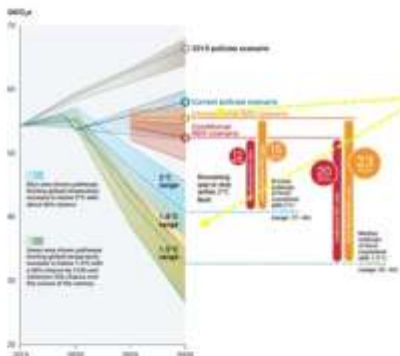


THINK WE'LL ABANDON OUR CARS? ON YOUR BIKE, MATE.

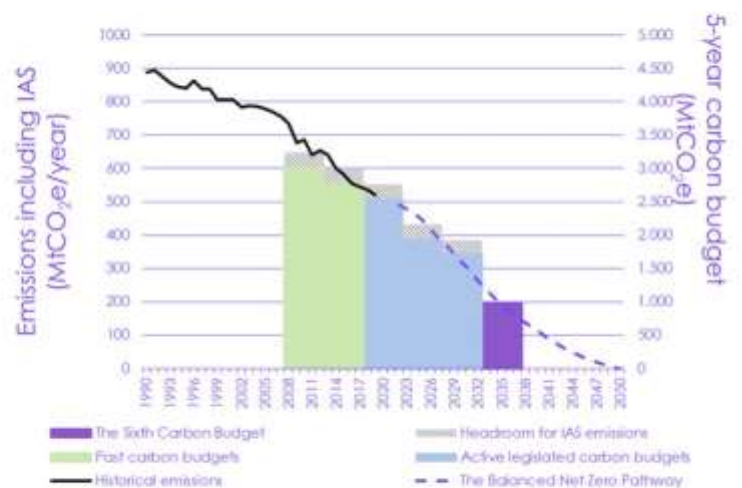
CONNOR TOMLINSON

NETZERO
WATCH

Climate Crisis



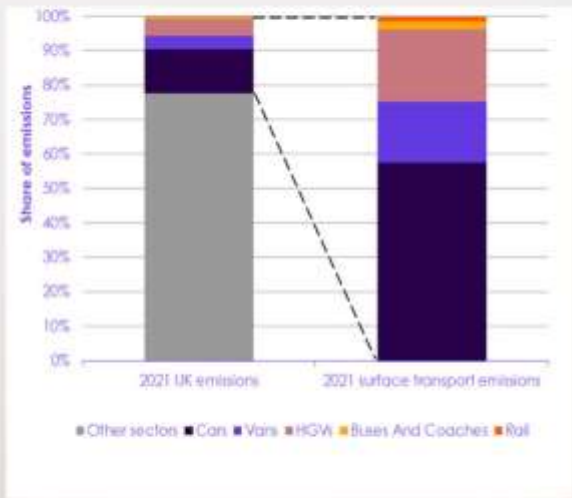
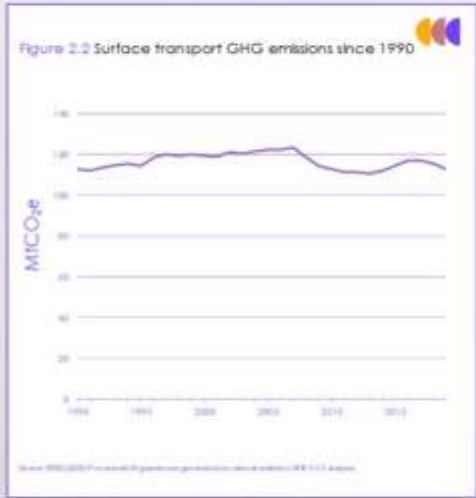
Source: UNEP GAP report 2022



78% reduction from 1990 levels by 2035

63% reduction from 2019 levels by 2035

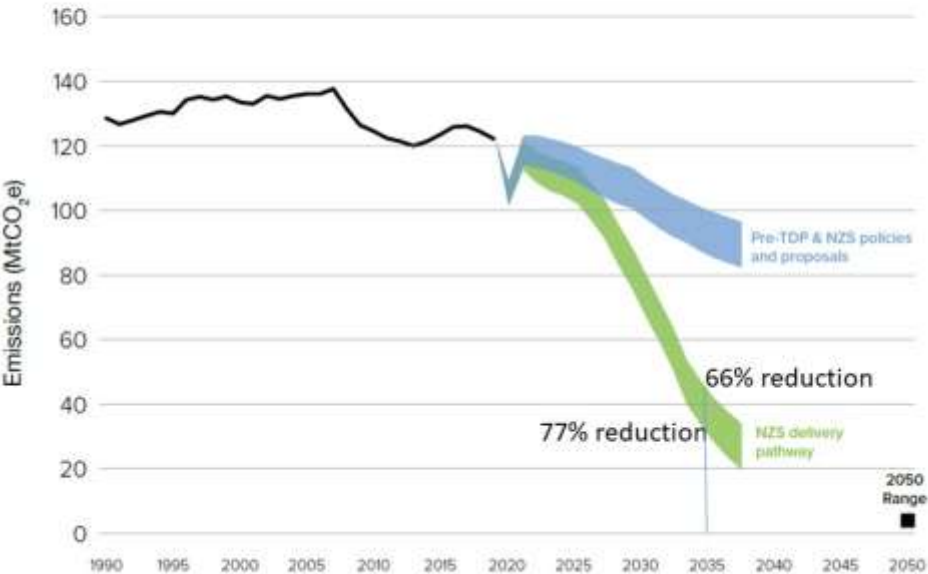
Surface Transport



27% of emissions in 2019 were surface transport



National Sectoral Strategies



Deployment assumptions	Unit	2019	2025	2030	2035
ZEVs as a percentage of total car fleet	%	0.3%	6%	24%	53%
ZEVs as a percentage of total van fleet	%	0.2%	2%	14%	40%
ZEVs as a percentage of total HGV fleet	%	0%	0%	9%	37%
ZEVs as a percentage of total bus and coach fleet	%	0.3%	9%	25%	48%
Single track kilometres electrified per year	Km	0	350	650	650
Low carbon fuels a used in road transport as a percentage of total fuel use (in litres)	%	5%	7%	8%	8%
Journeys in towns and cities that are cycled and walk as a percentage of total journeys in towns and cities	%	42%	46%	50%	55%
SAF use in domestic aviation as a percentage of total fuel use (in tonnes)	%	0%	1%	3%	6%
Low carbon fuels ^a use in domestic shipping as a percentage of total fuel use% (in TWh)		0%	0%	1%	42%

Study after study shows the scale of car USE reduction required even with the most optimistic uptake of EVs (Prof. Jillian Anable)

	Percentage reduction...	In ...	By ...	Relative to ...
CREDS (2021) – Positive Low Energy Demand Futures study	30-50%	Total car mileage	2030	2020
Green Alliance (2021) – Not Going the Extra Mile report	20-30%	Total car mileage	2030	2019
Scottish Government (2021) target (based on modelling by Element Energy)	20%	Total car mileage	2030	2019
Welsh Government (2021) Net Wales Carbon Budget 2	10%	Per capita car mileage	2030	2019
Bristol City Council (2019) Bristol Net Zero by 2030: the evidence base	~50%	Total car mileage	2030	2018
London Pathways to Net Zero Carbon (2022)	12-27%	Total car mileage	2030	2018

The Objectives

We want to ensure economic opportunities are available to everyone, create a healthy and caring city for all and through a range of travel choices address the climate emergency, by

Our Vision

Our vision for Leeds is to be a city where **you don't need a car.**

Where everyone has an **affordable and accessible zero carbon choice** in how they travel.
We want to **Connect Leeds, Connect Communities, and Connect Businesses** together in the most sustainable ways.

emission vehicles in freight, public and private transport

Lower the cost of mobility, ensuring transport is affordable and accessible for everyone

Eliminate road danger by adopting a Vision Zero approach to road accidents

5

Connecting Leeds
Leeds

Local Leadership – National Vacuum

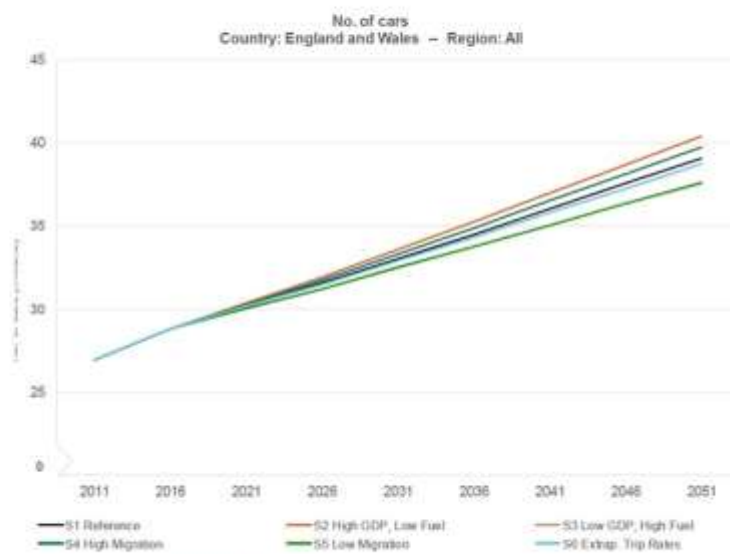


Figure 22: Car Ownership Forecast (NATCOP)

Electrification reinforcing automobility



Figure CV.41: Consumer engagement in smart charging

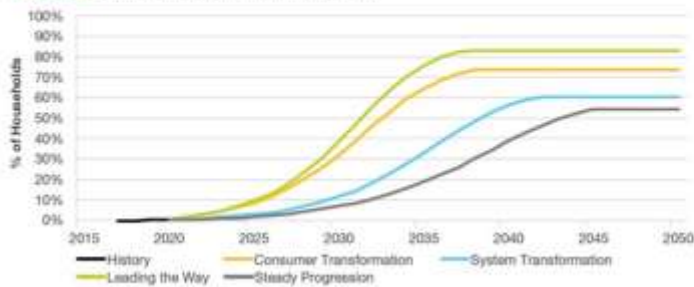
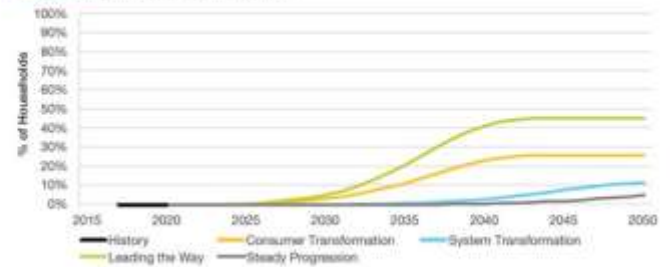


Figure CV.42: Consumer engagement in V2G



Big Moves

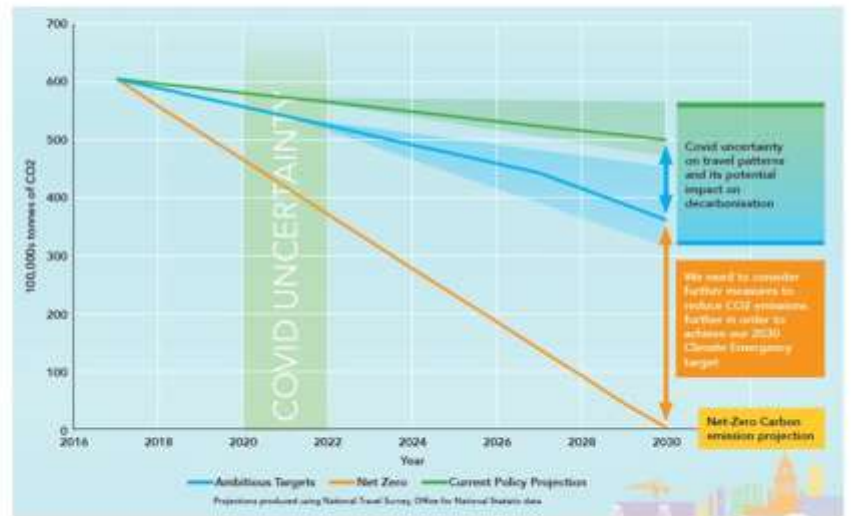
In order to make Leeds a city where you don't need a car, we have identified six big moves which will be the areas of focus for the Transport Strategy. We believe these six big moves will help us achieve our ambition and our targets.



Our six big moves are supported by 12 policy areas. It is a combination of measures from these different policy areas that will deliver and ultimately allow our big moves to become successful.



Vision from Leeds City Council

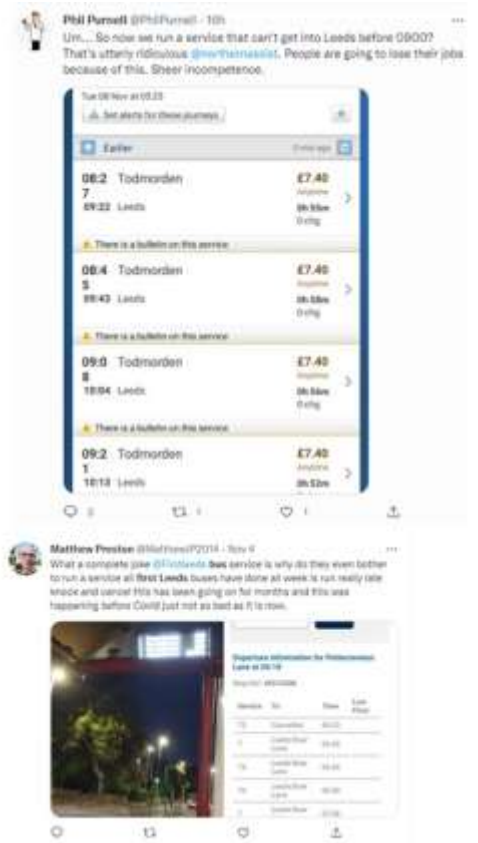


Reality on ground

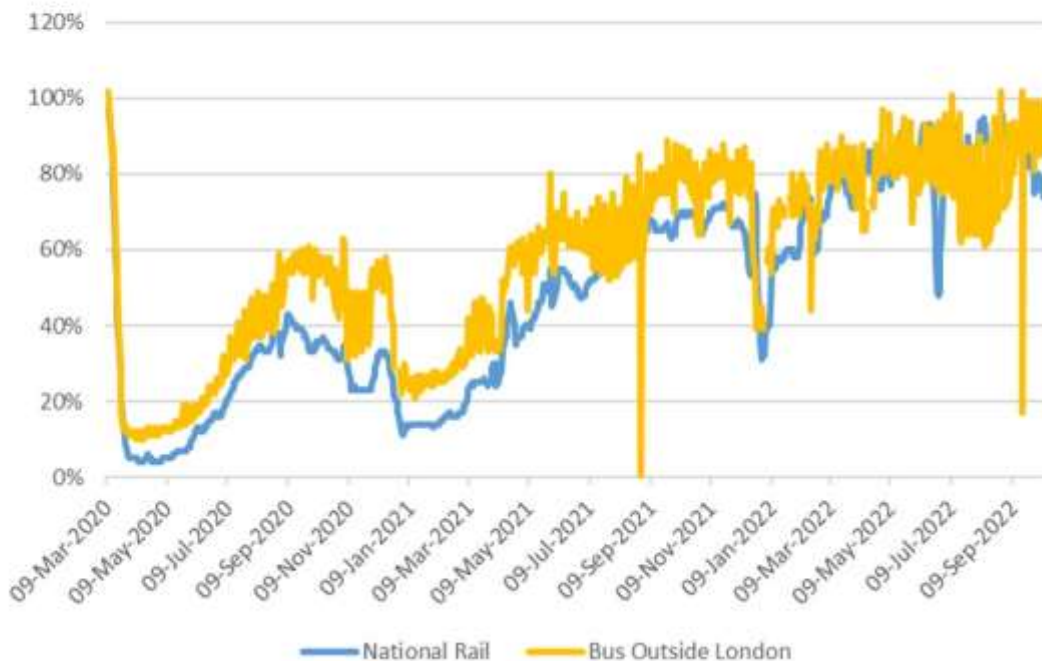


Reality on ground

Arrivals			
Time	From	Plt	Status
10:55	Aberdeen		Cancelled
11:03	Manchester Airport		Cancelled
11:06	Birmingham New St		Cancelled
11:12	London Kings X		Cancelled
11:16	Hope		Cancelled



Post-Covid Recovery Realities



- Rail use around 80% of pre-pandemic
- Bus Use around 90% (but beware metrics)

Just doing more will not be
enough

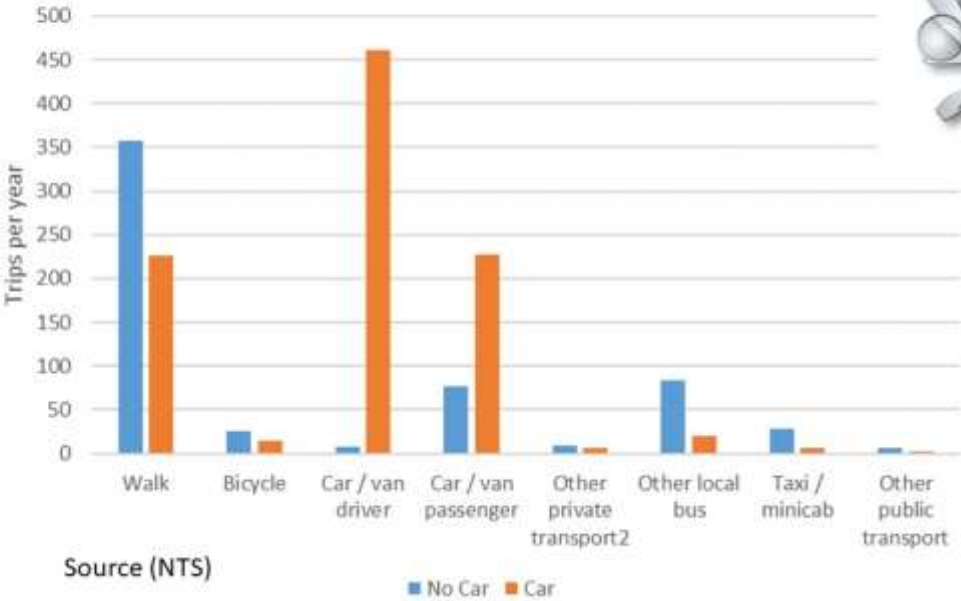
Leeds will also need to do
something different



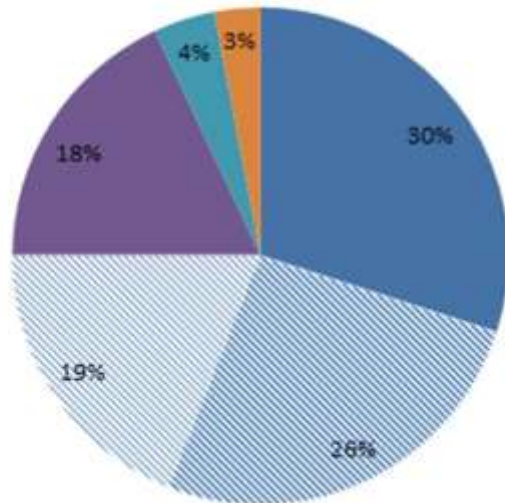
Cars in context



Once you buy a car...



Some people really love cars (a minority)



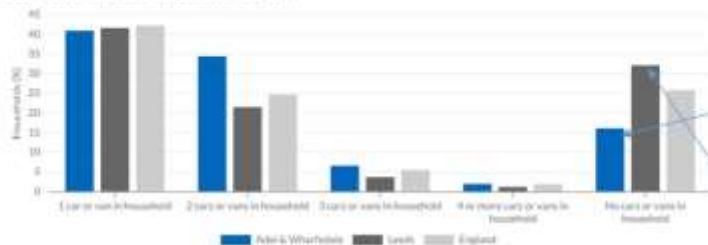
- 1. Malcontented Motorists
- ▨ 2. Complacent Car Addicts
- ▨ 3. Die Hard Drivers
- 4. Aspiring Environmentalists
- 5. Car-less Crusaders
- 6. Reluctant Riders (car-less)

<https://doi.org/10.1016/j.tranpol.2004.11.004>

Research by Prof. Jillian Anable

Cars or Vans per Household

Cars or vans available to members of households (2011)

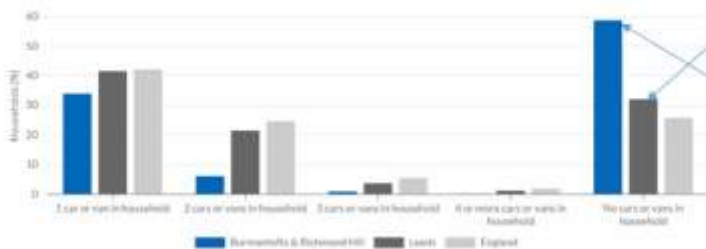


Source: ONS

In some places car ownership is very high

Cars or Vans per Household

Cars or vans available to members of households (2011)



Source: ONS

Around 31% of households in Leeds do not own a car

And in others car owning households are the minority

Episode IV A NEW HOPE

On Planet Earth the car has taken over.

Only narrow corridors at the side of one or two roads on the edge of cities remain safe. Then just as hope seems lost, someone suggests this all seems unnecessary

Huge redundancy

- Stationary 95% of the day
- 33% of cars do not move on any given day
- 14% of cars is the maximum of the fleet on the move in the peak

https://www.eceee.org/library/conference_proceedings/eceee_Summer_Studies/2019/6-transport-and-mobility/a-week-in-the-life-of-a-car-a-nuanced-view-of-possible-ev-charging-regimes/2019/6-272-19_Mattioli_Presentation.pdf/

<https://www.creds.ac.uk/publications/where-now-where-next/>

62%

of all car trips have a lone driver

1.55 occupied seats per car



36 million

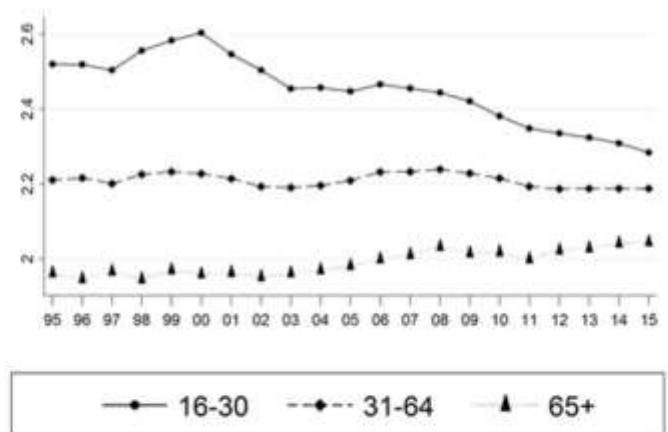
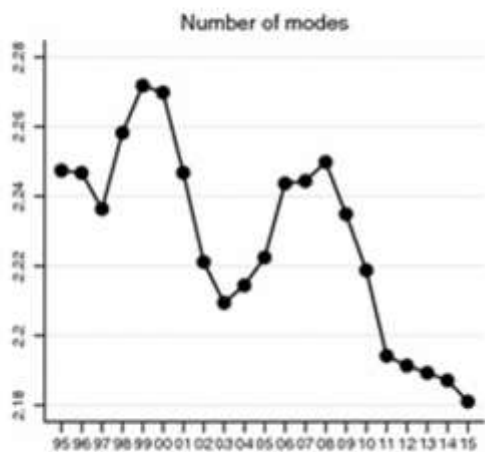
empty seats during the morning commute

1.2 occupied seats per car



No one is born 'a motorist'

Everyone is multi-modal



<https://link.springer.com/article/10.1007/s11116-017-9810-2>

'No motorists' is one vision of innovators



And there are lots of new options

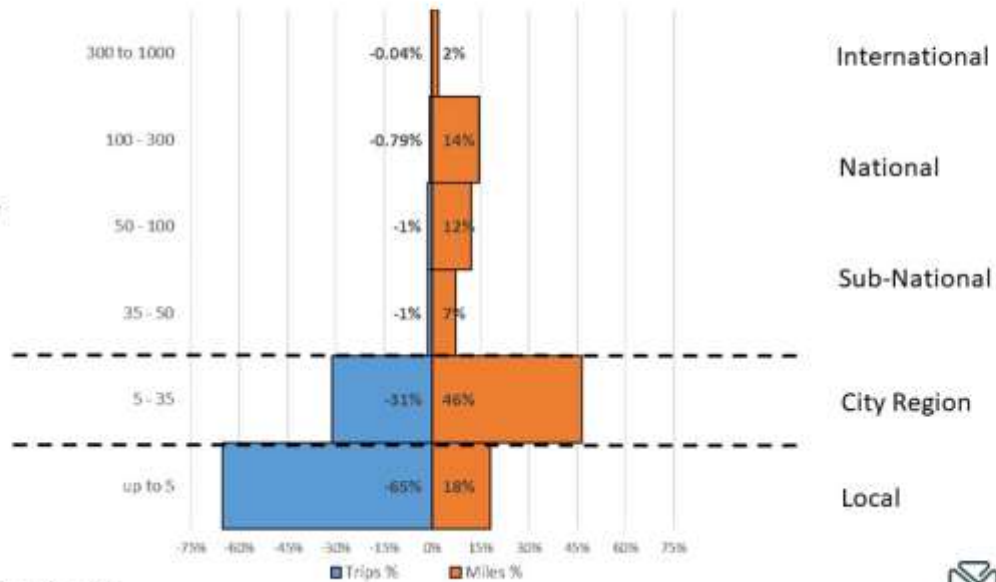
- E-mobility
- Shared access to vehicles



Scale as opportunity



Personal Travel by Car



Data from NTS: Analysis J. Anable

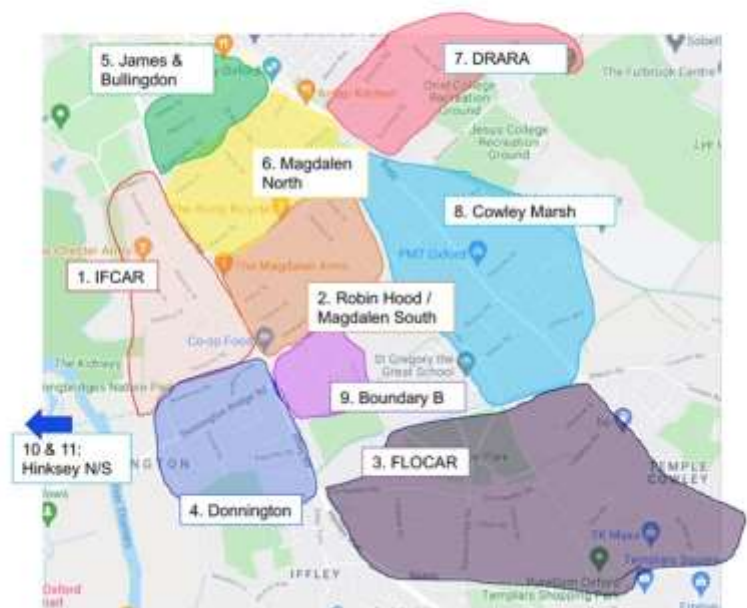


How do we create positive visions where many more people can imagine living without OWNING a car?



At what scale should we think/act?

- Closed Loop Peer to Peer Car Sharing in Iffley Oxford (Emma Kerr & Hiyacar)



Why is this something Leeds CC needs to be doing?

- Have to move fast
- Can't expect market to deliver
- New 'bargain' with citizens and businesses
- Will require further change from national government
- Social, economic, industrial and environmental opportunity

But – you can't change system of automobility just by adding things to it



To Own or To Access – That is the Question

SHARED OWNERSHIP		CAR OWNERSHIP (new car)	
1 year Metro Card for rail and bus:	£1,250	Depreciation @33%:	£5,270
Car Club Membership: Approximately (per year)	£50	Car Tax:	£135
Car Club trip (2 per week): (per year)	£1,200	MOT:	£50
		Maintenance (tyres & service):	£489
		Insurance:	£806
		Fuel costs:	£825
TOTAL COST: £2,500		TOTAL COST: £7,575	
DIFFERENCE:		£5,075 SAVINGS PER YEAR	

Sources: Money Advice Service, RAC, Autocar, AA

Can we design a world without motorists?

If you always do what you've always done,
you'll always get what you've always got.
- Henry Ford

Insanity is doing the same thing over and over again
and expecting different results
- Albert Einstein