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Car sharing in Europe

Review of the impacts on the automobility market

The main theme addressed in this document is the relationship between car sharing and the wider market. The overall market for new and used cars shapes the opportunities for car sharing in, for example, the type of vehicles available. Alternatively, car sharing may impact upon the scale and character of the market with some potential reduction in the sale of new cars and the ownership of cars arising from the activities of car sharing clubs and businesses.

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The report starts with an overview on the market for new cars in the EU, as this provides the overall context within which car sharing has become established, and it continues analysing the scale and character of the new car market, with some description of the differences between countries and of the main trends influencing the market. In reality, car sharing activities may also 'compete' with the used car market. That is to say, an individual may contemplate the choice between joining a car sharing scheme, or buying and owning a used car at considerably lower cost than a new car.

What emerges from this part is that currently the scale of car sharing in the EU is too small to make a substantial difference to the market for new cars. Fleet sizes are generally small, and growing slowly, so the growth plus replacement demand for car sharing vehicles set against overall new car sales is small. Car sharing sales represent significantly less than 1% of the market overall. However, the situation is a bit different regarding electric vehicles market. Car sharing fleets on average have a much higher proportion of electric vehicles than the market overall, and thus they purchase higher proportion of the total electric car market – albeit still less than 1% of the total of electric cars. The benefit of the 'early adopter' status of car sharing fleets in terms of the use of electric cars is that these initial purchases accelerate the learning curve and economies of scale for vehicle manufacturers, which in turn leads to the faster adoption of electric car technologies in the market.

The report provides then a discussion of the prevailing 'routes to market' for new cars, of which car sharing is one. The supply of cars to car sharing fleets is dominated by the vehicle manufacturers and the daily rental industry, and fits into a broader pattern whereby distinct routes to market enjoy distinct levels of discount and length of ownership. The impact of car sharing on the overall market and on the industry is somewhat conditional upon these routes to market, and to the extent to which car sharing might resemble one or more of those routes. Providing firm empirical evidence on these various routes is problematic, as the data are not collected with this in mind or in an appropriate form. However, the matter has been discussed with industry experts who have verified the principle routes and their characteristics.

The report goes on to consider briefly the implications of car sharing for the long-term character of the market for cars and for car use. These considerations include the extent to which automobility dependence has been 'hard wired' into lifestyles over a very long period of time as both a form of cultural embedding and as a practical reality with the spatial separation of household activities.

Furthermore, an analysis of the relationships between car sharing and other aspects of mobility, particularly but not exclusively in urban areas, is carried out. It is pertinent to consider, for example, whether the rapid growth of bicycle sharing schemes complements or competes with car

sharing. Many public transit operations now seek to integrate car sharing, particularly with respect to short-distance travel to and from the public transit hub. There are a great many structural changes underway around key activities such as shopping, the implications of which in terms of car sharing are uncertain. However, the report highlights such key issues as urban logistics and online shopping because they speak to the reasons why individuals may choose to travel.

Finally, the report analyses the scope for growth in car sharing, principally by examining the five business model types identified in 3.1. At present the provision of car sharing fleets does not appear to be a profitable proposition for the large commercial operators, or the major public scheme in Paris (Autolib). Smaller examples may be better placed, but then expanding their presence on the market is quite challenging. A fundamental issue is the balance of capacity against customer service. Users greatly value the accessibility of vehicles as and when required (whether pre-booked or on-demand). To achieve a given level of service provision (% of times it is the right vehicle, right place, right time) requires a lot of capacity in vehicles and stations (for station schemes), and for those vehicles to be physically proximate. However, over-provision of vehicles results in lower utilisation rates because the vehicles are idle for too long. Under provision of vehicles results in loss of service, because users cannot access vehicles as desired or expected. Managing this relationship between capacity and user satisfaction while simultaneously growing the fleet of cars and the pool of users has proven to be uniquely challenging. However, it is evident that car sharing does fulfil a range of potential mobility needs and, when integrated into wider transport and urban planning, can be part of a portfolio of transport solutions. Given the right conditions it is to be expected that car sharing schemes will grow, especially as the lessons are learned from previous schemes.

It is however apparent that the prospects for car sharing are not evenly distributed across the EU, and that some markets and localities have been more enthusiastic than others in embracing car sharing concepts. What is less clear is why these differences should emerge and whether there are policy actions available that could enable greater penetration of car sharing in those localities that have so far proven rather resistant.

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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