



# ECAC TRANSPORT WORKSTREAM PRE- READ

Place & Public Health

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8th September 2020



# ESSEX IN NUMBERS

**1.4** million  
population (2<sup>nd</sup> in  
England)

**1,300** miles of road

**12** districts

**4** main towns / cities: Basildon, Chelmsford,  
Colchester & Harlow

**4** strategic roads: M11, M25, A12 and A120

**4** major roads A13, A127, A130 and A414

**2** International Gateways: Stansted  
airport and Harwich sea port

**3** main rail lines from London + **1** tube line

**58** railway stations + **8** tube stations

**9** miles average commuting distance  
(2.5miles) above the national average

**60%** live in urban areas

**30%** live less 3 miles from their job

**150,000** commute into London daily

**806,200** cars

**6%** of traffic is HGV

**49%** Co2 emissions from transport

**9.59** bn vehicle miles travelled on roads

**10** AQMA sites

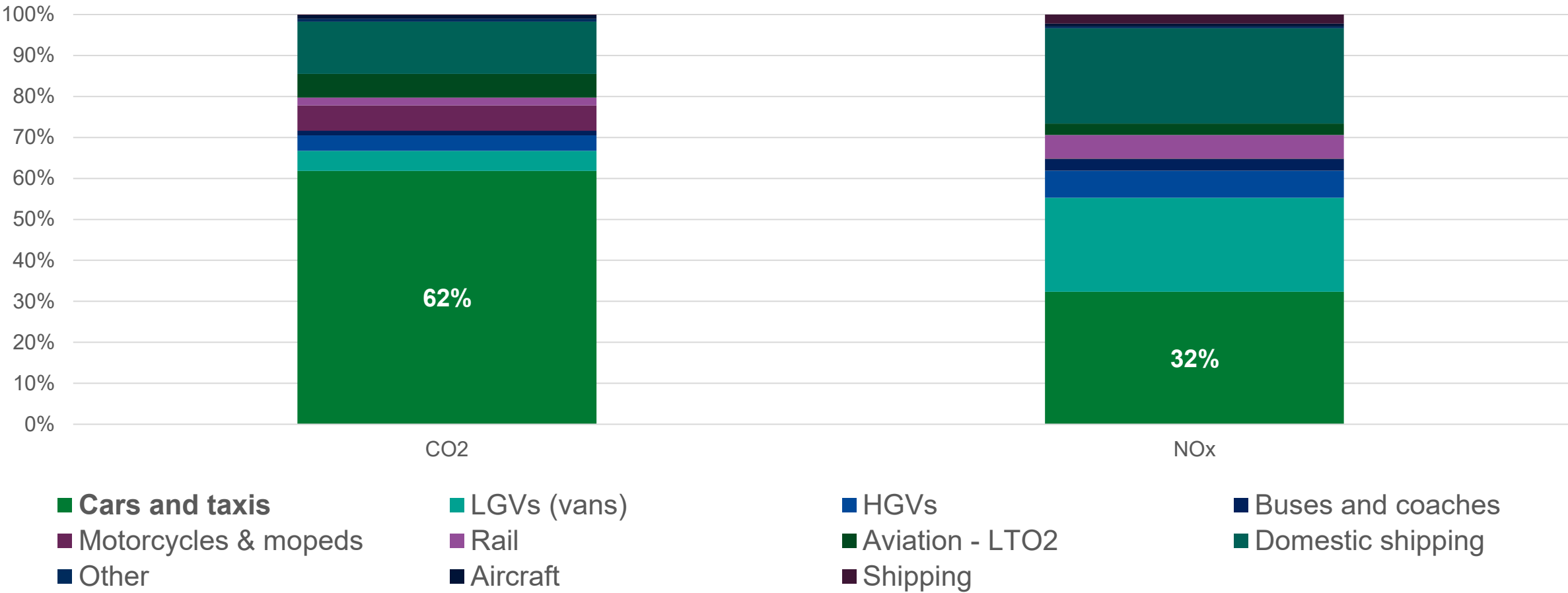
**60** public EV charge points

**3,636** electric /plug-in cars



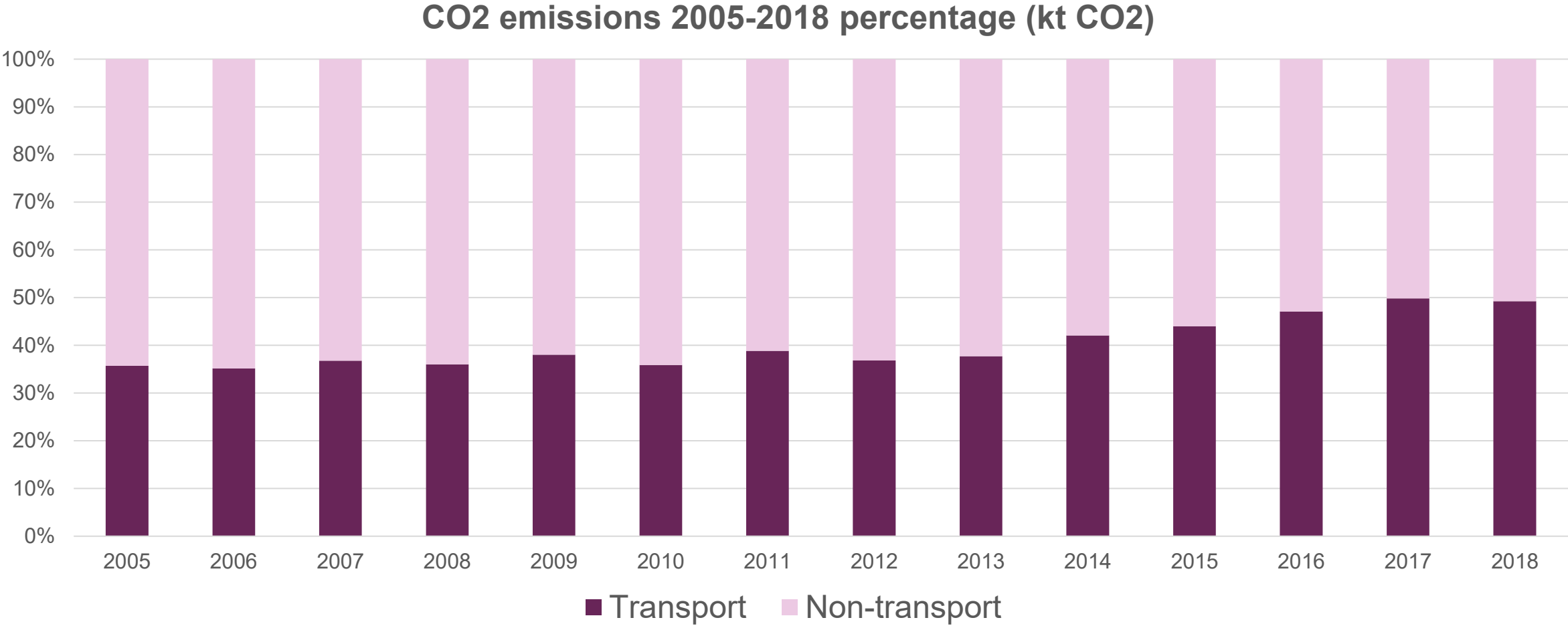
# 2017 UK EMISSIONS BY TRANSPORT MODE

CO2 and NOx Emissions by Transport Mode





# EMISSION FROM TRANSPORT IN ESSEX ARE INCREASING





# IMPACTS OF CONGESTION

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The UK ranked in the **top ten most congested countries** in the world, the third most congested in Europe behind Russia and Turkey (Inrix)



The average amount of **CO2 emitted by new cars has risen** for the third year in a row – by 2.7% to 127.9g/km (SMMT)



Direct and indirect **costs of congestion is £37.7 billion**, an average of £1,168 per driver. (IPPR)







People in the UK are **64 times as likely to die** of air pollution as those in Sweden and twice as likely as those in the US (WHO)



Poor air quality causes **40,000 to 50,000 early deaths** in the UK and the cost of these health impacts is estimated at £20 billion every year



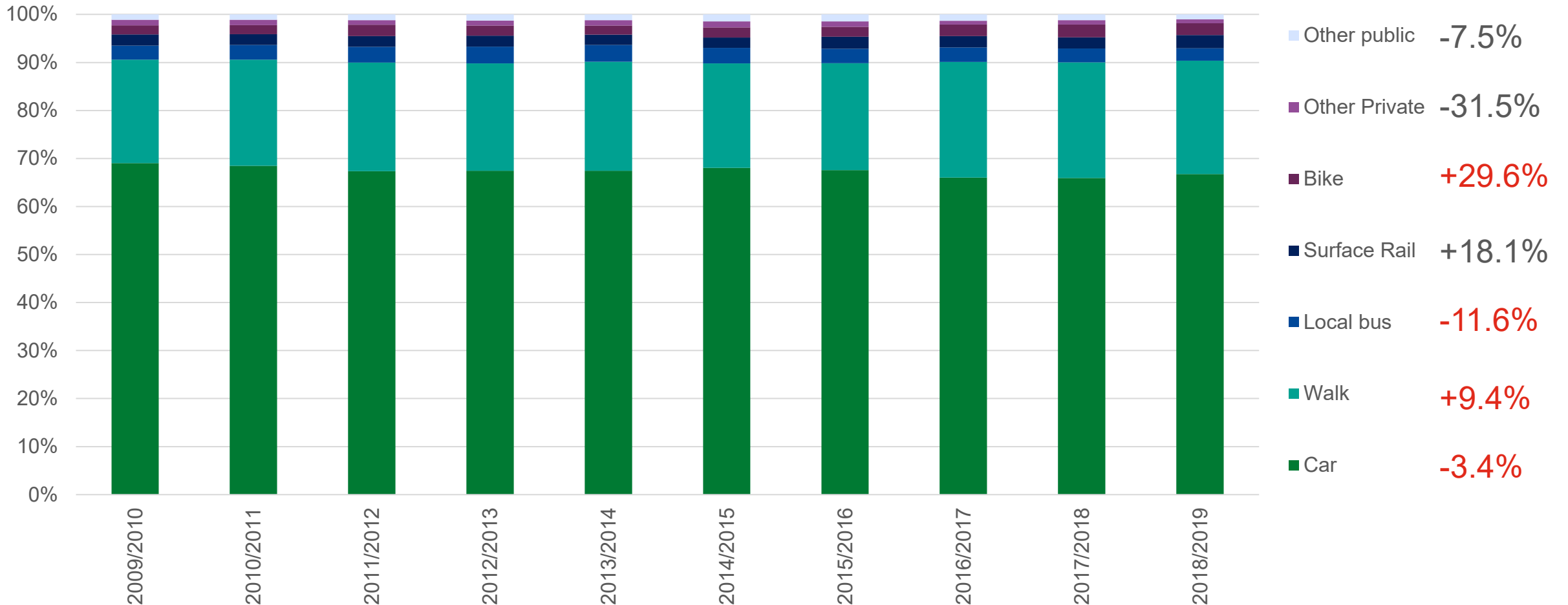
# CAR OWNERSHIP IS INCREASING IN EAST OF ENGLAND

	<div></div> <div>No car</div>		<div></div> <div>1 car / van</div>		<div></div> <div>2 cars / vans</div>		<div></div> <div>Average</div>	
Year	2002/03	2018/19	2002/03	2018/19	2002/03	2018/19	2002/03	2018/19
Number of households (%)	20	15	42	44	38	42	1.26	1.38
Growth	-37%		+3%		+9%		+9%	



## BUT USING THE CAR SLIGHTLY LESS

Average number of trips by main mode 2009/10 – 2018/19

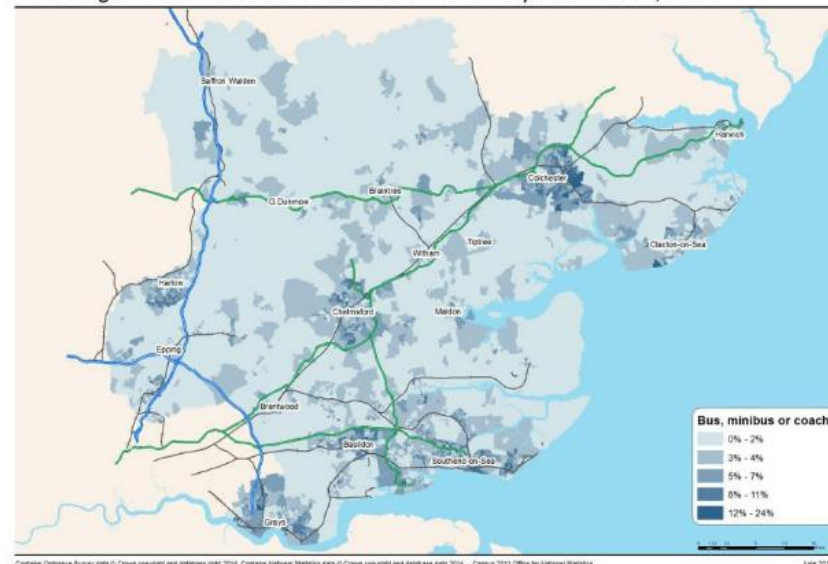




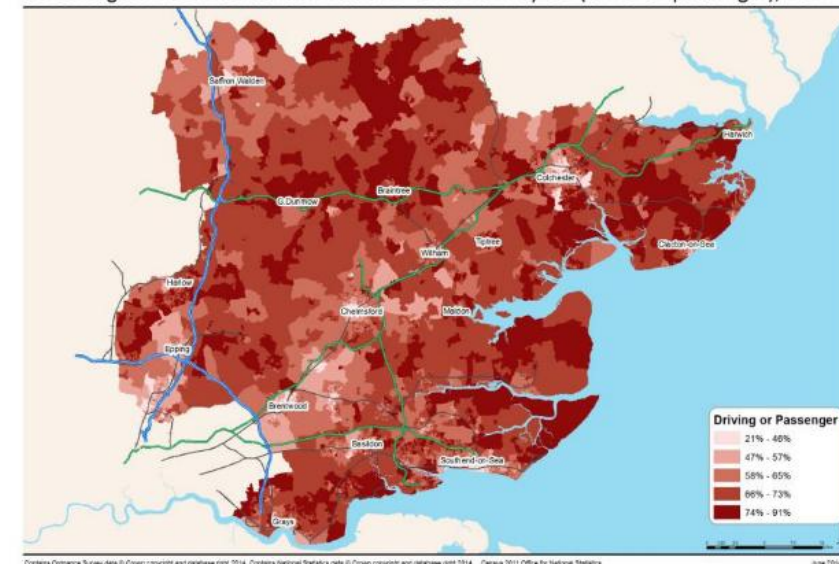


# ESSEX RESIDENTS MOSTLY COMMUTE BY CAR

Percentage of Essex residents who travelled to work by bus or coach, 2011



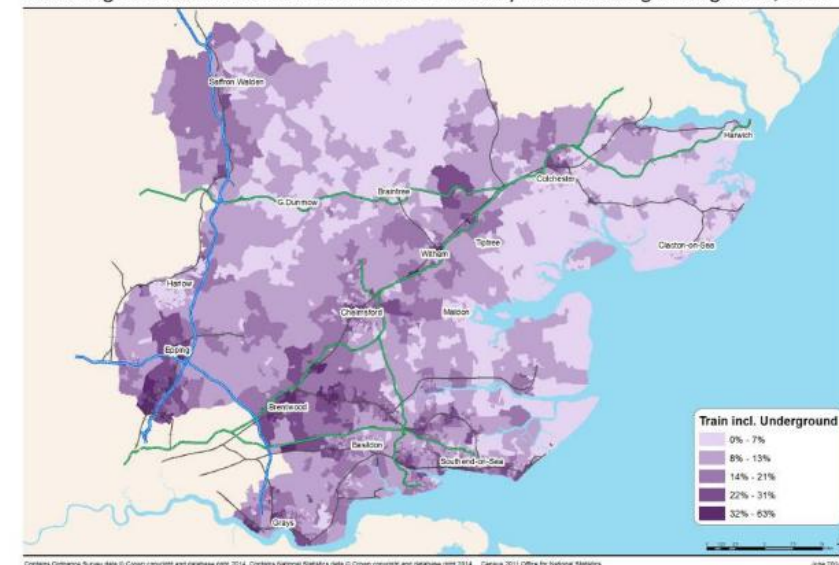
Percentage of Essex residents who travelled to work by car (driver or passenger), 2011



Percentage of Essex residents who travelled to work by bicycle or on foot, 2011



Percentage of Essex residents who travelled to work by train including underground, 2011

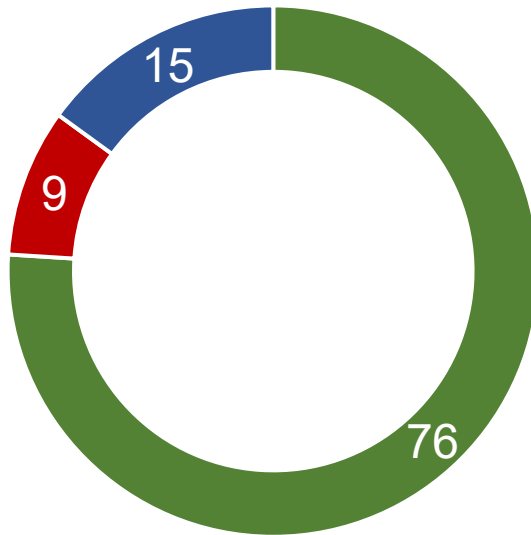






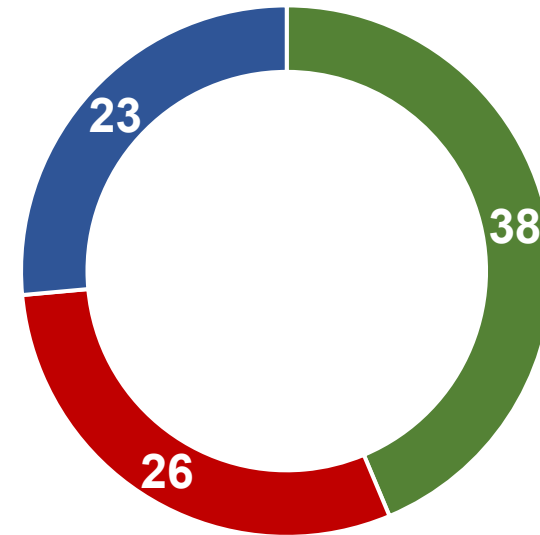
## PUBLIC ATTITUDES TO CLIMATE CHANGE AND CAR USE (OR WHAT PEOPLE BELIEVE VS WHAT THEY DO)

For the sake of the environment, everyone should reduce how much they use their cars



■ Agree ■ Disagree ■ Neither agree nor disagree

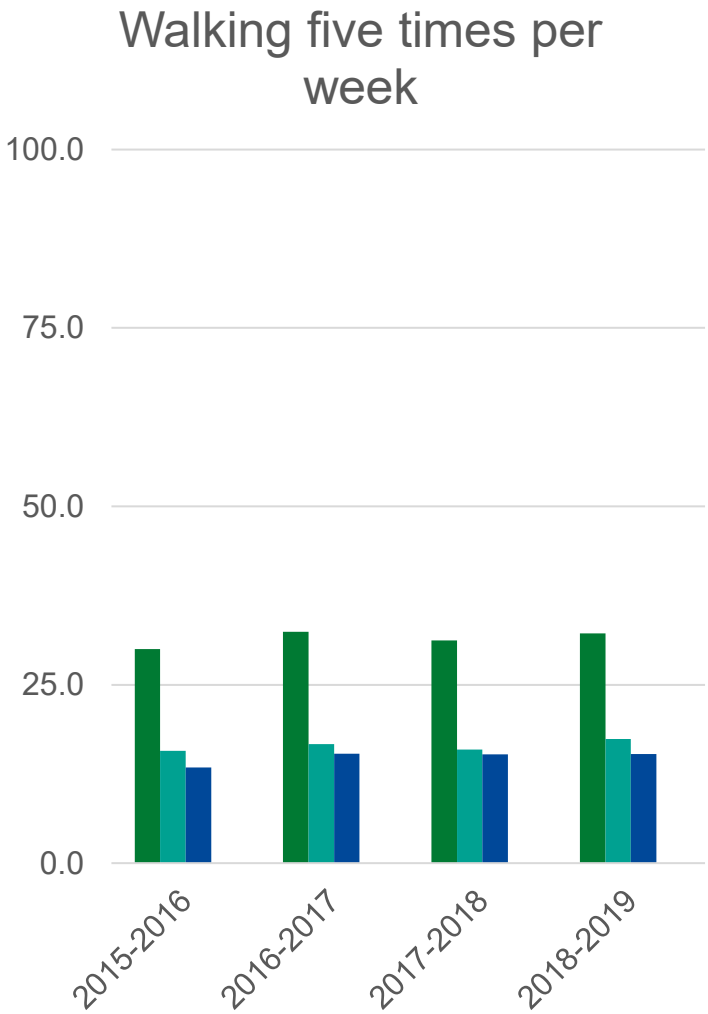
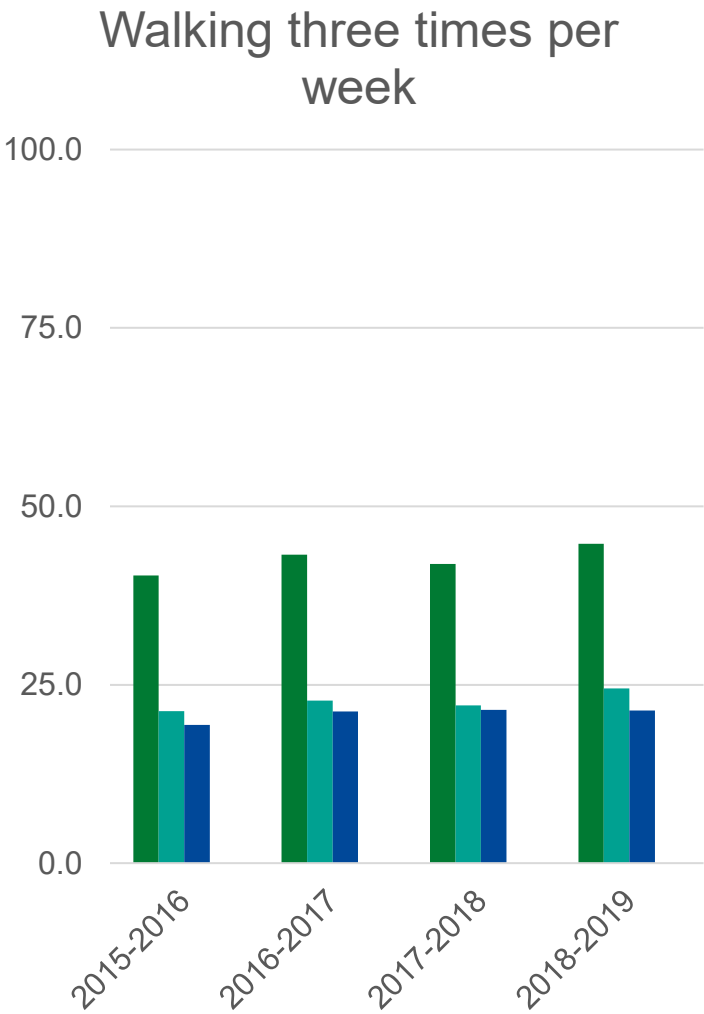
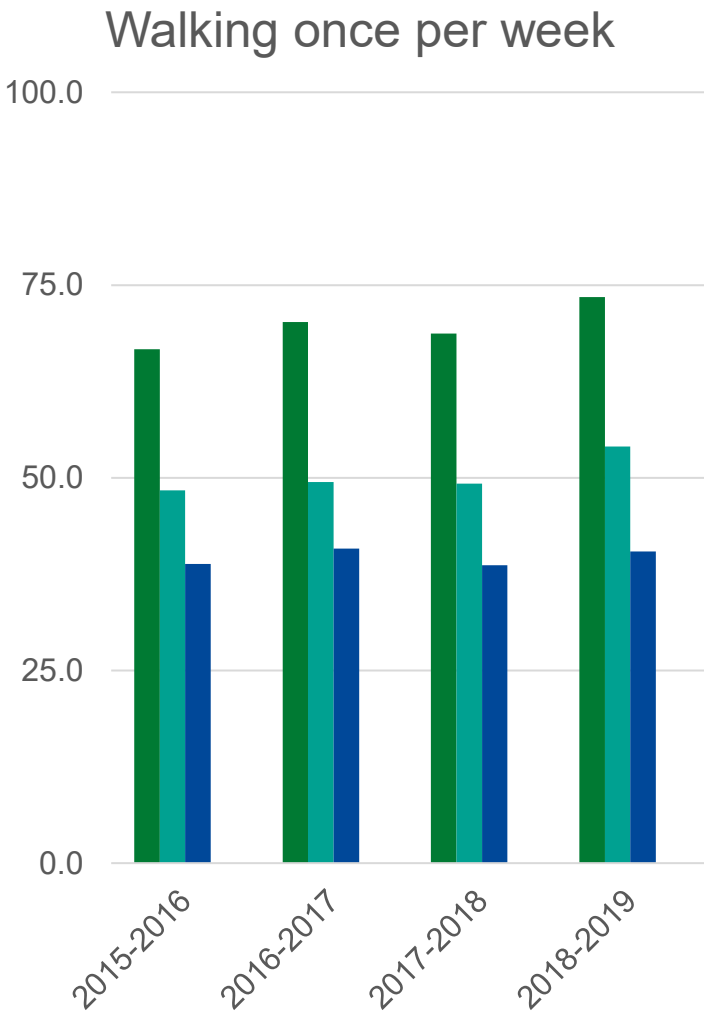
I am willing to reduce the amount I travel by car, to help reduce the impact of climate change



■ Agree ■ Disagree ■ Neither agree nor disagree

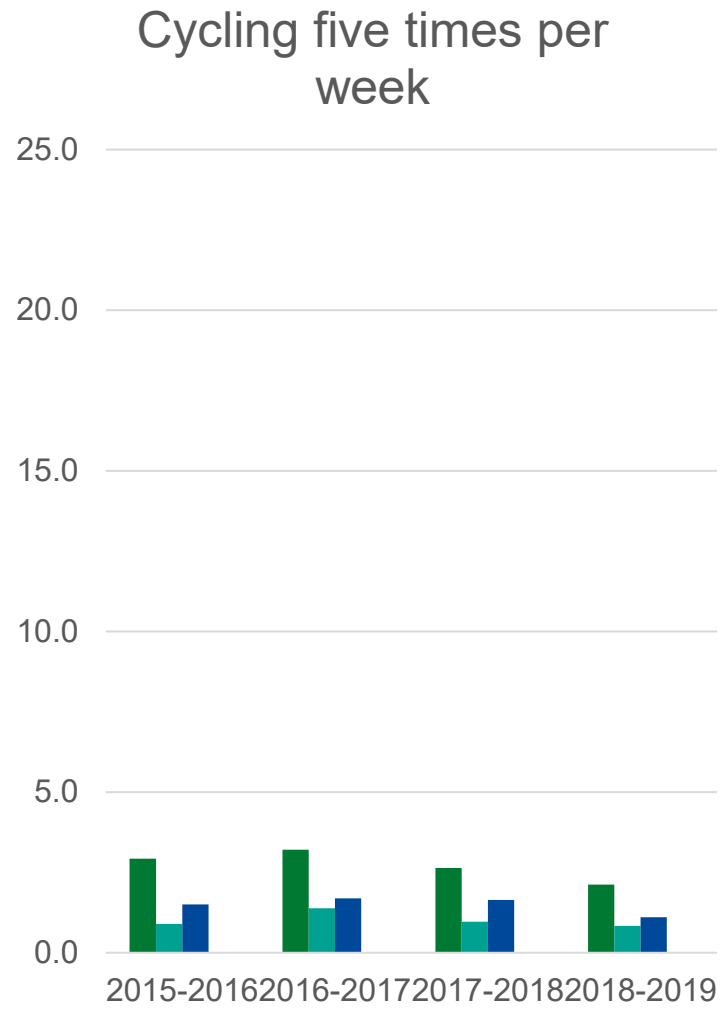
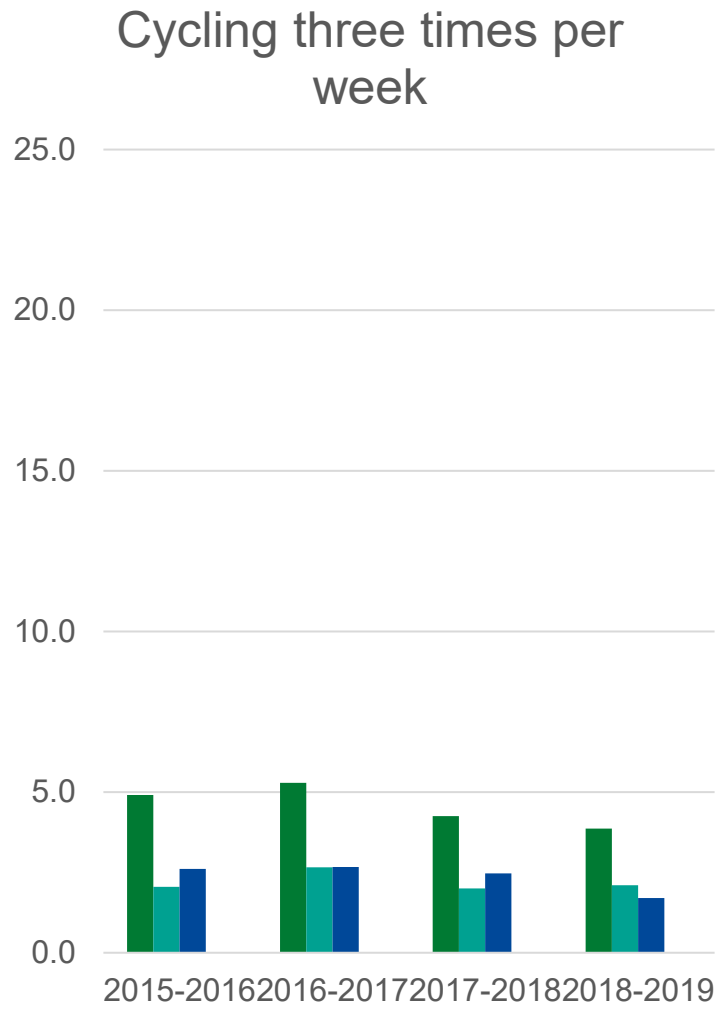
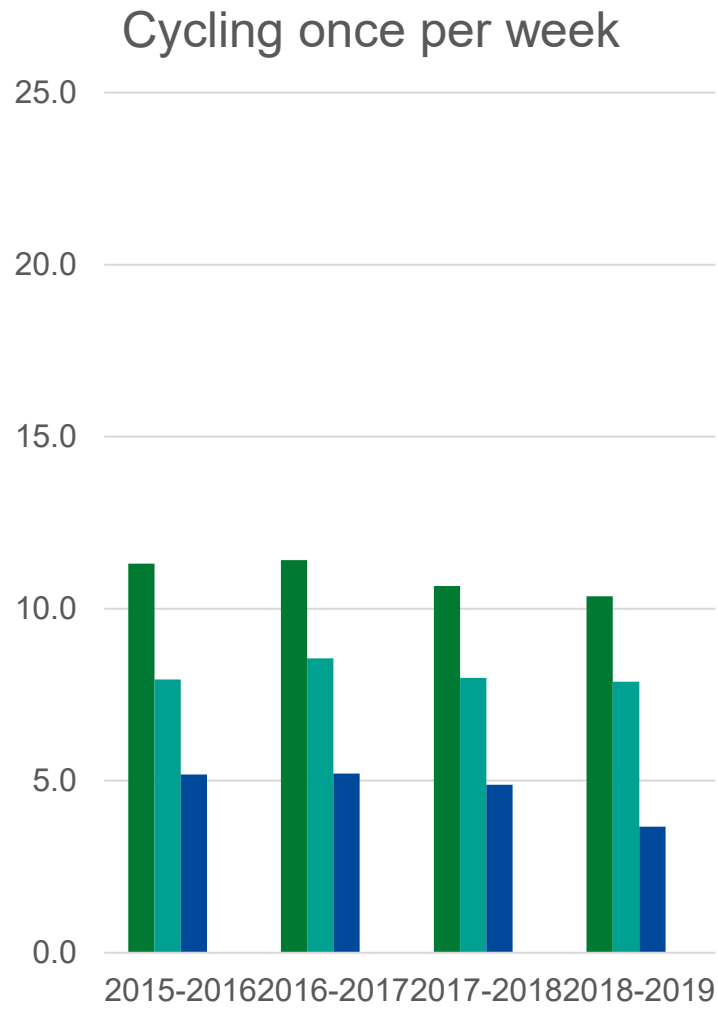


# WALKING IN ESSEX HAS SEEN A SIGNIFICANT INCREASE





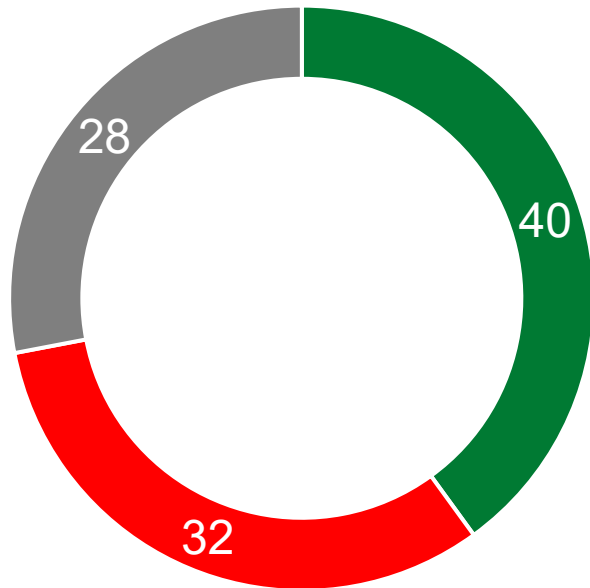
# CYCLING IN ESSEX HAS SEEN NO CHANGE





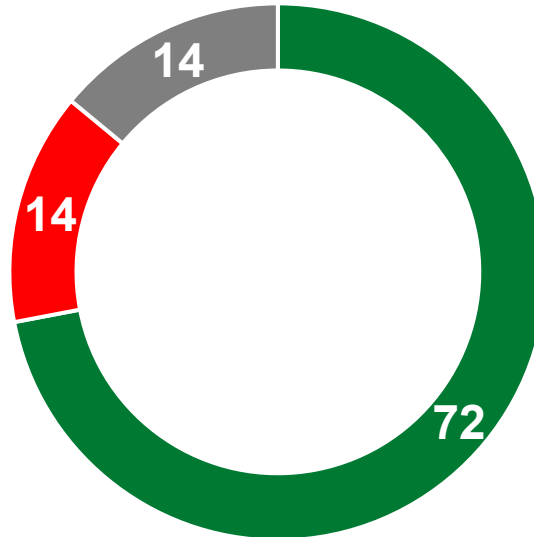
## PUBLIC ATTITUDES TO LOW TRAFFIC NEIGHBOURHOODS

To what extent are you in favour of closing residential streets to through traffic?



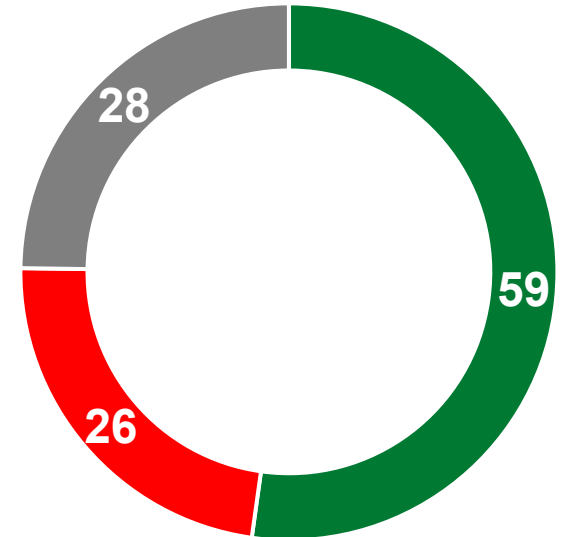
■ In favour ■ Against ■ Neutral

To what extent are you in favour of having speed limits of 20 miles per hour in residential streets?



■ In favour ■ Against ■ Neutral

To what extent are you in favour of having speed bumps to slow down traffic in residential streets?



■ In favour ■ Against ■ Neutral



# WALTHAM FOREST LOW TRAFFIC NEIGHBOURHOOD

- ↓ **10,000** fewer car journeys per day
- ↓ Motor traffic levels fall by **over half** inside the residential area
- ↓ Collision rates reduced
- ↑ Residents walking and cycling more
- ↓ Vehicles **speeds reduced from 21.6mph to 9.5mph**

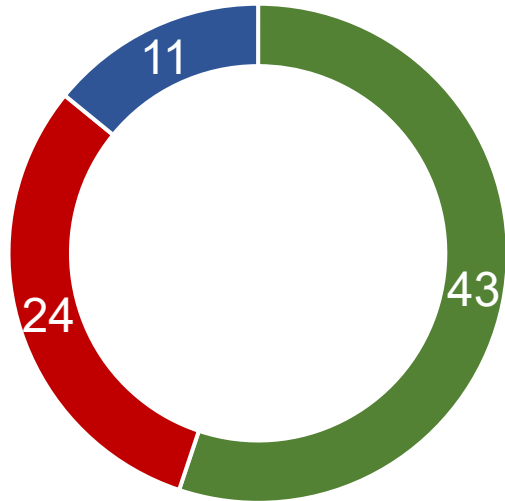






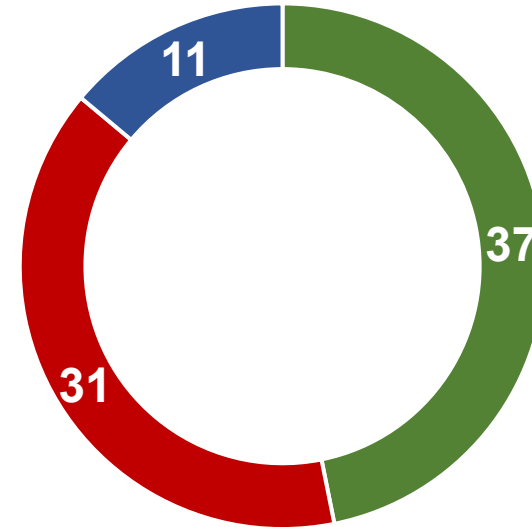
## PUBLIC ATTITUDES TO WALKING AND CYCLING

Many of the journeys of less than two miles that I now make by car I could just as easily walk



■ Agree ■ Disagree ■ Neither agree nor disagree

Many of the journeys of less than two miles that I now make by car I could just as easily cycle, if I had a bike



■ Agree ■ Disagree ■ Neither agree nor disagree



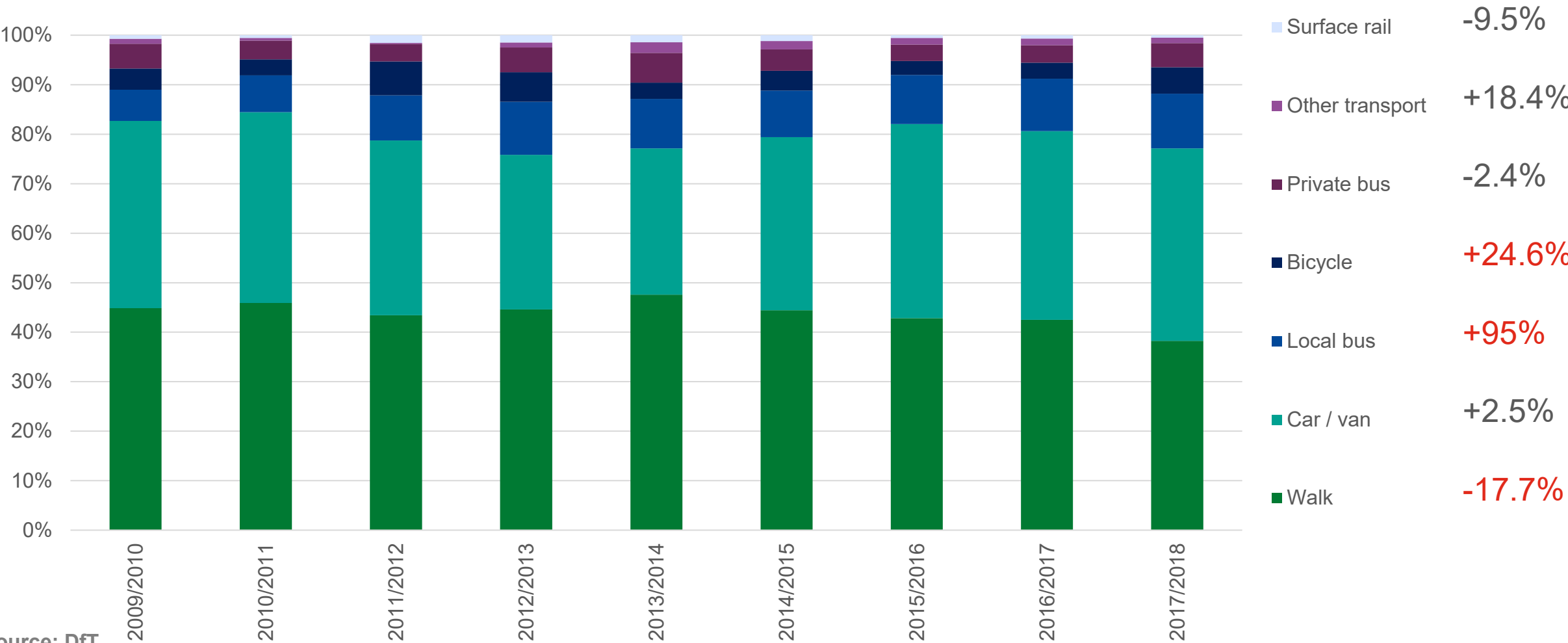
# REASONS WHY CHILDREN DON'T WALK TO SCHOOL...





# CYCLING TO SCHOOL IS INCREASING IN EAST OF ENGLAND BUT WALKING IS DECREASING

Average number of trips to and from school by main mode  
2009/10 – 2018/19





## CLEAR NEED FOR SCHOOL STREETS IN ESSEX

- Travelling to school by car is increasing – and is likely to further increase with Covid. Pre Covid- 25% cars at am peak time run
- 58% of primary pupils came to school by car compared with 52% in 2011. (Essex)
- 43% of secondary pupils came to school by car compared with 30% in 2011. (Essex)
- 2 in 5 parents of primary school children say they worry about pollution levels around their school
- A 2014 survey showed that an equal number of parents (32%) found driving the school run as stressful as their job (YouGov, 2014)
- Direct and indirect costs of congestion for all drivers amounted to more than £37.7 billion in 2017, an average of £1,168 per driver

**80% BOYS**  
**72% GIRLS**  
ARE PHYSICALLY  
INACTIVE

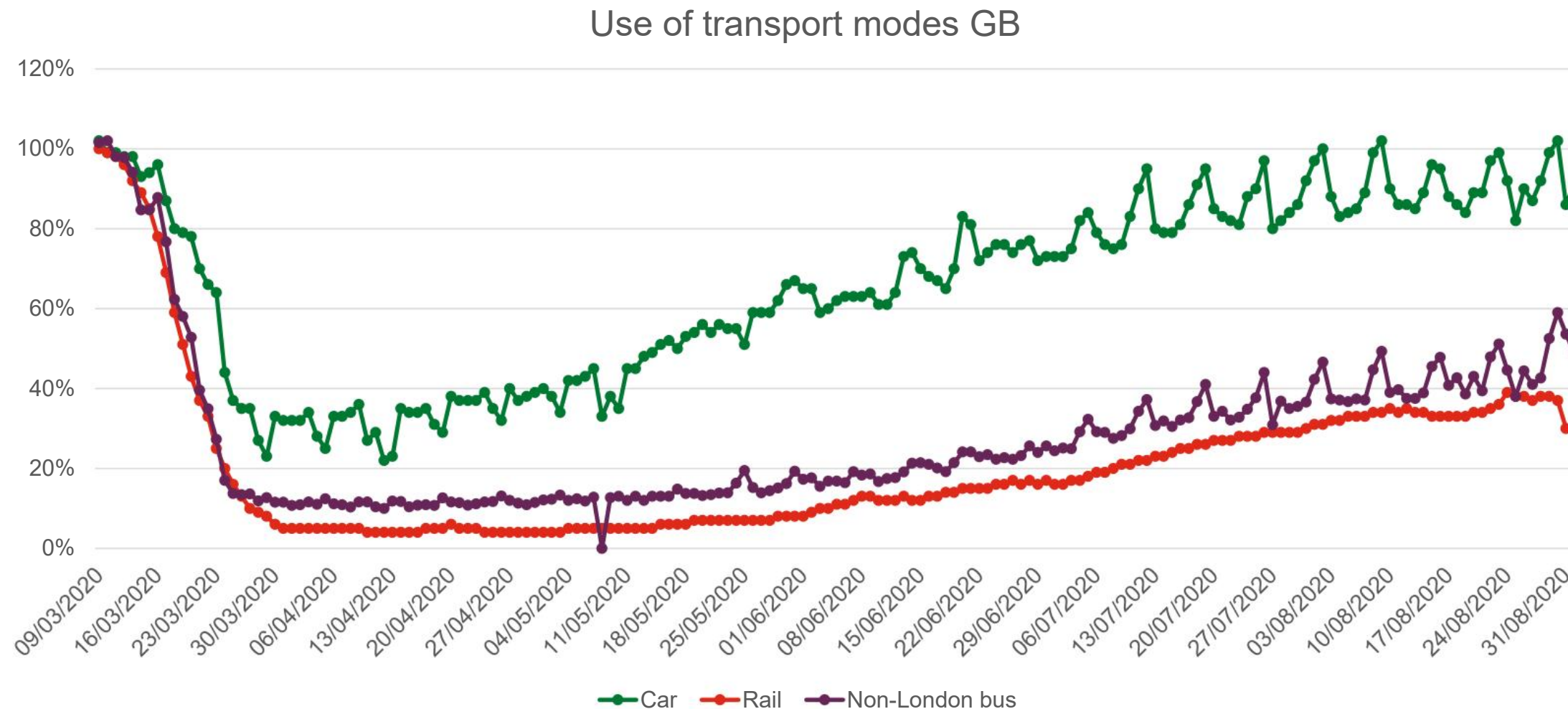
**30%**  
CHILDREN ARE  
OVERWEIGHT  
OR OBESE

**15%**  
OF CHILDREN  
DEMONSTRATE  
SYMPTOMS OF  
MENTAL ILL-HEALTH



Figures are percentages of an equivalent day or week.

## THE BUS INDUSTRY IS IN INTENSIVE CARE

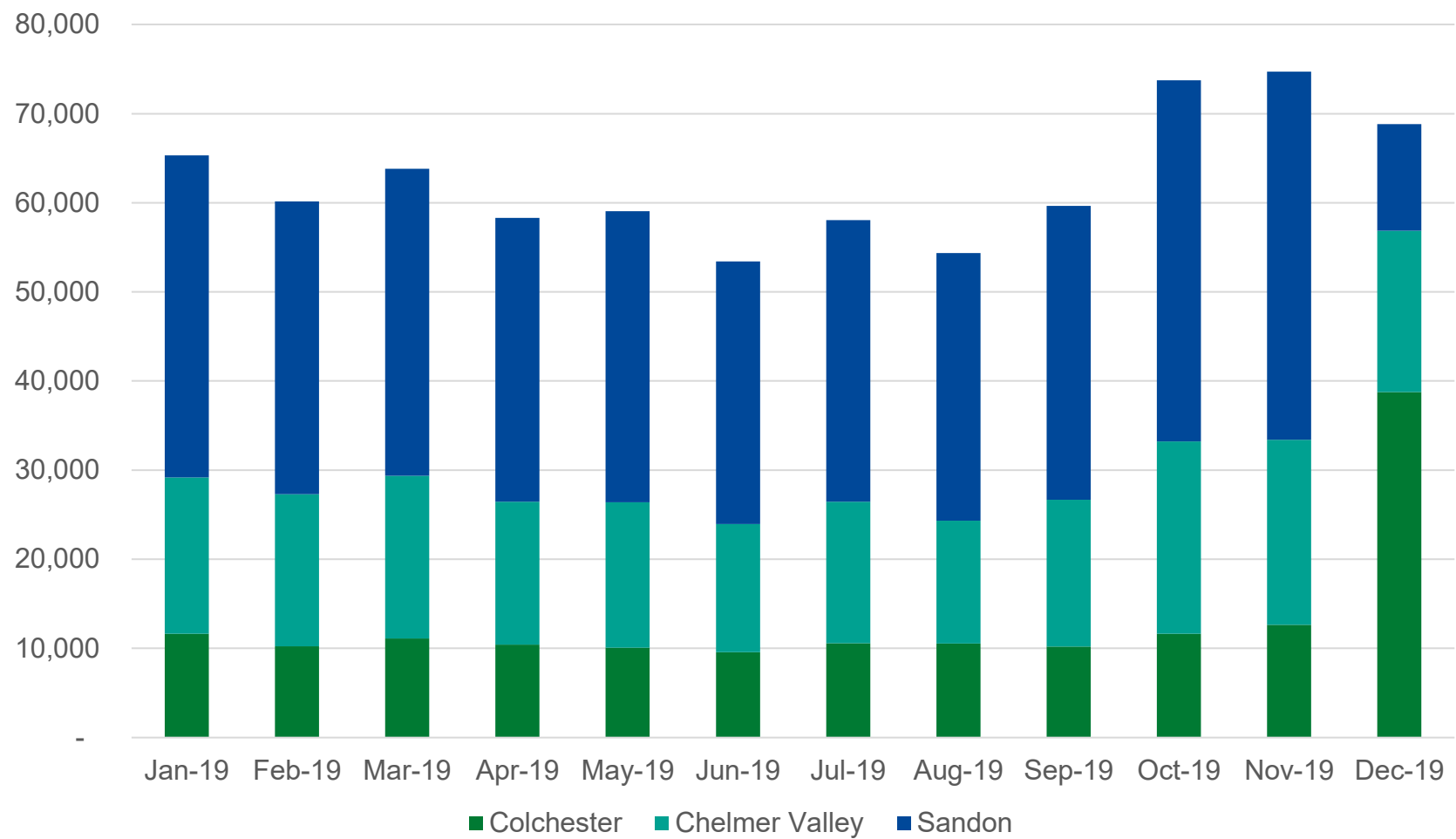






# ESSEX PARK & RIDE DATA

Passenger numbers at Essex P&R sites



**749K**  
annual  
passengers trips  
shifted onto other  
modes of  
transport



## NOTTINGHAM WORKPLACE LEVY REDUCES TRAFFIC AND GENERATES REVENUE

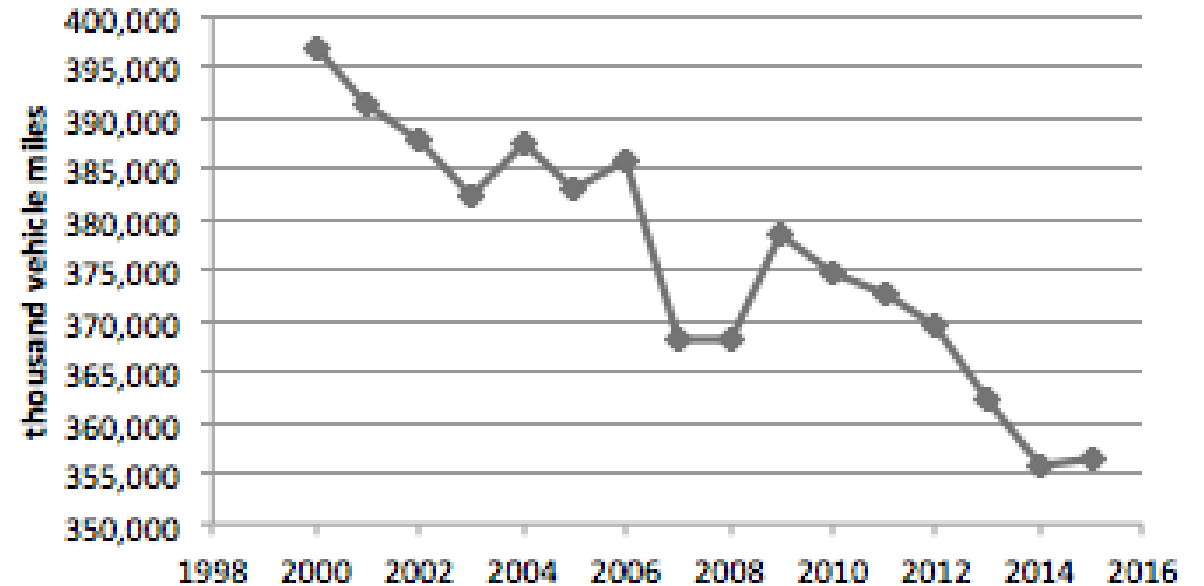
- It applies to all workplaces with 10+ parking spaces
- There are around 24,800 spaces affected, approximately 60% of the total available.

### Scheme costs and benefits

- 2013 £7.8 million
- 2014 £8.4 million
- 2015 £9.1 million
- 2016: £9.3 million

**Economic benefit of £10 delivered for each £1 raised by the WPL. £3 of external funding generated for every £1 raised by WPL.**

### Nottingham car traffic





## BENEFITS OF CONGESTION CHARGING



- Introduced October 2002
- Traffic has reduced by 90%
- Pedestrian numbers increased by 11%.
- Expected 50% drop in vehicles.
- Revenues £300,000 per annum
- 50% reduction in HGV/LGV activity
- Increase in bus patronage.

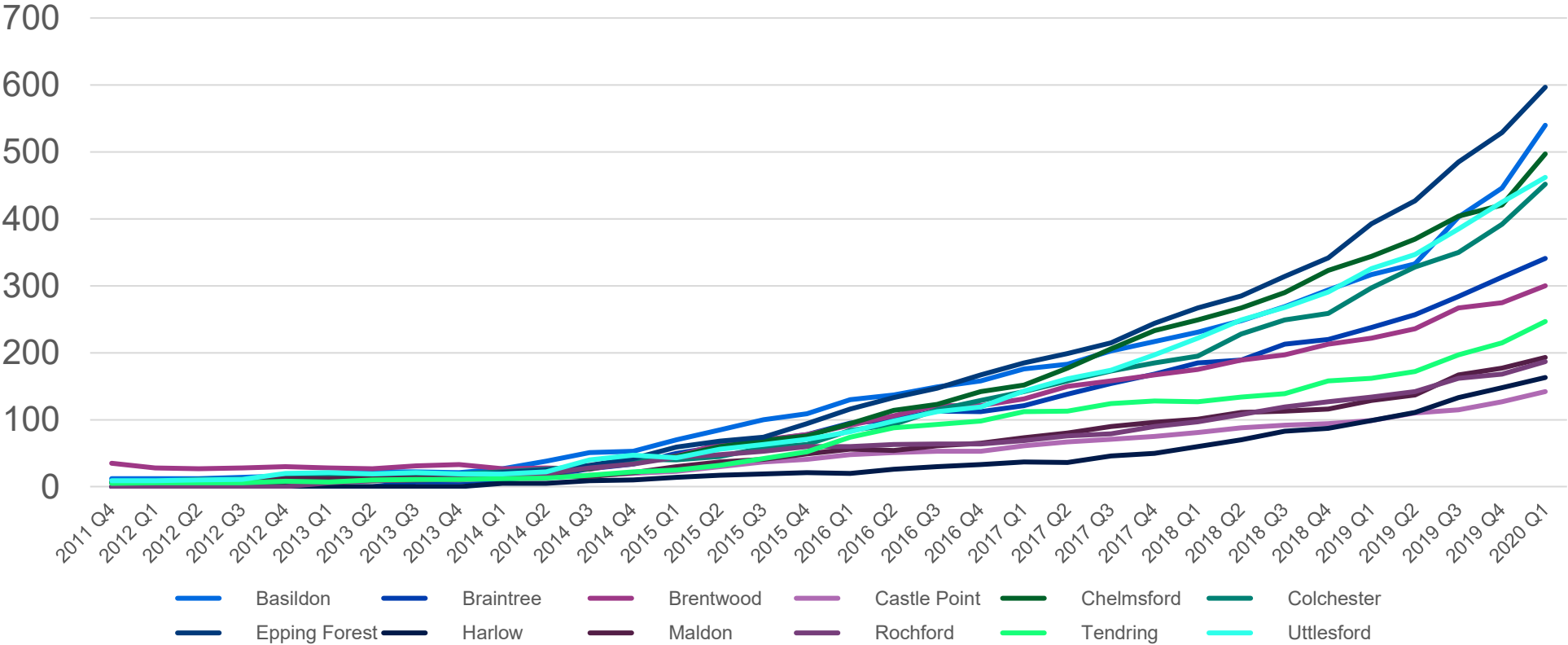


- Introduced Sept 2003
- Congestion cut by 30 %
- Traffic cut by 15 %
- Co2 cut by 19%
- NOx cut by 12%
- Housing values increased around 5%
- £230m revenue in 18/19



# 4,121 EV REGISTERED IN ESSEX

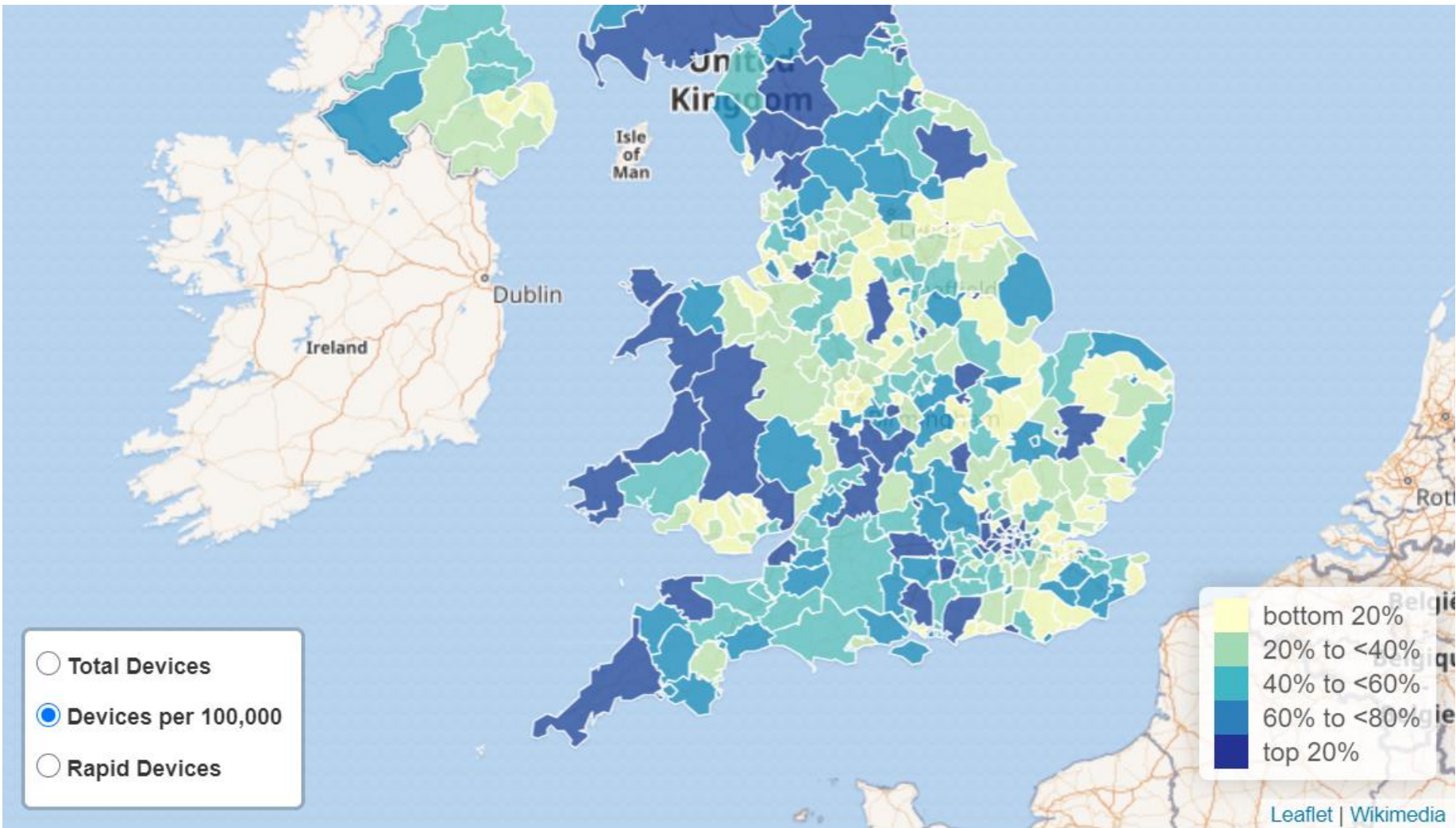
Plug-in Cars, Vans and Quadricycles in Essex



**Fore-  
cast  
196k  
EV Cars  
by 2030**



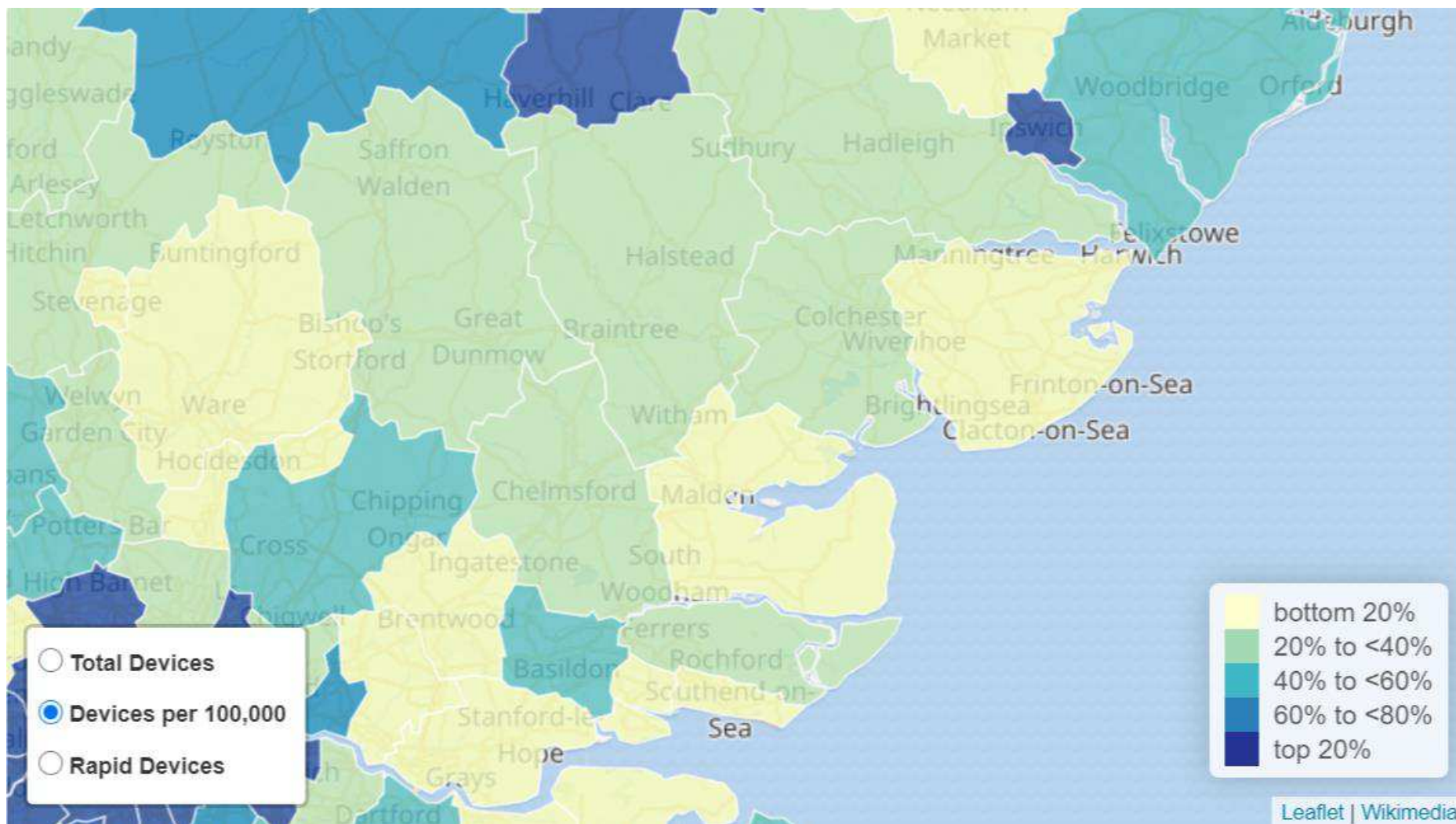
# CHARGEPOINT DATA: DEVICES PER 100,000 POPULATION





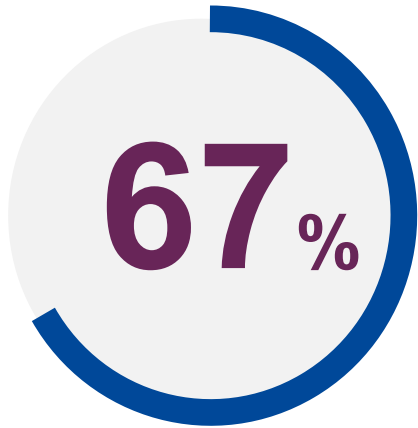


## ESSEX HAS LOW PROVISION OF CHARGEPOINTS





## EV DATA FOR ESSEX



of existing EV drivers  
**would not have bought  
an EV** if they did not have  
access to overnight  
charging



of charging by current EVs  
drivers is done **at home**



**said they would be  
encouraged** to make their  
next car an EV if they were  
**offered access to a  
parking space** where they  
could charge their EV  
while it is parked

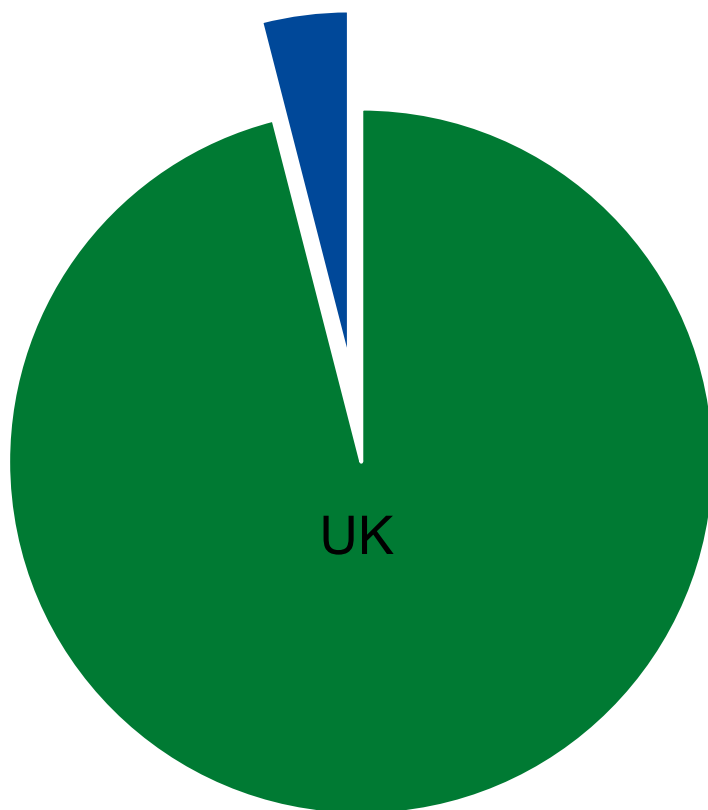


Estimated **on street  
chargers** needed



## FREIGHT IN ESSEX

**2019 goods moved / lifted**  
**Million tonne / kilometres**  
Essex



Goods lifted: the weight of goods carried, measured in tonnes

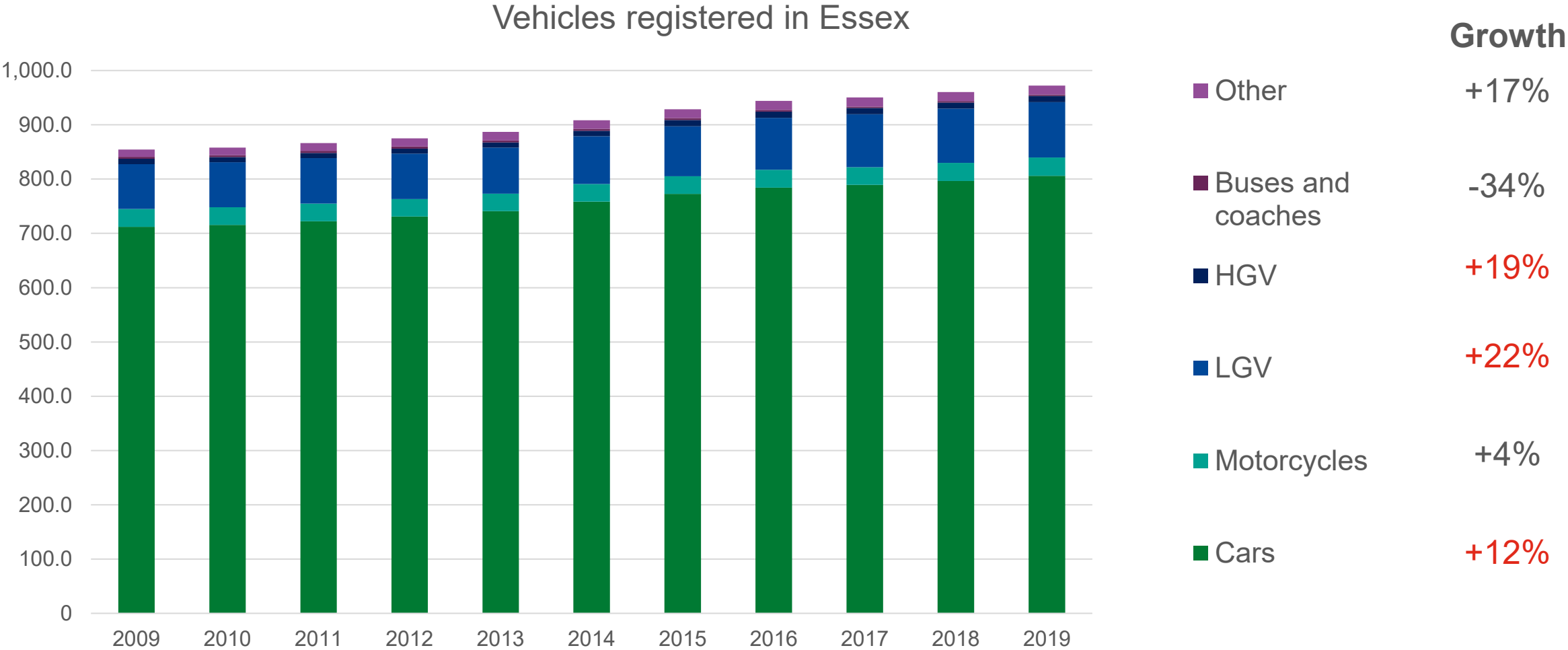
**50% of goods lifted stay in Essex**

Goods moved: is a measure of activity taking into account the weight of the load and distance through which it is hauled.

**26% of good moved stay in Essex**



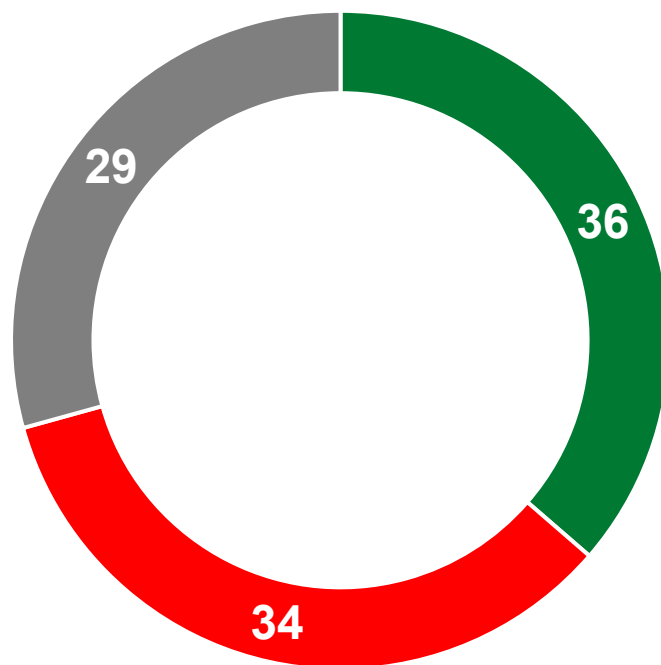
# HGV & LGV HAVE HIGHEST REGISTRATION RATE IN ESSEX





## DEBATE LESS CLEAR CUT ON CONGESTION CAUSED BY DELIVERIES

To what extent do you agree or disagree that vehicles making deliveries cause congestion in your local area?



■ Agree ■ Disagree ■ Neither agree nor disagree





## HAMMERSMITH & FULHAM ZERO-EMISSIONS FREIGHT HUB

- H&F Council set up a zero-emissions freight hub, Parcels Not Pollution In 2019
- E-cargobikes require 13 megajoules to delivery 1,000kg of groceries vs a diesel van 3,400MJ, and an electric van 2,400MJ

