



D 2.3

Car sharing in Europe

The growth of car sharing
in a business as usual scenario





Car sharing is rapidly evolving over the last years. The interests of many car manufacturers in the car sharing market are witnessed by the introduction of new typologies of car sharing (free floating systems) mainly in selected large cities, that need a huge initial investment in order to be operative. A larger diffusion of car sharing services around the cities make the service itself more visible to the potential users; then the established maturity of the organisations is making car sharing a more viable option to the eyes of the city population.

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Given such trends in the recent past, how car sharing will evolve in the near future? Are other actors going to be involved in the car sharing market? Will we have the same typologies of service or something is going to change? What will be the actions of the policy makers and the city administrators in respect to the car sharing?

The present research report aims at giving a qualitative picture of car sharing, its growth perspectives and evolutions in the near future, according to the action that are already being planned from the car sharing operators. A particular attention is given to the main opportunities and barriers deriving from the local and national car sharing policies. Part of such information are collected through the in-depth survey (already used in D2.1), administered to car sharing operators around Europe, while the decision makers' point of view is gathered through a city administration survey.

Many insights came out from the questionnaires analysis: the increase in the number of car sharing users is expected in each European country under research, probably with different growth rates depending on the local administrations actions. Among the different services, free floating schemes are considered more likely to keep growing, compared to station based and peer-to-peer systems. These forecasts are mainly justified in terms of the rising population living in the cities, the popularity gained by car sharing services, the rising costs of owning a car and lastly the increasing awareness of citizens about environmental issues.

The increase of the demand for car sharing represents an opportunity for the operators, which are forecasting an increase in their current turnover. Moreover, on the

base of the information collected, it is quite clear that the number of operators in the near future is going to change. The increase in the number of operator is the most likely option, especially those providing a free floating service. In some cases, it is foreseeable a reduction in the number of organisations due to the merging of small and medium services into a big one, or at least new partnerships among different operators.

Concerning external collaborations in the mobility landscape, a better integration with the public transport services is expected; clearly, the integration needs to embrace all car sharing organisations operating in each city in order to avoid unfair competitions. It will be beneficial for both sides: firstly, it will reduce the number of users shifting from public transport, which needs to remain (or become) the backbone of urban mobility. Secondly, decision makers' intervention in promoting car sharing and soft modes (such as cycling and walking) as first-mile and last-mile solutions will increase the use of sustainable options at the expense of the use of private cars.

A better integration will bring hopefully to a reduction of car ownership: even if this could have a negative impact on the automotive industries, new business opportunities through synergies or alliance between car makers and car sharing operators are expected. The market of autonomous vehicles seems to go in the same direction: most of the operators believe that if autonomous vehicles are available in the mobility market, they will likely be a part of the future car sharing fleets.

Figure 1 below shows in which extent the elements mentioned above are going to impact on car sharing growth

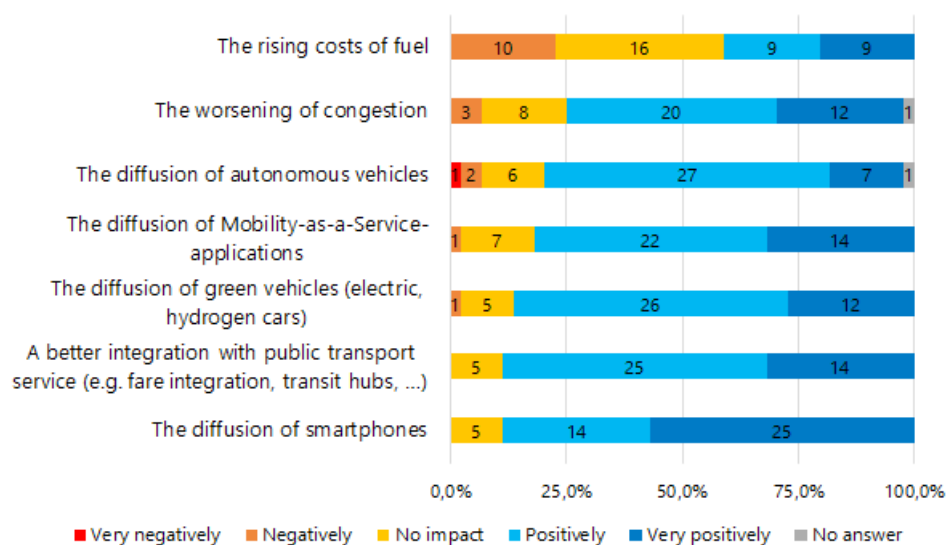


Figure 1: Impacting elements on the car sharing growth.

from the car sharing operators' point of view.

Regarding the development of car sharing fleets, it is foreseen both a global increase in the number of shared cars and a wider diversification of the fleets. In particular, the idea of introducing van vehicles into car sharing fleets is quite widespread among different operators.

The increasing number of car sharing vehicles well fits with the possible extension of the current operating areas: most of the operators agree in a further inclusion of suburban areas, while the extension to the countryside is still seen hard to develop, mainly because of higher costs and a lower density of population.

Another aspect that came out from the STARS research is related to the expansion of the current car sharing services: organisations that are already operating in different cities and countries will continue to do so as well as organisations, which are relatively smaller, that operate in single cities. The polarisation between big and small operators is therefore likely to continue in the future.

Among different elements that may impact on car sharing, there is one that seems to negatively affect the service expansion from the operators' point of view: the rising costs of fuel. This is mainly due to current fleets composition, where EVs represents less than the 30% of the shared vehicles adopted in the overall European panorama.

Since most of the trips done by car sharing cars lie within the autonomy range of today's EVs, the two concepts seem to fit well. However, EV-based car sharing faces some additional problems (such as charging time, a

bigger fleet to provide the same overall car-availability, the higher purchasing cost, the need of a charging infrastructure) that make EV-car sharing economically inefficient compared to ignition engine fleets. For this reason, a public programme for the funding of electric vehicles in car sharing fleets as well as the construction of public loading infrastructure would make sense to promote EV-car sharing. This can also have a push and pull effect on the adoption of private electric vehicles from other users.

Some other policy makers/public interventions, which will probably boost the expected car sharing diffusion and growth, are foreseen. On one hand, the increase of reserved parking slots for car sharing services at the expense of existing public paid parking will reduce the space for private cars and hopefully discouraging their use. Moreover, a reduction in the taxes and/or in the parking fees for car sharing operators, if carefully introduced, will be extremely beneficial.

On the other hand, free access to the LTZs or its extension, which is a measure commonly required by car sharing organisations, need to be carefully evaluated by the city administrations: it can attract more users to car sharing services but it might produce an increase of vehicular traffic in those areas, finally making the overall transport system less sustainable. ●

STARS - Shared mobility opporTunities And challenges foR European citieS – aims to explore and boost the diffusion of car sharing in Europe. It will analyse the car sharing market, measure the benefits of different services and compare their costs, and study user profiles and behaviour.

For the first time, STARS will also look into the implications and impacts of car sharing rather than on the implementation of the service itself. Impacts on other transport modes (private car, bike, walk, taxi, public transport...) and the car industry will be assessed, and impacts in terms of congestion, greenhouse gases, accessibility and social cohesion will be quantified.

Thanks to the knowledge gained in the project, a policy toolkit that includes guidelines and recommendations will be designed. It will help European mobility stakeholders and policymakers make the right decisions and implement the best car sharing services that will maximise environmental and social benefits, making European cities better and more affordable places to live in.



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