleet** with citizens on the weekend when the vehicles are not in use. It's a very cost-efficient solution in less dense or rural areas.
4. AVIRA, Autodelen Voor Iedereen met Rolstoelvriendelijke Auto's' – is car sharing for people with **wheelchair-friendly cars**. Pegode vzw shares its wheelchair vans with its members in Edegem and the inhabitants of Edegem and surroundings.

RIDE-SHARING

Ride-sharing or carpooling is the sharing of car journeys so that more than one person travels in a car. As with car sharing, there are several kinds of ride-sharing.

- 1. Planned journeys – Matching software for ride-sharing without payment:** This ride-share service is mainly used to bring commuters together. This service is sometimes subsidised or paid by employers who want to reduce the number of cars towards work. As ride-sharing happens regularly. Examples: Carpool.be, Liftshare.co.uk.
- 2. Planned journeys – Monetised ride-sharing:** This is a ride-sharing business model based on skimming the transaction cost between driver and passenger. Drivers like to share rides in these schemes as they have a guarantee to share the costs. Examples: Carpooling.com, Blablacar.
- 3. Dynamic ride-sharing** is real-time or instant (not planned) ride-sharing. It's the new hitchhiking, using your thumb for the smartphone instead of using the thumb as a sign for drivers on the road. Examples: Carma, Flync.



What about Uber?

Uber and other peer-to-peer taxi services call themselves 'new ride-sharing operators'. However, ride-sharing makes use of additional capacities in vehicles; the offered rides are carried out regardless. Uber offers transport on-demand, like a taxi service. Services offered by Uber and similar providers do not really qualify as sharing economy, but fulfil the potential for transport on-demand. However, such services have potential for the future: real ride-sharing by UberPool, and taxi-sharing. An example of the revitalising impact of Uber is the raise of start-up PickMeUp in Flanders: A taxi-app, who provides taxi on-demand, a new technology for many different taxi operators, offering same user experience as Uber.



BIKE-SHARING

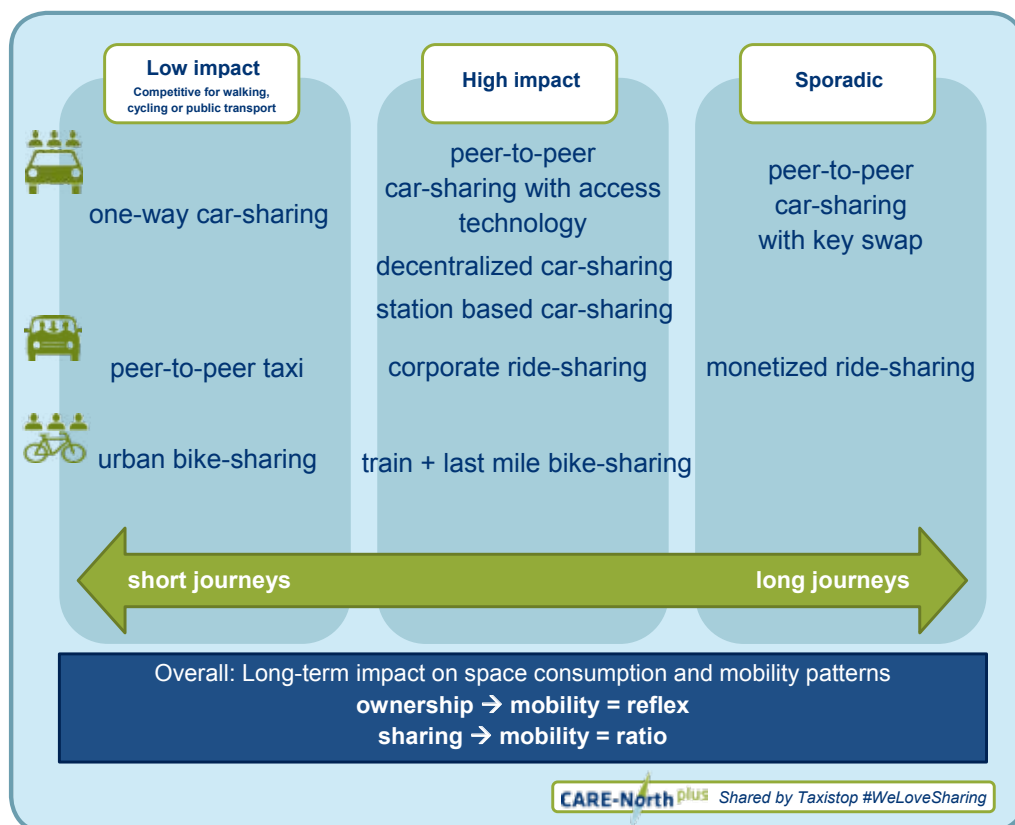
Bike-sharing is a service for bike access as an alternative to bike ownership. It has been proven in many cities, like Paris, Barcelona and Rio de Janeiro, that bike-sharing has the potential to create a cycle culture where it does not yet exist. There are also different types of bike-sharing:

- 1. Urban bike sharing** is a bike sharing network offered in a certain city. Users can easily pick-up bikes at different bike stations in the city. The bicycles can be dropped at other stations. Very often the short-term use is very inexpensive. Longer use becomes expensive: The price scheme is defined like this, to convince users to put the bike back in the system after using it and to avoid parking the bike elsewhere. Examples: Velo (Antwerp), Copenhagen bike.
- 2. Last mile bike sharing** is not concentrated in one city, but in a network of different cities. The bikes are offered near train stations or public transport hubs. The bicycles are mainly used for the last mile after a train journey by visitors to a city. The bikes have to be dropped in the same bike sharing station. The rental price is typically per day or half-day, as this nature of the trip makes it difficult to return the bike, for instance, during a meeting. This type of bike sharing encourages multimodal mobility. Examples: OV-Fiets (The Netherlands), Blue Bike (Belgium), Call-a-bike (Germany).
- 3. Bike leasing:** Bike leasing is long-term bike rental. This type of bike sharing supports certain target groups to have safer and better quality bikes. Some examples: FietsenWerk (Belgium), a bike service for employees; StudentenMobiliteit (Ghent), a bike service for students.

IMPACTS OF SHARED MOBILITY ON MODAL CHOICES

Studies have shown that various forms of shared mobility tend to complement one another. In terms of mobility impacts, the diagram shows the same findings and which kinds of shared mobility have the most considerable impact on (urban) mobility. The main impacts of shared mobility are on daily travel behaviour and the choice of transport mode for various distances.

All shared mobility services in this classification have the potential to make a shift from car ownership, leading to reflective car use and toward rational transport behaviour because their users tend to choose the most appropriate mode per journey. In other words: **The more alternatives people have, the more opportunities they have to become a multimodal transport user.**



Cargo bike sharing in Ghent, Belgium

CASE STUDY:

Corporate carpooling by Taxistop

Taxistop has offered carpool matching software for companies and private persons for many years. During the start-up, Taxistop has learned many lessons about the needs of corporate users:

1. Changing daily habits is tough. Therefore, Taxistop organises campaigns to start with one day or one week (e.g. Car Free Day, Carpool week). The software (carpool.be) is adjusted to find carpool partners for occasional or irregular journeys.
2. A company needs customised advice and promotional activities, not just a subscription to a carpool website.



3. Statistics and administration tools are also important. Taxistop created a tool for registering daily carpool behaviour: This tool makes it possible to enable tax incentives for the carpoolers.

CASE STUDY:

Carpool lanes in Norway

A substantial incentive for ride-sharing in Norway is the allowed use of carpool lanes. In Bergen, there is a 2.5 km long carpool lane between the airport and the city. Vehicles with two or more passengers are allowed to use this carpool lane. The lanes are not only accessible for car-poolers but also for buses, taxis and electric cars.

This route was very congested because of traveller journeys, but also high employment at and near the airport. The congestion problem has been alleviated somewhat due to the carpool lanes.

To find carpool partners in Bergen, the people can use the Carma App.



CASE STUDY:

ShareFest in Belgium

The first ShareFest was born in 2011 with a car sharing focus. Since then, the annual event organised by Taxistop and Autopia has transitioned into a festival that appeals to many aspects of the sharing economy and gives various sharing initiatives a platform.

The attractions of the most recent ShareFest included many attractions to engage the visitors' curiosity, including: a surrealistic Anti-Share lobby (here, people could sign a petition against the collaborative economy, the only problem being that the lobbyists wouldn't share their pens, which made it difficult to sign), a repair café and book swapping. The ShareFest creates many opportunities: neighbourhoods can inspire each other, people can get in contact with many sharing economy projects and organisations, representatives from the city council gain a better understanding of the real potential of the collaborative economy.



ShareFest Ghent at Car Free Sunday, September 2013

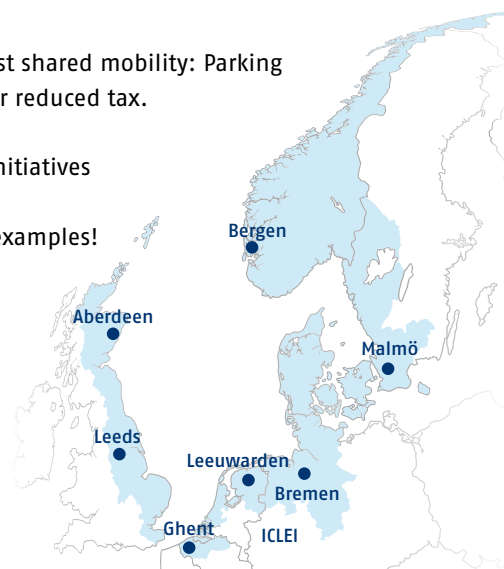
PROMOTING SHARED MOBILITY IN YOUR CITY OR REGION

Don't just "Like" sharing, plan sharing and focus on its impact!

Many public authorities are making the same mistake. In policy plans, it can often be read that public officials, cities and regions will support new forms of shared mobility. And, yes, this is a good start. However, real visions for shared mobility are still missing! Shared mobility should not simply be viewed as a goal but as a real and viable strategy for reducing congestion, regaining public space and improving the liveability and attractiveness of cities and regions for its citizens. So, instead of just liking sharing, create a real plan with ambitious objectives. Here are some recommendations for promoting shared mobility in your region:

1. Lead by **example**: Start to promote carpooling for own employees, reduce your own car fleet, and become member of car sharing and bike-sharing operators
2. Start with a **vision** on shared mobility. What kind of shared mobility do you want in your city?
3. Create **awareness**: Sharing is sexy, not sorry. Sharing is easy, not complicated. Sharing is cost-saving, not expensive.

Partners



4. Adopt a real Car sharing (or even shared mobility) **action plan**, instead of ad hoc measures. Define goals: How many cars does your city need? How many car-sharers in 202x, average car occupancy, etc.?
5. Create **public space** for shared mobility: Shared Mobility must be easy accessible near public transport hubs, and very visible.
6. Create a **legal framework** for shared mobility, remove legal barriers. Defining shared mobility is the first step to create incentives.
7. Give **incentives** to boost shared mobility: Parking incentives, subsidies or reduced tax.
8. Embrace **bottom-up** initiatives
9. Get inspired by good examples!

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