

Shared Mobility: Innovation for Liveable Cities

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Our work is based on a simulation platform that allows the exploration of different shared transport scenarios that preserve the behavioral preferences and citizens' mobility profiles of today. We develop a comprehensive simulation model that is able to reproduce as accurately as possible the interaction between users and shared mobility options in a realistic transport network and urban context.

Why did we select this research?

The report was designed to enrich policy discussion with a business perspective. They are launched in areas where CPB member companies identify an emerging issue in transport policy or an innovation challenge to the transport system.

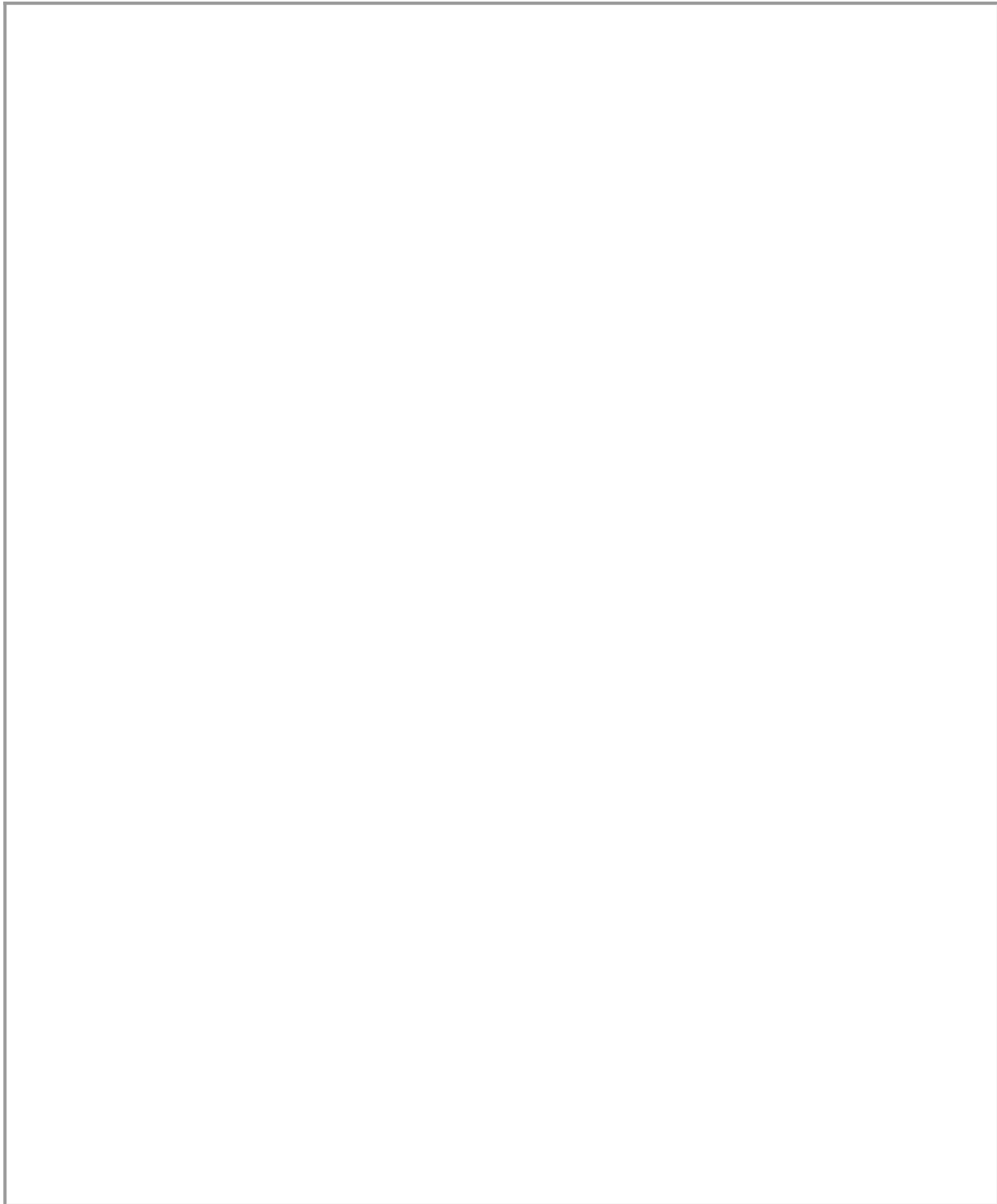
Key findings

Traffic emissions were reduced by one third, and 95% less space was required for public parking in our model city served by Shared Taxis and Taxi-Buses. The car fleet needed would be only 3% in size of the today's fleet. Although each car would be running almost ten times more kilometres than currently, total vehicle-kilometres would be 37% less even during peak hours. The much longer distances travelled imply shorter life cycles for the shared vehicles. This enables faster uptake of newer, cleaner technologies and contributes to more rapid reduction of CO2 emissions from urban mobility. Citizens gain in many different ways. They no longer need to factor in congestion. Almost all of their trips are direct, without need for transfers.

Mobility is much cheaper thanks to the highly efficient use of capacity; prices for journeys in the city could be 50% or less of today even without subsidy. Huge amounts of space previously dedicated to parking can be converted to uses that

increase livability, from public parks to broader sidewalks, and more and better bicycle lanes. Particularly striking is how a shared mobility system improves access and social inclusion. In the simulation, inequalities in access to jobs, schools or health services across the city virtually disappeared. The transition phase from individual use of cars to shared mobility is critical to success. It is also a challenge.

Managing individual car access to the city by limiting the number of days cars can be used may provide one potential path, although it would certainly be difficult to implement. We tested a scenario in which private cars were allowed to drive in the city two working days per week. This already provides significant reductions of congestion and emissions. It also allows car owners to experience the shared mobility solutions on the other days of the week and to nudge them towards recognising that driving one's own car in the city may often not be the most convenient option.



Reference

Retrieved from: <https://www.itf-oecd.org/shared-mobility-innovation-liveable-cities>.
