CRUSE to Safe Cycling in Ireland

An Open Source Methodology to Support Active Travel

# 1. Introduction

Transport is a major contributor to climate change, premature death due to road traffic collisions and air pollution, yet has the potential to be a major contributor to decarbonization and improved public health. Transport is responsible for 23% of global emissions, 70% of which is from road transport, nearly half of which is from passenger cars (Jaramillo et al., 2022). The transport system encourages, enables and in some cases enforces unsustainable lifestyles, including over-consumption of goods due to excessive mobile storage space and dependency on services that are only accessible by car due to land use plans that have built up around roads (Gray et al., 2001; Motte-baumvol et al., 2010; Shergold et al., 2012).

Recognizing the impacts of poorly designed and performing transport systems on their citizens, governments in many countries have set targets and taken actions and set targets. In the context of climate, road safety and physicial inactivity crises, policies to improve transport systems can be classified according to the ‘Avoid-Shift-Improve’ (ASI) framework (Jaramillo et al., 2022). The framework highlights the importance of demand reduction (*avoid*ing unnecessary trips), in addition to mode *shift* and *improvement* of existing energy converters, in that order.

Uptake of cycling, the main topic of this paper, should be seen in this broader context of transport decarbonisation. Although cycling uptake appears on the surface to only relate to the ‘shift’ part of the ASI framework, closer consideration of the knock-on impacts of cycling uptake shows that it can also help avoid unnecessary trips [citation needed, any ideas Hussein?] . The rapid uptake of highly efficient e-bikes can also be seen as an improvement on most electric vehicles, which are too heavy and expensive to be a sustainable alternative and could in fact delay the transition away from car dependency [citation needed].

At the European Union level …

In Ireland…

[Gary, Suzanne, others input here please.]

# 2. Methods

Commute and school travel

Other trip purposes

[Joey please add your bit here.]

Bit on Jittering (Lovelace et al., 2022)

# 3. Results

# 4. Discussion

# 5. Conclusions

# 6. List of abbreviations

# 7. Declarations

## Availability of data and material

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## Competing interests

## Authors’ contributions

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