

## Summary

# Executive summary

Passenger cars and light trucks are the main modes of transportation in most industrialised countries. The vast majority of car trips in metropolitan areas are drive-alone trips with only one person in the car and vehicles are used for only about one hour per day on average. Carsharing is one of many car-based mobility services that have become available for people that want to complement other modes of transportation with car-based mobility occasionally. Examples of other car-based mobility services include traditional car rental, carpooling, ridesharing, taxi and ridesourcing services. Many of these mobility services aim to decrease the cost of car-based transportation, create convenience through fewer ownership responsibilities, as well as reduce congestion and environmental impact.

Carsharing is a decentralised car rental service focusing on short term rentals that supplements other modes of transports including walking, cycling and public transport. Carsharing aims to provide an alternative to individual car ownership without restricting individual mobility by providing affordable access to cars. CarSharing Organisations (CSOs) offer members access to a fleet of shared cars from unattended self-service locations. Today, most CSOs use station-based networks with roundtrip rental. This operational model requires members to return a vehicle to the same designated station from which it was accessed. Some CSOs have also started to offer one-way carsharing that enables users to return the car to any station operated by the CSO. Another model that is rapidly gaining in popularity is free floating carsharing, which enables members to pick up and drop off cars anywhere within a designated area. The ability to access available cars instantly without prior booking and no need to schedule return time make this type of service attractive for short trips.

Telematics systems and smartphones are key enablers of carsharing services. In-car hardware technologies for carsharing services comprise an on-board computer, telematics device and RFID reader for capturing trip data, enable fleet management and grant access to the car through an RFID smartcard or smartphone app. An in-vehicle user terminal with keypad and display may also be installed to provide the driver with visible messages and

guidance, as well as allow management of reservations from within the vehicle. Software platforms include complete IT systems that can support all the operational activities of a CSO ranging from management of in-vehicle equipment, fleet management, booking management, billing, as well as operations supervision via dashboards and data analytics. Leading vendors of hardware and software platforms include INVERS, Convadis, Continental, Octo Telematics, Vullog, Ridecell, Mobility Tech Green, Targa Telematics and OpenFleet. Several carsharing technology vendors also target the emerging corporate carsharing market that aims to increase corporate car pool availability and reduce mobility costs.

Commercial carsharing services are offered by specialist carsharing companies, car rental companies, carmakers, as well as public transport operators. Examples of leading CSOs backed by carmakers include SHARE NOW (owned by Daimler and BMW), Free2Move (owned by PSA Group/Stellantis), WeShare (owned by Volkswagen) and KINTO Share (owned by Toyota). Car rental CSOs include Ubeeqo (owned by Europcar Mobility Group), Sixt Share (owned by Sixt) as well as Zipcar (owned by Avis Budget Group). Examples of specialised CSOs include Times Car Plus (owned by the Japanese parking lot operator Park 24), Socar in South Korea, EvCard and Mofan in China, Enjoy (owned by the Italian energy company Eni), Mobility Carsharing in Switzerland, Stadtmobil and Cambio in Germany, Communauto in Canada and GoGet in Australia.

The carsharing market is currently in a phase of growth which is expected to continue in the coming years. The market has managed to grow despite the impact of the COVID-19 pandemic. Berg Insight estimates that the total number of carsharing members worldwide reached 71.9 million at the end of 2020. At the same time, the total car fleet operated by CSOs had reached about 463,000 vehicles. Berg Insight forecasts that carsharing membership will grow to about 190.3 million globally by the end of 2025 and the total carsharing fleet will then reach approximately 971,000 cars. The corporate carsharing telematics market is moreover estimated to 68,000 vehicles at year-end 2020 and is forecasted to reach about 135,000 vehicles in 2025. Europe, North America and Asia-Pacific so far represent the vast majority of all carsharing programmes and active members from an international perspective. The front-running markets include Russia, Germany, Italy, the US, South Korea, China and Japan.