

Transition to Shared Mobility: How Large Cities can Deliver Inclusive Transport Services

Last Modified on 04/11/2018 6:29 am EDT

The Case of Lisbon

Date published: 2017

Research commissioned by: International Transport Forum

Why did we select this research?

This ITF report demonstrates the potential for optimized, shared mobility systems to deliver efficient transport services, reduced congestion, and lower environmental impacts while providing better spatial accessibility and being generally cost-competitive with current options. The research simulated replacing all car and bus based trips in a mid-sized European city (Lisbon) with two new mobility options, and identified several key points for transitioning to a shared mobility model, with a focus on inclusion of individuals with special mobility needs.

Key findings

The focus of the research was addressing how cities can implement the transition to shared mobility and how they can manage difficulties in expansion. Simulating different configurations of shared mobility simulations fed with detailed mobility data for the Lisbon metropolitan area, the research found that total vehicle kilometers during peak hours reduced by 55% in the larger metropolitan area, while only reducing 44% in the inner city region. Co2 emissions reduced 62% for the metropolitan area in comparison to 53% in the city. Total parking space reduced 95% in both regions.

Furthermore, the report identifies that cities should:

START TO INTEGRATE SHARED MOBILITY SOLUTIONS INTO EXISTING URBAN TRANSPORT PLANS

Changes in traffic, emissions, and prices as a result of the implementation of shared mobility is more significant for the metropolitan area than just the core city

LEVERAGE SHARED MOBILITY TO INCREASE USE OF EXISTING HIGH-CAPACITY PUBLIC TRANSPORT

New forms of shared mobility can act as feeders to existing high-capacity public transport networks, such as shared taxis or taxi buses, leading to increased use.

DEPLOY SHARED MOBILITY SERVICES IN A PHASED WAY THAT MAXIMISES PUBLIC ACCEPTANCE

Phased pathway deployment of shared mobility services could target early adopters in an uncontroversial manner, achieve results that are publicly visible, then move onto the next phase for maximum public acceptance.

OPTIMISE OVERALL EFFICIENCY WHILE ASSURING A HEALTHY LEVEL OF COMPETITION IN THE MARKET

The way dispatch services for shared vehicles are organized most strongly affects the overall efficiency.

LIMIT EXCLUSIVE OCCUPANCY OF SHARED VEHICLES TO AVOID THE EROSION OF TRAFFIC REDUCTION AND CO₂ EMISSIONS BENEFITS

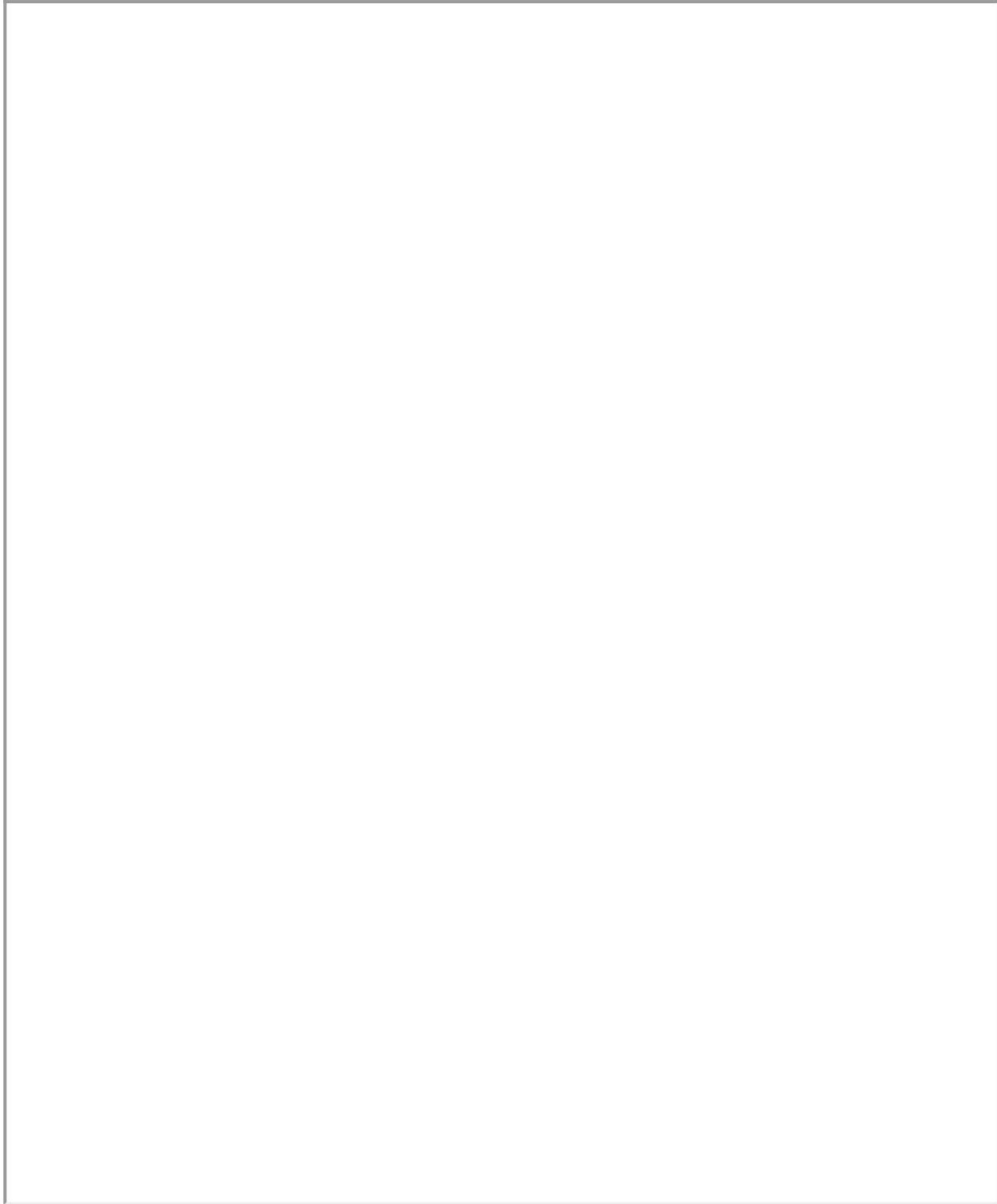
Implementation of the measures considered for the first phase of deployment can deliver positive results for the central city when accompanied by a scheme of partial access constraint for private cars of non-residents.

LEVERAGE THE SIGNIFICANT POTENTIAL OF IMPROVED TERRITORIAL ACCESSIBILITY CREATED BY SHARED MOBILITY

Makes access to jobs and other public services easier and more equitable in the wider agglomeration.

MAKE SHARED MOBILITY SERVICES FULLY ACCESSIBLY TO CITIZENS WITH REDUCED MOBILITY

As a tool to improve accessibility for citizens with physical and cognitive disabilities, the simulations for this study indicate a small price increase for each passenger if the entire fleet of shared taxis serving all clients were adapted to accept wheelchairs, compared to a scenario with no service for clients with impairments. The price is still lower than the current equivalent price of regular taxis and public transport.



Reference

Retrieved from: <https://www.itf-oecd.org/transition-shared-mobility>.
