

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. Bikesharing and scootersharing are shared micromobility services that have become available for people that want to complement other modes of transportation. Examples of other mobility services include traditional carsharing, carpooling, ridesharing, taxi and ridesourcing services. Many of these mobility services aim to decrease the cost of transportation, create convenience through fewer ownership responsibilities, as well as reduce congestion and environmental impact.

Micromobility includes shared mobility services in urban areas that offer short-term rentals of light vehicles such as bikes, scooters or other similar vehicles to paying members or communities. The services aim to reduce urban congestion as well as car usage and car ownership to improve the inner-city landscape and reduce air pollution. Usage is typically billed by the minute/hour with rates that include parking, fuel or charging and maintenance. The services are generally used for short trips between 0–10 kilometres. Bikesharing is a kind of decentralised bicycle rental service, usually focusing on short term rentals that supplements other modes of transport including walking and public transport. Scootersharing is a membership-based service that offers motorised scooters to qualified drivers in a community. Users do not need to sign a written agreement each time a scooter is reserved and used. The vehicles are usually traditional electric scooters or new types of stand-up electric scooters. Today, most operators use two operational models – free floating and station-based. The station-based operational model enables members to pick up and return the vehicle at any designated station in a city. The free floating operational model is rapidly gaining users and rides. In 2014, a new wave of free floating bikesharing models emerged from China, causing a change on the market. Free floating services mean that vehicles can be picked up and dropped off anywhere within a designated area.

New technologies in the form of telematics systems and smartphones are key enablers of bikesharing and scootersharing micromobility services. Free floating micromobility services mostly encompass a telematics system that comprises an on-board computer and a telematics device for capturing trip data, enable fleet management and grant access to the vehicle through a smartphone app. Software platforms include complete systems that can support all the operational activities of a micromobility operation 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 micromobility technology such as connected bike locks, infrastructure for station-based bikesharing and software platforms include Conneqtech, INVERS, COMODULE, Smoove, PBSC and SharingOS.

Commercial micromobility services are offered by specialist bikesharing and scootersharing companies, local governments, other shared mobility operators, as well as public transport operators. Examples of leading free floating bikesharing operators include Ofo, Mobike, Hellobike, Lime, and JUMP. Station-based bikesharing operators include Motivate, Nextbike, JCDecaux (Cyclocity), CycleHop, Clear Channel and DB Call a Bike. Leading traditional scootersharing operators include ECooltra, Muving, Coup, CityScoot and Blinkie.city. During 2017–2018, new services comprising stand up scooters were introduced. The leading operators in this segment include Bird, Lime, Spin and Skip.

The nascent micromobility market is currently in a phase of strong growth which is expected to continue in the coming years. Berg Insight estimates that the total shared micromobility fleet worldwide reached approximately 24.4 million vehicles at the end of 2017. Free floating bikesharing was the most dominant service in terms of deployed vehicles. Berg Insight forecasts that the bikesharing fleet will reach 36.9 million globally by the end of 2023 and the scootersharing fleet comprising both traditional and stand up scooters will then reach approximately 2.6 million vehicles. The regulatory environment will have a considerable impact on the future for this market. Free floating operators are today facing operational challenges to handle cluttered sidewalks and vandalised vehicles. Regulators decide the types of vehicles allowed on the road, helmet requirements as well as award operator licenses that limit the number of operators and vehicles allowed in the cities.