



Car Sharing in Europe

Business Models, National Variations and Upcoming Disruptions

Dawn of a new era

Future mobility is a pervasive theme – a development which is still in its fledgling stage and has not yet reached its peak by a long way. Mega-trends, technology-led innovation, and regulatory conditions are changing the nature of mobility and bringing strategic and operational opportunities as well as challenges for the various automotive players. The sharing economy is approaching, while disruptive technologies inspire the emergence of new business models and set the course for a new era of (future) mobility. Car sharing is a key aspect of this, and the

market is committed to offering personal convenience and social improvement.

Deloitte's recent Global Automotive Consumer study highlighted the fact that Gen Y (those born between 1977 and 1994) desires connectivity and convenience and can choose from an ever-increasing range of transportation types, alongside vehicle ownership, for getting from A to B. This 2bn strong consumer segment is the most influential since the Baby Boomers. The emerging mobility patterns of (young) adults are shaping an industry in which on-demand service providers such as

Uber, DriveNow and car2go have experienced, and are still experiencing, significant growth and are unquestionably among the defining phenomena of our future mobility as well as the digital era. These providers are changing the way individuals move, by seamlessly connecting either drivers to passengers (taxi, car pooling) or passengers to cars (car sharing). The latter is enabled by technology and covers specific segments in the overall mobility market by offering a range of transport modes, from flexible one-way journeys to planned weekend round-trips. Car sharing extends the benefits of automobility to [▶](#)

individuals without them having to bear the cost and effort of car ownership.

While the sharing economy provides favorable conditions for start-ups and attracts venture capital investors, established players in the automotive industry, both OEMs and car rental businesses, have shown strong interest in gaining a foothold, particularly in the car sharing sector. The automotive industry has gained momentum to become one of the forerunners by incorporating consumer trends with technology, while still giving users the unique feeling of driving a car. It is therefore no surprise that the automotive industry is closely interlinked with future mobility concepts such as car sharing, car pooling, mobility services, and electromobility, as well as other high-quality innovations around digitalization and autonomous driving that are on the horizon.

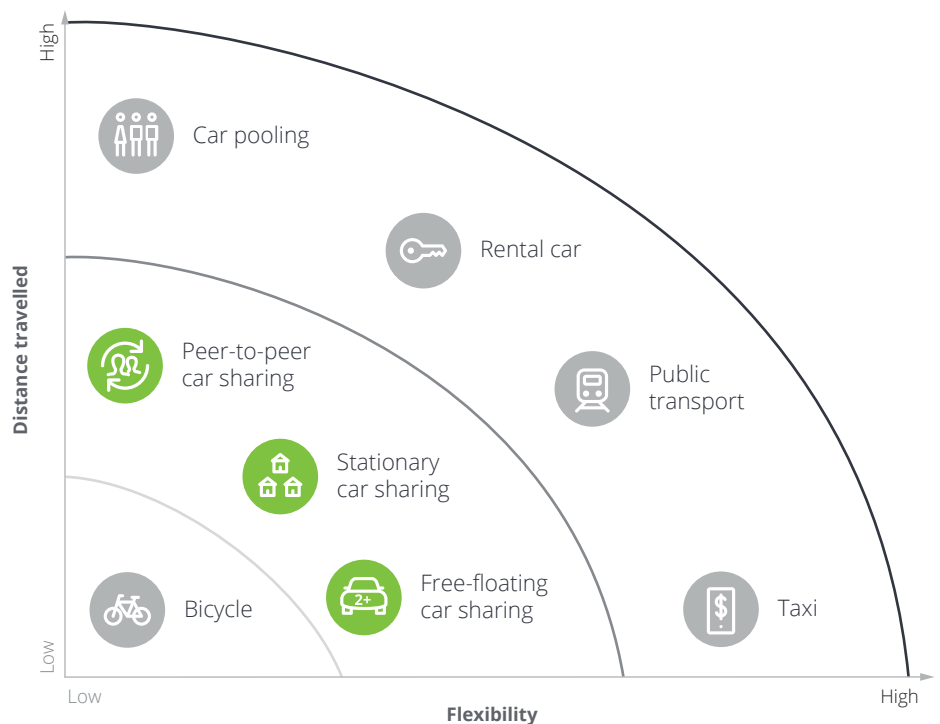
Car sharing has continuously seen double-digit growth over the last few years, especially in bigger cities where more and more people are passing on the costs of car ownership. Positive knock-on effects include reduced traffic congestion and environmental benefits. While some of the most visible car sharing providers began in the United States, the sector has become a global phenomenon, and Europe now represents over 50% of the global car sharing market with 5.8m users and 68,000 cars in 2016 (forecast). A global compound annual growth rate of 32% for market revenue is expected by 2020. Well-known providers such as DriveNow and car2go are already established, not only in major cities in Germany, but all across Europe, the US, and Asia. While smaller cities and regional areas are being catered for by more regional providers, there is still considerable room for growth in this market; meanwhile, some experts predict a potential worldwide decline by more than half a million cars by 2021, due to the strong presence of car sharing providers. This development is a global phenomenon that

varies between individual countries. For instance, Germany is by far the biggest car sharing market in Europe, where growth has accelerated since 2012 (0.26m users), and is expected to keep momentum, reaching 3.1m users by 2020. Despite this development, some experts do not predict a decline in car ownership, yet there are differences between urban and regional areas, and Germans in particular are emotionally connected to their own vehicles, and young drivers value powerful cars from well-known brands.

The prominent position of car sharing compared to other mobility services can be explained by the broad range of individual car sharing business models that have emerged over time. These cater for a diverse range of customer experience, at differentiated price points. Apart from price, mobility concepts can be classified by the flexibility offered to customers as well as the distance travelled, which takes into account the

variation in usage areas from urban to regional (Fig. 1). They can be categorized as follows: free-floating and stationary B2C and B2B car sharing can be seen as the two traditional car sharing models and cater for specific needs. While free-floating models provide higher flexibility, and compete with taxis and new mobility providers such as Uber or mytaxi, stationary models are used for longer drives and tend to substitute rental cars or car ownership. Moreover, corporate car sharing users are becoming an inevitable source of additional business for stationary car sharing providers. B2B car sharing is managed as a closed system in which employees can access vehicles on a sharing basis, and is a strong alternative for corporates to operating their own fleet. These conventional free-floating and stationary approaches are well established in countries such as Germany and Italy, while for example in France another model is very prominent: peer-to-peer (P2P). This is a model where individuals

Fig. 1 – Classification of car sharing among existing mobility concepts



Source: Monitor Deloitte analysis and expert interviews

provide their own car for rental by private users via a platform. P2P provides a transportation mode for longer distances as compared to traditional car sharing and corresponds more to an alternative to short-term car rental or car pooling.

Distinct car sharing business models

Car sharing is a very broad term and a differentiation with reference to the distinct business models is necessary. They range from free-floating to stationary and P2P car sharing. Some providers (e.g. stadtmobil in Germany) offer both free-floating and stationary models, thereby offering the best of both worlds to their customers. Generally, these three business models (free-floating, stationary, combination) can cater to either B2C or B2B. In addition, another development can be observed in the car sharing market, but will not be the focus of this Point of View: O2O platforms consolidate offerings by providing a link between online and offline, which enhances convenience and comparability for users.

Each approach displays particular characteristics when it comes to product offering, pricing, pick-up and return, cooperation, as well as ownership structure. While business model features may vary, car sharing providers can guarantee

positive prospects for success by meeting general success factors, e.g. high availability and network coverage, transparent and flexible pricing, as well as fleet variety to cater for individual use cases. In addition, providers as well as investors need to be aware of the unique success factors of each business model (Fig. 2).

Free-floating car sharing

The fact that most free-floating providers have been in the market for less than five years highlights that this approach is still new; nevertheless, this market is booming. Free-floating allows customers to pick up and return the vehicle anywhere within a certain area and demonstrates this model's main advantage: flexibility. Free-floating cars are mainly used for short one-way (shopping or other leisure) trips in city areas, as an alternative to a taxi. German providers have a high turnover rate of 125 users/car, so that they can show profitable operations despite low utilization. Compared to stationary car sharing, free-floating has higher prices that are often based on time only, and in particular become more expensive in case of traffic jams in city areas. Given that operating areas are mainly in city centers, most free-floating providers offer small to medium-sized cars (e.g. Smart, Mini), which also ensures relatively easy parking

for users. The flexible parking policies require providers to cooperate with local authorities to avoid parking limitations. In 2014, car2go stopped operations in London after only 18 months, as they were not able to secure parking permits in all of London's individual boroughs.

Many free-floating providers are owned by OEMs (car2go by Daimler) and/or rental companies (DriveNow, a joint venture between BMW and Sixt), who view their investment in car sharing as being purely strategic and not for financial reasons. They can use this channel to promote their cars and have direct access to customer insights.

In order to be successful, free-floating providers need to consider the following success factors:


- Location: high population density to attract sufficient customers per car
- Pricing: based on time (mostly per minute), not distance
- Cooperation: local authorities have to grant parking spaces / permits
- Convenience: constant availability of (small) cars that fit needs in city areas

Stationary car sharing

Stationary car sharing on the other hand can look back on a longer history (>20 years). While free-floating emphasizes flexible one-way trips, stationary car sharing has fixed stations and (usually) provides only round trips with the start and end points being the same. The use case is therefore more for longer trips and is likely to replace rental cars or (second) car ownership. What stationary providers may lack in flexibility, they make up for in fleet variety in terms of brands and models, catering for every need. Stationary car sharing providers are located in small to medium-sized cities and rural regions. Utilization is higher due to longer drives and well-planned car utilization, while turnover is lower than for free-floating (45 users/car, Germany).

Fig. 2 – High-level classification of distinct business model features

Business model features											
Usage area of vehicle			Vehicle type			Pricing			Parking co-operations		
FF	S	P2P	FF	S	P2P	FF	S	P2P	FF	S	P2P
City center			Small/city cars			By time			Parking permits		
✓		✓	✓		✓	✓			✓		
Broader city area			Compact cars			By distance			Commercial		
✓	✓	✓	✓	✓	✓		✓			✓	
Regional			SUVs & MPVs			Fixed prices			Private		
	✓	✓		✓	✓	✓		✓			✓

FF = Free floating | S = Stationary | P2P = Peer-to-peer  Applicable
Source: Monitor Deloitte analysis and expert interviews

Stationary providers are often locally organized and do not operate on a large/global level - one exception is Flinkster by Deutsche Bahn Rent. Many stationary providers are backed by public funding or private investors, rather than OEMs or car rental businesses. Success is often attached to regional particularities that are based on strong local market knowledge and an understanding of customer needs. They often rely heavily on cooperation with other providers to expand their network and for instance also extend their offerings to free-floating. While most OEMs are invested in free-floating car sharing, Volkswagen invested in stationary car sharing by taking over 60% of Greenwheels.

In order to be successful, stationary providers need to consider the following success factors:

- Location: smaller and medium-sized cities, rural areas
- Availability: large network of stations, including at central hubs (e.g. train stations)
- Pricing: based on distance, or hourly rates
- Fleet: variety for different purposes

Peer-to-peer car sharing

Initially only a niche market, P2P car sharing is on the rise. While vehicles for free-floating and stationary car sharing are made available by providers, P2P car sharing offers vehicles belonging to private individuals to a specific user community. Players provide a platform to handle the transaction, offer insurance, and equip the car with telematics devices to ensure easy access. The car needs to be returned to the pick-up area, and can thus only be used for round trips. Given the decentralized fleet, customers have more variety in terms of brands and models. Pricing (e.g. drivy) is based on a daily tariff, and provides a good alternative to stationary car sharing or rental cars.

The P2P market is relatively dynamic, with new players emerging frequently and with respect to investment activities by financial investors. For instance, drivy and Tamyca have been backed by venture capital funds over the course of various financing rounds. While free-floating and stationary car sharing can show some global players, most P2P providers operate in only one country, e.g. drivy in France, Turo in the US and iCarsclub in Singapore.

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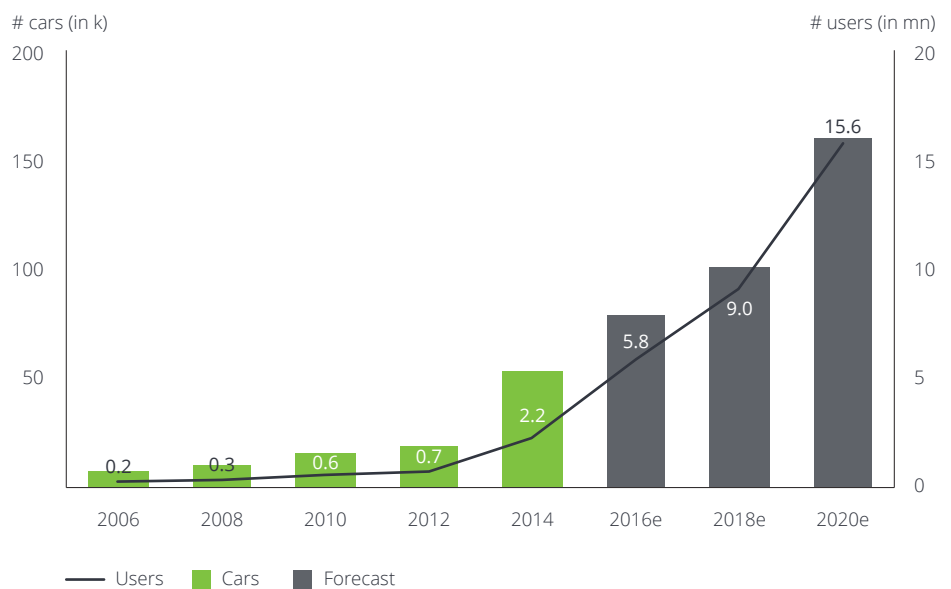
- Technology: state-of-the-art platform and telematics to ensure ease of use
- Availability: large and diverse network to ensure best fit for customers everywhere

- Insurance: good insurance policy for car owners to answer concerns about lending
- Community: establishment of trust between lender and driver

Specific car sharing characteristics for individual European countries

Car sharing is successful not only in Germany, but also in other European countries, with different characteristics in each one. Europe has seen a positive development of car sharing in terms of number of cars and number of users in the past. At present, Europe accounts for about 50% of the global car sharing market and is expected to grow further to 15m users by 2020 (Fig. 3).

Fig. 3 – Car sharing market development for Europe* (2006–2020):

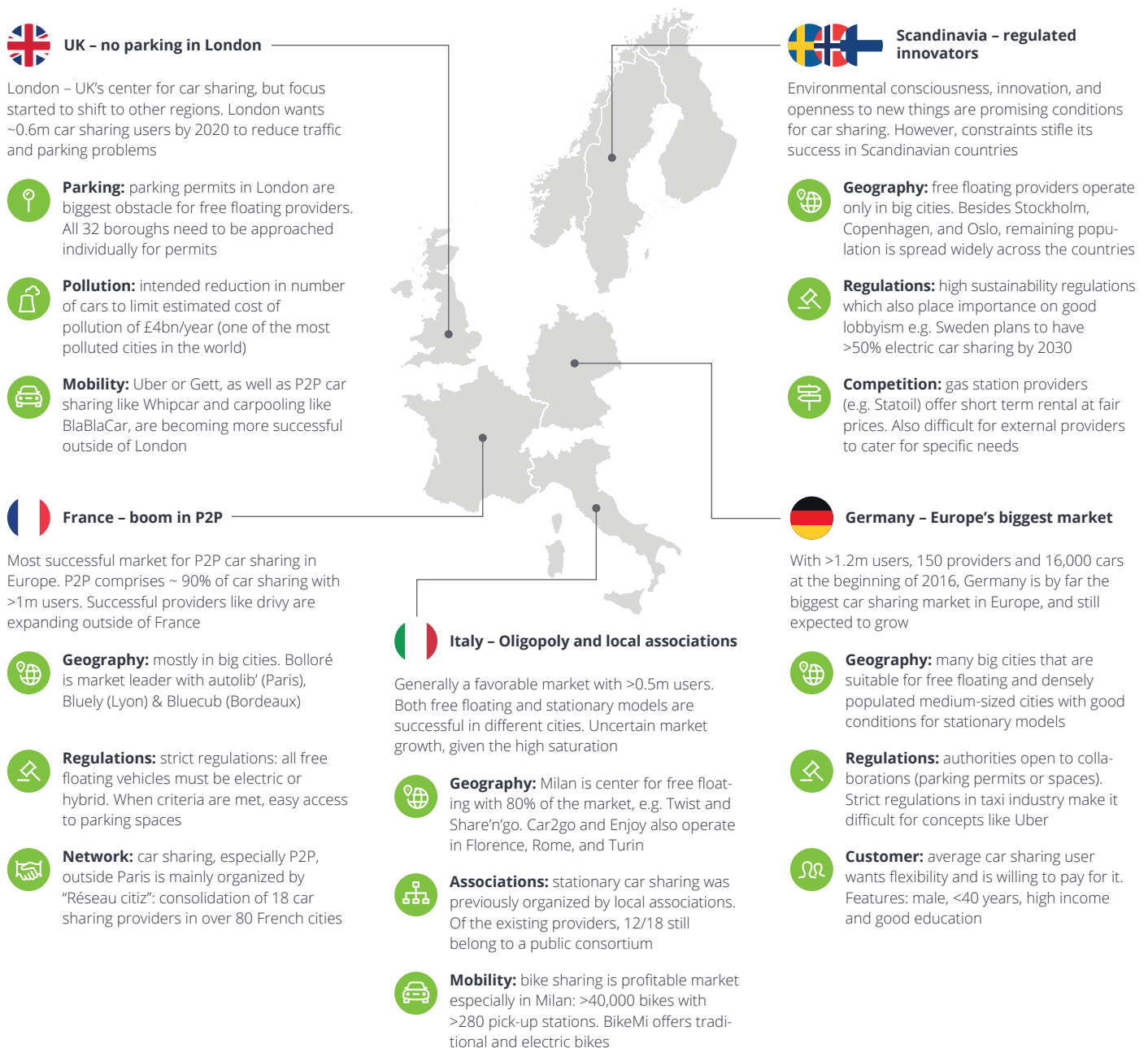


*Countries in Europe: Germany, UK, France, Italy, Switzerland, Austria, Netherlands, Sweden, Spain, Belgium, Norway, Denmark, Sweden
 Sources: Monitor Deloitte analysis, based on Bundesverband CarSharing, Carsharing Association (CSA), The European Automobile Manufacturers' Association (ACEA), CU Berkeley, Frost & Sullivan

The list of car sharing providers that are active across Europe is long. While most players operate in only one country, some car sharing providers are active in more than one place. Free-floating providers such as DriveNow and car2go are present in various European countries, while the latter, for instance, also has operations in the USA, Canada, and Asia. Zipcar is

considered a global player, but is active mainly in the US. Flinkster is one of the few stationary providers that can be found in a few other European countries besides Germany. Inevitably, there are some significant differences and specifics between the individual countries – the most significant ones can be found in the following snapshots:

Fig. 4 – European car sharing landscape



Sources: Monitor Deloitte analysis, mainly based on expert interviews and Carsharing Association (CSA), Frost & Sullivan, Bundesverband CarSharing, BikeMi

Technology will revolutionize and disrupt the car sharing market

Strong smartphone penetration has so far been, and will continue to be, a key enabler for the growth of the car sharing market, but technological advances will unfold further. Electric cars, autonomous driving, route optimization technology, and car-to-car communication will change the way customers use cars, and how OEMs choose their strategies and market their products and additional, supporting services. The future will further transform from automobiles to automobility, which will unleash new levels of convenience and efficiency for all road users by promoting the relationship between cars, infrastructure, and users. It will be those automotive trends and technological innovations, in particular electric cars and autonomous driving, with OEMs at the center, which will catapult the car sharing market from the current to the future state.

Electromobility

Electromobility is essential to future energy concepts, and indispensable to emerging smart and resource-friendly lifestyle seekers. Electric cars and car sharing are considered a very suitable symbiosis. They enable OEMs not only to test and promote their own vehicles, but also to give their (potential) customers an understanding of the particularities of electric cars. Car sharing providers currently offer 1,750 electric cars in Germany, which fulfill particular use cases - this number is expected to grow significantly. Various car sharing providers, as well as most of those backed by OEMs, are operating partially or fully electric fleets. Competition is growing, since corporates outside of the automotive sector have tried recently to seize a share of the market and bring car sharing to the next 'zero emissions' level, e.g. BeeZero by Linde Hydrogen Concepts. Similar developments can be observed in other European countries. For example, Italy is strongly involved, with some car sharing fleets being completely electric, and free-floating car sharing providers in

Paris are obliged to offer a fully electric or hybrid fleet. In order to make 'zero emission' a quintessential component of the new mobility movement, some hurdles certainly still need to be taken, for instance the installation of nationwide networks of charging stations and appropriate regulations.

Autonomous driving

Converging social and technological trends, from shifting consumer preferences to the emergence of autonomous vehicles, will shape the way in which people move from one place to the next. This future state of mobility is determined first of all by the extent to which cars are personally owned or shared, and secondly by the extent to which autonomous vehicle technologies become pervasive. Such a new era of accessible autonomy would combine the car sharing movement with autonomous driving, two concepts which impact each other.

While traditional car sharing is mainly present in urban areas, autonomous shared vehicles could spread the offerings also to densely populated suburbs and extend the potential customer base significantly. A study shows that 68% of users would try autonomous driving when using car sharing. This poses a unique opportunity for OEMs to test this new technology under market conditions and to penetrate the market. Existing (local) car sharing providers have a competitive advantage over potential new entrants, as they have local knowledge and networks - two factors that are indispensable when it comes to operating shared mobility systems. To counteract the strong financial backing of new entrants or OEM-backed car sharing providers, established (local) players need to secure financial investors in good time.

Car sharing as an accelerator for automotive players

Facing these trends, OEMs can use car sharing as an important strategic investment opportunity, especially to ensure sufficient customer touchpoints, but providers as well as investors need to be aware that the various car sharing business models are very distinctive with specific success factors. Free-floating for example requires a different approach to stationary car sharing, and the same applies to P2P. Furthermore, success at both the local and global level depends on the extent to which country specifics such as regulations and customer preferences are taken into account.

OEMs have an opportunity to make car sharing an even more attractive market and to be pioneers. Technological advances for future mobility will further underpin the importance of car sharing as a new mobility concept. Car sharing is predestined for the implementation of trends such as e-mobility and autonomous driving, and can therefore be a key enabler to significantly increase the acceptance of future mobility concepts among the population. And although car sharing may not provide the highest returns, the added value for OEMs is significant and should not be disregarded.

Car sharing provides OEMs with additional touchpoints with customers. Consumers are open to new mobility concepts and will strongly influence developments in the mobility and car sharing sectors. Car sharing allows OEMs to ensure direct access to the end-customer and to provide a foothold in the new service-driven mobility area. In addition, OEMs can gain access to new customer groups who otherwise would not consider the respective brand when purchasing a new vehicle. Private as well as corporate customers can get to know the particularities of current as well as future mobility. Looking ahead, for instance towards autonomous driving, this will change the exposure to car sharing.

Customers will experience a new level of customer involvement, by being able to call for and almost instantly be picked up by a car sharing vehicle. This in turn will ensure a much higher utilization rate for car sharing providers, as well as lower operating costs due to fewer required parking spaces. In exchange, OEMs have a representative platform to market and test their innovative vehicles and as above technology. Such 'paid test drives' are an additional channel for OEMs to use customer insights for further research and development.

The vision of OEMs should be to position themselves as preferred partners for existing as well as new mobility concepts. Thus OEMs are well advised to rapidly anticipate and cater for requirements in order to be competitive in offering ultimate mobility solutions, and should therefore actively respond to partnerships with adjacent sectors. Cooperation determines the mobility sector to a great extent. Traditional mobility providers will experience a self-evident exposure of customers towards mobility, if they have not already. Ease-of-use will be a key success factor for car sharing providers, which will result in the development of intelligent mobility solutions. In this context, new market entrants will emerge and lay the path for cooperation. OEMs need to cooperate with other mobility stakeholders and form networks to ensure the development of innovative concepts and take car sharing to the next level. This also highlights the fact that future business models of OEMs will move from being solely hardware suppliers to becoming solution providers. Or bluntly speaking: Uber yourself before you get Kodak'ed!

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