

How walking and cycling can improve towns

1000-1100, 29 July 2020

Susan Claris, Arup

ARUP



FUTUREGOV

copper

 Grant Thornton



Terms & Conditions

- This document has been developed by the Towns Fund Delivery Partner, a consortium led by Ove Arup & Partners Ltd with our partners, Grant Thornton UK LLP, Nichols Group Ltd, FutureGov Ltd, Copper Consultancy Ltd and Savills UK Ltd (collectively 'we'). The content of this document is for your general information and use only.
- Neither we nor any third parties provide any warranty or guarantee as to the accuracy, timeliness, performance, completeness or suitability of the information and materials found in this document for any particular purpose. You acknowledge that such information and materials may contain inaccuracies or errors and we expressly exclude liability for any such inaccuracies or errors to the fullest extent permitted by law.
- Your use of any information or materials contained in this document is entirely at your own risk, for which we shall not be liable.
- This document contains material which is owned by or licensed to us. This material includes, but is not limited to, the design, layout, look, appearance and graphics. Reproduction is prohibited other than in accordance with the copyright notice which can be found at townsfund.org.uk
- Unauthorised use of this document may give rise to a claim for damages and/or be a criminal offence.
- This document may also include links to other materials, websites or services. These links are provided for your convenience to provide further information. They do not signify that we explicitly endorse these materials, websites or services.
- Your use of this content and any dispute arising out of such use of the content is subject to the laws of England, Northern Ireland, Scotland and Wales.
- For formal Government guidance on Towns Fund please visit gov.uk

Overview

1. Some background stats – transport and towns
2. Benefits of active travel
 - i. for towns
 - ii. for people living in towns
 - iii. for politicians
3. What can be done to improve active travel
 - i. make walking and cycling better
 - ii. discourage short car journeys/through traffic
 - iii. don't rely on the tech fix of transport

Discussion/Q&A



1. SOME BACKGROUND STATS

How we travel

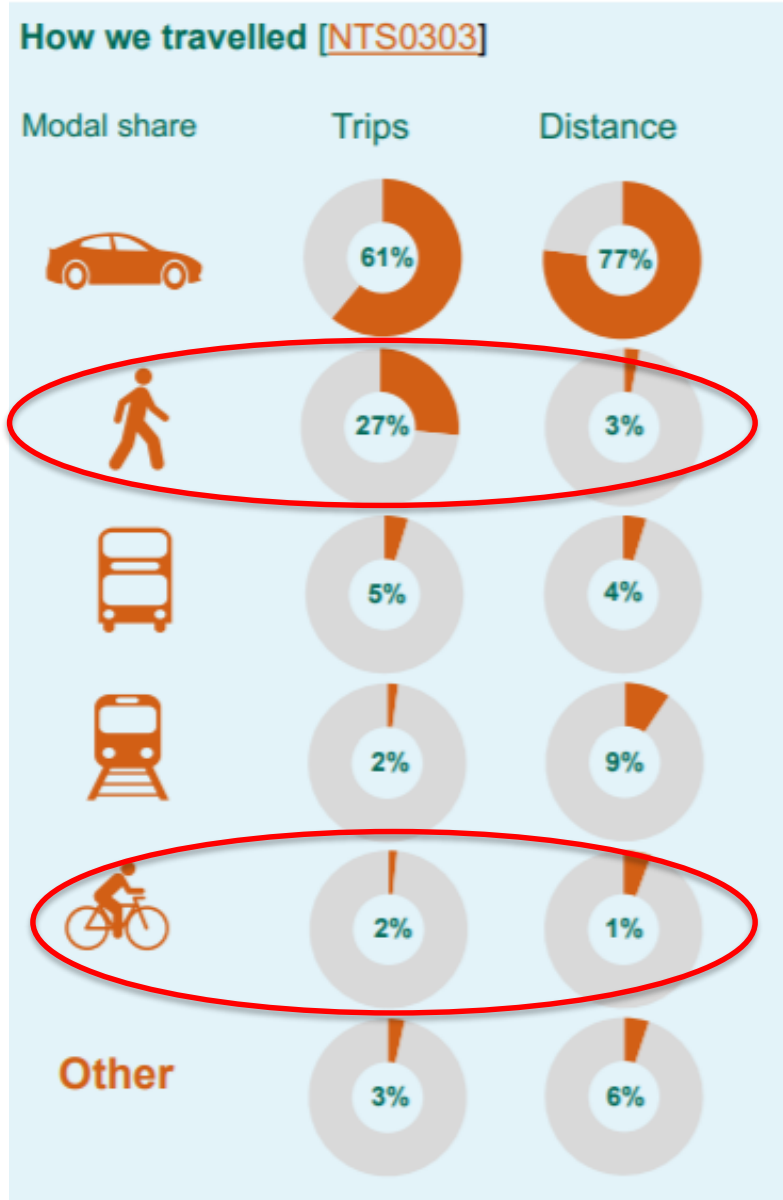
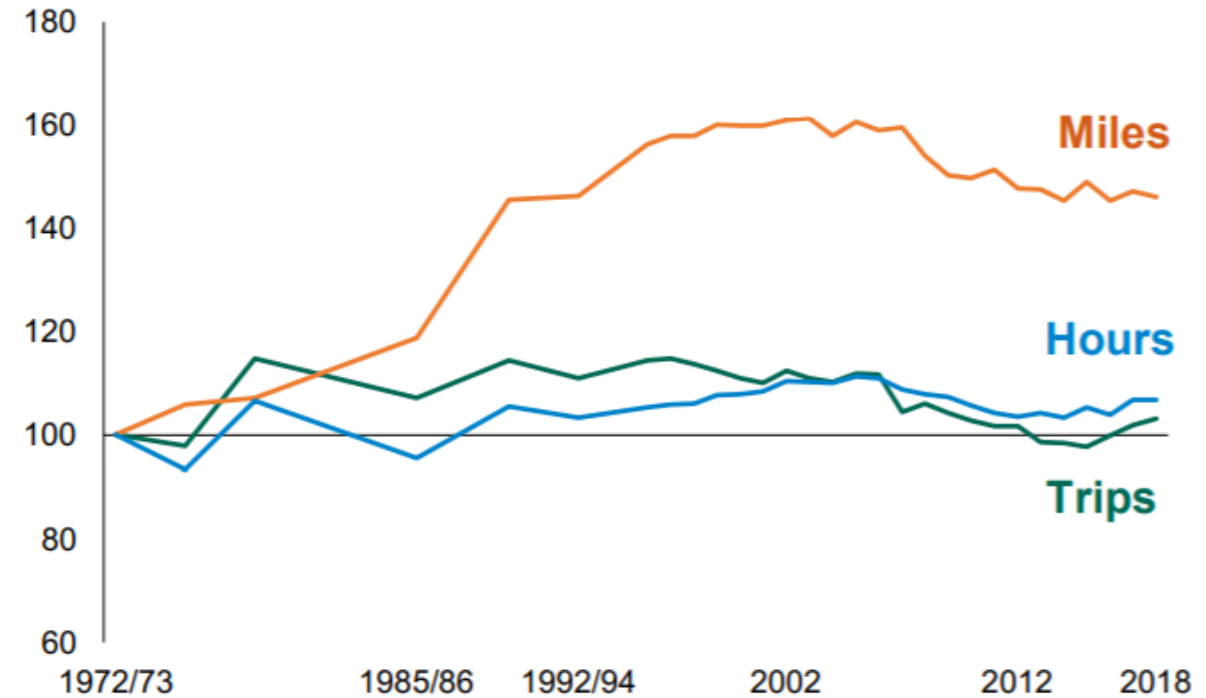


Chart 1: Trends in trips, miles travelled and hours spent travelling: Great Britain (1972/73-1988) and England (1989-2018) [NTS0101]

Index 1972/73 = 100



1972/73 (GB)

4,476 miles

353 hours

956 trips

travelled per person
per year on average

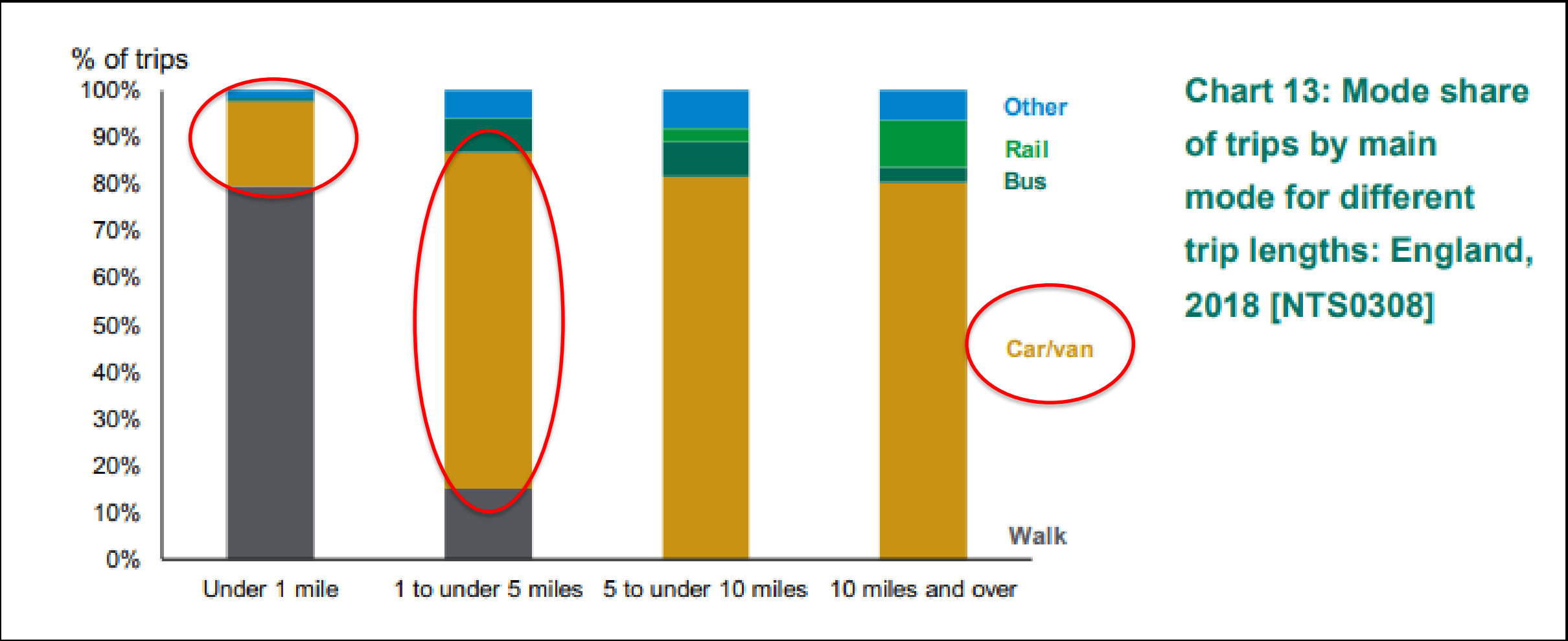
2018 (England)

6,530 miles (+46%)

377 hours (+7%)

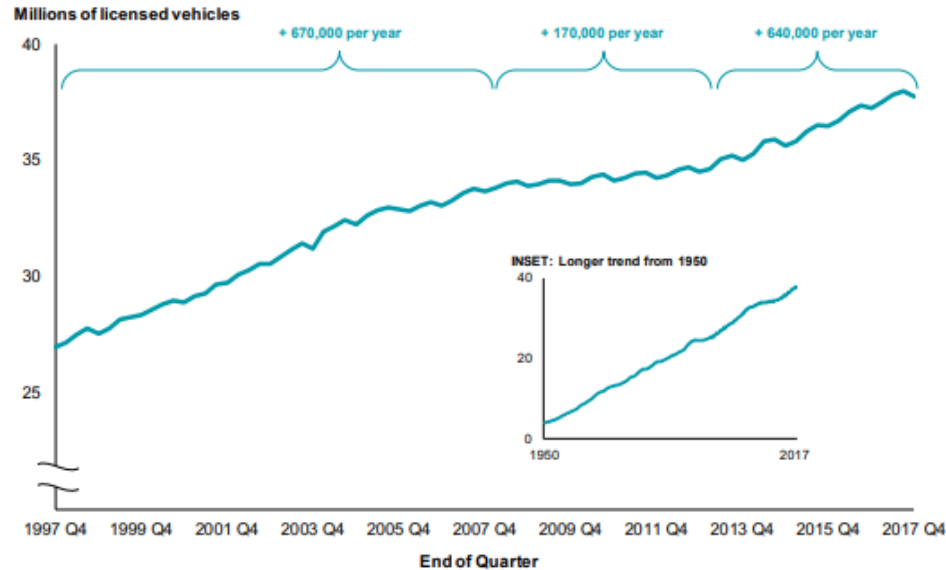
986 trips (+3%)

Most journeys are short: 25% under 1 mile, 68% under 5 miles

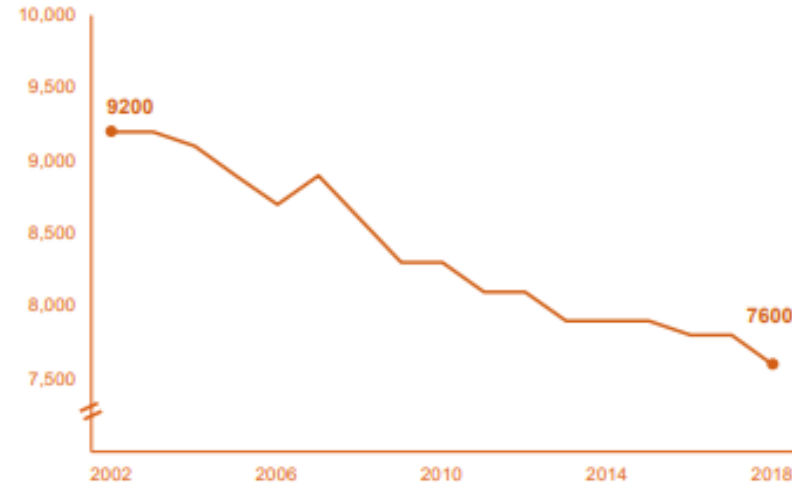


Cars: buying more, using less

Figure 3: Licensed vehicles in Great Britain, quarterly, 1997 Q4 to 2017 Q4



Estimated annual mileage

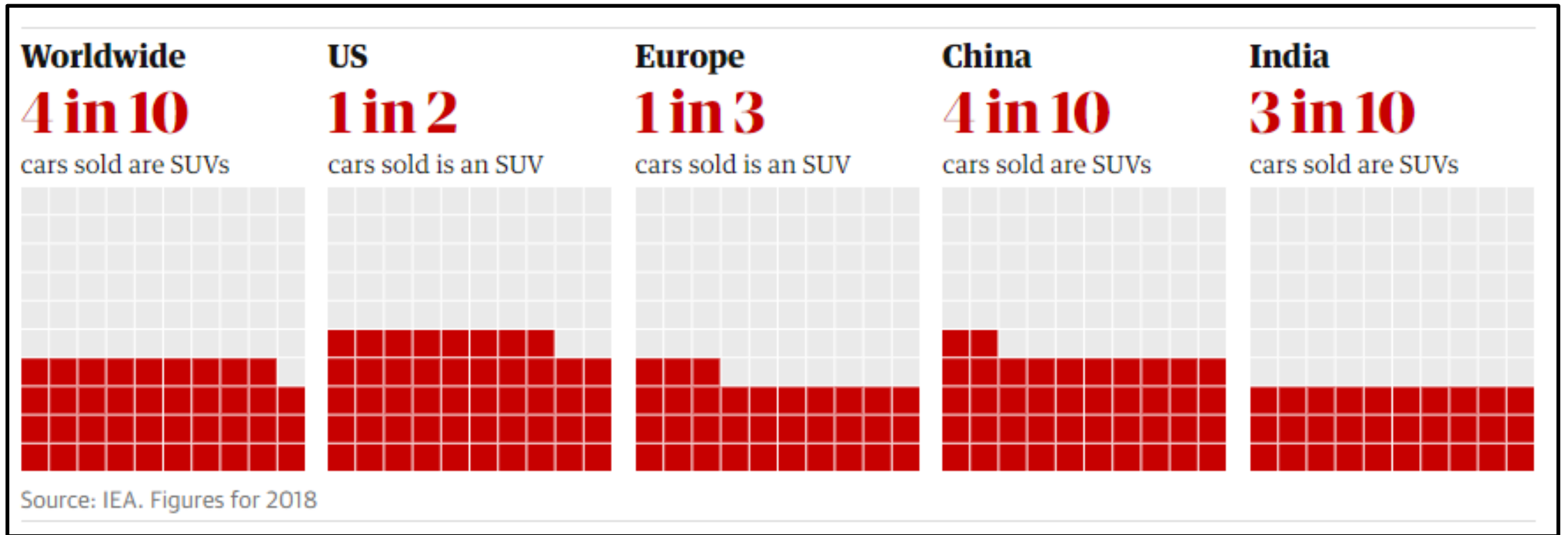


7,600 miles per car per household

an average of just over 20 miles per day

parked for the majority of the time

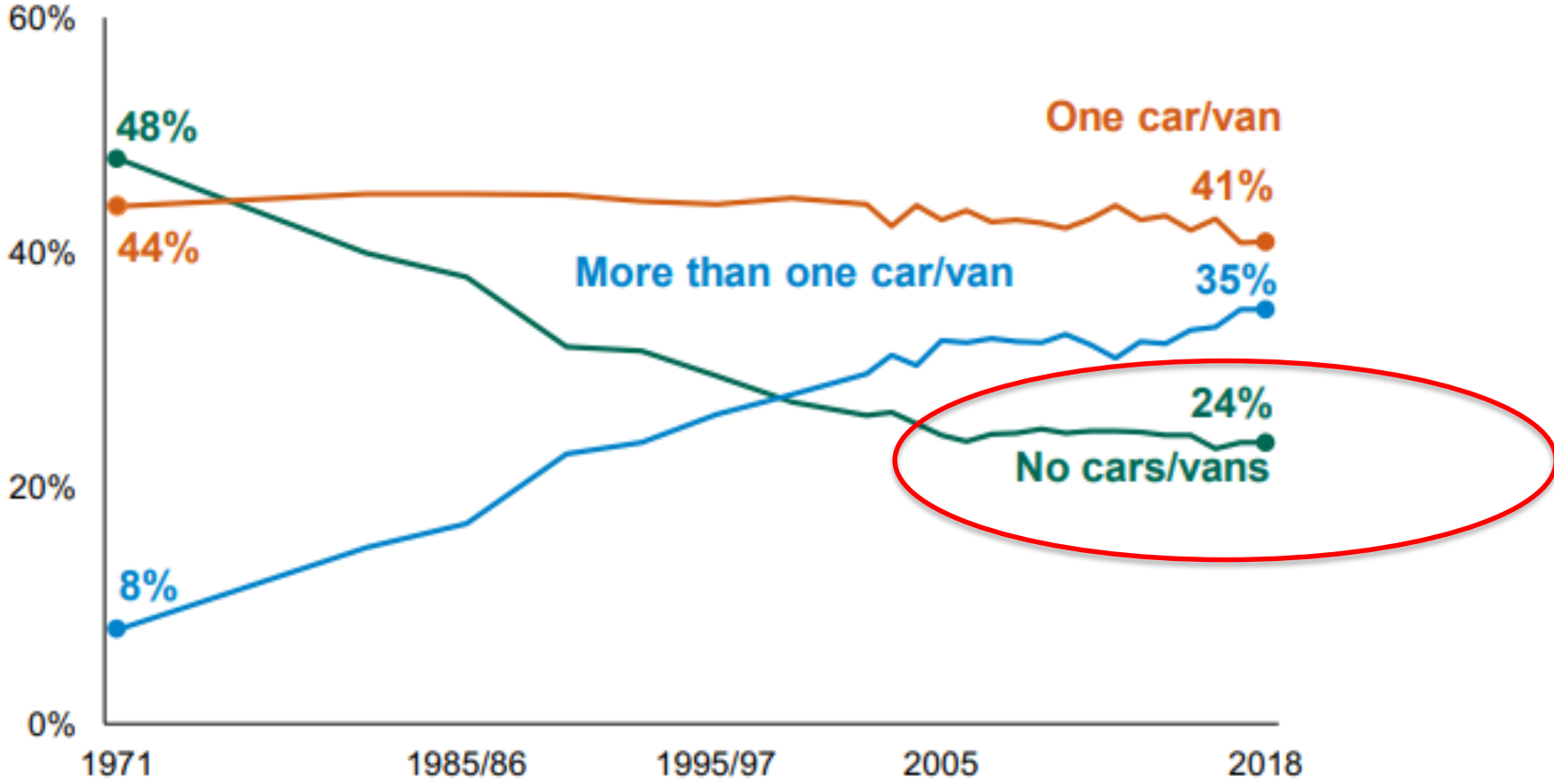
SUV sales



Space taken up on street, particulates, collisions, driver behaviour

Household car ownership

Chart 2: % of households with access to a car: Great Britain (1971-1988) and England (1989-2018) [NTS0205]



Most journeys are for leisure and shopping

Why we travelled [NTS0409]

The most common trip purposes were:



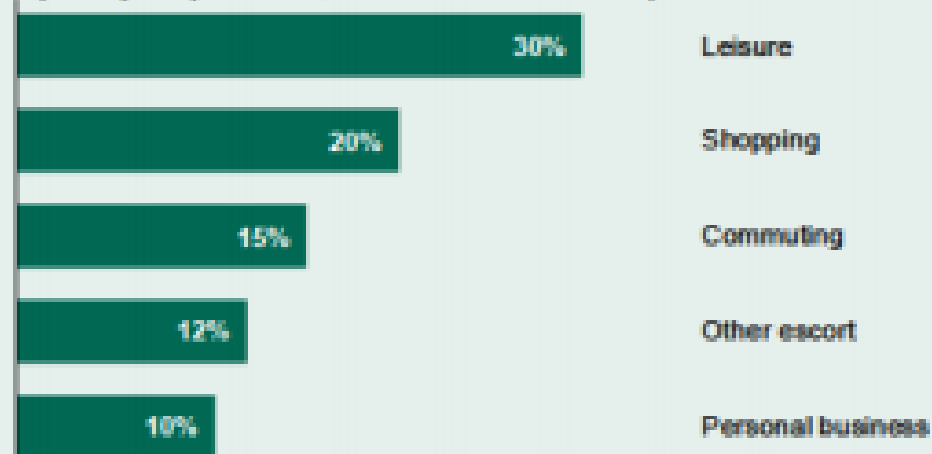
Leisure **26%**



Shopping **19%**

Purpose of car trips [NTS0409]

Top 5 purposes, as % of car trips: 2017



100 Towns: population and other data

- Population size: from 1.5k to 210k
- Population density: from 9 persons/hectare to 64 persons/hectare
- % age: 0-14 from 12% to 27% and 65+ from 10% to 33%
- Median house price (2019): from £58k to £300k
- Average travel time to nearest employment centre with 100-499 jobs by PT/walk: from 5 mins to 20 mins
- Average travel time to nearest food store by PT/walk: from 4 min to 10 mins

100 Towns: travel to work (2011 Census)

| Mode | From | To |
|--------------------------------------|--------------|-----------|
| <i>Car/van driver</i> | 20% | 49% |
| <i>Walk</i> | 4% | 21% |
| <i>Car/van passenger</i> | 2% | 11% |
| <i>Train</i> | Less than 1% | 14% |
| <i>Bus/coach</i> | Less than 1% | 12% |
| <i>Bicycle</i> | Less than 1% | 8% |
| <i>Light rail etc</i> | Less than 1% | 2% |
| <i>Other modes: taxi, PTW, other</i> | | |

100 Towns: household car ownership (2011 Census)

| Number of cars | From | To |
|-----------------------|--------------|-----------|
| <i>No cars</i> | 14% | 43% |
| <i>1</i> | 40% | 48% |
| <i>2</i> | 11% | 32% |
| <i>3</i> | 2% | 7% |
| <i>4+</i> | Less than 1% | 2% |

2. BENEFITS OF ACTIVE TRAVEL

- **for towns**
- **for people living in towns**
- **for politicians**

Economic benefits for high streets

Attractive public realm and more walking and cycling is great for the local economy

People who walk to high streets spend 40% more than car drivers

People who walk and cycle make more trips to their local high street per month

High street walking, cycling, and public realm improvements can boost retail sales by up to 30%




Economic benefits

People walking spend

40% 



more in town centres over the course of a month than car drivers




THE PEDESTRIAN POUND

▼

The business case for better streets and places

 **LIVING STREETS** 



Economic benefits for businesses in towns

People who walk to work report



greater job satisfaction

and wellbeing – which in turn leads to increased employee retention and reduced costs to businesses.

Source: Chatterjee, 2017

REDUCED ABSENTEEISM

Employees who are physically active take

27% ↓ 
fewer sick days than their colleagues

Source: National Institute for Health and Care Excellence, 2012

Social benefits for people living in towns

Reducing the speed and volume of traffic on residential streets supports more social interaction between neighbours

Low traffic neighbourhoods enable children to safely play out and walk, scoot or cycle to school

Parklets, seating and street trees provide public realm benefits for the whole community

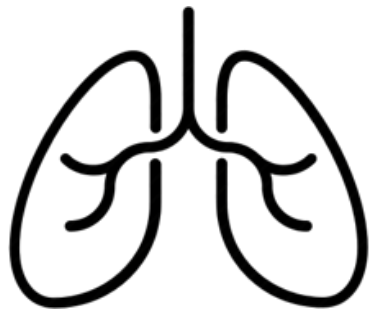
Low traffic neighbourhoods make local streets safer and healthier places for everyone



Health benefits for people living in towns

By creating safer streets, low traffic active neighbourhoods enable more journeys to be walked and cycled allowing residents to build exercise into their daily routines

Reducing the number of motor vehicles means lower levels of air pollution



Source: Mayor's Transport Strategy

Physically active people have lower health risks



Source:

Physical Activity Guidelines Advisory Committee Scientific report (2018); Department of Health & Human Services – USA

Financial benefits for people living in towns

| | | | | | | | | |
|---|--|--|--|---|---|---|-----------------------------------|-----------------------|
| Transport £80.20 per week (13.7%) | | | | Housing(net)2, fuel and power £79.40 per week (13.6%) | | | | |
| Other expenditure items £77.20 per week (13.2%) | | | | Food and non-alcoholic drinks £61.90 per week (10.6%) | | Restaurants and hotels £51.30 per week (8.8%) | | |
| Recreation and culture £76.90 per week (13.1%) | | | | Miscellaneous goods and services £45.50 per week (7.8%) | Household goods and services £40.80 per week (7%) | Clothing and footwear £24.40 per week (4.2%) | | |
| | | | | | | Communica... £21.30 per week (3.6%) | Alcoholic drink,... ... | |
| | | | | | | | Health ... | Educ... ... |

Environmental benefits for people living in towns



Climate benefits

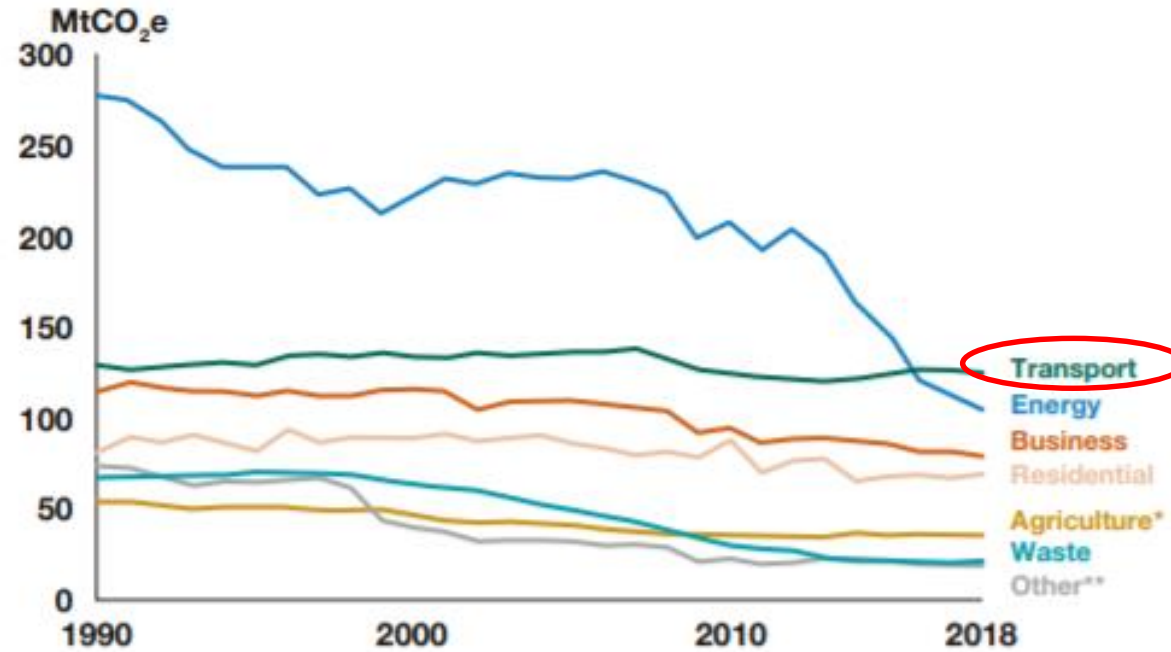
Active neighbourhoods enable people to use cars less, reducing carbon emissions

They create space for street trees, rain gardens and pocket parks which contribute to biodiversity, flood mitigation and create shade



Transport sector and carbon

Figure 2: UK Domestic GHG emissions, 2018



Transport became the largest emitting sector of GHG emissions in 2016

This follows large decreases in energy emissions while transport emissions have remained relatively static.

451 million tonnes of CO₂ equivalent (MtCO₂e)

is the total net domestic greenhouse gas emissions from all UK sectors in 2018, down 2.1% from 2017.

* Includes Land Use, Land Use Change and Forestry
 ** Includes Public and Industrial Processes emissions



Equality benefits



Public support

YouGov survey carried out for the BikelsBest organisation finds 77% of Britons would support changes in their local area to encourage more cycling and walking, despite protests by pro-motoring groups

People support measures for walking and cycling



Paris, Mayoral Election

15 minute city / neighbourhoods

Remove 72% of on-street car parking spaces

650km of post-lockdown cycleways

Re-allocate space for walking



BY
IDO VOCK

EUROPE 29 JUNE 2020

How Anne Hidalgo's anti-car policies won her re-election in Paris

The environmentalist mayor's shrewd political calculation is unique to the French capital.



Parisians ride bikes on the Rue de Rivoli, now closed to most traffic

FRANCOIS GUILLOT/AFP VIA GETTY IMAGES

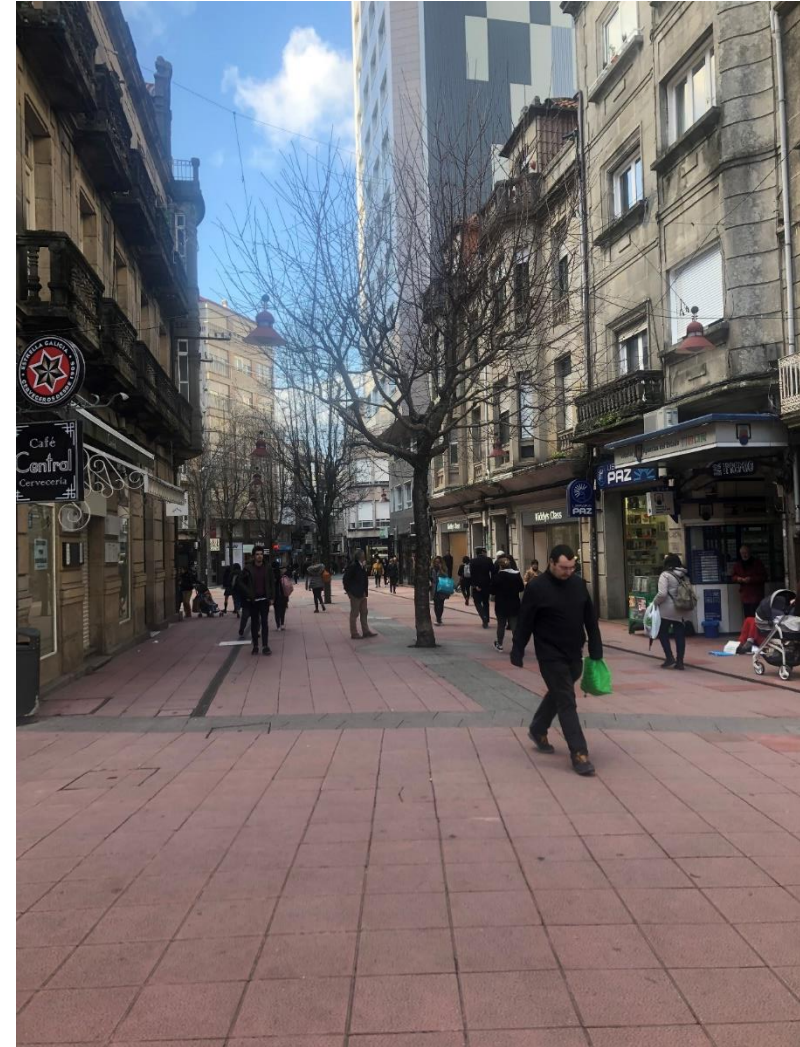
NewStatesman

Pontevedra, Spain

Population: 83,000

Miguel Anxo Fernández Lores has been mayor of the Galician city since 1999 – re-elected May 2019 for a sixth time:

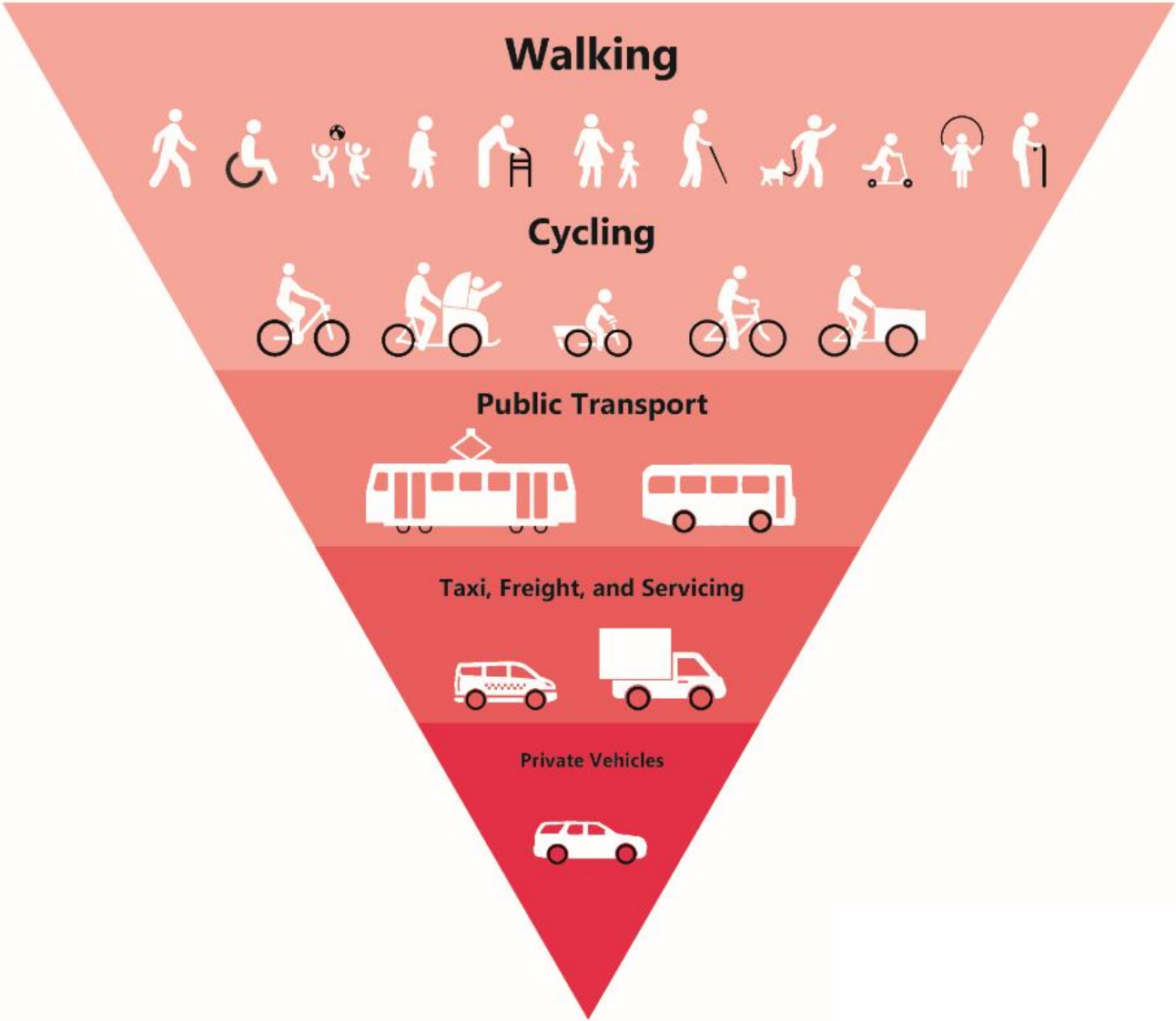
- Where 30 people died in traffic accidents from 1996 to 2006, none have died since 2009
- CO2 emissions down 70%
- Nearly three-quarters of what were car journeys are made on foot or by bicycle
- While other towns in the region are shrinking, central Pontevedra has gained 12,000 new inhabitants



3. HOW TO IMPROVE ACTIVE TRAVEL

- **make walking and cycling better**
- **discourage short car journeys / through traffic**
- **don't rely on the tech fix of transport**

Put people and active travel first



Develop a plan



Work collaboratively with key officers and stakeholders to develop a plan that works for the town

Recognise the **importance that small positive ‘quick wins’** can have in building public and stakeholder interest, trust in the process and momentum towards behaviour change

Look at **severance/barriers** for walking and cycling - junctions, roundabouts etc

Integrate with **public transport**

Trial measures

Active travel measures can lend themselves to trials - e.g. using cheap interventions such as concrete blocks or large planters

Trials can help allay fears and misconceptions and enable people to experience the benefits

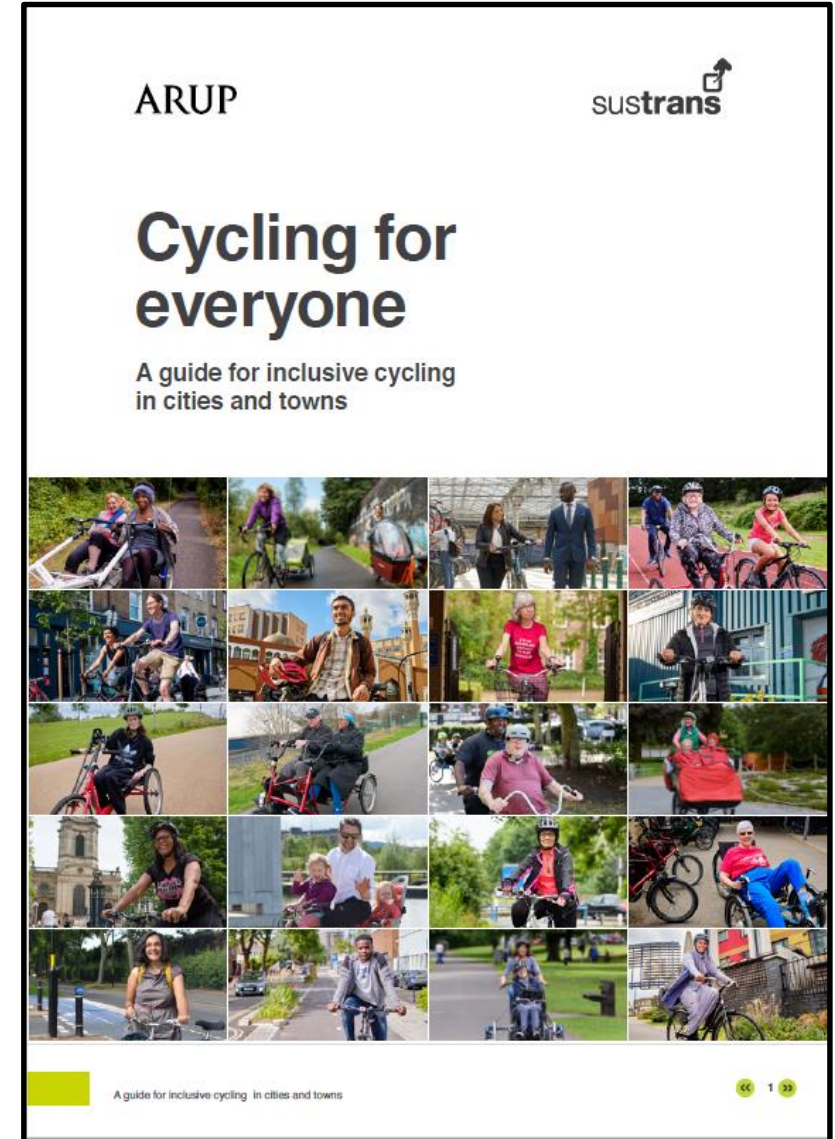
Trials enable plans to be refined and consulted on before a permanent scheme is designed and delivered



Be inclusive

Active travel needs to be planned and designed for all to achieve the transformational change in travel behaviour that is required to address climate, health, air quality issues etc

- I. Increase representation in governance, and embed inclusivity in walking and cycling strategies and plans
- II. Create better places for everyone to walk and cycle in
- III. Welcome and support all people to walk and cycle



15 minute neighbourhoods

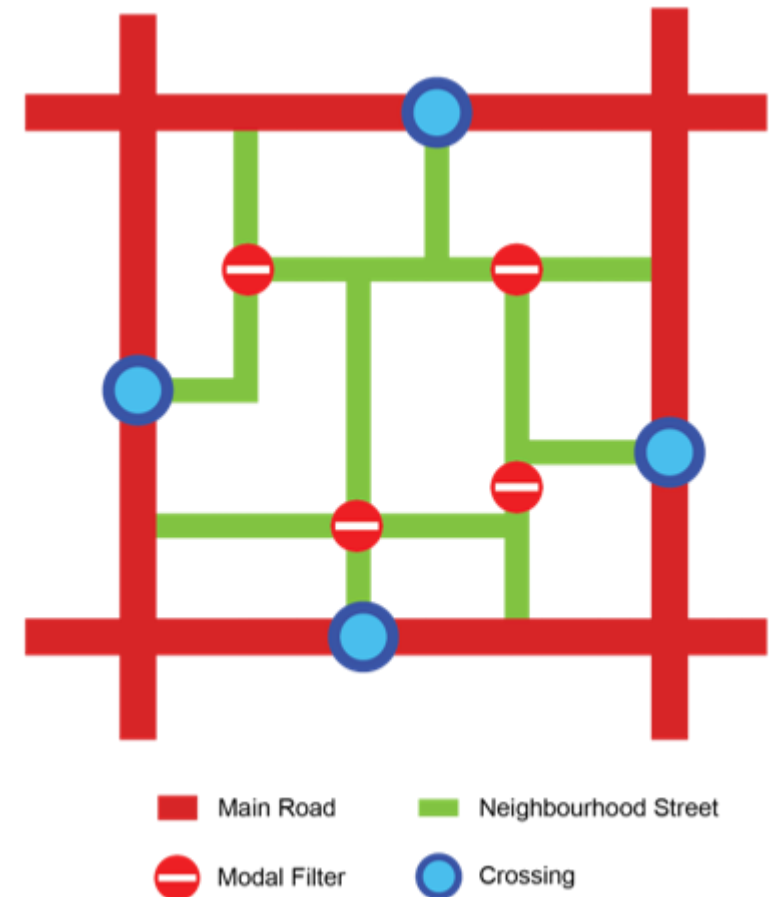
The screenshot shows the Financial Times website interface. At the top, the 'FINANCIAL TIMES' logo is centered, with 'myFT' on the right. A navigation bar below the logo lists categories: HOME, WORLD, UK, COMPANIES, TECH, MARKETS, GRAPHICS, OPINION, WORK & CAREERS, LIFE & ARTS, and HOW TO SPEND IT. On the right side of this bar are 'Sign In' and 'Subscribe' buttons. A yellow banner below the navigation bar contains a 'CORONAVIRUS BUSINESS UPDATE' with a sub-headline 'Get 30 days' complimentary access to our Coronavirus Business Update newsletter' and a 'Get the newsletter now' button. The main content area features an article titled 'Welcome to the 15-minute city' under the 'Life & Arts' category, with a '+ Add to myFT' button. The article's sub-headline reads: 'As the switch to home working makes us balk at the back-and-forth of commuting, a new vision of urban living is emerging'. To the right of the text are three circular images: a large aerial view of a residential area with a clock overlay, a smaller street map with a clock overlay, and another aerial view of a residential area with a clock overlay.

Low Traffic / Active Neighbourhoods

Simple, well-planned interventions create safe streets to enable walking and cycling for short journeys

Streets are “filtered” to keep through-traffic on main roads and restrict access to residents, deliveries, emergency services, etc

Interventions can include modal filters, cycle streets, rain gardens, parklets and new crossings



How to create an Active Neighbourhood

Modal filters prevent through-traffic while allowing vehicle access and walking and cycling

Crossings on main roads join areas, creating a wider network of safe routes for walking and cycling

Controlled Parking Zones (CPZs) can be used to discourage non-residents from using neighborhood streets for parking

Parklets in former car parking spaces, create space for other uses such as planting, seating, and cycle parking

Continuous footways and **protected cycleways** on main roads protect and prioritise people walking and cycling



High Streets: parklets (Liverpool)



Stopping transport gluttony

- using cars for very short trips
- the rising use of large vehicles in urban areas
- driver behaviours - excessive speed, driving through red lights, parking on the footway and engine idling



Don't rely on the technical fix: EVs

The take up of electric vehicles has been slower than was forecast

Early estimates (BERR report on scenarios, 2008): by 2020 there could be 1.55 million EVs on the road

Actual UK take up: approx. 315,000 EVs on the road (July 2020)
40% pure BEV, 60% hybrids

Table 3.3 Number of electric vehicles in the UK vehicle fleet (Source: BERR and DfT, 2008)

| Scenario | 2010 | | 2020 | | 2030 | |
|-------------------|------|------|-----------|---------|-----------|------------|
| | EV | PHEV | EV | PHEV | EV | PHEV |
| Business as usual | 3000 | 1000 | 70,000 | 200,000 | 500,000 | 2,500,000 |
| Mid range | 4000 | 1000 | 600,000 | 200,000 | 1,600,000 | 2,500,000 |
| High range | 4000 | 1000 | 1,200,000 | 350,000 | 3,300,000 | 7,900,000 |
| Extreme range | 4000 | 1000 | 2,600,000 | 500,000 | 5,800,000 | 14,800,000 |

EVs

Electric cars not attractive for most people in the UK

By Simon Browning
Transport producer

🕒 21 May 2019 🚩

[f](#) [🗨️](#) [🐦](#) [✉️](#) [Share](#)

Climate change



Air pollution

Air pollution could kill 160,000 in next decade - report

British Heart Foundation predicts current total of 11,000 particulate-related deaths per year will continue to rise



PA Media

Mon 13 Jan 2020 00:26 GMT

[f](#) [🐦](#) [✉️](#)

1,348 [🔗](#)

▲ The BHF wants the UK to abide by the WHO's stricter limits on air pollution. Photograph: Nick Ansell/PA

Don't rely on the tech fix: autonomous vehicles



What sort of streets do we want?



Some lessons from Milan

1. Take advantage of the unexpected
2. Experiment at speed
3. Private cars aren't the future
4. Activate the streets (put parklets everywhere)
5. You must sell the benefits
6. Be ready for some resistance



Milan – before and after



Funding

Department for Transport Funding

Feb 2020 - £5bn pledged for buses and cycling over 5 years

May 2020 - £2bn package for cycling and walking

Emergency Active Travel Fund

Tranche 1 – £45m – temporary projects

Tranche 2 – £180m – longer term projects – apply by 7 August

“Schemes that do not meaningfully alter the status quo on the road will not be funded.”



Obesity strategy

Department of Health & Social Care

Policy paper
Tackling obesity: empowering adults and children to live healthier lives
Published 27 July 2020

Coronavirus: GPs to prescribe cycling in new obesity strategy

© 26 July 2020

[f](#) [m](#) [t](#) [e](#) [Share](#)

Coronavirus pandemic



PA MEDIA

GPs will be encouraged prescribe cycling where appropriate

Department for Transport

Gear Change

A bold vision for cycling and walking



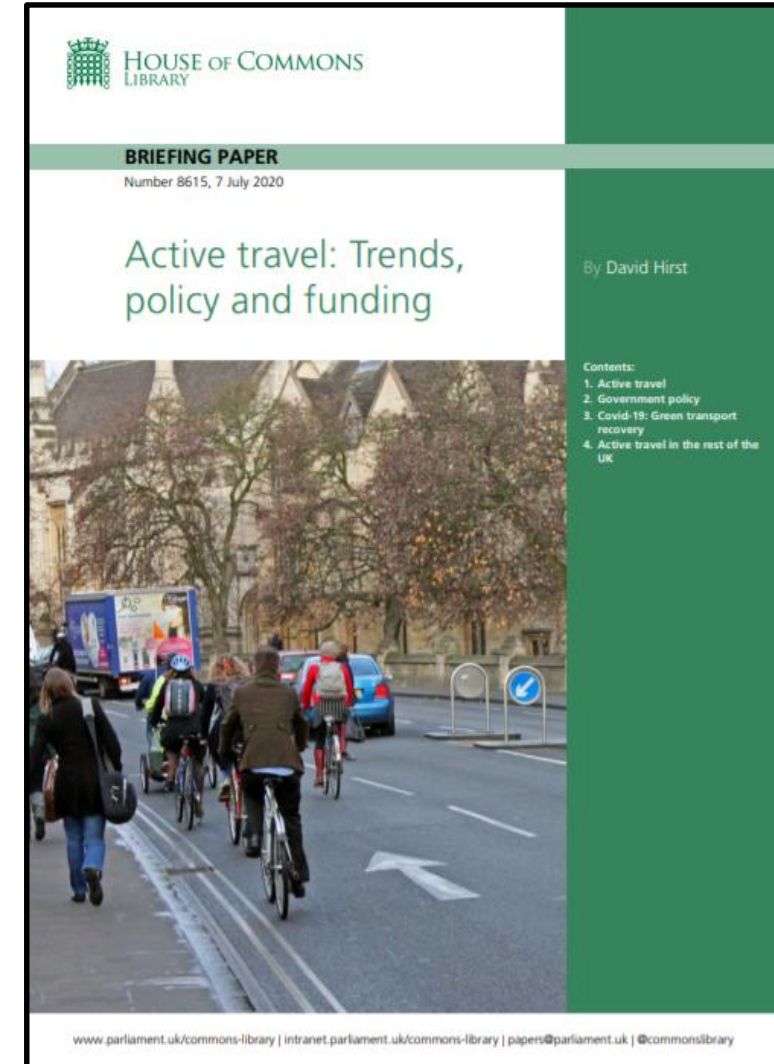
Active Travel Information

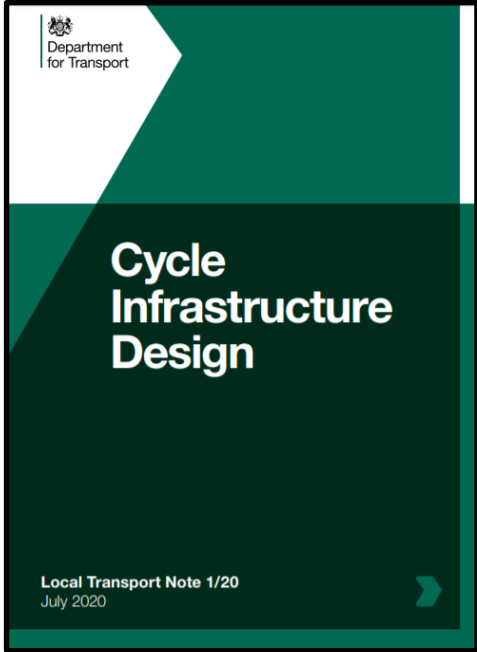
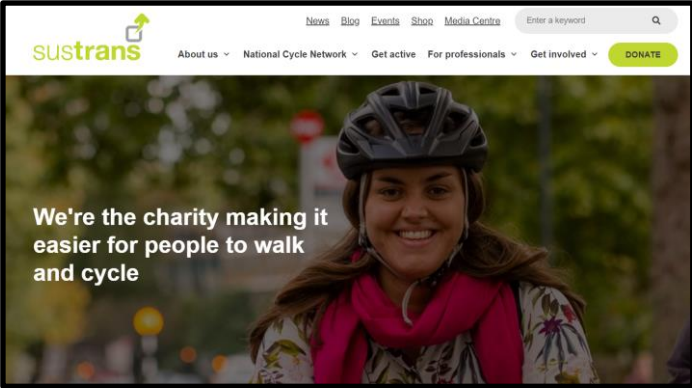
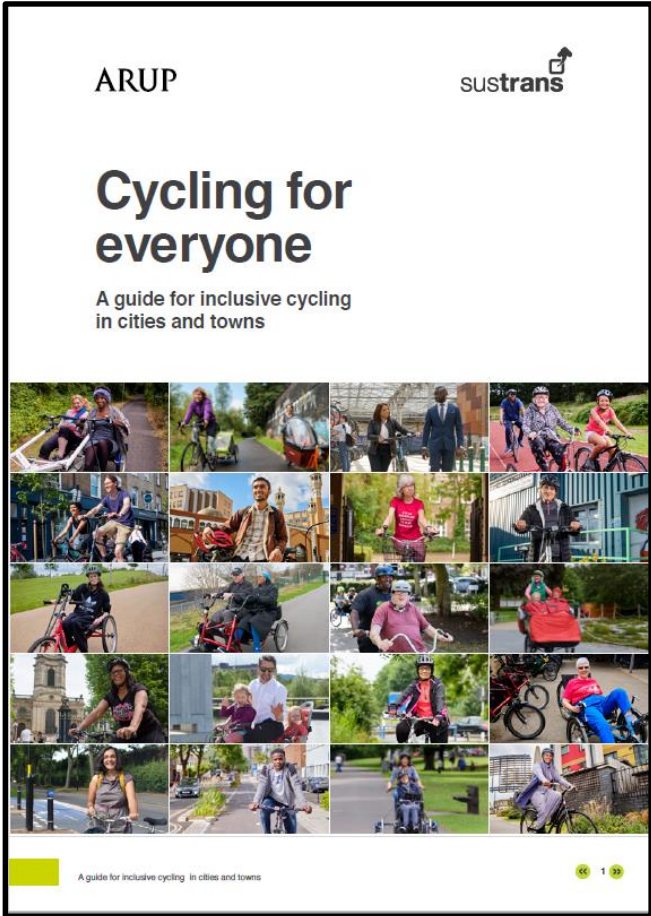
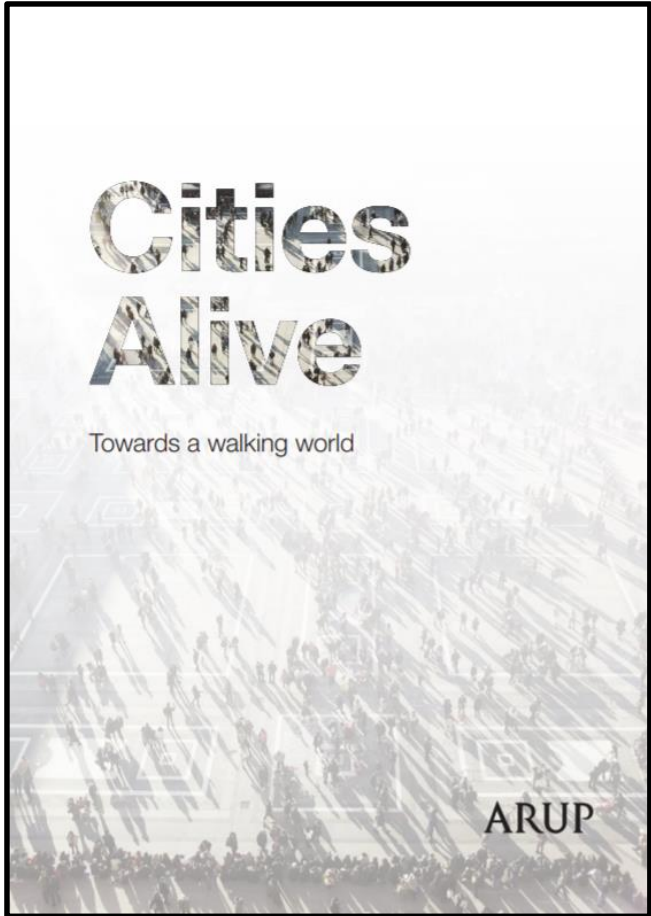
House of Commons Briefing Paper 8615

Active travel: Trends, policy and funding

Facilitating active travel

Not all towns and cities are designed to be conducive to active travel. Some 62% of adults aged 18+ in England agreed that “it is too dangerous for me to cycle on the roads” while busy roads may deter parents from letting their children walk to school. Thoughtful urban design, and creating integrated transport systems that promote walking and cycling, could encourage people to choose active means of travel.





Thank you & questions/discussion

susan.claris@arup.com

<https://www.arup.com/expertise/industry/walking-and-cycling>

Towns
Fund 
Delivery Partner