



# The New Transport Strategy for Canterbury

## A vision for 2030 and how to travel there



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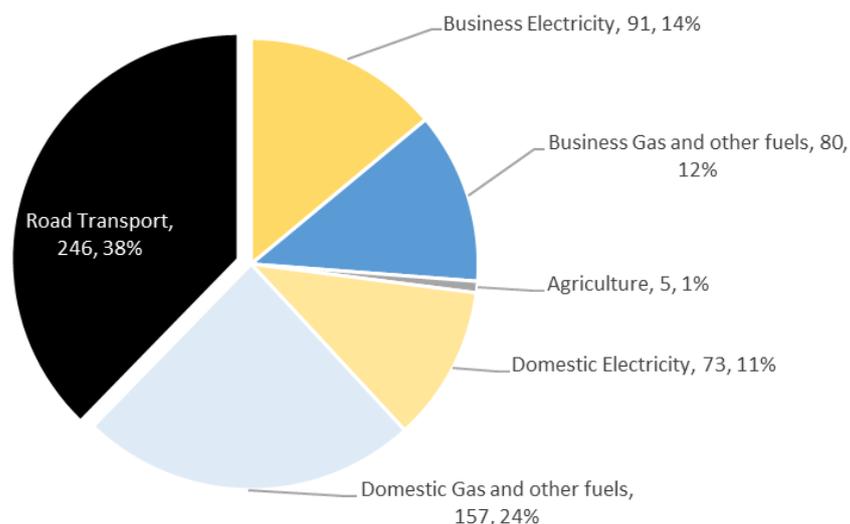
## Philosophy

Sustainable transport is all about our health, wellbeing and quality of life. We need climate stability, excellent air quality, safety and a place that makes us feel good. That is why we need to move to a sustainable transport system. We need to do it quickly and we need to do it well.

The Climate Emergency<sup>1</sup> has given new imperative and urgency to create and operate a sustainable transport system in Canterbury city and district. The United Nations Intergovernmental Panel on Climate Change IPCC SR15 (2018) has set out the goal for rapid reduction in emissions from fossil-fuel transport. Emissions must be at least halved by 2030 and this presents an enormous challenge for the reform of our transport systems.

Although the UK has been working to reduce greenhouse gas emissions and has made progress with decommissioning coal power stations and making hydrocarbon fuels cleaner, emissions from transport remain a major contributor to emissions. Transport carbon dioxide emissions account for the single largest source of greenhouse gases in the Canterbury district.<sup>2</sup> Although district vehicle emissions dropped 2008-2013, vehicle ownership and emissions from vehicles has been increasing since then.

Canterbury District Greenhouse Gas Emissions 2016  
(ktCO<sub>2</sub>, percentage)  
Source: National Statistics



<sup>1</sup> Canterbury City Council declared a Climate Emergency in July 2019.

<sup>2</sup> <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>

We also need to make the quality of the air we breathe safe again because it is damaging our health. It has taken us a long time to realise just how damaging polluted air is to all of us and especially for children. The small particles and toxic gases (mostly nitrous oxides) from fossil-fuel vehicles affect children's development and damage everyone's hearts, lungs and brains.<sup>3</sup> We have Air Quality Management Areas in Canterbury and Herne. This means that the air quality in those areas in particular are known to be damaging to human health. We recognise that we have not acted quickly enough to follow previous blueprints for sustainable transport.<sup>4</sup> It is imperative that we reduce the emissions in these places and across the whole of our district to address both air quality and climate change.

As our population has grown and we have increased the number of our cars and the amount that we travel, we have created a situation of traffic congestion that is frustrating and unpleasant as well as damaging to the environment on which we depend. Transport forecasts for the future show that we need to change our transport system radically if we want it to be sustainable.

We therefore need a new philosophy for transforming what we have now into a way of life that is good for everyone, makes our district into a great place to live and protects the environment. Such a philosophy will be good for people, place and planet.

The philosophy we use for our vision and strategy is based on careful research. Members of Canterbury Alliance for Sustainable Transport (CAST) have used their collective knowledge, experience and research into other towns and cities, and other ways of working, to develop this report.

The foundations that we have used are based on Sustainable Urban Mobility Planning (SUMP) principles. These principles contrast with traditional transport planning because they put people first in all the planning decisions and think about transforming the transport system holistically. Using SUMP principles can make a transport strategy less focussed on technologies and modes of transport, and more focussed on the sustainability goals. It begins with the end in mind. That end is happier, healthier people and a climate that still works.

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<sup>33</sup> <https://www.who.int/airpollution/news-and-events/how-air-pollution-is-destroying-our-health> (accessed 22/03/20).

<sup>4</sup> A Sustainable Transport Blueprint for Canterbury, January 2013

Table 1: Sustainable urban mobility planning philosophy<sup>5</sup>

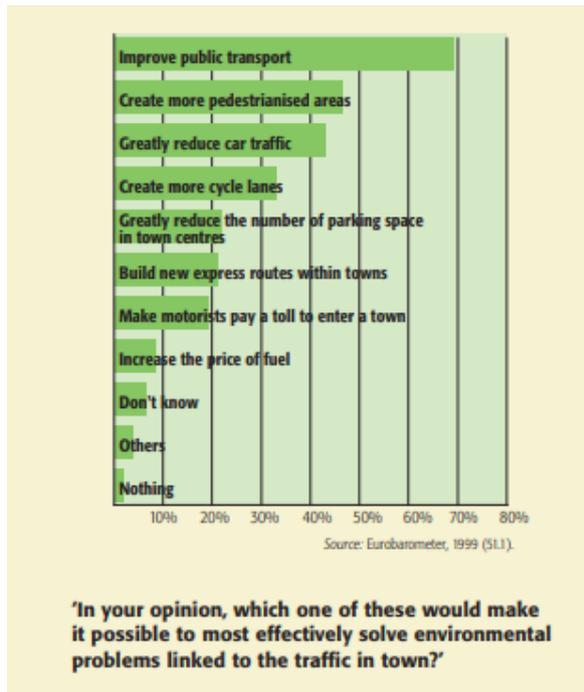
Traditional transport planning	Sustainable urban mobility planning
Focus on traffic	Focus on people
Primary objectives: traffic flow capacity and speed	Primary objectives: accessibility and quality of life, including social equity, health and environmental quality, and economic viability
Focused on particular mode(s) of transport	Integrated development of all transport modes and shift towards sustainable mobility
Infrastructure as the main topic	Combination of infrastructure, market, regulation, information and promotion
Short and medium-term delivery plan	Short and medium-term delivery plan embedded in a long-term vision and strategy
Covering an administrative area	Covering a functional urban area based on travel-to-work flows
Domain of traffic engineers	Interdisciplinary planning teams
Planning by officials	Planning with the involvement of stakeholders and citizens using a transparent and participatory approach
Limited impact assessment	Systematic evaluation of impacts to facilitate learning and improvement
<p>Typical outcomes of traditional transport planning increase road capacity and result in an overall increase in traffic, future congestion and greenhouse gas emissions<sup>6</sup></p>	<p>Large scale integrated people first outcomes increase active travel and public transport options and reduce road access to urban areas, leading to social, environmental and economic sustainability.</p>

<sup>5</sup> For more about Sustainable Urban Mobility Planning see <https://www.eltis.org/mobility-plans/sump-concept>

<sup>6</sup> Diagrams based on research presented in Reclaiming city streets for people – Chaos or quality of life? [https://ec.europa.eu/environment/pubs/pdf/streets\\_people.pdf](https://ec.europa.eu/environment/pubs/pdf/streets_people.pdf)

In order to focus on people, we need to understand what people want and work with them to develop whole-system improvements for the common good. European

research into citizens' priorities help shape the vision and strategy.



Recent and extensive research of new approaches to transport planning, focusing on ways for people to move around that are better for everyone, shows that when people are actively involved in the process, they prioritise changes that bring collective benefit.

With this philosophy in mind, here is our vision for making sustainable transport in Canterbury District by 2030 and a strategy for the journey to arrive there.

## Our transport vision for 2030

By 2030, everyone in Canterbury district will have a happier and healthier transport experience because:

### Our health and wellbeing will be better

- Everyone is walking on a daily basis in more pleasant environments
- Many more people are walking and cycling on a daily basis

### Our air quality will be much better

- There will be a significant decrease in fossil-fuel powered vehicles in urban areas
- All the district Air Quality Management Areas will have been removed from the register because they are no longer a risk to public health

### Our access to public transport will be excellent

- It will be relatively easy for everyone to access public transport
- The cost, frequency and reliability of public transport will make it preferential to using private transport
- There will be innovative transport-on-demand solutions to help with more rural transport needs
- We will be much less reliant on private vehicles

**But most of all,**

### We will know that we helping to keep the climate stable

- Overall greenhouse gas emissions from transport in the district will have reduced by over 50% from 2018 levels
- We will be well on the journey to net-zero emissions sustainable transport system

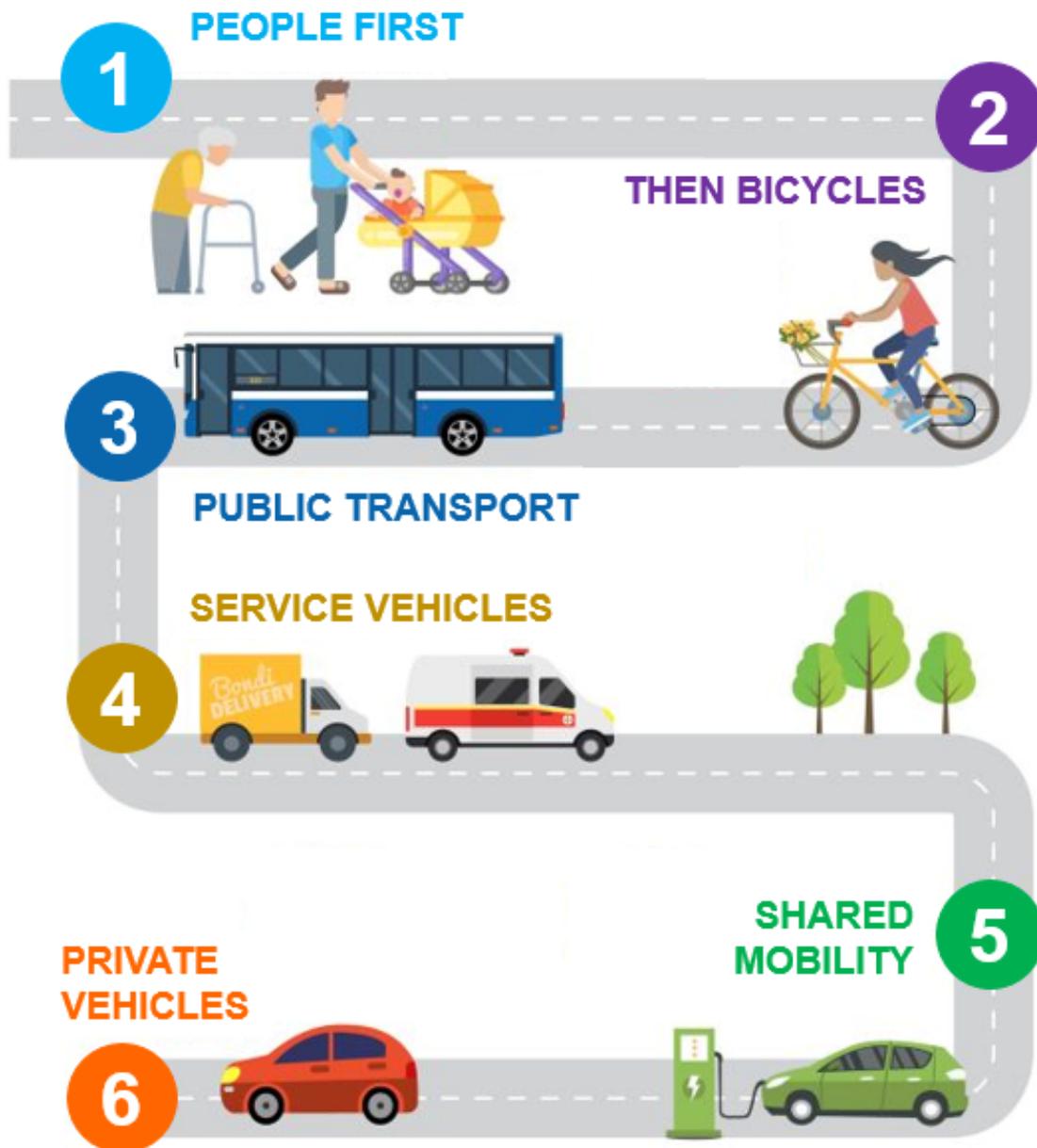
This is our vision.

The remainder of this report explains the priorities in achieving the vision and outlines strategic steps on the journey.

## Priorities

We must put people first in all transport system changes, prioritising the least polluting and healthiest ways of getting around. Our public transport systems must be unlocked so that they become accessible to everyone. We must increase public transport capacity, connectivity and reliability. Conversely, we need to actively move away from hydrocarbon fuelled private vehicles as quickly as possible.

These are the priorities:



We will discuss each priority in turn.

## 1 PEOPLE FIRST

Walking every day is good for us. We need safe paths where the air is clean and places to go that make it easy and appealing to arrive by foot.

In 2018, pedestrian casualties made up 11% of all road casualties and 25% of all road fatalities in Kent.<sup>7</sup> Fear of traffic and the cars clogging up our streets have reduced the safety of children playing outside and limited their independence across much of our city.

Recent research shows that two thirds of drivers feel that it is often not safe for children to walk or cycle because of traffic in UK cities.<sup>8</sup> Streets which are safe for children are streets which are good for all of us. By having a transport network that focuses on people, as well as vehicles, we can make sure our streets, neighbourhoods and public spaces are safer, cleaner, and quieter, creating places where we choose to spend time with family and friends.

Safe communities and attractive public spaces are also crucial if walking is to become a major means of transport. Walking is the greenest way to get around, generating less pollution and helping to tackle climate change, and it also helps keep us fit while saving us money.

Although there are air quality blackspots in our district with Air Quality Management Areas, there has so far been no real action to improve the air quality in these or other areas. Gathering accurate air quality data is crucial, and that must be greatly improved. However, data-gathering by itself will not improve air quality. The limited measures that have been put in place – signs to stop idling at level crossings – are an important first step but very much more needs to be done.

These are all real problems that have been known about for too long without tangible action. It is now time for a step change in priorities.

Strategic choices that would help re-prioritise walking in a plan to achieve net-zero carbon journeys should be<sup>9</sup>:

- Expenditure on transport by Kent County Council, Canterbury City Council and private developers must be redistributed and reallocated to **prioritise enabling safe walking**

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<sup>7</sup> Road casualties in Kent 2018 [https://www.kent.gov.uk/\\_data/assets/pdf\\_file/0008/44999/Road-Casualties-in-Kent-Annual-review-Kent-collision-summary.pdf](https://www.kent.gov.uk/_data/assets/pdf_file/0008/44999/Road-Casualties-in-Kent-Annual-review-Kent-collision-summary.pdf)

<sup>8</sup> Brake Cities for People 2019 [https://www.brake.org.uk/assets/docs/dl\\_reports/DLreport\\_Cities-for-people\\_September2019.pdf](https://www.brake.org.uk/assets/docs/dl_reports/DLreport_Cities-for-people_September2019.pdf)

<sup>9</sup> These strategic choices are all already or being implemented in other UK cities

- A '**Healthy Streets**' initiative<sup>10</sup> should be rolled out across the district, to enable all streets to be reclaimed as public spaces and become healthy, green, safe, and child friendly. A Healthy Streets initiative encourages walking with high quality pedestrian crossings, biodiversity, planting and sustainable urban drainage systems (SUDS) and it provide improved access for everyone, particularly those with restricted mobility
- Encourage schools to develop Active Travel Plans. These should be developed by working with children/young people, staff, and parents/carers to identify safe and accessible walking and cycling routes, and then to promote walking and cycling to and from school throughout the year in safe conditions along these routes.
- Encourage employers to develop Active Travel Plans with their employees, working with them to identify home-to-work routes by bus, bicycle, or walking, and to promote their use.
- **Make Canterbury district speed limit on residential roads 20mph by default.** This is a quick win that should be implemented as soon as practicable
- **Progressive pedestrianisation** of district urban and suburban areas incrementally implemented over planned periods to form a culture that increasingly values walking zones<sup>11</sup>
- For areas with air quality problems, measures must be put in place to improve the air quality by limiting the sources of pollution. **Ultra Low Emissions Zones** must be put in place that restrict vehicles from polluting in these places

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<sup>10</sup> <https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets>

<sup>11</sup> European Commission Reclaiming city streets for people [https://ec.europa.eu/environment/pubs/pdf/streets\\_people.pdf](https://ec.europa.eu/environment/pubs/pdf/streets_people.pdf)

## 2 BICYCLES

A district with safe streets and designated cycle routes makes a pleasant place to be. People like places with high proportions of cycling. Cycling is also excellent for reducing emissions, improving air quality and reducing the causes of climate change.

Canterbury district is well-suited for a massive increase in cycling as well as electric bikes and scooter; a significant proportion of the population live close to urban centres with good transport connections via rail and bus to other towns and cities. The district is relatively flat and there are already some great cycling routes. The excellent energy efficiency of electric-powered bicycles and scooters means that they will be a very important part reducing carbon emissions.

In order to unlock cycling as a major mode of transport that is safe and enjoyable for the district, there needs to be a big shift in priority. Instead of spending lots of resources on trying to decongest roads for vehicles, effort needs to be put into enabling people to switch to cycling.

In order to do this, Canterbury district must learn from other cities and districts. A rapid increase in cycling rates can be achieved through a plan that progressively allocates more space and resources to cycling and less space to private vehicles. This has been demonstrated in cities throughout Europe including Utrecht and Copenhagen, and in the UK, in London and Cambridge. Canterbury district has many features in common with these places and must use a mix of techniques to be successful. Above all, the strategy must explicitly prioritise and promote the development of cycling in a way that enables district residents to participate in the change.<sup>12</sup>

A strategy to enable a massive increase in cycling rates also needs to include careful consideration of arrival and departure points for cyclists. The quality and capacity of cycle parking needs to part of the mechanism to help people switch to cycling. Keeping people at the centre of the philosophy, sites should welcome people in and be pleasant places to visit and use. Green spaces and benches help with this but if a site feels like a car park then it has failed. Sites for parking cycles should have easy-to-use wayfinding signage, and websites giving directions to buildings should prioritise access by cycling, walking, and public transport.

All places of work in the district need to provide enough quality cycle parking for peak demand, and must follow local planning car and cycle parking standards, which provide one cycle parking space for every two members of staff, where practical in a

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<sup>12</sup> Enabling Cycling Cities [https://ec.europa.eu/transport/sites/transport/files/cycling-guidance/mimosa\\_enabling\\_cycling\\_cities.pdf](https://ec.europa.eu/transport/sites/transport/files/cycling-guidance/mimosa_enabling_cycling_cities.pdf)

covered, secure location. There must also be visitor parking close to the entrance, covered by natural surveillance or CCTV. Conflict between car and cycle parking must be minimised.

As cycling grows in the district, consideration should be given to all large cycle parking areas having a cycle repair station nearby.

Strategic choices that re-prioritise cycling for the journey to net zero are:

- **Build the highest quality, safe and fully-segregated cycle network across the Canterbury city by 2025**, with Primary Cycleways that extend out from the city centre to the main residential areas, together with a supporting network of feeder routes
- Complete a **cycle loop around Canterbury city centre** which will connect each of the main Cycleways with one another
- Promote the use of bikes for free or for hire offered by the Canterbury Bike Project, at Kingsmead ,and other local projects.
- Put in place a transparent register of priorities and plans to improve all district travel infrastructure that is below standard. As part of this process, suggestions for potential improvements should be actively solicited on a rolling basis
- Explore the possibility of shared use along certain key routes

Principles that should be applied within the strategy are:

- Where roads have been designed to ensure low speeds (20mph throughout) and traffic volumes will be low, cyclists should be expected to use the carriageway. A segregated cycle route may be necessary to provide safe routes to a school
- Where roads are expected to carry larger volumes of traffic at higher speeds cycle tracks physically segregated from the traffic should be considered. These should be designed to give cyclists priority over side roads and be fully integrated into main junctions
- For off-road facilities, unless use is expected to be very low and/or the area is of a rural or environmentally sensitive nature, there should be a presumption in favour of segregated paths for cyclists and pedestrians

### 3 PUBLIC TRANSPORT

Effective, accessible, reliable and integrated public transport is the hallmark of a city that cares about people and their relationship with the lived environment, and has a focus on sustainability.

Canterbury district is well-connected and served by the train network which provides excellent service to London and regional towns. The bus network which is most important for travel within the district and between villages and the urban centres is inadequate for many users.<sup>13</sup> Even though there has been an increase in bus journeys in Canterbury district over the last decade,<sup>14</sup> there has been a 15% decline in the average number of bus journeys per person in the region from 2009 to 2019 to around 35 journeys per person per year.<sup>15</sup> This number is low compared to cities with more integrated public transport networks such as Nottingham and Reading, each with over 140 journeys per person per year. The UK average is 77 journeys per person per year.

The reasons that people give for not being able to use the district bus network effectively are predominantly:

- Access – not enough buses or routes near enough to where people live
- Convenience—lack of audio and visual information at bus stops and also onboard about upcoming stops and times that buses will actually arrive means that services are not very easy to use, especially for those with disabilities.
- Cost – the services are too expensive – it is cheaper to go by car especially as a couple family
- Frequency and reliability – services do not run regularly enough or into the evenings for people to be able to rely on the service for their journey

There are other lesser reasons cited by some, including comfort and cleanliness of the services.

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<sup>13</sup> Feedback at Canterbury Society Transport Forum November 2019 and Climate Action evening February 2020

<sup>14</sup> Presentation from Stagecoach to Canterbury Society November 2019; also <https://www.stagecoachgroup.com/media/news-releases/2012/2012-04-04.aspx>

<sup>15</sup> HM Government Annual Bus Statistics <https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2019>

It is clear that an effective strategy must address these key barriers to people using a sustainable transport system. We must find mechanisms to unlock the system that is constrained by competing priorities of private operators and the users of the public transport service.

For the public transport network to be sustainable – socially, environmentally and economically – it must:

- Meet or exceed peoples’ travel requirements (so that people do not choose unsustainable alternatives)
- Be able to run at net-zero emissions (so that we have good air quality and long term climate stability)
- Provide sufficient return on investment (so that operators continue to provide good working conditions and high quality transport services)

The environmental arguments for public transport systems which prioritise mass transit vehicles – buses and trains – are well established:



Buses and trains reduce congestion, lead to better air quality, have a lower cost of ownership and operation than private cars, and are an effective mechanism to reduce greenhouse gas emissions.

In order to act quickly enough to address the climate emergency, significant improvements to the bus network in Canterbury district are imperative.

The economics of powering up a sustainable rural bus network are challenging in the absence of public subsidy. Clever joining up of bus and taxi networks to unlock on-demand transport services is an effective way to leverage the sustainable bus network.<sup>16</sup> In order to develop a people-centred approach to public transport that serves rural areas, a partnership between local government, bus and taxi operators is necessary. The Quality Bus Partnership model should be used to form a Quality Rural Transport Partnership or similar that focuses on strategies for enabling sustainable rural public transport solutions.

Children also need a more comprehensive school bus service for secondary schools in the district so that school transport can be more sustainable within the confines of the current school place allocation system. The combination of fare and reliability of service, including limited provision for rural areas and at times necessitated by

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<sup>16</sup> See The Future of Mobility March 2019 for more information about transport on demand [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/780868/future\\_of\\_mobility\\_final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/780868/future_of_mobility_final.pdf)

attendance at after-school clubs, leads many parents or guardians to choose to drive their children to school. Choice of mode of transport for school is also linked to safe walking and cycling routes. Bus service providers are constrained by the peak capacity needs of the network versus cost effectiveness and the school subsidy from Kent County Council. Regardless of the challenges, school transport needs a creative rethink to move it to a sustainable service that school children and their parents/guardians choose above private vehicles.

Taking a lead from other UK cities<sup>17</sup> we need to:

**Reduce bus fares** across the district to reduce them to a level that is competitive compared with private car usage. Seek subsidy for initial 'trial 'runs' that could result in take-up sufficient to make new services financially viable and cheaper for the user.

Improve bus services by:

- Establishing **a more connected and increased capacity bus network**, better linked to the rail network
- **Improving ways to traverse Canterbury** city including a bus loop around the city centre and new bus connection hubs that better link the network
- **Improving access** to key destinations within the district from the rural areas; some of the rural network may be served by more innovative on-demand services
- Using SMART corridors to prioritise buses at lights and at the most congested times so that bus services are visibly better than private cars
- Set a target to make all homes in district urban and sub-urban areas a maximum of ten minutes' walk from frequent public transport
- Enable a bus user group with representation from all sectors of the community, to raise awareness of local needs and barriers to use of services, while offering opportunities for members of the public to have a say in the shaping of the local bus network
- Using integrated ticketing and 'whole journey pricing, where a single ticket can be used for the whole transport system( including trains) in order to reduce travel costs for commuters

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<sup>17</sup> Such as Cardiff ,Nottingham, and York

- Improving the quality of the journey experience through the provision of bus shelters at the majority of bus-stops
- Ensuring availability of information (audible, visible, and real time) that enables access to services for all passengers in ways that make use of technological innovation.
- Making additional fare concessions available to users of electronic cards
- Using SMART technology to manage public transport, ensuring road priority and even spacing for buses that makes them visibly better than cars.

**By 2030 all buses in the district need to be clean, green and efficient, powered by electric or hydrogen-electric systems.**

## 4 SERVICE VEHICLES

Putting people first, our vision is for a district where goods are delivered by vehicles powered by renewable energy, and distribution networks are designed to minimise the impact on residents, and make the job of the drivers easier.

Distribution of goods is a vital part of our social and economic sustainability. Systems of distribution and delivery have evolved quickly with the digital revolution. The transport system that they use are based on hydrocarbon-fuelled vans and lorries operating independent networks. Although many aspects of the current distribution system may be cost-efficient, the actual delivery work is often based on precarious and unsocial working conditions. On top of this, the low value put on pollution and emissions means that current practices are neither socially nor environmentally sustainable.

In order to reform the delivery network to transform it from the current unsustainable system to one that is better for people, better for the district and better for the planet, careful negotiation and development of solutions will be needed, working closely with businesses and residents. It is likely that pricing measures in conjunction with incentives and experimental infrastructure will yield results. Best practices from other areas of the UK<sup>18</sup> show that a mix of policy, logistics and technology is likely to bring the most effective change.

Canterbury district comprises around 140 businesses with 25% dealing with or supplied by road freight.<sup>19</sup> Department for Transport<sup>20</sup> road traffic data shows that the volume of light goods vehicle (vans) traffic has increased by around 20% in the last 10 years and that there has been a drop in heavy goods vehicle (lorry) traffic. For example 2018 traffic counts on the A28 at Vauxhall Road in Canterbury show an increase in vans to over 1200 travelling in each direction per day and whilst the heavy goods vehicle traffic dropped to around 250 each way per day, the overall goods traffic increased by 8% from 2001 to 2018. Although more comprehensive data is required for an accurate picture, the emissions from distribution vehicles delivering to, from and within the district is likely to be in the range of 25,000 – 100,000 tonnes CO<sub>2e</sub> per annum.<sup>21</sup>

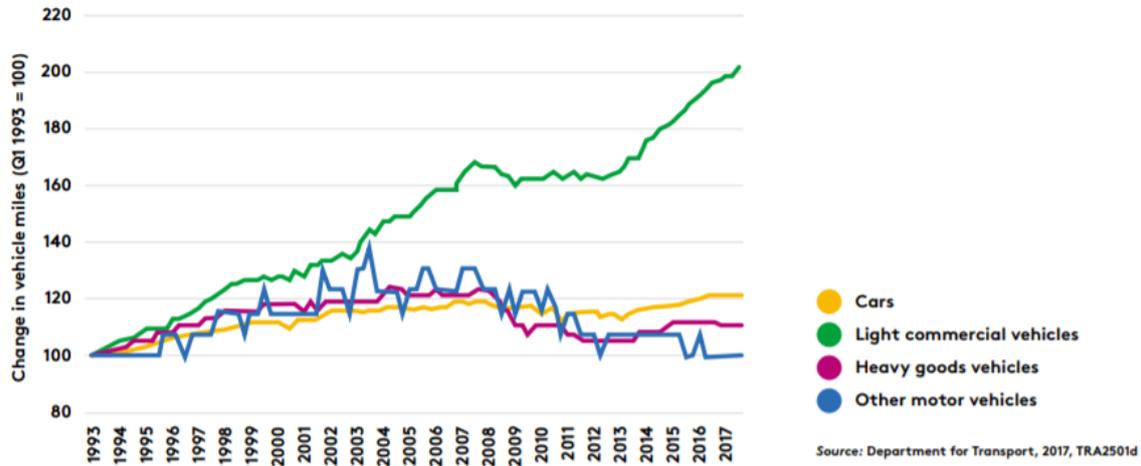
<sup>18</sup> <http://content.tfl.gov.uk/freight-servicing-action-plan.pdf>; [http://www.sestran.gov.uk/wp-content/uploads/2017/01/action\\_4\\_task\\_2\\_sustainable\\_best\\_practices\\_final.pdf](http://www.sestran.gov.uk/wp-content/uploads/2017/01/action_4_task_2_sustainable_best_practices_final.pdf)

<sup>19</sup> Logistics and distribution in Kent Feb 2018 p4. <https://www.locateinkent.com/wp-content/uploads/2018/03/28150K4-LiK-Logistics-Brochure-v1.pdf>

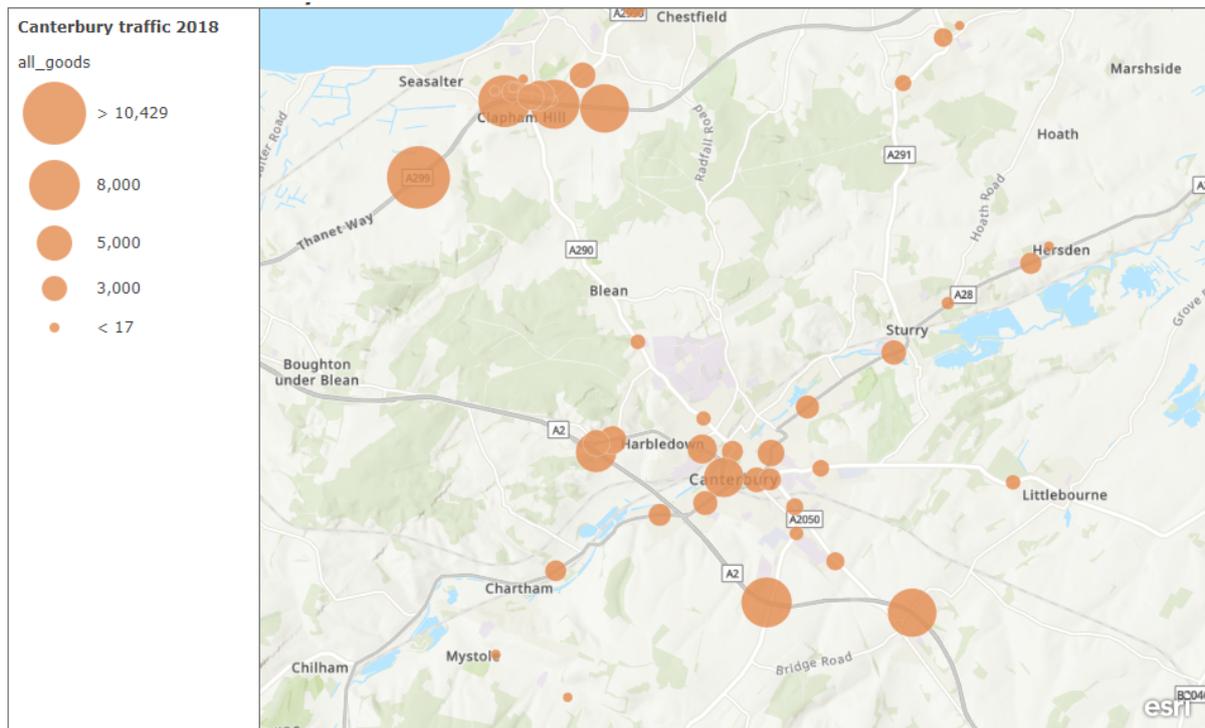
<sup>20</sup> <https://roadtraffic.dft.gov.uk/local-authorities/80>

<sup>21</sup> Based on 2019 emissions factors, average journey 10km, 220 days per year

The national long-term trend in growth of delivery vehicle traffic<sup>22</sup> also helps to make the case for the need for strategic planning specifically for service vehicles:



GIS mapping of road usage data shows that the largest amount of goods traffic is passing through the district on the major roads to Thanet and Dover. Detailed data collection and logistics analysis would enable an evidence base for strategic distribution planning.



2018 Survey data goods vehicles in Canterbury District

Esri, Intermap, NASA, NGA, USGS | Esri UK, Esri, HERE, Garmin, METI/NASA, USGS

<sup>22</sup>Department for Transport – Future of Mobility  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/780868/future\\_of\\_mobility\\_final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/780868/future_of_mobility_final.pdf)

Given the urgent need to reduce emissions for air quality and the aim to reach a net zero distribution system within 20 years, the strategic choice to tackle the last stage of distribution within urban areas, as exemplified in the freight strategy for London, makes sense.

Canterbury district will to reduce emissions from freight through:

- Promoting beneficial behaviour and lifestyle changes that **reduce the need for distribution**
- Encouraging a **switch to lower emission vehicles** using a progressive series of policy levers from awards and incentives through to taxation and permits
- Adopting **smarter practices** for delivery time-windows and introducing **staging hubs** to separate people from polluting vehicles
- **Reducing freight movements** through better use of consolidated trips by setting targets for distribution and delivery companies operating in the district
- **Enabling freight handling centres** that allow the last stage of distribution, from hub to delivery, to move to low emissions and zero-carbon transport such as electric van, electric trike, bike, pedal or foot

## 5 SHARED MOBILITY

In order to meet carbon emissions reduction targets for climate change, is it essential that we share more of the available low emissions vehicles.

The number of cars in the district has been increasing and in 2011 there were over 70,000 cars and vans in private ownership in the district<sup>23</sup> for a population of around 160,000. Getting these numbers down is crucial, but difficult. Scientists have shown that it is not possible for everyone simply to switch their diesel and petrol-powered private cars for electric vehicles. This is because there is a global shortage of the materials needed for the batteries.

Besides this, the manufacture of a car is itself a major proportion of the vehicle's lifetime carbon footprint. The carbon emissions generated in the production of an electric car are currently around 10 tonnes CO<sub>2e</sub> per vehicle<sup>24</sup> (about double that of a conventional vehicle). If people run their electric car for an average of 10 years, the production of electric cars would result in a carbon footprint of around 0.5 tonnes CO<sub>2e</sub> per person per year. In the long run this is clearly incompatible with reaching net zero emissions.

Although electric or hydrogen-electric cars are not the answer, they can be part of the transitional arrangements. According to CarbonBrief, in the UK in 2019, the lifetime emissions per kilometre of driving a Nissan Leaf EV were about three times lower than for the average conventional car. So switching to electric cars is an interim tactic to improve air quality and reducing overall emissions.

The best use of private electric vehicles, minimising the carbon emissions associated with manufacture, will be to share them. National and regional reports explain the importance of moving to more shared transport but suggest that without a shift in public perception and strong motivation change it is unlikely to happen quickly enough.<sup>25</sup>

It is important, therefore, that strategic mechanisms are put in place to incentivise a move to more shared private transport as part of the journey to a sustainable transport vision.

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<sup>23</sup> [https://www.kent.gov.uk/\\_data/assets/pdf\\_file/0006/78135/Canterbury-District-Transport-2014-2031.pdf](https://www.kent.gov.uk/_data/assets/pdf_file/0006/78135/Canterbury-District-Transport-2014-2031.pdf)

<sup>24</sup> Life cycle greenhouse gas emissions of Electric Vehicles in China: Combining the vehicle cycle and fuel cycle, Energy Volume 177, 15 June 2019, Pages 222-233

<sup>25</sup> The Future of Mobility  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/780868/future\\_of\\_mobility\\_final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/780868/future_of_mobility_final.pdf)

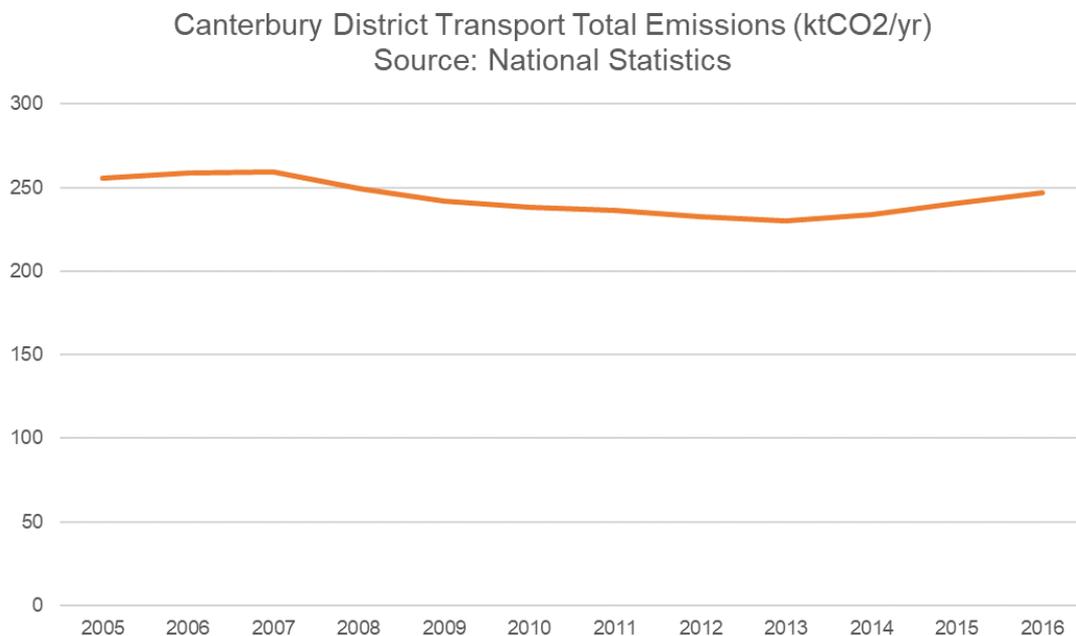
Shared ownership and use of zero emissions private vehicles needs to be incentivised in the district using any and all mechanisms available such as:

- Exemption from congestion and low emissions zone charges
- Free or subsidised installation of charging points for shared-ownership vehicles
- Restrictions on all business parking in urban areas that favour shared-ownership vehicles
- Vehicle dealers to have incentives to prioritise shared ownership schemes

## 6 PRIVATE VEHICLES

With much better other options, we will be less reliant on private vehicles and happier and healthier as a result.

We have to be honest with ourselves: private vehicle ownership and usage needs to reduce very quickly. There simply isn't enough capacity in the atmosphere for us to keep on pouring carbon dioxide into the sky at the current rate. We have to understand the guidance given to us by the United Nations – guidance based on the best science – and take decisive collective action. We have to act together, and we have to put in place steps that will enable us to act together in a way that is fair.



Alternative fuel private vehicles – electric and hydrogen – won't solve the traffic congestion problems.<sup>26</sup> Although a wholesale switch to electric cars will reduce harmful greenhouse gas emissions somewhat, it will not reduce emissions enough to reduce our impact on the climate if levels of car ownership and usage remain as in 2018. Yes, encouraging the switch to electric cars in the short term is a good move for air quality, the carbon emissions associated with constructing, running and recycling an electric car means that they save about 50% of the carbon emissions over the lifetime of vehicle. This is not a sufficient carbon emissions reduction to meet 50% reduction goals for 2030.

We therefore need to use established successful levers to motivate people to more sustainable transport choices. These mechanisms have already been discussed in

<sup>26</sup> <https://transportforthesoutheast.org.uk/wp-content/uploads/2019/10/TfSE-Draft-Transport-Strategy-v24.0.pdf>

this strategy: powering up walking, cycling and public transport in a way that is highly attractive to people.

However it is also clear from all the research that restrictions to the use of private motor vehicles must be used to help the change. Effective restrictions include:

- Ultra-low emissions zones
- Increased taxation on private motor vehicles
- Increased taxation on hydrocarbon fuels

Ultra-low emissions zones (ULEZ) introduced in Canterbury, Whitstable and Herne Bay make sense in the short term: these areas have known air quality problems and/or congestion. Surveys show that people are highly supportive of ULEZs.<sup>27</sup> If these ULEZs are introduced carefully during as soon and possible with effective local resident involvement and simultaneous visible increase in walking, cycling and public transport.

Increases in taxation are outside the remit of local and regional government. However, congestion charging, workplace parking levy and increased parking charges in urban areas are all mechanisms that other jurisdictions are using to mobilise change towards more sustainable transport.

**District residents must be engaged in a decision making** to implement progressive reductions in car usage

- Improvements in walking, cycling and public transport need to facilitate the changes
- Implementation of **congestion and Ultra-Low Emission Zones** must start immediately focusing on air quality now and then progressively on overall emissions reduction for climate change
- **Disincentives to purchase and ownership of petrol and diesel powered vehicles** need to be put in place wherever possible. These can go hand in hand with improvements to streets for people

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<sup>27</sup> <https://www.theguardian.com/environment/2019/apr/08/londoners-back-charging-dirty-drivers-says-air-pollution-study-ulez>

## Conclusion – starting the journey

This is not the first report about reforming transport strategy for Canterbury District and it won't be the last. The extant Canterbury district transport strategy 2014-2031<sup>28</sup> includes aspirations for some of the things in this vision, but it lacks vision to change the current hydrocarbon-fuelled vehicle dominated transport system. Most importantly, the current plan directs the majority of resources into developing the road network for road vehicles. As this report states, along with many others in the literature, the continued capacity expansion of the road network will only serve to increase congestion and emissions in the long run. A new district transport strategy is needed with a vision – a vision like the one we present here – that puts people priorities first. The resources – the budgets from Kent County Council and Canterbury District Council, developer and business plans, and the decisions of local residents – must be redirected so that we can start to move towards a cleaner, healthier and happier future.

Key to starting this journey is a much greater inclusion of people in the decision-making process. It is imperative that local and regional government bring people and business into conversation to work together to provide solutions to our shared problems. The move to happier, healthier streets with more walking and cycling space, more greenery, less car access, and lower speed limits requires street-level public engagement. The conversion of the urban centres into Ultra-Low Emissions Zones with more pedestrianisation and better cycle access needs town-level partnerships that can plan the progressive steps. The ramping up of public transport needs Quality Bus Partnerships that take action.

There is a lot of work to do. There is an urgent imperative for it. There is a public appetite to get it done.

Let's go.

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<sup>28</sup> [https://www.kent.gov.uk/\\_data/assets/pdf\\_file/0006/78135/Canterbury-District-Transport-2014-2031.pdf](https://www.kent.gov.uk/_data/assets/pdf_file/0006/78135/Canterbury-District-Transport-2014-2031.pdf)