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# Vision & Validate and Internalisation in New Settlements

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April 2024





“Global warming, climate change and the devastating loss of biodiversity are the greatest threats humanity has ever faced.”

- King Charles III



# Championing Vibrant Communities

Place-based visions require a policy framework that puts the reduction of carbon at the heart of decision making.

- RTPi

“It means putting genuine sustainability at the centre of our business models, our analysis, our decisions and our actions.”

- King Charles III







# Vision & Validate's Contribution to Policy

- ✓ RTPI: led mobility elements of the Place-based Solutions to Net Zero Carbon Transport project. Facilitated all stakeholder workshops and synthesised findings and recommendations
- ✓ Vision & Validate: Developed the V&V approach through EU research project CREATE. This has been endorsed by various government and industry organisations such as CIHT and DfT
- ✓ DfT Decarbonising Transport – A better, greener Britain: This is based largely on the Vision & Validate approach and outcomes of the RTPI report
- ✓ CoMoUK Mobility Hubs Guidance: Contributor to the guidelines
- ✓ TCPA Garden City Standards for the 21st Century: Key contributor to Guide 13: Sustainable Transport
- ✓ Planning Policy: Key contributor to the transport section of the NPPF
- ✓ NLA Expert: Chair of the New London Architecture Expert Panel on Transport and Infrastructure
- ✓ Design Council





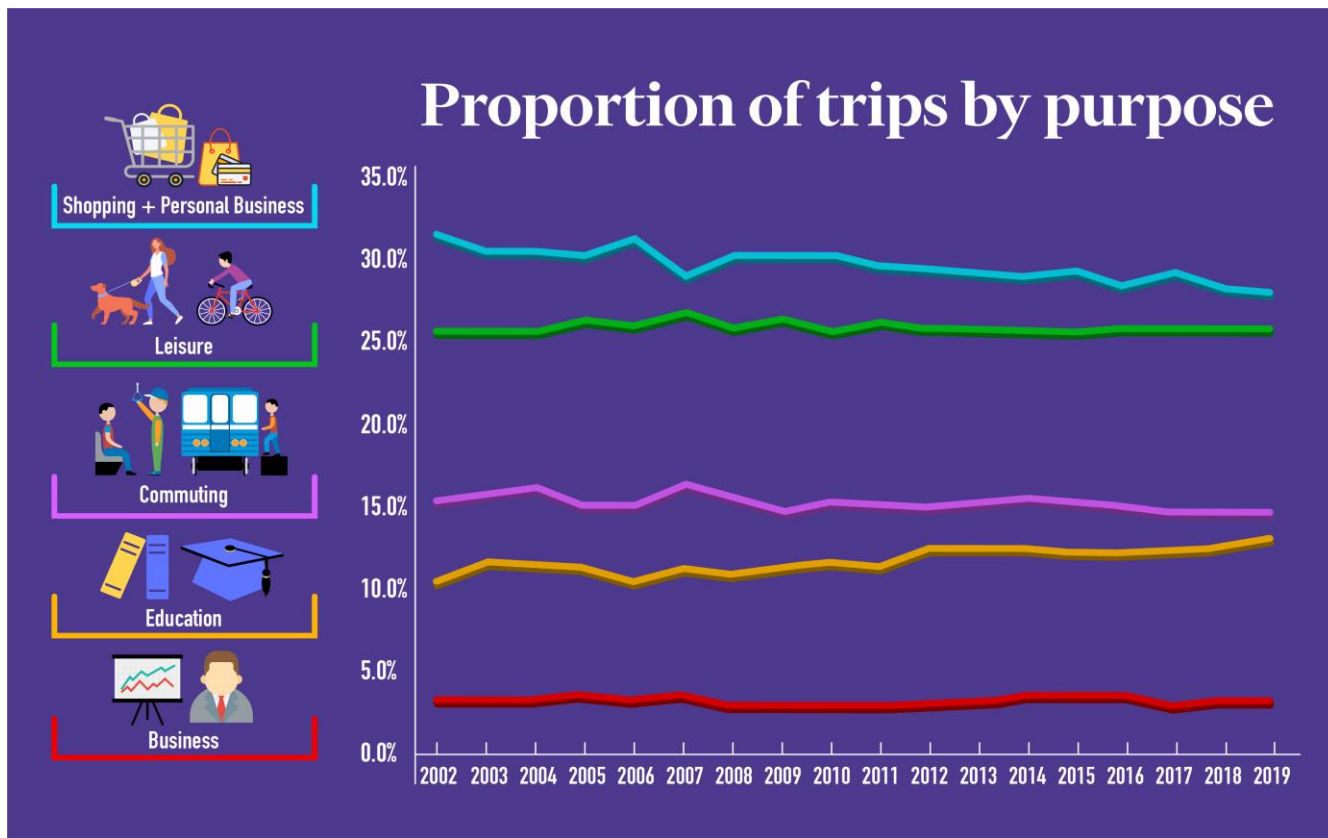


# Scottish Government Climate Change Plan





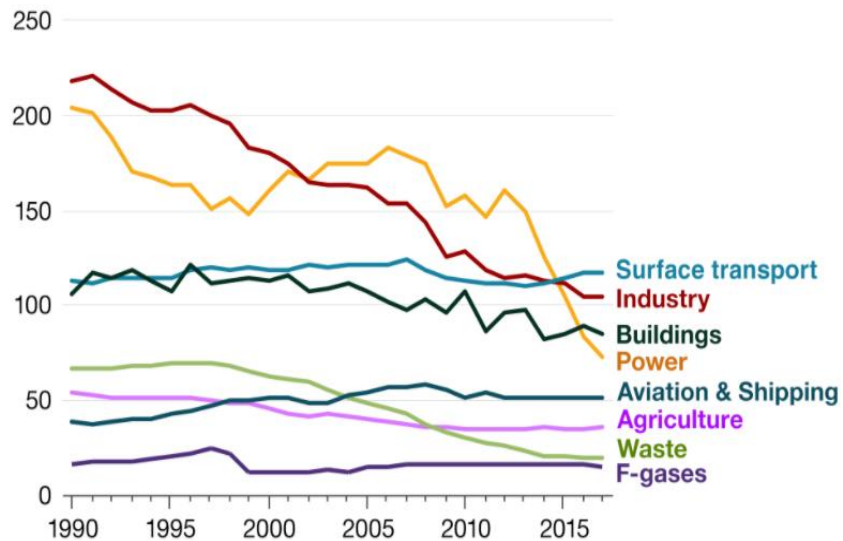
# Reasons for Accessibility





# Transport Contributions to Climate

Annual emissions, million tonnes of CO2 equivalent



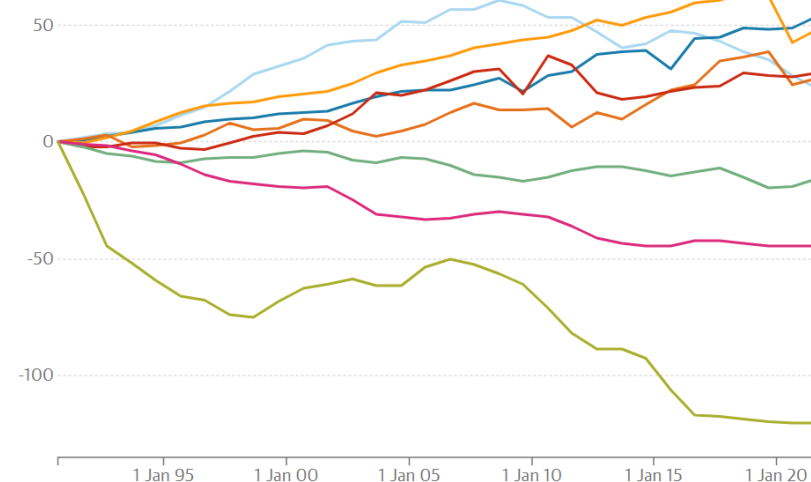
Source: Climate Change Committee/BEIS (2019)



## Percentage change in emissions, by sector

Showing for the year to December for each year

- Electricity
- Stationary energy excluding electricity
- Transport
- Fugitive emissions
- Industrial processes and product use
- Agriculture
- Waste
- LULUCF







# EU Transport Emissions



# 1.5 degrees

## Extreme Heat Waves Are Hitting More Often

In the past, a 1-in-50 year extreme heat wave would have a 2% likelihood of happening every year. As the climate warms, that kind of heat wave is likely to occur much more often.

Extreme heat wave event

### PAST (1850-1900)



### PRESENT



### FUTURE GLOBAL WARMING LEVELS





# Fit for 55

**EU: 'Fit for 55': Make the climate, energy, transport and taxation policies fit for reducing greenhouse gas emission by at least 55% by 2030**



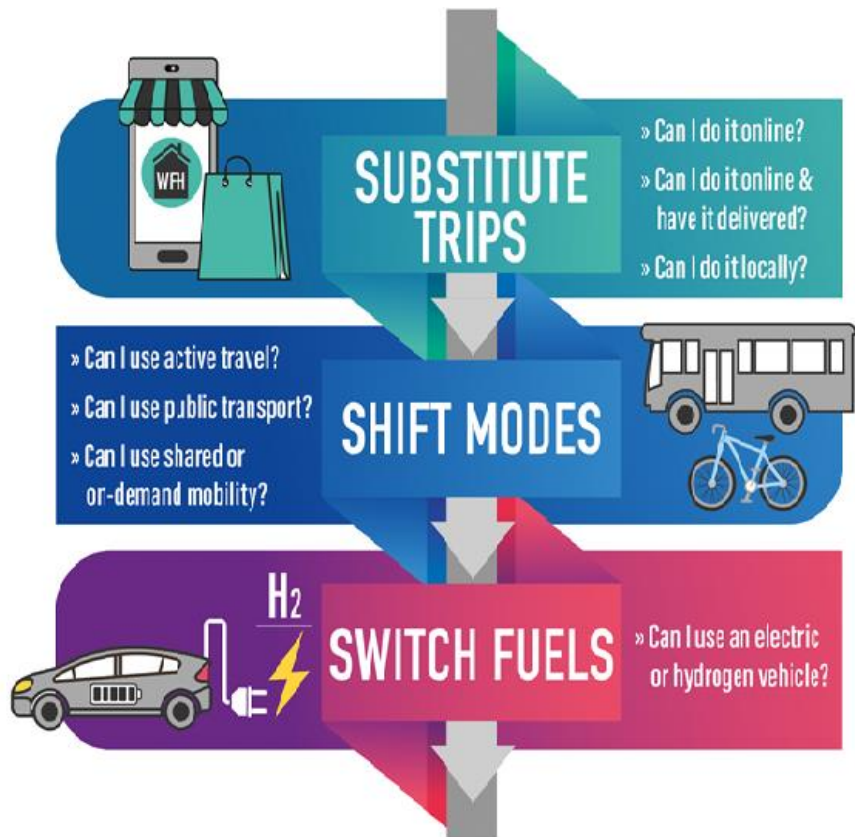


# Sustainable Accessibility and Mobility (SAM) Framework

Place-based approach can realise the swiftest reductions in emissions whilst creating better places and healthier, happier, more resilient communities. This is captured in the SAM Framework.

Guides planners and urban designers to prioritise interventions in the most effective way

1. **Substitute Trips:** Replace the need to travel beyond your community (**LOCAL LIVING**)
2. **Shift Modes:** For longer trips, use active, public and shared forms of transport
3. **Switch Fuels:** For any trips that must be made by car, ensure the vehicle is zero emission



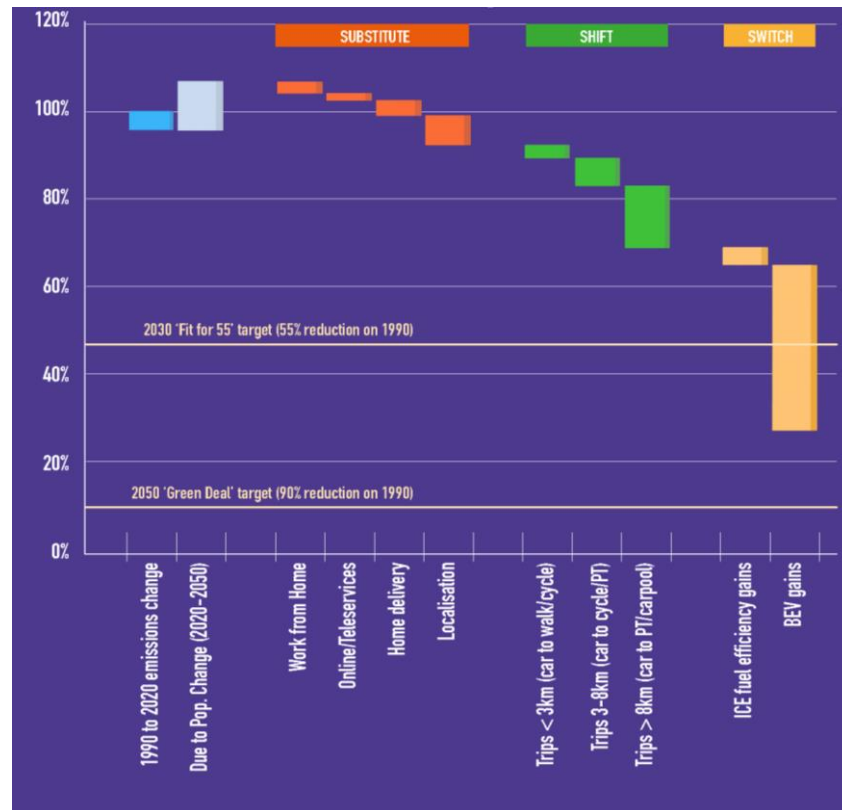


# Carbon reduction compared to 1990 levels

Based on assumptions of:

- ✓ improving local living by: 20%
- ✓ population growth of: 10%
- ✓ mode shift of: 20%
- ✓ expected trend in electric vehicles by 2050 if: 80%
- ✓ substantial take up of sustainable electricity generation

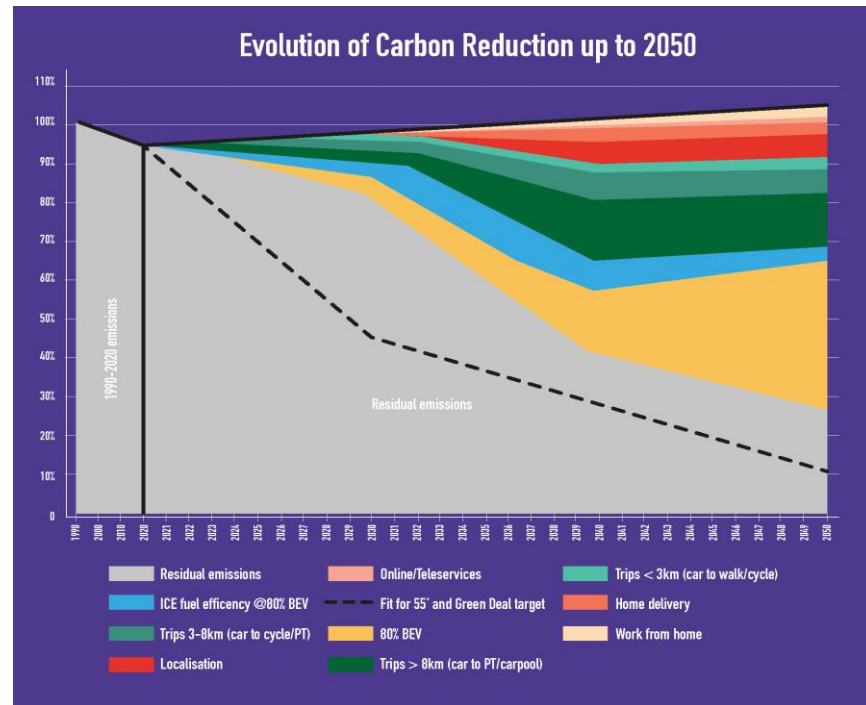
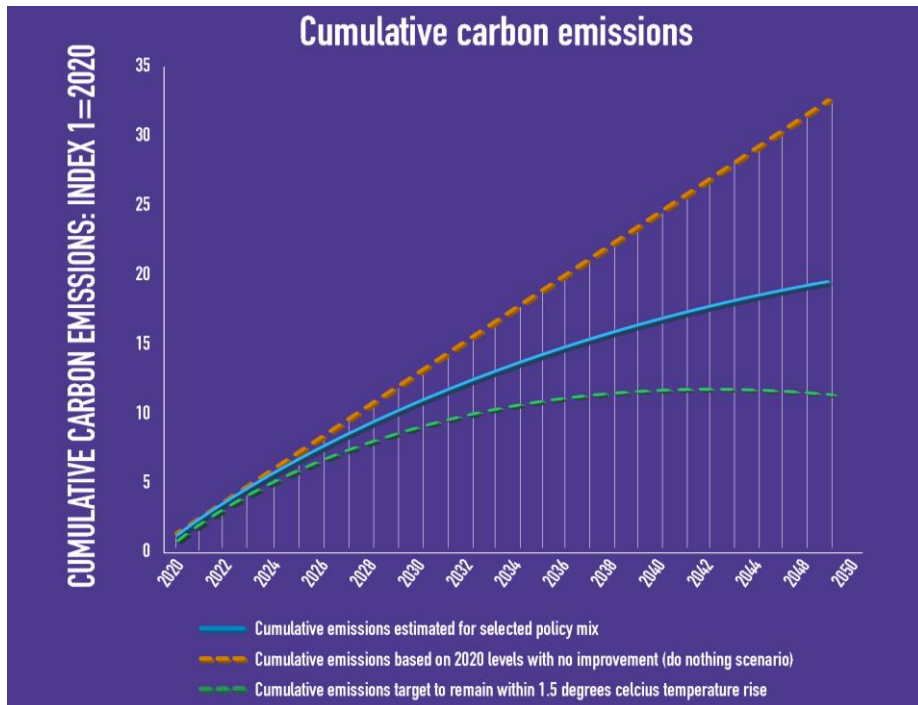
This shows how close we get to the 2050 transport target. It's not enough and we need to do more.







# Cumulative carbon emissions and evolution of reduction





# Fundamental law of demand

- ✓ Adding road capacity increases the total number of miles travelled by all vehicles.
- ✓ A 10% increase in capacity, means a 10% increase in vehicle miles, on average, and vice versa.

'**Vision and Validate**' was coined on the CREATE project





# Vision & Validate

*'Predict and Provide'*



- Road building
- Car parking
- Lower density
- Decentralisation

*'Vision and Validate'*



- Public transport
- Cycle networks
- Roadspace reallocation



- Public realm
- Street activities
- Traffic restraint
- ToD/mixed use developments

**1960s**

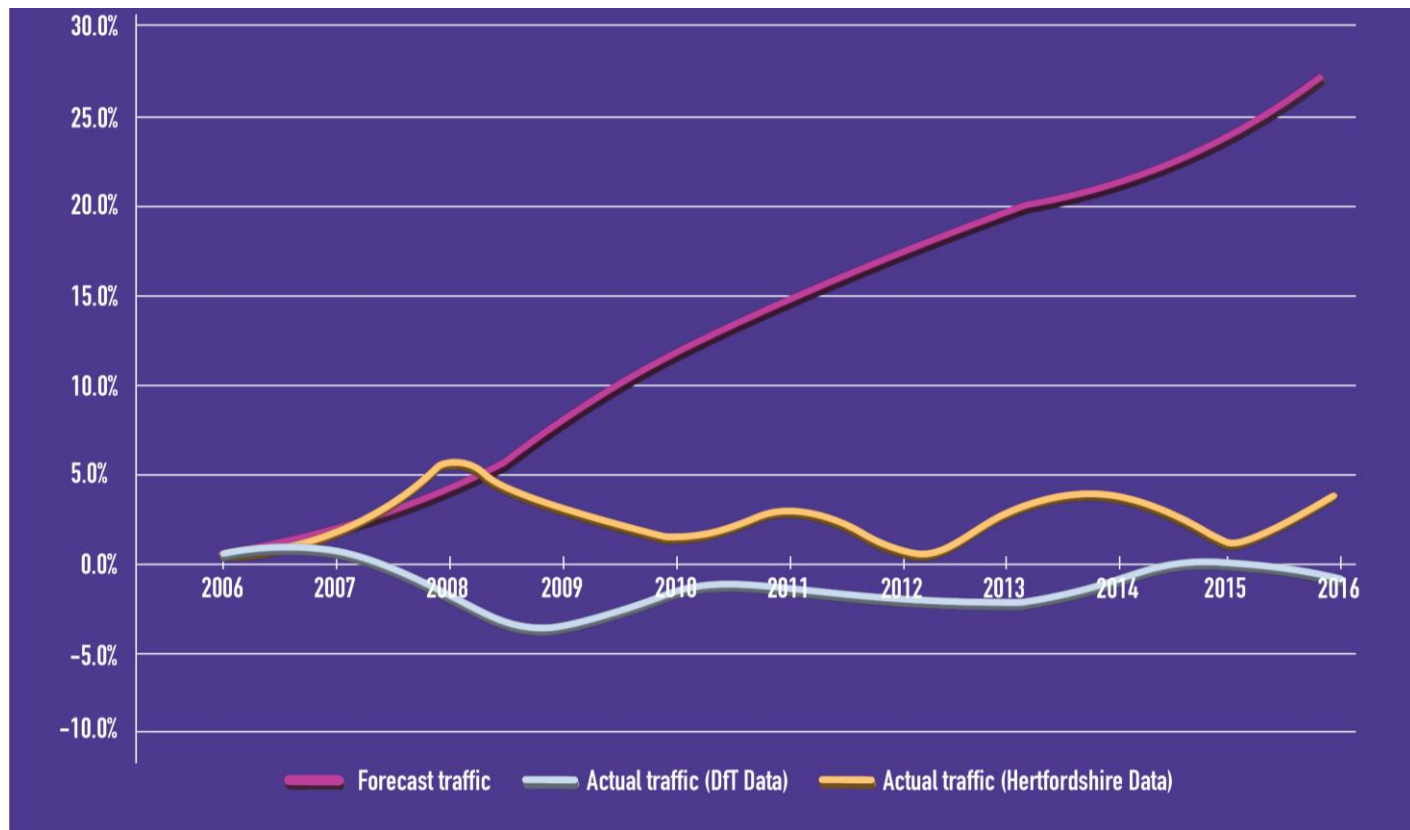


**2010s**



# Forecast vs Actual Traffic

Stevenage







# Intergenerational Mindsets

## Millennials

- ✓ Less interest in ownership – convenience is key
- ✓ Time and cost no longer sole factors in choice
- ✓ Most connected generation: social networks, sharing platforms
- ✓ Shared mobility 'for me'.
- ✓ 24% likely to use carpool
- ✓ 65% prefer a new smart phone over a new car



## Baby Boomers

- ✓ Value privacy
- ✓ Personalised mobility, owned 'by me'
- ✓ 5% likely to carpool







# Working From Home Trends

UK working from home



Pre COVID



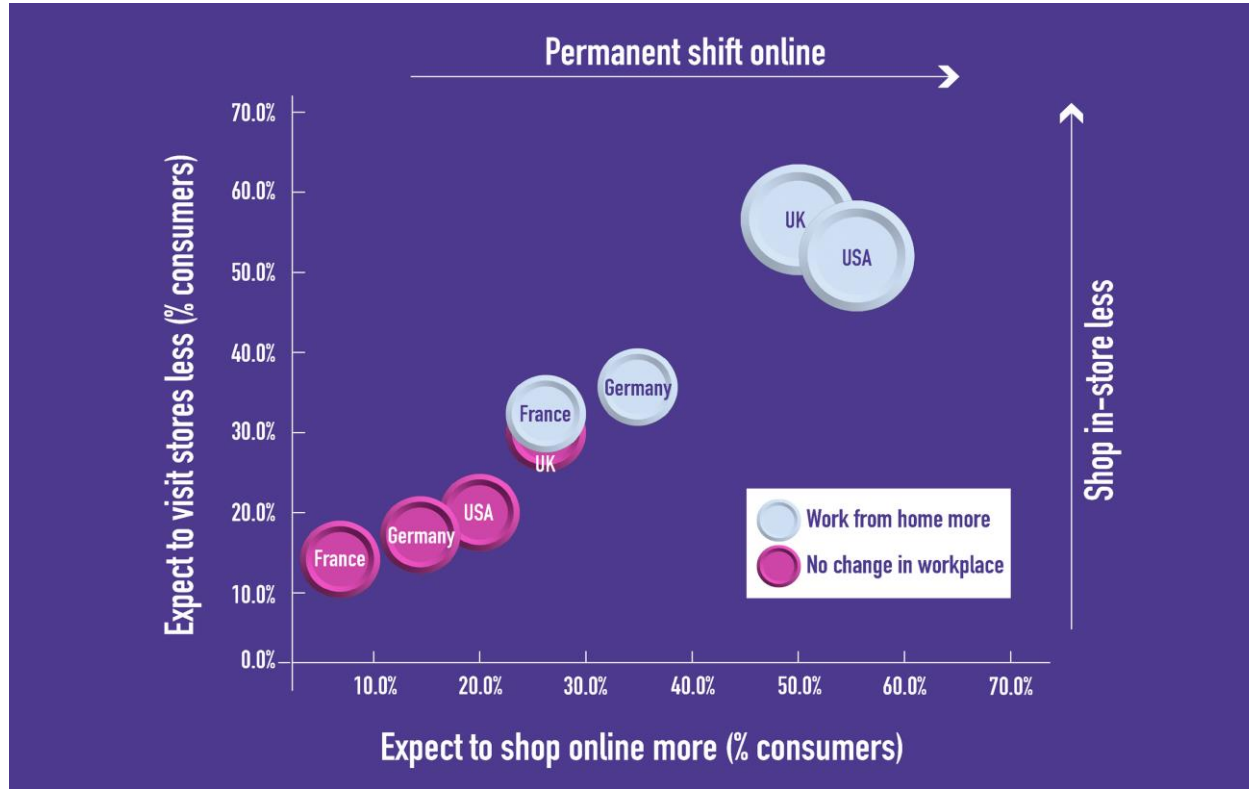
Post COVID

Some London Boroughs have up to 40% working from home post COVID





# Shopping & Delivery Trends





# Ground Drones





# Community Concierge







# Mobility Hubs

Primary, Secondary & Tertiary







# Active Travel Networks

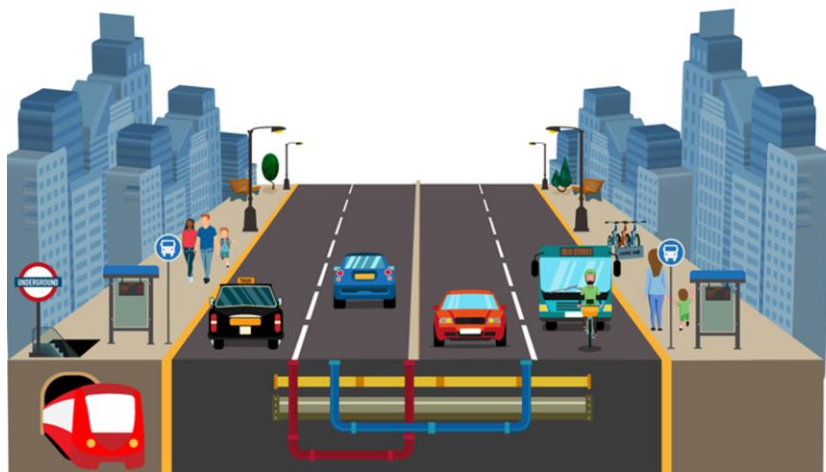




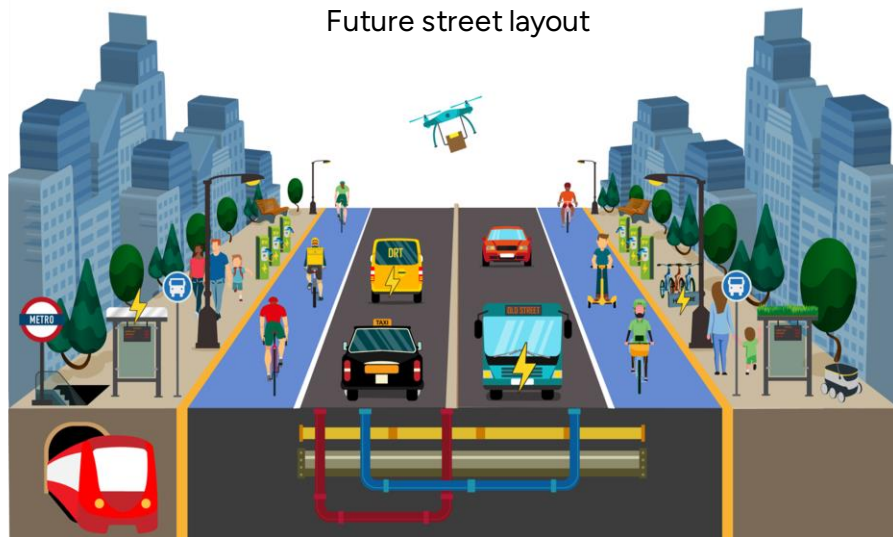
# Embracing change - MORE Project

Reallocation of road space for greater efficiency of movement  
Accommodation of new mobility services

Typical street layout



Future street layout



# Hartford Appeal

“It is not the purpose of the planning policy to prioritise and protect the convenience of the car commuter!”







# Silverstone Park

- ✓ Masterplan a business community
- ✓ Include a new social hub with leisure, shops, meeting places, gym, five a side football etc. to provide reason to stagger commuting journeys and spread the demand
- ✓ Engender a sense of community and pedestrian scale living on the site, including pool bikes for getting around the site, the option of Esprit (electric pods), activities, such as walks and rides
- ✓ Push car sharing on the Liftshare Gold Platform app
- ✓ Full time community concierge
- ✓ We appointed Sustrans to design cycle super routes to Buckingham and Towcester
- ✓ Some minor highway works





# Dunton Hills Garden Village

New Garden Village of 4,000 homes promoting sustainable travel choices, and contributing positively to climate change, healthy living and socially inclusivity.

**Our mobility strategy aims for 70% of movement to be internalised.**

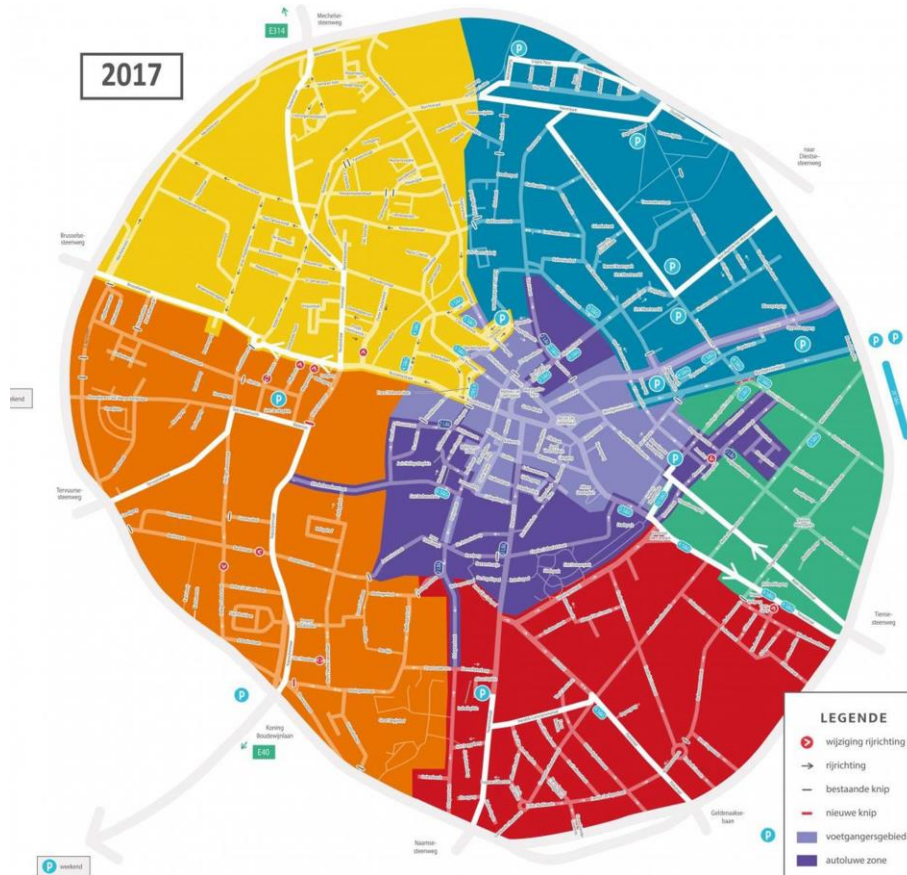




# Leuven

- ✓ Town split into districts
- ✓ Car use for short trips restricted
- ✓ Low car zones where active travel is priority mode
- ✓ Cycling mode share 41% in centre
- ✓ City of Oxford has plans to replicate
- = Vision and Validate approach

**“Meeting other people, seeing your neighbours, saying hello, asking someone to help you unload your luggage when it’s too heavy for you – that’s our vision. So choices are being made to make sure that’s possible again”**







# Making Changes

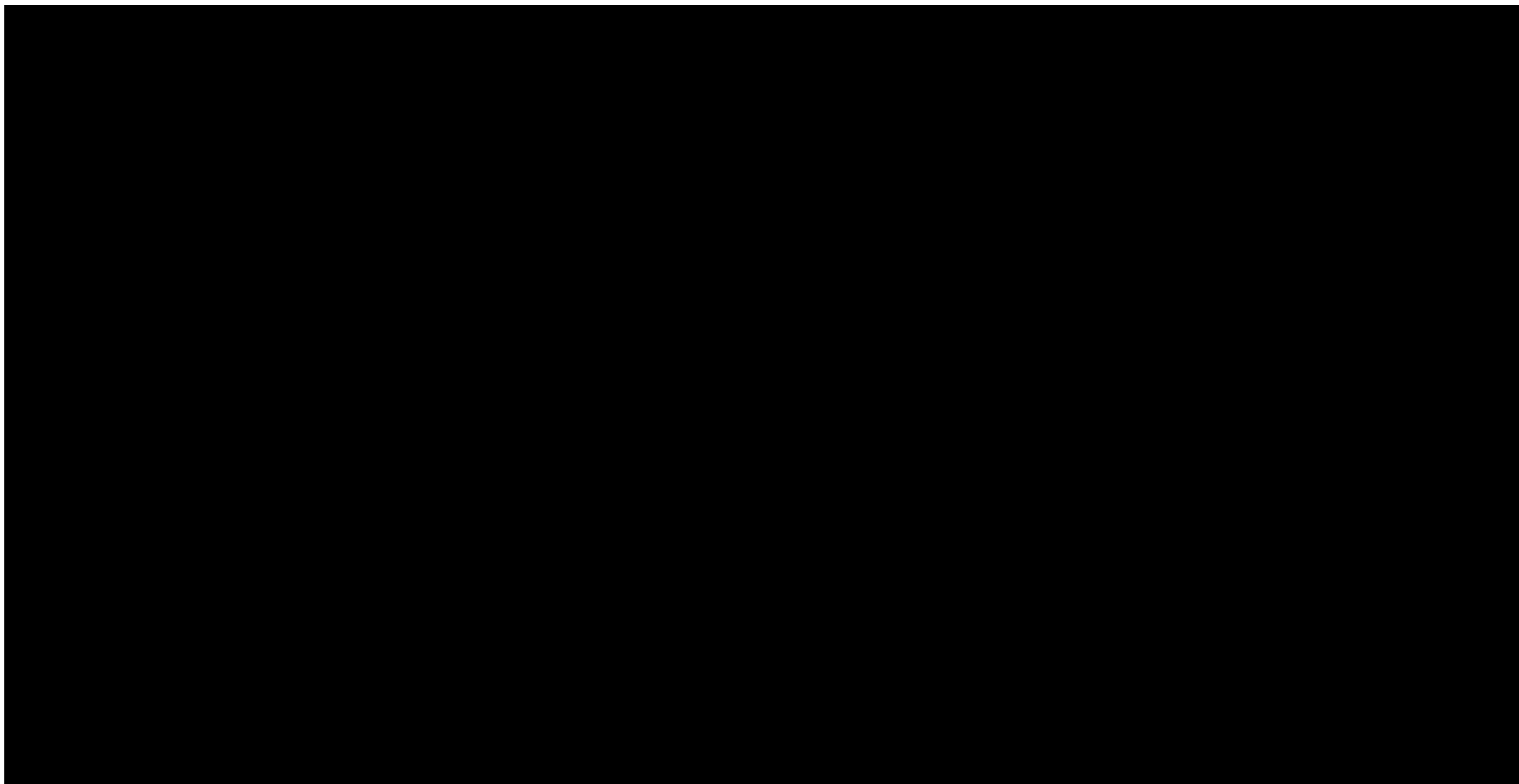
We cannot be afraid of new ideas, or trying out new ideas.

We cannot live in fear of the 'what if' mentality.

The opportunity that a V&V mindset, and less focus on old fashioned commuter traffic, affords us is a more flexible approach to delivery of accessibility measures.

We must use traffic models iteratively to inform, not as pass/fail arbiters.







Do you  
have any  
questions?



Making  
Sustainability  
Happen

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