Shared mobility, car use and demotorisation: what is the impact of car sharing on European cities and how to foster its development?

The individual car, a polluting asset that congests European cities

According to the 2017 edition of the European Automobile Manufacturers Association *Vehicles in use* report, there are some **291 million vehicles on European roads**, a growing number that includes 256 million cars and 38 million commercial vehicles, which is more than one car for every two people. In parallel, cars in the European Union are also getting older, the European car fleet **being on average 10.7 years old**.

Yet, private **cars stand among the least efficient and most underutilised assets of European households**. The European NGO *Transport & Environment* pointed out in its June 2017 briefing that the average **car sits unused for more than 90% of the time** whereas buying one becomes increasingly expensive and **owning it roughly costs €6,500 a year**. On top of that, **unused cars remain parked in the streets, occupying public space**. For instance, in a city like Paris, 70% of the parked cars are used less than once per month. This phenomenon worsens the issue of **congestion** in cities centers, **which cost on the EU economy is estimated at €100Bn annually**.

This situation is all the more paradoxical as **urban Europeans**, who count for 75% of the population, **have a decreasing dependence on cars on a daily basis**. Indeed, for journeys within city centers, the development of public transports and soft mobility schemes (shared bikes or scooters…) tend to drastically lower the relevance of the use of private cars, whereas on long-distance journeys, the multiplication of mobility offers (train, plane, carpooling, bus lines...) encourages users to leave or share their vehicle to travel between two cities.

However, **when it comes to moving quickly from a city to a peri-urban or rural area, the car remains the most efficient means of transport**, being able to guarantee freedom of movement in these areas that are underserved by public transport networks and where the carpooling offer remains sparse. The same is true in specific situations (moving to a new house, grocery shopping, etc.) where the car appears to be essential.

Thus, this observation highlights a paradox: **while Europeans regularly need to use a car, owning a car is more of convenience than necessity for city dwellers**. From then on, three issues arise:

1. How to **reduce the number of unused parked cars** in metropolises?
2. How to **accelerate the transition towards cleaner vehicles**?
3. How to **encourage Europeans to turn to alternative mobility solutions** aside from cars?

Cities like Paris, London, Berlin, or Barcelona are already actively tackling these issues, with the long-term objective of getting rid of private cars in city centers. However, if political leaders want to convince citizens to separate from their cars, they must also ensure that they have access to a car when the situation requires one. In other words, it is only by facilitating citizens' access to a dense, reliable and accessible car sharing solution that we will be able to solve the problem of congested cities in terms of traffic and parking.

If developed enough, car sharing services are proven to trigger a triple environmental benefit

Roundtrip car sharing, if coupled with an efficient public transport network and complementary shared mobility services (free-floating bikes and scooters, cabs…), has the potential to deeply transform travel habits in Europe and therefore address a three-fold environmental challenge.

1. An efficient solution to accelerate demotorisation and free public space in the city

While a private car sits unused 90% of its time, studies carried on the impact of roundtrip carsharing acknowledge that **each car shared 100% of its time replaces from 5 to 15 private cars**, which mechanically reduces car ownership and frees up to 14 parking spaces (ie 140 m2).

2. A lever to accelerate the transition towards greener vehicles and more sustainable driving habits

Beyond the induced demotorisation, increased use of shared vehicles causes a faster depreciation of these, and therefore a more frequent rate of renewal. Thus, car sharing, especially between private individuals, contributes to progressively rejuvenate the remaining car fleet, making it more environmentally-friendly.

Furthermore, **roundtrip car sharers tend to reduce by an average of 41% the kilometres they travel by car** while taking more passengers, which increases the average car occupancy and **reduces emissions per kilometre**.

3. A trigger towards more sustainable mobility habits

Last but not least, **car-sharing also encourages a behavioural shift towards multi-modal, sustainable transport** which complement public and active forms of transport (cycling and walking): according to the ADEME

national survey on car-sharing, car-sharers turn more to walking (30% of them), cycling (29%), public transportation (25%), train (24%) and carpooling (12%).

4 series of measures to support the development of car-sharing in European cities

Nowadays, technological progress and the democratisation of smartphones have made it possible to remove most barriers to the wide adoption of car-sharing services by reducing as much as possible the constraints associated with them (no subscription, no card needed, more available vehicles, access to the service via smartphone...). In addition, services such as Drivy, which brought together 1.8 million people around its car rental and car-sharing platform, are deployable everywhere without the need for public investment.

We are therefore convinced that **car-sharing could be adopted even more widely thanks to a series of measures that could be implemented at a national and city level that would aim at developing the supply of shared vehicles** in European cities.

1. Allow private owners to share and rent their car easily at the European level

Whereas individual cars owned by city dwellers represent a burden in terms of congestion for cities, it seems legitimate to insure a more efficient use of these assets. In particular, cities should make sure that a car, when owned, should be shared as much as possible so that this asset benefits to a greater number of people, which would work as an incentive to demotorisation while increasing the average car occupancy rate and reducing emissions per kilometre.

However, at a European level, local legislations differ from one country to another, making it sometimes impossible for individuals to share or rent their cars. For instance, it is impossible for a private owner to rent his car in Italy without being a professional; BlaBlaCar almost got banned in Spain…

Given the environmental benefits of car and ride sharing, a harmonised legislation at the European level that would make it legal in every country to share their cars would lift a barrier to the development of car sharing at the European level.

2. Encourage individuals to share their personal car

In order to encourage private owners to share their personal vehicle and thus densify the carsharing offer, it is important to acknowledge that they operate in the context of cost-sharing until a certain point.

Knowing that owning a vehicle costs around €6,000 a year, income from peer-to-peer car rental that does not exceed this threshold should be considered as cost-sharing, and therefore not be taxed as no profit is made. A tax allowance mechanism would reflect this situation. Another solution would be to allow individuals renting their car to **deduct their costs** from their revenues, as it is often the case for carpooling.

At the same time, **other incentives** could be envisaged at the city level for individuals who regularly put their personal cars up for car sharing, especially **in the field of parking**, like a cheaper or even a free residential subscription if their vehicle is shared more than 60 days/year, reserved or priority parking spaces, discounts on other means of transportation (public transport, bike sharing schemes...).

3. Define a sustainable framework for small business owners operating carsharing fleets

For professional car sharing fleet operators, parking also represents the main obstacle to the development of their activity. Currently, in order to make their fleet accessible to users, they are obliged to park their vehicles on the street, paying a high price.

A form of adapted **professional pricing**, comparable to residential parking rates for example, or the provision of dedicated parking spaces equipped with electric charging stations through a temporary authorisation to occupy the public domain would be an efficient way to tackle this challenge. It is the solution chosen by the city of Paris to foster car-sharing through dedicated parking slots (SVP program).

In parallel, **legal status and fiscality of micro-entrepreneurs should be simple** in order to help them start their activity as an operator, with charges level compatible with the low-margin cost structure of this activity.

4. Inform city dwellers on available car sharing services and facilitate their access to them

Strong **institutional communication**, particularly at the city level, would increase carsharing offers visibility.

In addition, the creation of **public parking spaces dedicated to carsharing**, with a specific design to make them easily identifiable, located near other means of public transport would also be a plus, since 30% of current car sharing service users have discovered carsharing by passing a station.

Finally, **partnerships between private and public players, and especially with city councils**, could be envisaged, for example with a view to integrating the carsharing offer into cities' travel passes.

Sources and helpful links

European Automobile Manufacturers Association, 2017 *Vehicles in use* report: link
Transport&Environment.org, *Does sharing cars really reduce car use?*, 2017 briefing: link

drivy

ADEME, *National survey on car-sharing*, 2016 edition: link

Drivy website: https://www.drivy.com/