



Decarbon8

Behind the

curve?

Decarbonising

Mobility in a

Hurry

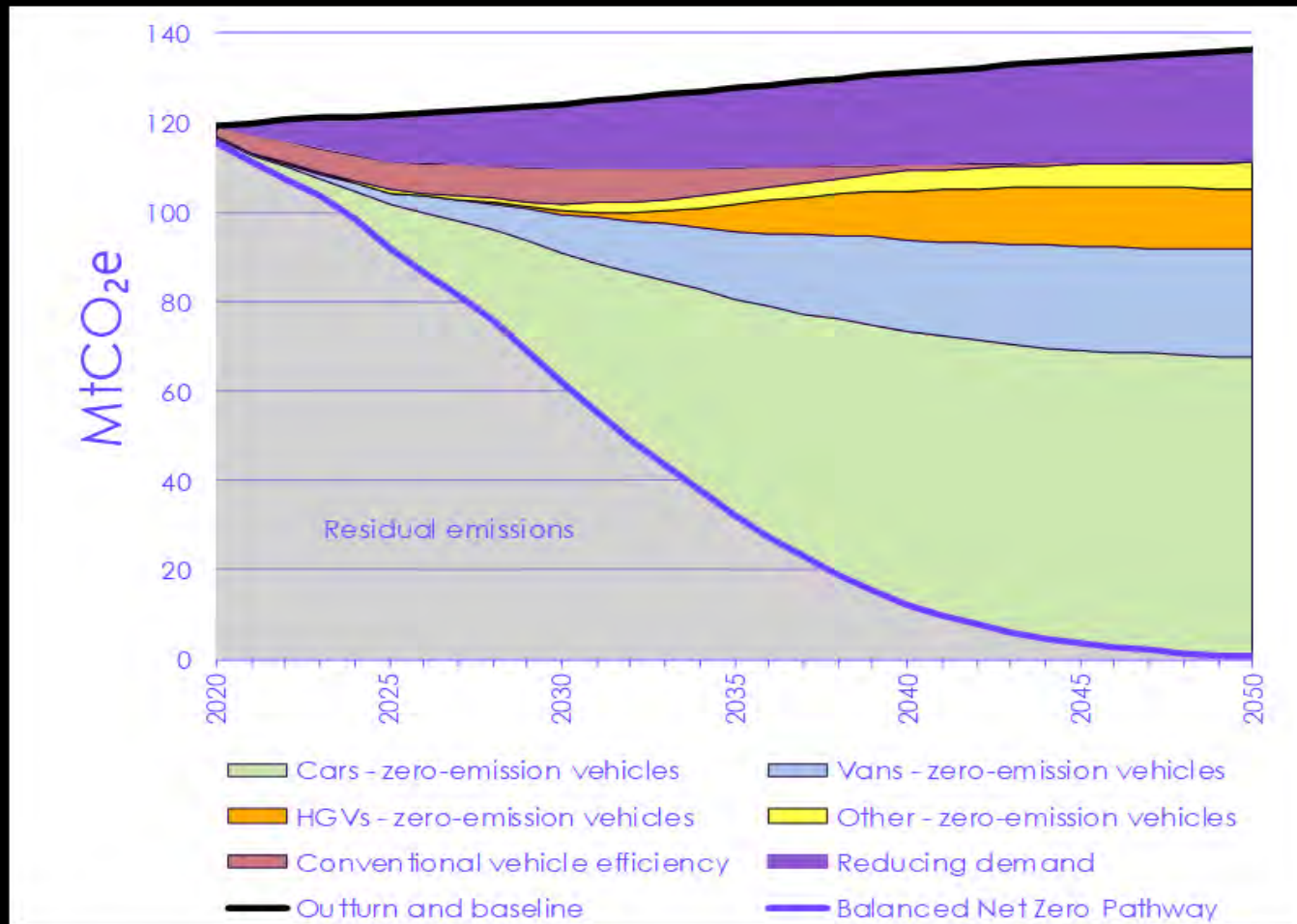
Northern Evidence
Academic Forum

Professor Greg Marsden
University of Leeds

A blurred background image of a train station departure board. The board is dark with yellow text. The text is out of focus but appears to be a table with columns for destination, platform, and status. The word 'Plat' is visible at the top right. The status 'Delayed' is repeated in several rows. The destinations listed include 'super-Mare', 'n Paddington', 'ester', 'ristol Parkway', 'ance', 'outh', and 'f Central'.

	Plat	Expt
super-Mare	10	Delayed
n Paddington	13	Delayed
ester	3	Delayed
ristol Parkway		
ance	12	Delayed
outh	5	Delayed
f Central	9	Delayed

The carbon challenge for transport



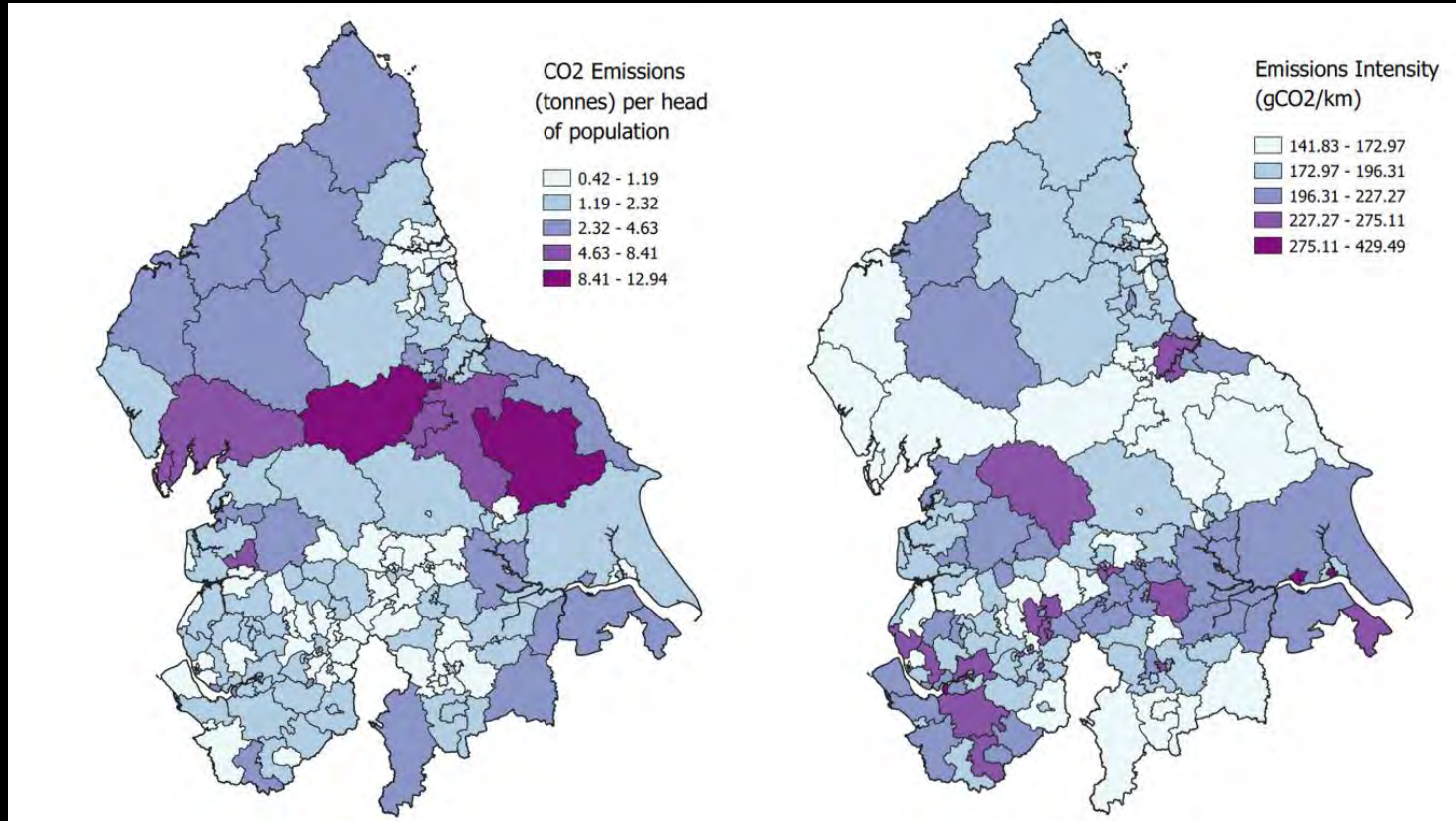
4% reduction in last 30 years

4% to 14% per annum reduction requirements

30% of cuts to 2030 demand reduction

38% electrification

Behind the curve (1)



Start points can differ by a factor of 5 to 10

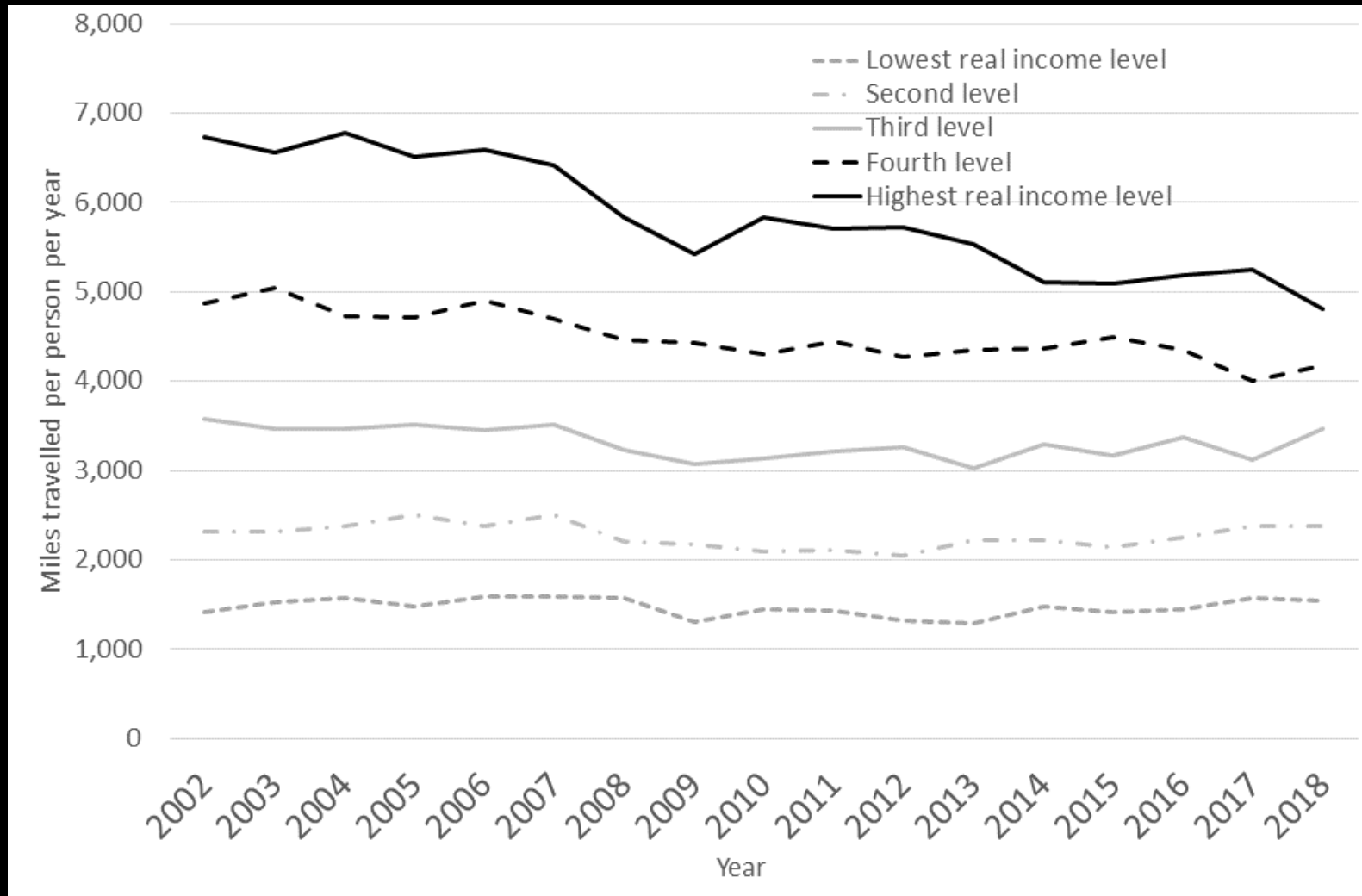
Even between similar types of places can be $\pm 40\%$

Different opportunities

Maps: Transport for North TAME Team

Analysis: Walker (2020) [DecarboN8 Working Paper 2.1](#)

Behind the curve (2)



UK Data

Miles/person by car

-29%

-12%

-3%

3%

9%

Behind the curve (3)



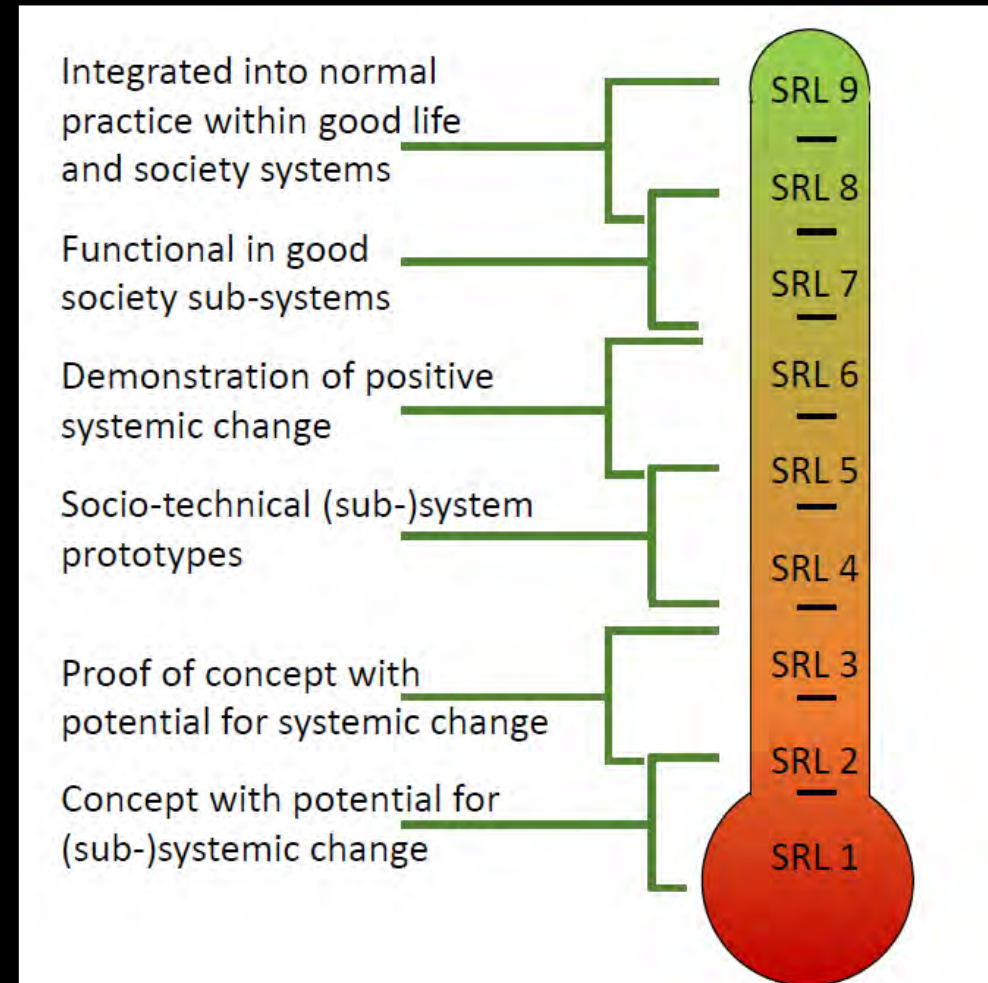
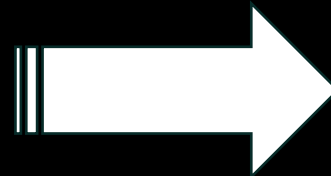
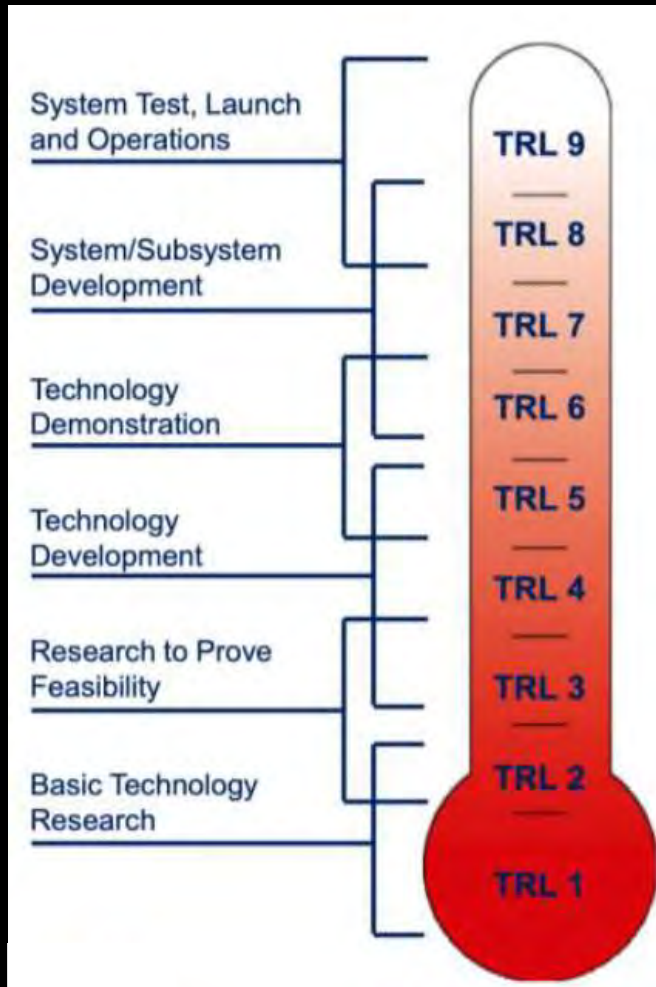
**Terraced houses:
51% on-street parking
Half of these “inadequate”**

**Up to 45% of private
rented accommodation in
some areas**



From Technology to Societal Readiness

Lancaster University – Monika Büscher and Nicola Spurling



E-Cargo Bikes



Diverse Use Cases:

Waste recycling, surplus food,
Universities, catering,
hospitals



Challenges:

Familiarity, start-up costs, risk
assessment, infrastructure



Opportunities:
Corporate Consolidation
Community-led



Working across the North



The North of England

Hydrogen for Sustainable Waterways
Dr Dénes Csala, Lancaster University

Decarbonising Transport with Neighbourhood Plans in Northern England
Dr Caglar Koksal, University of Manchester

Room to Move – Impacts of road-space reallocation
Dr Stephen Parkes, Sheffield Hallam University

CARGO PEDAL: Harnessing the potential of e-cargo bikes for urban sustainable transport
Dr Luke Blazejewski, University of Salford

Liveable Liverpool City Region
Dr Richard Dunning, University of Liverpool



Leading the way to lower carbon transport: how, when and why do older, more experienced drivers make a change?
Dr Julie Clark, University of the West of Scotland

Understanding and modelling electric vehicle charging behaviour using choice modelling
Dr Trivikram Dokka, Lancaster University

Integrating embodied carbon emissions into northern transport infrastructure scenarios
Dr Jannik Gieseke, University of Leeds

Serious Games for Serious Energy Solutions: A Case Study of Diversity for Innovation in Bradford
Dr Zoe M Harris, Centre for Environmental Policy, Imperial College London

Development of a co-designed zero-carbon urban freight system
Dr Daniela Paddeu, University of the West of England



Details on all of our seedcorn projects here:

<https://decarbon8.org.uk/decarbon8-research-projects/>

Where next?



**The Best of Business
as Usual is Not
Enough**

**More radical change
needs to be built
with people and
places**

How can research help?



Topics

- Need to understand how commute and work is changing
- Understand the implications of Covid-19 for shared mobility
- Goods movements and servicing more difficult so high priority
- Long-distance trips, rural areas

Processes

- Use cases (e.g. tourism), experimentation, learning
- Co-design with diverse groups
- Community-led as well as “system”

Concluding Remarks



- We are not decarbonising in a hurry
- We are behind the curve(s)
- To get anywhere close we need to start thinking about decarbonising whether, when, how and how much we move not just the technologies we use
- Strategic analysis remains important – joining up
- Need new co-designed approaches to understand how to effect radical change
- **We wont find this in papers or reports or on the ground – we have never tried to do anything like this before anything like as fast.**

Questions



Resources

- [Getting carbon ambition right](#)
- [The role of buses](#)
- [Accelerating the uptake of electric vehicles](#)
- [Climate smart parking policies](#)
- [The role of land use, localisation and accessibility](#)
- [Travelling less and the role of online opportunities](#)
- [Growing cycle use](#)

- [UK sales of new petrol and diesel cars and vans will end in 2030 – what does the science say?](#)

- [Place-based Decarbonisation video series](#)

Join the DecarboN8 network by [subscribing to our mailing list](#)