



Transport
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To: Transport & Health Policy Makers, & Practitioners
From: Prof Adrian Davis, TRI, Edinburgh Napier University
Date: 30th August 2023
Subject: Essential Evidence 4 Scotland No.72: Motorised
Traffic Reduction

Top line: To reduce urban motorised traffic, congestion charging, Parking & Traffic Control, and Traffic Zones are the most effective to reduce car use since all three significantly reduced overall car use.

Reducing motorised traffic, at least through the number of kilometres travelled by private motorised traffic is a stated objective of the Scottish Government, as well as some local authorities across the UK and beyond. In Scotland, an Update to the Climate Change Plan, 2018-2032 sets out the target of a 20% reduction in car kilometres travelled by 2030.¹

Where there is political support for motorised traffic reduction (MTR) identification of the most effective interventions for each locality is important. Researchers have identified 12 intervention types that are effective in reducing urban car use.² Congestion Charge, Parking & Traffic Control, and Traffic Zones were the most effective to reduce car use since all three significantly reduced the overall car use in a city and not only the car use of a specific car user group. The researchers found that all effective city-level intervention types to reduce car use combine between two and four different policy instruments; none of them relies on a single policy instrument. This provides support for discussions suggesting packages of different policy instruments might be more effective than a single policy instrument to shift urban travel away from car use to other modes. Transition studies also suggest so-called policy mixes of different policy instruments stimulate innovations and support sustainability transitions.

City-centre MTR measures may reinforce efforts to make cities more attractive to car-free or car-light lifestyles. One case example with evidence from a Transit Oriented Re-development in Subiaco, Western Australia, which is an inner city suburb of Perth. In Subiaco, the design of the area, including high land use densities, had led to increases in public transport use and declines on car use.³ However, travel beyond this suburb remains heavily car dependent, which highlights critiques pointing to the need to address areas beyond city centres.⁴ Pontevedra, Spain, is another example, demonstrating MTR in the city centre for through traffic, and also to avoid suburbanisation by maintaining the quality of the urban environment across the municipality. Led by the Mayor's vision, any trip within a 3 kilometre radius, is naturally covered on foot as it's simply easier to walk for most while also ensuring inclusive mobility.⁵

Lessons learnt from European case studies suggest that there are five steps to plan and decide on a portfolio of transition experiments to reduce local car use in European cities. Drawing on the principles of transition management these steps are: establish a transition team; engage Partner Stakeholders; decide on a portfolio of transition experiments develop a process and budget plan as well as an internal and external communication plan; and develop a monitoring and evaluation plan to assess both the effectiveness of the experiments in reducing transport emissions and ensure the coherence of the experiments with the city's long-term sustainability vision and goals.

¹ Scottish Government, 2020 Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update. [Securing a green recovery on a path to net zero: climate change plan 2018–2032 - update - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/secure-green-recovery-on-a-path-to-net-zero-climate-change-plan-2018-2032-update/html/index.html)

² Kuss, P., Nicholas, K. 2022 A dozen effective interventions to reduce car use in European cities: Lessons learnt from a meta-analysis and transition management, *Case Studies in Transport Policy*, 10: 1494-1513.

³ Griffiths, B., Curtis, C. 2017 Effectiveness of Transit Oriented Development in reducing car use: Case study of Subiaco, Western Australia, *Urban Policy and Research*, 35(4): 391-408.

⁴ Rye, T., Hrelja, R. 2020 Policies for reducing car traffic and their problematisation. Lessons from the mobility strategies of British, Dutch, German and Swedish cities, *Sustainability*, 12: 8170.

⁵ Local Transport Today, 2019 Interview [Fewer cars, more city \(transportextra.com\)](https://www.transportextra.com/news/transport-today-interview-fewer-cars-more-city) 25th September.