



West Midlands City Region Sustainable Transport Settlement
DRAFT CRSTS Programme Level Business Case | January 2022

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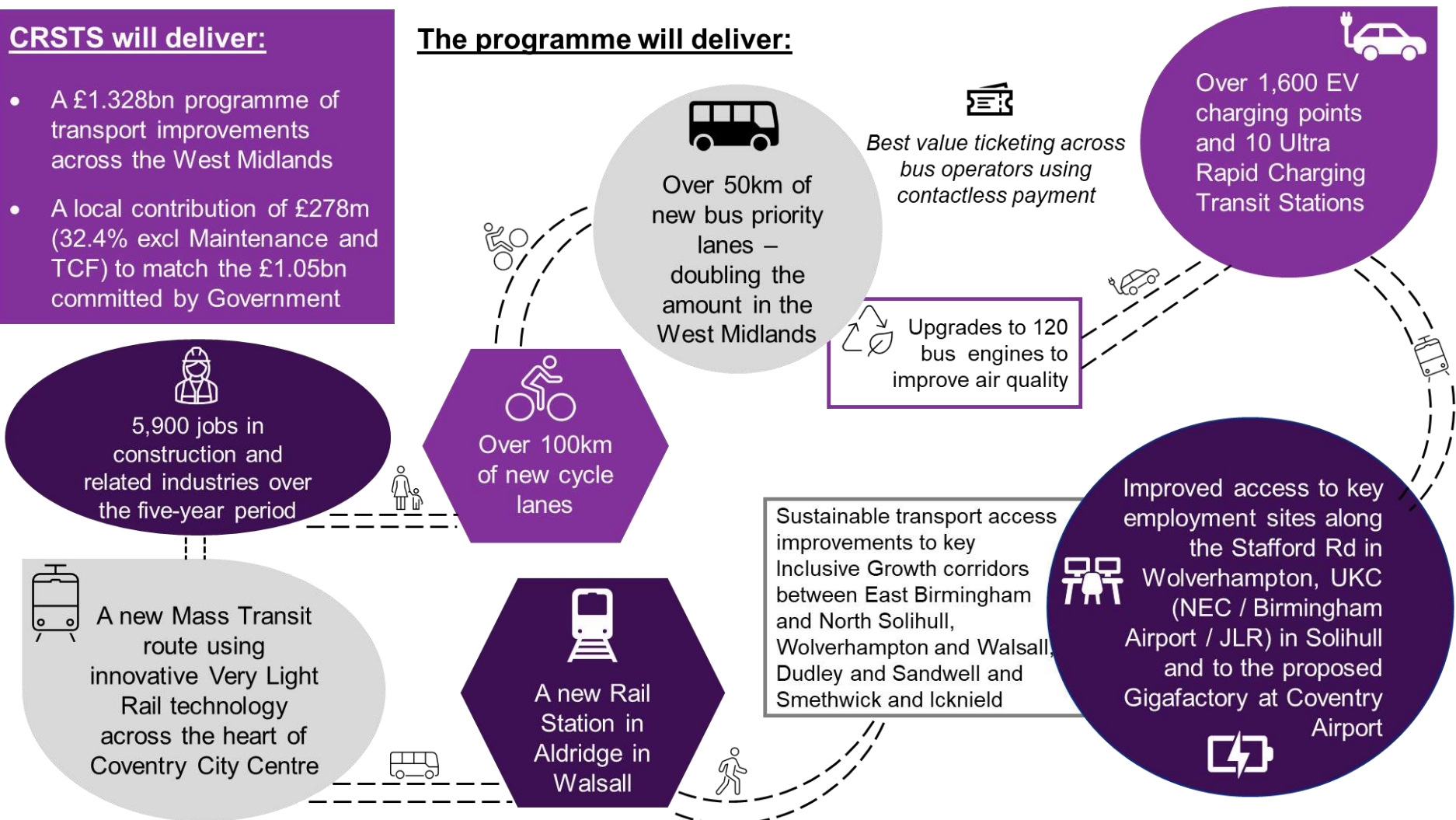


1 Executive Summary

CRSTS will deliver:

- A £1.328bn programme of transport improvements across the West Midlands
- A local contribution of £278m (32.4% excl Maintenance and TCF) to match the £1.05bn committed by Government

The programme will deliver:



2 Foreword from the Mayor and Transport Portfolio Lead

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TO BE COMPLETED ONCE THE BUSINESS CASE HAS BEEN APPROVED



Andy Street

Mayor of the West Midlands



Councillor Ian Ward

**Portfolio Lead for Transport
Leader of Birmingham City Council**

3 Introduction

The City Region Sustainable Transport Settlement (CRSTS) is a new, consolidated fund for local transport investment in England's eight large metropolitan areas. The UK Government has committed at least £4.2bn of new money over the next five years, from financial year 2022/23 to financial year 2026/27. Existing funding for small scale transport capital improvement schemes and highways maintenance will also be rolled into CRSTS as a move towards greater consolidation of transport capital funding streams.

This business case sets out the West Midlands Combined Authority's proposed CRSTS programme of transport investment – to be delivered through Transport for West Midlands (TfWM) and our constituent Local Authorities. This programme is designed to move us towards the ambitious vision set out in our recently refreshed Local Transport Plan Core Strategy¹ for a greener, more active, fairer and economically successful West Midlands, whilst taking strides towards our 2041 carbon neutral target as part of the #WM2041 initiative.

Our sincere hope is that CRSTS will enable an ambitious rolling, multi-decade strategic investment programme – prioritised and delivered locally under a devolved funding regime. This must move the dial in addressing local and national objectives, in particular the levelling up agenda which is so critical to one of the regions hardest hit by COVID. Anything less risks us treading water and missing the opportunity to invest in programmes complementary to key national initiatives such as HS2.

Our £1.05bn programme is less than we need to make the necessary level of change, but will still enable major progress, such as delivering over 50km of new bus lanes (doubling the amount in the West Midlands) to help buses provide a better service; over 100km of new cycle lanes to help people continue with more active travel habits; and measures to help electrify our transport system and make it cleaner. We are committed to these changes and will be investing £278m of local contributions, evidence of the priority we place on transport in the West Midlands. This will deliver a £1.3bn programme of transport investment over five years. The investments range from essential maintenance and renewals to keep our transport network moving, through extensive active travel and community-focussed improvements, to innovative and transformational projects such as Coventry Very Light Rail, Bus Rapid Transit improvements and improvements to our public transport smart ticketing system.

With an established tradition of working to improve transport as a region the West Midlands is well placed to deliver this change programme. It is building on a track record of delivery and ambitious improvements that have already been made. Many of our city and town centres are already relatively well served by existing or committed public transport improvements. Cycle super highways and road-space reallocation is already part of our design and delivery language. This programme has a significant focus on levelling up some of the areas of the transport system that haven't yet benefited from such measures and on tackling the 85% of trip making that is not or from our centres and is currently mostly undertaken by car. In designing the programme we have paid particular attention to the Government's own De-

carbonising Transport plan and Future of Mobility Urban Strategy to ensure the measures in this plan align with this policy. Our programme represents a balanced approach of some improvements to key radial routes, with targeted improvements in the wider network and a number of cross cutting joint initiatives that will provide benefits across the West Midlands.

Picture 1: Prime Ministerial visit to the West Midlands



The interventions have been carefully selected to maximise growth outcomes, enable modal shift, and improve accessibility – especially in traditionally under-served and deprived areas of the region. We are acutely aware that the pandemic has exacerbated some of our longstanding economic challenges around inequality, poverty, and poor health. Transport investment through CRSTS will play a critical role in opening up opportunities for communities across the region, to allow us to quickly regain growth momentum and avoid long-term economic scarring.

Investment in the West Midlands is also good for the country. Our central location at the heart of the UK's transport networks – 90% of the UK population is within a 4-hour train or car journey – means that transport improvements in the region translate into widespread benefits for the country and the union at large.

The delivery of the CRSTS programme will build on WMCA's long track record of partnership working, successful delivery, innovative solutions and our robust and well-established

¹ The West Midlands Local Transport Plan core strategy is currently undergoing statutory consultation.

governance and decision-making process for transport investments. These have been developed and strengthened following the agreement of our two devolution deals in 2015 and 2017, and during delivery of our £8 billion 30-year Investment Programme and Transforming Cities Fund – including expansion of the Midlands Metro extensions, our first Sprint Bus Rapid Transit route, and new rail stations at Perry Barr and University. Investments under the CRSTS programme will also align with previously identified growth opportunities for our economy to help deliver jobs and productivity growth for our region, including in our emerging 'Future of Mobility' cluster.

CRSTS is not the only funding route available for delivering West Midlands' transport priorities. Our CRSTS programme has been developed to avoid any double counting of funding asks. The schemes described in this business case will be delivered as part of a single integrated transport programme alongside other secured or future funds – the Levelling Up Fund, Bus Service Improvement Plan, All Electric Bus Cities, Active Travel, Major Road Network and Large Local Majors, local EV charging infrastructure funds.

Particularly important amongst these other funds is the Bus Service Improvement Plan. Although we acknowledge that the national funding being attached to these is less than planned for, our plan remains sound and will be used to guide how we progress reform of bus services in the region. We consolidated our £1.7bn CRSTS bid and £245m BSIP capital ask into one balance capital infrastructure that matches the £1.05bn regional allocation, which represents approximate £788m of new money to the region. Despite this challenge we will still deliver over 50% of bus priority outputs envisaged in the BSIP plan for this period. What is now critical to the region is support for the revenue elements of BSIP and a concerted joint partnership effort between the region and Government to support bus service provision through the remainder of the COVID impacts and recovery.

The remainder of this business case is structured as follows:

- [Section 4](#) sets out the Strategic Case for the CRSTS programme, outlining the case for new investment in the West Midlands and how the programme is aligned to local and national policies and objectives.
- [Section 5](#) sets out the Economic Case for the CRSTS programme, outlining the economic benefits that can be expected from the programme and the value for money that it provides.
- [Section 6](#) sets out the Commercial Case for the CRSTS programme, demonstrating that the proposed scheme is commercially viable and confirms that there is a procurement strategy available that can be used to engage the market.
- [Section 7](#) sets out the Financial Case for the CRSTS programme, outlining the potential expenditure of the proposed programme and demonstrating that the programme is affordable.
- [Section 8](#) sets out the Management Case for the CRSTS programme, describing how the programme will be managed and delivered. In accordance with Department for Transport's

(DfT) requirements, it presents details of dependencies, governance structure, programme, assurance, risk, stakeholder management and evaluation.

4 Strategic case

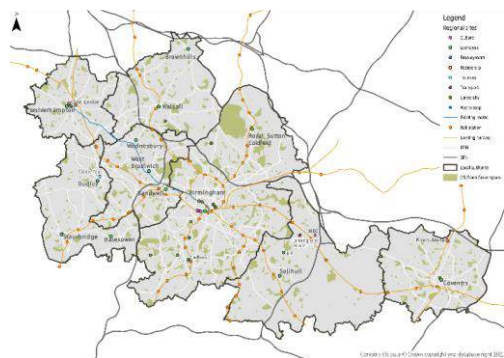
4.1 The West Midlands economic context

The West Midlands (WM) city region is the largest MCA area in the country; home to 3.0 million residents and 91,150 businesses which employ 1.3 million people and generate £70.3bn per annum in GVA. Between 2010 and 2018, output in the WMCA grew by 2.5% on average YoY (compared to the national average of 2.4%) and the age profile of the area is young, with a quarter of residents aged under 19, the highest share of young people of all UK metropolitan areas. The West Midlands is one of the fastest growing regions in the UK, with our population set to increase by 440,000 people by 2035, requiring 165,000 new homes and a step-change in our transport network's capacity and connectivity.

Our region competes on a global stage; with our economy characterised by high exports (particularly in machinery and transport goods, which represent 71% of all goods exports compared to 41% nationally) and significant Foreign Direct Investment (between 2015/16 and 2019/20 the WM region ranked 3rd behind London and the South East as a location for FDI), both are underpinned by the strength of our existing strategic domestic and international connections. Indeed, the economic geography of our city region is a significant asset, with Birmingham city centre at its heart and the two fast growing cities of Coventry and Wolverhampton. These have significant economic potential that could be unlocked through investment in better connectivity (see

Figure 1). The surrounding areas of southern Staffordshire, Warwickshire and north Worcestershire bring complementary strengths in terms of business, housing and leisure offers. The region's central location at the heart of the road and rail network, together with Birmingham Airport, means that it is well connected to the rest of the UK and international markets.

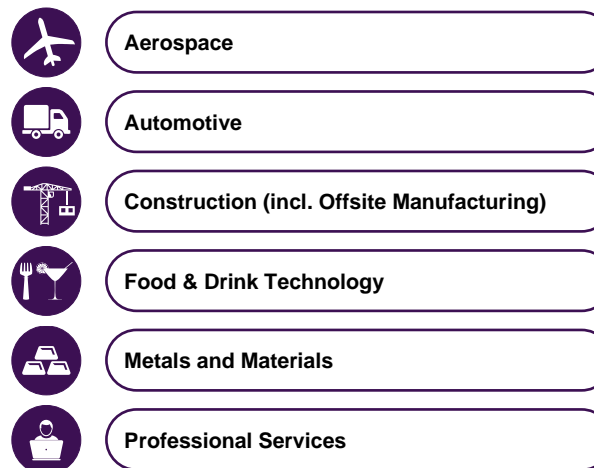
Figure 1: Map of City Region



Our distinctive sectoral strengths, from world-leading automotive and aerospace innovation, green technology to health and life sciences, are globally competitive and set us apart from other regions.

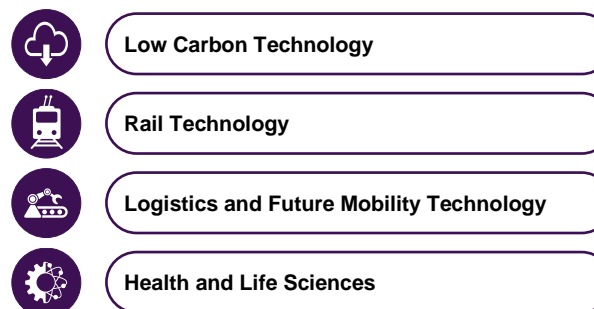
Figure 2: WM Sectoral Strengths

Current Regional Strengths include:



West Midlands' key sectors punch above their weight across many performance metrics, including their productivity and employment contribution. For example, 25% of the UK aerospace sector is based in the Midlands and 10% of all UK aerospace jobs. The region is also at the forefront of shaping the future of mobility in the UK, employing 180,000 people in the transport technology sector (2.5x more than any other region).

Emerging Regional Strengths include:





Creative

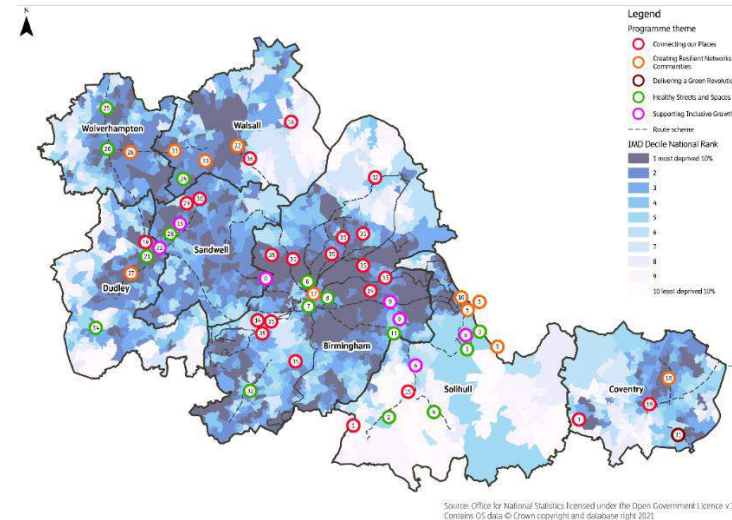
The West Midlands is home to some of the most innovative businesses in the UK, owing to the strength and resources of our universities, science parks and research institutes (the region educates 160,000 students each year with c50% studying STEM related subjects), together with the skills of our workforce and transport connections, which together promote a rich environment for innovation and R&D. We attract £398 per head of private sector R&D investment (ranking 3rd amongst regions in the UK) whilst receiving less than £83 per head of public sector investment (ranking last amongst regions in the UK). The West Midlands has also consistently been a hot bed for innovation and entrepreneurship, with strong one-year enterprise births growth to 2019 (+16.4% versus 5.4% at the UK level) and higher overall number of enterprise births than the UK average (the WM has 67 enterprise births per 10,000 population compared to 58 at the UK level).

Prior to the COVID-19 pandemic, the West Midlands experienced 9 years of steady growth with a boom in the business and professional services sector; technology-driven manufacturing and city centre construction growth. Our manufacturing base was becoming more productive and the automotive sector was responding to the challenge of a carbon neutral future.

4.1.1 The case for change (economic)

However, whilst we are in a strong position to leverage our economic strengths, we must also address the emerging effects of the pandemic and tackle some of our longstanding economic challenges to level up all areas of the West Midlands. These challenges include pockets of inequality, entrenched poverty, youth unemployment, lower skills and poor health outcomes. As we invest in the future, we must ensure that all communities across the region can access economic opportunity and play their full part in maximising the growth potential of our region, with transport investment under our CRSTS playing a critical role in opening up those opportunities.

Figure 3: Map of Deprivation in the region



Across the West Midlands, we have several pockets of significant deprivation (see Figure 3). Overall, 19.2% of WM LSOA's sit in the 10% most deprived areas in the UK, however, this figure rises to 41% in Birmingham neighbourhoods, followed by Walsall at 26% and Wolverhampton at 21%. The distribution of gross income in the West Midlands is also unequal – 72% of people have a total income below the regional average of £23,200 (the national average is £24,400). TfWM is striving to address these issues, and recently invested significantly in affordable and high-quality transport connections across the region. The investment associated with the CRSTS programme will enable us to continue to reduce the cost of living and barriers to employment for some of our most deprived communities.

Whilst COVID-19 has exacerbated many of these challenges and has impacted the region's service and export based sectors the most, there remains a unique opportunity to build back better from the pandemic, and ensure we carry forward the reputation for economic success the region has built in the new millennium. It is critical that we quickly regain this growth momentum, to avoid a steep rise in unemployment and long-term economic scarring. Moreover, the region is home to sectors of national importance such as advanced manufacturing, automotive and the business and professional services sector – ensuring a strong recovery in the West Midlands will support the wider growth of the nation.

4.2 The West Midlands transport context

The West Midlands' central location positions our region at the heart of the UK's transport networks and international connections. Strong transport connectivity is vital to the economic prosperity of our region, supporting the productivity and growth of our key strategic sectors

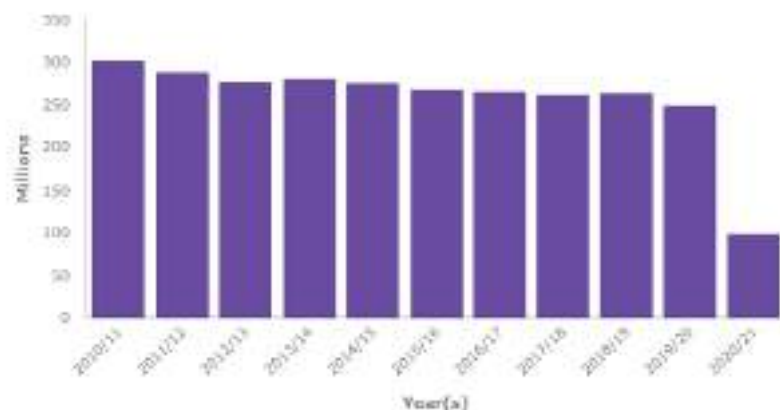
(including aerospace, professional services and transport), as well as providing our most deprived communities with improved access to economic opportunities.

Between 2016 and 2018 there were 2.3 billion trips made in the West Midlands, 70% of which were made by car, 10% via public transport, comprising bus (8%), rail including West Midlands Metro (2%) and 20% via active travel. This compares to 61% of trips being made by car nationally, alongside 7% via public transport, 29% via active travel and 3% via other modes in 2018 (based on National Travel Survey data).

4.2.1 The case for change (transport)

Recent investments in the West Midlands Metro will triple the networks size, linking Wolverhampton and Dudley with the heart of Birmingham City Centre and carrying 30 million passengers per annum. Nevertheless, bus remains the prime mode of public transport for our residents, and particularly for those without access to car, making up around 259 million journeys in the West Midlands in 2017/18. Unlike other city regions outside London, the West Midlands benefits from limited fragmentation of bus services, with 94% of bus journeys provided by a single operator; National Express. National Express works closely with TfWM, alongside local councils and other bus operators as part of the West Midlands Bus Alliance to ensure services are integrated across the region. We also benefit from one of the safest public transport networks in the UK, with crime rates on our bus network reducing by 60% over the last decade. However, much like the rest of the country, we have faced a long-term decline in bus patronage. Notwithstanding recent positive changes, we have seen changing behaviour patterns (preferences to travel by car), increasing cost of bus fares relative to motoring costs, and declining service coverage (in part because of declining bus speeds), with bus boarding's falling by 2% year-on-year in the 10 years preceding 2020. These trends risk being exacerbated by the pandemic, with a 61% fall in bus patronage in 2020/21 as a result of the pandemic (See Figure 4 below).

Figure 4: Bus Passenger Journeys 2010/11 to 2020/21



The investment underway in the first corridors of our Sprint network, linking Walsall, Solihull, Birmingham city centre and Birmingham Airport, is an important step in reducing journey times for passengers and stimulating bus use. Further investments in our Sprint network proposed under both the CRSTS programme and with additional bus priority proposals in our parallel Bus Service Improvement Plan are critical to building on this momentum and sustaining and promoting bus travel in our region over the medium term.

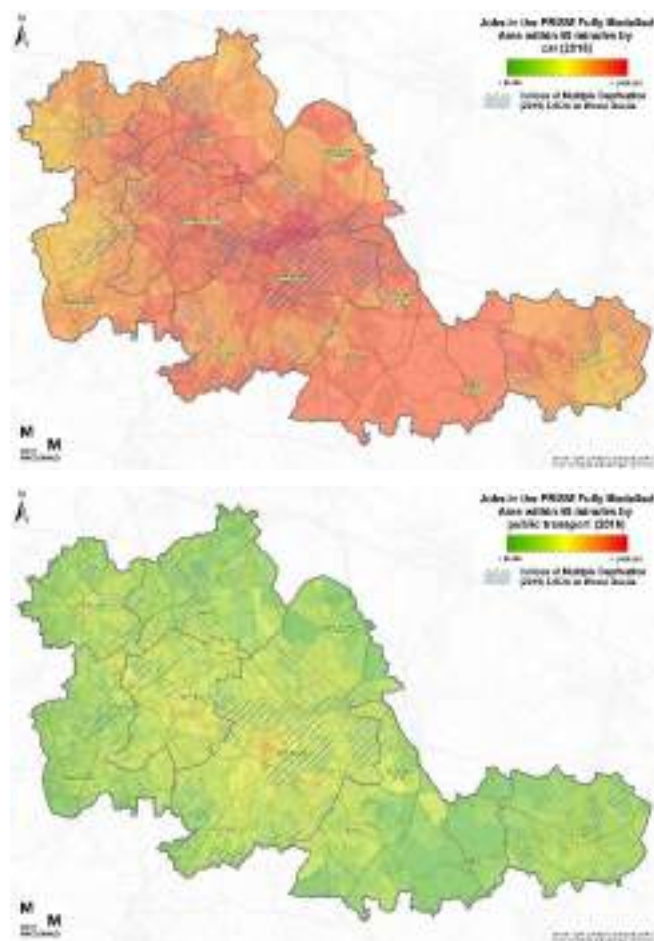
Meanwhile uptake of active travel in the city region remains limited. Recent investments such as the Starley Cycle Network have helped to expand active travel options in the region. However, the WM is currently the combined authority with the lowest share of cyclists – with only 9.6% of adults cycling at least once per month, against 16.1% nationally. Moreover, only 63.2% of adults walk at least once per week, below the national average of 63.8%. Much of this is a function of long standing under investment in critical infrastructure, and further investment in new cycleways and active travel corridors are a critical step in promoting the usage of active travel modes in the region.

The ongoing development of our refreshed Local Transport Plan has highlighted a number of key challenges as set out in our Motives for Change (see [Section 4.4](#)) for our transport network which our proposed investment under the CRSTS programme, as part of a long-term and integrated approach to transport investment in the West Midlands, is critical in helping to address. These issues are summarised below:

Accessibility and affordability of public transport

Historically, investments in transport have supported local economic growth in our region, subsidising services for the benefit of those less mobile and supporting innovation in mobility products and services. However, the quality of access to public transport still varies considerably across our region and this variation can act as a significant barrier for lower income households and more vulnerable groups accessing economic opportunities and realising their full potential. Job accessibility declines significantly for residents who are reliant on public transport, and this tends to be most pronounced in deprived areas of the region where car ownership is less common. Indeed, most West Midlands residents could access more than double the job opportunities within 45 minutes of where they live with a car than without a car (see Figure 5).

Figure 5: Job accessibility in WM region with a car vs with public transport (2016)

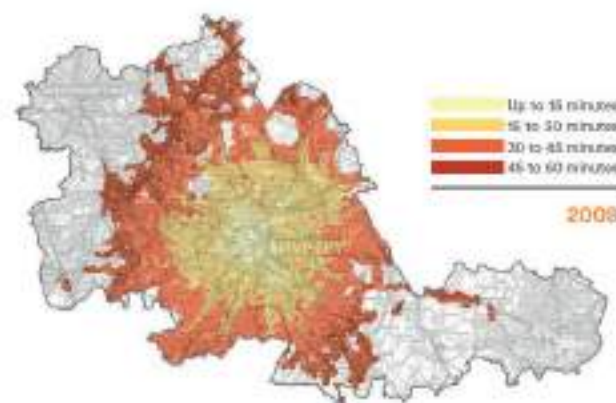


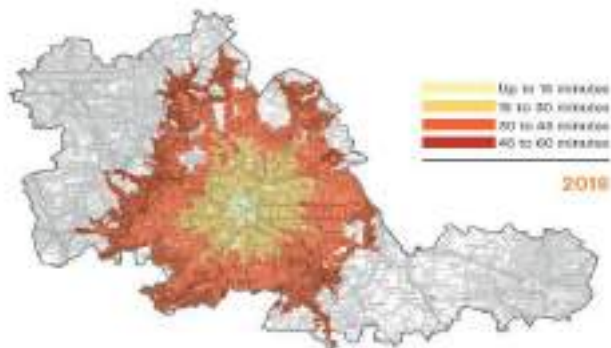
Despite its important role, bus within the West Midlands has experienced a long-term decline in passenger numbers, under both absolute and 'per head' measures, in common with other UK metropolitan areas outside London. The fall in services, alongside increased congestion, has resulted in reduced accessibility to key urban centres for those that are reliant on public transport. For example, Figure 6 shows how access to Birmingham city centre within 45-60mins via buses has sharply declined over the past decade. However, targeted investments have had success reversing trends around the speed and frequency of services. For example, a £9.2m investment along Services X51, 934, 997 in Birmingham and Black Country has led to a 14% patronage increase. The CRSTS programme will be vital in helping us to capitalise on this momentum and spread it across the region.

The impact of transport externalities (e.g. pollution, noise, poor road safety and severance) are also often felt most by those in our most deprived areas. For example, the rise in killed or seriously injured casualties in the region since 2013 have been predictably clustered around high-density urban areas with high levels of traffic flow and deprivation.

The complexity of ticketing and affordability of public transport is also deemed a barrier to all types of customers of the network, particularly for journeys involving multi-leg trips by bus across the region's network and between bus, Metro and rail. Single fares are still significantly higher in the West Midlands than they are in London (for example, the daily cap on TfL bus and tram services is £4.65 whereas in West Midlands it is £6.80), which has been a contributing factor to declining demand. The issue is even more stark by international standards, wherein our region ranks in the bottom quartile for public transport affordability of 66 major global cities, with 5.36% of our region's residents' monthly income spent on public transport. Simplification of ticketing, through Smart Ticketing, multi modal fare capping and travel planning tools which provide simplified, trustworthy, and affordable public transport options is key to addressing these challenges and reducing car reliance.

Figure 6: Access to Birmingham city centre within 45-60mins via bus (2008-2018)





Growing reliance on road travel

Despite our region's efforts to invest in sustainable transport alternatives, car mileage has significantly increased (+6 billion miles) across the West Midlands over the last 25 years. Across the area, two in five journeys under two miles are currently being made by car. The reliance on road travel not only results in congestion, poor air quality and negative consequences for our environment, but contributes to declining health outcomes more broadly in the region by reducing the share of walking and cycling and active travel associated with public transport.

However, modal share is not consistent across the West Midlands area. In Birmingham, AM Peak trips by public transport in 2019 represented a 61.2% share of all trips (bus 23.5%, rail 35.5% and tram 2.2%). In contrast, the public transport modal share for the same period in other strategic areas are as follows:

- Coventry: 20.4%
- Dudley: 8.1%
- Brierley Hill: 9.8%
- Solihull: 18.4%
- Sutton Coldfield: 17.2%
- Walsall: 33.4%
- West Bromwich: 40.4% (2020 figure)
- Wolverhampton: 17.5% (2020 figure)

The stark differences between public mode share across different areas of the West Midlands demonstrates the need to ensure all parts of the region have adequate sustainable transport options.

Without the significant investment proposed in our public transport network, alongside ambitious measures to promote behavioural change and targeted measures aimed at demand management, these historic trends are set to increase over the next 20 years, with the share of households not owning a car expected to fall to 18% in 2040 (down from c22% today). The reliance on road travel has also been exacerbated by the COVID-19 pandemic, which has resulted in significant changes to how, when and why we travel. Data collected in support of our recent BSIP evidence paper highlighted that 94% of car owning residents enjoy the independence car ownership gives to them. Without significant investment to stimulate and accelerate the recovery of public transport demand, we risk seeing a permanent shift in behaviour which undermines our economic growth, levelling up and net zero ambitions.

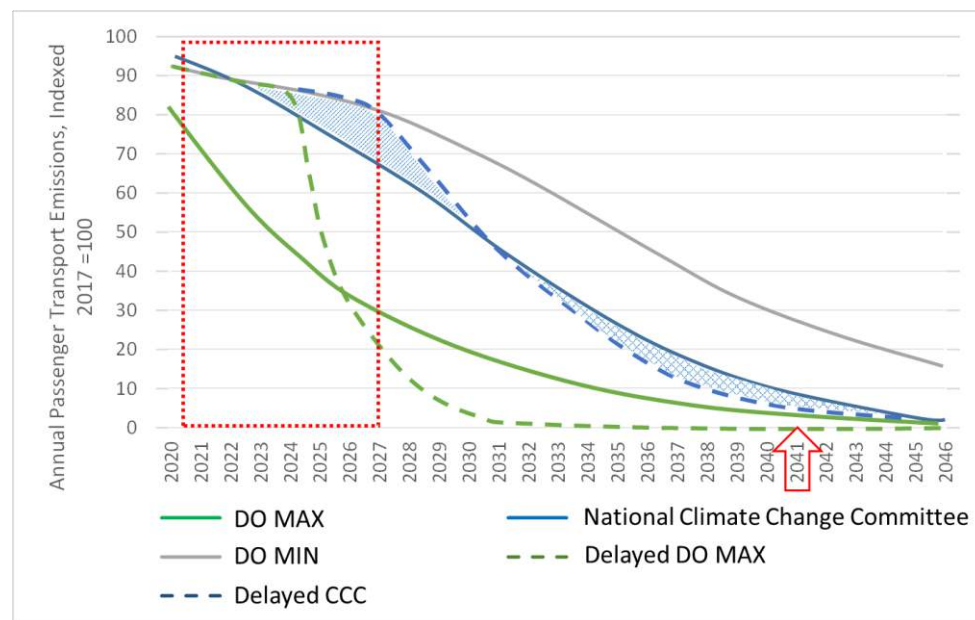
Congestion, air quality and the environment

The reliance on private road transport has led to a built environment which prioritises car-based travel and has resulted in a legacy of a hazardous, unattractive environment for pedestrians and cyclists, including poor air quality that we are now addressing through investments like those in the CRSTS. Air pollution in the West Midlands affects some 2.8 million people, reducing life expectancy by up to 6 months, while the carbon saving potential from installing 1,700 EV charge-points, as proposed within the scope of West Midlands' CRSTS programme, is estimated to be capable of saving £16.9m million per year in direct and indirect economic costs.

The reliance on private road transport also generates congestion in city centres and key transport corridors across the region, which in turn constrains the economic growth potential of our region. The average Birmingham driver lost 134 hours in congestion in 2018, with congestion costing £2.3bn per annum across the West Midlands metropolitan area.

The West Midlands has an ambitious target to be net zero as a region by 2041 (see Figure 7). To deliver this will require significant modal shift as well as a substantial increase in the number of zero emission vehicles on the road. However, under a business-as-usual scenario, current carbon emissions from road travel (car, LGV, HGV, and bus), rail and Metro will only fall to 3.183 MtCO₂e by 2027 (the end of the CRSTS funding period) and 2.490 MtCO₂e by 2027, which will fall significantly short of our net zero ambitions. Nearly all the business as usual carbon emissions from transport are attributable to cars, LGVs, and HGVs (buses and rail accounted for approximately 1% of emissions respectively), while the uptake of EVs remains lower in the West Midlands at 0.35% relative to the UK average of 0.47%.

Figure 7: The Challenge for the West Midlands



CRSTS is a significant step in the right direction, with 1,700 proposed EV charge points and ambitious PT and active travel investments. The West Midlands will continue to pursue other decarbonisation opportunities outside the scope of CRSTS to meet its net zero ambitions.

Summary

Our programme of investment in transport has a critical role to play as the region looks forward and plans for COVID-19 recovery. By connecting our residents to new jobs and educational/training opportunities, coupled with the delivery of skills plans and unlocking and delivering much needed housing across the region; we can support the regeneration of our local centres and neighbourhoods and drive productivity and level up our most underserved communities. This will further improve our health and well-being, and last but by no means least; help us address the urgent challenge of climate change.

4.3 Our investment themes

Our emerging Local Transport Plan (LTP) strategy is underpinned by the 'Avoid-Shift-Improve' Framework which provides a set of principles from which strategic and local measures can be shaped and established:

- 'Avoid' travel in the first place where possible, e.g. through homeworking.

- 'Shift' to shorter journeys and lower-carbon modes
- 'Improve' measures to decarbonise the vehicle fleet.

Alongside these strategic priorities for transport, our investment themes under the CRSTS programme have been shaped to support our wider ambitions around delivering jobs and growth, levelling-up deprived communities and meeting our decarbonisation targets. We have identified six 'big moves' within our emerging LTP which mirror our CRSTS programmes and will help to guide wider investment and policy in transport over the years to come. These are the building blocks for ensuring transport investment delivers for our region (see Table 2) which outlines how each of the six CRSTS investment delivers on key national priorities for the CRSTS programme: Economic growth and productivity, levelling-up and decarbonisation):

Connecting our Places – This programme will build on existing programmes to continue investment in public transport connectivity by boosting connections across our key centres and corridors. As we move closer to the arrival of HS2 a targeted public transport investment programme of rail, rapid transit and bus; underpinned by enhanced interchange facilities will enable the West Midlands to build back better.

Supporting Inclusive Growth – This programme is focused on driving inclusive growth, levelling-up and housing delivery in six high priority corridors. The programme takes a place-based approach to delivering targeted packages of work to complement and maximise the existing investment, unlock housing and employment opportunities and offer new and existing residents safe and sustainable transport choices to deprived areas of the region. Key schemes will include transport upgrades along the Walsall to Wolverhampton corridor to unlock 4,500 new homes and regenerate local urban centres and programmes to support Smethwick and Icknield, Sandwell to Dudley, Walsall to Birmingham, Coventry to Solihull and East Birmingham/North Solihull including kickstarting the development of the Rapid Transit route in this key corridor.

Healthy Streets and Spaces – This package contains measures aimed at encouraging more active travel and reducing the volume of trips made by car, to improve health and reduce environmental impacts. The programme will also target improving air quality for residents and visitors to WM, as well as providing a wider range of affordable travel options which will be crucial in meeting our ambition to be net zero by 2041.

Creating Resilient Networks and Communities – This theme delivers highway maintenance and corridor route improvements to highways and the Key Route Network across the WM, whilst also investing in road safety and innovative technological infrastructure. These schemes will improve multi-modal connections and reduce barriers to active travel by making our roads safer to use.

Delivering a Green Revolution – This programme aims at decarbonising the largest sources of carbon emissions on the road, focusing on building consumers' confidence in zero-emission vehicles through delivering accessible charging infrastructure. Major schemes include the [£14m] Ultra Rapid Charging Transit Stations scheme, the [£3m] BSIP Bus Retrofit Programme and the [£12m] WM ULEV Scheme.

4.4 Our objectives for the CRSTS investment programme

Our Local Transport Plan Green Paper sets out five 'Motives for Change' – the reasons why we should consider changing the way we travel. These are focussed on creating a fairer, greener, healthier, happier and more prosperous West Midlands, and delivering on our #WM2041 pledges. Alongside the Motives for Change are a series of related objectives that inform our strategic direction through the LTP and link directly to our six investment themes. This link is summarised in Table 1.

Figure 8: Why change?



However, these are not just objectives for the next five years – they will support our long-term ambition to build back better and level up our region for inclusive growth. They are as applicable to CRSTS as they are to investment delivered through other routes (e.g. Bus Service Improvement Plans, WM Investment Programme, Active Travel Fund) as we aim to deliver a single integrated transport programme over a series of five-year transport settlements

Work is underway to develop a set of specific targets and metrics for the new Local Transport Plan. We will identify key measures across a range of policy outcomes including decarbonisation, accessibility, health and wellbeing, safety and security and economic impact. These will be developed in tandem with the CRSTS programme with the outcomes and outputs identified within our Monitoring and Evaluation Plan informing both the CRSTS programme and the development of the LTP.

Table 1: Alignment between LTP and CRSTS Programme Themes

Motive for Change	LTP Objective	Objective Description	Link to CRSTS theme
Sustaining economic success	Inclusive economy	We will inclusively grow our economy by reducing the economic costs of transport's externalities, maintaining the network, and levelling up access to opportunities for those less mobile.	<ul style="list-style-type: none"> Supporting Inclusive Growth
	Mobility market transformation	We will position the West Midlands as a global leader in future transport by creating a local transport market that enables innovation, development and deployment of transport products and services.	<ul style="list-style-type: none"> Making Behaviour Change Easy
Creating a fairer society	Fair access	We will improve equity of access to opportunity by ensuring everyone has safe, usable and affordable travel choices.	<ul style="list-style-type: none"> Supporting Inclusive Growth Connecting Our Places
	Fair impacts	We will reduce the impact of traffic on people's health and wellbeing by improving road safety, reducing air pollution, and reducing noise.	<ul style="list-style-type: none"> Creating Resilient Networks and Communities
Supporting local communities and places	Local access	We will improve local sustainable travel connectivity and reduce severance within and between neighbourhoods.	<ul style="list-style-type: none"> Healthy Streets and Spaces Connecting Our Places Creating Resilient Networks and Communities
Supporting local communities and places	Streets for communities	We will reduce the dominance of motorised traffic in local neighbourhoods to enable repurposing of streets.	<ul style="list-style-type: none"> Healthy Streets and Spaces

			<ul style="list-style-type: none"> Creating Resilient Networks and Communities
Becoming more active	Physically active	We will enable safe, convenient and accessible walking and cycling opportunities, to increase active travel, improving health, wellbeing and productivity.	<ul style="list-style-type: none"> Healthy Streets and Spaces
Tackling the climate emergency	Transport decarbonisation	We will rapidly reduce transport carbon emissions at a rate consistent with WM2041 ambitions.	<ul style="list-style-type: none"> Making Behaviour Change Easy Delivering a Green Revolution

4.5 Supporting our Bus Strategy Improvement Plan

Our CRSTS programme has been developed and shaped in tandem with our Bus Service Improvement Plan (BSIP) for the West Midlands. We have sought to integrate the principles of the DfT's 'Bus Back Better' Strategy and integrate the measures to be delivered through CRSTS with our 'Vision for Bus' which provides detailed proposals for improving bus in the West Midlands and to support our emerging LTP.

Buses are the most essential part of our public transport network, ensuring that it can reach into all corners of our communities, towns, and cities across the West Midlands, connecting people to jobs, health, education, retail and leisure, as well as connecting friends, families, and colleagues through affordable transport.

The bus network is an essential integrator to our railways and Metro, as well as increasingly important to supporting sustainable transport solutions.

Whilst the West Midlands Bus Alliance has worked extensively to develop a collaborative



approach to delivering better bus services, so much more is yet to be done to ensure that bus operators, local authorities, and other partners can achieve the ambitions of our Vision for Bus.

The West Midlands is currently seeing one of the largest planned investments in fixed-line public transport infrastructure anywhere in the world, with a significant metro expansion programme underway, £160 million on our first Sprint Bus Rapid Transit routes and a number of new stations under construction. This will be supported by a significant programme of bus priority measures funded through CRSTS to improve the journey quality of cross city bus routes across the area and build on the network of bus priority measures already in place. These bus priority measures complement other areas of investment from CRSTS including £18m on smart ticketing to help integration with other modes and to ensure passengers get the best value fares possible and £10m on Demand Responsive Transport Infrastructure. Overall this programme of measures is estimated to deliver over 50km of new bus lanes across the West Midlands.

Ensuring integrated buses are at the heart of this network will be critical and will boost the current bus ridership in support of the region's economic recovery. The nine objectives of our Vision for Bus encapsulate our approach which will be supported by the CRSTS programme:

- Fewer private car journeys by making bus the mode of choice and creating better access to jobs and long-term change.
- Evolve a network to support the 24/7 thriving economy, connecting people to new and developing destinations and attractions.
- Fully integrated bus network including local demand responsive and rapid transit services supporting rail, coach and Metro interchange as one network.
- Simple, convenient and easy to use payment options, including full capping, providing a network which is value for money and affordable for customers.
- Younger people supported by discounted travel, as well as addressing barriers for excluded groups.
- Accountable network performance management – tackling issues causing congestion and reliability problems.
- World-leading customer information utilising 5G and all available technologies and platforms.
- Creating a safe, secure and accessible mode for all and tackling long held barriers and perceptions.
- UK leading low emission bus fleet with zero emission corridors serving areas most affected by poor air quality.

4.6 Alignment with local policies and strategies

The West Midlands is well-placed to capitalise on the economic opportunity presented by the 5-year CRSTS investment programme, as we have been developing a series of long-term strategic plans setting out our ambitions for sustainable and inclusive growth. These include:

- **Local Transport Plan Green Paper²** – This sets out the key challenges and opportunities facing our transport system since the first Local Transport Plan was adopted in 2011. This is currently acting as the key consultation document with the public to help inform our new LTP which is due to be published later in the year. This will set out our policies to promote safe, integrated, efficient and economic transport to, from and within the area as well as plans to implement those policies.
- **WM2041³⁴** – Our framework for developing a series of 5-year plans to decarbonise the WM in response to the pressing climate emergency and the ambition for the region to be carbon neutral by 2041. It calls for a substantial investment programme in the order of £40bn over 21 years (2020-2041) and a 10-point strategy for decarbonising the region. The CRSTS programme will support several key pillars of this strategy, including active travel and cleaner transport, electric vehicle charging infrastructure, and behaviour change around travel patterns.
- **West Midlands Local Industrial Strategy** – Our integrated plan to drive long-term sustainable economic growth across the whole of the West Midlands. Developed locally and agreed with government, this Local Industrial Strategy (LIS) sets out the priorities to increase the productivity of the West Midlands and the national economy. It places the 'Future of Mobility' at its heart and is a key strategic enabler of Inclusive Growth.
- **Inclusive Growth Framework** – Our framework to help ensure socially equitable and environmentally sustainable growth secures long term benefits for everyone in our

region. The concept of 'Inclusive Growth Corridors' are reflecting the approach of the Inclusive Growth Framework by creating more holistic vehicle for investment – which goes beyond 'site-by-site' development, embedding whole-system thinking and offering the possibility of a different order of change for communities and places.

- **Local Plans** – Our local authorities have developed a series of local plans (covering Birmingham, Solihull, Coventry and the Black Country) which detail where and how much housing and employment space is needed in the region. The CRSTS investment programme has been developed with an eye to helping to unlock housing and connecting up future employment centres across the West Midlands.

4.7 Alignment with national policies and strategies

West Midlands is well positioned to deliver on the key national priorities of the CRSTS programme (including economic growth and productivity, levelling up and decarbonisation – see Table 2) and wider transport policy agenda of Government (including the National Bus strategy and Cycling and Walking investment strategies) having placed these at the heart of the WM CRSTS investment themes:

- **Economic Growth and Productivity** – Given the challenges with accessibility and connectivity in our region, our CRSTS transport programme has been designed to improve access and connections between workers and business, driving productivity both locally and nationally by enhancing business competition, allowing businesses to better match with the right suppliers, customers and employees, and increasing the likelihood that ideas, knowledge and innovations are diffused across the WMCA economy. Our themes **Connecting our Places**, **Creating Resilient Networks and Communities** and **Supporting Inclusive Growth**, along with the projects that sit beneath them, all centre on driving productivity and net additional economic growth both locally and nationally.

- **Levelling Up** – Taking into account the economic geography of our region, with strong urban centres surrounded by pockets of acute deprivation and poorly connected rural communities, we have put forward a transport programme with inclusive growth and accessibility at its heart. The transport projects under **Supporting Inclusive Growth** and **Connecting our Places** are focussed on levelling up the lives and connectivity of the most deprived in our region. These interventions will play an important role in regenerating city and town centres, unlocking new affordable housing and development, improving health and amenity through active travel, and importantly providing access to work, leisure and educational opportunities to deprived communities.

- **Decarbonisation** – This is a key priority of the CRSTS programme and for our region, with three investment themes directly focused on addressing the pressing climate emergency: **Healthy Streets and Spaces**, **Making Behaviour Change Easy** and **Delivering a Green Revolution**. The transport initiatives investment themes mirror the recommendations outlined in DfT's Transport Decarbonisation Plan published in 2021 and prioritise modal shift and the rollout of electric vehicles to the road. The schemes will also help ensure developments can come forward in more sustainable locations across the region.
- The **National Bus Strategy (NBS)** – Announced in 2021, the NBS proposes ambitious and far-reaching reforms to how services are planned and delivered in order to reverse declining bus patronage rates. Investment in the WM bus network is a key pillar of our CRSTS transport programme, helping to bring forward corridor improvements and station upgrades that will each congestion and improve services along key route.



² Local Transport Plan Green Paper – [link](#).

³ #WM2041 - [link](#)

⁴ WM2041 Fiver Year Plan 2021-26 – [link](#)

- **Active Travel Investment** – Government has earmarked £2bn for Cycling and Walking investment strategies to deliver a step-change in active travel in UK. Our CRSTS transport programme shares the same ambition for the WM, with projects under Healthy Streets and Spaces and Making Behaviour Change Easy encouraging a shift to active travel patterns in order to improve air quality, combat climate change, improve health and wellbeing, address inequalities and tackle congestion on our roads.



Table 2: Alignment of CRSTS Programme Investment Themes with key national priorities

Alignment with Key National Priorities	CRSTS Programme Investment Themes						Alignment Summary
	Healthy Streets and Spaces	Making Behaviour Change Easy	Connecting our Places	Delivering a Green Revolution	Creating Resilient Networks and Communities	Supporting Inclusive Growth	
Economic Growth and Productivity							The CRSTS transport programme has been designed to improve access and connections between workers and business, driving productivity both locally and nationally.
Levelling Up							Investment under the breadth of CRSTS themes target a range of measures of levelling up the lives and connectivity of the most deprived pockets in our region.
Decarbonisation							All our CRSTS themes contribute to differing degrees to addressing the pressing climate emergency in our region, including through modal shift and the rollout of EVs.

4.8 Our proposed investment programme 2022-27

Introduction to the West Midlands CRSTS programme

Our proposed programme of transport investment is designed to meet the ambitious vision set out in our Local Transport Plan for a greener, more active, fairer and economically successful West Midlands. The interventions have been carefully selected to maximise growth outcomes, enable modal shift and improve accessibility – especially in traditionally under-served and deprived areas of the region.

Our proposed programme is intentionally ambitious. Anything less risks us simply treading water for the next five years – covering essential maintenance and renewals and already committed projects but missing the opportunity to move the dial on transport investment. It is essential that HMG's national objectives for improved transport outcomes are reflected in our own regional ambitions for change. We want to deliver innovative, high quality projects that provide genuine improvements to people's lives in the West Midlands, attract people to new active forms of transport, and make strides towards our 2041 carbon neutral target as part of the #WM2041 initiative.

The scope and scale of our proposed programme

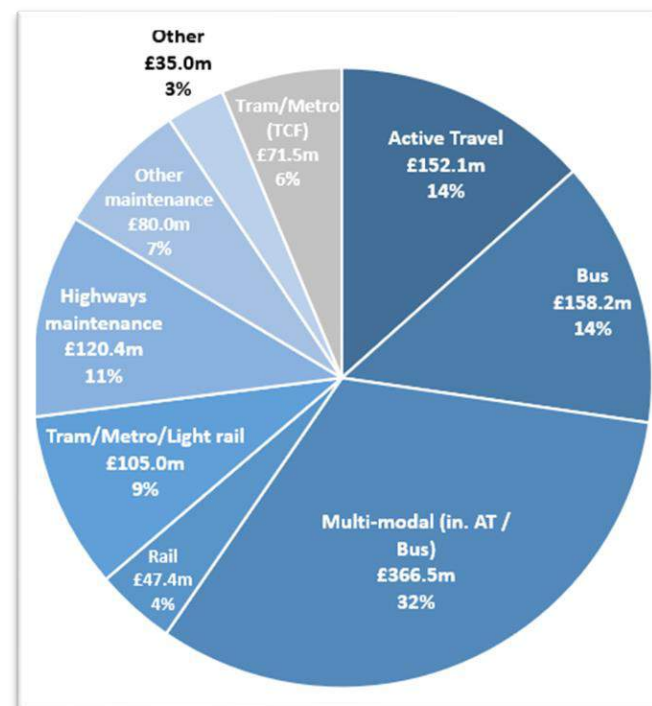
Better intra-regional connectivity for the West Midlands will generate national benefits, improving travel times for those passing through or visiting the region, as well as indirect spillover of economic activity to neighbouring regions.

Our £1.05bn settlement from CRSTS for the West Midlands would leverage a further £278m of local contributions, to deliver a £1.3bn programme of transport investment over five years. Our approach to prioritisation has delivered a programme of improvements which maximise investment in sustainable transport. This delivers a programme which ranges from essential renewals and maintenance, through extensive smaller scale active travel and community focused improvements (which are relatively quick and low risk to deliver), to some larger targeted transformational projects such as Metro improvements, heavy rail enhancements, new very light rail routes, bus priority and Bus Rapid Transit schemes. The breakdown of investment by mode is detailed in Figure 9.

We have worked hard with our local partners to maximise the level of our local contribution – this reflects the relative criticality for the West Midlands of transport investment. Our ambition and needs are high, and we are taking climate change and economic recovery very seriously

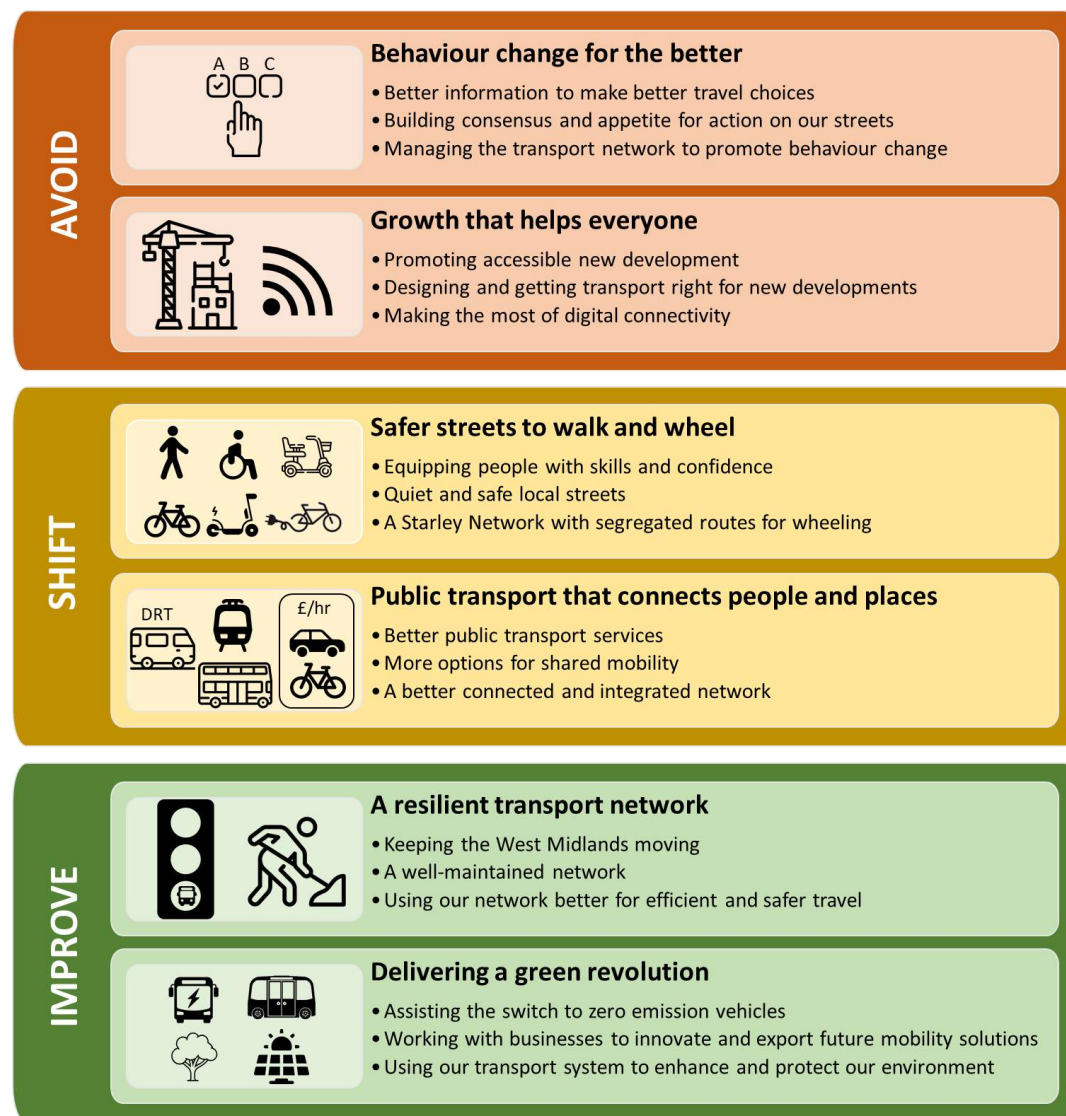
We have packaged our CRSTS programme into six themes (see Figure 10), aligned to the Motives for Change described in our Local Transport Plan (see [section 4.4](#)). Each theme delivers benefits that cross-cut national objectives to improve growth and productivity, contribute towards levelling up and decarbonisation, and deliver value for money.

Figure 9: Modal split of West Midlands CRSTS investment programme



Our themes are inter-linked and complementary. The investment made through our *Connecting our Places* theme provides the region-wide public transport network at the heart of TfWM's CRSTS programme. It enables much of the complementary investment in other programme themes to thrive. A well-connected and accessible public transport network will help *support inclusive growth* corridors and *make behaviour change easier* by providing fast and efficient connections between key centres and corridors. Investment will support *resilient networks* by helping to provide a viable public transport alternative for residents and releasing capacity on our highway network. This will lead to reduced car usage and associated carbon and particulate emissions to help us *deliver a green revolution*. Provision of attractive centres and facilitating effective interchange between active and public transport modes will complement our *healthy streets and spaces* initiatives.

Figure 10: The Six Big Moves of the refreshed West Midlands LTP which the CRSTS programme themes are based on



Theme 1: Connecting our Places - £344.5m funding required from CRSTS

Overview: This theme comprises a targeted programme of public transport investment across rapid transit and rail and bus, complemented by enhanced interchange facilities. In total, the CRSTS programme will deliver over 50km of new bus priority lanes – doubling the amount in the West Midlands.

We will blend both delivery and development to ensure we have the solutions fit for the short and medium term to enable the West Midlands to build back better.

Strategic rationale: This investment builds on the momentum gained thorough current public transport improvements including Metro enhancements, new rail stations, bus priority and the first Sprint Bus Rapid Transit route. As we move closer to the arrival of HS2, boosting public transport connections across our key centres and corridors will be all the more important.

This investment will unlock development around public transport hubs, catalyse economic activity in our centres, and provide residents with the same levels of opportunity to access employment, health, education and leisure opportunities. A better public transport network for the West Midlands that offers a viable alternative to car travel will reduce carbon emissions, directly addressing our climate emergency.

Table 3: Key Schemes – Connecting Our Places

Scheme	Description
Metro £105m	A package of investment comprising essential renewals to sustain operations on the original Line 1 between Wolverhampton and Birmingham, which is now over 20 years old and the development of further route options along the Hagley Road route to the west of Birmingham linking into the Black Country.
Coventry Very Light Rail £71.5m	Currently at a higher technology readiness research and development stage, this exciting project employs our regional automotive expertise (and thereby directly supporting our Local Industrial Strategy) to deliver an innovative and affordable light rail system. This project aims to deliver all the benefits of trams – low floors, comfort, efficiency, reliability – but at a fraction of the cost of traditional light rail schemes. CVLR will be lightweight and use 100% renewable energy, providing a real alternative to the car and thereby helping to improve air quality and reduce congestion. The first City Demonstrator route will form part of Route 1 and will deliver a 2km route (total route will be 7km) between Coventry Railway Station and Pool Meadow Bus Station. The City Demonstrator route will demonstrate urban VLR technology in a number of different conditions (traffic, road construction, interface with utilities) and showcase the integrated system to both the public and organisations, both nationally and globally, that are interested in implementing Coventry VLR. CRSTS funding will enable all statutory processes to be undertaken for Route 1 and for construction to start on site. In addition there is investment in BCIMO to enable development work on making VLR fully autonomous to process alongside ongoing innovation.

Scheme	Description
	The CRSTS funding will also support other VLR projects such as the Black Country VLR Innovation Centre and the exploration of different Rapid Transit technologies on the East Birmingham / North Solihull corridor.
Future Bus £74m	We will progress our Vision for Bus by delivering measures to improve bus priority across the West Midlands through the implementation of over 50km of new bus lanes. We will also bring forward our region-wide Demand Responsive Transport offer by investing in a fleet of zero-emission vehicles and depot facilities, building upon the already committed All Electric Bus City programme in Coventry which will see all buses in the city be electric by the end of 2025, and developing the back office systems necessary to allow customers to book journeys on demand using a single integrated platform.
Rail £33m	We will introduce a new station at Aldridge and continue to make the case for new stations at key locations across the West Midlands where the financial and economic case is strong.
Interchange £34.5m	Underpinning all of this activity will be a programme of sustainable access and connectivity improvements in Sutton Coldfield which will improve access to this regional centre and key transport interchange. Development of plans for Solihull railway station will ensure that this regional centre can attract further investment and will improve interchange between modes and enhance access to the Town Centre. Two future park and ride sites will be developed at Tile Hill & Whitlocks End to support interchange between transport modes and further improve connectivity.
Snow Hill Growth Strategy £5m	Snow Hill is one of Birmingham City Centre's three main rail stations providing local and regional services, and direct connections to London. Funding will support the development work on this key scheme which involves the major redevelopment and transformation of Snow Hill rail station and its immediate environs, and improved transport connectivity within the Snow Hill area. This is predicted to support 112,000sqm of new office-led development accommodating over 7,700 jobs and 200 homes.

Interactions with other programmes: This investment will support and build upon a number of other programmes linked to the arrival of HS2 and the WM Investment Programme including University Station, Metro Birmingham City Centre to HS2, Dudley Interchange, Sprint and Perry Barr station. Investment in bus priority measures as part of our Bus Service Improvement Plan (BSIP) will be complemented by the expansion of the rapid transit network alongside a refresh of the DRT offer in the West Midlands. This programme will maintain the momentum generated from previous investment and act as a springboard for further investment towards even greater connectivity across the West Midlands.

Picture 2: Coventry Very Light Rail – first built vehicle now being tested



Picture 3: Proposed bus interchange at Solihull Railway Station incorporating Sprint Buses



Sutton Coldfield Town Centre Masterplan

The transport elements of the Sutton Coldfield Town Centre Masterplan will provide infrastructure improvements across the town centre to provide bus priority and support enhanced operational efficiency. This initiative will also include a review of car parking provision, highway operation and critically, a focussed investment in enhanced infrastructure to support access between the town centre, the new developments such as the 6,000 home Langley Sustainable Urban Extension and adjacent residential areas by active travel modes, to deliver lasting improvement of travel choice for residents and visitors to Sutton Coldfield Town Centre.

Theme 2 Supporting Inclusive Growth - £191.7m funding required from CRSTS

Overview: This programme is focused on driving inclusive growth, levelling up and housing delivery in six high priority corridors across the West Midlands. The programme takes a place-based approach to delivering targeted packages of work to complement existing investment, unlock housing and employment opportunities and offer residents safe and sustainable transport choices. The interventions – ranging from new walking and cycling routes, game changing rapid transit links, and further phases of the SPRINT Bus Rapid Transit network – have been carefully chosen to enhance the environment, increase wellbeing and maximise the potential and success of our diverse population.

Picture 4: High quality Transit Stop along SPRINT Bus Rapid Transit network



Strategic rationale: Our Local Industrial Strategy sets out the region's commitment to driving a more inclusive economy. Addressing transport inequality is also a key part of our Local Transport Plan. Our six Inclusive Growth Corridors align with areas of high deprivation, with housing supply shortfalls. Transport investment will be a key catalyst for growth and regeneration. We will use the investment through CRSTS as leverage to improve the outcomes for local residents around housing, skills and employment. Targeted new transport links will unlock housing development on brownfield sites. A focus on active, low carbon and sustainable travel will improve safety and air quality. Better public transport will provide access to jobs and services for people living in the most deprived areas of the West Midlands.

Figure 11: Inclusive Growth Corridors

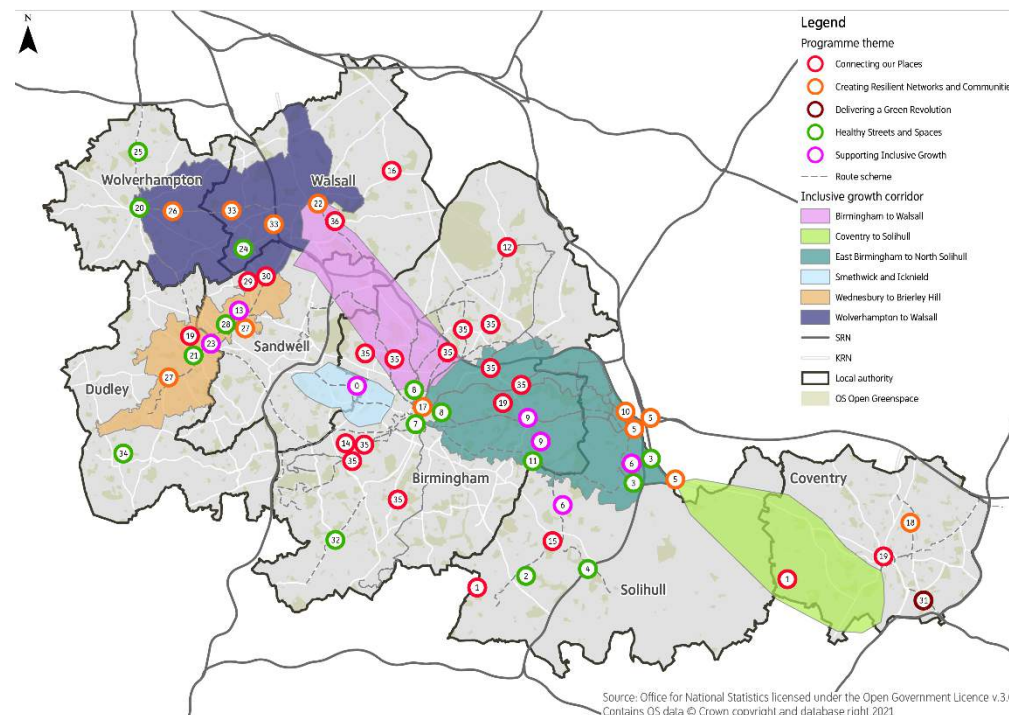


Table 4: Key Schemes – Supporting Inclusive Growth

Corridor	Catalyst	Selected schemes
Walsall to Wolverhampton £30.7m	Major regeneration and development opportunity, with c.£100m transport upgrades planned to support the construction of over 4,500 new homes, as well as major redevelopment in Walsall and Wolverhampton urban centres.	<ul style="list-style-type: none"> A454 multi-modal corridor to relieve congestion, improve air quality and install active travel infrastructure Sustainable access to new stations City centre walking and cycling improvements
Sandwell to Dudley £18.4m	Builds on significant investment in 11km Metro extension between Wednesbury and Brierley Hill. This links the Black Country with HS2 and supports the regeneration of Brierley Hill and Dudley	<ul style="list-style-type: none"> Interchange improvements between bus, heavy rail and the new Metro at Dudley Port Walking and cycling improvements

Corridor	Catalyst	Selected schemes
	town centres. 17 new Metro stations will support investment and regeneration opportunities throughout the corridor.	<ul style="list-style-type: none"> Improvements to walking and cycling access to new Metro stops
Birmingham to Walsall £30.6m	The 2022 Commonwealth Games provides the catalyst for regeneration of the wider area with an improved new rail station, major public transport investment, and delivering new homes and jobs post-Games.	<ul style="list-style-type: none"> Completion of Sprint Phase 2 route including Park & Ride
Smethwick & Icknield £19m	Major investment in land remediation and transportation are enabling a new mixed-use urban quarter just 10 minutes from Birmingham city centre. The project covers a development area of 137 hectares, able to accommodate approximately 5,000 new homes and 10,000 square metres of commercial floorspace – one of the largest opportunities for brownfield regeneration in the UK.	<ul style="list-style-type: none"> High-quality walking and cycling infrastructure including completion of two-way segregated cycle route between Oldbury and Birmingham City Centre
East Birmingham / North Solihull £71.5m	Much of East Birmingham falls within the top 20% most deprived areas in England. The arrival of HS2 and the proposed rapid transit connectivity from East Birmingham to Solihull represents a once in a generation opportunity for positive change.	<ul style="list-style-type: none"> Completion of Sprint A45 Phase 2 route Package of sustainable transport improvements Cross-city bus priority routes Segregated cycle schemes
Local Network Improvement Plan £21.5m	West Midlands wide investment in the inclusive growth corridors including links between Coventry and Solihull connecting UK Central – including the new HS2 Interchange station, Arden Cross development, Birmingham Airport, NEC and JLR sites – to the thriving University of Warwick, Eastern Green and Keresley developments (6,000 new homes), and Coventry city centre with investment in improved park and ride facilities at Tile Hill and strategic cycle routes.	<ul style="list-style-type: none"> Inclusive growth network

Interactions with other programmes: our proposed investment in inclusive growth corridors is targeted at maximising the impact of the significant levels of infrastructure already committed and in delivery across transport, housing and regeneration. These include the transformational 11km Metro extension to Dudley; SPRINT Bus Rapid Transit Routes across Birmingham, Solihull and the Black Country; new or improved rail stations between Walsall and Wolverhampton and across Birmingham; new housing and regeneration in Smethwick and Icknield; and the Commonwealth Games and housing growth adjacent to Perry Barr station.

East Birmingham is home to more than 230,000 people and forms a crucial part of the city and region's economy. Major growth is coming which will deliver more than 60,000 new jobs and 10,000 homes within and near to East Birmingham over the next ten years.

The **East Birmingham Inclusive Growth Strategy**⁵ sets out a clear vision for the future of East Birmingham as an excellent place of strong communities in which to live and work. It will guide the delivery of inclusive growth in East Birmingham over the next 20 years.

The arrival of HS2 is a huge opportunity for East Birmingham. Transport investment delivered through CRSTS will maximise these benefits through the investigation of rapid transit options and a new Sprint rapid transit route along the A45 Coventry Road corridor. Wide ranging cycle, walking, bus and rail improvements will change the way people move around, reduce congestion, improve air quality and encourage people into healthier travel habits.



⁵ East Birmingham Inclusive Growth Strategy, [link](#)

Theme 3: Healthy Streets and Spaces - £102.8m funding required from CRSTS

Overview: This theme delivers measures aimed at encouraging more active travel, reducing the volume of trips made by cars, improving health and well-being, and reducing the environmental impacts of transport. The package of measures comprises a high-quality network of new walking and cycling corridors and public realm improvements in strategic centres, designed to DfT LTN 1/20 standards. In total, the CRSTS programme will deliver over 100km of new cycle lanes.

Strategic rationale: This theme has very strong alignment to both local and national policies around promoting physically active, community-focused, sustainable and decarbonised forms of transport. For example, our Local Transport Plan set out the urgent need to shift from short-distance car journeys to active travel modes.

This theme builds on West Midlands' recent success in delivering active travel projects, including walking and cycling infrastructure as part of the Active Travel Fund. These schemes, and those delivered through CRSTS, will reduce the carbon footprint of the West Midlands, improve air quality, and provide a wider range of affordable travel options to resident and visitors alike.

Picture 5: Birmingham City Centre Phase 1 Cycling Scheme



Picture 6: Proposed reallocation of road space

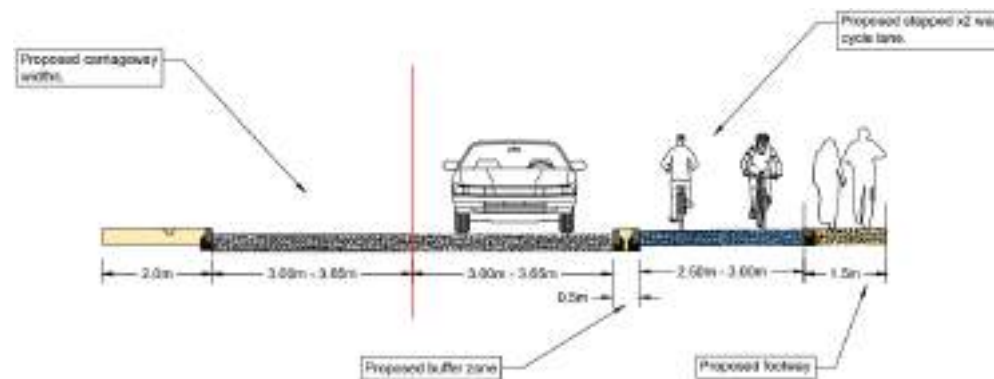


Table 5: Key Schemes – Healthy Streets and Spaces

Scheme	Description
Cycleways	Completion of the Selly Oak to Longbridge section of the high-quality A38 segregated cycle route. In addition, LCWIP priorities Solihull will be delivered including a new cycleway between Knowle to Solihull Town Centre and a new cycleway between Dickens Heath to Solihull Town Centre. In total, the CRSTS programme will deliver over 100km of new cycle lanes.
Town Centre Sustainable Connectivity	Improved connectivity, wayfinding and place making in the local and strategic centres of Dudley and Birmingham. The Birmingham City Centre Active Travel to Interchange project includes the upgrade, restoration and renovation of Birmingham City Centre bringing significant benefits to walking routes, as well as providing better cross city cycle routes between our key public transport interchanges.
Active travel corridors	New or improved combined walking and cycling routes across the West Midlands.

Interactions with other programmes: The spatial spread of the proposed active travel projects means there are a number of interactions with other programmes. For example:

- The **One Station** package of improved pedestrian connections will link the new HS2 Curzon Street station with the three other city centre railway stations – New Street, Moor Street and Snow Hill. The project will deliver wayfinding and a much-improved public realm along key walking routes to enhance sustainable connectivity to and from Curzon Street.
- The **Dudley Town Centre Interchange Sustainable Connectivity Package** will deliver improved cycle and pedestrian connectivity in and around the Dudley Interchange project and the wider town centre. The existing Dudley Town Centre bus station will be replaced with a new state of the art facility which will provide direct connectivity to the Wednesbury to Brierley Hill Metro extension. Dudley Interchange and the Metro extension are both funded, in part, through the Transforming Cities Fund.

Selly Oak to Longbridge Segregated Cycling: extending the popular segregated cycleway between Birmingham city centre and the University of Birmingham by 8km to reach Longbridge. This would link a number of local centres along the A38 corridor to major employment centres at the University of Birmingham, Queen Elizabeth Hospital and the city centre. The extended cycleway will provide an attractive, safe means for people to travel along this busy corridor, reducing reliance on the car.

Dickens Heath to Solihull Town Centre LCWIP Scheme: Cycleway scheme to connect the large residential area of Dickens Heath to the south of the borough (in which a further 1,500 homes (approx.) are proposed) with the town centre. The high-quality cycle route will help to increase cycle journeys and provide better reliability for all users along Blossomfield Road.

Theme 4: Creating Resilient Networks and Communities - £238.4m funding from CRSTS

Overview: This theme delivers multi-modal junction and corridor route improvements to highways and the Key Route Network across the West Midlands, whilst also investing in road safety and innovative technological infrastructure. These schemes will improve multi-modal connections, reduce barriers to active travel by making our roads safer to use, and address congestion and capacity constraints.

Strategic rationale: Resilient networks are key to addressing the transport and economic challenges faced in the West Midlands. This region-wide programme will help our road network to be a better neighbour to our communities through the renewal of aging assets and improved accessibility. Creating new and improved connections will maximise the benefits of nationally significant infrastructure such as HS2. Delivering new multimodal connections and improvements to public transport mean communities will have a viable alternative to private car use and ensure that our residents can access more employment opportunities. Addressing capacity constraints and congestion – particularly for public transport – will support the Government's ambition for Gear Change, the National Bus Strategy and decarbonisation objectives. Meanwhile, improving road safety will remove barriers to active travel. Investment in the network will keep ahead of a number of high capacity residential and employment sites proposed across the region.

Significant schemes within this theme, including funding required from CRSTS

Table 6: Key Schemes – Creating Resilient Networks and Communities

Scheme	Description
Highways maintenance and structures £120.4m	The region's highways maintenance programme focuses on reducing the deterioration of main carriageways, structures and the unclassified network, which is essential for improving accessibility to local services, public transport and encourages local trips by walking, cycling and other emerging mobility solutions. Overall the programme seeks to renew, repair and extend the life of highway assets across the West Midlands. This programme is aimed at improving conditions across all classes of roads to support our thriving communities and businesses.
A461 Walk, Cycle and Bus Corridor £25m	Installation of high quality active travel infrastructure and air quality improvement measures. The scheme will also include bus priority measures to address Key Route Network action plan priorities. Design principles focus on road space reallocation to facilitate active travel and bus priority measures and the upgrading of existing infrastructure where possible to minimise costs and maximise the benefits of the scheme.



Scheme	Description
A4123 Walk, Cycle and Bus Corridor	Multi-modal corridor improvements, consisting of a two-way segregated cycle track spanning the whole length between Wolverhampton and Hagley Road. Bus priority measures such as bus gates are being considered to improve public transport reliability, in partnership with TfWM to ensure that Bus Service Improvement Plan key routes X8/87 are served by this improvement.
M42 Bridge link to HS2 Hub £5m	Development of a public transport and active travel corridor between Birmingham International station and HS2, including a direct link for cycling and walking. Provision of reliable public transport to the Arden Cross and NEC developments including the Health and Innovation Campus.

Interactions with other programmes: there are a number of complex interactions with HS2 and related investment, access routes to UK Central, planned capacity improvements to motorways being delivered by National Highways, Sprint bus priority routes, on-street running of the Metro, and local cycle and walking investment programmes.

Theme 5: Delivering a Green Revolution - £46m funding required from CRSTS

Overview: This programme aims at decarbonising the largest sources of carbon emissions on the road, including cars, LGVs and HGVs. The schemes within this programme focus on research and development, building a robust supply chain for zero emission technologies, and delivering supporting infrastructure to build consumers' confidence in zero-emission vehicles.

Strategic Rationale: The schemes within this theme are part of a number of essential steps towards our carbon neutrality target contained in our regional #WM2041 commitment, supporting DfT's Transport Decarbonisation Plan and national carbon zero targets.

The interventions are carefully targeted on the parts of the West Midlands with the most challenging air quality issues (e.g. Key Route Network and major A roads) and where the bulk sources of carbon emissions from cars, LGVs and HGVs occur. Furthermore, the locations of charging stations will be strategically selected such that they provide easy access to other greener modes of transport so as to maximise the decarbonisation potential of all the programmes within this proposal.

These interventions are complemented by schemes that promote modal shift and active travel in other themes, such as the £34.5m active travel corridors and £40.8m cycleways scheme under Healthy Streets and Spaces.

Table 7: Key Schemes – Delivering a Green Revolution

ULEV £12m	A centrally managed fund to support installation of public EV charge points in residential streets (with a particular focus on the Black Country – an area of lower than average EV adoption) key destinations and town centres across West Midlands, alleviating 'range anxiety' for residents and supporting local business and taxi/private hire operators/car clubs. The contribution from CRSTS will allow the region to maximise the decarbonisation opportunities from EVs.
Through the above scheme, TfWM aims to deliver 1,600 7-22/50 kW chargepoints by 2025.	
Ultra-Rapid Charging Transit Stations £14m	The development of 10 Transit Stations aimed at regional transport, located in close proximity to the Key Route Network for the West Midlands. These facilities will provide Ultra Rapid charging targeted at fleets without access to depot charging and own use charging for shared mobility services such as car clubs.
Gigafactory Links £17m	Provision of cycling and walking infrastructure on London Road and Whitley Interchange to facilitate access by active travel to the major employment hub south of Coventry, including the proposed Gigafactory. Bus priority measures will also be provided to support the services to be supported through s106 contributions and to make passive provision for future VLR.
BSIP Retrofit Programme £3m	Programme of retrofitting 120 buses to Euro 6 standards to improve vehicle emissions and air quality.

Picture 7: EV Charge Point in West Midlands



Interactions with other programmes

The programme described above will derive most of its benefits from the uptake of zero emission vehicles which is driven by growing road users' confidence in the technology and availability of supporting infrastructure.

However, making strides towards a green revolution in the West Midlands permeates through our entire CRSTS programme across multiple themes. Modal shift from private vehicles to other greener forms of travel modes such as public transport, cycling and walking are key objectives discussed in earlier themes. The locations of charging stations and their accessibility to other greener modes of transport (e.g. Park and Ride site) are also linked. Across our entire programme we will ensure that we maximise the decarbonisation opportunities from the transition to zero emission vehicles and modal shift.

Theme 6: Making Behaviour Change Easy - £48.1m funding required from CRSTS

Overview: The programme of investment within this theme will provide a step-change in both the attitude and behaviour of individuals by providing frictionless access to sustainable transport across the region, and innovative new ways of travelling that build on the success of our Future Transport Zone programme.

Strategic rationale: The interventions have been carefully selected to encourage more use of public transport, active travel and new forms of mobility, thereby ensuring a viable transport network and supporting our net zero aspirations. This theme builds on West Midlands’ recent success in delivering bike hire schemes and e-scooter hire services. In shaping the programme we have used recent work⁶ that segmented the WMCA population according to spatial, economic, residential, demographic and transport-related factors. These segments condense the range of needs, preferences, and choices made by residents of the WMCA region, and have supported us to make user-centred decisions to allow us to better map interventions to behaviour, and then to track that behaviour change.



Table 8: Key Schemes – Making Behaviour Change Easy

Scheme	Description
Contactless payment broker £18m	TfWM in partnership with Midlands Connect have designed a back-office payment system that aggregates contactless payments across all operators and modes of transport. This 'broker' will enable an integrated best value cap to be applied the end of the day. In doing so, we will capture and utilise greater intelligence and insights about the way that people travel in the region.
Mobility Hubs & E-bikes £8.6m	A network of highly recognisable physical interchanges that offer a range of connectivity including public, shared active and decarbonised mobility options, together with enhanced facilities and information. Mobility hubs are far more than just transport exchanges – they will provide an opportunity for access to a much wider range of mobility options to support sustainable travel and address air quality issues. They have the potential to revitalise neighbourhoods and town centres, facilitating more social interactions and support stronger local communities and economies. We will consult locally on the design of each hub, so the offering is tailored to the needs of the local community.
Local Network Improvement Plan £21.5m	A multi-modal West Midlands-wide Network Improvement programme of minor schemes and behaviour change programmes to support Making Behaviour Change Easy. This will be delivered across the seven local authorities and TfWM. Initiatives could include travel demand management support.

Picture 8: A full-scale Mobility Hub proof of concept being used for community design input



⁶ TfWM All Traveller Segmentation Summary Report

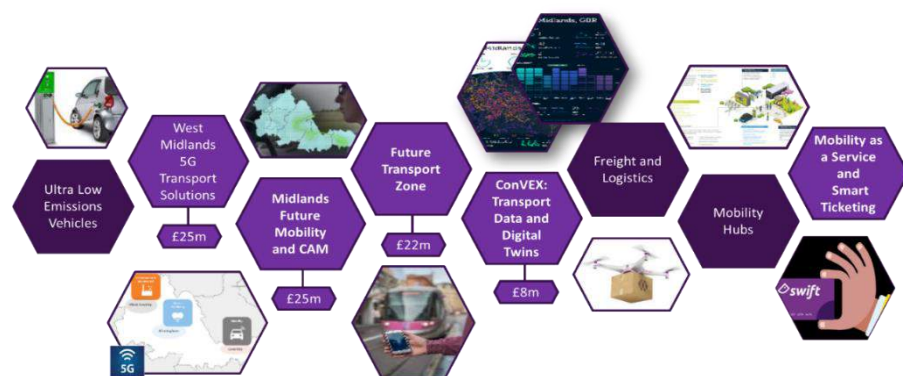
Interactions with other programmes: The schemes set out above are part of TfWM's broader portfolio of transport innovation programmes (see Figure 12). They will enhance and complement other future transport initiatives within the portfolio that are funded through other routes.

The schemes are intrinsically linked – for example, the Midlands Future Mobility connected and automated mobility testbed is co-located with the 5G testbed for transport trials. Equally, the Regulatory Sandbox will assist with the quick and efficient move from development to delivery of VLR and be supported by a digitised road network.

Layering these initiatives creates a synergy that not only benefits individual initiatives but also sets the West Midlands apart as a region uniquely attractive to investment in transport innovation.

The schemes within this theme will be complemented by TfWM's commitment to spend 1% of each capital scheme budget across our entire portfolio on travel demand management measures to prompt behaviour change, minimise construction disruption and enhance outcomes.

Figure 12: TfWM's transport innovation programmes



4.9 Risks

During the Programme Development Process (see Section 5.4), TfWM examined the risk associated with potential schemes to ensure that the programme could be delivered. This focus on delivery risk included scheme maturity, dependencies and project complexity. Therefore, schemes that were deemed to be too 'risky', were not included in the programme.

The schemes that are included in the programme will be delivered in phases in order to minimise risk. In the initial years of the five-year programme, TfWM will focus on the delivery

of the smaller and more mature interventions around active travel, asset improvement, first/last mile and EV/de-carbonisation activity. These schemes carry less risk and therefore should be straightforward to deliver.

The larger and more complex projects will not be delivered until the final few years of the five-year period. This will allow TfWM more time to work up the business plans of larger schemes to a high degree of maturity so that they may be successfully delivered later in the schedule. Our programme risk management strategy will help to highlight and mitigate issues with a programme risk manager working with individual scheme project managers to ensure joint lessons are learnt and the delivery remains fluid. Further details are provided in the Management Case.

Overall, we believe that this approach means that our programme is inherently lower risk whilst balancing the need to deliver real benefits right from the outset of the programme.

5 Economic Case

5.1 The benefits of our programme

The programme we have developed has been tailored to help deliver against the key outcomes of value for money, growth and productivity, levelling up and decarbonation. We set out below a summary of how we expect the WM CRSTS programme to support each of these objectives.

5.1.1 Economic benefits

Driving growth and productivity at the local and national level

As addressed in Chapter 4, the strengths of our economy lie in our world-leading automotive and aerospace innovation, green technology, health and life sciences industries and research institutions. However, our economy also faces some challenges – such as increasing inequality, entrenched poverty, youth unemployment, lower skills, poor health outcomes and low educational performance.

It is well established that while a lack of accessibility can constrain and exacerbate these socio-economic challenges, investing in city region transport infrastructure can be a catalyst for growth; driving up the productivity of existing businesses, attracting new and high value economic activity to the region and creating new and better-paid employment opportunities for local residents. Indeed, recent investments in the West Midlands Metro will triple the networks size, linking Wolverhampton and Dudley with the heart of Birmingham City Centre and carrying 30 million passengers per annum, and this unlocking growth and prosperity within the corridor.

Within our proposed CRSTS investment programme, our themes of Connecting our Places, and Supporting Inclusive Growth both focus on driving productivity and net additional growth locally and nationally, as do many projects across the remainder of our investment themes. These two themes represent a minimum circa £536m of growth-focused transport investment over the next 5 years (some 50% of our total CRSTS programme).

Together, this step-change in investment will improve access and connections between workers and businesses across our region; driving productivity both locally and nationally by enhancing business competition, allowing businesses to better match with the right suppliers, customers and employees, and increasing the likelihood that ideas, knowledge and innovations are shared and exchanged throughout the West Midlands economy. Our investment programme will provide some of our major employment locations with access to a deeper and wider pool of skilled labour, and at the same time help to make places and housing more economically viable in key areas; providing people with more freedom to decide where they live and work. This will not only help to attract high value and globally-mobile investment and jobs to the West Midlands, but support existing and new residents to seek out more productive, higher paid employment.

Based on early analysis in the development of our proposed programme, we expect the investment of the type and ambition proposed under our CRSTS programme could **potentially deliver an 11-25% improvement in residents' access to employment by public transport over the next 15 years**. As shown in Figure 13, this is expected to deliver widespread accessibility benefits across the region, and with the greatest improvements within the Birmingham City centre and areas served by bus/Rapid Transit schemes and the UKC area around Birmingham Business Park.

Figure 13: Change in the PT accessibility to jobs relative to a Do Minimum scenario

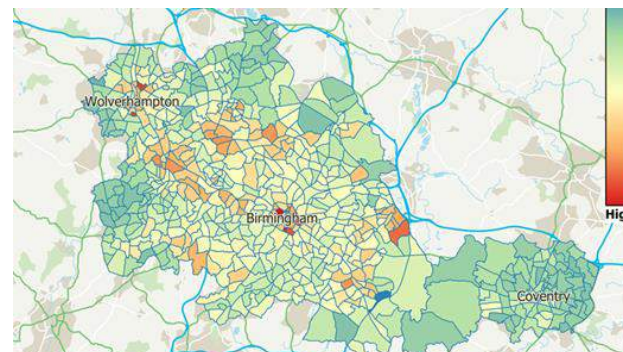
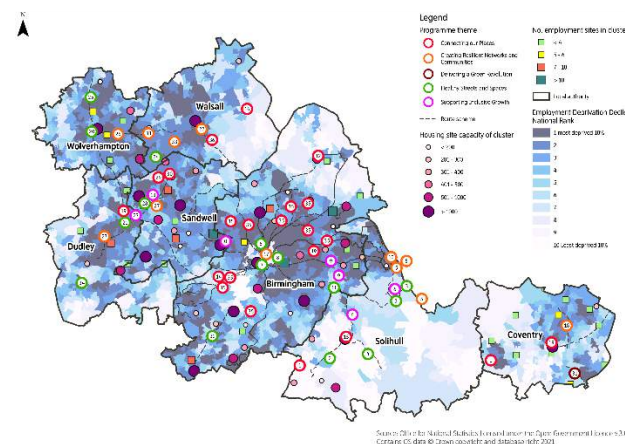


Figure 14 demonstrates how our programmes has the potential to drive growth and productivity by targeting investment which improves access to current and new employment opportunity areas, encourages productivity by improving connectivity with educational institutions, and unlocks innovation and growth in areas with key value and export led sectors.

Figure 14: Programme interventions by theme, mapped to areas of employment deprivation, employment returns and residential return sites



Our proposed programme includes **investments in rapid transit**, which will see the sustained operation of the original Line 1 between Wolverhampton and Birmingham and the completion of the Wednesbury to Brierley Hill metro extension, combined with the development of route options along the Hagley Road to key employment growth areas in the west of Birmingham and the Black Country.

It also includes **critical rail investments** at Aldridge station and towards the development of business cases for new stations in high impact areas across the West Midlands.

Underpinning all of this activity will be a programme of interchange improvements including rail park and ride to support the transition between transport modes and the connectivity this brings. Our key centres of Sutton Coldfield and Solihull will also see the delivery and development of improved interchange environments, which will provide an attractive and welcoming access point whilst also catalysing further investment and regeneration in the area.

Case studies: Both the Coventry Very Light Rail and the A45 Birmingham to Airport SPRINT are key examples of how connecting our places across the West Midlands will unlock growth and productivity locally and at the UK level.

Coventry Very Light Rail is a research and development project which has the potential to provide a game changing option across the West Midlands. VLR will use the latest automotive expertise developed in the region to deliver an innovative and affordable light rail system, directly supporting the West Midlands Local Industrial Strategy. This project aims to deliver all of the economic benefits of light rail, but at a fraction of the cost, providing a real alternative to the car, and boosting key connections between residents and employment/educational opportunities. The first route is being developed in Coventry to provide a mass transport system for the city and prove the concept of VLR in a city centre environment. This will connect major employment, commercial, education and healthcare sites between the city centre and the newly-improved HS2 connected railway station, supporting economic activity and productivity growth within the WCMA and across the UK.

A45 Birmingham to Airport SPRINT is a bus-based rapid transit (BRT) proposal linking Birmingham city centre with Birmingham International Airport, the National Exhibition Centre and Solihull town centre along the A45 Coventry Road. It also links to an area of significant growth at the HS2 Interchange station site – 'UK Central' (UKC Hub). It will provide a high reliable and high frequency (targeting 95% on time, at 10 min between services at the least in the peak), alleviating congestion and connecting workers with new employment opportunities, homes, facilities, and onward domestic and international connections via the rail and air. It will also support growth and regeneration, supporting developments in the Birmingham City Centre Enterprise Zone, around the new HS2 Curzon Street Station and surrounding Masterplan area, development at UK Central, and in Solihull Town Centre, significant expected expansion at the JLR Lode Lane plant, with a new logistics hub, and new the 'Environmental Enterprise District' site identified in Birmingham's 'Big City Plan'. Finally, it is expected to drive productivity through agglomeration economies, with a level 1 BCR of 2.9 and a level 2 BCR of 3.6.

Levelling up connectivity and economic prosperity across the West Midlands

Improving the wellbeing and prosperity of our most deprived and vulnerable communities is a key part of levelling up the region, such that all West Midlands residents have access to the same life chances. Improving transport connectivity – particularly via public transport and active travel – plays a critical role in opening up those opportunities by reducing living costs, improving health and amenity, and importantly providing affordable access to work, leisure and educational opportunities. In supporting our most disadvantaged communities, we can

also support significant regeneration of our towns and cities by unlocking new affordable housing and employment development in the areas that need it most.

As already set out in Chapter 4, whilst public transport and active travel provides an important means of accessibility for those that cannot afford to travel by car, current service levels do not meet the needs of certain deprived areas, and risks entrenching deprivation by constraining access to employment and investment opportunities in these areas.

Transport inequality between car and public transport can be measured by using the gap between the number of jobs accessible by those who commute by car and those who must rely on active and public transport modes. Figure 15 shows that these disadvantages arise in semi-rural areas such as Knowle and the Meriden Gap. In these locations there is easy access to the motorway network extending the range that car commuters can travel. However, there is limited public transport service provision, which reduces travel horizons for public transport users. Areas west of Walsall, which do not have local rail or metro connections and must rely on bus as a means of public transport, also show high levels of inequality. The lowest areas of inequality are found within the centre of Birmingham where a high-quality public transport system competes against congested roads. Demand Responsive Transport infrastructure could be one of the tools to plug the accessibility gap in these hard to serve locations.

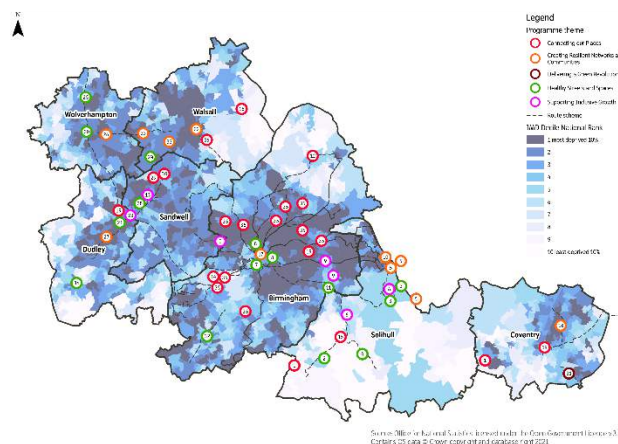
Figure 15: Level of transport inequality



Based on early analysis in the development of our proposed programme, we expect the investment of the type and ambition proposed under our CRSTS programme **could potentially deliver a 2-5% improvement in overall transport equality toward public transport and active travel over the next 15 years.**

Figure 16 demonstrates how our programme has the potential to address the key challenge of levelling up, targeting those underserved and deprived regions such as inner-city communities in Birmingham, Wolverhampton and Walsall, as well as more rural areas of the WMCA. Within these Local Authority areas, the majority of our programme interventions are also concentrated in the LSOAs that have higher levels of deprivation and poor accessibility/ employment opportunities. This underscores the fact that not only is the programme itself targeting areas in need of levelling up within the West Midlands, but that significant investment in the region will materially contribute to levelling up the UK economy overall.

Figure 16: Programme interventions by theme, mapped to areas of index of multiple deprivation



Both the Smethwick – Birmingham Inclusive Growth Corridor and Walsall to Wolverhampton Inclusive Growth corridor are key examples of how we will Level Up connectivity and economic prosperity for the areas of our region which are most in need.

The **Smethwick – Birmingham Inclusive Growth Corridor** is home to some of the most deprived and vulnerable communities in the West Midlands. The transport investment package combines a range of sustainable transport measures to increase travel horizons to employment and education opportunities. The additional capacity provided in the corridor will also help to accommodate new housing development and support the economic transformation of the corridor.

The **Walsall to Wolverhampton Inclusive Growth corridor** proposals combine multi-modal transport investment to improve journey time reliability, increase physical activity and boost connectivity for residents in the corridor. The package of measures will unlock housing and enable improved access to employment and education in Wolverhampton and Walsall as well as providing onward connections to improve travel horizons.

5.1.2 Other benefits

Decarbonising the West Midlands transport network to achieve our Net Zero ambitions

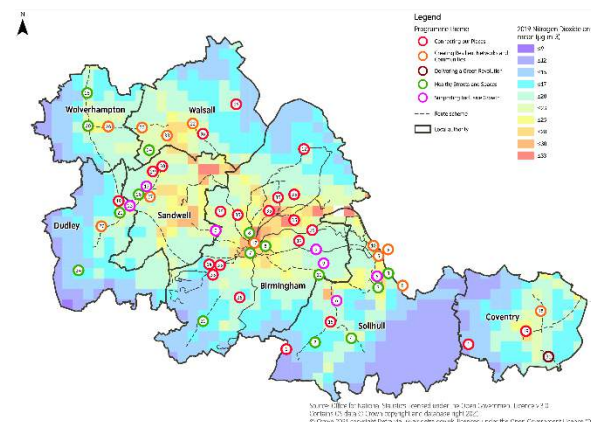
As of 2021, the carbon emissions from cars, LGVs and HGVs across the West Midlands amount to 3.443 MtCO₂e. Under a business-as-usual scenario, this is predicted to fall to 3.183 MtCO₂e by 2027 (the end of the funding period). However, this decarbonisation pathway is not sufficient to bring the West Midlands' transport emissions to net zero by 2050, with a significant gap of 2.490 MtCO₂e at this stage. On top of carbon emissions, road

transport is also the main contributor to NO_x and PM 2.5 emissions which deteriorate air quality and are detrimental to public health. Hence, there is an urgent need for additional transformative interventions which accelerate decarbonisation via modal shift and switch to zero emission engine sources in vehicles. The CRSTS timeframe is the earliest opportunity to make these interventions and meet our net zero carbon target by 2041.

Our proposed programme reduces carbon emissions and air pollutants (NO_x and PM 2.5) by targeting cars, LGVs and HGVs which are the largest contributors by mode and the locations which suffer most from air quality issues in West Midlands as shown on the map in Figure 17. The programmes aim to reduce carbon emissions and air pollutants through the following means:

- Improvement of public transport link and capacity to encourage modal shift from private vehicles to public transport
- Strengthening the links of cycling and walking paths to public transport and other transport hubs to encourage modal shift from private vehicles to active modes of travel
- Improvement of West Midlands' Key Route Network to reduce congestion and therefore emissions from idling vehicles on roads
- Encouraging innovation to enable transition to zero emission powertrains for freight lorries
- Provision of EV charging points to build consumers' confidence in adopting EVs.

Figure 17: Programme interventions by theme, mapped to areas levels of Nitrogen Dioxide



Quantifiable element example: By 2027, which is the end of funding period, we have estimated that the EV chargers proposed within the programme are able to help drive down emissions to 3.140 MtCO₂e as opposed to the 3.183 MtCO₂e baseline. By 2050, we expect that our programme will help drive carbon emissions down to 1.056 MtCO₂e compared to the baseline which currently stands at 2.490 MtCO₂e.

Specifically related to the EV infrastructure element of the programme, the social cost of carbon, this will allow us to realise c.£423m (c.£16.9m per year from 2022) in carbon saving benefits by 2050.

Non-quantifiable (to be quantified as scoping matures): We expect more carbon-saving benefits can be reaped from the modal-shift-oriented interventions, the impact of which will be modelled in the near future. Furthermore, with the shift from ICE to zero emission vehicles, we also expect a proportionate reduction in NOx and PM 2.5 emissions to the reduction in carbon emissions.

5.2 Delivering Value for Money

As presented in Chapter 4, our CRSTS programme has been designed to align with key local and national SMART objectives and has gone through a robust sifting process to ensure that we deliver on the key objectives of the programme. This includes ensuring that Value for Money (VfM) is delivered by optimising economic (e.g. travel time, vehicle costs), environmental (e.g. noise, air quality and greenhouse emissions, landscape) and social (e.g. health, safety, accessibility) benefits and costs both locally and nationally, as well as targeting projects that can unlock growth and productivity, contribute to levelling up our economy and society, and decarbonise our transport network.

At this stage, not all projects are designed to a level of maturity where a detailed Business Case and Green Book economic appraisal has been completed. There are, however, a number of key schemes in the programme that are at or are progressing towards this stage.

Table 9 provides a summary of a mix of key schemes, representative across the six themes of our programme. It demonstrates our commitment to both developing and delivering schemes and to optimising our overall programme so that we maximise public value both locally and nationally, and our commitment to testing these outcomes through a robust Green Book compliant business case process. Our programme level and individual scheme Monitoring and Evaluation Programme will help to ensure intended benefits are realised and captured to inform future programmes.

Table 9: VfM summary of key illustrative schemes across the six CRSTS programme themes

Name	Description	Key benefits	BCR (exl WEBS)
Connecting our Places			
BSIP Cross City Bus Priority	Increasing bus priority is a key area of opportunity. Transport is fundamental to our region's economic growth, but congestion on our roads remains a challenge to our ambitions. In deprived areas where there is a greater dependency on buses to access education and work opportunities, congestion disproportionately impacts upon bus users, increasing journey times and reducing potential job catchments. These factors ultimately create barriers to people and communities most in need of change and restrict the inclusive growth agenda for the region.	<ul style="list-style-type: none"> • Reduction in road congestion, making bus journey times more reliable and shorter • Increased bus patronage • Modal shift away from car use • Improved access to employment and educational opportunities • Reduced emissions from transport 	2:1 - 4.4:1
Aldridge station	<p>The creation of a train station in Aldridge serves the objective of improving the town's rail connections to Birmingham and Walsall, following the station's closure in 1965. With the public transport offer limited to limited bus services, Aldridge has a low share of rail journeys to work in central Birmingham compared to North Birmingham towns, resulting in long journeys for residents without car ownership and a geographical spill-over of rail demand to neighbouring train stations.</p> <p>The development of the train station sets the ambition of better integrating Aldridge to regional economic growth prospects, by relying on and contributing to housing developments and improving local access to the regional economic centres of Birmingham and the Black Country. The scheme also aims to abstract car access to other North Birmingham train stations, releasing parking capacity and available seats and enabling further passenger growth.</p>	<ul style="list-style-type: none"> • Improved access to employment and training supporting a shift towards high value jobs. • Reduced congestion, improved times savings and better access to regional economic growth centres. • Strengthened reliability of the public transport offer with positive effects on highway journeys through modal substitution. • Increased opportunities for local active mobility. • Reduced emissions in North Birmingham A and local roads. 	2.2
Supporting inclusive growth			
Sprint A45 Phase 2	Phase 1 of the A45 Sprint route will connect Birmingham City Centre to Birmingham Airport. Phase 2 will see the route extended from Birmingham Airport to Solihull Town Centre. This will provide a rapid transit link between the two major centres, improving journeys by public transport.	<ul style="list-style-type: none"> • Improved access to employment and training opportunities in Birmingham City Centre and Solihull Town Centre for residents in East Birmingham and Solihull • Modal shift from car use to public transport • Reduced emissions from transport • Opportunities for growth and investment along the corridor 	3.23
Health Streets and Spaces			
A45 Coventry Road Cycle Scheme	The A45 Coventry Road Cycle Scheme will deliver significant improvements to cycle infrastructure along the length of A45 between Bordesley Circus and the Sheaf Lane/Hobs Moat Road junction in Sheldon, a distance of approximately 7.25km. The A45 corridor is an important connection for Birmingham serving residents and businesses in Digbeth, Sheldon, and Yardley. The route is the key link to East Birmingham and is susceptible to significant congestion as a result.	<ul style="list-style-type: none"> • Journey time savings and reliability benefits for commuters and business through congestion relief for cyclists. • Improvements in air quality, and reduction in carbon emissions from modal shift. • Improved journey quality and safety, from improved lighting and reduced casualties from segregated roads, and smooth and comfortable rides. 	3.3

Name	Description	Key benefits	BCR (exl WEBS)
	The scheme consists of segregated cycle tracks where possible on the main corridor, priority crossing points and links to existing cycle routes including the Cole Valley and Grand Union Canal. It will encourage more cycling and contribute to providing congestion relief, and a range of environmental and social benefits, including health and safety.	<ul style="list-style-type: none"> Increased health and reduced absenteeism from active travel, leading to business productivity savings. Improved town scaping and regeneration, improving access to employment opportunities. 	
Creating Resilient Networks and Communities			
A4123 Walk, Cycle and Bus Corridor	A major highway corridor in the black country which will have major upgrades to walking and cycling infrastructure, and some measures for bus improvement. The scheme will include High-quality walking and cycling infrastructure (two-way segregated cycle route spanning whole length) and bus priority infrastructure.	<ul style="list-style-type: none"> Increase in active travel activity Increased bus patronage Reduced emissions from transport Improve health and wellbeing benefits Improved access to employment and training opportunities 	>2
Foleshill Transport Package	Package of measures that will reinforce the role of the A444 as the strategic route for through traffic, enabling segregated cycle routes and bus priority measures to be introduced o Foleshill Road, supporting active, healthier and more prosperous communities to the north of Coventry, facilitating future growth, improving air quality, promoting active ravel and improving bus service reliability.	<ul style="list-style-type: none"> Removing barriers to growth, job creation and economic development by improving accessibility in the area to access key employment and housing sites Unlock regeneration and development from increased transport demand and accessibility. Improved linkages between the key employment sites, the city centre and existing and planned housing developments will assist in developing the north of Coventry as a place where people can live and work, and helping to tackle health and economic poverty in a deprived area of the city.. 	3.6
Delivering a Green Revolution			
Black Country Ultra Low Vehicle Emissions Strategy (ULEV)	The Black Country Ultra Low Vehicle Emissions Strategy (ULEV), leverages the emergence, growing affordability and utility of electric and low emission technologies to decarbonise and address the environmental and public health issues associated with conventional vehicle usages. The strategy prioritises an individual, business and council level transition towards electric vehicles with the associated requirements of increasing the number EV charge points and upgrading the energy infrastructure. A central piece of the strategy is the installation of 975 additional EV charging sockets around the Black Country by 2025.	<ul style="list-style-type: none"> Reduced greenhouse gas emissions and noise from take up of ULEV cars Business sector benefits based on the growing accessibility of EV generating operational costs savings and growing employment demand on skilled EV infrastructures management and maintenance. Facilitated investments in the local area by providing EV infrastructure and ensuring that the region aligns with the wider UK transport network. 	3.6-33.6
Making Behaviour Change Easy			
Smart ticketing scheme (cEMV contactless payment broker)	The Broker model Smart ticketing scheme will allow better and more integrated contactless ticketing across the West Midlands transport network and include the introduction of an advanced fare system, whilst allowing different operators to maintain their own back offices, Payment Service Providers (PSPs), and ticketing infrastructure investment. This will lead to a more cost and time efficient customer focused network, with fares structured in a way that direct behavioural change towards WM objectives (such as decarbonisation). It will achieve	<ul style="list-style-type: none"> Increased and improved real time passenger information from improved technology and smart ticketing, with passengers being able to adjust to live information. Quicker bus journeys, including reduced waiting times and queuing at bus stops from efficient ticketing and boarding/alighting. Also from more reliable journeys and greater bus frequencies from reduced dwell times. Environmental improvements from mode shift, as a result of an improved public transport experience. 	3.3

Name	Description	Key benefits	BCR (exl WEBS)
	this with minimal cost and disruption for operators and customers by leveraging current operator investments.	<ul style="list-style-type: none"> • Amenity/customer satisfaction from smart ticket solutions, including reliability and confidence of being charged correctly, as well as other benefits to customers. • Agglomeration from improved effective economic density, reflecting the improved access to jobs for residents unlocked by an efficient network. • Other benefits such as greater competition between operators, reduced ticket fraud and internal operating efficiencies. 	

5.3 The relative opportunity of higher cost schemes

The vast majority of the CRSTS programme is relatively smaller investments, however, a few larger more transformative investments are included. The higher cost schemes (i.e. typically those schemes over £50m) represent an opportunity to deliver a step change in infrastructure provision by improving journey times, the quality of service and/or the quality of vehicles to attract new users. The schemes within this higher cost category have been developed over a sustained period of time with low cost and/or alternative options considered throughout the process. This provides us with the confidence that all possible options have been considered and that ultimately the scheme being promoted provides the best value for money against the defined programme objectives.

The higher cost schemes presented are located on strategic corridors which have been a target for investment over a sustained period of time. These investment targets were identified through the establishment of 'High Volume Corridors' across the West Midlands. These corridors were characterised as those areas which had higher levels of travel demand and which could ultimately benefit from high quality, frequent public transport services. The categorisation of these corridors formed the basis for detailed scheme assessment and evaluation to help identify suitable upgrades to higher capacity public transport services. The assessment of these schemes has included the evaluation of a range of lower cost and low-cost alternatives before confirming a preferred solution. For some schemes such as the Very Light Rail Programme, the appraisal has confirmed that a Light Rail option is the correct mode based on the level of demand which needs to be catered for. For other schemes such as the BSIP Bus Priority Routes the progression of the measures identified was established having considered the relative merits of higher cost proposals such as LRT and BRT before confirming the targeted investment in bus priority delivered both value for money and supported objectives in the corridors selected. Conversely the Sprint BRT scheme for the A34 Walsall to Birmingham corridor arose from an initial promotion of LRT which resulted in the lower cost alternative (i.e. Sprint) being selected as the preferred approach in this corridor due to high level of benefits which could be delivered through BRT vs the higher cost of LRT.

Table 10 summarises those schemes which require higher levels of CRSTS funding, the alternatives which have been assessed in the scheme development process and a summary of the key benefits these schemes provide. An indicative Value for Money category has also been provided where the information is available.

Table 10: Benefits of higher cost schemes

Scheme Name	CRSTS Funding	Alternatives Assessed	Strategic Weaknesses of Alternative Options	Key Benefits of Preferred Scheme	Value for Money Category of Preferred Scheme
Metro Depot	£50m	N/A	N/A	Facilitates expansion of the Metro network to support improved connectivity across the wider West Midlands	High
Very Light Rail Regional Programme	£71.5m	Bus Rapid Transit	Fixed track system provides greater user confidence. Bus Rapid Transit will not deliver the step change required to deliver levels of improved journey time and connectivity to encourage users.	Delivers an innovative and affordable light rail system by delivering the economic benefits of light rail, but at a fraction of the cost. This provides a real alternative to the car, and boosts key connections in Coventry including enhanced access to regeneration sites. Potential for economic benefits through local manufacture of VLR technology and associated skills and supply chain impacts.	High

BSIP Bus Priority Cross City Routes	£59m	Bus Rapid Transit Metro	Costs associated with BRT and LRT infrastructure exceeded the anticipated benefits.	Fewer private car journeys by making bus more attractive Improved journey time reliability and level of service Better connected communities able to access a greater level of employment, education and leisure opportunities	High
Sprint A34 & A45 Phase 2 ⁷	£56m	Metro	Large proportion of benefits associated with LRT scheme could be delivered with the lower cost of Sprint BRT.	Fewer private car journeys by making BRT service competitive on journey times. Improved journey time reliability and level of service	High

⁷ Note these are two separate schemes, aggregated here for illustration of approach to option assessment.

5.4 How we have identified and prioritised schemes for CRSTS

Introduction

Since formation of the West Midlands Combined Authority (WMCA) in 2016, we have worked with our members to prioritise how and where we invest with the finite resources available to the CA. This has meant we have invested time in identifying a pipeline of investment projects that are needed to support the region's need, alongside developing an evidence-based and balanced approach to prioritising between investments. We have built upon this experience in identifying and prioritising schemes over the five-year CRSTS programme that are aimed at delivering real benefits to the West Midlands right from the outset.

Our process commenced in 2020 in anticipation of CRSTS. We have taken a structured, iterative and collaborative approach based on a clear prioritisation framework, with criteria linked to local and national objectives, with buy-in from Local Authority partners and the Mayor.

Our programme development process

Given the needs of the West Midlands, inevitably even at the upper range of funding available through CRSTS there is insufficient money to develop or deliver all of the projects we would want to across the West Midlands. There are currently a significant number of projects in the pipeline, all at different stages of development. It was essential that the process to develop our programme allowed all projects to be assessed on a fair and objective basis regardless of the stage of maturity of individual schemes.

With this in mind, we have followed a five-stage process when developing our programme.

Stage 1 – Call for projects and programme gap analysis

We undertook an exercise to refresh and review the current position of the capital pipeline across the West Midlands based on existing or desired transport scheme proposals over the next 15 years. This early stage call for projects from Local Authorities and within TfWM allowed scope for new proposals to be developed to address current challenges and support the delivery of local and national objectives.

This resulted in a refreshed pipeline of over 200 individual transport schemes, which were identified during this process, conducted once in 2020 and again in spring this year.

We then carried out a programme-level gap analysis to identify the extent to which the desired outcomes were not being fully met, using an evidence base of technical work undertaken when drawing up our Local Transport Plan and the linked themes and objectives for the CRSTS programme. Where gaps were identified, we developed new proposals to be included within the project pipeline and also refined existing schemes to better align to the overall outcomes sought.

Stage 2 – Sifting against programme criteria

The next stage was to sift the 'long list' pipeline of schemes based on strategic fit, affordability and deliverability to generate a first cut of proposals for the CRSTS programme.

To facilitate this process we collated a consistent level of key information for each scheme including: a problem statement, anticipated outcomes and benefits, the thematic driver for the intervention, timescales for development and delivery, barriers to delivery, an indicative cost

range and, where appropriate, complimentary and/or alternative funding routes. Our prioritisation framework was then applied using assessment of the following criteria:

- **Strategic fit:** schemes were assessed against national priorities, the emerging LTP objectives and the CRSTS delivery programme themes. As part of this we considered whether a proportionate amount of work had been undertaken at the different stages of development to articulate the benefits of individual schemes, and sought further details where necessary. We then used logic maps to visualise how schemes contribute towards objectives. We also considered the fit with our emerging Inclusive Growth Corridors (cross boundary corridor packages which support inclusive, zero carbon growth) and Local Delivery Plans (area-based strategies which support LTP outcomes).
- **Affordability:** we assessed whether the level of investment required justified the rationale and benefits of each scheme, and whether the programme as a whole fell within a reasonable funding envelope. As part of this, we considered links with other funding programmes to ensure CRSTS was the most appropriate route, as well as the extent to which any investment could level local funding.
- **Deliverability and risks:** we looked at whether the programme and funding commitments could be met, within the timescale necessary, what level of local and political support they had, and how sensitive scheme costs and benefits were to uncertainty stemming from COVID.

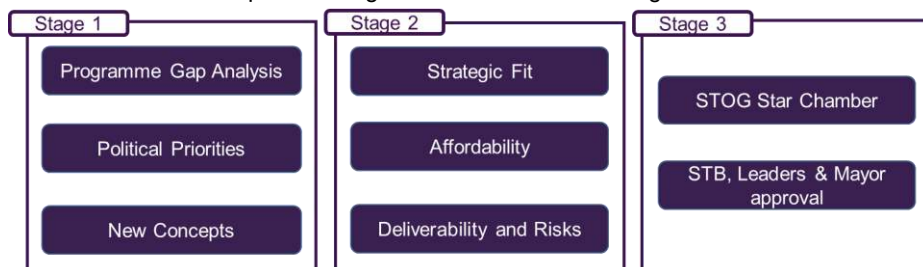
Stage 3 – Building consensus around the optimum package of interventions

Fine-tuning the programme was an iterative process. There were extensive discussions with constituent Local Authorities, scheme promoters and senior leaders to review, clarify and challenge the programme. This included:

- Review and challenge from our Strategic Transport Officers Group (STOG) culminating in a specially convened STAR Chamber session.
- Engagement with our Strategic Transport Board, Met Leaders and the Mayor to agree the shape of the programme.
- Final approval by the West Midlands Combined Authority board on 17 September 2021 with our initial programme presented to DfT in Autumn 2021.

Stage 4 – Recasting of the Programme

Following confirmation of the £1.05bn CRSTS allocation to the West Midlands, further guidance from the DfT confirmed that capital funding for bus projects (detailed in our BSIP) would also need to be included within our CRSTS proposal. In addition, construction cost inflation has increased significantly in recent times. Given that CRSTS is the only significant source of funding available for transport projects over the next 5 years, a further call was also made to ascertain whether any existing schemes (where there are only minimum levels of financial reserves held back) were experiencing costs pressures. The combination of additional capital bus projects and the identification of schemes experiencing costs pressures due to construction inflation resulted in an updated 'long list' of 111 schemes being established.



Stage 5 - Prioritisation

The final stage of the process was to ensure the schemes identified for funding were robust in terms of their strategic fit and deliverability. This would ensure we promoted the schemes which would meet our local and national objectives and provide certainty that they could be delivered within the CRSTS funding window. To ensure consistency we adopted the approach undertaken in Stage 2 and utilised the most up to date information to assess schemes. The assessment criteria is captured in Table 11.

Table 11: Assessment criteria for Final Programme Prioritisation

CRSTS Objectives	Contribution to levelling-up	
	Economy	Economic outcome (VfM)
		Impact on transport inequality
		Impact on sustaining economic success
		Contribution to other economic benefits
	Contribution towards carbon / environmental objectives	
Deliverability	Physical deliverability	
	Number and significance of dependencies on and to other schemes	
	Scheme maturity (e.g. readiness)	

In delivering this final stage, each scheme sponsor was required to provide more detail on each of their projects which would enable a more robust assessment to be made against the criteria in Table 11. Each scheme was assessed on a three-point scale against each of the 9 criteria (Low / Medium / High or Many / Some / Few).

The assessment was made based upon the information supplied by scheme sponsors as well as experience of undertaking appraisal using TAG, monitoring & evaluation of previous similar schemes and also consideration of the scale and location of the investment being made.

All assessments were made relative to the other projects which were undergoing assessment, in order to provide a range of results. For instance, none of the schemes which had reached this stage of programme development were identified as having poor value for money (in benefit cost ratio terms), but some schemes had a weaker value for money than others in the list being assessed which was reflected in the assessment.

Each of the 9 criteria were assessed, and given a corresponding score, with each of the four categories being summed and then ranked, with ranks of each category being summed and then ranked again for an overall rank.

During conversations with DfT and Treasury, it was made clear that deliverability of the projects was incredibly important, so it was considered prudent to double weight the deliverability theme to emphasise how important this aspect was. This assessment was used to aid discussion and frame the final programme. As a result of this process we have developed a robust, prioritised programme of transport investments that maximises the positive contributions towards economic growth, carbon reduction, levelling-up transport and economic inequalities, health and supporting communities across the West Midlands. This includes a mix of delivery over the next five years, and development where schemes have a strong case for development funding via CRSTS for delivery beyond this window.



5.5 How post-COVID demand forecasts and evidence of recovery will inform decision-making

As part of the appraisal framework for CRSTS programme schemes, internal assurance and decision-making processes are being informed by reference to TfWM scenario planning for personal travel as we exit Covid-19.

Pre-pandemic in our city-region, decades of sustainable travel investment, and effective planning and policy-making were paying economic and environmental impact dividends – visible in travel trend outcomes; record rail trip numbers, a rise in cycling, and declining bus use stemmed with signs of growth (especially where operators and authorities invested in new buses and priority). And even with rising ownership, car trips per head were falling too.

Covid-19 disrupted these local personal travel trends, and though we have seen recovery already, post-pandemic demand forecasts are uncertain. To try and map plausible futures in the face of uncertainty, TfWM generated initial scenarios for residents' local travel in the exit from the pandemic.

Two main relevant axes of uncertainty were identified; economic recovery, and social change/state intervention (including by TfWM) that together will take us in the direction of one of four new scenarios.

Where economic recovery, and delivery of popular sustainable travel measures combine, will be a scenario most likely to align with local and national goals. But where slow recovery meets weakly-supported behaviour change is a scenario far from common strategic aims.

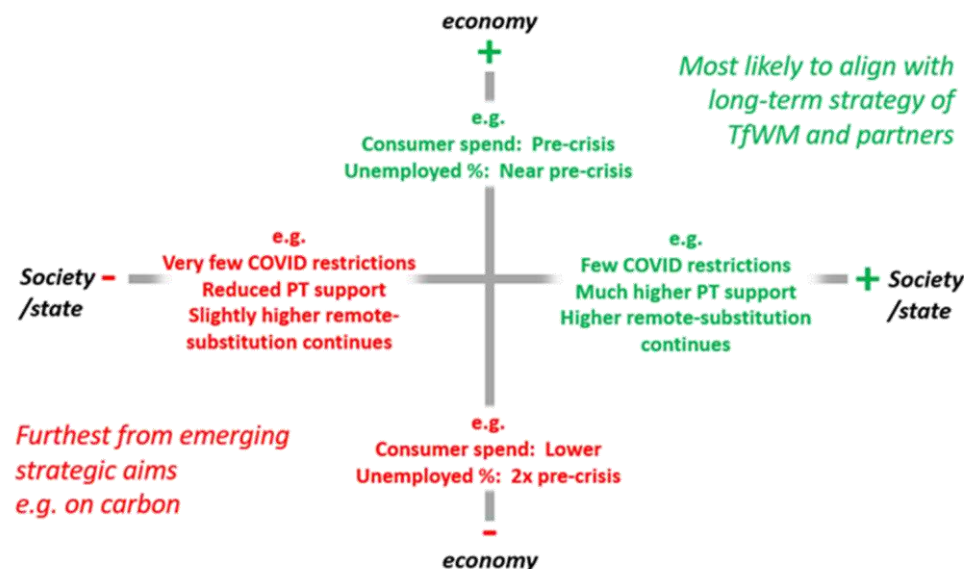
Assumptions on the range of change on each axis drew on a range of secondary data, but also TfWM Human Intelligence Team (HIT) surveys of resident and business hopes for community, economy, environment, and health post-Covid. These hopes inform strategy, validating more positive society/state axis values, and with no default return to 'normal' assumed, helping avoid self-fulfilment risk from a too-pessimistic set of scenarios.

To understand changes in local residents' personal travel by scenario, a global review of travel data and forecasts was undertaken – starting with TfWM Data Insight Service information on trends locally, but then externally too (TfWM is active in a range of industry forums discussing transport and Covid) from transport authorities, operators, consultancies, market researchers, and academics in the UK and overseas. Data collected was both real from places that were earlier in and out of lockdowns, and forecasts and surveys of travellers and businesses. Data was combined and outliers removed, split into four rounded quartiles, and assigned to scenarios from least to most positive for each mode. For example, the least positive active travel demand quartile was a best fit for a scenario that was negative on both economic recovery, and social change/state intervention, and the most positive with its opposite.

Results suggested four scenario names:

- Hoping (good growth and social change and transport plans and investment in line with strategy)
 - Active travel +10% more trips by local residents, Car -10% trips, Public transport (PT) -10% trips

- Coping (weak recovery but some beneficial social/environmental outcomes from e.g. lower car use)
 - Active +30%, Car -20%, PT -40%
- Roasting (poor recovery and little funds for, or attention paid to, social and environmental problems)



- Active no change, Car no change, PT -50%
- Coasting (growing economy might fund mitigation of more car use and declining PT demand/supply)
 - Active +10%, Car +10%, PT -20%

Results show significant change at the level of individual trip-making, and except for 'Coasting' a fall in trips in all scenarios (especially 'Coping'). There is a large fall in miles travelled (which matters more for carbon goals) in 'Coping' too, but less in other scenarios and again a rise in 'Coasting'. And even in the most sustainable overall scenario of 'Hoping', total traffic miles would only fall by around 7% – initial scenarios are positive about recovery, which we have seen, but action is needed to avoid a car-led one.

Guided by evidence, research into what communities and stakeholders want, and existing plans and emerging policy aims, TfWM is aiming at the 'Hoping' scenario as the best route to take as we exit Covid, and acting now for sustainable transport improvements that will support 'building back better' in the city-region and the economic recovery 'Hoping' depends on too.

'Coasting' (can afford to mitigate worst impacts of more car use)

economy
+

'Hoping' (growth returns, and our actions in line with strategy)

Active +10%
Car +10%
PT -20%

Active +40%
Car -10%
PT -10%

Society
/state -

Active 0%
Car 0%
PT -50%

Active +30%
Car -20%
PT -40%

+ Society
/state

'Roasting' (making no progress on carbon – or inclusion)

economy
-

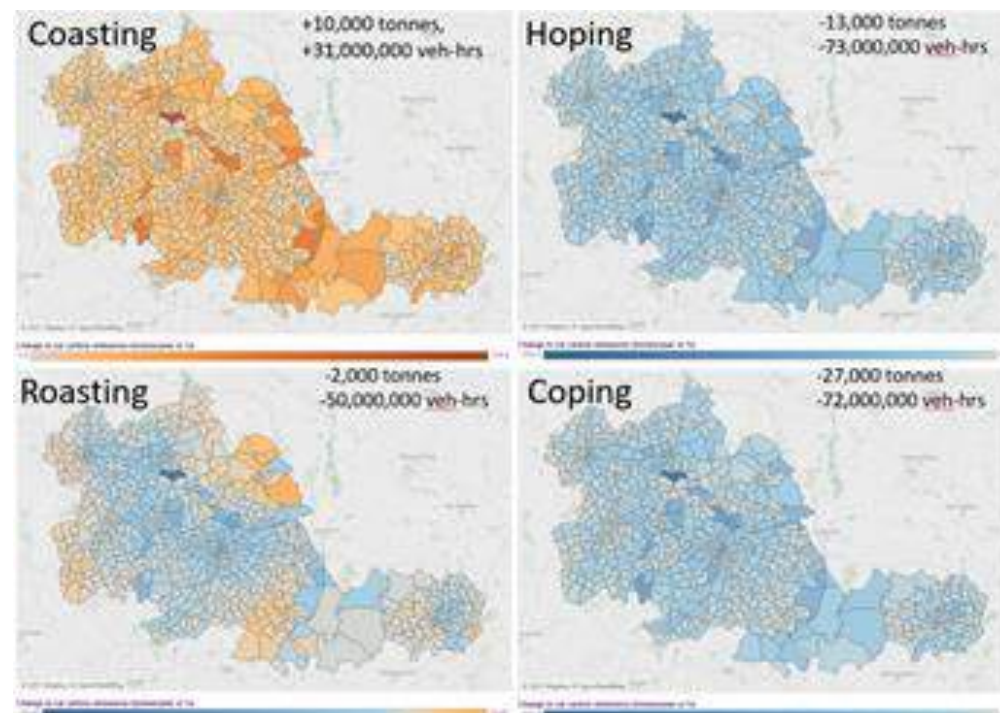
'Coping' (car use falls but only as we try to cope with a slump)

Initial scenarios have helped inform CRSTS prioritisation to date, looking for schemes which are likely to have positive outcomes (no or 'low' regrets) in most/all scenarios. And now further work has been undertaken using initial scenarios as 'compass settings' for longer-term change, and then breaking down city-region residents' travel scenarios to smaller geographies, more appropriate for appraisal sensitivity tests by scenario.

The methodology for this local scenario breakdown work, with consultant and academic partners, has brought together two existing strengths of our pre-Covid approach to appraisal:

- our HIT all-traveller segmentation – which fits residents around eight categories on socio-demographic characteristics that affect travel – which have been mapped across the city-region – a key tool for a range of transport planning, policy, and management applications

- the West Midlands PRISM (Policy Responsive Integrated Strategy Model), a well-established and regarded multi-modal disaggregate demand model of the city-region, used in many major scheme appraisals with DfT, and now 'segmented' to assist with understanding Covid impacts



Using existing research, and expert workshops, estimates were made of how the eight traveller segments would change their travel habits by mode in each scenario. These were then brought into PRISM, but controlling results at the city-region level to initial scenario estimates. The results mean it is now possible to see with some confidence how scenarios appear at more local geographies, not just in terms of mode use, but via PRISM in terms of congestion, carbon, and other impacts too.

The work has been well-received and was showcased recently as an example of addressing Covid uncertainty in modelling at the UK 'Modelling World' conference. And a flexible user-friendly Tableau tool is being constructed, to complement analysis via PRISM to ensure maximum accessibility of the work for helping refine the further development of CRSTS programme schemes for the best progress on outcomes in all Covid scenarios.

5.6 How the robustness of the market to further shocks will be considered in appraisals

Our CRSTS programme schemes cover all seven metropolitan Districts – an area of over 900 square kilometres and three cities (and a regional capital in Birmingham), nine strategic centres, and many smaller towns. There is a huge range of private and public sector economic activity with national and international leaders represented in sectors including; construction, education, food and drink, healthcare, manufacturing, professional services, research, retail – as well as transport itself. And the variety of employment is matched by an equal diversity of communities; our population of three million (and rising) is the largest and most ethnically diverse outside London.

CRSTS schemes have also been packaged into six distinct themes to make progress on a broad front of objectives too – and many do not depend on pandemic developments, like decarbonisation objectives, in line with our legally-binding national targets. So a programme of varied sustainable travel improvements across this large area offers a good deal of built-in resilience should the combination of economic recovery and social change post-Covid in any part of the city-region mean the market for a CRSTS scheme appraisal does not reach (or exceed) projections. In addition, prioritisation of CRSTS schemes has been informed by work on city-region travel demand scenarios for the exit from Covid, and further refinement of schemes will use a development of this work to look at scenarios by local areas around schemes (the developed work will also facilitate highly-targeted marketing messages to ‘sell’ schemes to the different population ‘segments’ in each local area). Scenarios were generated based on likely social change/transport support, and economic recovery – and before the pandemic is over there are many signs of an economic recovery that improved sustainable can encourage – for instance, whilst there were job losses in the pandemic there are significant numbers of vacancies now that improved transport can help provide sustainable access to.

Footfall is another indicator of recovery, and weekend (eating out, entertainment, retail) footfall in many of our town and city centres is at or above pre-Covid levels – as is weekday footfall in many suburban locations, a stronger recovery than might have been expected when some local centres were not thriving pre-pandemic, but a good foundation for CRSTS active travel schemes to build on in pursuit of 15/20-minute city outcomes. Weekday footfall remains suppressed in the larger centres where professional employment dominates – professionals have been more able than other groups to work from home – and this has seen a fall in weekday peak public transport use, especially rail – but figures before ‘Plan B’ showed weekday footfall back around two-thirds of pre-Covid in central Birmingham and Coventry, and over 80% in Wolverhampton city centre.

And in another sign of the emerging economic recovery we want to support is the coming of major professional service employers (e.g. Arup, BT, and Goldman Sachs) to our city centres which will employ many local people but also attract commuters from further afield, likely to make the sustainable commuting choice of rail if we can support the continued improvement of services – especially as HS2 and related economic development arrive through the 2020s in central Birmingham and in Solihull at UK Central.

Our tracking of mode use (echoed by Google Community Mobility data) reflects this nascent economic recovery – before latest work from home advice, car traffic was back near pre-pandemic levels (so congestion remains a challenge for the city region to meet), walking and cycling were largely recovered (or higher in the case of cycling), bus was around 80%, and Metro 90% (excluding the recent temporary closure for repairs).

Rail had only reached around 60% – some of the gap is due to temporary service problems around Covid absence among rail staff – a situation that will end with the pandemic and which recruitment and training is already addressing, but a large part the missing 40% would be those city centre professionals able to work from home (and also more likely than average to have a car available).

Similar pictures in both mode use and footfall in other metropolitan areas give confidence that data is accurate and that trends are underpinned by more than only local factors, so that the recovery our CRSTS schemes aim to support is real and they will be needed to support it. At the same time, and uniquely, the importance of sustainable transport in the West Midlands metropolitan area does not only depend on, or solely support, this area – our place at the heart UK road and rail transport networks, means city-region transport has a vital wider regional and national role in the Union. The West Midlands also has a special national role currently – hosting the Commonwealth Games and Coventry City of Culture – sustainable access is central in the organisation of these events, and more use of sustainable transport is an intended legacy too, along with the contribution to economic recovery expected.

Turning to social change, as people have adapted to life with Covid, online substitution (a trend pre-pandemic) has certainly increased with the shift to working from home already noted, and far more online shopping in lockdowns – but much of the latter has returned to bricks-and-mortar (especially in well-connected centres), and hybrid working is replacing work from home as a longer-term model for most professionals, with a continued role for city centres as business and commuter hubs. Our local Birmingham Colmore Business District sees its future as ‘The Space Between’ that can attract business, professional and visitor groups individually because it can attract them all and provide the social and economic interaction they seek – although getting remaining professionals and others back to city centres will depend on maintaining and improving sustainable transport.

Meanwhile our own Human Intelligence Team (HIT) surveys with local communities help to better-understand the latest social change, suggesting around two-thirds now think ‘the worst has passed’ from Covid and that worries about infection from public transport have been diminishing. They also show fewer people working from home often or expecting to be doing so in future, though as uncertainty recedes. minority now report they will work from home permanently (a similar-sized minority now say they will return to the workplace full-time in future). When they do return to the office more plan to drive than previously but more plan to use active modes too – so a positive our CRSTS schemes will build on as well as a challenge they will address. There also seems either a greater willingness or need on the part of many young people to resume pre-Covid travel habits, whether for work, study, or socially. Younger people were among the most frequent users of public transport before the pandemic, and with Birmingham the UK’s youngest city (not counting its many students), and this being a fast-growing segment of a fast-growing population, this indicates a group with increasing need of

better sustainable transport, and likely to make up an increasing proportion of the projected demand for many CRSTS schemes.

Work on scenarios combined social change with government plans on transport as a factor in the shape of Covid recovery. And our fifth LTP will see CRSTS schemes delivered in a supportive policy environment where a focus on our five 'motives for change' around (around inclusive economic growth, fairness, communities, active travel, and climate) will only increase the background demand for sustainable travel, as should our Bus Service Improvement Plan proposals to 'Bus Back Better' in line with the National Bus Strategy. Then the embedding of recent and ongoing transport investments will also underpin growth in sustainable travel demand across the network – investments like HS2 and local rail service expansions, the Birmingham and Wolverhampton city centre Metro extensions, Sprint Bus Rapid Transit, new bus stations, and the electrification of buses in Coventry and elsewhere in partnership with operators (which following recent merger announcements should bring access to the resources of the largest UK regional operator), and active travel improvements, as we realise LCWIPs, not least the 500-mile Starley Network.

There are plenty of synergies here for CRSTS schemes to exploit, in line with the economic recovery they will help to maintain and accelerate – ensuring the recovery is not car-led and instead is closer to the pre-pandemic picture of record rail trip numbers, rising cycling, and signs of growth in bus use too.

Overall, there are many reasons to be hoping for a rapid return to pre-pandemic travel trends in the metropolitan area. And still more confidence in demand projections for CRSTS schemes, carefully prioritised and packaged as they have been to support a broad range of widely-endorsed objectives, and the diverse needs of all the growing communities across the city-region, where recovery will continue to strengthen with the right support. Continued sustainable transport investment is a key element of that support, to build on all the recent and committed network improvements, realising the ambition for our area in our policy outcomes (and planned evaluation) for the better-connected, more prosperous, inclusive, healthier, and sustainable city-region of the near future.

5.7 The prioritised list of schemes

Scheme Name	BCR	Non-monetised Benefits
Hagley Road Rapid Transit	tbc	High Growth unlocked, Inclusion, and Demand
Metro Depot (£32m) and Metro Traction Power (£18m)	2.21	Reliability, accessibility, regeneration and crowding benefits through the ability to operate the optimum number of vehicles on network.
Metro Line 1 Renovation costs	>2	Reliability, accessibility, regeneration and crowding benefits through the ability to operate the optimum number of vehicles on network.
Wednesbury Brierley Hill Metro Extension (TCF FINAL YEAR)	2.48	Benefits which may be more difficult to monetise would include security, access to services, and option values
Very Light Rail Regional Programme (Coventry VLR R&D, VLR Coventry Demo Route, EBNS Business Case [inc mode options assessment]; potential for BC VLR Centre)	1.69 - 2.5	Reliability, regeneration, greenhouse gases (scale not clear at this stage), physical activity, journey quality, accidents (scale not clear at this stage), security, access to services
Sutton Gateway	>2	Landscape, Townscape, Regeneration
Solihull Rail Station	2.18	Landscape, Townscape, Regeneration
Park & Ride Estate Development (Tile Hill & Whitlocks End)	2 - 3	Greenhouse gases, air quality, physical activity, public transport interchange
BSIP Bus Priority X-city Routes	2:1 - 4.4	Agglomeration effects, reduced noise, environmental benefits
UKC - Solihull - Dorridge Bus Priority	>2	Agglomeration effects, reduced noise, environmental benefits
Demand Responsive Bus (inc diversification of Ring & Ride)	>2	Environmental benefits from reduced emissions from car journeys, wellbeing and health benefits from greater access and inclusion within society
Aldridge Station	>2	Reliability, regeneration
Rail Development	>2	Reliability, regeneration
Snow Hill Growth Strategy	4.06	Reduce severance created by major roads, improved health and wellbeing of residents
Connecting our places Local Network Improvement Plan	~2 - 4	Passenger welfare improved within waiting environment from improvements to public transport stops and interchanges
Smethwick - Birmingham Inclusive Growth Corridor Transport Package	2.33	Regeneration, reliability impacts

East Birmingham to Solihull Corridor	>2	Benefits which may be more difficult to monetise would include security, access to services, and option values
Sprint A45 Phase 2	3.23	<p>Additional benefits have been identified which are not specifically quantified within the business case:</p> <p>Public Health Benefits:</p> <ul style="list-style-type: none"> Increased levels of active travel across the region Reduced levels of accidents avoided through increase patronage of public transport Reduction in health in-equalities enabled through a better-connected transport system providing access to services <p>Social Well-Being Benefits:</p> <ul style="list-style-type: none"> Improved access to a range of social facilities at an affordable price point <p>Environment Benefits:</p> <ul style="list-style-type: none"> Enhancement to the quality of the public realm space along route Reduction in greenhouse emissions <p>Population Growth and Housing Development Benefits:</p> <ul style="list-style-type: none"> Increase in viability of new housing developments through connectivity to the Sprint route <p>Economic growth/economic inclusion Benefits:</p> <ul style="list-style-type: none"> Better connection to key employers across the region
Chester Road Corridor – Segregated Cycleway and Capacity Enhancement	3.1	Public health benefits through active travel
Active Travel - A45 Segregated Cycleway	3.28	Regeneration, Reliability impacts
Sprint A34 Phase 2 (inc P&R)	3.23	<p>Additional benefits have been identified which are not specifically quantified within the business case:</p> <p>Public Health Benefits:</p> <ul style="list-style-type: none"> Increased levels of active travel across the region Reduced levels of accidents avoided through increase patronage of public transport

		<ul style="list-style-type: none"> Reduction in health in-equalities enabled through a better-connected transport system providing access to services <p>Social Well-Being Benefits:</p> <ul style="list-style-type: none"> Improved access to a range of social facilities at an affordable price point <p>Environment Benefits:</p> <ul style="list-style-type: none"> Enhancement to the quality of the public realm space along route Reduction in greenhouse emissions <p>Population Growth and Housing Development Benefits:</p> <ul style="list-style-type: none"> Increase in viability of new housing developments through connectivity to the Sprint route <p>Economic growth/economic inclusion Benefits:</p> <p>Better connection to key employers across the region</p>
Wolverhampton City Centre Movement - Walk, Cycle and Bus Package	4.87	Regeneration, Reliability impacts
A454 Walk, Cycle and Bus Corridor	2.46	Water environment
Bus, Cycle and Walk Access: Darlaston and Willenhall Train Stations	2.6	Regeneration, Reliability impacts
Dudley Port ITH - Phase 1 and Phase 2 Development	>2	Landscape, Townscape, Regeneration
Wednesbury to Brierley Hill Extension Sustainable Access Measures	2.6	Regeneration, Reliability impacts
Inclusive growth Local Network Improvement Plan	~2 - 4	Passenger welfare improved within waiting environment from improvements to public transport stops and interchanges
Selly Oak to Longbridge Segregated Cycling	2.1	Regeneration, Reliability impacts
City Centre Active Travel Connections to Interchange	7.4	Regeneration, Reliability impacts
One Station and Smallbrook Queensway	6.9	Regeneration, Reliability impacts
Black Country Walking and Cycling Package	>2	Improved health and wellbeing of residents
Dudley Town Centre Interchange Sustainable Connectivity Package	3.6	Improved sense of place, potential to improve health and wellbeing of residents, potential to increase footfall and local economy

Dickens Heath to Solihull Town Centre LCWIP Scheme	2.44	Regeneration, Reliability impacts, Public health and wellbeing
Knowle to Solihull Town Centre LCWIP Scheme	1.76	Regeneration, Reliability impacts, Public health and wellbeing
Stourbridge Town Centre Sustainable Connectivity Package	3.6	Improved sense of place, potential to improve health and wellbeing of residents, potential to increase footfall and local economy
Health Streets and Spaces Local Network Improvement Plan	~2 - 4	Passenger welfare improved within waiting environment from improvements to public transport stops and interchanges
Resilient Networks and Communities Local Network Improvement Plan	~2 - 4	Passenger welfare improved within waiting environment from improvements to public transport stops and interchanges
Highways maintenance and structures	tbc	
Multi-modal Access to HS2 Enhancement	1.72 – 10.08	Regeneration, Reliability impacts
Foleshill Transport Package	3.6	Regeneration, reliability impacts Improved health and wellbeing Promotion of active travel and bus priority
A461 Walsall Walk, Cycle and Bus Corridor	>2	Regeneration, reliability impacts Public health and wellbeing
A41 Moxley Iron Park to Walsall Town Centre Walk, Cycle and Bus Corridor	>2	Regeneration, reliability impacts
A4123 Walk, Cycle and Bus Corridor	>2	Regeneration, reliability impacts Public health and wellbeing
A449 Walk, Cycle and Bus Corridor	>2	Regeneration, reliability impacts
Bus, Cycle and Walk Access: Walsall Town Centre Interchange	tbc	
West Coast Mainline and M42 Public Transport and Active Travel bridge links to HS2 Hub	>2	Regeneration, reliability impacts
BSIP Retrofit Programme (120 buses to Euro 6)	>2	Significant air quality benefits from retrofit of circa 120 bus to Euro VI standards. Improvement to 120 buses – reducing NOx emissions by 190 tonnes per annum

		Equivalent to removing 2.3 billion car vehicle kilometres (20% of WM car km) or equivalent to removing 214,000 cars per annum
Ultra Rapid Charging Transit Stations	>3.6	Access to more charging options for residents will raise awareness and accelerate increase EV take up. This will see a reduction in use of ICE vehicles more quickly in the WM. In turn this will improve air quality through reduction of emissions from ICE vehicles
ULEV	>3.6	Access to more charging options for residents will raise awareness and accelerate increase EV take up. This will see a reduction in use of ICE vehicles more quickly in the WM. In turn this will improve air quality through reduction of emissions from ICE vehicles
Cov South Sustainable Transport (GIGA Factory Links)	>2	Promotion of active travel and reliable bus services resulting in improved health and wellbeing of community and improved access to jobs
Mobility Hubs & E Bikes	~2	Regeneration, Reliability impacts
Making behaviour change easy Local Network Improvement Plan	~2 - 4	Passenger welfare improved within waiting environment from improvements to public transport stops and interchanges
cEMV contactless payment broker	3.5	Air quality, Greenhouse gases
Data to support scheme development plus M&E	n/a	Regional collective intelligence and best practice for the use of big data in transport, granular application of data in scheme development, delivery and impact assessment, that will demonstrate best practice to other public sector bodies

6 Commercial Case

6.1 Procurement Approach

Procurement plays a key role in the delivery of West Midlands Combined Authority's (WMCA) business objectives. All contracts and sub-contracts made on behalf of the WMCA comply with the organisation's Constitution and Procurement Regulations in respect of the procedure for quoting, tendering and contracting for the supply of goods, services and works.

The procurement process that will be adopted for the programme will be dependent on the value of the contract. Table 12 outlines the value thresholds that trigger the particular procurement process to be used. The West Midlands Combined Authority (WMCA) is committed to ensuring that public money is spent in a way that is fair, honest and accountable and that all decisions are transparent. As per Section 8 of the Constitution (Conducting Purchase and Disposal), the following are the purchasing competition requirements:

Table 12: WMCA Procurement Thresholds

Estimated Value of Contract	Procurement Requirement	Award Procedure	Procurement Activity: Undertaken by:
Up to £5,000	One oral quotation (must be confirmed in writing where total value exceeds £500)	Enter verbal quotation details within the message area of Business World as follows: <ul style="list-style-type: none"> • Date and time of telephone call • Name of person you spoke with and their contact details • Product description (to include part number when applicable) • Unit price • How long the price is valid (e.g., for 30 days, etc) • Delivery terms (e.g., transfer of ownership, agreed date) • Misc (any other relevant details) 	End user
£5,001 - £25,000	3 Written quotations Or Fully signed Exemption Form where no further quotes can be obtained.	Attach details of received quotes to the requisition within Business World. Note: Exemption Forms should be fully authorised before attaching to requisition (please see section 2.4 for details of electronic Exemption Form process)	End user
£25,000 - £50,000	3 Written quotations Or Fully signed Exemption Form where no further quotes can be obtained.	Attach details of quotations received to the requisition within Business World. Note: Exemption Forms should be fully authorised before attaching to requisition (please see section 2.4 for details of electronic Exemption Form process) Where a contract is created, please contact contract ID within Business World	Procurement Team
£50,0001 – EU Threshold*	Invitation to Tender by advertisement to as least three candidates (the opportunity must also be advertised on the UK Government Contracts Finder website within 24 hours of the opportunity being advertised in any other way)	Attach evidence of quotations obtained within Business Word. Note: Exemption Forms should be fully authorised before attaching to requisition (please see section 2.4 for details of electronic Exemption Form process) Where a contract is created, please contact contract ID within Business World	Procurement Team

Above EU Threshold*	EU Procurement legislation applies	EU Procedure (where advertisement under EU Procedure the opportunity must also be advertised on UK Government Contract Finder Website). A minimum tender period of 30 days should be allowed.	Procurement Team
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*The current 2020-2021 EU Procurement thresholds are £189,330 for supplies and service contracts and £4,733,252 for Works contracts.

Wherever possible, existing frameworks compliant with European legislation have be used. The use of these frameworks will de-risk the programme, will provide best value for money as they have been tendered previously, and will increase surety of expeditious delivery. As the highway contractor and bus shelter markets are well developed, this further limits the risk.

6.2 Potential Procurement Routes

The West Midlands Combined Authority have a number of potential routes to market in order to procure the delivery of different elements of the programme. Each scheme will need to demonstrate the best procurement framework including a rationale for its use based on previous successes at the appropriate scheme development approval stage. For general construction works, two existing frameworks are in place which the WMCA could utilities: Pagabo and Crown Commercial Services frameworks.

6.2.1 Pagabo Framework

The Pagabo Major Works framework is an OJEU compliant framework that runs until April 2026 and consists of the following Lots:

- Lot 1 (£5m - £15m)
- Lot 2 (£15m - £30m)

The framework consists of the following elements:

- Project Feasibility Assessment
- Procurement Advice
- Early Contractor Engagement
- Documentation Preparation
- Tender Process Management
- Tender Evaluation Facilitation
- Contractor On-Boarding
- Establishing Pre-Construction Services Agreement
- KPIs Management & Evaluation
- Contractor Relationship Management

The suppliers qualified to Lot 1 in the Midlands area are as follows:

- GF Tomlinson Building (core)
- Henry Brothers (core)
- ISG Construction (core)
- Morgan Sindall Construction and Infrastructure (core)
- Skanska Construction UK (core)
- Willmott Dixon Construction (core)
- Ashe Construction (reserve)

- VINCI Construction UK (reserve)
- Wildgoose Construction (reserve)

The suppliers qualified to Lot 2 in the Midlands area are as follows:

- ISG Construction (core)
- Morgan Sindall Construction and Infrastructure (core)
- Sir Robert McAlpine (core)
- Skanska Construction UK (core)
- VINCI Construction UK (core)
- Willmott Dixon Construction (core)
- John Graham Construction (reserve)
- Kier Construction (reserve)
- Wates Construction (reserve)

There is no upfront cost to access the Pagabo framework but instead they do charge a small percentage that's built into the total price we would pay to the appointed contractor and spread over the duration of the project.

6.2.2 Crown Commercial Services Framework

Crown Commercial Services has a Construction Works and Associated Services framework in place (RM6088) that runs until 30/10/2026 and consists of various Lots. The most appropriate Lot for this project would be Lot 3.1: Construction Works and Associated Services – North England (£10m - £30m) which has the following suppliers qualified to it:

- Balfour Beatty Construction Limited
- BAM Construction Limited
- Bouygues (U.K.) Limited
- Galliford Try Construction Limited
- Graham
- Henry Boot Construction Limited
- Henry Brothers Limited
- ISG Construction Limited
- Kier Construction Limited
- Laing O'Rourke Construction Limited
- McLaughlin & Harvey Limited
- Russells Limited
- Tilbury Douglas Construction Limited
- Wates Construction Limited

The WMCA could procure a contractor from this framework either using a Competitive Award Procedure or a Direct Award procedure. However, similar to the Pagabo framework, the contractors qualified to this CCS framework weren't the local SME's that the WMCA would like to attract to bid for the works.

6.2.3 Midlands Highway Alliance

Highway infrastructure schemes could be procured through the Midlands Highway Alliance which has been used previously for highways schemes procured by TfWM. This framework allows Early Contractor Involvement which in turn allows detailed design work to progress.

6.2.4 Design and Build Contract

A design and build contract is another procurement option which would integrate the completion of any detailed design of a scheme and its construction. However, to be fully effective this option would require funding, legal permissions and statutory approvals to be in place in advance of the contract release. The feasibility of this option would therefore depend on the type of schemes and its dependencies.

6.3 Other Procurement Routes

6.3.1 Local Authority Highways schemes

Local Authority highways schemes could be procured through a specific pre-existing framework; termed as SCAPE. SCAPE is a Central Purchasing Body formed under the Local Government Act 2003. SCAPE is a Local Authority controlled company with six Local Authority shareholders forming the Board of Directors. SCAPE has the responsibilities of a company but acts as a Local Authority with the associated restrictions and privileges. SCAPE has a legal personality and as such can trade with any organisation. However, as a company owned by public sector organisations, it sees its primary field of activity as being projects which are ultimately for the public sector.

SCAPE framework fees are included in the project budget costs by partners or fee schedules and represent good value for money for a managed framework service, helping to reduce client management costs. SCAPE fees cover the cost of framework procurement and their ongoing management; facilitating initial project engagement with our partners; access to all framework documentation and introductory training; collation, analysis and reporting on KPIs captured through our frameworks. SCAPE is an advocate of best practice procurement in the public sector.

Each Local Authority will have their own framework agreements and will make a decision on procurement routes based on the most cost effective solution and track record of delivery.

6.3.2 Metro schemes

Metro schemes will be procured through the Midlands Metro Alliance (MMA) which is an established alliance between WMCA, Egis Rail, Pell Frischmann, Tony Gee, and Colas Rail. The procurement exercise to form this alliance was comprehensive and followed an OJEU compliant process.

The nature of the alliance allows for the identification of the right people for the management and delivery of work packages. This ensures the efficient delivery of work packages and seamless hand over between the development, build and operational stages. The commercial structure also ensures incentives of delivery partners are aligned to a best value approach.

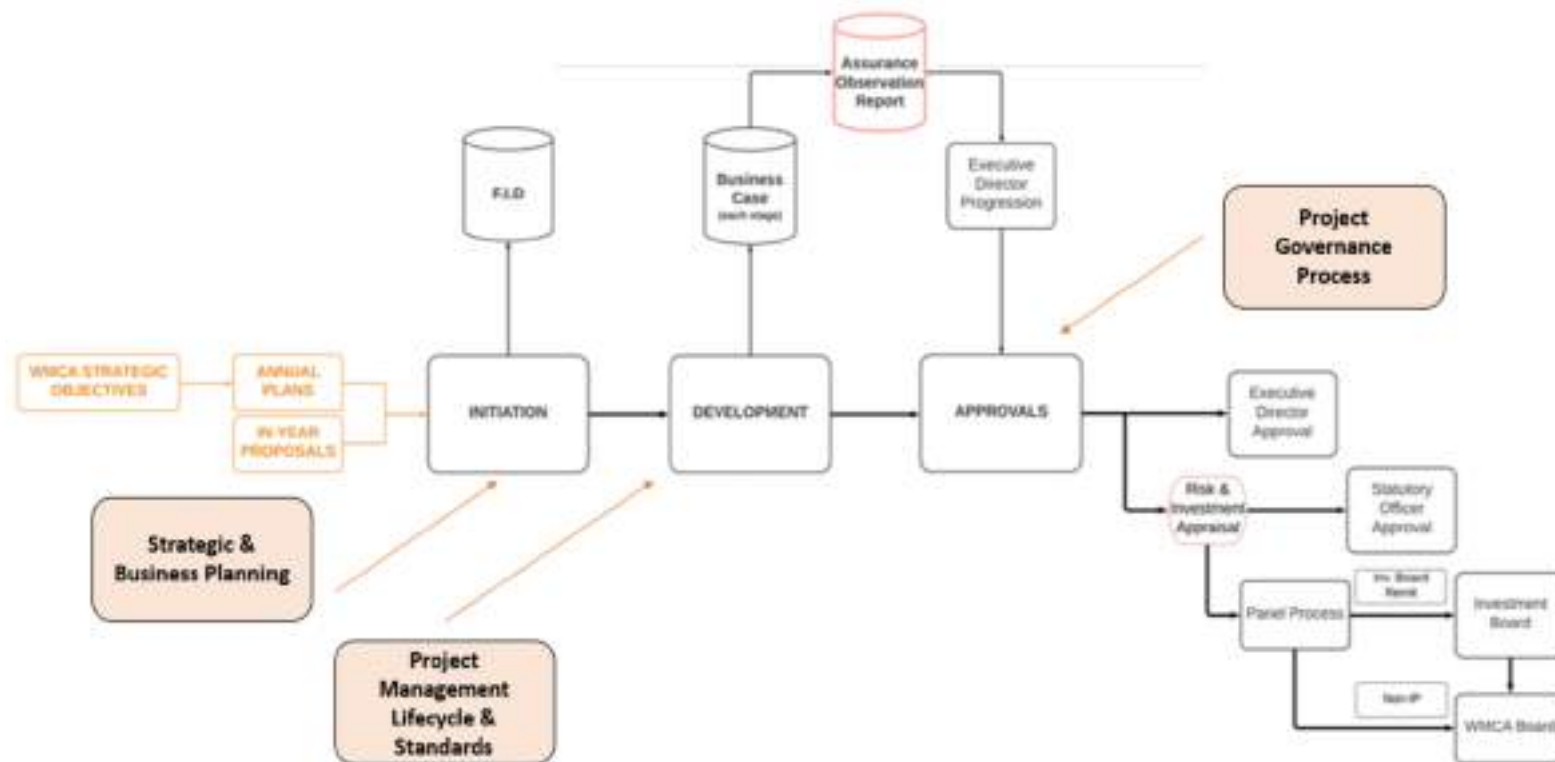
With the MMA and its governance arrangements in place, commercial elements of delivering metro schemes will be relatively straightforward to execute through the recognised processes, business as usual as part of day-to-day operations. This will ensure funding is spent efficiently.

6.4 Contracting Arrangements and Risk Appointment

6.4.1 Contract Arrangements

The contract management for the programme will be undertaken by an experienced TfWM project manager, reporting to specific delivery boards depending on the schemes. The delivery boards will report in Programme Boards. Each project within this programme will be assessed by WMCA Assurance and Appraisal. They will review to check the project is Single Assurance Framework (SAF) compliant, HMT Green Book compliant, offer VfM and the risks and opportunities associated with each project have been identified. The decision-makers will then be able to decide if the project should proceed. An overview of the SAF process is provided in Figure 18 and further detail is provided in the Management Case.

Figure 18: Single Assurance Framework Process Overview



Each investment decision made through the WMCA SAF and under the CRSTS programme will be backed by a grant funding contract with the relevant scheme promoter. This will pass through any CRSTS grant conditions that HMG place on the WMCA, and will pass the liability for any delivery risks and cost overruns directly on to the grant recipient. The contract conditions will also set out clear requirements for monitoring data, frequency of financial and delivery reporting, engagement in a programme wide centrally operated M&E programme, and other obligations relevant to the type and scope of scheme to be funded (as determined through and derived from the Full Business Case for that scheme).

6.4.2 Risk Apportionment

Risk management will be focused on the principle of ensuring that risk is managed by the organisations or individuals most appropriate to manage the risk and deliver suitable and sufficient mitigation strategies. The risks associated with each scheme will be identified, reviewed, prioritised and where appropriate; mitigation strategies will be developed for all significant risks. Effective control measures will also be established to ensure risks are maintained at the level acceptable to the business. The overall programme and its individual schemes will adhere to the West Midlands Combined Authority Programme and Project Risk Management Strategy. In addition to the strategic risk register provided in the Management Case, a full risk register will be developed

which assembles a combined risk position for the schemes within the final programme. The risk register will be regularly reviewed to ensure that risks are managed effectively and where possible, risks should be transferred to the private sector if they are better equipped to manage them. Figure 19 outlines the risk management process.

Figure 19: Risk Management Process



7 Financial Case

7.1 Programme Funding

The total funding requirement

Our £1.05bn settlement from CRSTS would leverage a further £278m of local contributions, to deliver a £1.3bn programme of transport investment over five years.

Our £1.05bn settlement from CRSTS would leverage a further £278m of local contributions, which we could raise on the back of this level of investment. This would deliver a £1.3bn programme of transport investment over five years from 2022/23 to 2026/27. The vast majority of the capital costs of the programme are contained and delivered within the 5-year CRSTS period and anything that spans past 2027 is limited. We have included where appropriate development funding costs within strategic schemes. The annual breakdown of the programme by theme is shown in Table 13: Per annum total funding requirement for WM CRSTS Programme by theme.

Table 13: Per annum total funding requirement for WM CRSTS Programme by theme

Theme	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Connecting our Places	£126m	£105m	£87m	£89m	£61m	£468m
Creating Resilient Networks and Communities	£39m	£46m	£50m	£59m	£74m	£267m
Data and Programmes	£2m	£1m	£1m	£1m	£2m	£7m
Delivering a Green Revolution	£19m	£40m	£25m	£17m	£10m	£112m
Healthy Streets and Spaces	£32m	£60m	£32m	£17m	£12m	£154m
Making Behaviour Change Easy	£18m	£21m	£14m	£13m	£10m	£76m
Supporting Inclusive Growth	£28m	£84m	£85m	£31m	£16m	£244m
Total	£264m	£357m	£294m	£227m	£186m	£1,328m

Proposed scale of Government's funding contribution

Table 14 summarises the proposed phasing of funding and split between central government CRSTS contributions and those raised locally.

Table 14: Proposed split of local and central government funding for WM CRSTS

Theme	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Central Government Funding	£218m	£296m	£219m	£177m	£140m	£1,050m
Local Government Funding Contribution	£46m	£61m	£74m	£50m	£46m	£278m
Total	£264m	£357m	£294m	£227m	£186m	£1,328m

Proposed local funding contribution

In recent years the West Midlands Combined Authority and constituent local authorities have put in place a series of positive progressive measures to generate local revenues for transport – for example Birmingham’s Clean Air Zone and bus lane enforcement. These have involved us making some difficult decisions to balance the needs of road users with negative externalities associated with traffic and congestion.

Against this background the WMCA and Local Authorities have together assembled a significant package of funding that commits up to £278m of local contribution towards the CRSTS programme, alongside our £1.3bn funding ask of Government net of existing highways maintenance funding of £120m and the final year of TFC, this amounts to a 32% local contribution (when excluding maintenance and TCF from the baseline) comprising locally generated revenue streams including Private Sector investment and borrowing against future revenues which are wholly additional to Government’s contribution.

This is an ambitious package of measures – and materially exceeds even HMG’s higher bound range of targeted local contribution for CRSTS. This demonstrates the level of commitment we in the West Midlands have to transport, the endeavour we have made to source local contributions, and the consensus across the CA, local authorities and private enterprise around the essential need for a step change in investment in the West Midlands.

The main components of our local funding contribution over the next five years are:

Local Authority contributions: around **£185m** committed from discretionary local authority revenue streams including:

- £35m earned from the growth in business rates generated within Birmingham City Centre Enterprise Zone, reinvested in a package of initiatives to improve multi-modal access to the zone, cycleways and pedestrian routes
- £8m from Birmingham’s new Clean Air Zone and bus lane enforcement to fund the Selly Oak to Longbridge segregated cycle route
- Circa £142m match funding against the local network improvement plans funded out of general council budgets.

Private sector contributions: **£69m** of contributions from the private sector including:

- £10m section 106 contributions facilitated by investment in vital cycleway and road improvements linking the Gigafactory development (near Coventry) and investments in Park and Ride.
- £24m private operators covering the cost of new vehicles for the next phase of our SPRINT Bus Rapid Transit network
- £35m match funding for 10 new Ultra Rapid Charging Transit Stations, and payments in lieu of the commercial revenues earned through charging. This investment will be supplemented by c.£22m of local authority lending, levered in from commercial revenues generated by the investment.

This package of local measures amounts to a very significant contribution to the overall CRSTS programme. It is contingent on the commitment from Government matching the scale of our ambition for transport investment over the next five years. Together we believe we can deliver almost £1.3bn of new transport investment.

7.2 Our fiscal sustainability plan

The Combined Authority's current exposure to revenue and operating risk is limited to its wholly owned subsidiary **Midland Metro Limited** (MML), the operating arm of the Metro system.

Predictably, COVID-19 has had a detrimental impact on passenger numbers – during the most severe periods of the pandemic, passenger numbers decreased to 8% of normal operating levels. However, in recent months, passenger numbers on the Metro have recovered to 70% of pre-pandemic levels largely due to MML's customers typically being in 'blue collar' and 'key worker' industries.

All surpluses generated by MML are re-invested into the network. Indeed, further planned extensions to Edgbaston, the HS2 site and the Black Country will in part be supported by borrowing WMCA plans to undertake secured against farebox takings from the significantly expanded network.

The borrowing projections are underpinned by a detailed financial model which extrapolates out the MML business plan costs and revenues to determine an affordable level of borrowing. This financial model is continually refined and reviewed to reflect the latest forward forecasts for interest rates, inflation, passenger numbers and variances in the capital costs of the investment.

The only other significant scheme involving revenue and operating risk is the **Coventry Very Light Rail** project. Demand modelling estimates strong ridership on Route 1, through the City and onto University Hospital Coventry and Warwickshire and Ansty Park – on this basis we expect the scheme to be financially sustainable, operating on a commercial basis without the need for financial subsidy. The initial demonstration route through the City, between the Railway Station and Bus Station, delivered as part of this programme is an important element of testing the VLR in real world conditions as well as providing a new public transport priority corridor through the City for VLR and bus as well as the first 2km of Route 1. The City Centre Demonstrator is not intended to make an operating profit but once extended through the City to the East, as referenced above, is expected to be financial self-sufficient.

Potential commercial partnerships are being explored as the R&D phase of the project progresses and the project partners look to move into the operational phase, with continued strong interest in the project from both public and private sectors in the UK and beyond.

Ongoing revenue costs for the remaining projects are expected to be met through local resources and that will be properly assessed and established as the schemes progress through the assurance stages.

7.3 Alignment with other funding programmes

The CRSTS programme is central to a wider and more complex overall Transport Investment Programme for the West Midlands. The programme themes within it have been co-developed with the overarching delivery themes for our refreshed Local Transport Plan and are one and the same approach. Our recently submitted Active Travel bids, Levelling Up Fund submissions and developing Bus Service Improvement Plan sit seamlessly within these themes. There is no duplication of asks between them.

All of the **active travel schemes** are incremental to each other – focusing on delivering whole corridor benefits and are physically mapped and designed alongside all other interventions (committed and planned) in that corridor. This is a typical example of our programme design philosophy, which will be fully codified and adopted as part of our refreshed Local Transport Plan. This will be explicitly set out in the series of four Area Based Delivery and Implementation Strategies which will focus on the interpretation of the overarching LTP policies and strategies into a 10-year detailed and prioritised area-based delivery plan. They will set out the order and phasing of schemes over this period, relative priorities for road space allocation and detailed interaction of schemes with housing, land and wider regeneration policies. TfWM will draw these up under a common framework, but working hand and glove with each relevant Local Authority who will lead the development of the content.

Our **BSIP revenue bid proposals** also twin with the CRSTS and active travel proposals – with the same approach to integrated planning. The revised CRSTS programme now includes high priority and high value for money infrastructure components of the BSIP plan, focused making buses cleaner and more reliable through a programme of bus retrofit measures and priority bus corridors. When combined with the schemes prioritised from the original CRSTS programme this will deliver a significant step change in bus provision, doubling the length of bus lanes, adding new Demand Responsive Transport services, providing better value and easy access smart ticketing and delivering a step change in the first-last mile solutions needed to support a viable bus network'

Ensuring that revenue support is available to maximise the impact of these proposals will be essential if the overall aims of the West Midlands BSIP and the vision within Bus Back Better are to be realised.

We recognise that CRSTS is a positive step towards a truly integrated single multi-year consolidated funding approach. With this in mind we have been careful to include some contribution towards critical activities which we anticipate will be mostly funded from **other national funding pots**, including Local Large Majors, Major Road Network funding and Midlands Rail Hub. If HMG is to require local contributions to these schemes and funding sources it is important to appreciate that given the consolidated nature of the current CRSTS programme scope it will be the main source for any such local contribution to these pots. Whilst we have been able to assemble a very strong local contribution element against the CRSTS scheme, this is drawn from schemes which have very direct and immediate physical relationships to development sites and regeneration schemes. In contrast, whilst utterly essential, the broader strategic nature of these other funds means a different approach is required – hence inclusion of this in the proposed CRSTS programme.

Looking more widely than transport, the CRSTS programme has direct synergies with investment in the wider WMCA Investment programme and across HMG priorities, including:

- **HS2:** improving connectivity to both HS2 stations through new Sprint and Metro routes, and improved access for walking, cycling and public transport.
- **Commonwealth Games:** building on committed investment by DCMS in and around Perry Barr, including £165m for housing development.
- **West Midlands 5G:** technology and learning from the c.£18m pathfinder programme for 5G applications will be directly exploited e.g. the Regional Transport Coordination centre.
- **Priority Sites Land Fund / Brownfield Fund:** direct alignment of CRSTS schemes with key growth corridors will complement £100m of MHCLG funding to unlock site specific regeneration, and £84m of MHCLG/HMT funding for stalled brownfield housing sites.
- **Adult Education & Digital Skills:** A total existing budget of c.£132m per annum will be aligned wherever possible to support CRSTS and transport objectives.
- **Town Centres Fund:** Our £138m programme will deliver benefits into Wolverhampton, West Bromwich, Smethwick and Rowley centres and will be directly supported by the accessibility enhancements bought forward under the CRSTS programme.
- **Coventry All Electric Bus City:** Investment via CRSTS and BSIP will reinforce the £128m secured from Government grant and from bus companies to transform the carbon footprint of public transport across Coventry and Warwickshire.

There are many more examples of how we have carefully chosen the schemes within our CRSTS programme to align with wider funding programmes, regional and national objectives for carbon reduction, and to support growth and enterprise.

8 Management Case

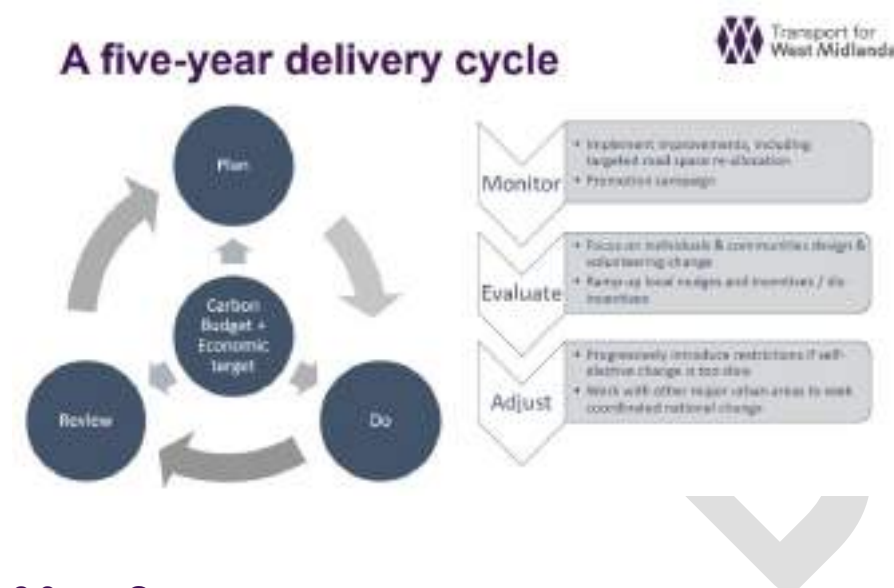
8.1 Introduction

The delivery of the CRSTS programme will build on the WMCA's robust and well-established governance and decision-making process for transport investments. This has been developed and strengthened following the agreement of our two devolution deals in 2015 and 2017, and during delivery of our £8 billion 30-year Investment Programme.

We have been working hard since last year to refresh and enhance our processes in anticipation of CRSTS, with wholly new Assurance, Risk Management and Monitoring & Evaluation frameworks and capabilities now in place that are fit for purpose given the scale of investment over the next five years (see Appendices D, E and F). Indeed, the independent review of our capability and capacity conducted earlier this year for HM Treasury pointed to strong alignment between investments and regional strategies, consistent delivery and programme management, and strong governance and assurance processes.

8.2 Delivery plan

Success of the overall programme relies on effective planning and coordination of interfaces and interdependencies between the many stakeholders who will need to work together, make informed decisions and manage risks to maximise the opportunity.



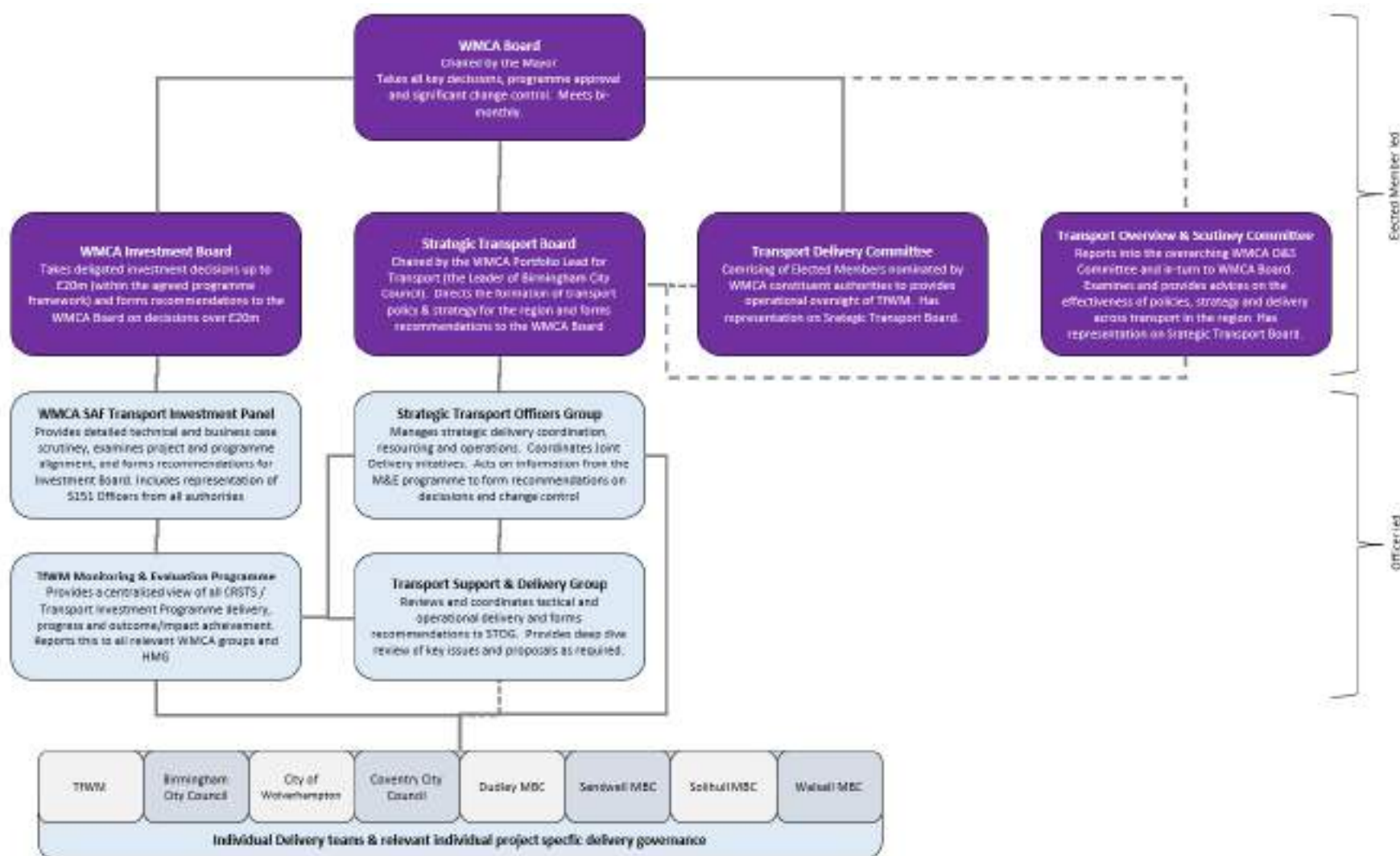
8.3 Governance

Governance principles have been adopted to maximise transparency of our programme and ensure effective scrutiny from our elected officials. The delivery teams will be accountable to their individual organisations and also provide updates to our Senior Transport Officer Group (STOG) chaired by our SRO (TfWM Managing Director) to ensure visibility of progress and oversight of

programme performance on a monthly basis (both financial and delivery). Our Transport Delivery Committee (comprising elected members from the seven local authorities) will offer scrutiny of delivery as and when required and ensure scheme outputs are delivered as per the programmes objectives. Our Strategic Transport Board (chaired by the WMCA Lead Member for Transport and the attended by the Portfolio holders for Transport from across the seven local authorities will receive quarterly monitoring reports to review programme progress, approve change and provide scrutiny of deliverables. The WMCA Board (chaired by the Mayor) will monitor progress on an annual basis and provide oversight of the programme throughout the CRSTS delivery period.

An organogram detailing the governance arrangements for the programme is detailed in Figure 20.

Figure 20: Programme Governance Organogram



8.3.1 Assurance

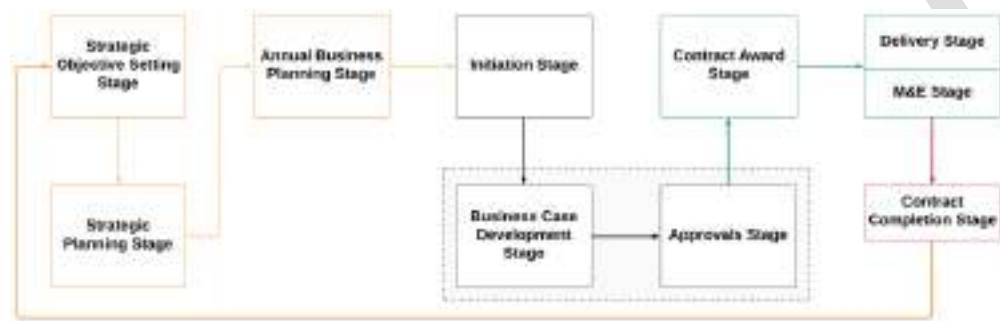
The WMCA has developed a Single Assurance Framework (SAF - <https://www.wmca.org.uk/media/4238/strategic-hub-single-assurance-framework.pdf>) which applies to all bids, projects and programmes that place a financial liability onto the WMCA that are not classed as business as usual (BAU) revenue expenditure. This framework has been developed and agreed with HMG to ensure proper transparent and auditable adherence to public investment decisions in a way which is fully compliant with Green Book appraisal. It covers all capital proposals. The SAF provides consistency of approach, standards, appraisal, assurance and decision-making across all funding pots. It also allows for proportionality within the development of business cases through the development routes that are undertaken.

The key processes for ensuring accountability, including public engagement, probity, transparency, legal compliance and value for money, as well as the processes for oversight of projects, programmes and portfolios and how the progress and impacts of these investments will be monitored and evaluated, have been developed to ensure:

- significant financial and governance protections exist for the stewardship of public funds
- delivery of high standards of project development, approval, delivery and oversight
- deliver trust in the organisations officer expertise
- That consistency, controls and clarity are provided to deliver confidence in the WMCAs decision-making and ability to deliver
- WMCA embeds the required assurance and lines of defence within project development and decision-making
- WMCA has the ability to manage political and reputational risk

The various stages associated with the Assurance Framework are detailed in Figure 21.

Figure 21: Single Assurance Framework Stages



For the delivery of CRSTS and the region's single transport investment programme a clear work-flow and set of respective responsibilities for progressing through the WMCA SAF have been identified as set out in the figure below.

WORK FLOW		PROMOTER ACTIVITY	WMCA ACCOUNTABLE BODY ACTIVITY	
			TEAM	ROLE
BUSINESS CASE DEVELOPMENT		<ul style="list-style-type: none"> With reference to WebTAG and WMCA SAF develop as appropriate SOBC, OBC or FBC Early engagement with WMCA SAF team and WMCA Accountable Director 	<ul style="list-style-type: none"> Assurance Commercial Advice WMCA Sector Expert Finance 	<ul style="list-style-type: none"> Independent Review of Business Case Variation Technical Review Consider/ Comment
▼				
BUSINESS CASE FINALISED		<ul style="list-style-type: none"> Submit business case to WMCA SAF team 	<ul style="list-style-type: none"> Investment Appraisal Finance Legal 	<ul style="list-style-type: none"> Investment Risk Review for WMCA Consider/ Comment Consider/ Comment
▼				
TRANSPORT INVESTMENT PANEL		<ul style="list-style-type: none"> Attend present business case and answer questions Provide follow-up evidence as required 	<ul style="list-style-type: none"> Assurance Governance WMCA Directors 	<ul style="list-style-type: none"> Comment/ Support Administer Panel Score & Review Business Case
▼				
INVESTMENT BOARD		<ul style="list-style-type: none"> Write report for Investment Board Brief own organisational representative on Investment Board and FD 	<ul style="list-style-type: none"> Governance Investment Investment Appraisal 	<ul style="list-style-type: none"> Administer Board Briefing Paper Comment/ Support
▼				
DECISION		<ul style="list-style-type: none"> If dedicated CA Board report required (as scheme over £20m) take draft report through STOG & STB prior to CA Board 	<ul style="list-style-type: none"> Assurance 	<ul style="list-style-type: none"> Approval Pack
▼				
FUNDING AGREEMENT		<ul style="list-style-type: none"> Own organisational S151 Officer and legal engagement 	<ul style="list-style-type: none"> Structuring M&E Legal 	<ul style="list-style-type: none"> Heads of Terms Input into Heads of Terms Draft Agreement
▼				
M&E & REPORTING		<ul style="list-style-type: none"> Working to M&E plan developed out in liaison with TWM M&E team undertake necessary activities 	<ul style="list-style-type: none"> SRO Directorate Business Planning & Performance Finance 	<ul style="list-style-type: none"> M&E Activity WMCA Internal Report Drawdowns
▼				
CHANGE REQUEST MAY BE REQUIRED (SUBSTANTIVE – Over £5m)		<ul style="list-style-type: none"> As below 	<ul style="list-style-type: none"> As below 	<ul style="list-style-type: none"> As below
CHANGE REQUEST MAY BE REQUIRED (SUBSTANTIVE – Less than £5m)		<ul style="list-style-type: none"> Early warning provided via quarterly reporting (via TWM to STB) Formally submitted via WMCA SAF team 	<ul style="list-style-type: none"> Investment Appraisal Finance Legal WMCA Directors Statutory Officers 	<ul style="list-style-type: none"> Investment Risk Review for WMCA Consider/ Comment Amend Funding Agreement (if reqd) Consider/ Comment Approve

KEY: PROMOTER LED WMCA ENABLING SERVICES WMCA ACCOUNTABLE DIRECTOR (TWM)

Some of these steps are explained in further detail in the table below.

WMCA Business Cases	All aligned to HM Treasury 5 Case Model
Programme Business Case	WMCA Programme Assurance Team – act as critical friend to ensure that the PBC is aligned to organisational strategy and defines outcomes
Business Case Maturity Assessment	Prior to the finalisation of the Business Cases being submitted for approval. An independent Business Case Maturity Assessment (BCAT) would be undertaken independently by the Assurance Team based on 5 case model. Evidenced Based – Quantative assessment aimed at improving robustness of the Business Case. Delivery teams are accountable for addressing recommendations before final submission.
Risk & Investment Appraisal	A formal risk assessment on the final business case will be undertaken independently by the Programme Appraisal Team to accompany the Business Case through the approvals process
Investment Panel	Peer Review process in governance to review all business cases with SMEs from each 5 cases challenging the robustness of each business case. Makes recommendations to the governance/ approvals process.
Change Requests	All substantial change requests for the CRSTS programme will be independently assessed by the Programme Appraisal Team to accompany the CR through the approvals process
Project & Programme Health Checks	Programme level assurance health checks will be undertaken, potentially some project level health check too (risk based)
TfWM Assurance	The above will be in addition to first line of defence assurance undertaken by project teams

Further to this our standard WMCA SAF requirements will be supplemented with any CRSTS-specific HMG conditions or oversight processes and a number of regionally required transport specific requirements.

Figure 22 outlines the specific transport assurance requirements (over and above the SAF) for new CRSTS schemes. TfWM will require some DfT TAG specific products during each stage of the business case to supplement the SAF.

Figure 22: Specific Transport Assurance Requirements (Over and above SAF) for new CRSTS schemes



8.3.2 Senior Responsible Owner

The overarching responsibility for CRSTS will sit with the Mayor and WMCA Board, but their interests will be represented between formal review points and monitoring briefings through a formal SRO role. This will be held by the WMCA's Executive Director for Transport (a role formerly called Managing Director for Transport for West Midlands). A deputy SRO (TfWM's Director of Policy, Strategy & Innovation) will manage the programme and stakeholder/partner relationships on a day to day basis and ensure programme monitoring, the enhanced transport specific appraisal requirements of the SAF and the formal reviews are in place, accurate and timely.

8.3.3 Roles and Vacancies

Each individual project will be subject to its own delivery governance and infrastructure (with efficiencies through joint delivery and partnership working being exploited wherever possible). This will be confirmed as part of the FBC approval for each investment as appropriate to the specific intervention. At a programme level the seven Local Authority delivery partners and Transport for West Midlands will work together within a single governance approach to ensure robust delivery and accountability. This will reflect long standing working arrangements that pre-date the West Midlands Combined Authority, but are now formalised and strengthened by the CA. All senior Officer roles and political roles across the authorities are filled. Individual scheme delivery teams will

be strengthened as appropriate to the project and its individual resourcing plan. To support this various regional initiatives are either in place or being launched, including a programme of transport apprenticeships and a regional Transport Skills Academy which will involve our supply-chain partners as well as building client side capability.

The key CRSTS programme management roles are set out in the table below

Function	Who
<p>Monthly Officer review: The existing Strategic Transport Officers Group will consider a delivery, risks and exceptions update from each delivery body. This will take a programme level view across all the projects that each delivery body is progressing. Members and Mayor will be informally briefed by respective Officers following this collective review. The Strategic Transport Officers Group will be supported in undertaking this work by a working group of delivery team representatives (the existing Transport Support Group).</p>	<p>The senior Transport Directors from TfWM and each of the Local Authorities, plus 'Head of level Officers from each Local Authority and TfWM who are actively engaged in and part of scheme delivery. All key roles are in place and filled across this cohort of circa 20 senior transport Officers. These Officers also have prime organisational responsibility for the briefing of the Mayor, Leaders and the Cabinet Members for Transport as appropriate to each authority.</p>
<p>Quarterly Formal reporting: Each delivery body will formally provide a quarterly monitoring return covering spend, delivery, risk and programme updates for each scheme that it is the promoter for and that has an indicative CRSTS funding allocation. This will be compiled, and a summary report formally considered by the Strategic Transport Board (STB). This reporting will also be paralleled by the same level of reporting directly to the Mayor.</p>	<p>The STB is chaired by the WMCA Transport Portfolio Lead (currently the Leader of Birmingham City Council) and includes the Transport Cabinet Members for each Local Authority as well as representation from the WMCA Transport Scrutiny Committee and Transport Delivery Committees.</p>
<p>Annual Formal WMCA Board reporting: An annual CRSTS progress and programme monitoring report will be prepared and submitted for consideration. This will address the delivery progress made and review the overall programme issues. It will set out any formal programme change proposals required to re-balance the overall programme such as acceleration or deferral of elements of the programme; and any recommendations for entry of new schemes to the programme.</p> <p>It will also agree the formal annual monitoring report return which HMG are understood to require, including any formal requests to HMG for programme changes. HMG's requirements have not yet been specified. In advance of understanding these the above process will notionally be undertaken to allow a report to be made to each January WMCA Board.</p>	<p>The WMCA Board is chaired by the Mayor and comprises Leaders of all constituent and non-constituent Local Authorities, representatives of the Fire and Policy & Crime Commissioner and Chairs of the Local Enterprise Partnership. The WMCA's statute and constitutions requires most formal decisions and policies of the WMCA to be agreed but the constituent members of this Board.</p>
<p>Exception reporting: It is likely that during the life of the programme some matters will arise and need addressing outside of the above processes. These will be dealt with on an ad-hoc basis and escalated through the above chain to WMCA Board if required. These are likely to be triggered by changes within individual schemes which are identified and submitted through the WMCA SAF process, which sets limits and escalation points for changes in project scope, cost and delivery. It is only if any such project level issues create a programme wide issue that the exception route for the CRSTS programme will be exercised.</p>	<p>Drawn from the above as required</p>

8.4 Risk management

The WMCA's newly developed Strategic Risk Management Framework will apply to CRSTS at a programme level. This sets the foundations upon which project, programme, portfolio, operational and strategic risks are identified, and provides a consistent approach through its universal scoring and escalation models. The roll-out of the SRMF is underway and will be reviewed at least once a year to ensure it evolves with the changing WMCA risk landscape.

At a scheme level, all approvals via SAF above £1 million are subjected to our well-established Risk & Investment Appraisal. One of our Risk Appraisers will analyse the business case to assess the risks associated with delivery, costs, timing and funding. They will then provide a Risk Profile Report that sets out the financial, regulatory, investment, reputational and other risks, and proposed risk mitigations, to help inform decision-makers when approving business cases.

Table 15 outlines the top five strategic risks for the CRSTS programme.

Table 15: Strategic Risks

	Risk Description	Pre-Mitigation		Mitigation	Post Mitigation	
		Probability (1-5)	Impact (1-5)		Probability (1-5)	Impact (1-5)
1	Costs: There is a risk that the costs to deliver the schemes could higher than the amount that is the subject of this funding request.	3	5	Robust and comprehensive businesses cases will be developed for schemes that look to mitigate against significant price increases. The Project Manager will actively manage the programme to ensure that there is no time or cost overrun or if these do arise, these are effectively addressed and reported through detailed cost schedules. Mitigation measures will be considered and implemented as appropriate through sound project management and control including the active management of a risk register.	2	3
2	Programme: There is a risk that individual schemes could take longer to deliver than expected which could delay the overall programme.	3	5	A programme schedule will ensure all project dependencies are mapped out and critical paths included within the programme schedule. Each scheme will have an individual programme for development and delivery which the Project Manager will regularly review. Any potential programme overruns will be reported to the SRO to ensure that they do not impact the overall programme. A robust governance structure is in place to support programme and escalation of issues.	3	3
3	Approvals: There is a risk that approvals for individual schemes could take longer than expected to deliver which could delay the overall programme.	2	4	The Project Manager will follow TfWM's processes to ensure that all necessary approvals are delivered in a timely manner. WMCA Assurance and Appraisal will be informed of upcoming submissions so templates can be recommended and approval routes mapped.	2	2

4	Resources: Due to the high volume of schemes, there are limited resources to develop and deliver the schemes. This could delay the overall programme	1	3	TfWM and Partners will share resources to ensure that schemes can be delivered on time. TfWM have also have a Skills Academy which will help to fill skills gaps within the organisation through active engagement with the wider transport industry.	1	2
5	Industry: There is a risk that the construction industry will not have the resources or materials to deliver the schemes required.	2	5	TfWM have a strong working relationship with a number of contractors who have delivered successful construction projects in the past. TfWM will make regular contact with the contractors on their frameworks to ensure they are aware of any potential resource or material shortages.	2	3
6	PT Patronage: since the Covid outbreak there has been a fall in public transport patronage. If trends continue programme investment could be underutilised.	3	5	TfWM are working actively with local stakeholders to deliver a co-ordinated response to Covid patronage bounce back. This includes the active promotion of bus services through our BSIP and a behaviour change programme to encourage a change of approach to travel as we move forward past the pandemic.	2	3

Having identified the risks, annual monitoring will be put in place in line with the WMCA Performance Management Framework, both at the project and programme level [see M&E section below].

8.5 Quality management

The WMCA SAF and its requirements for adherence to Green Book, WebTAG and other standards is the primary means of ensuring quality decisions are made. Individual schemes and interventions will comply with relevant QA standards as appropriate to the intervention, for example our smart ticketing intervention operates to ITSO standards. Suppliers and contractors will be selected as appropriate, but as is industry practice will typically provide ISO9002 or appropriate equivalent quality management processes. Similarly, health & safety and design authority roles will be allocated as appropriate to the intervention, industry regulation and best practice.

All schemes and investments will be required to report delivery and monitoring information and support a centralised monitoring programme which will be operated by TfWM. This will track delivery, spending and process against quantified and targeted outcomes and impacts linked the projects specific objectives. A plan for this and appropriate baselining will be required to be confirmed prior commencement of work and FBC approval.

8.6 Lessons learnt approach

The WMCA, TfWM and their pre-cursors (the West Midlands Public Transport Authority and Passenger Transport Executive) have a delivery track record spanning several decades. The skills, processes and mechanisms we now have in place have been refined and strengthened over many successfully delivered small and large-scale capital projects. Our current and recent project experience include:

- **West Side Extension (£150m) to Centenary Square (opened in 2019) and on to Edgbaston (opening in 2022):** The Midland Metro Alliance (WMCA, a consortium of engineering design teams and a contractor) have delivered the first extension to Centenary Square ahead of schedule and are currently delivering two more extensions. This rolling programme has reduced our procurement risk and allowed us to embed deep expertise. As a result, the Line 1 renewals will be ready to progress as soon as further funding is secured.

- **Sprint Phase 1:** Due to complete in spring 2022, ahead of the Commonwealth Games. It is critical that the small but highly skilled (and sought-after) Phase 1 delivery team are transitioned smoothly and efficiently to Phase 2 of the Sprint programme. Securing funding and retaining key members of the team will save significant time and cost.
- **West Midlands Rail Programme:** Two stations at University and Perry Barr are in delivery and due to open in advance of the Commonwealth Games. Both these projects have been externally audited and received positive assessments. We are applying the lessons learned to our other projects in the programme – for example through the implementation of progressive assurance on the University project, which has substantially improved the schedule without compromising quality. Maintaining a strong pipeline of work will be vital in ensuring that the West Midlands builds on this existing experience and capability.

We also commit to spending 1% of each capital scheme on capitalisable Travel Demand Management measures drive desirable behavioural change and maximise scheme benefits.

Individual Local Authorities in the West Midlands also have extensive experience of delivering local road, bus, interchange and active travel schemes. Examples include:

- **Lode Lane Route Enhancement** (£4.7m, SMBC): a package of route improvements including bus and cycle lanes, bus priority signals, cycle crossing facilities and bus stop improvements. The project was completed in Autumn 2016 on time and on budget.
- **A45 Coventry Road South Bridge** (£10m, SMBC): a replacement three-lane road-over-rail bridge used by around 30,000 vehicles a day. To minimise disruption to road users, part of the new bridge was built next to the old bridge to carry traffic while the old bridge was demolished. SMBC worked in partnership with a range of stakeholders to minimise disruption. The project won the 'Outstanding Project' category in the UK Rail Industry Awards 2016 and the Celebrating Construction 2017 West Midlands Project of the Year for Civil Engineering.
- **Ashted Circus** (£8.1m, BCC): new traffic signal-controlled junctions on the Ring Road in Birmingham as well as enhanced facilities for pedestrians and cyclists and improved access to the Enterprise Zone in Birmingham. The scheme has improved connectivity and reduced congestion levels – and was delivered below its allocated budget.
- **Selly Oak New Road** (£62m, BCC): the construction of a new road through existing railway and canal embankments to the south of University Station, Selly Oak. A 'two-bridge' option was selected based on risk, whole life cost and design aesthetics. Public and stakeholder feedback has been very complimentary and the scheme has won numerous industry awards.

Given the breadth and scale of projects completed and currently being delivered by the WMCA, TfWM and constituent Local Authorities, we are confident that we have the capacity and capability in place to meet the challenge of delivering a programme of investment on the scale of CRSTS.

Our approach to consultation and local engagement to support delivery

Engagement with the public is an essential part of the design and delivery of TfWM's services. Activities cover everything from surveys tracking the performance of the transport system, to gathering feedback on new transport policy and strategy or commenting on major infrastructure proposals such as Sprint. We have used this information to shape the CRSTS transport programme.

We have surveyed over 12,000 residents over five phases of engagement relating to travel behaviours during and after the pandemic. Separately, our quarterly *Travel Trends and Behaviours Tracking Survey* (TTABS) monitors travel patterns amongst local residents and their opinions on different modes of travel.

The pandemic has accelerated the use of digital platforms to engage with the public. Our *Keeping the West Midlands Moving* initiative is a thriving online community of over 1,000 residents who share their views on key transport issues. *Commonplace*, an independent online engagement platform, allows residents to give their views Active Travel Fund proposals.

For individual schemes, detailed and comprehensive stakeholder engagement processes will be (or have already been) followed for development and approval – including extensive consultation with political and civic leaders, alongside statutory consultees, contractors and delivery partners. For example, as part of designing, refining and obtaining planning permission for the Metro expansions, a number of consultation exercises were undertaken which met and exceeded statutory requirements for obtaining all necessary planning consents.

Engagement with constituent local authorities on oversight of highways is via our well-established Highways Infrastructure Managers Group. This forum allows sharing of data, asset management and renewal plans and winter service plans in an open environment. This collaborative effort supports our ambition for a well-managed, well-maintained and fit for the future highways network.

We have also significant levels of engagement with local constituents through our work on the Key Route Network. The local authorities have been at the forefront of supporting the development of regional action plans through regular and sustained dialogue. The development and opening of the regional transport coordination centre has attracted significant support from local authorities. Further, the inclusion of regional delivery packages in CRSTS has been supported through our regional road safety partnership and our strategic transport leads from across all local authorities.

8.7 Stakeholder Engagement

Engagement with the public is an essential part of the service's designed and delivered by TfWM. Activity covers everything from tracking surveys covering the general performance of the transport system, to testing new products such as website improvements, to gathering information and feedback on new transport policy and strategy or commenting on major infrastructure proposals such as Sprint.

8.7.1 Approach to Engagement during the Pandemic

Many of the traditional approaches to engaging with the public have become unfeasible during the Covid-19 pandemic such as face-to-face interviews or large-scale postal surveys. Whilst new ways of engaging with the public using digital platforms were already underway pre-Covid, the pandemic has accelerated this approach and enabled project delivery and development to continue. These tools have also allowed TfWM to understand specific concerns or issues on the transport system relating to the operation of services with social distancing and other public health measures in place. It is acknowledged that not all residents are digitally active and in order to ensure a fair representation of residents from across the diverse communities of the West Midlands, alternative approaches such as targeted telephone interviews have also been used where appropriate.

8.7.2 New Engagement Tools

8.7.2.1 Keep West Midlands Moving! Community

In late 2020, as part of the Future Transport Zone programme, Mustard market research agency was appointed by Transport for West Midlands (TfWM) to partner on the build and development of a long-term online community for engagement, consultation and co-creation.

The community has been live since November 2020 and will run for an initial three-year contract (2020-2023). An online community is a forum where participants can share their views on different topics. The community includes both client and member-led discussions and holds activities around key issues related to transport and travel around the West Midlands, putting residents at the heart of decisions in relation to future transport strategy.

The community currently has 1,042 members who have been engaged on a range of issues including the Commonwealth Games, Future Transport Zone initiatives, The Futures of Transport (for the Local Transport Plan review) and a range of general profiling questions around transport and travel behaviour.

In addition to this community of around 1,000 residents, TfWM has also collected contact details for circa 6,500 residents/regular travellers in the West Midlands who have agreed to be contacted to help shape transport decisions across the region. This group is used to collect quantitative data on a larger scale than the Keep West Midlands Moving! Community, as well as to understand behaviours and sentiments.

8.7.2.2 Covid-19 Travel Surveys

A significant body of research has been undertaken over the last 12 months to understand the response of West Midlands residents to the Covid-19 pandemic, how this had affected their travel behaviours and what their views on future travel were likely to be.

The date and topics of the surveys are shown in the diagram below with circa 12,000 residents responding to the seven phases of engagement undertaken and analysed to date. A further phase focused on active travel (with 772 responses) is currently being analysed by the team and will be reported on in the coming weeks.

The outputs from this research have been used to support a range of operational activities and has highlighted the need for a significant marketing campaign post-covid to encourage a return to public transport. As the graph below demonstrates, those who have not used the network recently are the most concerned about using or returning to public transport.

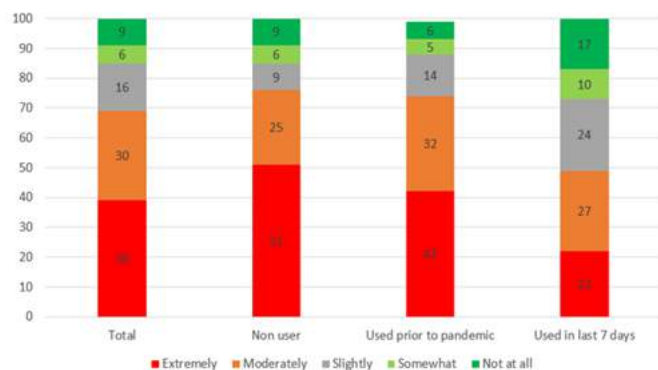


Figure 4: Level of concern about public transport use.

8.7.2.3 Travel Trends and Behaviours Tracking Survey (TTABS)

In addition to the market research activity above TfWM has also begun undertaking a quarterly tracker to assess how attitudes to travel change over time. The Travel Trends and Behaviours Tracking Survey (TTABS) aims to monitor travel patterns amongst residents in the West Midlands and their opinion on different modes of travel. It also looks at the effect of the Covid-19 pandemic on travel patterns and as a representative sample of the West Midlands, it will widen the bespoke approach detailed above. To gather a robust baseline, data from a demographically representative cohort of 500 residents per month has/will be collected from December 2020 to March 2021. The survey aims to:

- Monitor travel habits in the last 7 days
- Measure satisfaction with journeys made in last 7 days by mode of travel
- Look at reasons for not travelling in the last 7 days
- Examine the effects of the Covid-19 pandemic on travel patterns
- Track awareness of WMCA, Mayor of West Midlands and TfWM

8.7.2.4 Commonplace

Commonplace is an independent online engagement platform that has been used to allow residents to give their views on West Midlands Active Travel Fund Package proposals. The Commonplace platform includes a Community Heatmap feature

which allows anyone to drop a pin anywhere on a map and leave a comment on a Commonplace project. Residents can make suggestions, view and agree with other comments, or answer questions customised by decision makers. These kinds of activities might previously have been undertaken at public exhibitions with actual maps and pins, which whilst often very helpful, were also difficult for many people to attend or catered to those with the strongest opinions rather than the community as a whole. With the pace of developing and delivering the active travel measures, this approach has been invaluable in understanding where communities were supportive or had concerns and where alterations or new approaches were needed. Public support has also been a key requirement in unlocking Government funding to support these schemes.

As of February 2021, the site has been accessed by **47,871** unique visitors, with **8,546** individuals actively engaging with the site and leaving comments. The site has created an excellent space for discussion and public insight as to date **11,152** comments have been submitted.

As of the week commencing 1st March the site has 23 schemes published for consultation/initial engagement. During the first week that the schemes were live, we have had 1485 unique visitors viewing the schemes leaving 1685 comments. Across all schemes there is an average of 70% positive or neutral sentiment expressed by the public commenting on the schemes.

8.7.3 CRSTS Engagement

TfWM has a range of tools available to undertake engagement with the public on attitudes, policies and schemes. TfWM will utilise all available tools to ensure that engagement is effective, insightful and useful for future scheme delivery planning.

TfWM will produce an annual CRSTS progress report on our website. The progress report will monitor progress on an annual basis and provide oversight of the programme throughout the CRSTS delivery period.

In addition, the progress and delivery of individual schemes will be tracked and made publicly available through Transport Delivery Committee. As discussed in the Governance section of this chapter, our Transport Delivery Committee will offer scrutiny of delivery as and when required and ensure scheme outputs are delivered as per the programme's objectives. The Transport Delivery Committee will provide updates to the Senior Transport Officer Group (STOG) who will undertake review financial and delivery progress on a monthly basis.

8.8 Monitoring and Evaluation

8.8.1 National Monitoring and Evaluation

TfWM understand the importance of monitoring and evaluating the success of their CRSTS programme, to ensure lessons are learned and evidence future funding settlements, and to ensure accountability that public money is being spent effectively. TfWM therefore confirms that they will participate in national monitoring and evaluation processes set out by the DfT. In line with the CRSTS: Programme Business Case Guidance provided by the DfT, TfWM commits to cooperate with the following national monitoring:

- TfWM will work closely with DfT and the national evaluator to develop the M&E framework for the CRSTS programme, allowing us to build upon our own M&E framework.
- TfWM will provide all required M&E data to DfT on time and in an agreed format and adhere to any further guidance put forward by DfT or the national evaluators.
- TfWM will work with the national evaluator on the design and delivery of experimental evaluations.
- TfWM will identify schemes that could be evaluated via the experimental evaluation, as has been shown below:

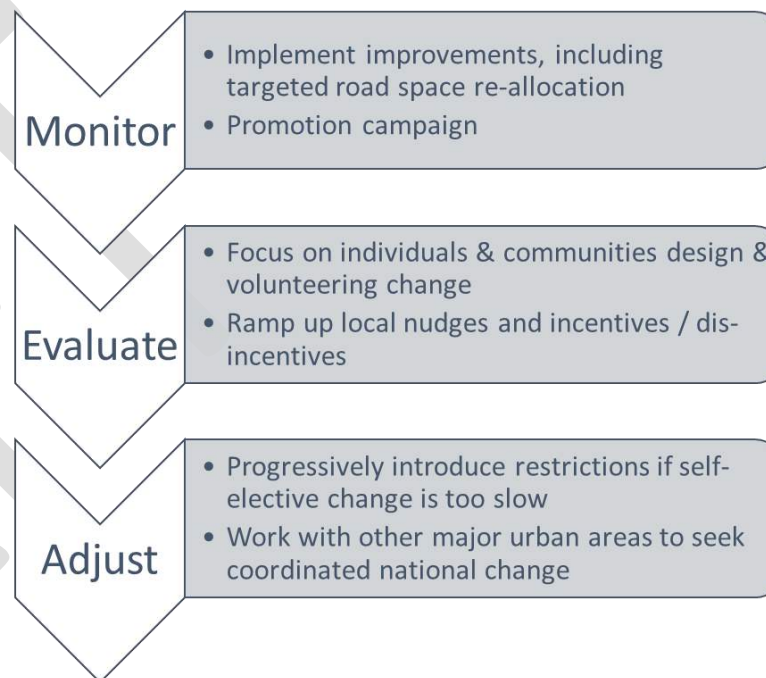
TfWM have identified an initial two schemes which could be put forward for the experimental evaluation. These are new and innovative schemes where findings on outcomes and lessons learnt would be most beneficial from this type of evaluation.

The first scheme is Mobility hubs aiming to deliver on street micro mobility and shared mobility options to residents across the West Midlands, along with a variety of other facilities such as parcel drop off points. This is a new concept where learnings to feed into the evidence base of this type of scheme will be vital.

The second scheme is the cEMV contactless payment broker which will enable contactless payment capping across all operators and modes within the West Midlands. This will be an essential component of any MaaS offering that is taken forward in the West Midlands and therefore a deeper dive evaluation into this would be an integral piece of work to take forward for further learnings.

- TfWM will actively participate in the national process evaluation as required, along with sharing relevant findings with those more widely regarding any scheme specific process evaluation findings.

TfWM are committed to sharing lessons learnt with the DfT and other Combined Authorities nationally. We have successfully participated in national evaluations previously, most notably with the TCF programme, a good model for future national evaluations. Here we have shared outputs, data, expected outcomes and progress towards these as part of the national evaluation allowing an open conversation on schemes within the programme. A clear approach and tools have been used by Transport for Quality of Life to collect regional data and information on scheme outputs that is required year on year for the evaluation across the region and nationally, with certain thematic schemes where learnings are seen as most important requiring deeper dives into their outputs, outcomes, counterfactual and secondary data requirements. This has allowed an effective and proportionate approach to the national evaluation. Likewise, Community of Practice sessions have been attended with other Combined Authorities to share lessons learnt so far for TCF and other programmes e.g. FTZ.



8.8.2 Regional Monitoring and Evaluation

In addition to supporting national monitoring and evaluation, the City Region will undertake its own process in order to monitor and evaluate the success of the CRSTS programme. Success of the CRSTS will be measured through the continual monitoring and evaluation of schemes and projects, to ensure the scheme is delivering against the overall strategic objectives. A Programme level Monitoring and Evaluation Plan will help to ensure the Project Monitoring and Evaluation Plans align to the overall outputs and outcomes to improve scheme tracking.

TfWM have a well-developed Monitoring & Evaluation (M&E) capability that builds on requirements from the 2017 Devolution Deal – indeed, a recent independent review for HM Treasury commended the WMCA on having strengthened our processes over time through a culture of learning from previous projects. We have set aside 0.5% of total CRSTS funding for M&E activities relating to the programme, amounting to £6m over five years.

TfWM has its own Monitoring and Evaluation Framework (published in March 2020) which provides an overarching monitoring and evaluation Framework for transport. The framework forms the basis of all monitoring and evaluation activities associated with transport investment across the Combined Authority, to ensure that project and programme leads have a common understanding of the following:

- Why and for what purpose monitoring and evaluation is being undertaken;
- What level of monitoring and evaluation is required;
- Who should undertake it and when; and
- How it should be done.

As the CRSTS M&E framework develops with the national evaluator in the coming months, this will be integrated into our local monitoring and evaluation approach.

8.8.3 CRSTS Monitoring and Evaluation

TfWM will develop scheme level monitoring and evaluation plans (MEP) for each scheme within the CRSTS programme. Each scheme will be assessed to identify a proportionate level of monitoring and evaluation that is to be required to understand scheme impacts. A current high-level assessment of the potential level of monitoring and evaluation has been undertaken for each scheme within the programme and will be attached to this submission. However, this may be variable to change.

The level of monitoring and evaluation undertaken will vary depending on the size of the scheme and its nature. For example, development type activities are likely to require process/ output monitoring, whilst standard monitoring and evaluation processes will be undertaken for schemes that are Business-As-Usual activities. Enhanced monitoring and evaluation will take place for schemes with significant impacts on outcomes such as air quality and safety schemes. More detailed monitoring and evaluation will also take place for more innovative schemes which require a full assessment on impact, process and value for money to fully determine scheme success and feed into the evidence base and lessons learnt for similar schemes in the future.

All schemes will require a logic map to show their theory of change and the outcomes/ impacts they aim to achieve, along with their objectives. The logic maps will be included within the MEPs with detail on data sources and data collection and evaluation methodology. The MEP will also set out milestones and timescales for this activity. This has been undertaken previously for schemes such as Birmingham City Centre metro extension which be used an example for future milestone setting and reporting.

In terms of milestones, a baseline report, Year 1 M&E report, Year 3-5 M&E report, and process interviews and reports will be undertaken at set intervals depending on the context of the scheme. These milestone reports will be required for schemes which have been identified as requiring standard monitoring and evaluation processes and above. However, there may be some variation to this structure depending on the scheme and if it is proportionate to measured outcomes beyond 1-year post scheme completion. Likewise schemes which will only require process and output monitoring will require reporting only on these factors at timescales dependent on what is being delivered within the scheme. These milestones will be dependent on other scheme delivery milestones.

Where a counterfactual is deemed necessary/ proportionate/ available for the scheme evaluation, this will be identified within the MEP (looking for areas of similar size, transport network etc.) along with information on how data from this area will be obtained. Where a counterfactual is not applicable, a theory of change approach will be used using the scheme logic map to access its attribution to outcomes/ impacts seen. The MEP will set out how the key findings and learning drawn out from the monitoring and evaluation will be disseminated and shared with DfT, across

TfWM and more widely across the region and nationally. The baseline, Year 1 and Year 3/5 reports will be produced and shared as part of the formal reporting process. Likewise, we will take part in any lessons learnt sharing as part of the national evaluation activities. There may also be the potential to share further findings via conference presentation for the most innovative schemes.

The MEP structure will follow previous good examples of MEPs produced for other various TfWM schemes including that for Sprint, University Station, and the recent MEP for Dudley Interchange. For the majority of these schemes requiring standard monitoring or above, the production of MEPs and undertaking of the monitoring activity will likely be required to be done by external consultants due to internal capabilities. However, schemes that likely only require output/ process monitoring may be able to be undertaken in-house by TfWM.

The MEP for each scheme and relevant logic maps will contain their own detailed outcomes which they aim to achieve from the programme. This will be developed during the scheme business case development. However, all CRSTS schemes will contribute outcomes towards achieving the TfWM Local Transport Plan Green Paper 'Five motives for change' to tackle key challenges within the region. These are listed below:

1. Sustaining economic success
2. Creating a fairer society
3. Supporting local communities and places
4. Becoming more active
5. Tackling climate emergency

These objectives link to achieving the following outcomes from the CRSTS programme as mentioned within the previous CRSTS bid submission:

- Accessible and connected public transport system for all
- Affordable public transport for all
- Simplified public transport network and fares/ payment system
- Reduced car reliance
- Improved congestion and air quality
- Decarbonised transport system
- Increased levels active travel
- Mode shift to public transport and micro mobility
- Economic recovery from COVID -19
- Improved road safety and safer streets for active travel
- Residents connected to jobs, education opportunities and services
- Levelling up
- Increase EV take up among residents and freight
- Improved health and well-being

8.8.3.1 Logic Maps

As previously outlined, logic maps will be required for each scheme within the CRSTS to outline its theory of change and the outcomes/ impacts they aim to achieve, along with their objectives.

Example logic maps have been produced for each of the six themes within the CRSTS programme to show programme outcomes and impacts (see Figure 23 to Figure 28).

Figure 23: Theme 1: Connecting our Places Logic Map

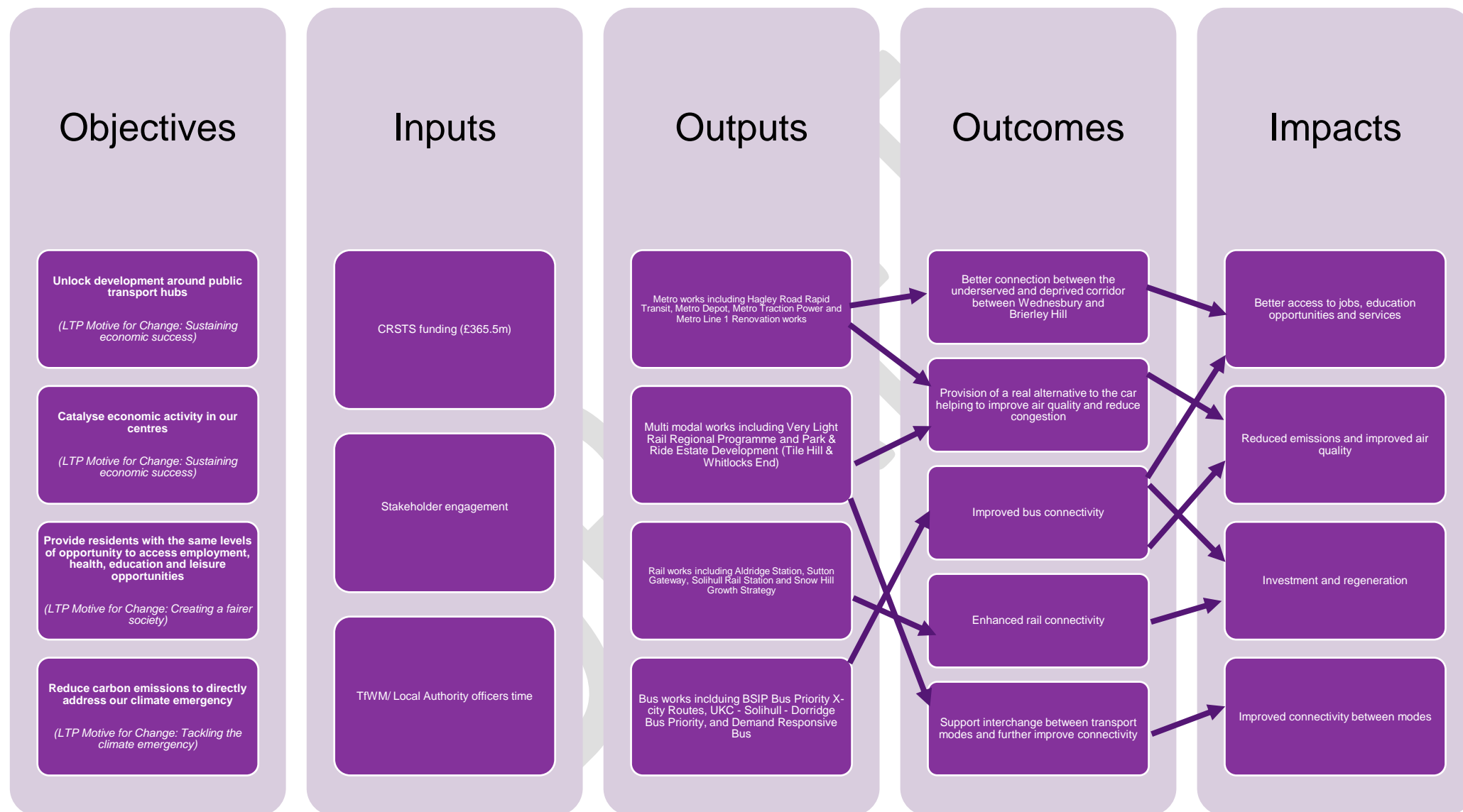


Figure 24: Theme 2: Supporting Inclusive Growth Logic Map

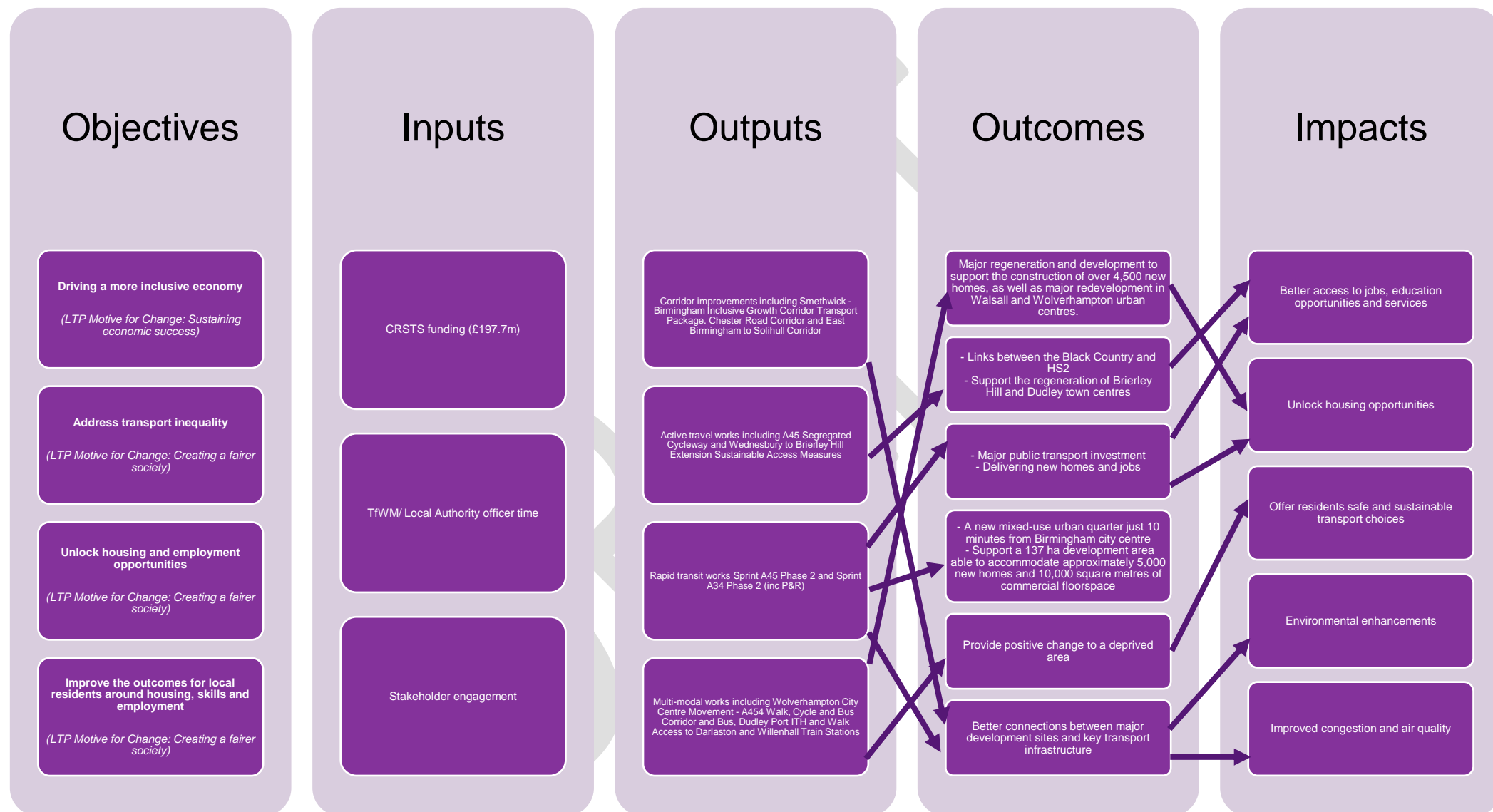


Figure 25: Theme 3: Healthy Streets and Spaces Logic Map

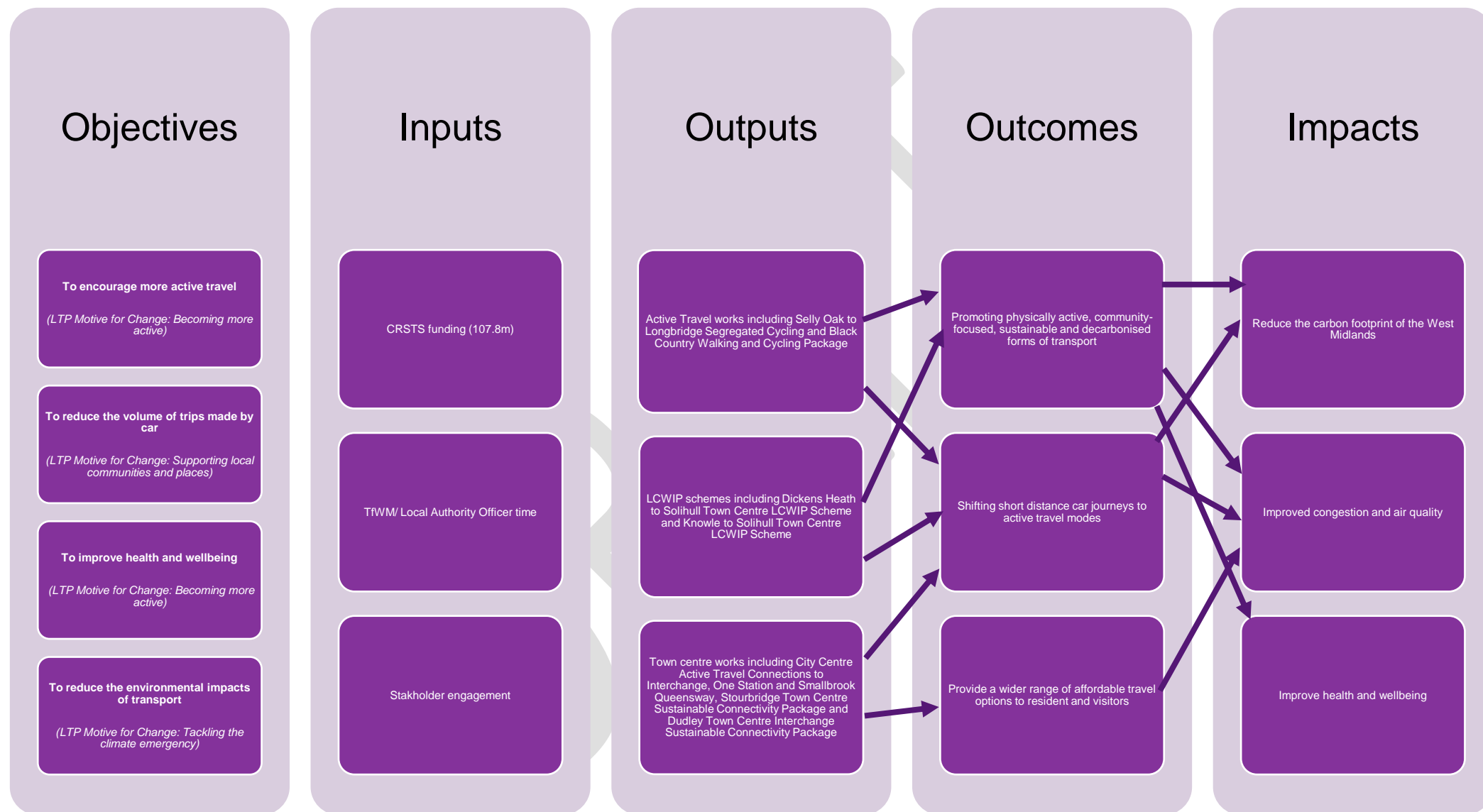


Figure 26: Theme 4: Creating Resilient Networks and Communities Logic Map

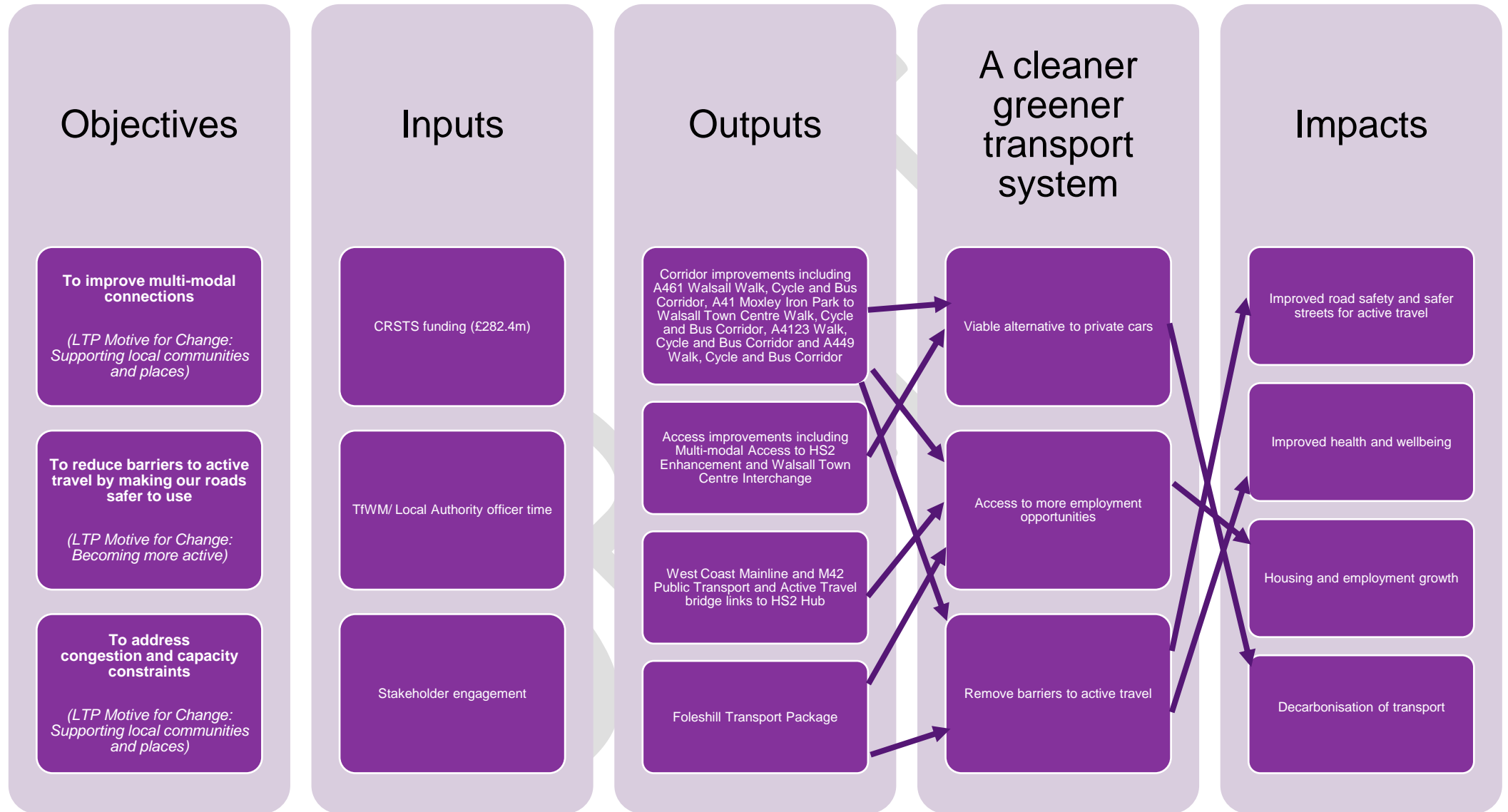


Figure 27: Theme 5: Delivering a Green Revolution Logic Map

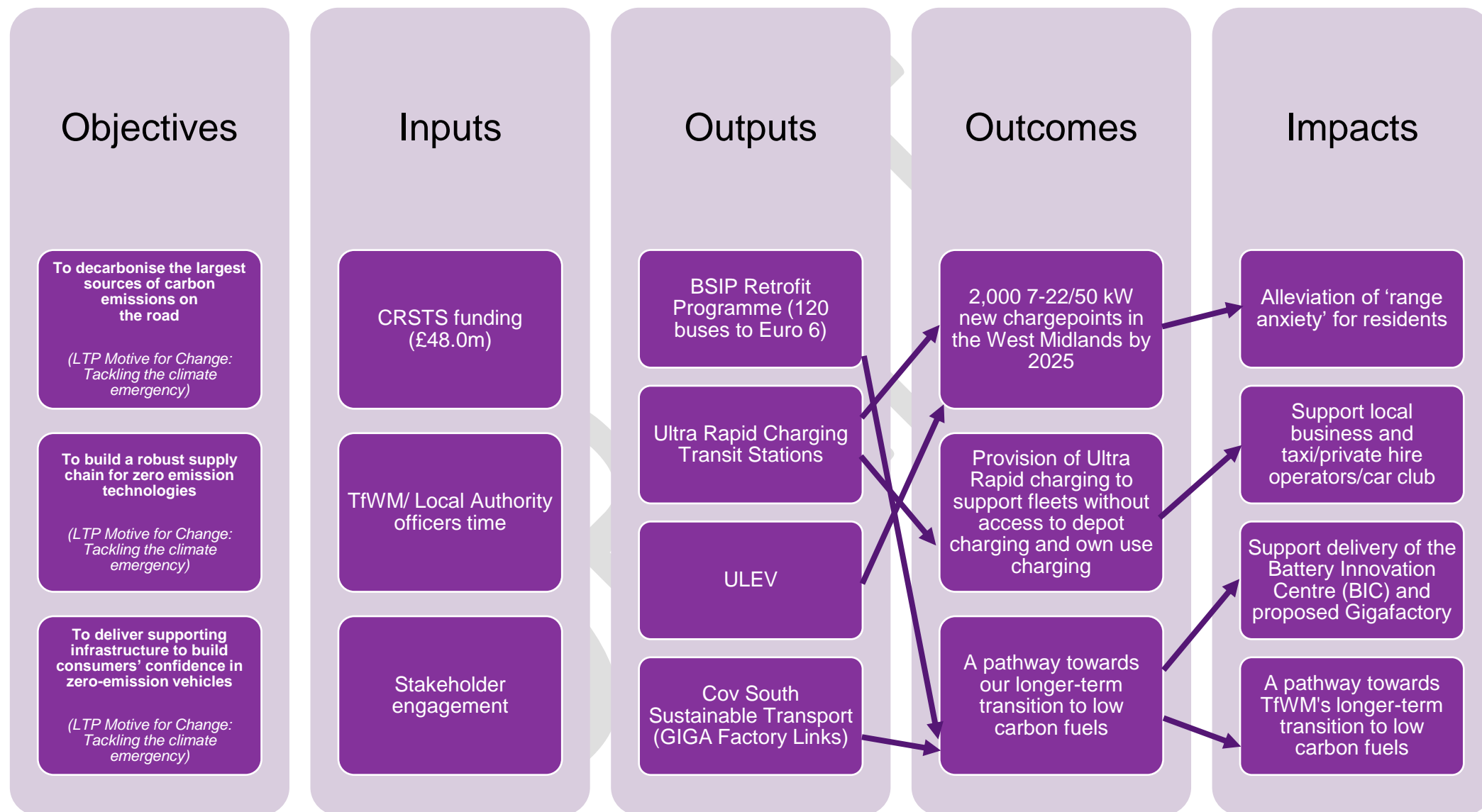


Figure 28: Theme 6: Making Behaviour Change Easy Logic Map

