

SEAI National Energy Research, Development & Demonstration Funding Programme

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Keywords

Electric Mobility, Mobility
Hubs, Modal change,
Behaviour Change

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This report was prepared by Trinity College Dublin and is based on research carried out from March 2022 to March 2025.

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TRAnsport Behavioural Change Trials (TRACT)

Abstract

The TRACT project is set out to achieve the targets mentioned in Ireland's Climate Action Plan (CAP). It has two distinctive trials that focus on decarbonising the transport sector using CAP's Avoid, Shift, and Improve management strategy.

TRACT's first trial is based on Shift and Improve strategies that will nudge people to shift to Electric Vehicles (EVs). Several use cases are being examined to determine what factors would encourage them to switch/adopt EVs. The second trial is based on Shift strategy which uses the concept of shared mobility via hubs to encourage a modal shift from private car ownership to sustainable travel modes such as active travel, public transport, and shared mobility.

Both trials are conducted with the help of two recently developed smartphone apps called the TRACT EV app and the TRACT Mobility Hub app (see Figure 1).

Research Outcomes

E-mobility trial

Provide evidence from five use cases where the EV uptake has been slow:

- Taxi drivers
- People without driveways
- Rural population
- Potential car buyers
- General public

Estimate emissions reductions and determine the potential of national impact by analysing designed scenarios, highlight the importance of an interdisciplinary and holistic approach to emission mitigation and decarbonisation of the transportation sector.

Mobility hub trial

Record users' choices and analyse their

perceived barriers using a questionnaire survey, develop and test some nudging techniques that will encourage users to adopt shared mobility services.

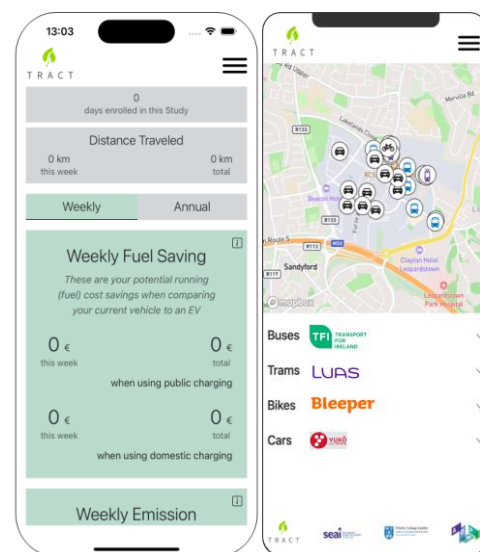


Figure 1. TRACT EV app (left) and TRACT Mobility Hub (right) app dashboards.

Recommendations

E-mobility trial

Identifying and exploring the perceived barriers beyond those related to upfront costs towards EV adoption and possible solutions thereof to tackle them, providing insights on the importance of the second-hand EV market that has little to no evidence and formulation of tailored and integrated policy framework especially focussing on population/sectors where the EV uptake has been slow.

Mobility hub trial

Provide a success-fail matrix of nudging techniques while encouraging a behavioural shift towards shared cars/bikes and suggest the possible locations where nudging techniques can be implemented to make mobility hubs successful.