Shared Mobility Simulations for Auckland

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Why did we select this research?

The simulations in the case study provides indicators for the performance of shared modes including service quality, efficiency and cost competitiveness. The model also measures impacts on accessibility, existing public transport, parking space requirements, congestion and emissions. The simulations were complemented by a survey and focus group with citizens of Auckland to investigate the preferences of potential users and identify early adopters, as well as to help tailor shared services and develop strategies for raising awareness and interest in such new services and their benefits.

Key findings

If all of today's private car trips were instead provided by shared mobility services, the total distance driven by all vehicles would halve, as would emissions and congestion. Even if only a subset of car users switch to shared mobility services, this can deliver reductions in total kilometres driven and CO2 emissions of around 15%. CO2 emissions could be significantly further reduced if the fleet is comprised of electric vehicles.

The shared mobility scenarios resulted in a drastic improvement in equitable access to opportunities in the Auckland area. A full-scale implementation improved the access to jobs by a factor of more than three. Shared mobility makes jobs and services more easily accessible, especially in areas that currently have a low frequency of public transport services. The focus group and survey results showed that citizens are not only willing to share vehicles, but favor sharing trips with the highest possible number of people, as long as seating is guaranteed. The potential

early adopters of shared mobility services are younger (below 25 years) and older (above 65 years) transport users, as well as citizens who live far from the city centre and are not well served by existing transport services.

Shared mobility services can provide significant benefits to the Auckland region. On-demand Taxi-Bus and Shared Taxi services could replace private car trips and thus reduce emissions, congestion and the need for parking space. Shared mobility would also result in better access to opportunities for citizens, and make access more equitable for inhabitants of areas not well-connected to public transport. A shift to shared mobility requires the alignment of other policy tools such as pricing, regulation and licensing, land-use and infrastructure design.

Reference

Retrieved from: https://www.itf-oecd.org/shared-mobility-simulations-auckland.