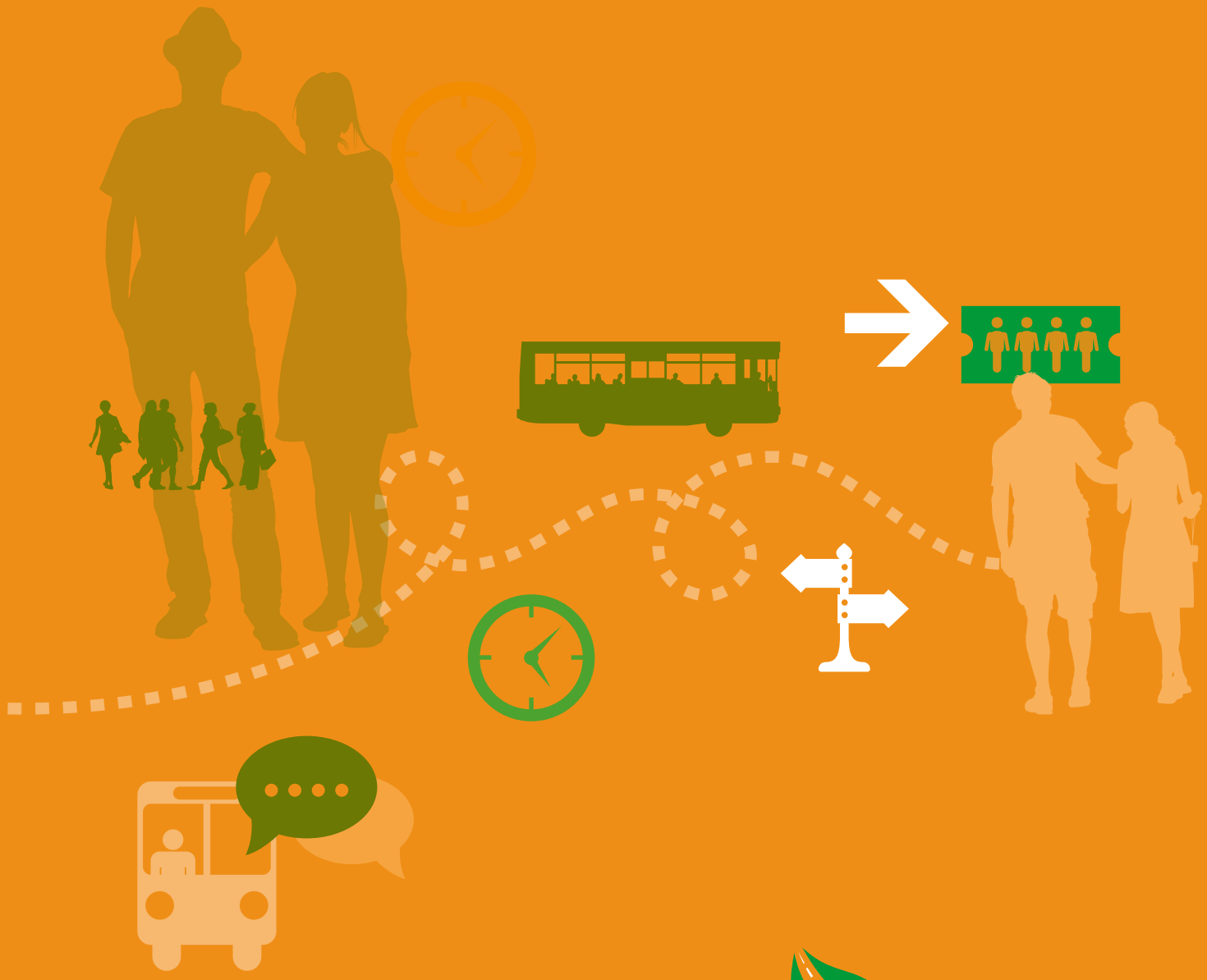
A Roadmap to Growth



greener journeys



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Introduction



This is an exciting time. There is a growing interest in the importance of towns and cities to our prosperity. Transport networks and local bus services are vital to this new urban agenda. Our ability to get around shapes where we live and work, where we are educated, how easily we can attend to our healthcare needs, where we shop and how we use our spare time.

Local decision makers have an important new opportunity – and some new challenges. Funding of major transport schemes is now part of local Growth Deals, with local decision makers determining how to allocate the money. They need to develop robust and rigorous plans for monitoring and evaluation of these schemes. It is not clear, however, at what level this needs to be done and there is no guidance on monitoring and evaluation of specific schemes. Making sure that schemes provide value for money, and work for the benefit for local communities is now more important than ever.

Every day, buses carry millions of people to work, to shops and to education and training. It is in all our interests to do everything we can to improve decision-making in regard to investing in local bus infrastructure.

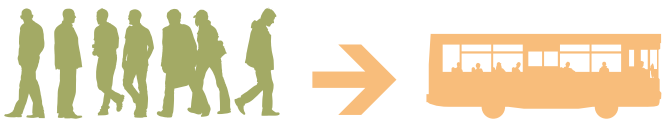
This brochure sets out the case for investing in local bus infrastructure and summarises the economic and environmental benefits. It also draws on new research carried out for Greener Journeys to add further evidence to make the case.

The next section of the brochure discusses the findings of a new project by KPMG LLP that considered the costs and benefits of investing in local bus infrastructure, and examined how to monitor and evaluate the impact of local bus infrastructure schemes. KPMG carried out detailed evaluations of local bus infrastructure projects and found that the projects achieved or exceeded their specific objectives and targets, and provided very high value for money. We look at the reasons for their success as well as aspects of good practice and lessons learnt which can be transferred to other projects.

Finally, the brochure considers how local decision makers can use similar evaluations to deliver better outcomes from their investments in transport infrastructure. In particular, we suggest that the Department for Transport (DfT) has a role to play in providing enhanced and consistent guidance on evaluation of transport schemes to local decision makers.

Our priority, as ever, is to ensure that taxpayers receive high value for money, and that public investment delivers clear benefits for the wider economy. Every pound invested in buses is a sound investment in our environment and our future prosperity.

Claire Haigh
Chief Executive,
Greener Journeys



The case for investing in local bus infrastructure

Buses are the lifeblood of the UK economy. Every year, bus users make 1.4 billion shopping trips and spend an estimated £27 billion on retail goods[1]. Almost 2.5 million people in the UK travel to work by bus and a further one million use the bus as a vital back up[2]; and these commuters create more than £64 billion worth of goods and services[3].

Britain has a valuable opportunity to harness the potential of the bus, and make the economy stronger. One major barrier to Britain's long-term prosperity is traffic congestion in urban areas which, according to the Cabinet Office, costs the UK economy at least £11 billion per year[4].

The best solution is to make better use of existing road capacity. That means investing more in local bus infrastructure. When infrastructure and bus priority measures are well designed, implemented and enforced, in the right locations, transport networks as a whole work more efficiently. This leads to more reliable bus services, fewer delays and improved journey times. As a result, the costs for businesses are lowered and the UK's productivity is improved.

And when services are of higher quality and provide people with better journeys, passengers are encouraged to use their cars less and use more efficient modes of transport.

Benefits for the economy

In 2014, Greener Journeys commissioned KPMG LLP to evaluate returns on investment in local bus infrastructure. They found that when networks perform better, businesses can connect more easily with suppliers. They can also link up more easily with potential customers. Businesses can access a wider pool of talent for their workforces. This way, peoples' skills can be better matched to job opportunities[5].

Bus priority measures bring other benefits. People are more able to participate in the labour market and go to work or stay in work longer. They will have access to a wider range of jobs, increasing the chances that they can find a position that provides a good match for their skills.

Consumers can access shops and services more easily and are able to source a wider range of products or take advantage of better prices.

And by acting as platform for retail development, bus priority measures can help local economies to grow and prosper.

KPMG LLP found that targeted investment in priority measures will typically generate £3.32 of benefits to users, non-users and the wider economy for each £1 of cost incurred[6].

Benefits for the environment[7]

Bus priority measures and busways can promote more efficient use of energy. They can enable buses to attract more users as a result of improved speed and reliability of service. The city of Brighton and Hove, for example, has seen strong growth in bus use in recent years. One reason is the city's extensive provision of bus lanes. The number of passengers on services using the Coast Road bus lane has increased by 63% between 2007 and 2015.

Those already using buses may use them more and people may switch from other modes. The Fastrack service in Dartford and Gravesend has shown a substantial diversion from car to bus. Shortly after the service opened, in 2006, a survey showed that 26% of users had a car available but chose to use Fastrack. Moreover, 19% would have made their journey by car before Fastrack opened.

Bus priorities and busways may also reduce energy consumption by cutting the number of stops that buses make.

Major busway schemes can lead to substantial additional bus usage. This is achieved partly through diversion from cars, and together with other additional bus use, can result in much more efficient energy use in bus services, and also compared with current car use.

The Cambridgeshire Guided Busway is the longest in the world. There was a strong growth in busway usage as soon as the busway opened in 2011, with monthly ridership forecasts for year two attained within the first three months. Following enhanced services, 24% of bus users formerly travelled by car, and a further 13% formerly used lifts or shared cars. Overall user satisfaction levels with the busway services are generally very high, at 87%.

In 2015, Peter White, Professor Emeritus of Public Transport Systems at the University of Westminster, took the Cambridgeshire data and used additional working assumptions for energy consumption, bus and car occupancy and length of passenger trips. He compared the fuel efficiency of cars and buses over the same route. He found that each bus passenger would use about one quarter of the fuel, and generate about one quarter of the



CO_2 emissions of each car occupant, per kilometre travelled*. This is associated with the high loadings carried on the busway service and high level of car diversion observed in the Cambridgeshire case.

Delivering the benefits[8]

In 2015, Greener Journeys commissioned KPMG LLP to consider how decision-making in regard to investment in local bus infrastructure might be improved. KPMG carried out detailed evaluations of local bus infrastructure projects. They compared ex-ante (project appraisal) and ex-post (after implementation) value for money assessments.

The three projects that were evaluated are briefly summarised below.

- ***Fastway in West Sussex:*** A series of bus priority measures implemented along two core routes linking Horley, Gatwick airport and Crawley between 2003 and 2005. [Fastway is described in more detail below.]
- ***Mansfield Public Transport Interchange:*** A new, fully enclosed bus station building was built, with a connecting footbridge to the railway station. Opened in March 2013, it was designed to address a number of specific issues with the old bus station, including limited weather protection; the safety and security of passengers, particularly at night; operational safety; accessibility; and links with the town centre.
- ***South East Hampshire Bus Rapid Transit (Eclipse):*** The South East Hampshire Bus Rapid Transit (BRT) is a high specification, sub regional public transport network. Phase 1 of the project opened in April 2012. The project aimed to improve access to job opportunities, public health services and tertiary education by public transport.

KPMG LLP analysed the extent to which the projects achieved their specific objectives and targets, provided value for money, and which factors contributed to the outcomes achieved. They also examined aspects of good practice and lessons learnt which can be transferred to other schemes.

KPMG LLP found that each of the projects delivered very high value for money. For each £1 of investment, the Crawley Fastway project delivered to users, non-users and the wider economy benefits of £4.67. The Mansfield public transport interchange delivered benefits worth between £4.06 and £4.99 in return for each £1 invested. For the South East Hampshire Bus Rapid Transit (Eclipse), up to £6.94 was delivered for each £1 invested.

The evaluations showed that each of the three case study projects met their objectives. These included improvements to transport accessibility, safety and environmental impacts. The projects have also improved the image of public transport and increased the demand for public transport services.

Some targets were met in line with expectations. Fastway, for example, achieved sustained demand growth and this has led to consistently improving frequency and service quality. The Eclipse project resulted in an increase in demand and more reliable and frequent service. Passenger satisfaction ratings have gone up more than 20% on average.

Some targets were exceeded. Importantly, all schemes exceeded their patronage growth targets. Demand for Crawley Fastway services increased by 160% between 2003 and 2013. Mansfield public transport interchange showed a 7% growth in its first year of operation. And patronage for Eclipse grew by 48% over the first two years of the service.

Local stakeholders felt that projects were delivered to a high standard. One reason was the effective partnership working between local authorities, operators and other stakeholders. For instance, the partnership agreement established at an early stage between local councils and the bus operators helped to ensure the success of the Mansfield Public Transport Interchange. Having the right design and delivery experts on board also helped the schemes to succeed.

Finally, KPMG LLP found that a key factor in a successful project delivery was a focus on the end experience of customers rather than on the project itself. This was borne out by the high levels of improvement to passenger satisfaction shown by the Fastway and Eclipse studies.

*This is based on an assumed car occupancy of 1.25 (i.e. primarily peak conditions), and for bus of 31. Car and bus fuel consumption is based on an assumed average speed of 30 kph, using WebTAG assumptions. Cars are assumed to comprise a mix of 50% diesel and 50% petrol in calculating average fuel consumption.

Case Study

Fastway, West Sussex

The Fastway scheme was delivered in phases between 2003 and 2006. The scheme involved the implementation of a series of bus priority measures along two core routes linking Horley, Gatwick airport and Crawley. There were two main elements: the construction of a new bus only link; and widening existing highways to provide a dedicated bus lane including sections of segregated bus way with kerb guidance.

West Sussex County Council identified four main objectives, by comparison with the previous bus system, which Fastway needed to deliver. These were:

- a fully integrated system to provide a comprehensive series across the area;
- a faster, more frequent and reliable service to compete with the car;
- new, modern air conditioned vehicles with easy access, in place of the traditional buses used on most local services; and
- a reasonable balance between the fare level and the quality of service.

There had been a long-term decline in bus patronage across Crawley prior to 2001. West Sussex County Council decided that a big investment in service quality was needed to stimulate growth in patronage.

The Fastway project involved a large number of partners, including West Sussex County Council, other local councils, and Metrobus.

The scheme was delivered behind the original schedule, with the first services commencing in September 2003. The delays were a result of difficulties in obtaining cooperation from utility companies to re-route pipes and cables which ran beneath the busway route.

The final cost of Fastway at around £38m, exceeded the original budget of £23.9 million. The cost overruns were due to both the delays and to unexpectedly complex groundworks being required. Some costs were recouped by changing the specification of the scheme later on.











Despite these challenges, the Fastway project delivered to users, non-users and the wider economy £4.67 of benefits for each £1 invested. This represents very high value for money. Moreover, Fastway has consistently succeeded in attracting increasing numbers of passengers over the last ten years, exceeding targets. As a result of the scheme, journey times have been reduced significantly, reliability is over 90% and satisfaction with the service is very high. The scheme has also resulted in a decline in traffic, achieving a modal shift from cars. There have also been unanticipated benefits, including: greater service flexibility and ability to respond to customer demand; an impact on house prices in the area; and higher investment in bus infrastructure more widely across Crawley.

Partnership working and a shared common vision were key drivers of these outcomes. A steering group was established and an informal agreement between the partners was put in place to monitor overall quality and specific targets. The public was consulted and informed of progress. There has been an ongoing focus on the need to keep the brand and service fresh, and this is considered to have been an important factor in maintaining customer satisfaction and patronage growth over time.

There were some lessons learnt. In the initial design stage, the scheme was primarily treated as an engineering project. Metrobus' close involvement from the later design and throughout the implementation stage led to a more issues-led approach, with a focus on specific problems and improving passenger satisfaction. As a result, cost savings were made, with most of the planned benefits kept.







Facilitating Investment in Local Bus Infrastructure

From 2015, the Department for Transport (DfT) is devolving much of its capital funding to the Local Growth Fund, for local decision-makers to allocate in line with their Strategic Economic Plans. Subject to meeting the DfT's requirements, they will review and approve business cases, decide which investments should be prioritised, and make sure that investment programmes are effectively delivered.

Local decision makers will also be responsible for monitoring and evaluating specific investments. As shown above, ex post monitoring and evaluation can find out and document whether the intervention has achieved its goals. These tools are available to local decision makers to deliver better outcomes from existing schemes and improve the planning, design and implementation of new ones.

It is not yet clear how monitoring and evaluation of local transport schemes will work in practice under the new arrangements. Greener Journeys believes that the DfT should:

- provide enhanced and consistent guidance to local decision-makers on the evaluation of transport schemes;
- sponsor evaluations of particularly large and complex schemes; and
- undertake, periodically, a meta-analysis of evaluations of local bus schemes so the lessons learnt can be shared amongst scheme promoters.

The support described above should be part of a Guidance on Promoting Local Economic Growth, issued by the DfT. This would explain to local decision makers how bus-related infrastructure can enable networks to perform better and help local economies to grow. It would include case study evidence based on successful schemes, giving practical advice on how to maximise the benefits that these can deliver.

This way, we can make sure that local bus infrastructure receives the investment it deserves. We can ensure that every pound is a sound investment in our environment and our future prosperity.



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About Greener Journeys

Greener Journeys is a campaign dedicated to encouraging people to make more sustainable travel choices. It aims to increase the value of bus and coach travel in stimulating economic growth, reducing congestion and CO_2 emissions and enabling access to jobs, retail, leisure and vital services. Launched in 2009, Greener Journeys is a coalition of Britain's leading bus companies and other supporters including Transport for London, RAC Foundation, Transport Focus, Confederation of Passenger Transport (CPT) and Campaign for Better Transport. Its primary funders are bus companies Arriva, FirstGroup, Go-Ahead and Stagecoach.