

BRISTOL TEMPLE QUARTER ENTERPRISE ZONE:

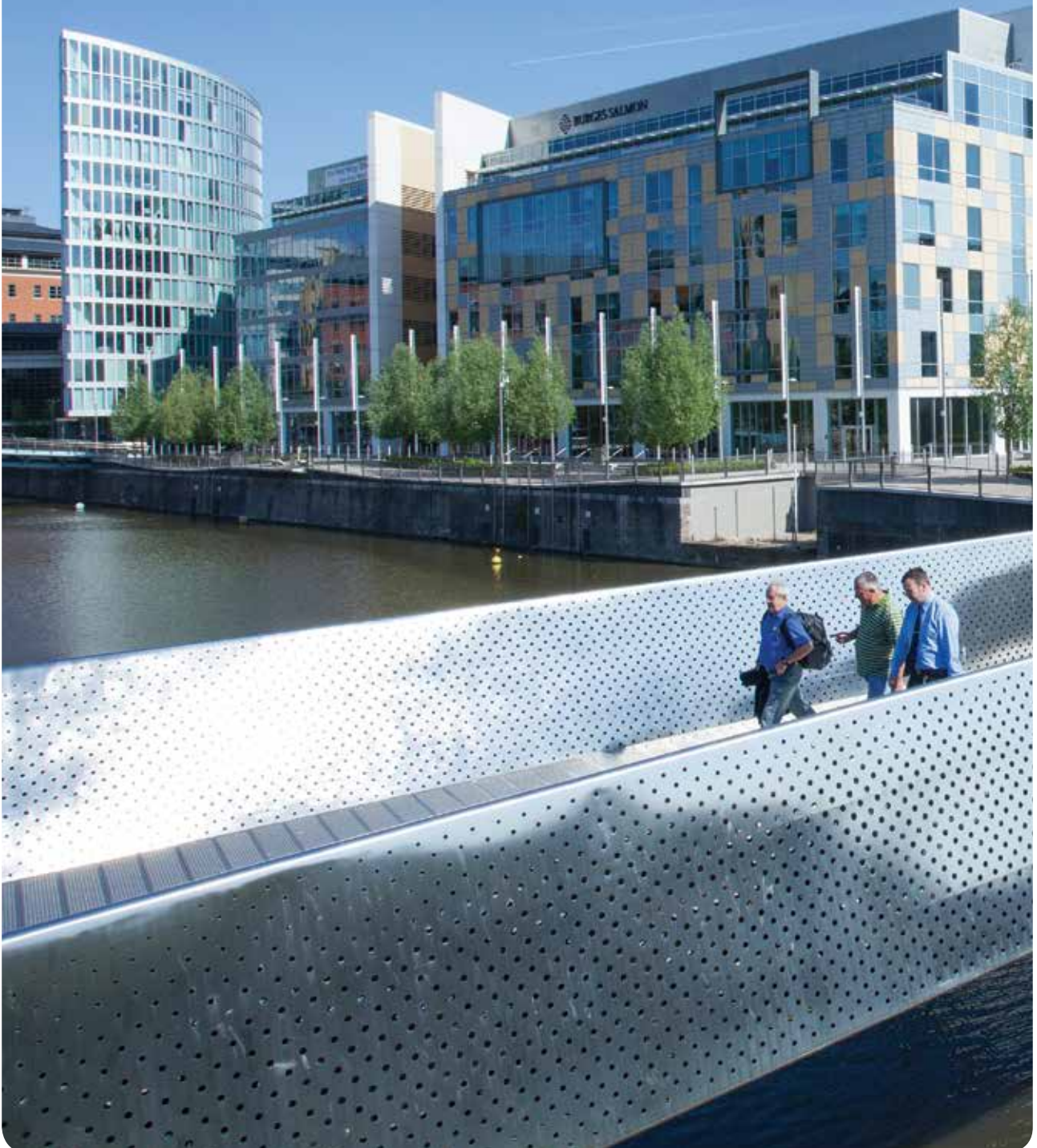
Sustainable Urban Mobility Plan



Bristol Temple Quarter
Enterprise Zone



The Bristol Temple Quarter Enterprise Zone is developing to incorporate 17,000 new jobs over the next 25 years.



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A Sustainable Urban Mobility Plan (SUMP) is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. In the UK, SUMPs are often recognised as Local Transport Plans, however Bristol City Council has taken a step further to apply European best practice of following a process to produce a SUMP, which focusses on the particular area of the city, the Bristol Temple Quarter Enterprise Zone (BTQEZ).

The BTQEZ is located in the heart of the city and is developing over the next 25 years to incorporate 17,000 new jobs and a 12,000 seat arena. As part of this development, there are a number of projects and infrastructure improvements proposed to enable access and movement to the BTQEZ, however there is currently no overarching transport strategy to tie them together. This SUMP, has been produced to fill this gap. The SUMP will sit alongside the Spatial Framework for the BTQEZ, which is an iterative, area-specific spatial plan that is referred to by adopted policy by the Bristol Central Area Plan. Therefore, this SUMP is material consideration for new development in the BTQEZ.

This SUMP covers the first five years of the development of the BTQEZ, however it also contains aspirational measures that could be included in future iterations for the next phases of development. Not only does it outline the infrastructure improvements for the next five years to enable access and movement to the BTQEZ, it also details the proposed policy and behavioural measures to be implemented to encourage the use of sustainable travel to the area.

The document is broadly laid out to tell a story from the existing situation to how the area will be adapted to accommodate the new development. There is a chapter to set the scene, which outlines the current transport context and the strengths, weaknesses, opportunities and threats facing the BTQEZ. This is followed by a chapter that sets the vision, objectives and targets for the SUMP.

The target for this SUMP is to:

- Reduce vehicle trips to the BTQEZ by 15% as a share of modal split by 2037;

The remainder of the document sets out how these targets will be achieved over the next five years and identifies the measures to achieve these targets:

- Hardware - physical infrastructure measures
- Software - operational and policy measures
- Mindware - behavioural measures that can influence use of sustainable transport

Each of these sections set out the measures that are funded and will be delivered over the next five years, as well as those that are scored highly but do not currently have funding secured and are aspirational for future SUMP iterations.

The document is concluded by outlining the approaches taken to engage key stakeholders and the public with this document, which includes internal and external engagement workshops and public consultation exercises in conjunction with the consultation and publication of the Spatial Framework for the BTQEZ.

1. Introduction

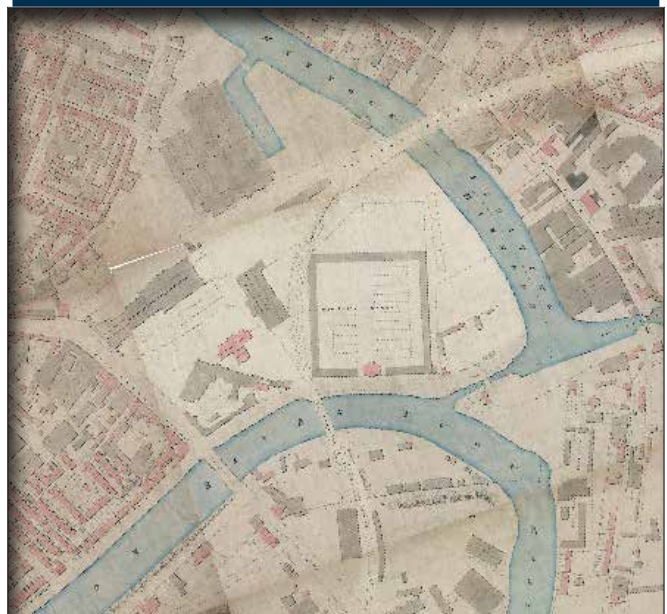
“
*Imagine your city in 20 years: what would you want it to look like?
A place where children can play safely? Where the air is clean?
Where you can walk to do your shopping?
With lots of parks and green space? Where businesses can prosper?*
”

European Union, 2013: Developing and Implementing a Sustainable Urban Mobility Plan

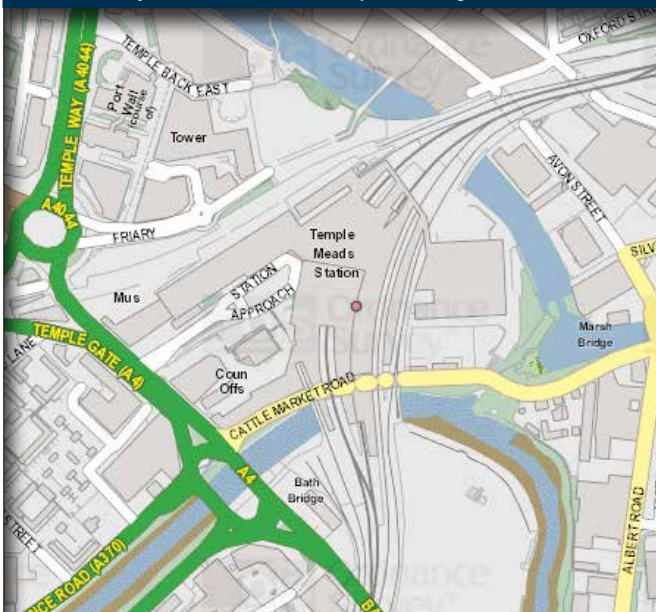
Before Temple Meads was built - Map section from 1828



After Temple Meads was built - Map section from 1855



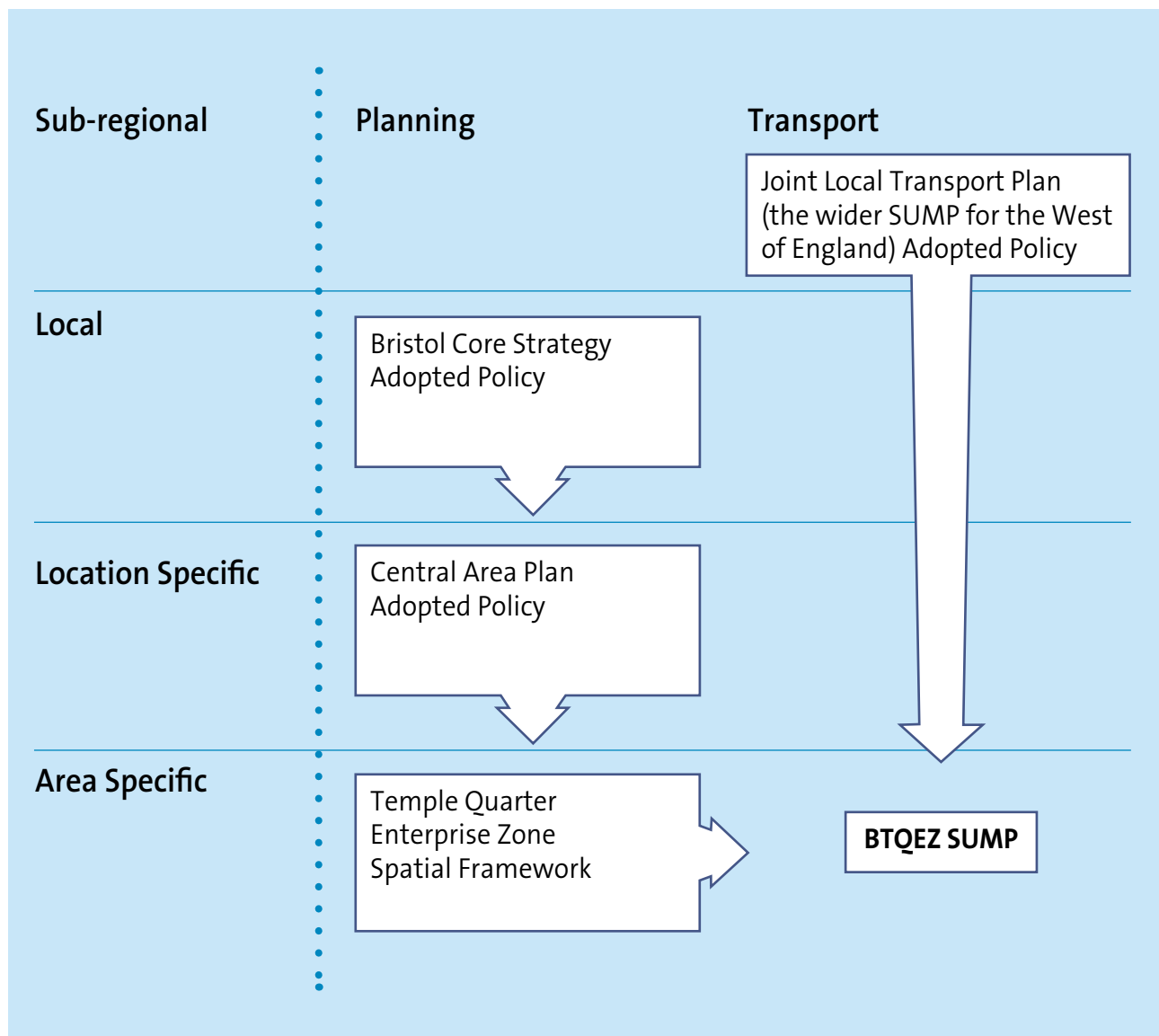
Temple Meads now - Map section from 2013



THE FUTURE ?

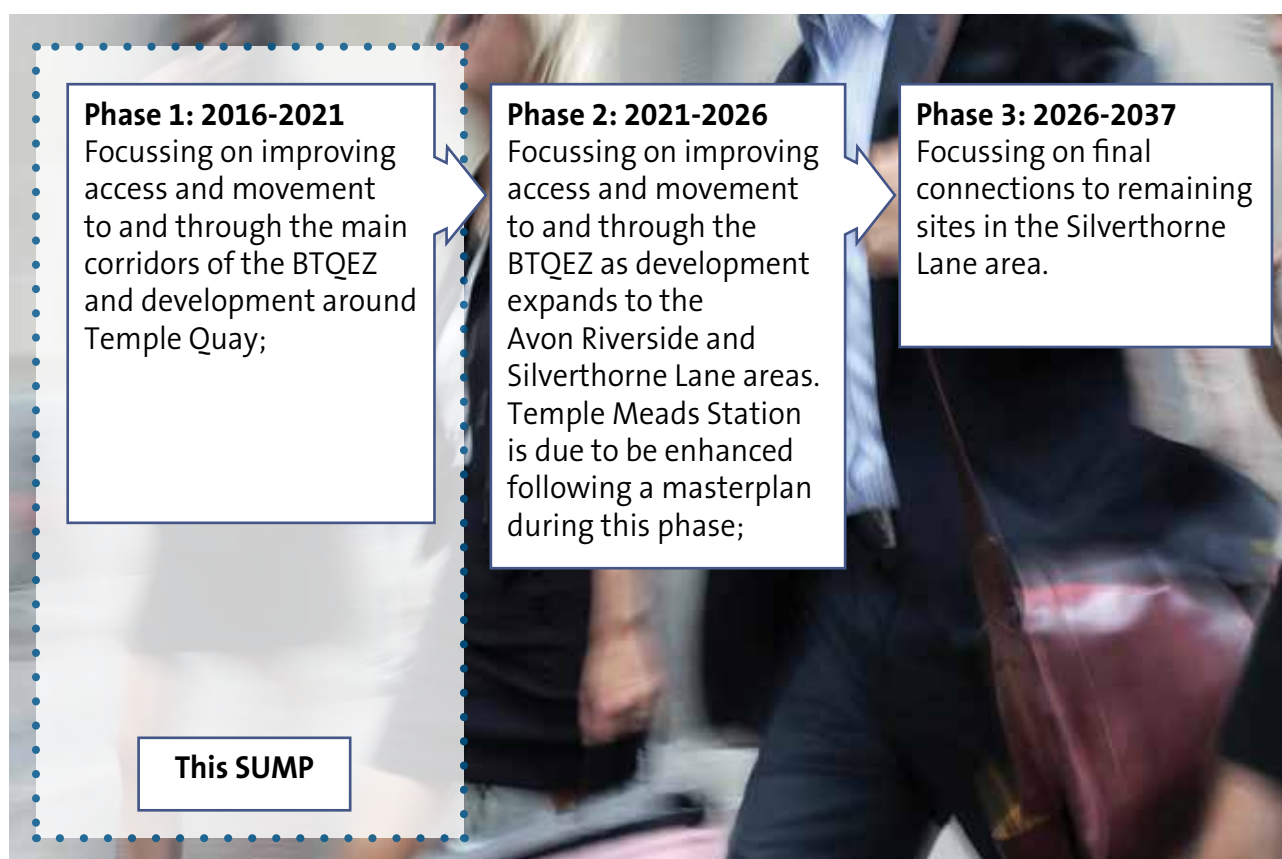
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A Sustainable Urban Mobility Plan (SUMP) is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles. 'SUMP' is a term recognised throughout Europe, although in the UK they are better known as Local Transport Plans. In Bristol, the Local Transport Plan has been produced in partnership with the other West of England authorities: Bath and North East Somerset, North Somerset and South Gloucestershire, therefore our wider SUMP is known as the Joint Local Transport Plan. In addition to this, Bristol City Council has taken a further step to follow EU best practice to develop an area specific SUMP for the BTQEZ. The development of this SUMP builds on present plans and processes to set a clear vision, targets and measures to enable movement to and around the BTQEZ and rationalises the access and movement elements for the Area. The EU term 'SUMP' contains the word 'mobility', which refers to transport and how people get around in this context and should not be confused with any other meaning of the word mobility.



The SUMP sits alongside the Spatial Framework for the BTQEZ, which is an iterative spatial plan that is designed to guide development over the various phases of the lifetime of the BTQEZ regeneration project. The Spatial Framework is referenced in the Bristol Central Area Plan as the overall design framework that seeks to deliver the vision for the area. The Bristol Central Area Plan forms part of the overall Bristol Local Plan. From a transport policy perspective, the SUMP supports the Joint Local Transport Plan 3 (JLTP3) for the West of England as it draws together the major projects identified in the JLTP3 that influence movement to and through the BTQEZ and presents them in line with other supporting measures that will contribute towards improving sustainable mobility and all the benefits that come with it as the area develops. The SUMP is a strategy that brings together mobility proposals for the BTQEZ and sets an overall target to ensure development in the BTQEZ is sustainable and attractive to investors. As such, the policy route as outlined on the previous page ensures that the SUMP is material consideration for new development.

The development in the BTQEZ will be phased, with 4,000 jobs to be accommodated in the first five years (up to 2020) and the full 17,000 jobs within 25 years (2037). The Spatial Framework refers to three phases of development:



This SUMP covers phase 1, as funding is secured for major transport infrastructure and engagement opportunities to ensure access and movement to the BTQEZ. Nevertheless, the SUMP process has been used to appraise all measures for future phases and development opportunities. Updated SUMP documents will be produced in time for each phase of development.

*Focussing on improving
access and movement to and
through the main corridors*



2. SUMP: What it is and what it's not



It is...

> **It is...**

A document that brings together mobility proposals to ensure development is sustainable whilst being an attractive place in which to invest.

> **It is...**

A plan that shows the first five years of development up to 2020 where funding is already secured.

> **It is...**

A strategy that ties together the infrastructure work being carried out, as well as proposed operational and behaviour change measures.

> **It is...**

An overview of the access and movement challenges of developing the BTQEZ, and the proposed enabling measures for the BTQEZ as a whole area.

It is not...

> **It is not...**

A long term aspirational plan for transport for the BTQEZ, as its purpose is to demonstrate transport schemes that already have funding secured. However, future phases of the SUMP will be referred to throughout this iteration, along with forward thinking proposals that would be subject to feasibility studies and funding.

> **It is not...**

An infrastructure public consultation document for specific sites- individual schemes will have separate consultation processes.

> **It is not...**

A mitigation document for specific sites, for instance, the Bristol Arena, as this will have its own transport assessment compiled as part of its development. However, given the SUMP's purpose to propose enabling measures for the BTQEZ as a whole area, the benefits for individual sites can be identified.

The BTQEZ focused SUMP ties together the mobility plans and objectives for the BTQEZ into one document and presents the added value of the proposed transport measures.



3. Benefits of a SUMP



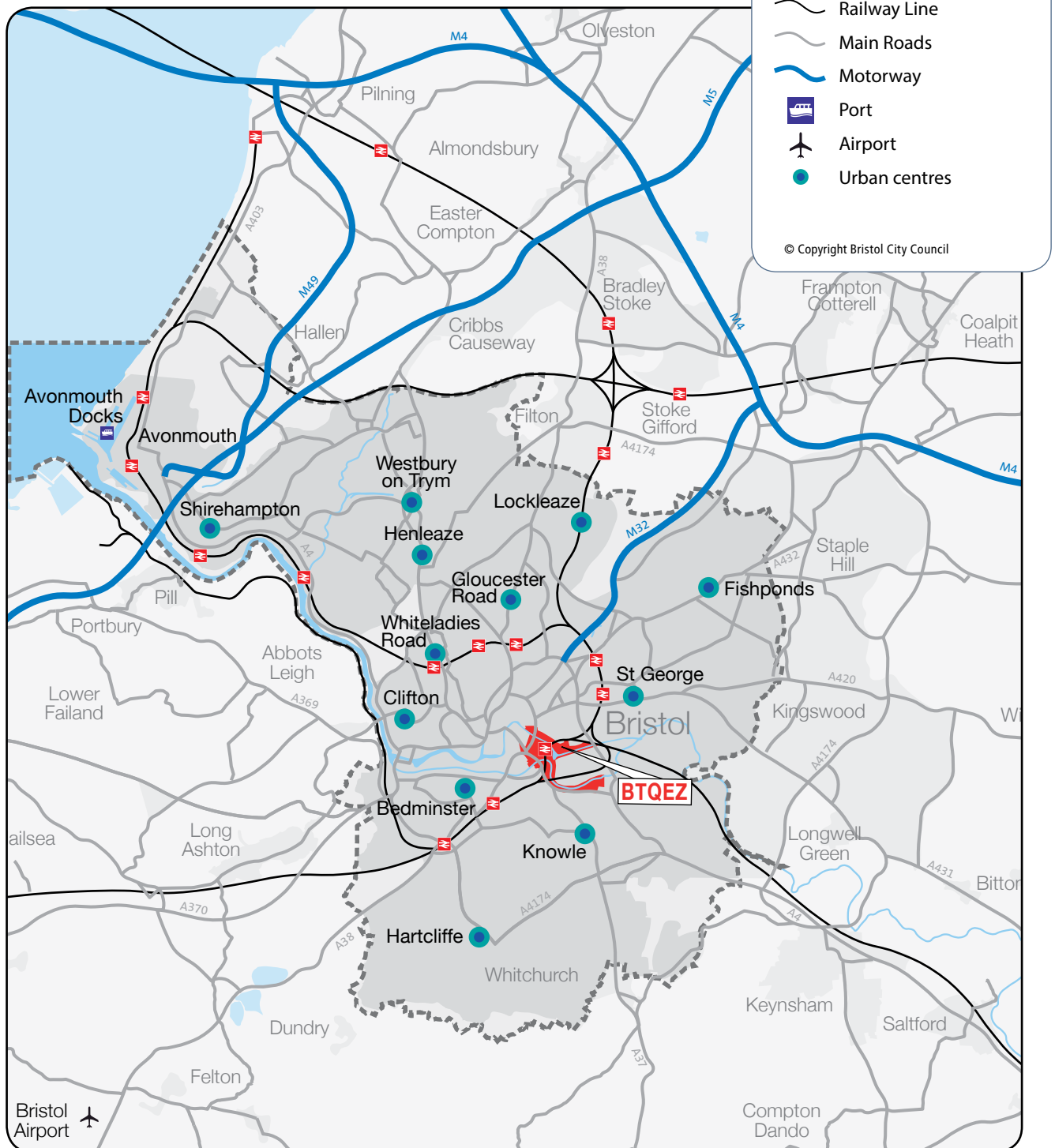
A benefit of a BTQEZ focussed SUMP over existing transport policy is that it ties together the mobility plans and objectives for the BTQEZ into one document and presents the added value of the proposed transport measures. Below is a list of the main arguments for a SUMP approach and the added value sustainable mobility can bring:

- a. Throughout the EU there is strong evidence that the presence of a SUMP raises quality of life in an urban area by co-ordinating policies to create more attractive spaces, improved road safety, better health and less air and noise pollution.
- b. Mobility is an enabler for local economy and a healthier environment with reduced congestion helps to attract new businesses to an area, which is the main focus for the BTQEZ. The presence of a SUMP provides evidence that there is a forward thinking mobility plan and therefore provides a better business case as a sustainable, green capital in which to invest.
- c. Sustainable mobility leads to better air quality, less noise and better health for citizens and the SUMP document ties together the objectives that will contribute to improving these in the BTQEZ.
- d. The SUMP is a tool that presents multi-modal door-to-door transport solutions to ensure the needs of citizens are addressed.
- e. With financial resources limited, the SUMP process draws out a range of measures that facilitate mobility, as opposed to focusing solely on road-based infrastructure.
- f. A basic principle of the SUMP is to involve our citizens in its development and implementation to ensure that we adopt a strategy that encompasses a broad range of transport needs from across the social spectrum..
- g. The position of the SUMP as part of the Spatial Framework for the BTQEZ provides an integrated, interdisciplinary and collaborative approach to planning and helps mobility to be considered in a broader context.

4. Setting the scene



Wider location context:



With Bristol Temple Meads Station at its heart, the BTQEZ is in a key location to connect by direct train to London Paddington and is a gateway to the West of England sub-region. Connections by air from Bristol Airport, by road from links to motorway networks and by sea from Avonmouth and Royal Portbury Docks ensure that the BTQEZ is well connected on a national and international level. Locally, investment in public transport, cycling and walking infrastructure ensures that the BTQEZ is easily accessible by numerous methods.

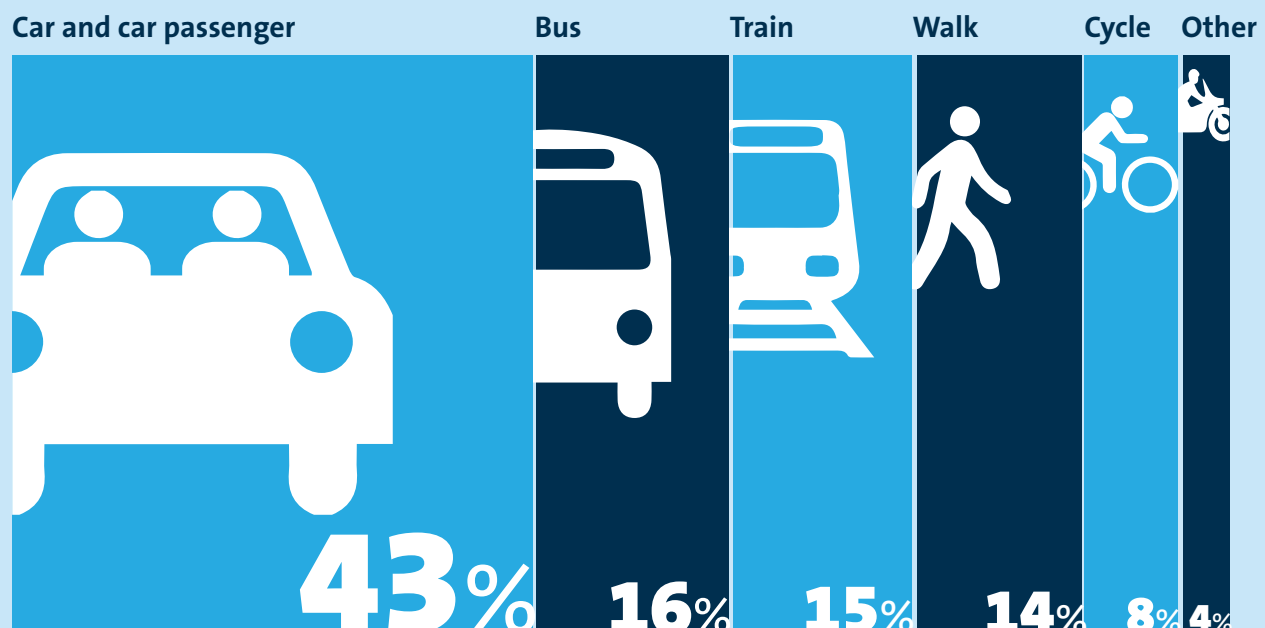
4. Setting the scene

The BTQEZ is proposed to expand to include **17,000 new jobs over the next 25 years**, as well as a **12,000 seat arena venue** and associated leisure and retail uses. The focus of enabling access to the BTQEZ is derived from a study (Halcrow, 2012) that assessed existing travel patterns around the BTQEZ and modelled projected figures for the proposed 17,000 new jobs onto existing infrastructure. The outcome of the study was that the existing transport network cannot easily accommodate the growth in numbers if modal split remains as it is. Therefore the recommendation of the report is that significant investment must be made in transport infrastructure to meet the demand for travel to the BTQEZ.

This investment will follow the vision for the BTQEZ, which is to regenerate the area to establish a creative, innovative, well-connected, low carbon hub. Bristol has previously been recognised as following this vision through its transport investment as the UK's first Cycling City. This investment will continue the commitment to enable access by sustainable modes of transport, which contributed to Bristol being awarded the title of European Green Capital in 2015.

Enhancements in sustainable methods of travel such as public transport, cycling and walking will not only ease congestion in and adjacent to the Zone, but also lead to improved air quality and a healthier workforce by allowing physical activity to be incorporated into the daily commute.

The current modal split of employees accessing the BTQEZ is as follows:



Source: Halcrow, 2012 Transport Report, Bristol Temple Quarter Enterprise Zone

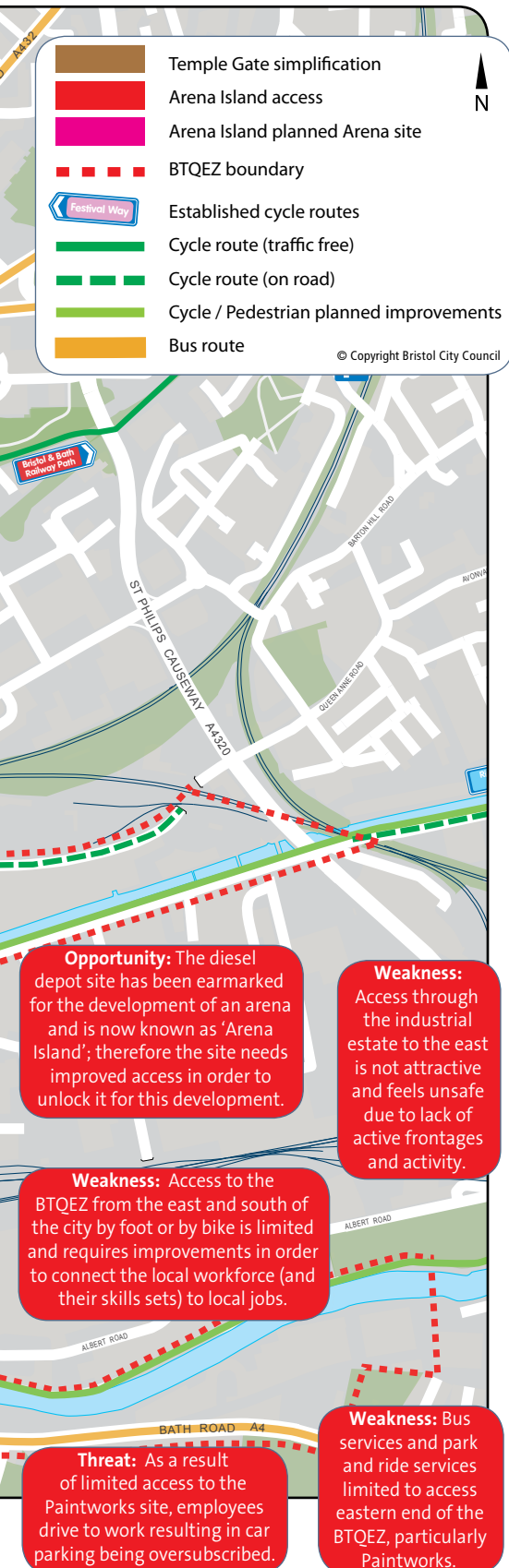
This modal split is for those traveling to the BTQEZ as the destination point; however the Temple Gate area carries large amounts of traffic travelling to other destinations. This SUMP seeks to influence and enable journeys to the BTQEZ, however many of the measures proposed in this document will benefit the entire Temple Gate area to improve the movement through this busy section of the road network and facilitate more direct pedestrian and cycle trips.

The BTQEZ and the surrounding areas are currently accessible by a number of methods, although there are clear gaps that need to be filled:



4. Setting the scene

The BTQEZ is centrally located and is accessible by many modes of transport, however given the level of expected growth over coming years, we must seek to reduce car use to and through the area to reduce congestion and ensure the BTQEZ is an attractive location for businesses to base themselves. The area therefore has a number of strengths, weaknesses, opportunities and threats that this SUMP will seek to enhance or improve.



Strengths

Centrally located with good connections:

- > Train (strategic and local services);
- > Connecting services to bus hubs;
- > Bike from the north and west;
- > Foot from the north and west;
- > Capable of being spatially integrated into the city centre environment and to feel connected from the pedestrian's perspective.

Weaknesses

- > Temple Gate is currently at capacity and is a complex gyratory that prevents free flowing traffic.
- > Existing car dominated road layout creates major physical barriers and a poor environment for walking and cycling.
- > Poor connections for pedestrians and cyclists to the south and east of the city, particularly through the industrial estate.
- > Poor connections from existing bus hubs to connect to the BTQEZ.
- > Poor legibility as a public transport interchange.
- > Poor signage and connectivity from Temple Meads station.
- > Bus services and park and ride services limited to access eastern end of the BTQEZ, particularly Paintworks.

Opportunities

Improvements to enable access to the BTQEZ for pedestrians, cyclists and public transport users will make the area an attractive place for businesses to invest.

The diesel depot site has been earmarked for the development of an arena and is now known as 'Arena Island'; therefore the site needs improved access in order to unlock it for this development.

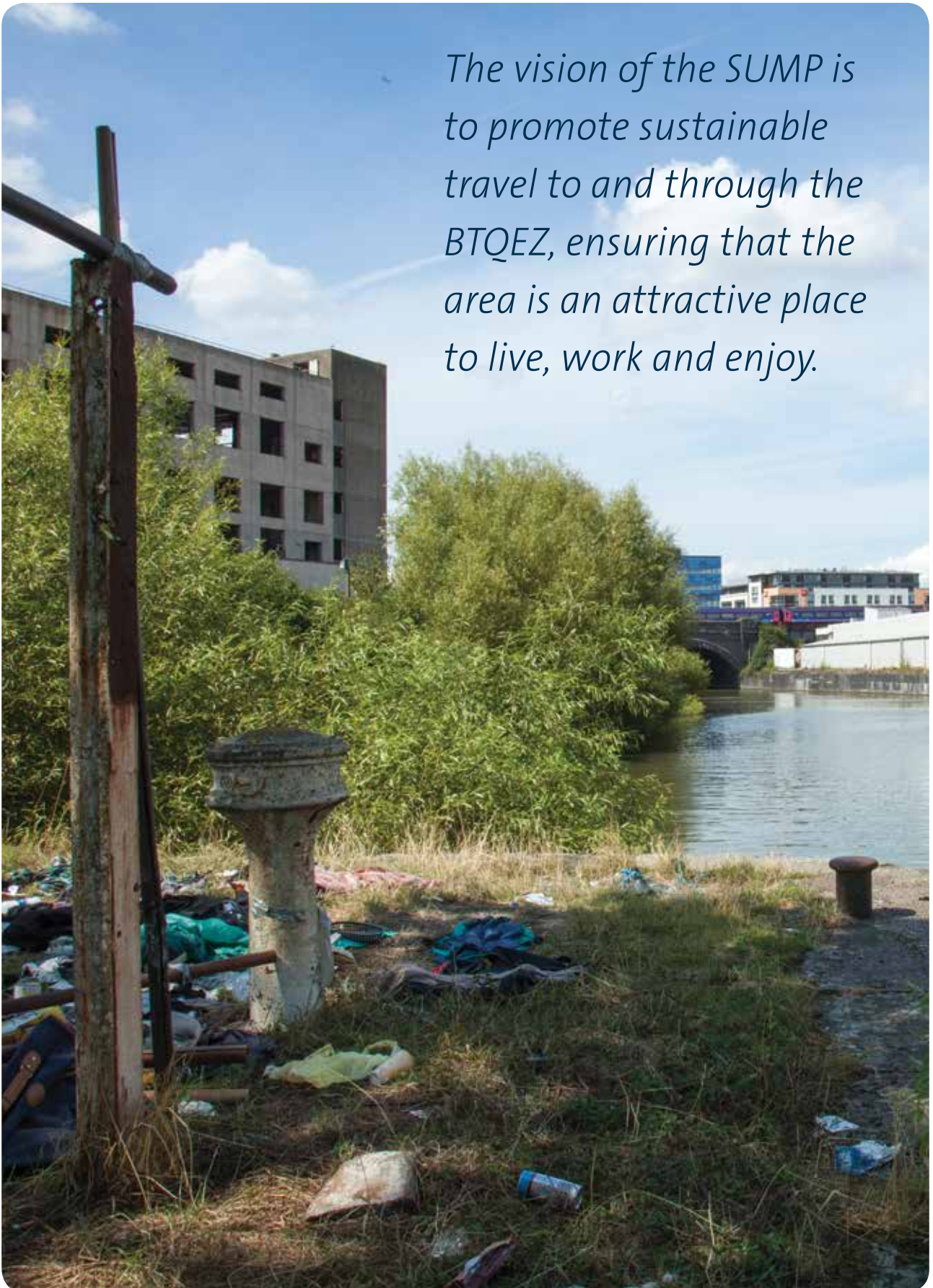
Threats

If access is not enabled to the BTQEZ for pedestrians, cyclists and public transport users, mode shift away from cars will not occur and the existing highway network will not be able cope with additional demand.

This will impact on existing mode choice for current network users as well as for new trips caused by the development.

Habits will begin to form amongst employees driving to work, resulting in car parking being oversubscribed, making it unattractive to potential investors.

The vision of the SUMP is to promote sustainable travel to and through the BTQEZ, ensuring that the area is an attractive place to live, work and enjoy.



5. Vision, objectives & target of the SUMP



The vision of the SUMP is to promote sustainable travel to and through the BTQEZ, ensuring that the area is an attractive place to live, work and enjoy:

> *Objectives*

We aim to realise this vision by setting out our priorities and objectives for access and movement as the area is developed. The objectives for the BTQEZ are:

- To facilitate access by active travel to create a healthy and happy workforce;
- To enable movement and increasing the availability of sustainable transport modes to access the BTQEZ;
- To raise Bristol's profile as a prosperous and attractive city in which to invest;
- To involve the community in adapting and implementing the SUMP measures.
- To ensure that the BTQEZ is accessible by all age groups, families and those with mobility issues.

> *Outcomes*

The outcomes of meeting these objectives would be:

- Modal shift towards more active and sustainable modes of travel;
- Reduced levels of congestion;
- Increased levels of investment;
- Increased levels of involvement and participation from local community.

> *Benefits*

The benefits of these outcomes are numerous, including:

- Improved health and wellbeing among the community and workforce;
- Improved air quality;
- Reduced carbon emissions arising from transport;
- More reliable journey times;
- Reduced levels of noise;
- Improved public realm;
- Improved safety and perceived levels of safety;
- Increased options and reduced barriers to active and sustainable travel;
- Improved quality of life of community and workforce.



5. Vision, objectives & target of the SUMP

We need a measureable target by which we can monitor our progress in realising the vision for access and movement to and through the BTQEZ. As outlined in an earlier section the existing transport network cannot accommodate the proposed growth if modal split remains as it is. There are a number of measures identified in this plan to improve connectivity to the BTQEZ, relating to various modes of transport. As such it is difficult to identify single targets for each method of sustainable travel. Efforts will focus on reducing vehicle trips to the BTQEZ, by improving access to sustainable transport through infrastructure improvements and implementing policy and behaviour change measures. The target for the SUMP is to: **Reduce vehicle trips to the BTQEZ by 15% by 2037 as a share of total modal split.**

This target was calculated taking into account the fact that a number of people are already based within the BTQEZ. In order for there to be a manageable impact on current network capacity the travel behaviours of existing employees has to change as well as ensuring that modal share for car use for all new employees is at a minimum. If these sub-targets are achieved, this will free up road space for sustainable modes of transport to reduce congestion, improve safety, improve air quality and improve the general experience of traveling to the BTQEZ.

The target will be monitored through surveys, which will be introduced in full in the Mindware chapter and will capture how people travelling to the BTQEZ are changing their behaviour as a result of the measures set out in this SUMP. From the surveys, we will be able to extrapolate data on reductions in fuel consumption and carbon emissions and report this in future SUMP iterations. In terms of improvements to road safety, the infrastructure measures that will be introduced in the Hardware chapter aim to stabilise the number of pedestrians and cyclists killed or seriously injured as the number of people accessing the BTQEZ increases over the coming years. Given that this SUMP covers an area that is developing, research will be carried out with regards to establishing current KSI figures for those travelling to the BTQEZ (as opposed to through the BTQEZ) and will report progress against this in future SUMP iterations.



Street Space



This demonstrates the amount of street space required to accommodate 50 people travelling to the BTQEZ. As demonstrated, street space is more congested when 50 people each travel separately in cars. Our target seeks to reduce, re-mode, re-time or re-route journeys to minimise congestion and create a better quality space. To do this we will implement a number of measures to enable access and movement to the BTQEZ and encourage the use of active and sustainable modes.

6. Identifying SUMP measures to achieve target



A major part of the SUMP process is to score an extensive list of pre-determined measures to identify those that would be most suitable for the BTQEZ. The broad, wide-ranging pre-determined list of measures were categorised as follows:

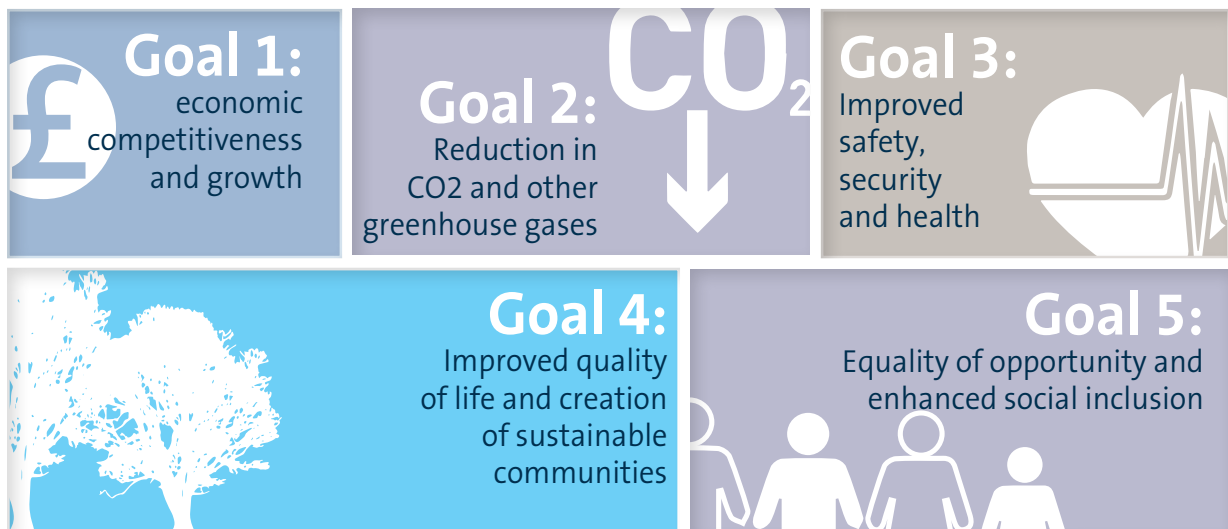


6. Identifying SUMP measures to achieve target

The list of measures is extensive and covers all transport proposals for the BTQEZ as well as providing suggested measures that could be considered for the BTQEZ. Each measure was scored and given a 'sense check' against a number of factors to identify measures that would be most suitable and deliverable in the BTQEZ. The following questions were asked:

- **Has it worked (nationally or locally)?**
- **Can it work here?**
- **Can it be delivered here, technically?**
- **Can it be delivered here, organisationally?**
- **Can it be delivered here, public/customer acceptability?**
- **Is it affordable?**
- **What is the benefit to cost ratio?**

And whether the measures met the following goals:

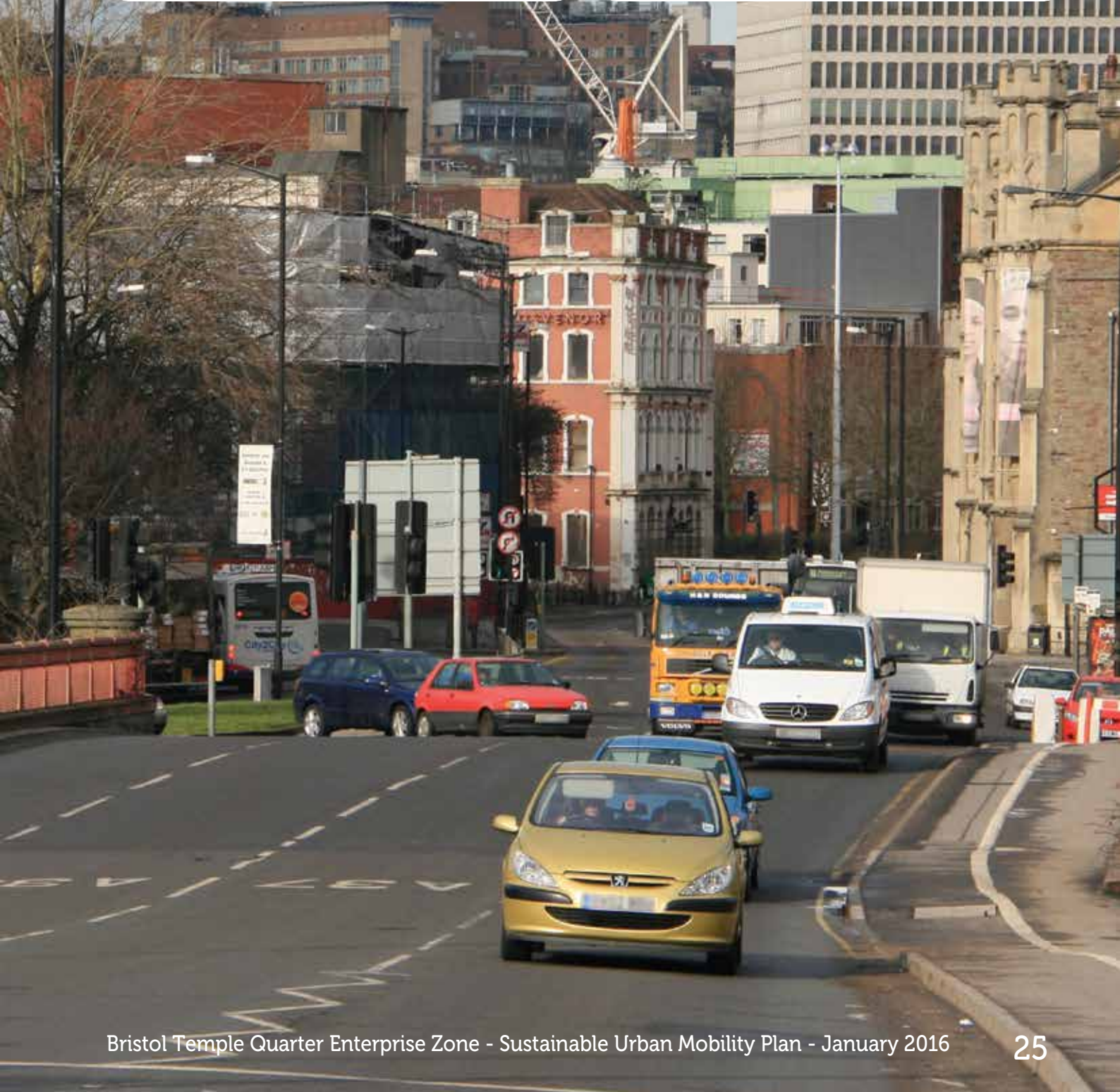


Scoring each measure allowed an overall SUMP score to be generated, which allowed measures to be identified that would meet the target and deliver the overall vision for the BTQEZ.

The list of measures was then divided into the following categories:

- **Hardware** – the physical measures that focus on infrastructure improvements to enable access and movement;
- **Software** – the operational measures that focus on aspects that will then implemented through changes in policy or practice to enable the hardware to be best utilised;
- **Mindware** – the behavioural measures that focus on encouraging changes in behaviour and engaging with people to use the hardware and software.





To enable access to and through the BTQEZ as development grows, a number of physical alterations must be made to the transport infrastructure. A programme of infrastructure projects is to be delivered to improve access and make it easier to travel to the BTQEZ more sustainably.

The projects include a mix of improved walking and cycling routes, enhanced access to key development sites and changes to the Temple Gate 'corridor'. The simplification of this corridor will enable trips to be made more effectively by a range of modes, by providing improved links and legibility between public transport stops and the rail station. Much of the funding for the infrastructure improvements comes from the West of England Local Enterprise Partnership's Revolving Infrastructure Fund. Some funding is from partners such as the Homes and Communities Agency (HCA) to unlock key sites in their ownership. This SUMP covers the first five years of the BTQEZ development, so the projects set out over the coming pages are those that are funded to be delivered within this timescale. Longer term spatial aspirations for the BTQEZ are contained within the Spatial Framework. Future transport infrastructure projects beyond the first 5 years will be covered in future SUMP.



The infrastructure projects that are to be delivered over the first five years of the BTQEZ development are as follows:

1. Temple Gate

Simplifying the highway network to improve access by walking, cycling and public transport without reducing traffic capacity. This project will provide a more effective transport interchange for the area by improving the links and legibility between public transport stops and the rail station.

2. Arena Island access

Improved access to Arena Island, which is to be developed into a 12,000 seat arena and associated leisure uses. Access improvements include new bridges across the river into the site.

3. Temple Greenways

New pedestrian and cycle connections surrounding Bristol Temple Meads and the former GPO site: a floating pontoon boardwalk connecting Temple Quay to Totterdown Basin (Harbour Walkway); improvements to Cattle Market Road.

4. Connections to bus hubs at Old Market and Redcliffe

Improved pedestrian connections to the BTQEZ from existing concentrations of citywide bus services.

5. Feeder Road

Improvements to the pedestrian and cycle connection between the BTQEZ and east Bristol.

6. Clarence Road

Improvements to the pedestrian and cycle connection between the BTQEZ and south Bristol/ North Somerset.

9. Improvements to The Friary

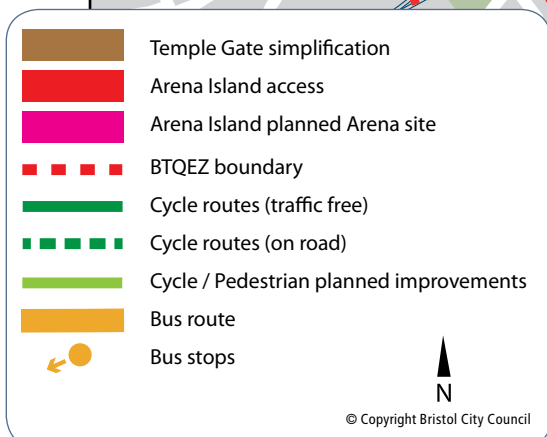
In order to improve access to Temple Meads station by public transport and taxis, improvements are due to be made to The Friary to better accommodate movements.

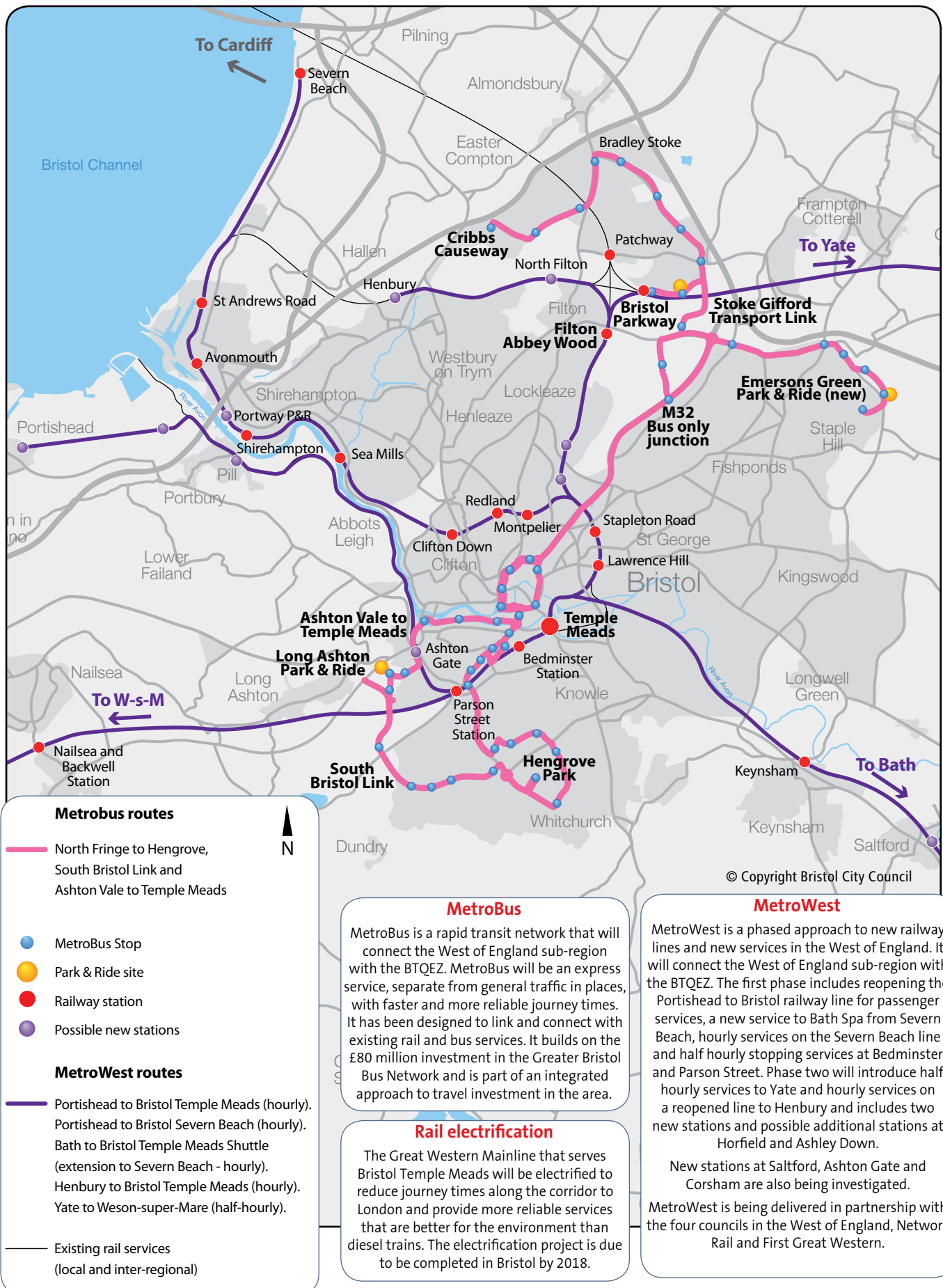
7. Improvements to Friary/Temple Back East

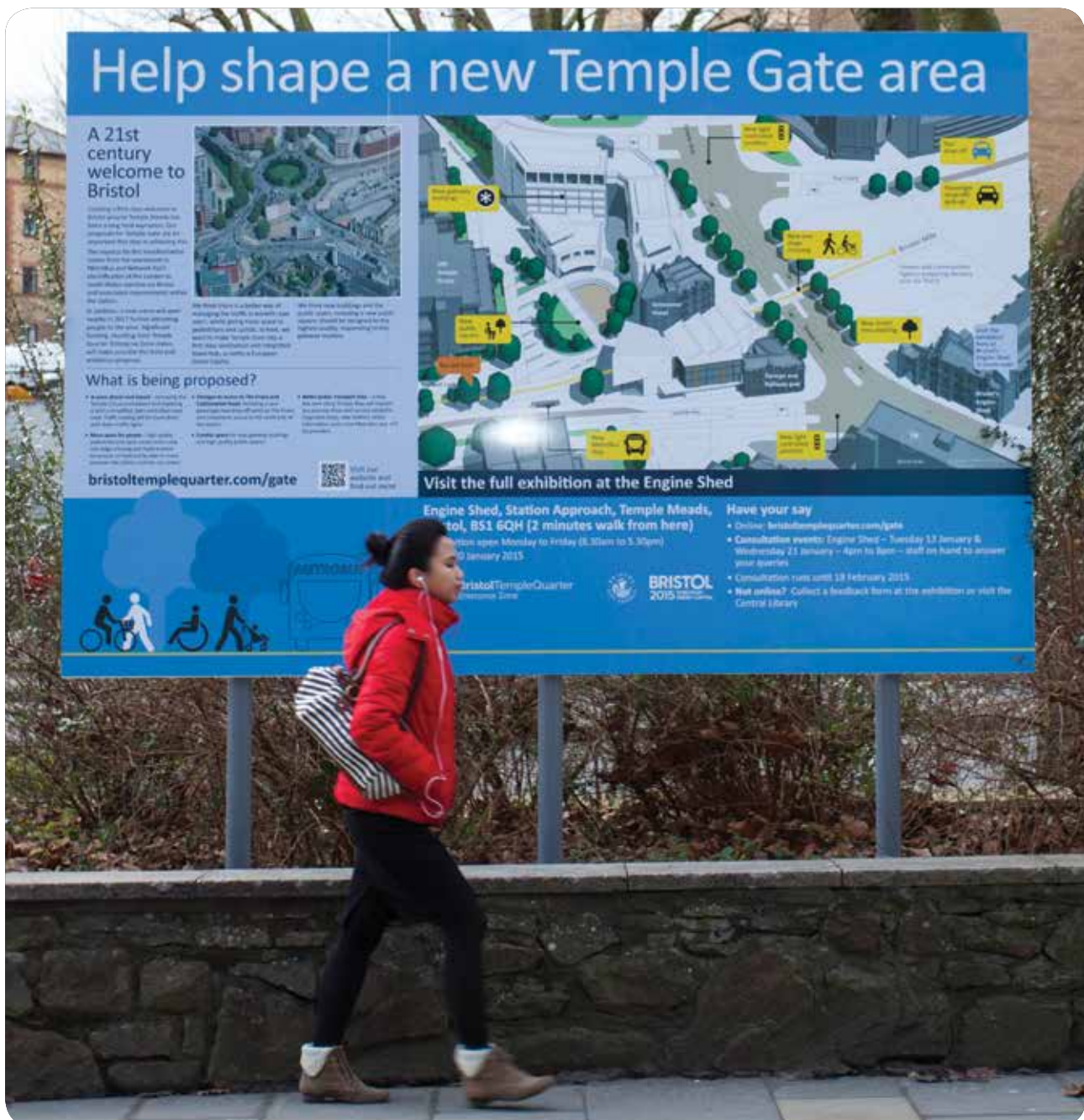
Changes are to be made to the Friary and Temple Back East in order to improve access to Bristol Temple Meads and surrounding development sites by pedestrians, cyclists, public transport and taxis.

8. River Avon Path

Improvements to the pedestrian/ cycle connection between the BTQEZ and east Bristol, connecting to south eastern part of the BTQEZ.







These major infrastructure projects will enable access to the BTQEZ by walking, cycling and public transport contributing to the overall SUMP target to reduce vehicle trips to the area by 15% (as a share of modal split) by 2037. The following table shows the list of individual hardware measures that have been scored highly through the SUMP sense check for the BTQEZ and have funding for implementation. These measures have also been highly rated by stakeholders in engagement workshops. It also shows the risk assessment for each measure that shows the risk to meeting the SUMP target if not implemented. Measures rated red are a priority and therefore there is a risk that the target may not be achieved if they are not implemented and those rated green are not vital towards meeting the target, but could contribute towards it.

The individual hardware measures that have scored highly through the SUMP sense check for the BTQEZ and have funding for implementation are:

Hardware measures	* Risk of meeting SUMP target if not implemented	Delivery
Rail capacity improvements		Through the MetroWest project
Improved pedestrian routes		Through the RIF programme
Pedestrian signage renewal		By City Design team through Legible Cities project
Cycle network improvements including segregated cycle lanes were feasible.		Through the RIF programme
Cycle way finding		Through the RIF programme
Improving bus waiting facilities and real time information		Through the RIF programme (Temple Gate project)
Rapid Transit		Through the MetroBus project
Upgrading and improving bus network		Through the MetroBus project
Rail station upgrades and waiting improvements		Through the Temple Meads masterplan project (Network Rail)
Bus and Cycle lanes		Through the RIF programme
Freight Consolidation Centre		Currently in operation in shopping areas, but could be expanded to BTQEZ
Site specific junction improvements		Through the RIF programme

* Red is vital for target, green is not.

Stakeholders rated each of these measures highly, both in terms of making the BTQEZ a better place and good for business. The only measure that stakeholders raised concerns over was the freight consolidation centre as a useful measure for business operations, as the costs and speed of delivery were not made clear. This will be better publicised in future.

Future hardware aspirations

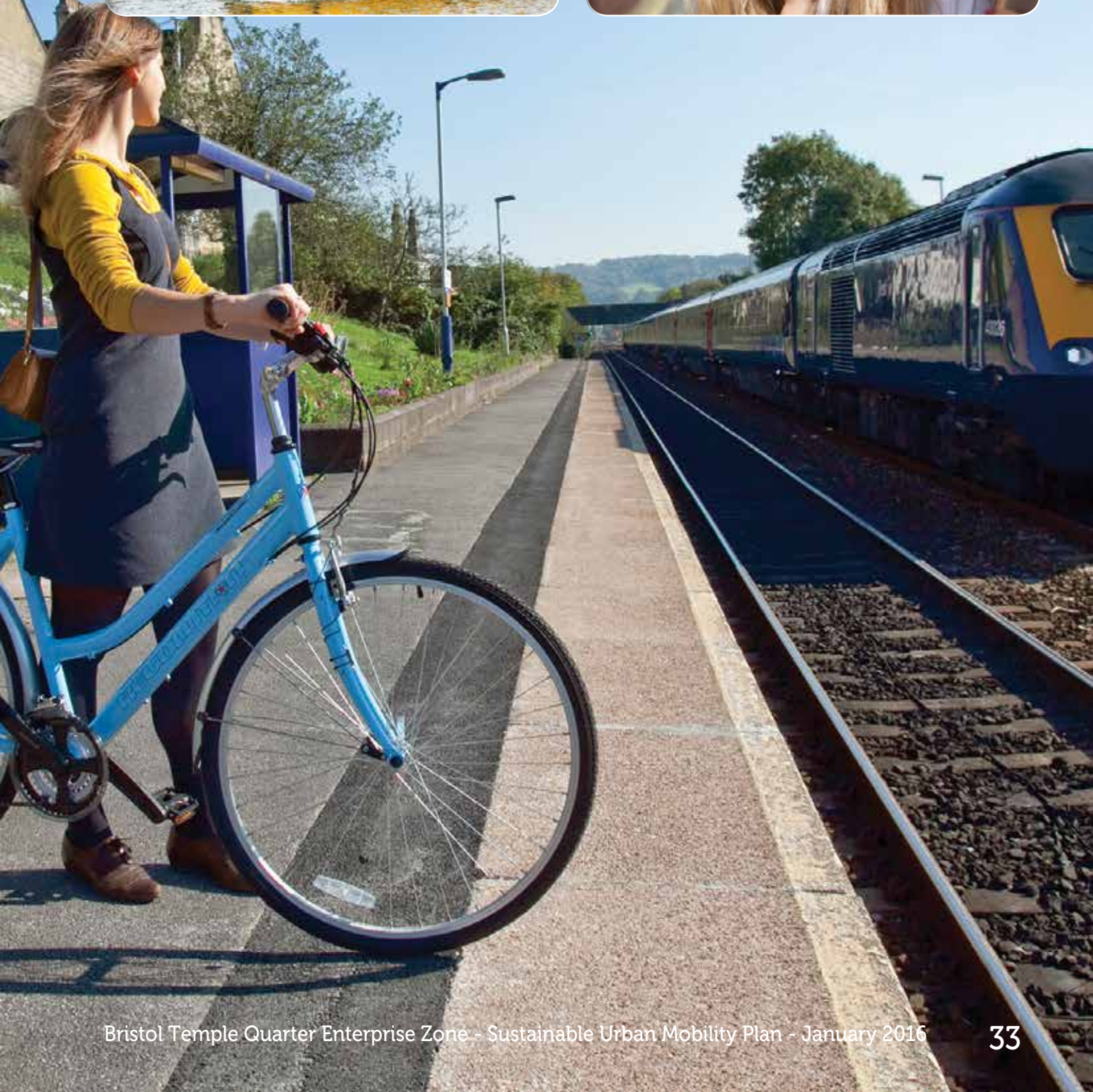
As part of the SUMP sense check, a number of measures were identified that scored highly but are currently awaiting appropriate funding streams. Some measures were also suggested by stakeholders and employees currently travelling to the BTQEZ. These aspirations will be worked up into more detail in future SUMP phases, once funding has been identified and feasibility studies completed.

The future hardware aspirations are as follows:

Future hardware aspirations	Delivery
Extend Temple Gateway improvements along the A4 towards Bath Bridges to improve pedestrian and cycling environment	This is highlighted in the Spatial Framework as a future aspiration and would be subject to feasibility studies to inform a funding bid for delivery
Improve pedestrian and cycling environment through industrial areas to the east of the BTQEZ connecting to neighbourhoods of Barton Hill, Lawrence Hill and Easton	This is highlighted in the Spatial Framework as a future aspiration and would be subject to feasibility studies to inform a funding bid for delivery
Improve passenger experience at Temple Meads through better positioning of public transport stops and taxi ranks	This will be subject to the outputs of the Temple Meads masterplan currently being carried out on behalf of Network Rail
Limit car access through parts of the BTQEZ	This is highlighted in the Spatial Framework as a future aspiration and would be subject to feasibility studies to inform a funding bid for delivery
Provision of electric vehicle charging stations	At the time of writing the SUMP the West of England authorities were successful in a funding bid that will see a doubling of the number of charge points across the region.
On site infrastructure improvements for businesses e.g. showers, changing rooms etc.	The area travel plan co-ordinator could investigate the need for this amongst businesses and look into funding options for delivery
Public cycle hire	Whilst there is no imminent plan to provide a city-wide public bike hire scheme, funding has recently been identified to install electric cycle hubs at two locations based around the BTQEZ, which will be installed in Spring 2016. A wider public cycle hire scheme would require a new instruction from the Mayor to seek funding opportunities, although this was highly rated by stakeholders as a way of connecting the BTQEZ to other destinations and reduces issues of bike theft that currently provides a barrier to cycling for many
Park and Cycle/Cycle and Ride	There is appetite for this type of facility from the existing park and ride sites, however this is subject to future funding opportunities
Bike taxis from Temple Meads station for short city centre journeys	This will be subject to the outputs of the Temple Meads masterplan currently being carried out on behalf of Network Rail
Cycle point at Temple Meads station including workshop and servicing	This will be subject to the outputs of the Temple Meads masterplan currently being carried out on behalf of Network Rail
Shared cycle facilities for small businesses	As businesses move in to the BTQEZ there will be a requirement for additional cycle parking, therefore a future phase of SUMP could investigate the pooling of facilities as demand increases. Stakeholders felt secured cycle parking is key to encouraging cycling
Shared car parking facilities for businesses in BTQEZ in centralised location	This is highlighted in the Spatial Framework as a future aspiration and would be subject to feasibility studies to inform a funding bid for delivery

Future aspirations will include working with the partners such as Network Rail and the Homes and Communities Agency to create a fully operational and legible transport interchange around Temple Meads station. Network Rail is currently producing a station masterplan detailing the future aspirations to improve access and connectivity to and through the station to key sites within the BTQEZ and Arena Island. This SUMP covers the first five years of BTQEZ development up to 2021 and as such the details of these aspirations are yet to be finalised to include in detail in this phase of the SUMP.





Software measures are those that require alterations or additions to processes and practices to enable and encourage the use of sustainable travel to the BTQEZ. The major alterations to existing practice will be through the development management process to apply new conditions that mitigate against the impact of development on the transport network.

Development Management conditions- Travel Planning

Linking with forthcoming mindware measures, an alteration to conditions on travel planning must be implemented to ensure travel planning is carried out. Travel planning for the West of England has been simplified to make it easier for businesses to set targets and create action plans through an online toolkit. This will be introduced in full in the next 'Mindware' Chapter. With regards to conditioning travel plans, the Bristol Local Plan currently states:

'Proposals should be supported by a Transport Assessment and/or a Travel Plan where development is likely to have a significant traffic impact.'

And...

'2.23.5 Transport Assessments consider the transport impacts of a proposed development and identify the measures to be taken to deal with them. A Travel Plan is a management strategy which seeks to manage travel to and from a specific site with the aim of reducing reliance on cars and encouraging walking, cycling and the use of public transport. The scope of Transport Assessments and Travel Plans will be established through early discussions with the council and will depend on the scale and use of the development proposed. It will also include the consideration of any impacts that may occur in the adjoining local planning authority areas. Regard should be had to the Department for Transport guidance on their preparation.'

The condition usually applied when a planning application is submitted without a travel plan is worded thus:

'C14 Travel Plans – Not submitted

No building or use hereby permitted shall be occupied or the use commenced until a Travel Plan comprising immediate, continuing and long-term measures to promote and encourage alternatives to single-occupancy car use has been prepared, submitted to and been approved in writing by the Local Planning Authority. The approved Travel Plan shall then be implemented, monitored and reviewed in accordance with the agreed Travel Plan targets to the satisfaction of the council.

Reason: In order to deliver sustainable transport objectives including a reduction in single occupancy car journeys and the increased use of public transport, walking & cycling.'

With regard to the Bristol Temple Quarter Enterprise Zone, the Bristol Central Area Plan states:

'The layout, form and mix of uses should contribute to delivering the vision for Bristol Temple Quarter and, in doing so have regard to the Spatial Framework for Bristol Temple Quarter.'

This SUMP sits alongside the Spatial Framework for the BTQEZ and so the details with regards to encouraging completions of travel plans through the simplified toolkit, which will be introduced in the next 'Mindware' chapter, sits within this document.

This wording should therefore be attached as advice to conditions referring to Travel Plans for businesses in the BTQEZ:

ADVICE

For developments located within the Bristol Temple Quarter Enterprise Zone and the surrounding area, our recommended online travel toolkit should be used to develop an action plan for travel. The online toolkit allows businesses to create an action plan for a range of topics including travel and transport and to get recognised for their achievements in enabling sustainable transport. Please visit www.travelwest.info for more information.

Development Management conditions - Parking Strategy

As will be presented in the next 'Mindware' chapter, there are a number of measures that can help increase the use of sustainable transport to the BTQEZ, however in order to achieve greater modal shift and to ensure the transport network can accommodate expected growth, software measures must seek to restrict the number of cars accessing the BTQEZ. One such measure is to advise on restricted maximum car parking levels to new developments in the BTQEZ. Therefore alterations must be made with regards to parking levels through the development management process for all new development within the BTQEZ.

Taking into account the BTQEZs accessibility by sustainable transport and projected impacts on the adjacent highway arising from development, a parking strategy has been produced that identifies maximum parking levels for the area. The parking strategy has been developed for B1 office use, as this is the likely use class that will be developed to accommodate 17,000 new jobs in the BTQEZ.

The Bristol Central Area Plan states:

New private non-residential parking within the city centre will be limited to the essential operational needs of development such as space for service vehicles and pool cars and an appropriate level of disabled parking.'

And...

'The Parking Standards Schedule at Appendix 2 to the Site Allocations and Development Management Policies set out maximum car parking standards and minimum cycle parking and disabled car parking standards for new development in Bristol. These standards will also apply in Bristol City Centre but, where appropriate, a significantly lower level of car parking provision will be expected.'

An advised level of onsite parking provision has been provided to reflect the sustainable setting of the BTQEZ and the proposed improvements to the transport network that will improve the overall accessibility of the area - see previous 'Hardware' section.

This advised level has been derived from extensive modelling to establish levels of car use that can be accommodated on the highway network and research into maximum parking standards of other UK cities. This advised parking level sits between a restricted standard of central London (1:1500sqm.) and more relaxed standards of other core cities (between 1:100sqm. and 1:200sqm.). The advised level of parking follows that of inner areas of London:

Advised maximum car parking levels (B1 use): 1 space per 600m²

This advised level represents around 2% of the workforce, which gives provision for operational and essential needs (such as pool vehicles, car share/car club spaces and visitor spaces), as outlined in the Bristol Central Area Plan.

Part of the vision for the BTQEZ is to enable greater access by sustainable modes of transport by providing exemplary facilities for staff, including secure storage, showers, changing facilities and lockers. To reflect this ambition an advised level of cycle parking has also been provided which goes beyond the Local Plan standard:

Advised cycle parking standards (B1 use):

- **Staff:** from a threshold of 200m², one space per 70m²
- **Visitors:** from a threshold of 200m², one space per 1000m²

Electric vehicle charge point provision and disabled parking are taken directly from the Local Plan.

- **EV charge points (B1 use):** for schemes where ten or more car parking spaces are proposed, one electric vehicle charge point should be provided for every five space
- **Disabled people (B1 use):** From a threshold of 500m² 3% of the parking standard to be provided in addition – minimum of one space.

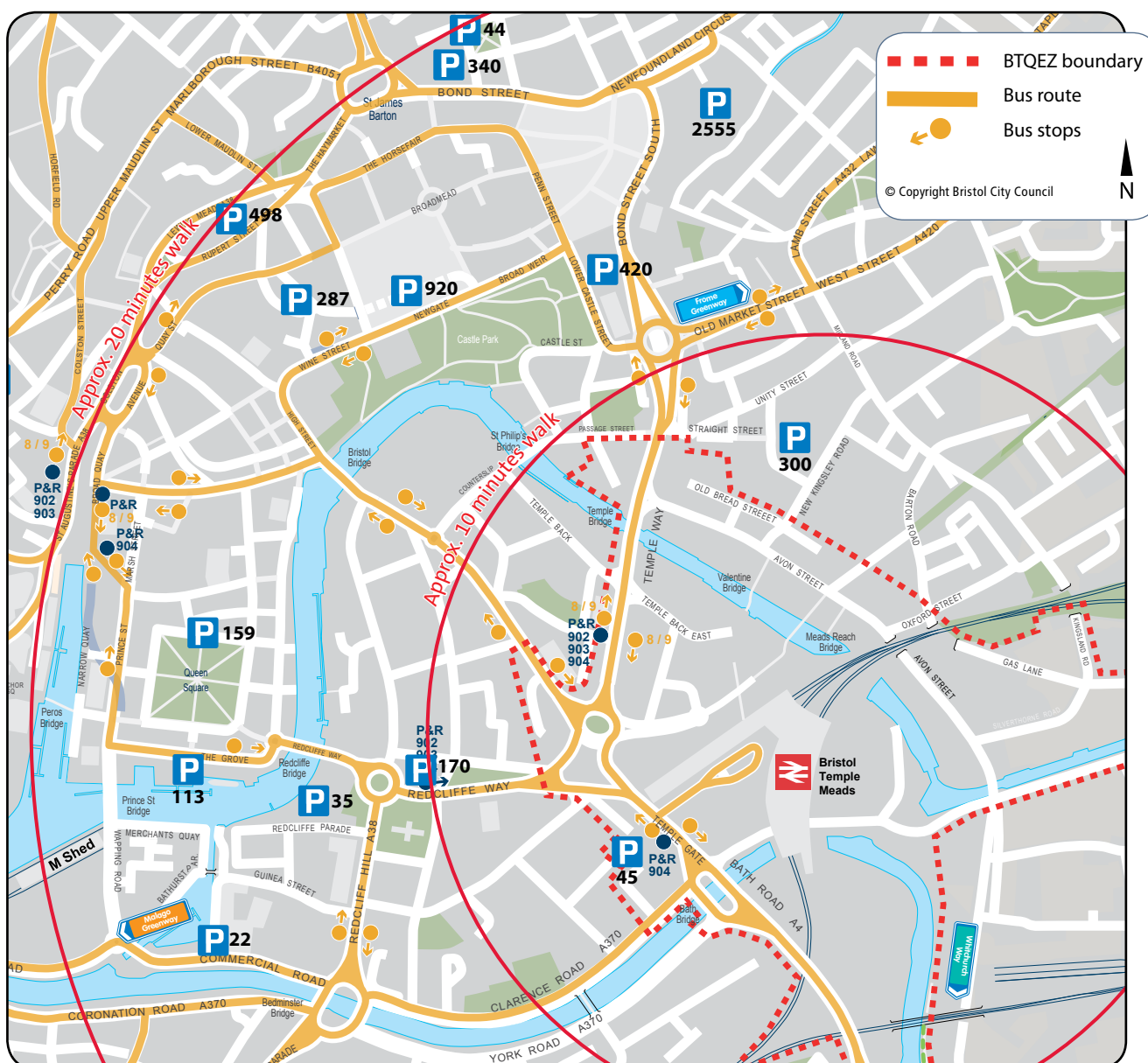
Supplementary guidance on parking for a range of additional uses (including hotels, residential and shops) can be found in the Bristol Local Plan Site Allocations and Development Management Policies.

Restricted parking case studies:

Bristol City Council follows this advised parking level in its central office, City Hall. The parking levels at City Hall are within the 1:600m² standard and all spaces are for essential and operational needs, most of which are occupied by pool cars for staff to share for trips during the working day. This results in staff travelling to work by alternative modes to the car and thus reducing the number of cars in the central area at peak times.

DNV GL are a company located in the BTQEZ. The parking level for this building fell within the advised 1:600m² level, but the company has recently decided to convert some of these spaces to additional cycle storage. As such, the parking level is now 1:1437m² and with the increased levels of cycle storage available 54% of staff regularly cycle to work.

Should car parking be required for visitors, car parking is available in many sites within fifteen minutes' walk of the BTQEZ as shown in the following map:



The table below shows the list of individual software measures that have been scored highly through the SUMP sense check for the BTQEZ, have funding for implementation and were rated highly amongst stakeholders for achieving the SUMP target. The table also shows the risk assessment for each measure that put meeting the SUMP target at risk if not implemented. Measures rated red are a priority and therefore there is a risk that the target may not be achieved if they are not implemented and those rated green are not vital towards meeting the target, but could contribute towards it.

Software measures	* Risk of meeting SUMP target if not implemented	Delivery
BREEAM standards to include sign up to area travel plan		Through the development management process
Development management guidance/policy to condition sign up to online travel planning toolkit		Through the development management process
Community Infrastructure Levy and funding strategies to support area travel plan measures		Through the development management process
Restricted car parking levels and increased cycle parking levels		Through the development management process
Car sharing scheme for existing organisations within BTQEZ through travel toolkit website		Existing car sharing processes are promoted through the BTQEZ travel toolkit website, but this could be expanded
Tele-conferencing		Facility exists at the Engine Shed and is promoted through the BTQEZ travel toolkit
Grants / loans for facilities		Business engagement grants are currently available through the Sustainable Travel Transition Year Fund
Bus priority schemes		New bus gates and lanes to be provided as part of the transport infrastructure programme (details in the previous 'Hardware' section)

* Red is vital for target, green is not.

Software measures	* Risk of meeting SUMP target if not implemented	Delivery
Upgrading and improving bus network including access to P&R services.		The operation of the MetroBus project (details in previous Hardware section) will improve access by public transport to the BTQEZ
Quality route schemes and bus partnerships		Operation of schemes exist, implemented by public transport colleagues
Intelligent signing for Car Parking		Controlled by urban traffic control centre
Public parking control and enforcement		Carried out by parking services colleagues
Freight consolidation centre		Currently in operation in shopping areas, but could be expanded to BTQEZ
Urban traffic management centre system to direct drivers to alternative routes		As referred to above, BCC has its own urban traffic control centre
Localised speed limits		20mph project rolling out citywide

* Red is vital for target, green is not.

Stakeholders rated these measures highly in terms of making the BTQEZ a better place, however some were not deemed to be good for business. Some thought that restricted car parking levels may cause an issue for some members of staff due to lack of alternatives available. This reinforces the need for some of the travel planning engagement that is proposed in the following Mindware section, to help people plan their journeys without a car. In addition, a number of measures are proposed in the following future aspirations section that can provide alternatives to travel in to the BTQEZ by car.

Future software aspirations

As part of the SUMP sense check, there are a number of measures that scored highly but currently do not have any funding sources for delivery and implementation. Some measures were also suggested by stakeholders and employees currently travelling to the BTQEZ. These aspirations will be worked up into more detail in future SUMP phases, once funding has been identified and feasibility studies completed.

The future software aspirations are as follows:

Future software aspirations	Delivery
Extension to ferry operations	This will require liaison with ferry operators, however there are no immediate plans for this
Smart parking strategy- to pool car parking in one location	This is highlighted in the Spatial Framework as a future aspiration and would be subject to feasibility studies to inform a funding bid for delivery
Use car club vehicles for business use and residents use out of office hours	There is currently an aspiration to install additional car club bays across the city centre, therefore extending this to the BTQEZ will feature in future SUMP phases, depending on funding
Increase car parking capacity at Bristol Parkway station and introduce park and ride rail packages	This will involve liaison with Network Rail, and could form ongoing development following outcomes of the Temple Meads masterplan
Improved way-finding using smart phone applications	This will have to be a new project expanding from the Legible Cities project. Future funding opportunities could be investigated
Support residential development in the BTQEZ, to reduce need for residents to travel far to work	As the BTQEZ develops wider, strategic assessments can be made in future phases as to where residential development can be positioned
Workplace parking levy, reduced for car sharers	This will be subject to feasibility studies to inform future funding bids
Freight delivery plans	This will involve liaison with businesses in the BTQEZ by the area travel plan co-ordinator, therefore funding should be sought to extend this post
Advanced planning service that provides opportunities at pre-application stage to introduce best practice	This is highlighted in the Spatial Framework as a future aspiration and would need input from a strategic transport perspective
Road user charging	This will have to be a new project instruction from the Mayor- there are no current plans imminent. Stakeholders felt this would only be acceptable if adequate alternative methods to access the BTQEZ were in place
Encourage the use of low emission vehicles when driving is necessary	At the time of writing the SUMP the West of England authorities were successful in a funding bid that will see a doubling of the number of charge points across the region.
Van pooling for shared use to transport larger items	This will involve liaison with businesses in the BTQEZ by the area travel plan co-ordinator, therefore funding should be sought to extend this post
Better integration of bus and rail services including integrated ticketing and circular bus routes to key destinations in city centre and outskirts of BTQEZ	This will involve liaison with public transport operators and will be progressed following the outcome of the Temple Meads masterplan
Low emission zones for freight vehicles	This will have to be a new project instruction from the Mayor- there are no current plans imminent



All mindware measures to encourage the use of active and sustainable transport to the BTQEZ can be found through the Travelwest website (www.travelwest.info) and travel planning can be carried out through our recommended online toolkit, which can also be found on the TravelWest website.

www.travelwest.info



Our travel toolkit available through the TravelWest website enables organisations to create a profile and taking steps with regards to setting an action plan for travel and transport. To discover what travel and transport support is available throughout the West of England, there is a variety of information contained in our travel websites: travelwest.info and betterbybike.info. Staff travel surveys are collected through an annual travel to work survey, which is carried out across the West of England every Spring, which can be used in the toolkit to monitor and demonstrate changes in travel behaviours and to set targets for subsequent years. By monitoring results of this survey, we can begin to monitor the progress made collectively towards the overall BTQEZ SUMP target.

As part of the Sustainable Travel Transition Year Fund project, there are business engagement officers that engage with organisations to point them towards measures and initiatives to encourage the use of sustainable travel to workplaces. We are currently seeking ways in which to continue this type of support after the project finishes in 2017.

The table below shows the list of individual mindware measures that have been scored highly through the SUMP sense check for the BTQEZ, have funding for implementation and were rated highly amongst stakeholders for achieving the SUMP target. It also shows the risk assessment for each measure that put meeting the SUMP target at risk if not implemented. Measures rated red are a priority and therefore there is a risk that the target may not be achieved if they are not implemented and those rated green are not vital towards meeting the target, but could contribute towards it.

Mindware measures	* Risk of meeting SUMP target if not implemented	Delivery
Online travel resources		Through travelwest.info
Personalised travel planning		Through the TravelWest roadshow team
Health promotions to encourage active travel		Through the TravelWest roadshow team
Workplace travel forums		Bristol Workplace Travel Network
Visitor travel plans		As part of the Arena Project, a transport assessment has been submitted through the Development Management process
Rail station travel plan		Through Network Rail as part of Temple Meads masterplan
Encourage flexible working in Temple Quarter to avoid travel in peak hours		Templates are available on the travelwest.info website
Promotional events and campaigns		Templates are available on the travelwest.info website and the TravelWest road show team are available to attend events
Consistent branding for businesses to use as part of the BTQEZ		Can be made available through travelwest.info

* Red is vital for target, green is not.

Mindware measures	* Risk of meeting SUMP target if not implemented	Delivery
Promotional information including maps, timetables and buddying information		Engagement through the TravelWest road show and information available on travelwest.info
Travel marketing materials for businesses to use		Can be made available through travelwest.info
Pedestrian route map		Available through travelwest.info
Walking support measures		Through the TravelWest road show
Cycle information		Available through betterbybike.info
Staff discounts for bikes and equipment		Information available on travelwest.info
Interest free season tickets for public transport		Information would be set up through travelwest.info but would require liaison with operators
Adult cycle training		Available through the Travelwest roadshow team

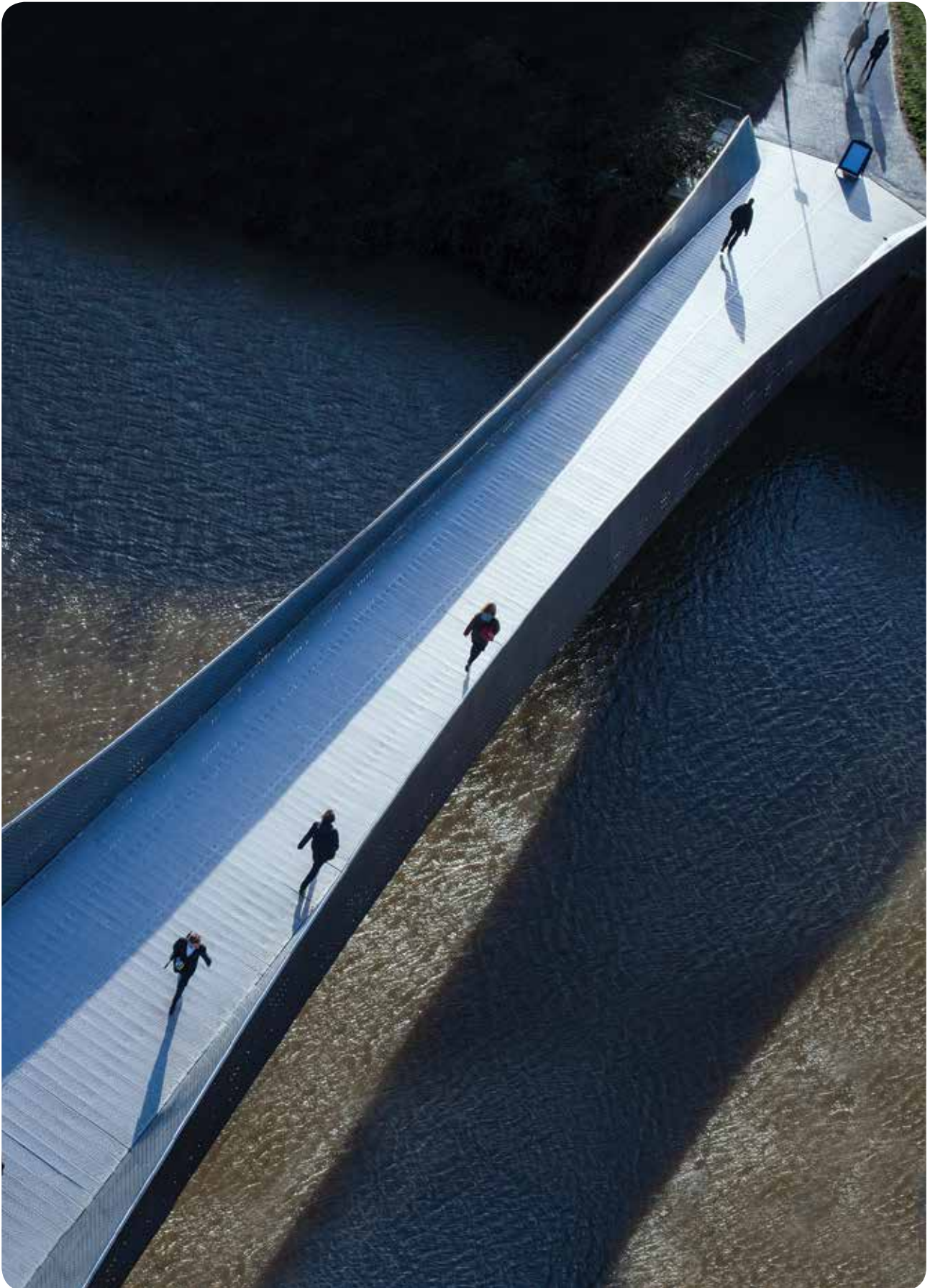
* Red is vital for target, green is not.

Stakeholders rated these measures highly in terms of making the BTQEZ a better place, however some were deemed to be difficult for business operations. Some felt that visitor travel plans and rail station travel plans would be difficult to implement, as the essence of a travel plan is to monitor how people travel and set targets for various modes. It was felt that this is difficult to influence, given the ad hoc nature of visitor travel patterns and instead a better measure would be visitor travel information on websites and better information in the rail station for onward journeys. These suggestions are included in the following future aspirations section. Stakeholders also felt that walking support measures may be too expensive for businesses to administer, but agreed that if funded by an alternative method would be useful in encouraging walking.

Future mindware aspirations

As part of the SUMP sense check, there are a number of measures that scored highly but currently do not have any funding sources for delivery and implementation. Some measures were also suggested by stakeholders and employees currently travelling to the BTQEZ. These aspirations will be worked up into more detail in future SUMP phases, once funding has been identified and feasibility studies completed.

Future mindware aspirations	Delivery
Look at cultural practices within companies to encourage sustainable travel use	This will involve liaison with businesses in the BTQEZ by the business engagement officers, therefore funding should be sought to extend these posts
Demonstrate monetary value to businesses of active travel	This will involve liaison with businesses in the BTQEZ by the business engagement officers, therefore funding should be sought to extend these posts
Smart information on journey times to encourage park and ride use	This will have to be a new project expanding from the existing real time information system. Future funding opportunities could be investigated
Travel toolkit maintenance, linking to travel information on travelwest.info	This is an important tool for all mindware measures, therefore its use will be encouraged by business engagement officers to make a case for future funding to continue
Business engagement officers	Along with the online toolkit this is an important role for all mindware measures, therefore a case will be made for funding to continue this role in future phases
Train the trainer	Should funding not be secured to maintain the toolkit or the business engagement officers, this measure seeks to train up employees of the BTQEZ to use the toolkit and be able to support sustainable transport without future funding
Growth support to businesses	Develop use of the business Growth Service (particularly the Growth Accelerator model) to support growing SMEs in the BTQEZ area and its hinterland, especially where transport and logistics issues are a part of their current challenges to growth and expansion. This would cover access to and retention of staff with the right skills set as well and servicing and supply chain challenges



10. Monitoring and evaluation



The overall SUMP target to reduce vehicle trips to the BTQEZ by 15% as a share of modal split by 2037 will be monitored through the annual travel to work survey and census data. The survey will establish mode of travel, arrival and departure time, flexible working opportunities and proposed changes to routes to identify if the target has been met.

As mentioned earlier in this document, from the annual survey we will be able to extrapolate data on reductions in fuel consumption and carbon emissions and report this in future SUMP iterations. In addition, improvements to road safety through infrastructure measures will be monitored by establishing current KSI figures for those travelling to the BTQEZ (as opposed to through the BTQEZ) and will be reported in future SUMP iterations, with the aim of stabilising the number of KSIs in pedestrians and cyclists as the numbers of people accessing the BTQEZ grows.

The hardware measures that are funded through the Revolving Infrastructure Fund, the MetroBus project and the MetroWest project will be monitored and evaluated closely to ensure delivery does not slip. These projects were flagged as risks to meeting the SUMP target if not implemented, therefore delivery at expected timescales are vital.

The software measures that involve alterations to current policy and practice will be monitored and evaluated internally as part of the development management process in terms of maintaining consistency in applying planning conditions relating to the SUMP. Monitoring of ongoing measures such as managing the urban traffic management centre will continue and individual projects such as MetroBus and citywide 20mph will be monitored and evaluated as part of the project to ensure the projects are on track for delivery.

The mindware measures that are available on travelwest.info and the use of the toolkit will be monitored by the business engagement officers, backed up by data from annual travel to work survey.



11. Public consultation strategy



The SUMP will sit alongside the Spatial Framework for the BTQEZ and will provide the guidance for access and movement as development grows. As such, it is imperative that the SUMP is put out to public consultation in conjunction with the Spatial Framework in order to receive feedback on the content and the proposed approach to improving access and movement in the BTQEZ.

It must be made clear, however, that the large hardware projects such as those contained in the Revolving Infrastructure Fund programme, MetroBus and MetroWest will be subject to separate public consultation, therefore the consultation on the SUMP is to receive feedback on the measures being proposed that are currently not funded and to hear ideas on any measures that may be missing. As mentioned earlier in the SUMP, the measures listed have been through rigorous testing and sense checks following EU best practice methodology, however the public consultation may identify new measures or approaches that have not been sense checked.

The strategy for public consultation for the SUMP is as follows:

Summer 2015

Stakeholder workshops were held to inform the final measures of the SUMP. The workshops were attended by key stakeholders based within the Council, external partners and existing businesses located in the BTQEZ. The workshops encouraged stakeholders to identify existing access and movement issues in the BTQEZ and then using the list of hardware, software and mindware measures, stakeholders were asked to rate each measure according to whether they think they would overcome the issues and meet the proposed SUMP target. The outcomes of these workshops have been incorporated into this document, either to be implemented within the lifetime of this SUMP or identified for future iterations.

Early 2016

The draft SUMP document will be approved for public consultation by the Mayor and the Strategic Directors Board of the BTQEZ, alongside the Spatial Framework for the BTQEZ.

Spring 2016

Public consultation of the SUMP will be undertaken as part of the consultation on the Spatial Framework for the BTQEZ.

Spring 2016

Following the public consultation, alterations will be made to the SUMP if necessary to respond to the comments received.

Summer 2016

Final SUMP is signed off and published.





Prepared by:

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