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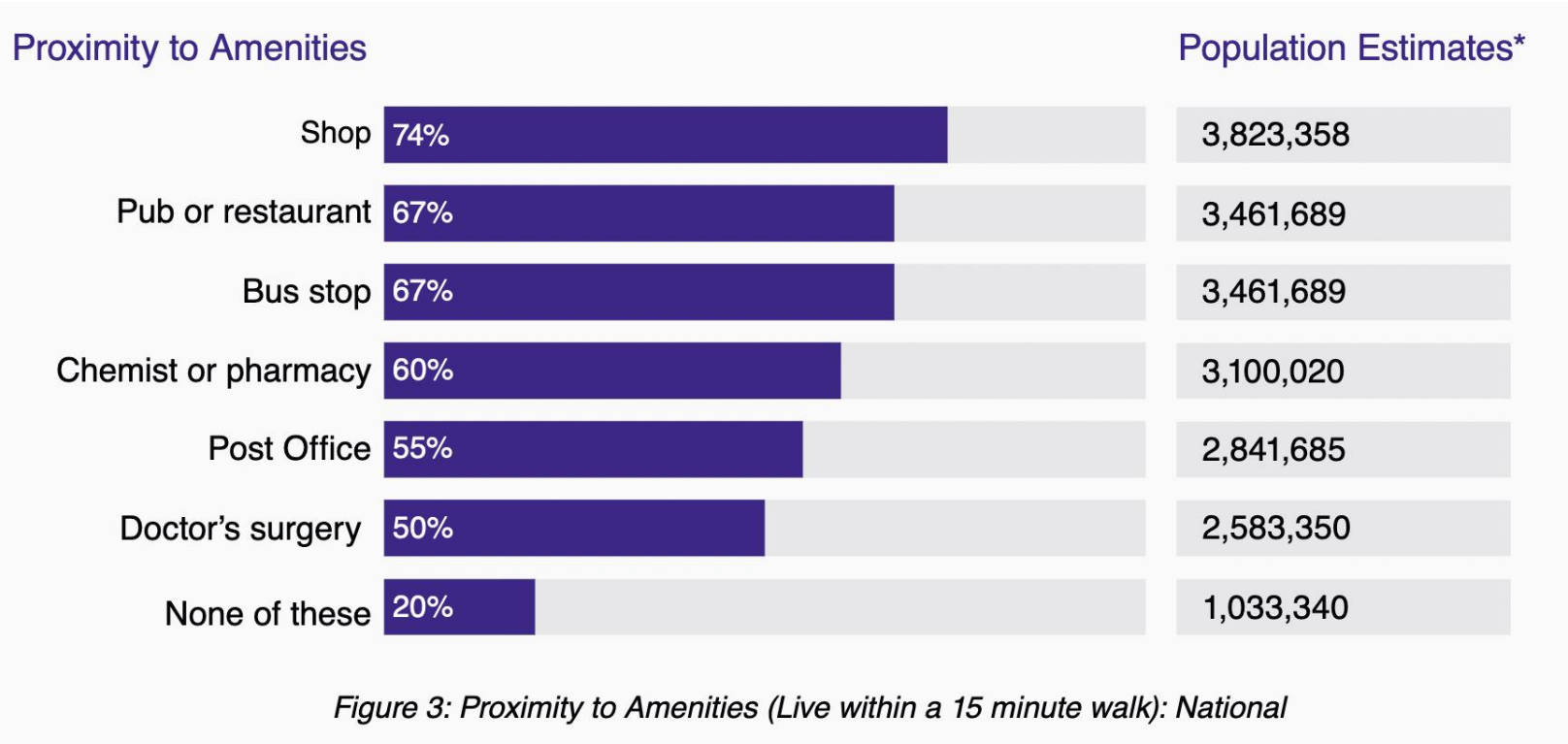
Sustainable Mobility Beyond the Big Cities

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Current transport emissions in Ireland

- In 2022, transport produced 19.1% of Ireland's GHG emissions, this was up 6% on 2021
- 94.7% of these emissions came from road-based transport
- 69% of all trips in 2022 in Ireland were taken by car, in 2012 it was 70%
- In rural Ireland 38% of people are within a 15 min walk of a shop, this increases to 97%+ on our cities

National Proximity to Amenities (within 15 min walk)



Dublin City & Suburbs Proximity to Amenities (within 15 min walk)

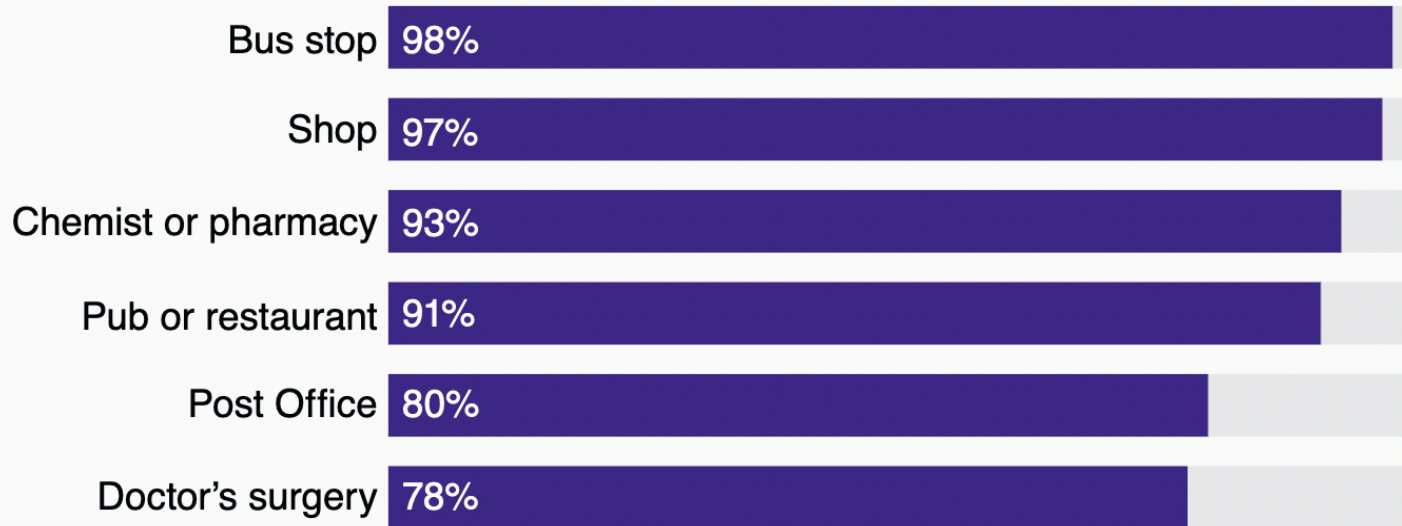


Figure 51: Proximity to Amenities (Live within a 15 minute walk): Dublin City and Suburbs

Rural Proximity to Amenities (within 15 min walk)

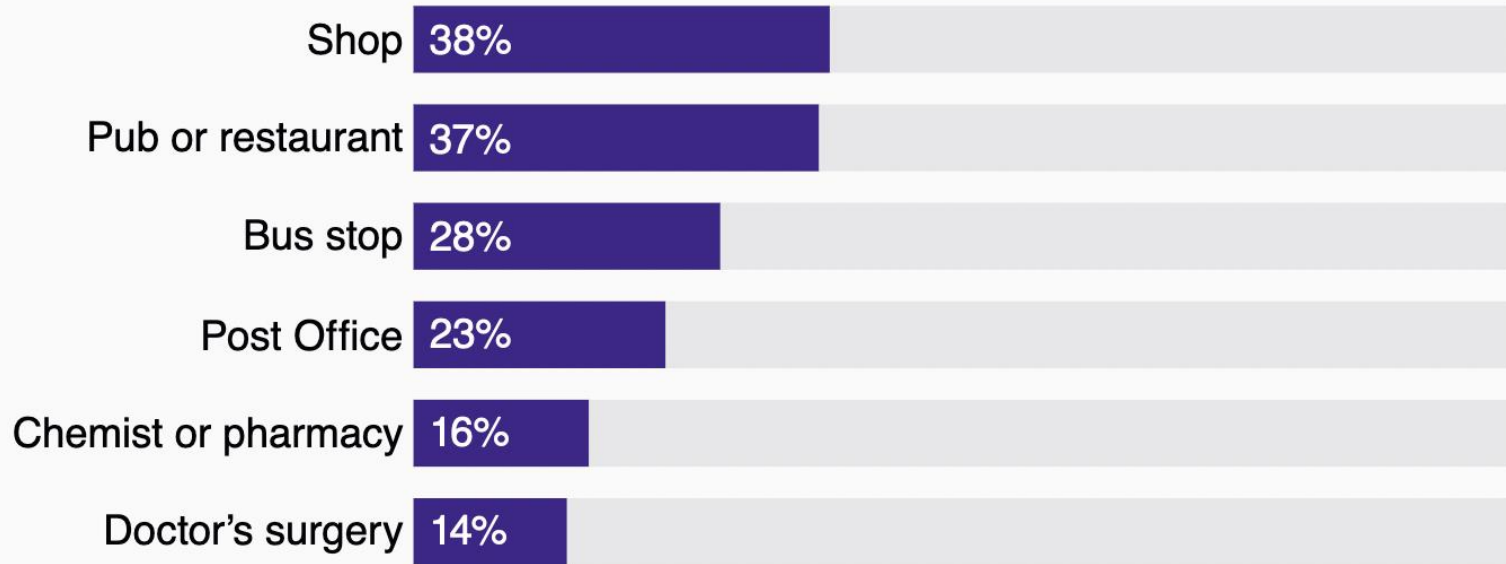
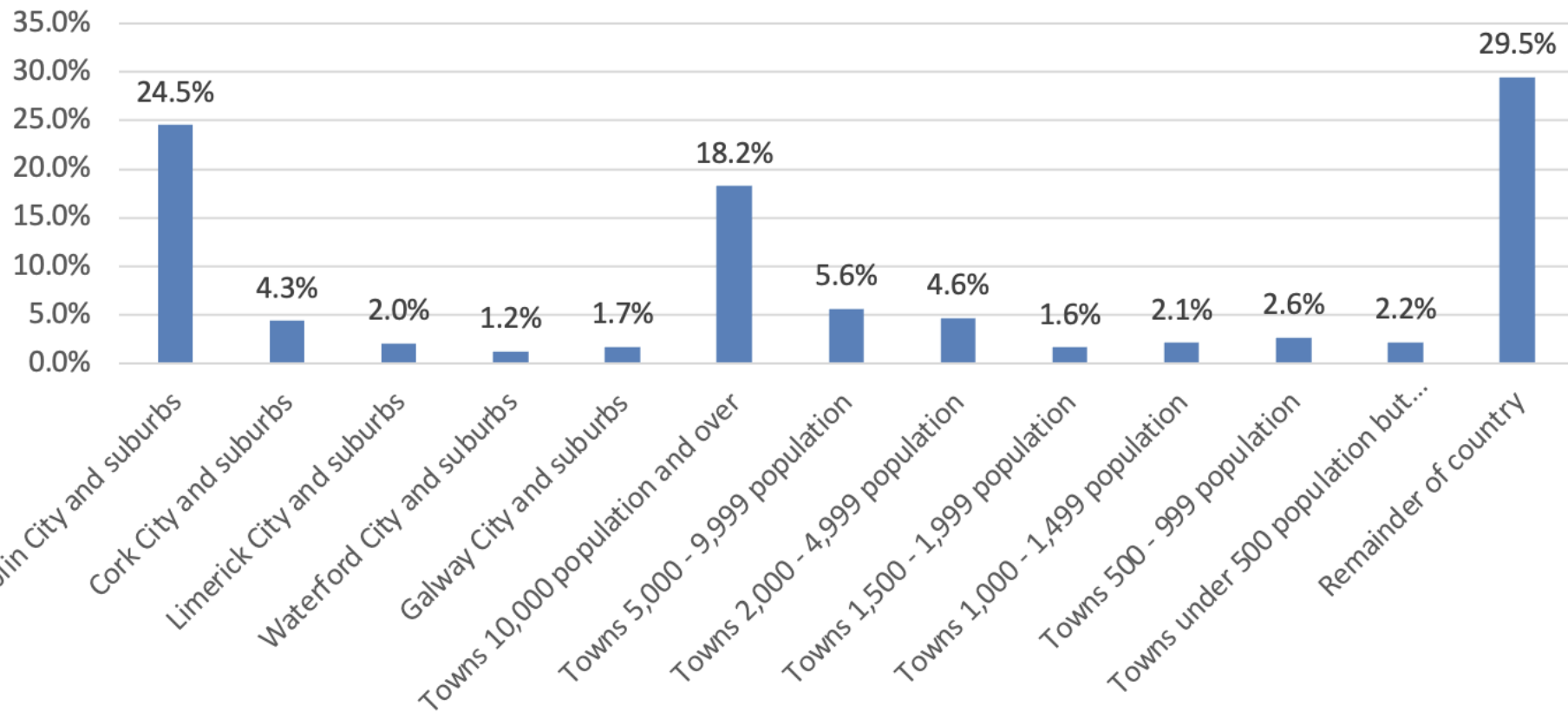
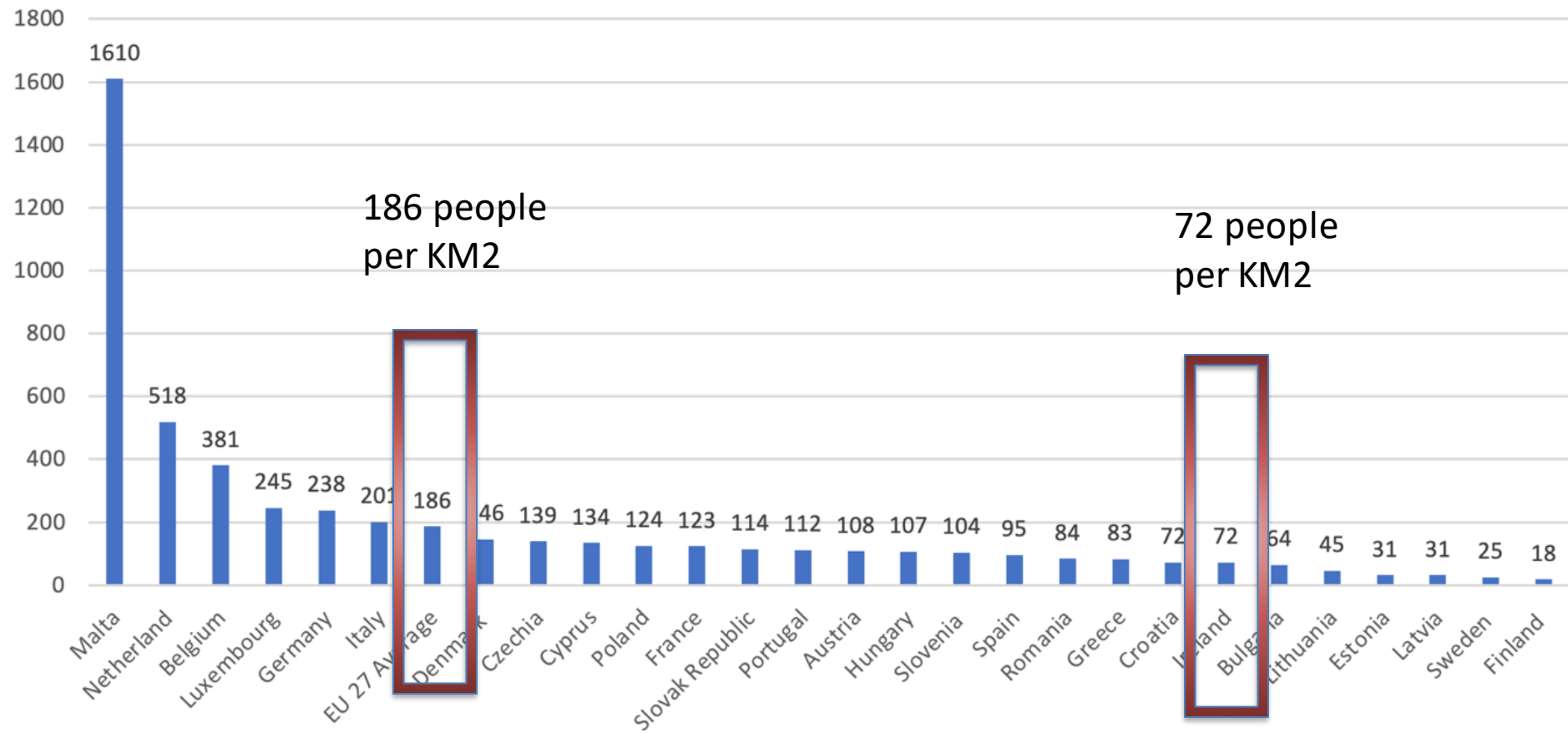


Figure 40: Proximity to Amenities (Live within a 15 minute walk): Rural Areas

Population Distribution - 2022 Census



Average population density (people per KM2) EU 27



Reduce transport emissions by 50%

How do we do this?

- Reduce vehicle KM by 20%
- 50% reduction in fuel consumption
- 50% increase in active trips
- 130% increase in public transport trips
- Sell 1m electric vehicles



21%

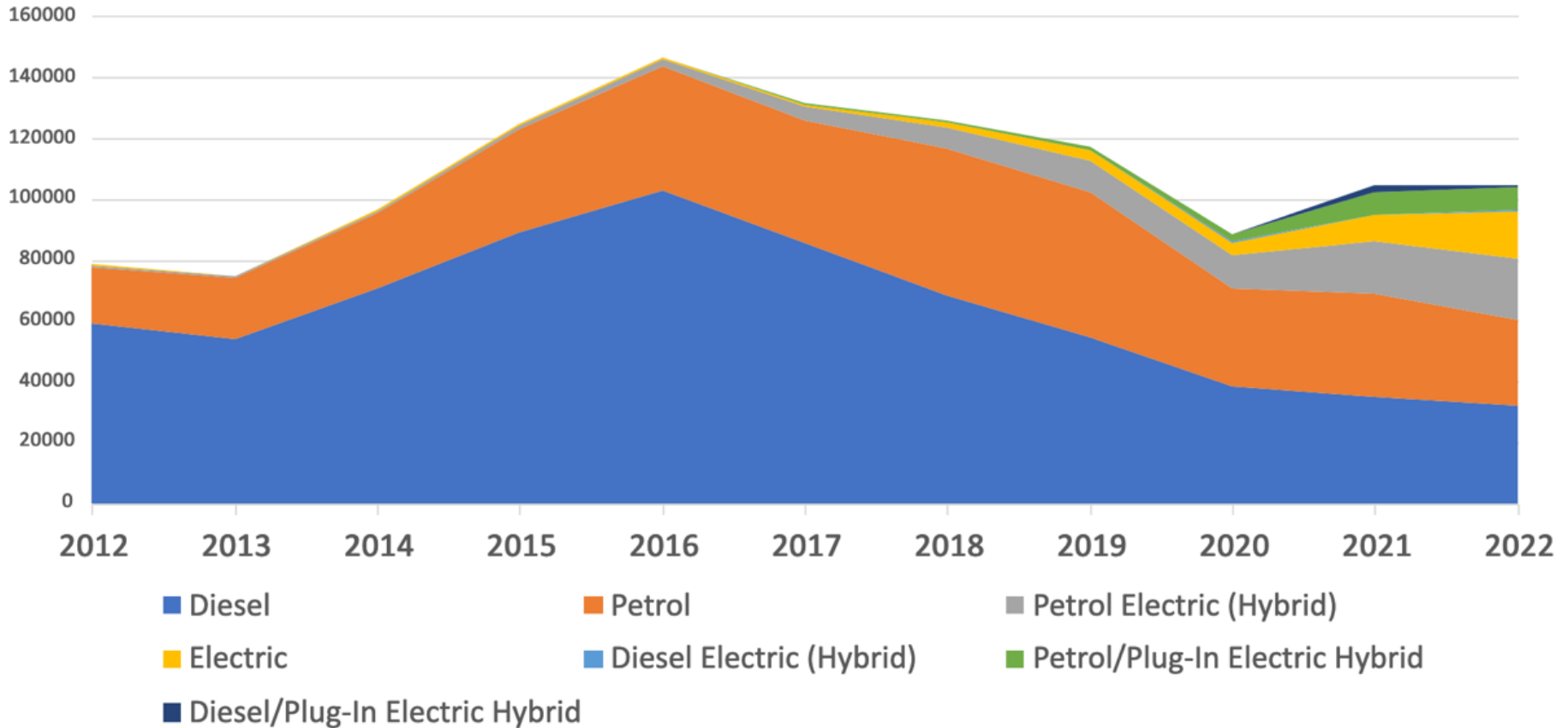


21%

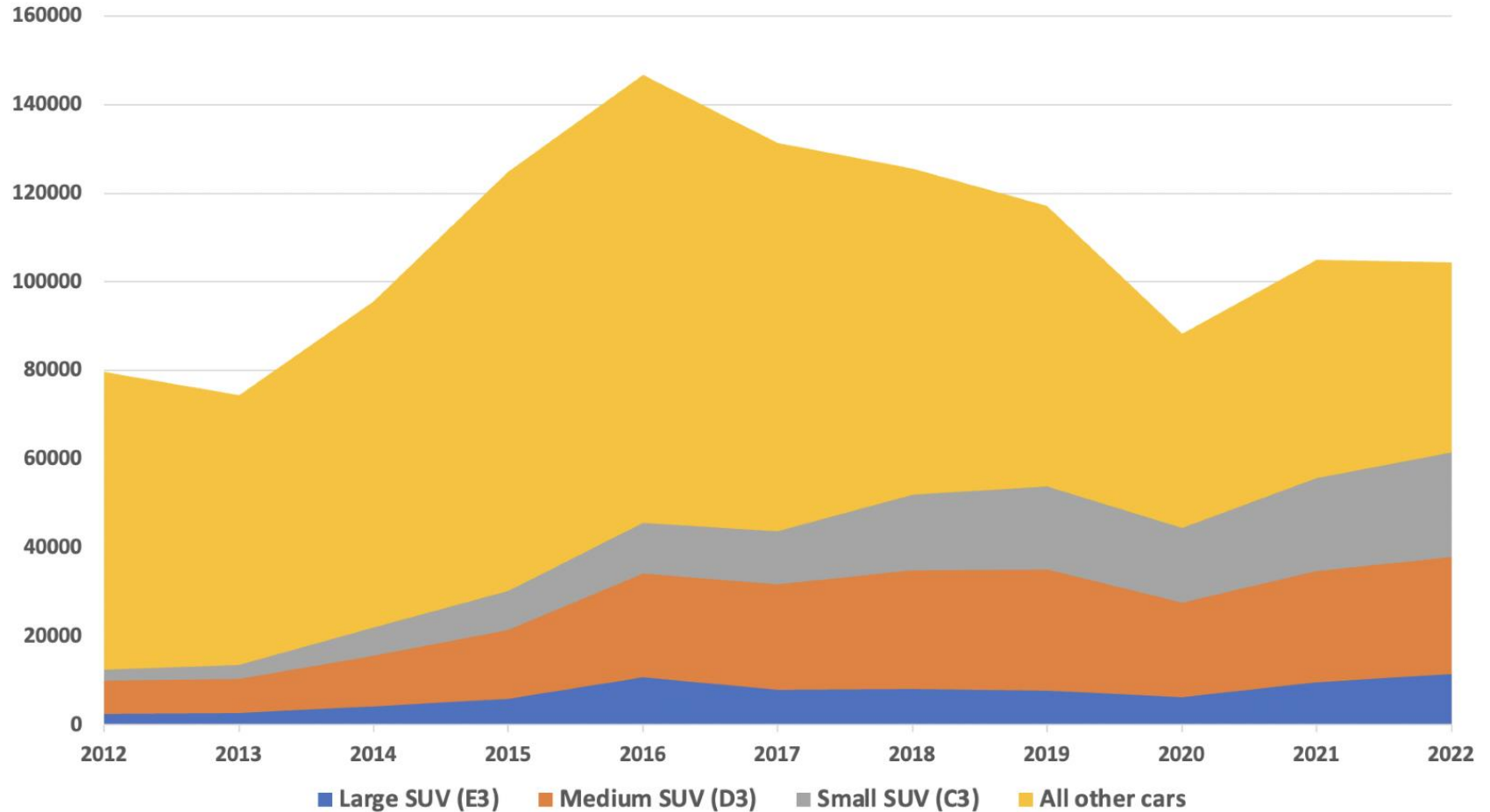


58%

Sales by fuel type 2012-2022



New car sales 2012 - 2022: SUV's vs all other sales





Contents lists available at ScienceDirect

Energy

journal homepage: www.elsevier.com/locate/energy



Measuring the equity impacts of government subsidies for electric vehicles

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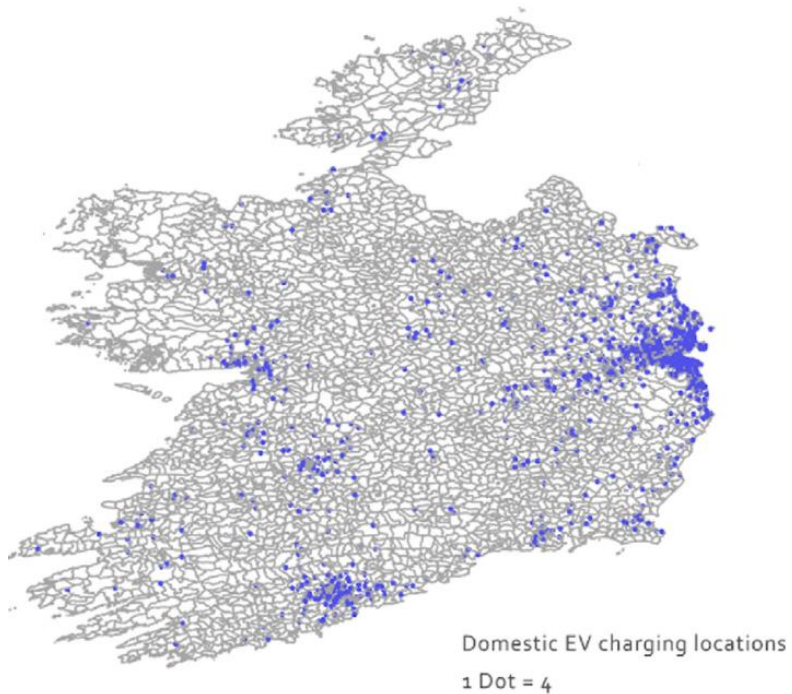
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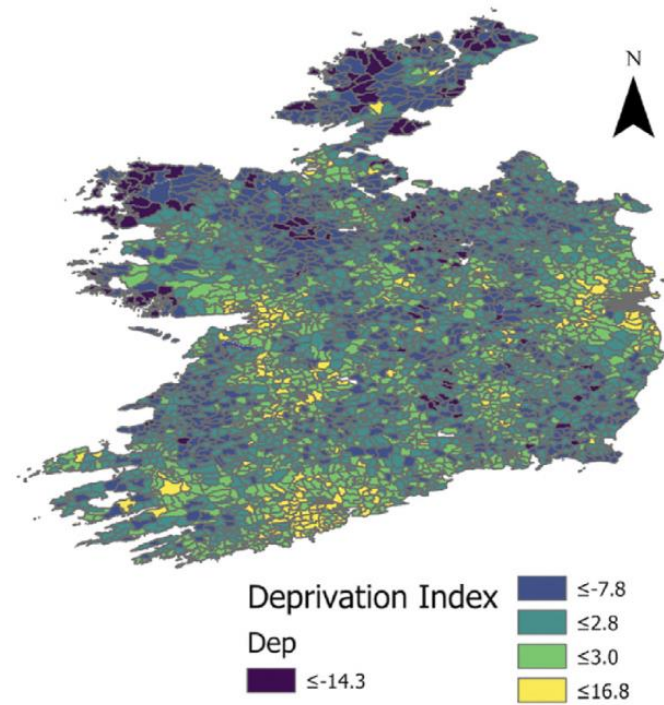
^d School of Mechanical and Aerospace Engineering, Queens University Belfast, Belfast, United Kingdom

Caulfield, B., Furszyfer, D., Stefaniec, A., Foley, A. Measuring the equity impacts of government subsidies for electric vehicles. *Energy*, 2022, 248, 123588





a: Household EV charging locations



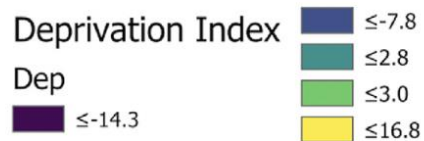
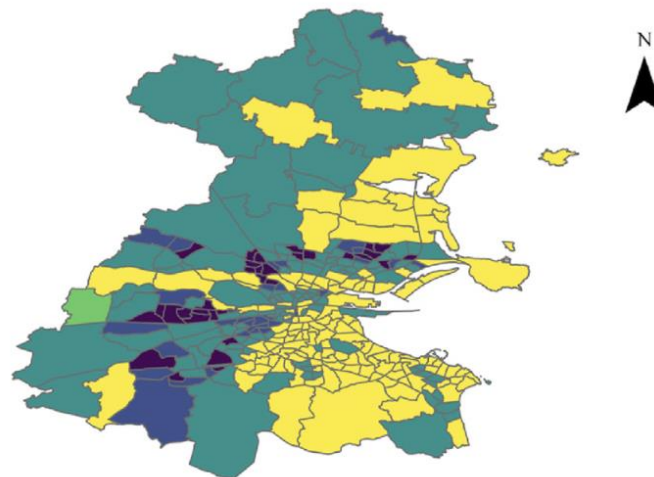
b: Deprivation index



Domestic EV charging locations

1 Dot = 4

a: Household EV charging locations - Dublin



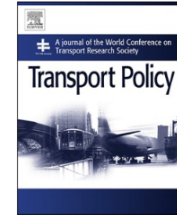
b: Deprivation index - Dublin



Contents lists available at [ScienceDirect](#)

Transport Policy

journal homepage: <http://www.elsevier.com/locate/tranpol>



Identifying hotspots of transport disadvantage and car dependency in rural Ireland



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Carroll, P., Benevenuto, R., Caulfield, B. Identifying Hotspots of Transport Disadvantage and Car Dependency in Rural Ireland, Transport Policy, 2021, Vol 101 pp46-56



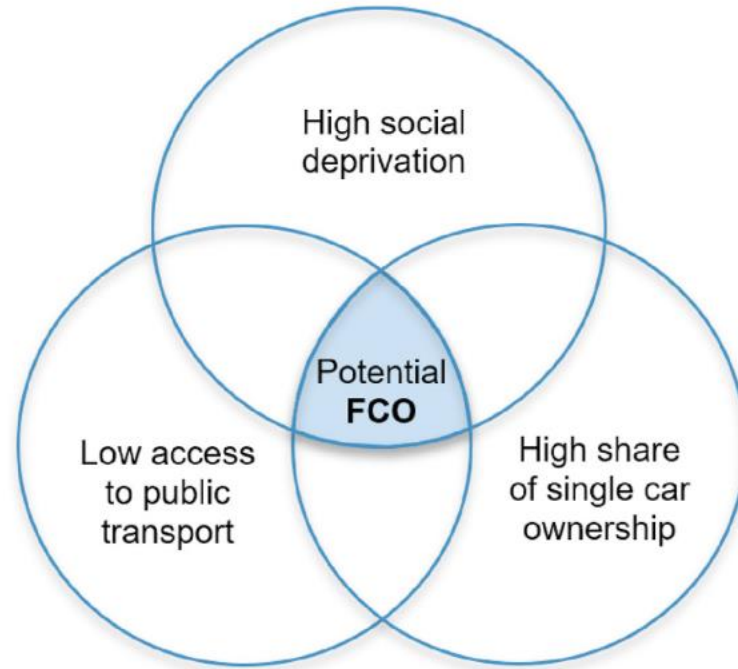


Fig. 5. Forced car ownership hypothesis.

Transport nodes

PT density in Raster

PT density by ED

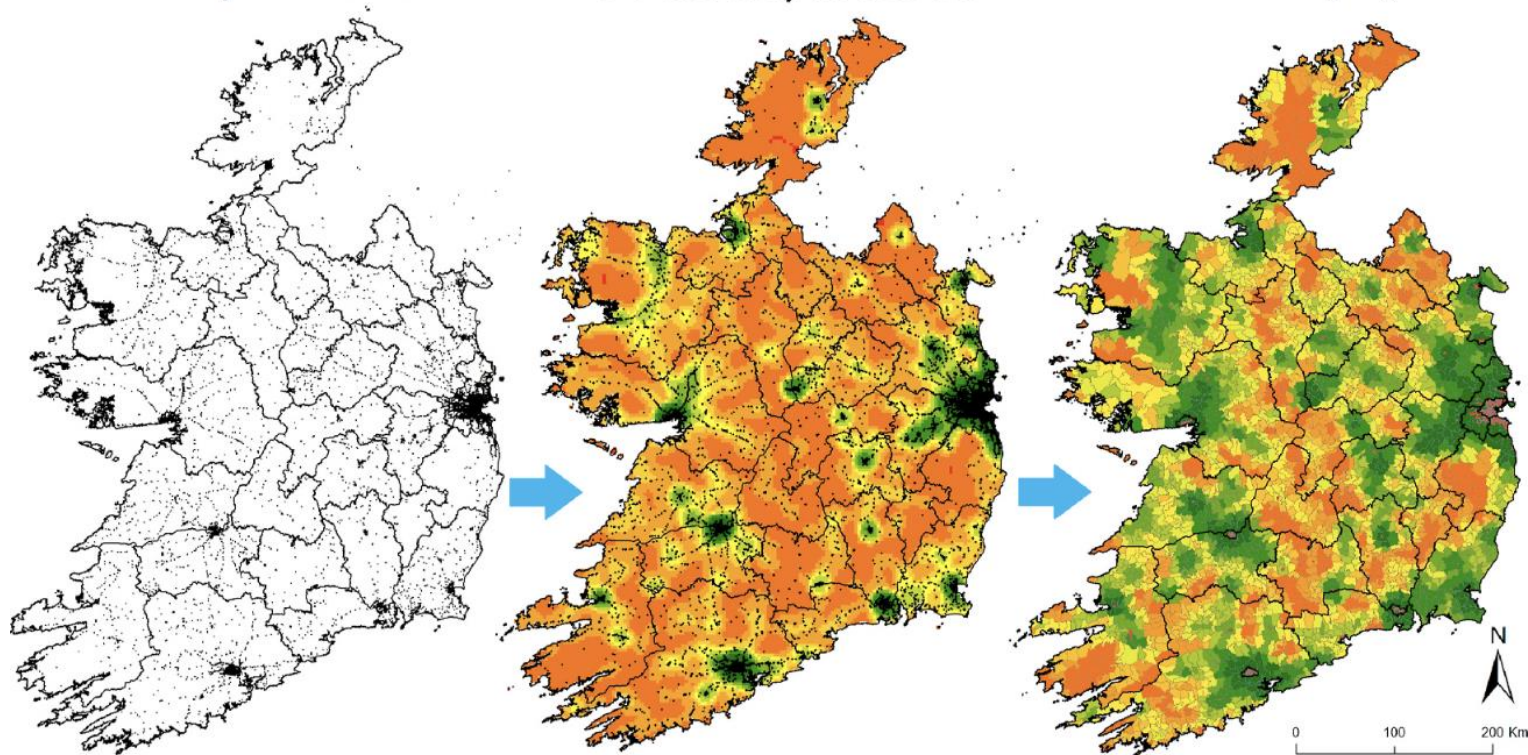


Fig. 4. Access to Public Transport calculation.

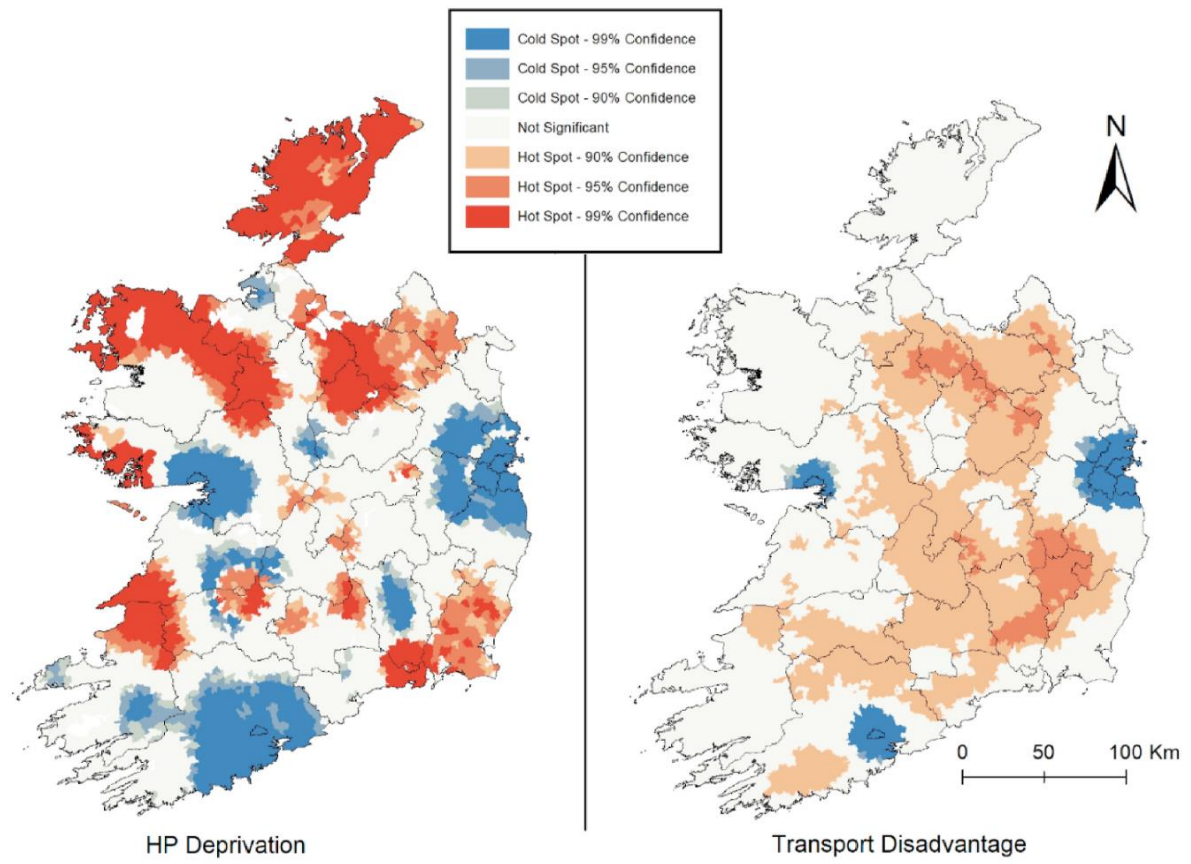


Fig. 6. Hotspot analysis of social (left) and transport (right) disadvantage.

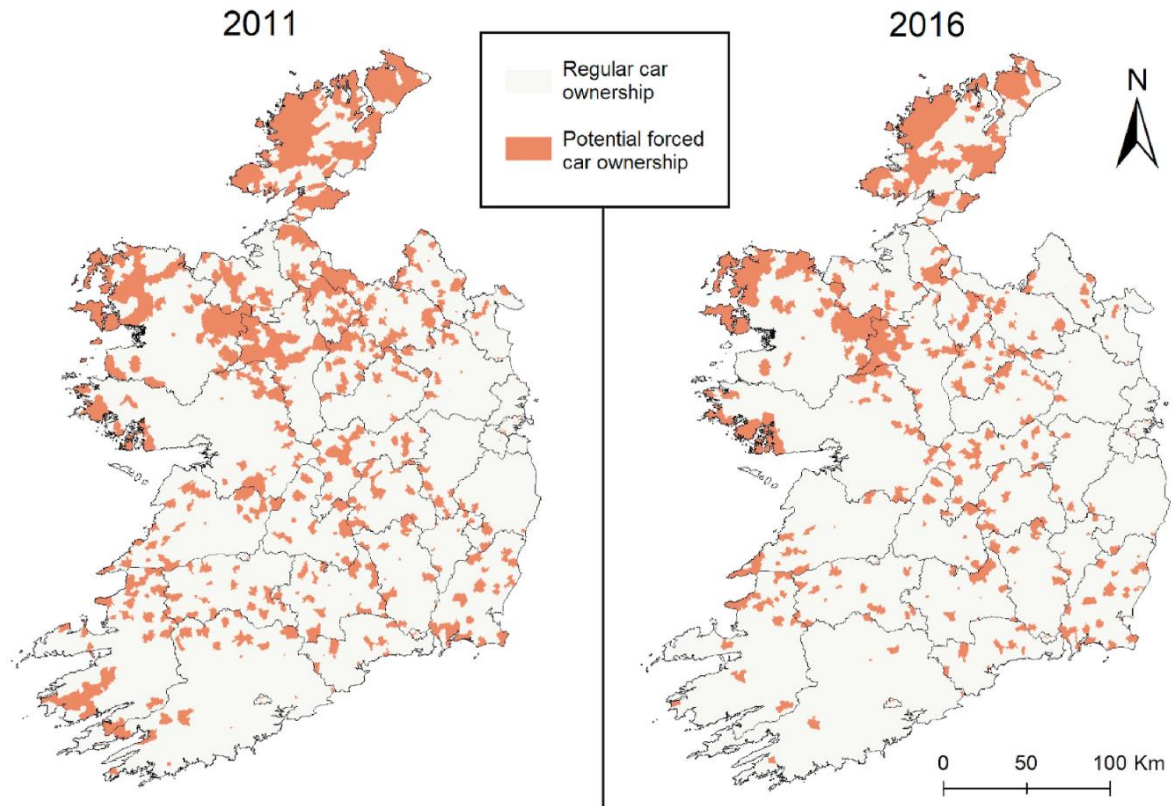


Fig. 7. Variations of potential FCO at Electoral District level in Ireland between 2011 and 2016.

What are some of the solutions?



**Innovations for Better
Rural Mobility**



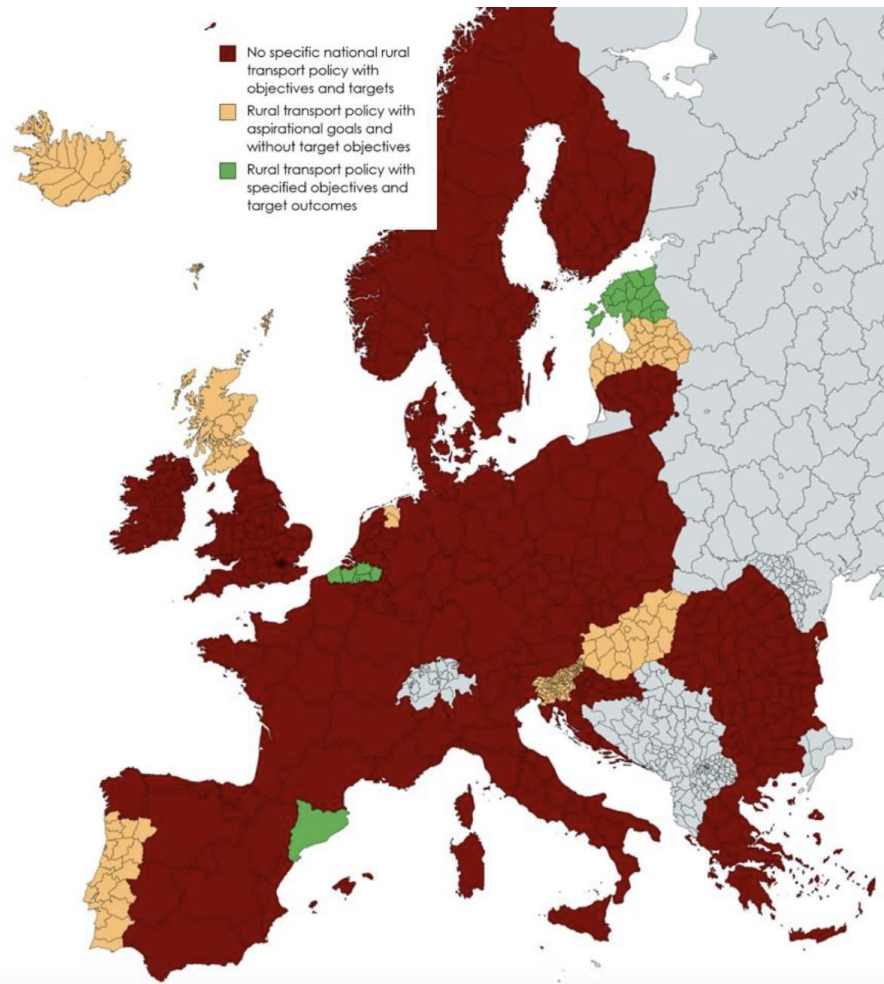


Figure 5. Rural shared-mobility offer

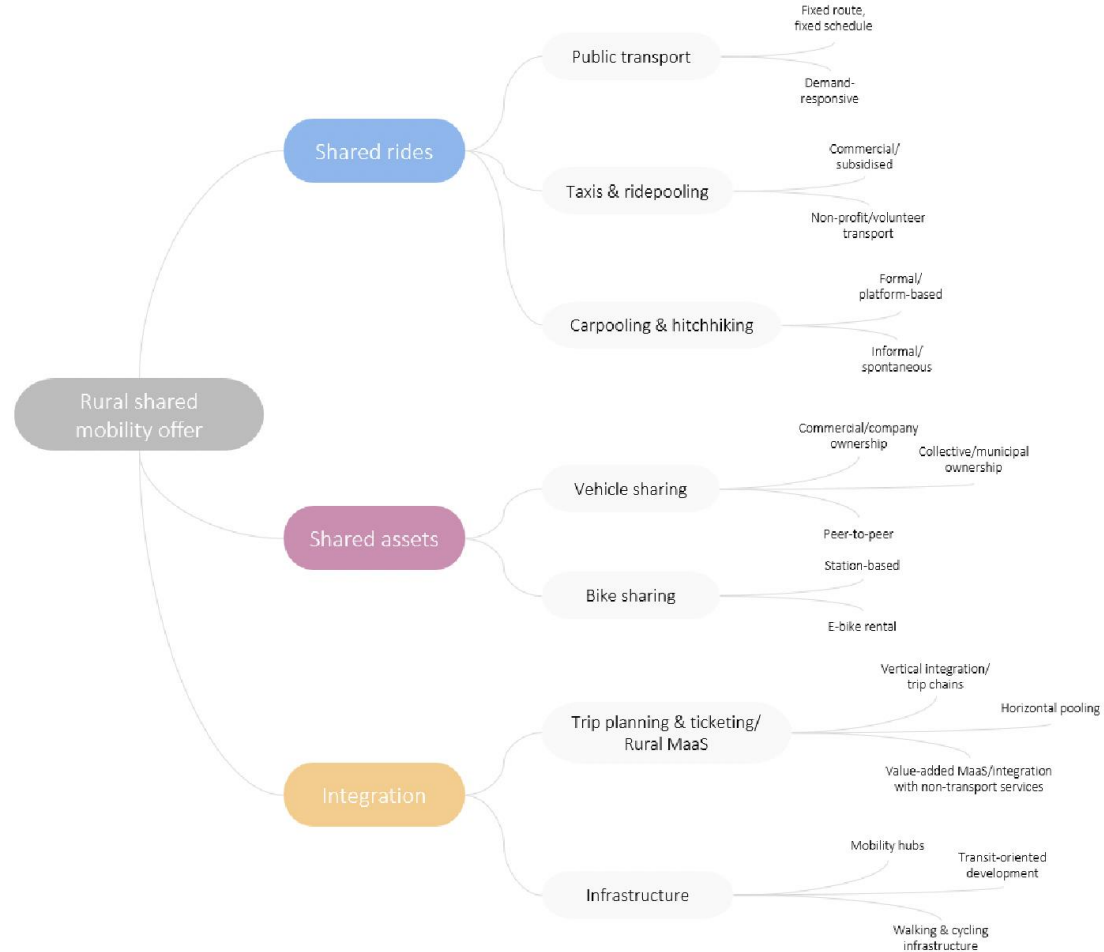
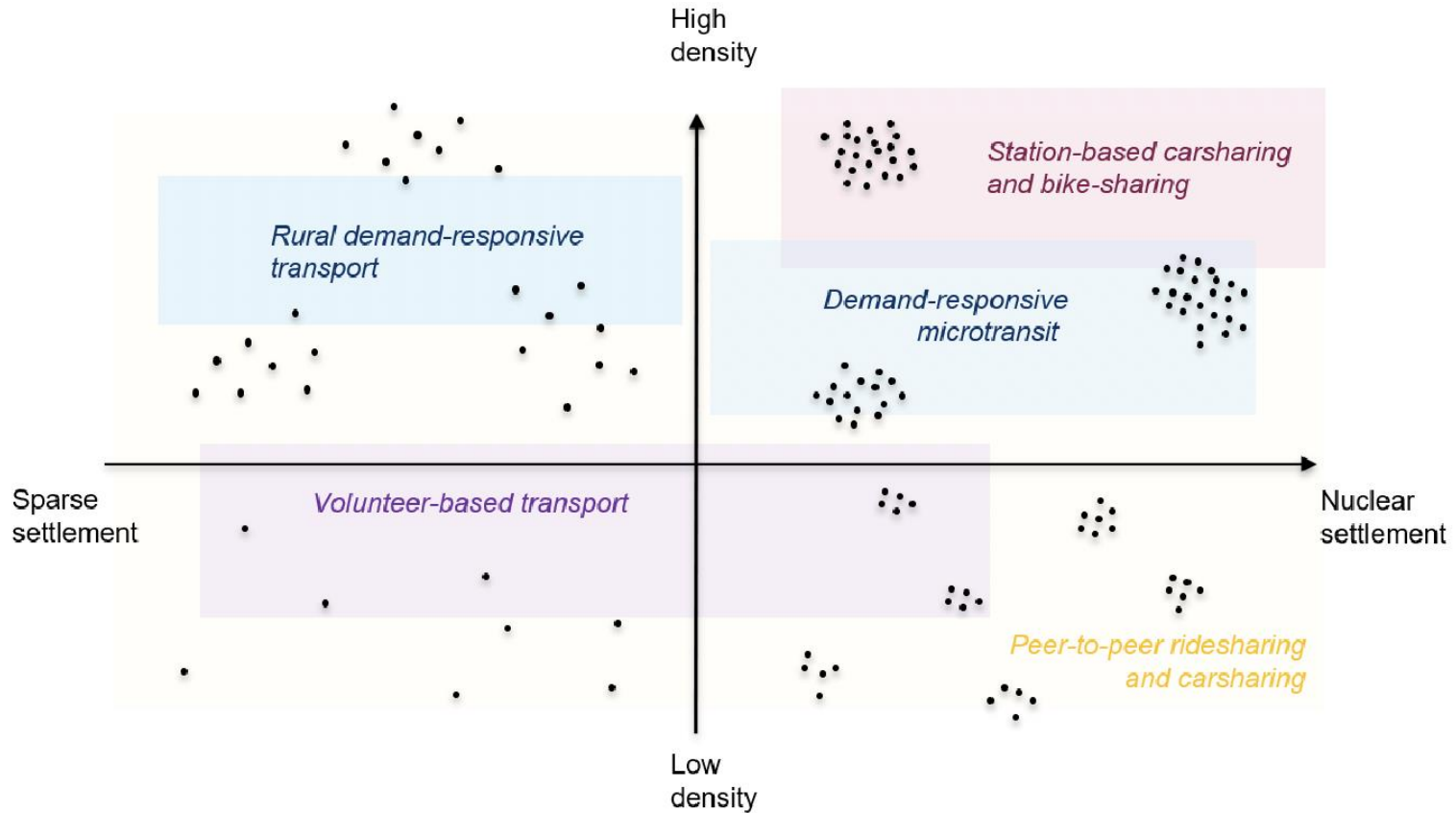


Figure 6. Suitability of shared mobility types by population density and settlement type



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To conclude

Achieving sustainable mobility outside of our cities is going to take a lot of imagination and the courage to pilot unfamiliar solutions

Research conducted using the TII model shows that the potential emission savings from investing in electric vehicles outside of the core urban areas could result in increased emission savings

The international research does point to the use of technology and on demand services as a potential pathway

Shared and community transport options have been proven internationally to be a valuable use of scarce resources and effective in achieving sustainable mobility



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Thank you

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