Transport-related problems in European cities

European cities face many transport related problems. Congestion and parking problems demonstrate the mismatch between demand and availability of urban space. There are also problems of air quality and noise related to the number of motor vehicles. Our dependence on (cheap) mineral oil makes our economy vulnerable as fuel prices continue to increase, and the issue of road safety and quality of life in urban areas cannot be addressed by vehicle technology alone.

Since 80% of European citizens live in urban areas and produce most of Europe’s GDP, cities are ideally placed to serve as leaders in energy efficient transport - reducing dependence on fuels and the related risks and dangers.

EU transport policy does not address car ownership

Taking into account both standing and moving vehicles, the amount of road space given over to personal vehicles is immense. Despite the fact that reorganising the allocation of valuable space in our cities could lead to massive improvements in urban quality of life, European transport policy has not addressed the question of car ownership.

The European Commission 2011 White Paper, Transport 2050 - Roadmap to a Single European Transport Area, describes the problems but does not sufficiently develop the entire range of solutions. Technical solutions are in the foreground with electric mobility as the big hope. But electric mobility alone will not solve our transport problems. For example, the space required for parking, road safety issues and the costs associated with congestion would all be unchanged. The White Paper entirely overlooks Car-Sharing, a service that facilitates wider mobility options by optimise existing sustainable transport modes and reducing the need for car ownership. Car-Sharing services also have the potential to create new jobs in the transport sector and serve as a testing ground for implementing alternative fuels and propulsion.

Findings of the European momo project on Car-Sharing

The project work carried out in the context of the European momo project has revealed some important insights:

• The benefits of high-quality Car-Sharing services for European cities are extensive. Car-Sharing creates a unique opportunity to reclaim street space in our cities for better purposes than car parking.

• Whereas we find good growth rates in countries and cities with existing Car-Sharing services, starting up Car-Sharing from scratch in places without any Car-Sharing experience is difficult and requires a good deal of support.

• In order to set up a successful Car-Sharing scheme, it is important to build solid partnerships with local public transport actors. Such partnerships could include integrated spatial planning of the networks, joint promotional and marketing activities, or combined ticketing and information sharing, all of which have been demonstrated to be mutually beneficial.

• Often neither decision makers nor potential customers are aware of, or well informed about, Car-Sharing. These groups need to begin to see it as a real option in order for the potential to be fully exploited.
A “car on call”: the modern service of Car-Sharing

Car-sharing is a customer or member-based service available to all eligible drivers that complements public transport, cycling and walking and supports environmental goals.

Car sharing organisations provide an affordable alternative to car ownership by offering members access to a dispersed network of shared vehicles 24 hours a day, 7 days a week at unattended self-service locations. Car usage is provided without restriction at rates that include fuel, insurance and maintenance and are directly proportional to usage (distance, duration and car type) and no separate written agreement is required each time a member reserves and uses a vehicle.

Car-Sharing encourages customers to drive less often, to plan trips better, to use other modes of transportation more, and to drive fuel efficient vehicles, thus saving money compared to individual car ownership. Most Car-Sharing providers also offer a variety of vehicles, allowing customers to choose the most appropriate vehicle for each journey.

Studies from Belgium (within momo), Switzerland, Germany, Finland and other countries, for example, show that, assuming a high quality service, each Car-Sharing vehicle can replace 10 vehicles or more. In order to function successfully as an alternative to car ownership, Car-Sharing must offer:

- 24/7 reservation and access
- decentralised vehicle locations
- vehicles that allow all “regular” trips (similar to a private car)
- tariff structures that invite users to optimise trips

The City of Bremen has developed a municipal Car-Sharing Action Plan within the momo project. This strategy was adopted unanimously by all political parties and has a target of at least 20,000 car sharers and a reduction in parking demand of 6,000 cars in inner city neighbourhoods by 2020.

When approaching governments for support, Car-Sharing operators should be able to provide data to authorities about the impacts of Car-Sharing, especially on car ownership.

The potential of Car-Sharing in Europe

Today, there are about 500,000 car sharers in Europe (400,000 in the EU) but the potential is much greater. Based on the number of car sharers in Switzerland, the EU27 could have 6,000,000 car sharers. Europe’s cities could be relieved of the burden of accommodating about 600,000 cars. End-to-end, this is a row of cars stretching from Stockholm to Madrid. To accommodate so many cars in parking garages would require an investment of about €9 billion. Such an investment could be better used to improve the quality of life for all European citizens.

Car-Sharing can also affect mode choice (and thus also the health of car sharers). The momo study of Car-Sharing in Brussels (2009) showed that after becoming a car sharer:

- 25% use buses and trams more (10% much more)
- 22% use trains more (5% much more)
- 19% bike more (7% much more)
- 28% walk more
Car-Sharing reduces the carbon footprint of transport through the modal shift of Car-Sharing customers, through better emission standards of Car-Sharing fleets and through the life cycle savings from cars that are not produced.\(^2\)

The incorporation of electric vehicles in Car-Sharing fleets is a potentially exciting challenge. With the range of vehicles available in Car-Sharing fleets, EVs can be put into service as appropriate without compromising service quality to customers. An electric car can serve shorter distances while a different car may be necessary for long distance or for transporting goods. This can lead to a stronger market implementation of electric vehicles. Further automation in transport may also further change our relation to the car as a privately owned transport tool.

### Car-Sharing and European transport policy

The undersigned of this memorandum call on the European Commission to give Car-Sharing an appropriate place in European transport policies. To exploit the potential of Car-Sharing, we ask the European Commission to:

- explicitly mention the potential of Car-Sharing in its policy papers in all relevant fields (transport, urban development, energy, etc.).
- adopt the memorandum definition for Car-Sharing on European scale to cover the above mentioned potential and impacts - ensuring high quality Car-Sharing services. This could be accompanied by European eco-label certification.
- include Car-Sharing in transport-related research and demonstration activities (e.g. FP7 and FP8) such as for co-modality between public transport and Car-Sharing, for standardisation and for technical interoperability. Doing this, Europe could develop not just a “single European Transport Area” but a single European mobility service market.
- help cities in countries without mature Car-Sharing services to set up and sustain such services through demonstration measures and regional development funding until market conditions are stable.
- support smaller cities and towns through the challenging start-up phase of Car-Sharing operations through the development of specific solutions.
- support the creation of a common European legal framework and road signage for on-street Car-Sharing stations (similar to taxi ranks).
- support and encourage national governments - including through fiscal and legal frameworks - to develop legislation to treat high-quality Car-Sharing as a complement to public transport modes.

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\(^1\) Switzerland has 100,000 car-sharers in a population of 8 million. EU27 has about 500 million inhabitants

\(^2\) About 15% of CO\(_2\) emissions during a car’s lifetime come from its manufacture, thus the replacement of up to 10 cars by each Car-Sharing car contributes further to CO\(_2\) reductions.