



CAMBRIDGESHIRE & PETERBOROUGH
COMBINED AUTHORITY

Bus Services Delivery Review: Vision for Bus

March 2020



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Produced by:



For:



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Executive summary

The bus plays an important part in Cambridgeshire and Peterborough's overall transport system. As the most-used public transport mode, it enables people to get to and from work, shops and to education, health and leisure facilities. As well as providing accessibility for all, buses have wider benefits to society by reducing congestion, improving air quality, enhancing health and well-being and adding value to the economy.

Concerns around climate change, air quality and traffic congestion focus attention on sustainable travel modes including public transport. There is a desire to see improvements in bus services across Cambridgeshire and Peterborough, both on the part of decision-makers and residents. In order to address local challenges and meet the needs of the wider policy context, five main objectives for the bus are as follows:

- 1) **The bus is an attractive mode of travel that competes with the car.** To reverse the decline in bus use, bus travel needs to be attractive, comfortable and convenient for day to day journeys to work, shops, education, healthcare and leisure activities.
- 2) **The bus network supports sustainable growth.** It will seek to provide direct, convenient links to employment centres, help communities access facilities and ensure new housing areas have sustainable travel options. This may discourage car use, helping to reduce traffic congestion and improve travel reliability for all. It will be important for land use planning policies and approaches to new development to support and complement effective bus service provision.
- 3) **The bus helps to protect and enhance the environment.** Low and zero emission buses will contribute to improving air quality and reductions in carbon emissions. Ultimately, attractive travel alternatives to the car may reduce traffic levels and the amount of land given over to the car, offering opportunities to enhance the landscape and public realm.
- 4) **The bus network supports the health and wellbeing of the population.** An extensive, attractive, convenient and reliable bus network would offer opportunities for stress-free, safe travel and more sustainable travel choices. Collective travel provides a sense of community and belonging. It can encourage more physical activity and exercise, as well as providing access to leisure, recreation and healthcare facilities.

- 5) **The bus provides opportunity for all.** A comprehensive bus network would offer high levels of connectedness and accessibility to facilities and services for those who have no alternative and those who choose to use the bus.

The vision

- 1.1 The Combined Authority's vision for buses is that:

“Everyone should have the opportunity to travel; their chances in life should not be constrained by the lack of travel facilities open to them.”

- 1.2 Central to this vision will be a bus network that is part of a world class public transport network that gives everybody an integrated travel service with quality information and vehicles.

- 1.3 Key elements of the vision are:

- **Best-in-class:** A high quality network of road-based public transport services that are reliable, frequent, convenient and affordable, and that meet the needs of residents, businesses and visitors. The bus is an attractive mode of travel, which offers a real alternative to the car. The network encompasses all forms of road-based, shared transport including bus, taxi and private hire vehicles, demand responsive transport, community transport and car clubs.
- **Sustainable growth:** The bus network underpins economic and housing growth by connecting people with places and services. It enhances quality of life and supports healthy choices, whilst protecting and enhancing the environment.
- **Opportunity for all:** The bus network provides convenient access to jobs, facilities and services for all, irrespective of income, age, ability, location or access to a car.

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Appendices

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2. Introduction

- 2.1 The bus plays an important part in Cambridgeshire and Peterborough's overall transport system. As the most-used public transport mode, it enables people to get to and from work, shops and education, health and leisure facilities. In addition to providing accessibility for all, buses have wider benefits to society by reducing congestion, improving air quality, enhancing health and well-being and adding value to the economy.¹
- 2.2 Concerns around climate change, air quality and traffic congestion focus attention on sustainable travel modes, including public transport. There is a desire to see improvements in bus services across Cambridgeshire and Peterborough, both on the part of decision-makers and residents². Recent surveys and consultations highlight significant interest in potential public transport enhancements and measures to support them.
- 2.3 An online survey and on-street market research interviews, conducted towards the end of 2019 with people across Cambridgeshire and Peterborough, showed huge support for bus services, with over 80% of existing bus users and non-bus users supportive of potential improvements to bus services. The most important factor regarding current bus use was reliability of service, followed by its frequency; 65% of bus users cited reliability as their main concern. In terms of potential improvements to bus services, bus users wanted to see greater reliability and less disruption on the road network, more frequent services connecting more places and more co-ordination, with services joining-up better (e.g. service timings and connections and combined fares and tickets). Non-bus users supported a range of improvements, including more frequent services, quicker journey times, more services connecting places, greater integration and good value fares; 23% of non-bus users indicated that there was nothing that would persuade them to use improved bus services.
- 2.4 In summary, people essentially want to see enhanced bus services that are reliable and go more often, more directly, to more places.
- 2.5 With such interest and support, there is an opportunity to develop and promote bus travel and allow the bus to meet its full potential. Already, such aspirations are reflected in the Cambridgeshire and Peterborough Local Transport Plan. These are now

¹ <https://greenerjourneys.com/wp-content/uploads/2016/10/The-Value-of-the-Bus-to-Society-FINAL.pdf>

² Existing Position and Local Insights Technical Notes, ITP

translated into a vision to transform bus services in the coming years as part of an integrated transport system that supports the economy and social fabric of the region.

The Vision

- 2.6 This document sets out an ambitious vision for bus that will support and shape the development of the Combined Authority's Bus Strategy, including the development and evaluation of business cases for possible future bus delivery models, namely franchising, enhanced partnerships, and advanced quality partnerships, as well as the existing deregulated environment.
- 2.7 The document is structured as follows:
- **Chapter 2** provides an overview of the current situation, and identifies the objectives of the vision, taking account of local policy and aspirations.
 - **Chapter 3** presents the vision and its characteristics, considering what the bus network might look like to users.
 - **Chapter 4** outlines potential bus network specifications, measures and targets.
 - **Chapter 5** looks at the implications of making the vision a reality.
- 2.8 Significant work has been undertaken to draw together evidence for what the future might look like for bus. This has included primary research amongst bus users and non-users, as well as a review of existing and emerging evidence. This work is summarised in three separate technical notes covering the existing position, local insights and wider insights. **Appendix A** summarises the themes that have emerged from the evidence base.

3. Context

- 3.1 Buses carry about 30 million passengers per year across Cambridgeshire and Peterborough. Four percent of journeys to work are made by bus³.
- 3.2 The bus network is made up of different types of services, including inter-urban, city, park and ride and local provision. This is supplemented by other types of non-public passenger transport such as community transport and dedicated education and health-related transport.
- 3.3 Bus services operate in a deregulated environment, with commercial bus operators determining routes, timetables and fares on services that they consider to be profitable. Local authorities can look to fill gaps in the network, by specifying and financially supporting the provision of additional services. Equally, other organisations may choose to support specific types of services or provide community-based transport. Whilst it is possible for some of the players to collaborate or form partnerships to provide services, overall the picture is of fragmentation, with no overall network planning or co-ordination.
- 3.4 Where provided, the bus can be used by different groups of people, including those who cannot drive, those who choose not to drive, those with no car available and those making journeys where walking or cycling is not possible. As well as its importance in promoting accessibility and social inclusion, the bus has benefits to the economy in respect of supporting employment, the health of high streets and reducing the costs of poor air quality and traffic congestion.
- 3.5 Over the years, bus usage has declined. This is mainly attributable to rising car ownership and use. In England, Department for Transport statistics show that 50% of households owned at least one car in 1970; current levels now stand at about 75%. In 2011, 89% of households in South Cambridgeshire owned a car or van, whilst the figure was 75.1% in Peterborough. Across Cambridgeshire and Peterborough, these figures had grown by between 1 and 2% between 2001 and 2011, apart from in Cambridge City where there was a 2.7% decrease.⁴
- 3.6 Furthermore, as noted by the Local Transport Plan, bus fares have risen faster than the Retail Price Index, "threatening access to the public transport network."⁵

³ Strategic Bus Review, SYSTRA, 2018

⁴ Census analysis, RAC Foundation, December 2012

⁵ Draft Cambridgeshire and Peterborough Local Transport Plan, June 2019

- 3.7 Between 2009 and 2017, bus patronage in Cambridgeshire and Peterborough declined by more than 10%. However, the general decline masks the success of some services, including the Busway and Cambridge Park and Ride. In recent years there have been many challenges on bus services, particularly falling usage, reductions in public funding and rising costs. These all contribute towards worsening levels of service that in turn reduce the attractiveness of buses.
- 3.8 The 2019 Bus Passenger Survey undertaken by Transport Focus⁶ indicated that overall satisfaction with bus services in Cambridgeshire and Peterborough was 86%. Whilst this was on a par with counties such as Staffordshire and Worcestershire, it was lower than other authorities where levels were as high as 95%. With regards to value for money, 60% of passengers were satisfied. This was better than some and similar to Kent and Oxfordshire, but worse than places such as Derbyshire (72%) and Nottinghamshire (71%).
- 3.9 In terms of passenger types, commuters were least satisfied in Cambridgeshire and Peterborough.
- 3.10 With regards to bus stops across the area, the provision of information showed the lowest levels of satisfaction.
- 3.11 The Local Transport Plan notes that whilst 58% of the population of Cambridgeshire and Peterborough are within 30 minutes of major employment centres (and a further 25% are within 60 minutes), many rural areas in particular lack direct public transport accessibility or suffer from lengthy journey times that make it difficult for those without a car to access jobs and services elsewhere. In South Cambridgeshire, only 22% of residents are within 30 minutes of walking or public transport access of a town centre.
- 3.12 However, the world doesn't stand still. There is significant housing and employment growth in the region; working patterns and locations are becoming more flexible and diverse; some facilities are increasingly centralised; more activity is moving on-line; society functions 24/7; population continues to get older. These create challenges and opportunities for public transport and the need for the role of the bus to evolve.
- 3.13 Public and stakeholder engagement highlights the various challenges associated with current bus service provision across Cambridgeshire and Peterborough:
- **Unavailable** in terms of routes and different times of the day and week.
 - **Inconvenient** in terms of levels of service and journey time.

⁶ Transport Focus: Autumn 2019 Bus Passenger Survey: <https://www.transportfocus.org.uk/research-publications/publications/bus-passenger-survey-autumn-2019-report/>

- **Unreliable** due to delays and traffic congestion.
 - **Unviable** due to levels of demand and lack of funding.
 - **Inconsistent** due to lack of co-ordination.
- 3.14 Traffic congestion in Cambridge is particularly problematic for buses, causing them to be unreliable. Vehicle tracking data from December 2019 indicates that on routes serving Cambridge city centre, only 79% of buses departed from their origin stop on time.⁷
- 3.15 Across the Combined Authority area, 74% of passengers were satisfied with bus punctuality. This is better than authorities such as Hertfordshire and Essex, but worse than others where satisfaction is as high as 84%. Whilst 81% of passengers were satisfied with the time spent on bus, similar to the result in Oxfordshire and West of England, the figure was worse than many other places.⁸
- 3.16 These challenges will need to be tackled. This vision document starts to consider how the position of the bus might be transformed.

Policy backdrop

- 3.17 Overarching policies and strategies developed by the Combined Authority and others, such as Greater Cambridge Partnership, already point to improvements in public transport. Plans for the Cambridge Autonomous Metro (CAM) are progressing, services on the Busway have been boosted and new buses introduced, electric buses are being trialled and consideration is being given to new and enhanced bus services to give better travel choice to significant employment areas.
- 3.18 The Local Transport Plan has ambitious targets for people to be able to travel to work within 30 minutes, either by walking, cycling or using public transport. It aspires to improved bus services between towns and cities, also linking rural hubs served by networks of local and demand responsive services.
- 3.19 Overall, the Local Transport Plan aspires to the development of a world-class transport system that supports sustainable growth and provides opportunity for all. This provides a sound basis for the vision for the bus.

⁷ From ticket machine data supplied by Stagecoach and Whippet to CPCA

⁸ Transport Focus: Autumn 2019 Bus Passenger Survey: <https://www.transportfocus.org.uk/research-publications/publications/bus-passenger-survey-autumn-2019-report/>

Objectives

3.20 In order to address the highlighted challenges and meet the needs of the wider policy context, 5 main objectives for the bus are as follows:

- 1) **The bus is an attractive mode of travel that competes with the car.** To reverse the decline in bus use, bus travel needs to be attractive, comfortable and convenient for day to day journeys to work, shops, education, healthcare and leisure activities.
- 2) **The bus network supports sustainable growth.** It will seek to provide direct, convenient links to employment centres, help communities access facilities and ensure new housing areas have sustainable travel options. This may discourage car use, helping to reduce traffic congestion and improve travel reliability for all. It will be important for land use planning policies and approaches to new development to support and complement effective bus service provision.
- 3) **The bus helps to protect and enhance the environment.** Low and zero emission buses will contribute to improving air quality and reductions in carbon emissions. Ultimately, attractive travel alternatives to the car may reduce traffic levels and the amount of land given over to the car, offering opportunities to enhance the landscape and public realm.
- 4) **The bus network supports the health and wellbeing of the population.** An extensive, attractive, convenient and reliable bus network would offer opportunities for stress-free, safe travel and more sustainable travel choices. Collective travel provides a sense of community and belonging. It can encourage more physical activity and exercise, as well as providing access to leisure, recreation and healthcare facilities.
- 5) **The bus provides opportunity for all.** A comprehensive bus network would offer high levels of connectedness and accessibility to facilities and services for those who have no alternative and those who choose to use the bus.

Table 3-1: Bus vision objectives and measurable targets

Objective	Potential measures
<p>Objective 1 The bus is an attractive mode of travel that competes with the car.</p>	<ul style="list-style-type: none"> ○ Bus mode share compared with car ○ Year on year bus patronage growth ○ Bus punctuality levels ○ Journey time by bus compared with car ○ Satisfaction in using the bus
<p>Objective 2 The bus network supports sustainable growth</p>	<ul style="list-style-type: none"> ○ Proportion of households able to access employment within 30 minutes ○ Level of connectivity by bus with a choice of surrounding destinations ○ New housing developments connected into the bus network
<p>Objective 3 The bus network helps to protect and enhance the environment</p>	<ul style="list-style-type: none"> ○ Proportion of bus fleet that is very low or zero emission
<p>Objective 4 The bus supports the health and wellbeing of the population</p>	<ul style="list-style-type: none"> ○ Proportion of households with access by bus to health and leisure facilities ○ Proportion of households with access to regular bus service(s) that operate above minimum levels of provision
<p>Objective 5 The bus provides opportunity for all</p>	<ul style="list-style-type: none"> ○ Proportion of households with access to a regular bus service ○ Proportion of households served by evening and Sunday buses ○ Cost of using the bus in comparison to car ○ Rate of increase in bus fares

4. The Vision

4.1 The Combined Authority's vision for buses is that:

“Everyone should have the opportunity to travel; their chances in life should not be constrained by the lack of travel facilities open to them.”

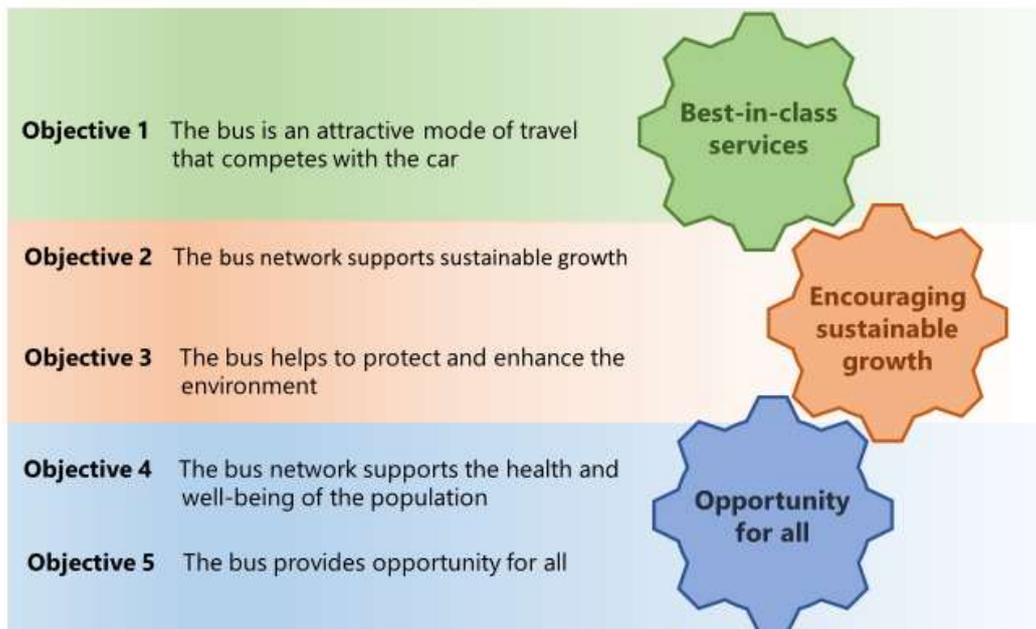
4.2 Central to this vision will be a bus network that is part of a world class public transport network that gives everybody an integrated travel service with quality information and vehicles.

4.3 Key elements of the vision are:

- **Best-in-class:** A high quality network of road-based public transport services that are reliable, frequent, convenient and affordable, and that meet the needs of residents, businesses and visitors. The bus is an attractive mode of travel, which offers a real alternative to the car. The network encompasses all forms of road-based, shared transport including bus, taxi and private hire vehicles, demand responsive transport, community transport and car clubs.
- **Sustainable growth:** The bus network underpins economic and housing growth by connecting people with places and services. It enhances quality of life and supports healthy choices, whilst protecting and enhancing the environment.
- **Opportunity for all:** The bus network provides convenient access to jobs, facilities and services for all, irrespective of income, age, ability, location or access to a car.

4.4 The vision directly responds to the objectives set out in Chapter 2.

Figure 4-1: Bus network vision objectives

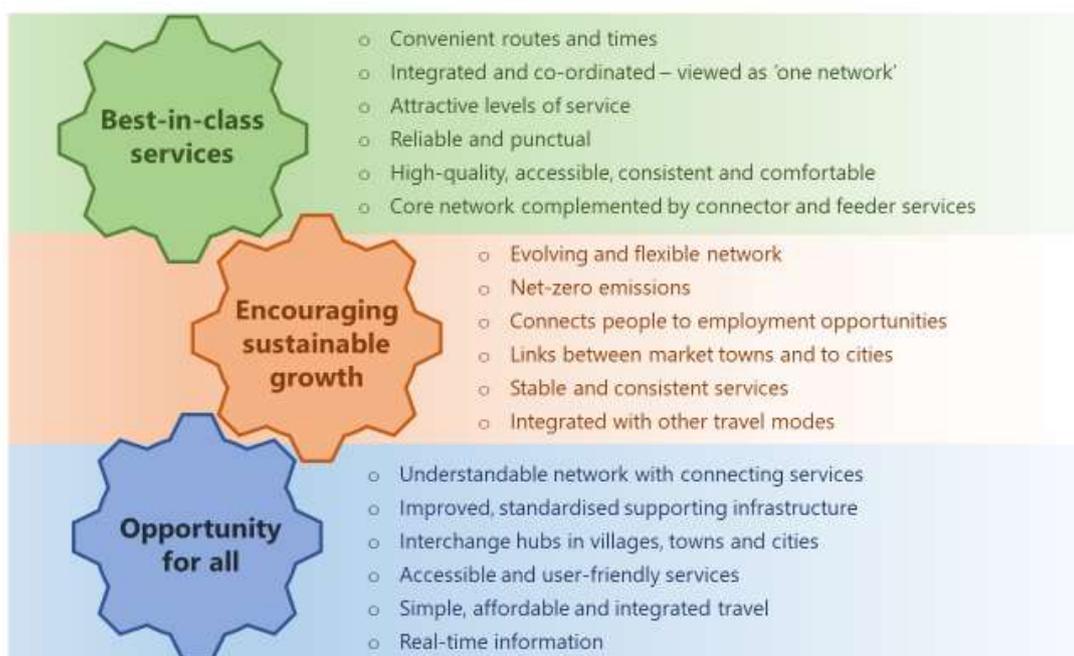


Characteristics of the future network

- 4.5 For the road-based public transport network to be considered best-in-class, it would aim to display the following characteristics:
- Buses at convenient times to the destinations people want to reach.
 - Co-ordinated routes, services, fares and information, providing seamless travel even with interchange.
 - Sufficiently frequent to be attractive, with journeys throughout the day that offer users flexibility, choice and convenience.
 - Reliable services that are on time, giving confidence to users.
 - Attractive and comfortable service, including high quality vehicles, friendly drivers, pleasant waiting places and readily available and understandable information.
- 4.6 Bus services would support and encourage sustainable growth by:
- Responding to changing land use patterns and the needs of new developments.
 - Moving towards the use of low or zero emission vehicles.

- Offering good connectivity between places, including direct access to larger employment sites.
 - Providing a stable network that offers certainty and gives confidence.
 - Building demand on main corridors to help develop the market for higher capacity mass rapid transit services, where appropriate.
 - Integrating with other travel modes.
- 4.7 Bus services would provide opportunity for all through:
- An understandable network, with clockface timetabling and simple fares structures, that is clearly promoted and easily recognised through branding and comprehensive marketing.
 - High quality and consistent passenger infrastructure, vehicles and customer care.
 - Straightforward interchange at designated points, with easy transfer between services and other modes.
 - Flexible and responsive services that offer travel options where fixed route services are not viable.
 - User-friendly sources of information available through a range of formats and media throughout the journey.

Figure 4-2: Characteristics of the Network Vision



Future-proofing the vision

- 4.8 The vision avoids defining specific public transport modes and technologies, focusing instead on the core characteristics of the network. This means the vision is not constrained by what we know today, or what we think will happen in the future. Rather it is a network that is flexible and could meet changing needs. Provision and operations would be able to embrace emerging technologies and remain at the forefront of innovation, ensuring that services continue to be world-class.
- 4.9 The main corridors may be operated by road or rail transport, vehicles may be autonomous or driven, they may be provided by CAM or traditional bus. The delivery mode is secondary; the prime concern is that services are fast, frequent, reliable and go where and when people want. Equally, it is important that the bus network is fully integrated with other forms travel modes.

5. How the vision might be achieved

- 5.1 Achieving the vision will rely on the development and delivery of significant enhancements to the existing bus network across Cambridgeshire and Peterborough. This chapter considers what this might mean in practice.

The network

- 5.2 It is likely that Cambridgeshire and Peterborough's bus network would need to develop around two key elements:
- A **core network** of direct and relatively frequent services within and between towns and cities.
 - An **integrated feeder network** of services that link with core services.

Core network

- 5.3 This would consist of several different service types that together provide the main structure of a comprehensive and attractive public transport network:
- **Local urban services** – Larger urban settlements would have a network of high-quality radial services, connecting the suburbs and neighbourhoods with urban centres and employment, shopping, leisure and health opportunities. These services would offer turn-up-and-go frequencies, high quality bus-stop infrastructure, safe waiting areas and good walking and cycling connections with local residential and employment areas. The services would integrate with the wider bus, coach and rail network at primary interchanges in the urban centres and have consistent and reliable journey times as a result of priority infrastructure.
 - **Orbital services** – In and around larger urban areas, orbital routes would connect communities directly with larger peripheral employment areas or retail and health facilities. Designated hubs would facilitate interchange between orbital and other services.
 - **Inter-urban services** – Towns and cities would be connected by inter-urban, potentially limited stop, services. These would run regularly throughout the day, use direct routes and be operated using high quality and comfortable vehicles. Stops would have high quality infrastructure offering safe and secure places to wait. Services may be recognised through attractive branding. Some of these corridors may benefit from dedicated infrastructure and segregation from other traffic.

- **'Connector' services** – These local services would offer direct links between larger villages, market towns and cities. Possibly operating less frequently, they would still offer clockface timetables. Route diversions would be avoided where possible, in order to keep journey times to a minimum.

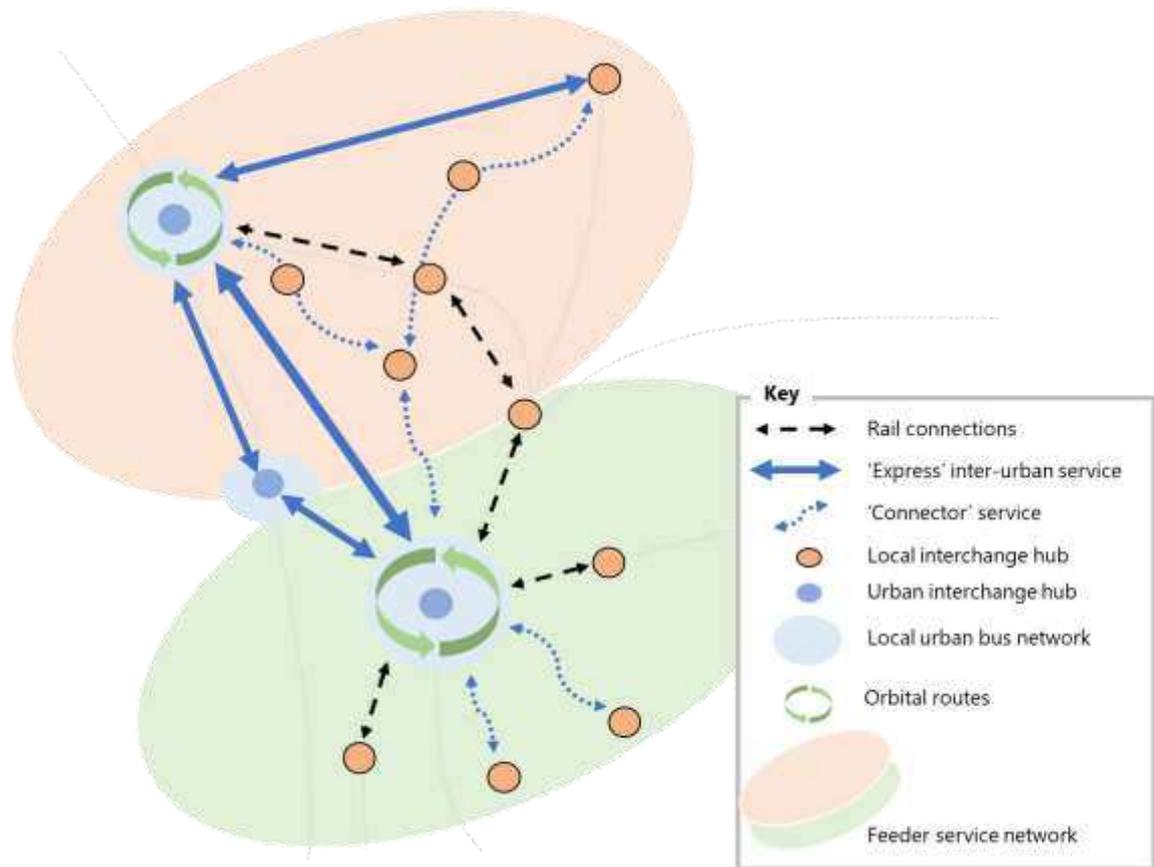
Feeder network

- 5.4 The core network would be supported by a network of feeder services, connecting more sparse rural areas or isolated urban estates to the core network at designated hubs. Where sufficient demand exists, conventional bus services may be offered. Where demand is more limited or dispersed (in terms of geography or time of day), flexible, responsive transport, or community-based services, may be provided. These services could take various forms, including crowd-sourced or demand-responsive services provided by different types of operators, including taxis and private hire vehicles.
- 5.5 Features of the feeder network would include:
- Fares covering the entire journey, regardless of interchange between different services.
 - Coordinated timetables, with guaranteed connections with core services.
 - Single place to get information about services and fares and to plan and book journeys.

Shared priority

- 5.6 City and town centres are the focal points for the bus network. Priority measures for buses over other traffic on the main corridors within these areas would be critical to achieving reliable and attractive services. This might be achieved either by reducing the amount of other traffic using the road network or providing segregated infrastructure for buses.
- 5.7 The large number of buses converging on urban centres would require careful consideration of enhanced provision of stops and interchange facilities.

Figure 5-1: Example bus network concept diagram



Net-zero emissions

- 5.8 Given local and national policy, and the declared climate emergency, the bus network and its supporting infrastructure should aim for net-zero emission and carbon neutral. This would need to include all vehicles; operational infrastructure, including depots and maintenance provision; and supporting infrastructure, including bus stops, interchanges and information provision.

Integration between modes

- 5.9 Critical to the success of the network would be the integration between modes. Designated hubs would facilitate easy interchange between different bus services, as well as integration with other modes (such as walking, cycling and the car).

Information and fares

- 5.10 The bus network would need to be underpinned by available, clear and accurate information at all points of the journey (before and during). The latest technologies and systems would be used to collect, collate and distribute information in simple and accessible forms. Clear and relevant branding and service identities would help people recognise different services and aid understanding of the network.
- 5.11 A single point should exist for enquiries, journey planning, booking, and payment. Where possible, off-bus ticketing would reduce boarding times. Fares and ticketing options would need to be flexible and tailored to specific work and life styles, recognising people's different travel patterns. Fares themselves should be simple, affordable and be automatically capped at maximum limits per day or week.

What it might mean for users

- 5.12 An enhanced bus service network might mean different things for different users. Hypothetical situations to illustrate this are set out in the following table.

	I am a resident	I am a commuter	I am a visitor
From a city	<p>I don't need to look at a timetable, as buses are frequent and go from the end of my road to the city centre.</p> <p>The bus drops me right by the shops; there are fewer cars, so the surroundings are pleasant.</p> <p>Frequent buses home that run until late evening mean that I don't have to keep looking at the time and can stay as long as I want.</p> <p>When I need to travel further afield, timetables are easy to understand; I can use other buses, CAM or train without needing another ticket.</p>	<p>I don't need to think about using a car, as the bus is quick and comfortable, and provides time to relax, read, reflect or work.</p> <p>I don't need to look at a timetable, as buses come every 10 minutes and are reliable. The bus drops me in the city centre, close to my next bus that takes me straight to work.</p> <p>I have a flexible season ticket that means I don't have to travel every day, or on the same route, to benefit from season-pass discounts.</p> <p>Services run frequently and late into the evening, so I don't need to plan ahead if I want to spend the evening in the city.</p>	<p>I get off the train and there are clear directions and information pointing to the appropriate bus service.</p> <p>I feel safe and comfortable waiting for the service, with amenities at the interchange.</p> <p>I use the bus to explore the city, and don't need to worry about how much I travel – I can hop on and off buses knowing the overall fare is capped.</p>
From a market town	<p>My local bus brings me to the town centre; I was able to check it was on time before I left, so didn't have to wait long at the bus stop. The shelter means I can wait comfortably.</p> <p>From the town centre I can get on a service to the city. The buses come at memorable times; they are regular and reliable, so I don't need to keep checking the timetable if I want to stay in town longer.</p> <p>The service to the city is direct, with few stops, so it feels quick. I have one ticket that covers all journeys</p>	<p>From the town centre, I can catch a direct bus to the city. They run early until late, so I can get to and from the office when I choose.</p> <p>The services connect with orbital services on the edge of the city, which means I don't have to go into the city and come out again to get to work.</p> <p>The services are timed to connect, so I don't have to wait long to get my second bus and my ticket means that I don't have to pay again.</p>	<p>From the city train station, I can travel directly to any of the market towns in the area.</p> <p>I don't need a second ticket and the services are direct, fast, regular and every 20 or 30 minutes.</p> <p>There is real-time information at the stops on my return, so I know that services are running on time and when to expect the next one.</p> <p>Buses run from early to late which gives flexibility in how long I can stay.</p> <p>Lit and fitted with CCTV, the shelter is attractive for waiting in comfort and safety.</p>

	I am a resident	I am a commuter	I am a visitor
From a rural area	<p>The village I live in doesn't have a normal bus service. However, I can book to use a minibus service to take me to my nearest town.</p> <p>There are different ways to book and once booked I can track the vehicle online. It picks me up close to my house, and the drivers are friendly and helpful. I am dropped off at my destination. I have booked a return journey, which can be changed if I decide to stay longer.</p>	<p>The demand responsive service runs early and late enough so I can use it to get to and from work.</p> <p>I book the service and it picks me up from my street corner. It takes me directly to the nearest market town, where I connect directly with the bus to the city.</p> <p>Buses are frequent, regular and reliable and I don't need to worry about carrying cash, as I have paid in advance via the app.</p>	<p>Where I am staying doesn't have a normal bus service. However, I can book to use a minibus service to take me into town.</p> <p>I can book and monitor the vehicle online, and it picks me up from the corner up the road.</p> <p>From town, I transfer to the regular, reliable and comfortable inter-city service to take me directly and quickly to the city.</p>

6. Potential service specifications

- 6.1 Based on the long-term vision and objectives, this section sets out a notional specification for a bus network that would meet the aspirations of current bus and non-bus users.

Table 6-1: Specification and targets

Service aspect	Urban services	Inter-urban services	'Connector' services	Feeder services
Summary	Local network of buses with turn up and go frequency Orbital Routes connecting to employment sites and other attractors	Direct, limited stop services between large conurbations	Direct services connecting market towns to larger urban centres where no direct rail services are available	Comprising conventional bus and demand responsive options linking to the core network at local mobility hubs and market towns
Operating hours	Monday to Saturday 0600-2300; Sunday 0730-1900 (some additional journeys outside of these times may operate on certain services to meet specific local needs, such as shift patterns)			
Timetable	Local urban services: at least every 10 or 15 minutes during main daytime period Orbital services: every 15 or 20 minutes during main daytime period	At least every 30 minutes during main daytime period Departures at regular clockface intervals	At least every 30 minutes during main daytime period (provided that sufficient demand exists) Departures at regular clockface intervals	Feeder services: at least every 60 minutes during main daytime period Demand responsive services: available as required Timetables ensure connections with main routes
Journey time	Within 10% of off-peak running time			
Reliability	>95% punctuality			

Service aspect	Urban services	Inter-urban services	'Connector' services	Feeder services
Stops and infrastructure	<p>High quality stops and shelters at boarding points</p> <p>Real time information (RTI) at hubs, interchange points and main bus stops</p>	Limited stop service – key stops with shelters, seating, RTI and CCTV. Off-bus ticketing options	<p>Shelters and waiting facilities, RTI and CCTV in market towns.</p> <p>High quality stops with timetable information</p>	<p>Development of 'virtual stop' network for demand responsive services.</p> <p>High quality stops, shelters and timetable information at village locations and hubs</p>
Interchange	<p>Central multi-modal interchange and focus for the network - including coach, taxi, rail and sustainable modes.</p> <p>Interchange between urban, inter-urban and connector bus services</p> <p>Enhanced facilities including toilets, refreshments, cycle storage, click and collect</p>		<p>Development of market town interchange hubs, linked with other sustainable modes</p> <p>Facilities including toilets, cycle storage, click and collect</p>	
Vehicles	High quality; net-zero emissions; vehicle types depending on demand and type of service			
Accessibility	<p>Network planned holistically, including clear and accessible walking and cycling routes to and from stops. Vehicles fully accessible to all</p> <p>Comprehensive demand responsive network that is fully accessible and door-to-door for those with limited mobility</p>			
Fares and ticketing	<p>Range of fares and ticketing options that cater for different needs and work patterns</p> <p>Off-bus or capped contactless payment to minimise boarding times</p>			
Information	Clear and relevant branding and service identity. A single point for users to access all information, plan journeys, book services and access payment options, utilising latest technology and devices that ensure it is accessible to all.			

7. Implications

- 7.1 The vision for bus is bold and, if achieved, would represent a transformation of the bus network across Cambridgeshire and Peterborough. However, achievement of the vision in full would require some marked changes in how public transport is prioritised, supported and delivered.
- 7.2 Three critical elements to the success of the vision would be:
- **Funding** - Additional funding (capital and revenue) would be required, even if the authority maximised cross-subsidy opportunities. In the short term there would be a funding shortfall, whilst patronage caught up with investment.
 - **Land use planning** – Local Plans would need to be supportive of public transport. Equally, public transport should be at the heart of land use planning and processes, with development focused on locations where high levels of access by sustainable travel modes could be assured. New housing developments would need to be provided with bus services from an early stage of occupation.
 - **Political and policy support** – Provision of an enhanced, reliable bus network would require more road space and priority being given to buses. Measures to change the relative attractiveness of the car and bus will be necessary. Political boldness would be necessary to introduce that change of balance in favour of the bus.
- 7.3 Clear roles and responsibilities for delivering such an enhanced network would need to be defined. These may differ according to the operating model and environment that might ultimately be used to take forward the development of the bus network.

Other future considerations

- 7.4 The scoping and research identified several other implications of developing an enhanced bus network that would need to be considered. These are listed below and will form part of the 5-case business model assessment being used to look at different potential bus delivery mechanisms. These include:
- **Implications of additional buses** – Network enhancements will require more buses. Driver recruitment and training; land for new depots (and location); development and ownership of depots; shared resources; and state aid implications need to be considered.

- **Implications of better buses** – Cost of updating the fleet; timescales and availability of vehicles from manufacturers; infrastructure (such as electric vehicle charging); development of existing sub-stations; willingness and openness from operators and; risks associated with new-technologies.
- **Accelerated housing delivery and the planning process** – Integration of bus services into new development (at an early stage); car parking provision; underlying design and planning principles and the impact/requirement they have on the bus network; and opportunity for funding and contribution.
- **Increase in economic activity** – Changing requirement of future jobs; implications of flexible/alternative working arrangements on patronage; and the shape of the future bus network, location, design and development on new employment hubs and how they are served by the bus.
- **Knowledge and resource** – Availability of network planning and technical expertise within the CPCA; increased administrative burdens; and TUPE implications of changed delivery mechanisms with staff transferring between organisations.
- **Income generation** – Balance between affordable and attractive fares and sustainable revenue; public acceptance of different revenue-generating mechanisms; and implication of revenue shortfall from chosen charging regime.
- **Accessibility** – Impact of reducing or removing access by car on those with mobility issues; sustaining and funding non-commercial routes; and the role of different types of operator within the network of services.
- **Integration** - difficulties in agreeing and co-ordinating a multi-operator ticket that meets Competition and Markets Authority requirements; integrating or co-ordinating back office systems and administration; responsibility for managing and maintaining shared resources; and shared costs/benefits between operators and local authority.

Appendix A

Emerging themes from the evidence

Theme	Key Points	Local policy and review	On-street research	Online survey	Focus groups	Wider insights
Vision	There is strong support for developing a 'transformational' transport system ¹ and developing a World-class transport network ² . Over 80% of public responses were supportive of improvements to local bus services ^{4,5}	👍	👍	👍	👍	👍
Network	Connecting to employment: The bus network needs to support, and encourage, growth in economic activity through improved access to employment opportunities, especially at peak times. ^{1,3} Orbital routes are needed to connect the outlying employment opportunities in large towns and cities. ¹ Radial services should be enhanced ² and residents should have access to employment opportunities within 30min. ³ The most common journeys taken 'often' by bus-users in the online survey are for work purposes. ⁵	👍		👍		👍
	Connecting market towns: The bus network needs to be expanded to support and encourage the regeneration of market towns through better connectivity. ³ Market towns and cities need to be connected through direct bus services. ^{4,6}	👍	👍	👍	👍	
	Improving service frequency: Improvements to bus service frequency seen as a key factor for developing a 'transformational' system. ^{1,3} It was consistently in the top three priorities for improving bus services in the public consultation. ^{4,5,6} Service frequencies should be consistent, with a minimum service frequency depending on route type and area. ² In areas with high enough demand the network needs to evolve to have a turn-up-and go frequency. ²	👍	👍	👍	👍	👍
	Removing barriers to use: Faster and cheaper journey times by car were stated in the on-street survey as the main reasons for not travelling on local bus services. ⁴ However, problems with the bus network were more often cited as a barrier to travel by non-users in the online survey. ⁵ The majority of responses from both users and non-users suggested they would travel more on the bus should their chosen improvements be implemented. ^{4,5}		👍	👍		👍

	<p>Flexible Modes: Demand Responsive Transport (DRT) and flexible options are needed for rural areas, linking to the wider network at key hubs. ^{3,6}</p>	👍			👍	
	<p>Journey time and directness: improvements to journey time is another key priority for developing the bus network in CPCA. Tackling congestion will have the greatest impact on journey time ^{1,6,7} either through prioritising road space, segregating public transport or removing cars from urban centres. Journey times from market towns to cities need to be improved through the development of more direct bus services. ^{4,6} Journey times on some of the busiest bus routes are hampered by extended boarding times due to on-bus ticketing and payment. ⁶</p>	👍			👍	👍
Funding	<p>Charging for car use: There is an openness to charging measures to reduce dependency on the private car. A pollution charge and flexible charging for road use were the highest ranked ideas.¹ Workplace parking levies and non-transport related taxes (such as a tourism tax) were identified in the focus groups as reasonable measures.⁶ There was recognition that good public transport needs to be in place before charging is introduced.¹</p>	👍			👍	
Fares	<p>Lower fares: Would improve the attractiveness of services.¹ Cost of fares was consistently in the top three priorities for improving bus services in the public consultation.^{4,5} High fares outside urban areas means that shorter journeys from rural areas are relatively expensive.⁶ Both users and non-users suggested they would travel more frequently if systems were improved. However, there was no consensus as to whether they would be willing to pay higher fares for enhanced services.^{4,5}</p>	👍	👍	👍	👍	👍
Reliability	<p>Reliability: Improved bus service reliability was seen as key to an attractive bus network.¹ It was consistently in the top three priorities for improving bus services.^{4,5,6} In most urban areas, congestion impacts reliability and limits the opportunity for cross-city routes to be provided.² More bus priority is needed to improve reliability, and general traffic levels need to be reduced.²</p>	👍	👍	👍	👍	👍
Integration	<p>Park and Ride: These services should be integrated into the wider bus network, rather than operate as free-standing services.²</p>	👍				
	<p>Integrated ticketing: Provision of integrated tickets for use across all bus and train services,^{4,6} including smartcard ticketing options.⁶</p>		👍		👍	👍
	<p>Integration of services and interchange: The network should be integrated,³ with better interchange and coordinated / connecting timetables, particularly in rural areas.⁶</p>	👍			👍	
	<p>Future proofing: There needs to be integration between current and future modes, including CAM.²</p>	👍				



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