



Sustainable Urban Development Strategy



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1. Introduction

The UK, under Article 7 of the European Regional Development Fund (ERDF) EU Regulations, is required to delegate certain responsibilities to Urban Authorities. To meet this obligation Government has asked the seven Core City Urban Authorities to submit SUD strategies. The requirements will result in the Urban Authorities receiving Intermediate Body (IB) status and being responsible for a ring fenced 10% of their ERDF allocation.

Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) and, in particular Birmingham City Council (BCC), welcomes the opportunity to develop this Sustainable Urban Development strategy.

The notional SUD allocation of 13.0m Euro is 10% of the allocation to the GBSLEP area of 130,388,880 Euro. This SUD strategy will be delivered in the More Developed Birmingham and Solihull areas within the wider GBSLEP area that contains both More Developed and Transitional areas. The total population for these areas is a combined 1.3m people. We seek to focus this concentrated resource on maximising the impact of the High Speed 2 (HS2) Growth Strategy: This means making the very best use of the land and economies of scale that can be achieved through aligning the planning, design and investment in infrastructure and development to ensure optimal levels of sustainable developments that makes the most of the investment going into HS2 as a new high capacity public transport network. Innovative site engineering including Sustainable Urban Drainage systems, energy and environmental grids will ensure the optimal development, environmental and sustainability outcomes in the growth of new business, service centres and residential communities around the key investment nodes along the route in the Core City area i.e. Curzon terminus station (supported through the Eastside Masterplan); Washwood Heath Rolling Stock Maintenance Depot; and HS2 Interchange Station (supported through the UKC Hub 'Garden City' framework).

To achieve optimal outcomes of the combined investment of many millions of public and private sector funds, this Strategy will support the integration of actions and in particular seek to align ERDF with ESF actions that support the skills and employment opportunities the HS2 Growth Strategy presents: The HS2 Growth Strategy highlights that the region will benefit substantially from improved infrastructure, jobs, new skills and inward investment. We are committed in supporting economic growth and developing a skilled workforce right from the beginning. During the course of HS2 construction, 104,000 jobs will be created or safeguarded in our region. Birmingham will co-host the NCfHSR with the campus located within the Learning Quarter next to the Curzon station. The College will train 2,000 people and provide specialist vocational training to the next generation of engineers working on the High Speed 2 (HS2) project and beyond. In addition, the construction headquarters for HS2 is located in central Birmingham and will be home to 1,500 professionals designing the line, stations and track side equipment. It is important to note that further investment will also come in the form of the rolling stock depot at Washwood Heath which will provide maintenance and servicing for the whole network, with 500 jobs created at the depot and a further 140 jobs at the National Control Centre. Using the job and training opportunities like these, which are afforded by the arrival of HS2 and the associated economic growth that it will unlock, we also plan to undertake a large scale up-skilling programme to ensure that local residents have the skills required to access these opportunities. We are committed to ensuring that local people are ready and equipped with the right skills, to access the jobs and the huge economic opportunities that HS2 will unlock.

The SUD strategy provides a modest amount of resource when compared to the overall cost of HS2. Our allocation is provided from Priority Axis 4 and 6 of the ESIF allocation to focus on Low Carbon and Environmental sustainability issues. This is a natural fit with HS2 as the delivery of this has limited funds for such measures and recognizes ERDF SUD investment as a key fund to achieve some of its aims stated in the local HS2 Environmental and Landscape Programme (ELP). The SUD funds will focus on the added value it can bring to the mainstream HS2 work through innovative actions under PA4 and PA6. The HS2 Growth Strategy clearly states our aim to build an economic, social and environmental legacy for the Midlands. The development of the ELP will champion the introduction of innovative low carbon technologies and environmental improvements to secure longer term sustainable benefits for the region. The construction of the whole Phase One route from London to the West Midlands will take approximately eight years, beginning in 2017 from the moment that site clearance work starts to the completion of railway installation. This will be followed by a period of testing and commissioning before the first services commence in 2026. It is of critical significance that we move forward and build in our HS2 ELP early to develop and align our strategies with that of regional partners and identify the pioneering opportunities in the areas of Environmental, Low Carbon and Low Energy research, applied technologies and project delivery that will deliver our region widespread environmental, social and economic benefits.

This strategy will in particular seek to align ERDF to support the innovative development of emerging technologies to conserve biodiversity and the natural environment. It will seek to accelerate economic growth by working with local and regional stakeholders to harness physical assets, improve natural capital as well as positively impact on social sustainability. We are presented with a significant opportunity to add immediate value to the HS2 Programme and set the foundations for the delivery of longer term benefits.

Birmingham City Council (BCC) will be the Urban Authority established as the Intermediate Body. BCC would undertake to lead on the implementation of the strategy on behalf of the wider area covered by its proposal. It will work to coordinate strategic activity with external partners through the links made via its Intermediate Body (IB) role as set out in Section 5 of this document. BCC is heavily involved in the whole process of HS2 delivery and impact and is working closely with partners to ensure its implementation is coordinated through involvement with the LEP HS2 groups and strategies such as the HS2 Growth strategy and HS2 Environmental Landscape Programme, as well as its own planning, highways, legal and financial disciplines. BCC will use this network of involvement to provide information and alignment of activities to ensure all SUD and complimentary ESIF calls for applications are targeted to maximize the number and quality of applications coming forward. Through the mechanisms detailed in section 5 BCC sets out how it will maintain separation of functions for the IB and delivery aspects of the SUD work.

The West Midlands Combined Authority (WMCA) was established in 2015. A part of its devolution deal is the allocation of £3.3Bn to support and align businesses and connectivity to the HS2 Investment. There is no direct investment as yet in the types of activities covered by ESIF strategies in PA4 & PA6. The proposals made in this SUD strategy will mean that the alignment of funds alongside those of HS2 mainstream investment will add value and impact.

The West Midlands Combined Authority (WMCA) has proposed a Commission for Productivity to address the UK's productivity gap. The West Midlands gap is some £16 billion and all of its growth resources are required to better align, complement and address historically low levels of capital investments, infrastructure development, research and development, and skills, all of which are key components of ESIF programmes. The focus of this SUD strategy on HS2 creates an excellent opportunity to ensure that ESIF programmes add value to other considerable investments in the Midlands transport infrastructure that will create growth and jobs across the Midlands. The three proposed HS2 nodes of Birmingham Curzon, Washwood Heath and UK Central Interchange at Solihull will be the key focus of the SUD investments set out in this strategy, and the ERDF will bring opportunity to optimise innovative solutions to maximise the sustainability of the urban development that will flow from the integrated investments set out in the HS2 Growth Strategy and associated documents.

The IB status that BCC, as the accountable Urban Authority, will assume for the implementation of this strategy is also welcomed and BCC is committed to working closely with all key partners and stakeholders in the SUD area to ensure that investment decisions are taken whilst maintaining its commitment to the partnership principle which is such an important factor in the management and governance of ESIF programmes. This SUD strategy is an opportunity for BCC, Solihull Metropolitan Borough Council (SMBC), GBSLEP, and all our partners to develop a new model of working, with new delegated powers, that will pave the way for a new form of governance driving growth and prosperity in a renewed Midlands economy. There are also discussions regarding the potential to extend IB status across the remainder of the GBSLEP ESIF programme and possibly explore the potential for IB status for the West Midlands Combined Authority.

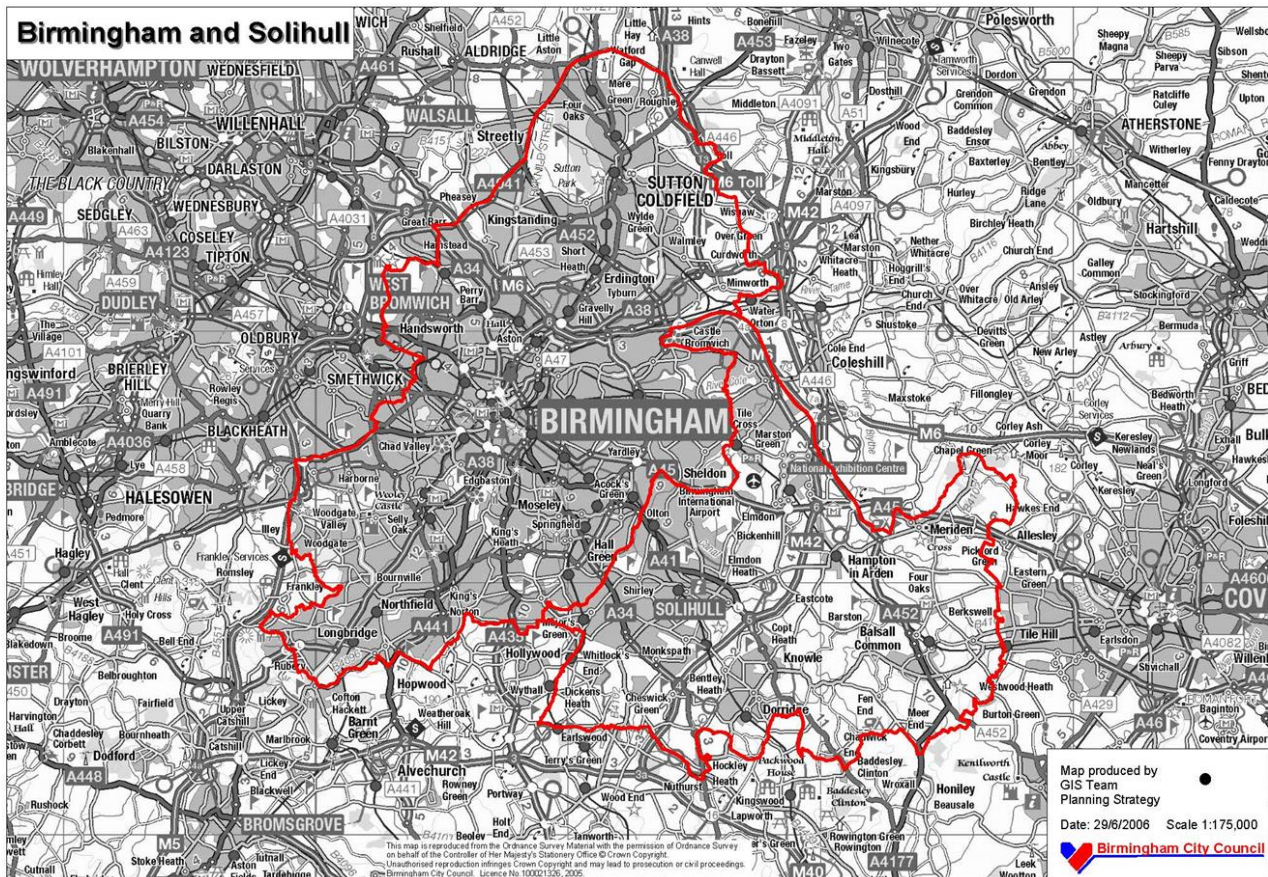
2. The Geography

Evidence shows that the GBSLEP area is a strong part of the wider functional economic reality of the new WMCA area. This is also reflected in the chosen SUD investment theme of the HS2 Growth Strategy which has a significant impact on GBSLEP and WMCA physical geography, as well as being of national and European significance.

This strategy sets out the proposed investment of the Sustainable Urban Development funds based on the economic geography of both the Greater Birmingham and Solihull LEP area, in particular relating to the urban core of Birmingham and Solihull, and the emerging West Midlands Combined Authority area.

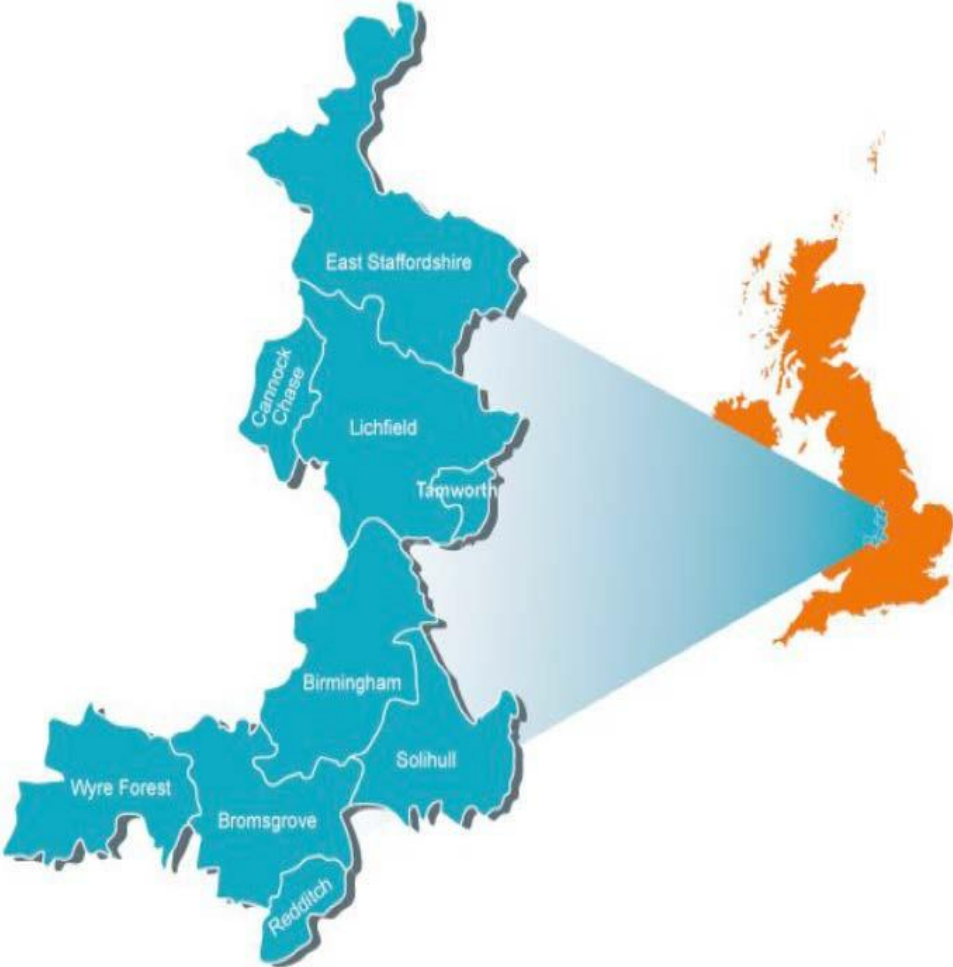
Birmingham and Solihull Area

Birmingham and Solihull are the core areas that are the focus for the delivery of this strategy.



Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP)

The territorial economic geography for this SUD Strategy is the GBSLEP area. GBSLEP lies at the heart of the country made up of the Local Authority areas of Birmingham, Bromsgrove, Cannock Chase, East Staffordshire, Lichfield, Redditch, Solihull, Tamworth and Wyre Forest. At its core is the urban heart of Birmingham and Solihull, the economic engine of GBSLEP.



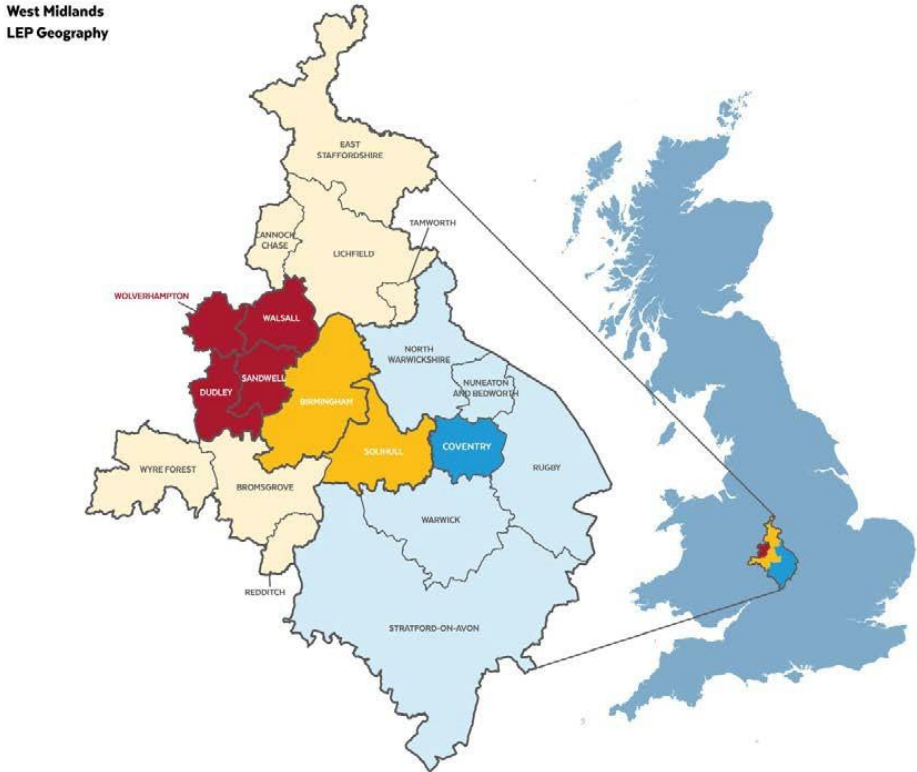
West Midlands Combined Authority (WMCA)

GBSLEP overlaps with the wider geographical context of the emerging WMCA. The proposed West Midland Combined Authority spans the area covered by the seven Metropolitan Councils within the three West Midlands LEPs' wider functional geographic area. These are local authorities are: Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton.

The West Midlands Combined Authority Governance Review ('The Governance Review') states that:

"There is compelling evidence that the area covered by the contiguous local authority areas of Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton (for the purposes of this review this area is defined as the "West Midlands") forms a functional economic market area...A review of the evidence detailing the economic structure of the region shows high levels of economic integration, in terms of the labour market, travel to work areas and a number of the area's key sectors."

It is the ambition of this strategy to maintain a relevance and flexibility to align, this locally determined sustainable urban development proposition across this wider WMCA geographical footprint and wider HS2 developments agreed as part of the WMCA devolution deal.



3 HIGH SPEED TWO (HS2) LIMITED HS2 (Phase Two) Regional Economic Impacts September 2013. This analysis (by KPMG) focuses on the potential impact of investment in HS2 on the structure of regional economies in the longer term. The quoted prediction relates to Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton (p14).

3. Socio-economic context

3.1. GBSLEP socio-economic context summary

The GBSLEP economy produces £41.7bn of economic output per annum (3% of national output) and is home to 884,000 jobs. The wider West Midlands Combined Authority (WMCA) area¹ had an economic output totalling £55.5bn in 2014 and over 1.2m workers are employed in the area. Economic output (as measured by GVA) per head, a common measure of an area's prosperity is lower than the national average in both the GBSLEP and the WMCA area².

The GBSLEP area has a population of 1.98m (WMCA 2.8m, Birmingham and Solihull 1.3m) and is more diverse than the national average, Birmingham in particular being very ethnically diverse; the city has a larger proportion of BME residents than any other major city in the UK offering the area unique opportunities for indigenous business growth and to exploit links with emerging markets. GBSLEP area also has a younger age profile than the UK as a whole, with over a third (33.7%) of the GBSLEP population age 0-24, the highest proportion of any LEP area³.

Using the 2015 Index of Deprivation (IOD) the GBSLEP ranks as one of the most deprived LEPs in the country. The GBSLEP ranks third behind Liverpool City region and the Black County LEP in the Index of Multiple Deprivation⁴ (MD). The high levels of deprivation within the GBSLEP are largely driven by a concentration of deprived areas within Birmingham. The city is ranked the 6th most deprived local authority in the country whereas the other 8 areas are more affluent, ranked between 96 and 258 out of 326 local authorities. Deprivation rankings are not available at CA level but of the 7 local authority areas in the WMCA there are significant levels of deprivation with Birmingham, Sandwell, Wolverhampton and Walsall all ranked as in the top 20 most deprived local authorities in England.

The GBSLEP has the second lowest employment rate amongst the LEP core cities behind Liverpool City Region. As with deprivation the low employment rate and correspondingly high unemployment rate in the GBSLEP is mainly driven by issues within Birmingham's labour market with the other areas in the LEP having employment rates above or close to the national average. Average earnings⁵ for Greater Birmingham & WMCA residents lag the national average, of the 9 areas that make up the GBSLEP only 3 have average weekly earnings that are above the national average (£518). Average resident earnings in Birmingham (£479) are amongst the lowest of the major UK cities and well below London (£618). In the GBSLEP area the majority of working residents in all authorities work in the authority in which they reside. However, there is significant commuting between Birmingham and Solihull, with around 33,000 Solihull residents commuting to Birmingham and around 25,000 Birmingham residents

¹ As defined by 7 Met areas

² ONS Sub-national GVA estimates 2014 & ONS BRES 2014

³ ONS Mid-Year Population Estimates 2014

⁴ IMD 2015 Rank of Extent

⁵ ONS Annual Survey of Hours and Earnings 2015

commuting to Solihull. The role of Birmingham as the economic driver is emphasised by the numbers of people who commute into the city from all parts of the LEP. Solihull also exerts a pull, with commuters from other parts of the LEP.

The GBSLEP has a significant advantage compared to most other areas of the UK due to its geographical position which means that it is within four hours travel time of 90% of the UK's population and business. That is significantly more than the South East, or the metropolitan areas of the north. The LEP is situated at the heart of the UK's motorway and rail network, with Birmingham Airport, the third busiest UK airport outside of London and the South East,

With 143 direct connections, including links to growth markets such as China, India, Dubai and South America. The GBSLEP's good physical connectivity brings significant growth opportunities for the local economy, enhanced by recent investment decisions in relation to High Speed Rail, city centre Metro, New Street Gateway and Birmingham Airport – which will further enhance national and international connectivity.

However transport carbon emissions within the GBSLEP area represent a significant proportion of overall emissions for the area. Taking the 2011 carbon dioxide emissions estimates as a benchmark, transport emits 3,425kt CO₂ per annum out of a total 11,068kt CO₂ emitted by the area. This equates to 31% of total emissions, which is slightly higher than the national transport proportion of 29%.

Furthermore GBSLEP lags behind other LEPs in terms of commitment and actions on Climate change adaptation and has limited strategic overview of combined biodiversity and green infrastructure needs.

Maps to illustrate aspects of the Socio-economic analysis are attached at Annex 1 and the full socio-economic analysis and SWOT is appended at Section 2 of this Strategy and is set out in terms of the 'Article 7' five challenges (economic, environmental, climate, social and demographic) that Sustainable Urban Development integrated actions should address.

How the SUD strategy will address key GBSLEP socio-economic challenges relating to HS2

The LEP's Spatial Plan for Recovery and Growth Consultation Draft (SPRG) looks at the scale, broad distribution and directions of growth and the component elements which make up that growth; it is intended to provide a strategic steer and coherence to the individual development plans that all districts are, by law, required to prepare.

In the SPRG there are 50 identified pressures that are seen as drivers for change, these are categorised into 'Shaping the Economy', 'Homes and Communities' and 'Quality of Life and the Environment', which could be said to together address the five challenges identified under Article 7 as critical to addressing for Sustainable Urban Development. Of the 50 identified measures, those set out below are explicitly linked to the HS2 developments, and many others are related to priorities as set out in the HS2 Growth Strategy and related documents. The three specific drivers identified for HS2 are:

- Improvements or pressures on infrastructure and communications - e.g. impact of HS2, broadband.

- Desire to be an 'international area' - driven by HS2, expansion: JLR, JCB etc.
- Capitalise on development of High Speed 2 (HS2) with a package of measures improving connectivity across the GBSLEP area.

The SPRG concludes that there are ten possible ways of locating future growth, three of which can be directly seen as being enacted by this SUD Strategy in support of the HS2 Growth Strategy:

- Urban Consolidation
- Enterprise Belt including UKC (UK Central also known as the M42 Gateway)
- Corridors of Growth - Rail

Since the SPRG Consultation Draft, the influence of this work can be seen in the Birmingham Development Plan that sets out the statutory framework to guide decisions on development and regeneration in Birmingham up to 2031. Similarly, the Solihull Local Plan was adopted by Solihull MBC in 2013 and is in the process of being reviewed to take account of the Council's aspirations for growth within an area known as the UKC 'Hub'; and which encompasses key strategic assets such as the HS2 Interchange Station area, Birmingham Airport, the National Exhibition Centre, Jaguar Land Rover and Birmingham Business Park. Further Solihull MBC's commitment to a strategic approach to environmental and low carbon matters has been shown by its recent (7 March 2016) document 'Solihull Green Prospectus: delivering a sustainable, low carbon Solihull'

The Sustainability Appraisal of the Birmingham Development Plan Revised Sustainability Report (the 'Sustainability Appraisal') (2015) has direct evidence of the opportunity to add value to the environmental and climate change aspects of the HS2 Growth Strategy through application of a list of 13 potential sustainability characteristics of the area; the list is too long to include here but it can be seen that there are numerous aspects which address the five challenges in Article 7; for example resource use, sustainable design and construction, public transport, maximising use of land and biodiversity, noise and other pollution mitigation, and social responsibility.

Taking the above objectives into account, there are two particular environmental themes which are of critical importance, a working group has been established to develop and deliver an environmental prospectus to detail the context, vision and approach to be adopted in realising those benefits in relation to the HS2 Growth Strategy. The partners that are represented include Birmingham Airport, the Greater Birmingham & Solihull LEP, Groundwork, Environment Agency, the West Midlands Integrated Transport Authority, Canals & Rivers Trust and HS2 Ltd amongst others.

This working group has produced anew HS2 Environmental and Landscape Prospectus (ELP) for the local area (attached at Annex 3). The first theme in the prospectus is focused around the **natural landscape**. The HS2 stations will become major gateways into the region and the City Centre, often creating the first impressions of the region for millions of people over many decades. The stations will, by the nature of their locations and scale alone, create new landmarks and have a profound physical impact upon its surroundings. These stations should act as a catalyst for economic, social and environmental growth with the potential to unlock

development and regeneration opportunities within both the local and regional geographical areas. Harnessing local assets will be critical, particularly through the development of innovative approaches.

The second key theme running through the HS2 ELP is the focus on **sustainability and pollution. This covers both the natural and the built environment.**

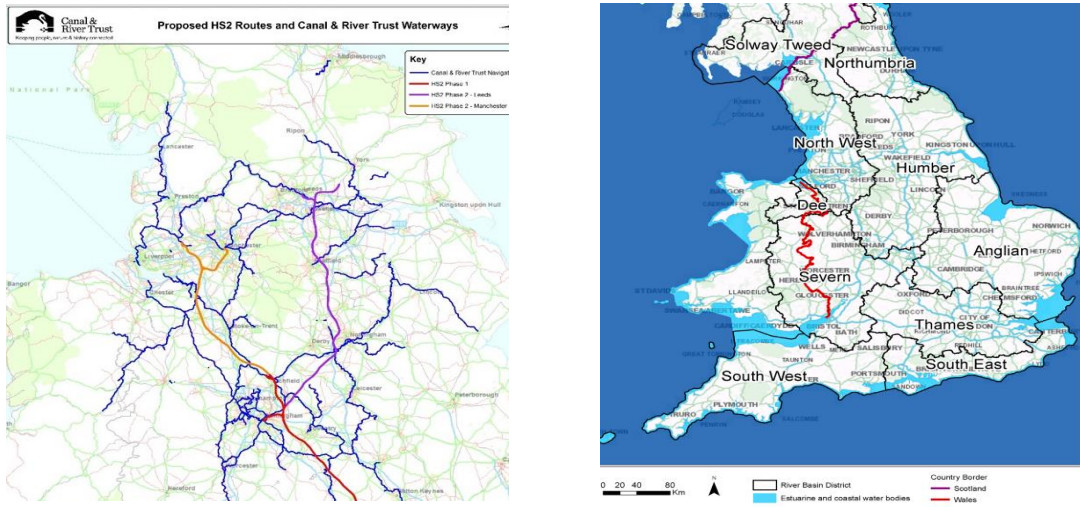
Under the **built environment** the ambition is to promote the innovative actions from ERDF Priority Axis 4 to impact on the production and distribution of energy, on its energy efficiency including renewables and promoting low carbon strategies including sustainable urban mobility. The Zero Emissions Cities initiative (led by the World Business Council for Sustainable Development) for the Smithfield area adjacent to the HS2 terminus at Curzon is a clear example of the ambitions we have for this type of work. <http://www.wbcSD.org/work-program/sustainable-cities/zec/zeroemissionscities.aspx>

The **natural environment** proposals includes work to address the protection and restoration of biodiversity, ecosystems and innovative technologies that can assist in improving environmental protection and resource efficiency in waste sector, water sector and with regard to soil conditions and air pollution. The HS2 ELP contains both strategy on the approach to these issues but also lists potential projects that may assist in delivering such objectives. One strong theme is the need to consider the land corridor of the HS2 route and environments that will be affected by it. Protection and restoration projects will be brought forward as part of the Priority Axis 6 aspects of this strategy, contributing to the ESIF output for improving Hectares of land supported on nature and biodiversity.

This HS2 ELP also includes the water courses in the area that are intersected by the HS2 route. The Humber river basin district (Figure 1) covers an area of 26,100km² and extends from the West Midlands in the south, northwards to North Yorkshire and from Staffordshire in the west to part of Lincolnshire and the Humber Estuary in the east. In total more than 10.8 million people live and work in towns and cities within the district, with the main urban centres being Birmingham amongst others (pg. 9, Humber River Basin Management Plan 2015). The Humber River Basin Management Plan 2015 (HRBMP) highlights that the rivers across Birmingham are failing against Water Framework Directive objectives, generally due to waste water and urban pollution. The priority river basin management issues for the catchment partnership are tackling diffuse pollution from urban and rural areas, habitat modification and improving stakeholder engagement. The Tame, Anker and Mease catchment partnership is made up of Severn Trent Water as catchment hosts, Birmingham and Black Country Wildlife Trust, Warwickshire Wildlife Trust, Trent Rivers Trust and the Environment Agency. The HS2 ELP will be working closely with the aforementioned partners to align aims and maximise the wider environmental benefits to the region.

The Canals and Rivers Trust are represented on the HS2 ELP and will be a critical partner for the programme moving forward. The proposed route of the High Speed Rail Network will change the waterway landscape significantly, affecting 20 canals, four river navigations and four waterways planned for restoration. This presents us with an exciting opportunity to work together to develop innovative approaches to ensure we improve the quality and enjoyment of the canals network and mitigate against the loss of habitats and disturbance to wildlife. The

following map of the UK shows the points at which the proposed HS2 route will intersect with canals.



Our region has a rich historical past, with one of the most intricate canal networks in the world. It is vital that the waterway corridor around the proposed Curzon Street Station is positively integrated into the master planning of the station and the wider master planning of the Birmingham Eastside region and further including Fradley Junction, and the Trent & Mersey Canal. The canals network in our region is crucial and given further accessibility can be utilised effectively by local communities to improve health, wellbeing and education. Increasing the quality of the landscape will encourage the use of public space for outdoor recreational activities, exhibitions and retail use, bringing significant benefits to the wider environment.

There are also specific references to the HS2 Growth Strategy in relation to the list of connectivity infrastructure needed (a new metro station and line, and 10 bus sprint routes) and in relation to the Rolling Stock Management Depot at Washwood Heath:

“This site has been reserved for a depot associated with HS2. Redevelopment of part of this existing industrial area offers the opportunity to reinforce the qualities of this location for employment which is accessible from the strategic highway network and sources of labour in adjacent residential areas, many of which are deprived. There are uncertainties over traffic impacts (hence pollution and climate change) and the provision of sustainable transport links to and from the site, but these depend upon the precise nature of development proposals, in particular the mix of uses and employment numbers. There could be opportunities for environmental enhancement.”

Similarly the Solihull Local Plan includes policies to enable and promote the sustainable economic growth potential of key assets within the UKC ‘Hub’, given the opportunities presented by HS2, and acknowledges the need for careful planning and management of the delivery of HS2 and the economic growth it may generate.

Accordingly, and in the lead in to reviewing its Local Plan, Solihull Council has developed a Prospectus for the HS2 Interchange Area. The Prospectus sets out the Council’s ambitions for sustainable low carbon growth around the HS2 station through its ‘Garden City’ approach. Environment and economy will be integrated through innovative approaches that will make the area a vibrant new place; an exceptional area in which to live, work, innovate, rest and play.

As is the case for the HS2 Curzon Street station, the GBSLEP's wider HS2 Growth Strategy identifies the need for the delivery of infrastructure to provide the UKC 'Hub' with high quality access by a variety of transport modes.

The Hub is connected to more than 50% of the UK's population via onsite links with the UK's main motorway and rail networks and is also the location for Birmingham Airport: the UK's third largest airport outside London handling over 10 million passengers plus significant freight a year and expanding.

Birmingham Airport serves key European capitals, cities on the east coast of America, as well as destinations across Asia, Africa and the Middle East a recent £33m runway extension enables the airport to handle the largest aircraft sizes in commercial operation and the airport has also built a new control tower.

To ensure that the local community connections to this international hub are maximised in particular for business purposes, the HS2 Growth Strategy proposals include the provision of a metro line to link the 'Hub' with North Solihull and Birmingham, and a combination of bus rapid transit / Sprint routes that provide access to areas within Solihull Borough and beyond. Furthermore, through its Route Investment Strategy, Highways England is carrying out improvements to M42 Junction 6; a key junction on the Strategic Road Network that has been viewed as a potential constraint to growth.

In terms of providing sustainable economic benefit to communities, the HS2 line runs through or near to some of the most deprived areas of Birmingham and Solihull, which is why it is so important to maximise the impacts of the Growth Strategy for the local populations. Using the 2015 Index of Deprivation (IOD) the GBSLEP ranks as one of the most deprived LEPs in the country. The GBSLEP ranks third behind Liverpool City region and the Black Country LEP in the Index of Multiple Deprivation⁶ (MD). In Birmingham the HS2 line will run almost entirely through areas listed in the top 10% most deprived in the country. In Solihull, an innovative public-private partnership model, 'Investing in North Solihull' is transforming the lives of 40,000 people in the more deprived areas of Chelmsley Wood, Smith's Wood, and Kingshurst & Fordbridge through a long term programme of investment and development - creating sustainable communities able to access and benefit from the significant economic opportunities in the UK Central area.

There are harmful NO₂ emissions concentrations in Birmingham (see Map 5) that occur along the main arterial routes, which are also the route for the HS2 line. The line should, therefore, through the local connectivity improvements proposed, make a significant difference to the use of public transport in the area and reduce the traffic and associated pollution load through modal shift, and improve health outcomes.

⁶ West Midlands authorities' statutory governance review; Undertaken in accordance with section 108 of the Local Democracy, Economic Development and Construction Act 2009 and section 82 of the Local Transport Act 2008, 31 July 2015. IMD 2015 Rank of Extent

4. Strategy for Sustainable Urban Development

HS2 presents a once-in-a-generation opportunity to drive economic growth and prosperity across the Midlands. We recognise the transformational impact that it will have and the need to fully maximise these benefits. Our HS2 Growth Strategy is about how we can realise the huge potential and ensure that the Midlands is ready to grasp this. As the largest infrastructure project in Europe, HS2 will become an economic catalyst for the Midlands, a region that represents the UK's industrial heritage and its economic future.

The SUD strategy is an integral part of the GBS ESIF strategy. The Focus on HS2 which will be an economic catalyst means that the area can seek to maximise the impact of the expected investment in terms of jobs created, jobs secured by local people, minimised environmental impact, new investment, inward investment. To support this, the wider ESIF strategy will provide other levels of support to the HS2 Growth Strategy which will range from ESF support for skills development relevant to the requirements of industry. ERDF will support innovative actions and provide links to the Higher education sector and industry where innovation approaches and solutions can be applied to the impact of HS2. ERDF will be able to directly support SMEs in making the most of the opportunities by growing and focusing their efforts.

These activities are all in tune with the resources provided via the National Operational Programme and the policy areas that it focuses on. HS2 is a project of National significance which will impact not just in the GBS LEP area but across the country. To create the maximum local economic impact it is vital that the support provided by this SUD strategy works alongside complimentary ESIF support.

We are at the geographical centre of the HS2 network and at the heart of a new, innovative high-speed rail industry.

This SUD Strategy will support this city region focus, particularly with regard to economic, environmental, climate, social and demographic factors. We set out below the rationale and context for this Strategy, and how it exemplifies delivery of the ERDF National Operation Programme. This is followed by a closer look at some of the key investment locations, and the growth opportunities they provide.

There is then a section on the direction of the SUD fund, and indicative actions, with an emphasis on whole place integrated strands of innovative delivery in the themes of energy infrastructure, blue infrastructure, green infrastructure and connectivity, and how this translates into ERDF funding priorities. Tables are attached to provide the detail on the delivery of funds by Priority Axis and over the programme timescale.

Finally, we have included an Annex to this section with examples of the types of projects which are envisaged to be funded, and how the opportunities for innovative SUD could be met to provide national and internationally important examples of exemplary innovative practices and technologies.

4.1 SUD Funding table and delivery timescales.

| ERDF Priority Axis | | | Allocation (In Million €) | ERDF Outputs At Priority Axis Level | Number |
|---|--|--------------------------|------------------------------|---|--------|
| Priority Axis | Investment Priority | Budget (In Million €) | | | |
| PA4: Supporting the Shift towards a low carbon Economy in All Sectors | 4A Promoting the production and distribution of energy derived from renewable sources | 1.7 | 9.1 | Productive investment: Number of enterprises receiving support | 258 |
| | 4b Promoting energy efficiency and renewable energy use in enterprises | 1.7 | | Renewables: Additional capacity of renewable energy production | 1.5 |
| | 4C Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector | 2 | | GHG reduction: Estimated annual decrease of GHG | 4535 |
| | 4E Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures | 3.1 | | | |
| | 4F Promoting research and innovation in, and adoption of, low-carbon technologies | 0.6 | | | |
| PA6 Protecting the Environment and promoting resource efficiency | 6D Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure | 2.0 | 3.9 | Land rehabilitation: total surface area of rehabilitated land | 2 |
| | 6F Promoting innovative | 1.9 | | | |

| | | | | | |
|-------|--|----|----|---|-----|
| | technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution | | | Nature and biodiversity: Surface area of habitats supported to attain a better conservation status | 134 |
| | | | | Productive investment: Number of enterprises receiving support | 140 |
| TOTAL | | 13 | 13 | | |

The budget in the table above forms part of the overall allocation for the GBS LEP area. This budget consists of funds from the More Developed area. The total ESIF funds for the area are 130,388,880 Euro covering the More Developed and Transitional areas. The above proposed notional allocation is 10% of this amount.

Types of Actions to be supported are set out in section 4.3 below

Aligning SUD and adding value:

Value for money: The SUD will follow the national ESIF model of benchmarks for value for money. All call specifications and then selection of projects will utilize this methodology to ensure that the range of projects to be supported are appropriate for the amounts of money sought and are sufficient to deliver against the range of output indicators and quantities.

European Social Fund (ESF) activities: ESF will contribute to HS2 and SUD activity over its programme lifetime. The early phase is the GBS YEI project to tackle inner city youth unemployment which not only steers them to education or skills development but also to job opportunities and then contains a strand linking young people to employment via a system of engagement with employers to provide a stream of potential job applicants across sectors.

Alignment with Major projects: The SUD package will deliver in close alignment to other major priorities. HS2 is a project of national/international significant and the SUD package will provide complimentary activity by promoting renewable energy, energy efficiency, low carbon impact in sustainable mobility and protect and restore biodiversity which will sit alongside and compliment mainstream HS2 delivery. The proposed Smithfield area developments will be a target for these types of initiatives especially as the ambition there is to have a Zero Emission City policy and impact including implementation of the DEFRA-led Natural Capital development tool

Profile of spend: Once the SUD programme is underway the initial calls will allocate circa 40% of the resource available. Given the need to contribute to N+3 targets this should; subject to take up, enable sufficient expenditure to be incurred to meet the minimum N+3 target in 2018. Project calls and appraisal will stress the need for deliverability to this timescale. Match funding is predicted to arrive from a variety of sources including – Local

authorities, HS2 Ltd, and private sector.

Innovation: The whole of the HS2 project will be a nationally and internationally visible project with significant impacts which the SUD strategy will align to and delivery alongside. The ambition and innovation planned for the Smithfield area adjacent to the HS2 Curzon area to become a Zero Emissions City project/area will also have a similar profile, with a range of potential innovative actions as noted in the next section,

Timescale: Please see page 28 of the HS2 growth strategy. This give an overview of the HS programme and shows how SUD activity can be aligned to this.

<http://centreofenterprise.com/wp-content/uploads/2015/07/Midlands-HS2-Growth-Strategy.pdf>

4.2 Rationale: Vision for longer term investment

This SUD strategy addresses four of the six GBSLEP SEP game changers targeted on the maximisation of our HS2 related/connectivity related growth opportunities.

HS2 is the proposed High Speed Rail line initially connecting London to Birmingham, and following that a 'Y' shaped extension connecting the Midlands Engine to the Northern Powerhouse and other key locations.

There is a main line station planned for central Birmingham, 'Birmingham Curzon', and an interchange station 'UK Central or 'UKC' adjacent to Birmingham Airport and the National Exhibition Centre (NEC).

These two HS2 stations proposed in the Greater Birmingham area will act as national growth nodes leading to significant development and employment opportunities both in those locations but also bringing prosperity across the whole area. In addition, there are major investments to occur along the corridor of the line, including the National College for High Speed Rail and the Rolling Stock Maintenance Depot (RSMD) to serve both phases 1 and 2 of the proposed high speed rail network (London – Birmingham and the Y network to the north respectively).

The HS2 Growth Strategy will significantly strengthen and accelerate the delivery of the City Centre growth agenda which, by 2031, will see the development of 1.5m m sq. of floor space, 50,000 new jobs and over £2bn in additional GVA per annum.

Radical plans have also been outlined for the UK Central site in Solihull, a development of over 140 hectares that will add up to £19.5bn in GVA by 2040 with a significant focus around the HS2 interchange station.

Furthermore HS2 HQ (Construction) will be located in Birmingham within the Enterprise Zone. The new headquarters will create up to 1500 jobs and will be open for business in 2017.

A new Regeneration Company, HS2 Ltd, has taken responsibility for over 140 hectares of land in the city centre and will see the delivery of 14,000 jobs, 600,000 sq m of new employment

floor space and 2000 homes.

For 2015 / 2016 £30m was approved by the GBSLEP partnership to the Regeneration Company to deliver infrastructure to support development activity across the Birmingham Curzon area; and investment of £140m to extend the Midland Metro from Snow Hill station to the location of the new HS2 terminus at Birmingham Curzon all the way down to Adderle Park.

In terms of the next phase of announcements, a major funding package is anticipated as part of the current Combined Authority Devolution Deal discussions, with other strategic and delivery gains to be made through the proposed local management of funds for transport and the creation of a multi-billion pound Combined Investment Vehicle to facilitate the level of public and private sector investment needed to realise the ambition of this strategy and the wider Midlands Engine vision.

This SUD strategy is aligned to the proposed delivery of ESF provision in the Birmingham and Solihull areas. There is a focus within ESF on the skills levels and pathways to employment that are needed to fulfil the opportunities that HS2 will bring to the area. These include not just the prime contracts around HS2 construction but also the next tiers suppliers to the many supply chain companies involved and the many opportunities that will arise. It is vital to provide a correctly skilled workforce to enable local companies to fully take a part in HS2 delivery.

The strategy is also aligned to the Zero Emissions Cities initiative which will see the area of Smithfield, located close to the HS2 Curzon station, being redeveloped in the near future as the wholesale markets leave the area, this will attract investment in a mixed use area but the ambition is that this become a zero emissions area from the start with planning, development taking full account of these principles. The themes of Energy, Mobility and Buildings are key for the achievement of this. This could include innovation in the areas of smart grids, micro grids, district heating/cooling grids, electronic vehicles and infrastructure, high performing energy efficient building and others. All these will be used to target innovation across the areas that are investment priorities in Priority axis 4 in particular. This would cover 4a, 4b, 4c, 4e and 4f.

There exists a strategic and integrated set of cross-sector Roundtable thematic groups working to advise GBSLEP under the banner of the Birmingham Green Commission. Members include utility companies, national and regional public and third sector organisations, and Local Authorities' elected Members. These groups analyse local needs and devise strategic responses on the themes of Green Growth, Natural Capital and Adaptation, Buildings and Efficiency, Transport and Mobility, and Energy and Resources. These groups act as strategic leads for the alignment and development of integrated project planning and combining resources and influence, and offer opportunity for resource efficiency for SUD project development and alignment.

In addition GBSLEP has invested local monies and ERDF Technical Assistance (2007 – 2013 Programme) in developing 'sister' strategies: The Low Carbon Transport and Mobility Strategy and the Low Carbon Energy Strategy to guide delivery of Investment Priorities 4a and 4e, alongside other funds and resources, These strategies, which are at final approval stage, will enable aligned investment for priority and catalytic project to impact on short,

medium and long term outcomes in the GBSLEP area.

4.3 Exemplary ERDF delivery

This SUD Strategy responds to the challenge laid down under the EU regulations, known as Article 7 of the ERDF regulation for Urban Authorities to seek to innovate and radically improve the delivery of development to achieve SUD through integration of economic, environmental, climate, social and demographic factors.

The Birmingham and Solihull area is a more developed area that sits within a region that is 87% more developed and 13% transitional. The Strategy provides for transformational project development to meet the low carbon and environmental aims using ERDF Priority Axis 4 and Priority Axis 6, whilst ensuring that the projects are designed to work for people and places, now and in the future. The suitability of Priority Axis 4 and Priority Axis 6 for providing this additional investment is clear from the evidence provided in Section 2 above: In the socio-economic and SWOT evidence relating to the significant environmental and sustainability challenges that the SPRG, the BDP Sustainability Appraisal, and the HS2 Growth Strategy (including the Curzon and UKC Interchange proposals) is set out.

Indeed section 1.1.1 of the England Operational Programme (OP) sets out long term trends in UK growth data showing the disparity between economic growth rates at Core City level, and that Birmingham and other cities have significantly lagged behind performing cities such as London for decades, and that this was repeated in terms of lagging recovery from the recent recession. Here, the OP states that there is where there is a need for 'special measures to promote sustainable urban development in these City Regions' (p5).

The HS2 Growth Strategy is formed around the **integrated local growth principles of People, Business and Place**, with streams of focused work which this SUD investment will optimise through innovative solutions:

The **People workstream** is focused on three theme targets: Ignite, Accelerate and Re-tune:

Ignite – targeting those in education and training to raise aspirations and ensure that the right advice and support is in place for young people to achieve their ambitions. This includes the LEP's vision for pathways through to higher level vocational skills required for HS2 and delivered through the National College for High Speed Rail (NCHSR).

Accelerate -The HS2 Strategy will also target those in work to accelerate skills and career progression – including to a higher level of vocational skills – making this the norm and thereby supporting increase in productivity.

Re-Tune - supporting unemployed people and those whose skills don't match labour market demand so they are able to access jobs. The development of a skilled workforce to deliver HS2 is a key element that will run through each of these themes which, in turn, will be integrated within our key delivery strategies for Skills Investment Zones and ESF funded activity.

Types of actions to be supported through SUD: we do not envisage SUD actions directly supporting the People Workstream directly, but indirectly there would expect actions to have a strong alignment of activity at strategic and local levels to support job creation, especially in higher level skilled employment sectors and the low carbon sector, and aligned skills and

employment access support.

The **Business workstream** will focus on supporting businesses, through the HS2 growth strategy, in:

Sector Growth and Inward Investment – growing the sectors that the Midlands has a competitive advantage in and stimulating and attracting significant inward investment through a clear strategy.

Supply Chain – putting in place a series of packages to support the growth of our supply chains ensuring they are ready to maximise the opportunities and grow our local economy.

Types of actions to be supported through SUD:

We envisage this ESIF support will be provided through the main ERDF calls for Priority Axis 3 for cross-LEP delivery to a wide geography, reflecting the breadth and interconnectedness of the supply chain across this and other advanced manufacturing and construction sectors. However we do see a role for Priority Axis 4 and 6 projects in relation to specialist business support for innovative energy and environmental/ resource efficiency support as part of the SUD activity (example set out at section 4.5 below for symbiotic resource management of construction and other critical materials).

The **Place workstream** will be delivering two world class station environments and development zones and a wider connectivity programme: Ensuring the stations at Curzon and Interchange are of the highest quality and fully integrated with surrounding areas ready to maximise growth, development and wider connectivity.

Types of actions to be supported through SUD:

We see an opportunity for innovation in design and civil engineering that will meet the aims of this Strategy and the delivery of Priority Axis 6 in relation to blue and green infrastructure and maximisation of employment land at the station sites and other strategic sites e.g. Washwood Heath RSMD where an innovative approach is needed to manage water attenuation and limit the take of employment land through use of balancing pools (example provided in section 4.5).

In terms of connectivity, the HS2 Growth Strategy seeks to ensure that the stations are linked to an enhanced local transport network, providing improved access to the jobs at the two development zones and spreading opportunities for growth and regeneration across the wider region.

We see opportunity for innovation in design and delivery of connectivity infrastructure and technologies, and opportunities for innovation in the use of renewable energy and battery technology. There may be projects delivered through Priority Axis 4 and 6, such as the Hydrogen Bus trial example set out in section 4.5 below)

Through this comprehensive package of connectivity improvements, our approach to place will also enhance the Midlands' ability to attract inward investment through a cluster approach, enabling businesses to draw on a larger base of suppliers for different industries and the widening of labour-pooling opportunities with greater matching of supply and demand for jobs.

Our approach is focused upon four strands including to connect the two HS2 stations and their associated development zones into the wider region, spreading the benefits and enhancing access to jobs. It will also enable existing economic clusters outside the two development zones to benefit from the improved connectivity that HS2 will afford the region and support their growth and access to labour and markets.

- Connectivity to the stations - and to maximise the geographic impact and provide links to key development opportunity sites in the wider area Integrated HS2.
- Ensuring the delivery of a fully integrated network between HS2 and the local and national transport networks providing seamless interchange for passengers.

For these two strands we see opportunity for innovation in design and delivery of connectivity infrastructure, and digital investment that will meet the aims of this Strategy and delivery of Priority Axis 4 and Axis 6.

- Maximising capacity released by HS2- Maximising the released capacity HS2 will provide on the conventional network, improving links to Birmingham Airport and optimising the Midlands' local rail and road networks in preparation for, and post, HS2.
- International connectivity - Securing the provision of direct international services from the Midlands to Paris, Brussels and beyond via a direct rail link between HS2 and the existing HS1 line to the Channel Tunnel and wider European High Speed Rail Network.

These two stands are unlikely to provide opportunity to invest ERDF directly, but provide significant alignment of investment.

The understanding of the prospective match funding package is developing all the time, but significant other investments are being identified to align this funding to:

- Curzon Investment Package – £670m
- Interchange Station Investment Package £672m
- Wider Connectivity Investment Package £1441.81m
- HS2 Ltd delivery plans, including the co-ordination committee and the HS2Environment workstream
- The national investment in the National College for High Speed Rail (Birmingham campus)
- The Energy Research Accelerator⁷⁷

4.4 Key investment locations

Birmingham Curzon

Building on the economic stimulus of the proposed HS2 station in Birmingham city centre, together with the wider Enterprise Zone programme of investments, this SUD strategy sets out an exciting fusion of thinking for natural resources of water, land and energy, and how to

⁷⁷ The Energy Research Accelerator (ERA) is a multi-faceted centre of excellence uniquely placed to deliver a step change in the nature and impact of energy research in the UK through its expertise, credibility and its foundation in the Midlands economic region. The Government has confirmed £60 million for the initial first phase of ERA and this was announced by George Osborne MP, Chancellor of the Exchequer as part of the 2015 Budget.

design-in connectivity, innovation and future-proofing to maximise the impact of the combined investments being made up to 2026 when the line is due to open to the public.

Our SUD plan will support the maximisation of the economic impact of the development for HS2, including UK Central and Curzon Street nodes, and significant opportunities between them such as the proposals for the Rolling Stock Maintenance Depot at Washwood Heath, which will provide a range of job opportunities and scope to locate rail related businesses and activities on the adjoining sites, making it an important site for rail engineering progress and innovation.

The importance of pooling strategic actions and resources for these developments in the GBSLEP area is recognised nationally in the HS2 Growth Deal, and locally in the detailed Birmingham Curzon HS2 Masterplan for Growth, the UK Central and HS2 Interchange Prospectus, and the Washwood Heath Draft Development Framework (June 2014).

The GBSLEP will face challenges arising through the implementation of such a major scheme within established communities, and also in achieving maximum and sustainable impact in new areas. Our SUD activity will deliver direct economic impacts which are beneficial in a 'whole place' context (by which we mean sustainable development actions that are integrated at a local level in an holistic way), to achieve low carbon and ecological gains for the benefit of communities, at the same time as supporting employment uses and ultimately – through helping enable HS2 - supporting connectivity and economic gains for the urban and rural communities across the whole GBSLEP area.

UK Central

In the UK, land is a valuable commodity and it is imperative that any development makes the best use of land. The hybrid bill scheme for the HS2 Interchange station at UKC Hub makes a low intensity use of the site predominantly for surface car parking, whereas the UKC vision promoted by Solihull MBC advocates an intensive mixed use form of sustainable development which is now being accepted and support by HMG and its agencies.

At the UKC Hub there is an opportunity for the components of the SUD strategy e.g. Green and Blue and Energy to make a significant contribution towards realising the vision to see a new place emerge out of the current set piece assets of the airport, NEC, business parks. This will help realise the intensification of development in an area that is currently considered to provide a highly inefficient use of land with extensive areas of surface car parking and left over space.

There are currently in the region of 33,000 spaces serving the airport, NEC and the existing International station. Here green bridges will help overcome significant barriers to nature e.g. motorways and railways and will align a new linear concept incorporating a central watercourse with ponds and swales with a high capacity Automated People Mover (APM) linking the HS2 station with International Station and the Airport. The transport components of which are subject of HS2 and a successful Connecting Europe Facility (CEF) European fund. There is an intensive investment programme from a range of infrastructure providers that will enable economies of scale in cost and innovation. The area will present one of the largest development sites in the UK with space for new homes, business, and commerce and leisure opportunities.

The prospectus for a 'Garden City' approach highlights a number of specific eligible proposals including a central park, green/living bridges to tackle severance issues caused by the M42 and HS2 line and connecting neighbourhoods with sustainable transport options, and outlines how the development could create some 20,000 job opportunities and could act as a catalyst for unlocking the wider long-term potential of UK Central to generate some 100,000 additional jobs in total across the GBSLEP area by 2040.

Washwood Heath

As well as being the location for the new RSMD for all new lines into the future, HS2 Ltd has also identified Washwood Heath as a centre for construction of the new rail line and therefore all of the land at Washwood Heath is within the HS2 Safeguarded area confirmed by the Secretary of State for Transport.

The depot will generate 500 jobs as well as a further 140 jobs in the Network Control Centre which will also be located at Washwood Heath. The illustrative layout of the depot within the HS2 Phase 1 Environmental Statement shows a large area of the depot given over to three balancing ponds (for the tunnel portal; railway track; and depot itself) totaling over 8 hectares. Post construction and the operation of the depot approximately 16 hectares (gross) of land could be returned to the market for development use (see RSMD example on page 19).

4.5 Delivery themes

As stated in the Introduction, we mean to make the very best use of the land and economies of scale that can be achieved through aligning the planning, design and investment in infrastructure and development to ensure optimal levels of sustainable development that makes the most of the investment going into HS2

The development of this SUD strategy has resulted in the formation of four main themes for investment: Energy Infrastructure; Blue Infrastructure; Green Infrastructure and Connectivity which are set out below.

These themes are, in many cases, linked in terms of delivery benefits, for example: creation of innovative low carbon energy infrastructure along the route creates opportunity for low carbon powered connectivity solutions; similarly, innovative approaches to engineering to solve water attenuation problems creates space for green or other infrastructure developments. There is ambition for this Strategy to be delivered with this kind of holistic forethought that achieves 'win-win' results for current and future growth.

Energy infrastructure

- Primarily demonstration of new-to-market technologies for renewable energy generation that align to the planned Low Carbon Energy Strategy to be developed to guide the investment of ESIF (and other) funds for this purpose.
- There is also potential for innovative decentralised energy networks and energy efficiency projects that are directly linked to achieving the HS2 Growth Strategy (for example linked to the development of the HS2 College) and the Low Carbon Energy Strategy.

Blue infrastructure

- There are at least two sites (at Washwood Heath and UKC) where innovative Sustainable Urban Drainage solutions could offer significantly increased hectareage of employment land compared to currently proposed solutions, the options are currently being investigated to enable call parameters to be set.
- The rivers Rea and Cole present a number of challenges that need to be managed to enable maximum local improvements in terms of development sites, quality of the public realm, amenity value and water quality improvements; innovative design solutions could enable affordability of the optimum solutions.
- Enhancing the natural landscape and access to the canals from the HS2 College to Curzon St and beyond to ensure the creation of a safer and utilised public space. It is important we identify the opportunities to improve how we use public spaces, travel and get around urban areas.

Green infrastructure

- Aligned to the work of the HS2 ELP, this area of work will offer opportunity for proposals from across the HS2 development zone to contribute to a large scale vision for quality bio-diverse green infrastructure that is innovative in overcoming topographical and corridor-connectivity challenges i.e. plugging the gaps. Securing and maintaining natural assets will be a key driver of the programme's success.
- The HS2 ELP will over the coming months work collaboratively to develop an environmental and landscape prospectus for the region as a whole. The prospectus will be completed by April/May 2016. The earliest the West Midlands Combined Authority will be in place is April/May 2016.
- The HS2 Growth Strategy includes proposals for changing the use of many sites, most of which have been previously developed, which presents challenges, so funds will be made available for innovative solutions for site decontamination / re-use to support sustainable urban development, including elements of the 'Garden City' vision for UKC such as the visionary Linear Park including a green bridge over the M42. HS2 Ltd have confirmed funding to create this Linear Park as a grassed area, but not to create a bio diverse park, which is where the use of ERDF PA6 will bring additionality.

Connectivity

- Whole place connectivity improvements will be encouraged through supporting innovative solutions that are directly linked to the HS2 Growth Strategy, these could be physical or digital in nature, but must take into account the economic, social and environmental and climate change aspects of the SUD funding, and adhere to the GBSLEP Low Carbon Transport Strategy that is due to be completed in September 2015.

Projects meeting these themes will deliver measureable benefits for maximising employment land, high quality and bio-diverse public realm, energy and resource measures, and development opportunities based on connectivity gains.

They will bring direct economic benefits but, more importantly, will benefit communities and support the economic impact of HS2 estimated to be between £1.5 billion and £3.1 billion

per year; equivalent to between a 2.1% and 4.2% increase in total local economic output in 2037 for Birmingham, Solihull and adjoining areas³

The key outputs for ESIF will be site development, greenhouse gas reduction, enterprises supported and jobs created. The levels of these are being investigated but will be broadly in line with the pro-rata allocation for Priority Axes 4 and 6 for the GBSLEP area.

In implementing this SUD plan we will learn from, and then add to, the body of knowledge regarding maximising the impact of investment in High Speed Rail (HSR). The High Speed Rail International Case Studies Review (High Speed Two (HS2) Limited March 2014) reviews 10 international examples, and includes two recommendations (amongst others) which can be seen to directly support the proposed actions in the SUD plan:

- Effective integration with other transport networks to maximise accessibility and connectivity will help to maximise the economic impact of new infrastructure, and help to spread the benefits more widely.
- HSR has the potential to support 'place making', with careful planning to attract investment that has a strategic fit, taking into account station location and underlying socio-economic characteristics and trends.

One of the case studies reviewed is Lyon Part-Dieu; Lyon achieved strong area development, high passenger volumes and strong modal shift and, like Birmingham and Solihull, had established business activity in the proposed HS2 development areas on which to build. Through a longstanding sister city relationship with Lyon, Birmingham City Council is now liaising with Lyon to support learning at the local level to develop innovative solutions based on the successful development around HSR achieved in that city.

Examples of identified project opportunities

Energy Infrastructure

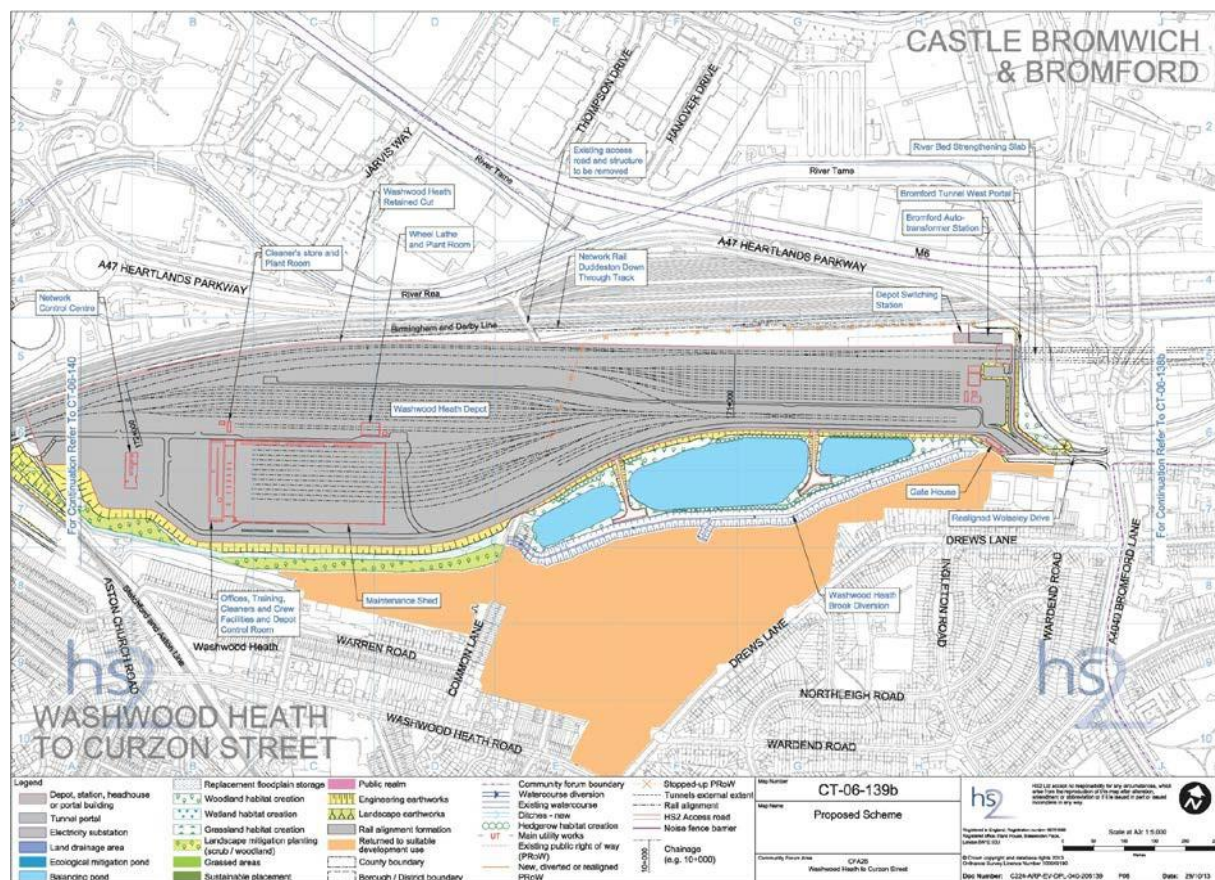
(Curzon) HS2 College construction team are keen to look at innovative solutions to include in the building to achieve green energy generation and energy efficiency. The tight deadline on the build timescale means that this opportunity would be one of the first available through SUD open calls in 2016. The Energy Research Accelerator <http://www.era.ac.uk/> and partners are assisting in exploring the options.

(Interchange Triangle Area) A number of areas are retro-fitting district heating capabilities into networks to reduce CO2 emissions and assist in the efficient distribution of heat. The creation of a 'Garden City' from scratch presents the opportunity to deliver appropriate innovative infrastructure from the outset that development plots can capitalise upon, as and when they come forward.

Blue Infrastructure

(UKC) Sustainable Urban Drainage, **Interchange Triangle Area** – The HS2 Ltd proposal includes a number of sizeable balancing ponds to deal with surface water issues, an approach that fits with the delivery of a 'parkway' station. However, an alternative approach is required in order to maximise land available for development, potentially making use of the existing Holywell Brook and surrounding linear park concept

(Washwood Heath) HS2 Ltd has identified land at Washwood Heath (64 hectares) as the preferred location for the **Rolling Stock Maintenance Depot**. The illustrative layout of the depot within the HS2 Phase 1 Environmental Statement shows a large area of the depot given over to three balancing ponds totaling over 8 hectares.



The City Council received a legal ‘assurance’ from the Secretary of State for Transport on this issue and this was supported by the HS2 Select Committee’s subsequent instruction to HS2 Ltd in December 2014 to “adjust the scheme so that there is minimum land take and for the shortest time with sensible placing of balancing ponds and a hand-back configuration that after construction will attract maximum business use of the residual site”.

The depot design review process subsequently began in March 2015 and HS2 Ltd is required to report back to the HS2 Select Committee in October.

ERDF could support this as part of a wider funding package to achieve the most sustainable option that optimises land use through innovative design/technology.

(Curzon) Along with the canals, the **River Rea** is one of the main watercourses in the City. During its history it has been heavily modified by human activity in the City Centre, including short converted sections, resulting in its character being very different to the original river channel. Areas around the River Rea are within Flood Zone 2 and 3, including records historic flooding at three locations. This presents challenges in bringing forward development in the City Centre.

The City Council are working in partnership with the Environment Agency and Severn Trent Water to take a combined approach to addressing flood risk along the River Rea in the City

Centre to support the regeneration of the City Centre, including the Curzon Masterplan area.

Solutions such the use of innovative sustainable urban drainage systems (SUDS) techniques, rain water harvesting, sewer separation, water reuse and improving the setting of and access to the channel as are being explored. The study is considering a series of options to achieve the partnership's aspirations for the Rea corridor and the identification of a preferred option is expected in November 2015. Specific projects to deliver the preferred option have the potential to come forward before 2020 linked to specific regeneration proposals.

Visualisation of a wet boulevard pedestrianised area – building resilience of urban water systems to climate change



Green Infrastructure

(UKC) **Linear Park & 'Green Bridge'** over the M42 – The UKC vision includes a proposal to provide a linear park that broadly follows the alignment of Holywell Brook. The park would provide a vital leisure / recreational facility for both residents and businesses of the 'Garden City', and the intention is to continue the park across a bridge over the M42 to provide green link that connects the new development with the existing NEC & Airport area. An innovative approach is required in delivering what will effectively be a park over a motorway; outline costs have been developed and the SUD fund could contribute towards its delivery, as well as ensuring the park is bio-diverse – an aspect that is currently underfunded.

UKC Design Plan, showing Linear Park



(Whole Place) **Resource management** - There are real opportunities for innovative partnerships, for example construction material shortages and pressure on raw material supply is leading to delays in critical infrastructure projects. Resource criticality issues are becoming more prevalent impacting on the UK construction sectors ability to deliver projects both on time and to budget.

Government is encouraging the transformation towards a circular economy in which the reuse of secondary materials displaces an increasing proportion of primary materials in manufacturing and construction. This can help meet the demand as competition for primary aggregates, cements and other inputs increases. Materials reuse not only reduces carbon emissions but also adds value to underused or wasted resources and avoids waste.

Large projects such as Hinkley Point and HS2 will have a significant pull on concrete/cement and steel fitting resource. Additional pressures from Highways England schemes, infrastructure projects, and new housing, are stressing the market's ability to meet increasing demand.

A recent 6-month pilot project for the Highways England (formerly Highways Agency) identified over £8m cost savings through material efficiency savings across infrastructure projects in the East Midlands, with substantial carbon reduction.

There is also an example of a project consortium to identify the next generation of alternative raw materials (ARMs) for the built environment. Drawing on infrastructure clients, research and development institutions, and the manufacturing industry, the project identified future market

trends and technically feasible ARMs by applying a cross-sector approach and the latest GIS mapping techniques. A further 16.5 million tonnes of untapped ARMs was identified above and beyond the 350K tonnes of existing material available within the construction and demolition sector.

There is potential to innovate in applying this kind of concentrated synergistic work at the level of the HS2 Growth Strategy where a variety of investments in energy, connectivity, drainage and infrastructure investments will lead to new opportunities for applied innovative solutions. Key public developments along the line such as Curzon Station, Paternoster Place, the RSMD, UKC Interchange and the NCfHSR could be more sustainably achieved through this work.

In addition this approach may benefit the wider reform agenda, for example the Combined Authority and Government will work together to help rationalise the public estate, as Government departments across the region will consolidate into a major hub in Birmingham consisting of 2 – 4 buildings; Timescales are to have a hub up and running by 2020/21.

Connectivity

(UKC) **Interchange Triangle Area** – The highways infrastructure required to provide access to the HS2 Interchange Station will need to be of a sufficient scale that it can accommodate the significant number of vehicle trips that the station is expected to generate. The initial 'parkway station' proposal includes heavy-duty, potentially dual carriageway roads and large scale roundabouts – the challenge will be to ensure that these are delivered innovatively such that they can provide the necessary access, but in a way that complements the urban environment that the area will become; i.e. to create vibrant town / city centre streets that cater for a variety of uses, rather than highway corridors that could potentially create severance issues. ERDF could support this as part of a wider funding package to achieve the most sustainable option through innovative design/technology.

(Whole route) **Smart connectivity solutions:** smart digital technologies to enable easy multi modal journeys and integrated approaches to the planned new routes e.g. alternative fuelling for construction and long terms infrastructure/ commuter services.

Innovative Refuelling facilities As internal combustion engine vehicles are a major source of local pollutants, and diesel engines are responsible for a significant proportion of harmful emissions. The hydrogen fuel cell bus (FCB) is one of the very few options for the elimination of harmful emissions and the complete decarbonisation of public transport within towns and cities. Hydrogen can be generated from a range of renewable energy sources and when used in a fuel cell the only emission is water, meaning that the buses can eliminate both carbon and urban air pollutants. Birmingham City Council has been working with a number of cities and their bus operators across the UK to set up the UK's first 100 Fuel Cell Bus Project, an innovative project to deliver zero tailpipe emission hydrogen fuel cell buses. This follows leading work to establish the market need and demand (a 'blueprint') for alternative refuelling networks.

<http://www.makingbirminghamgreener.com/2015/blueprint/>

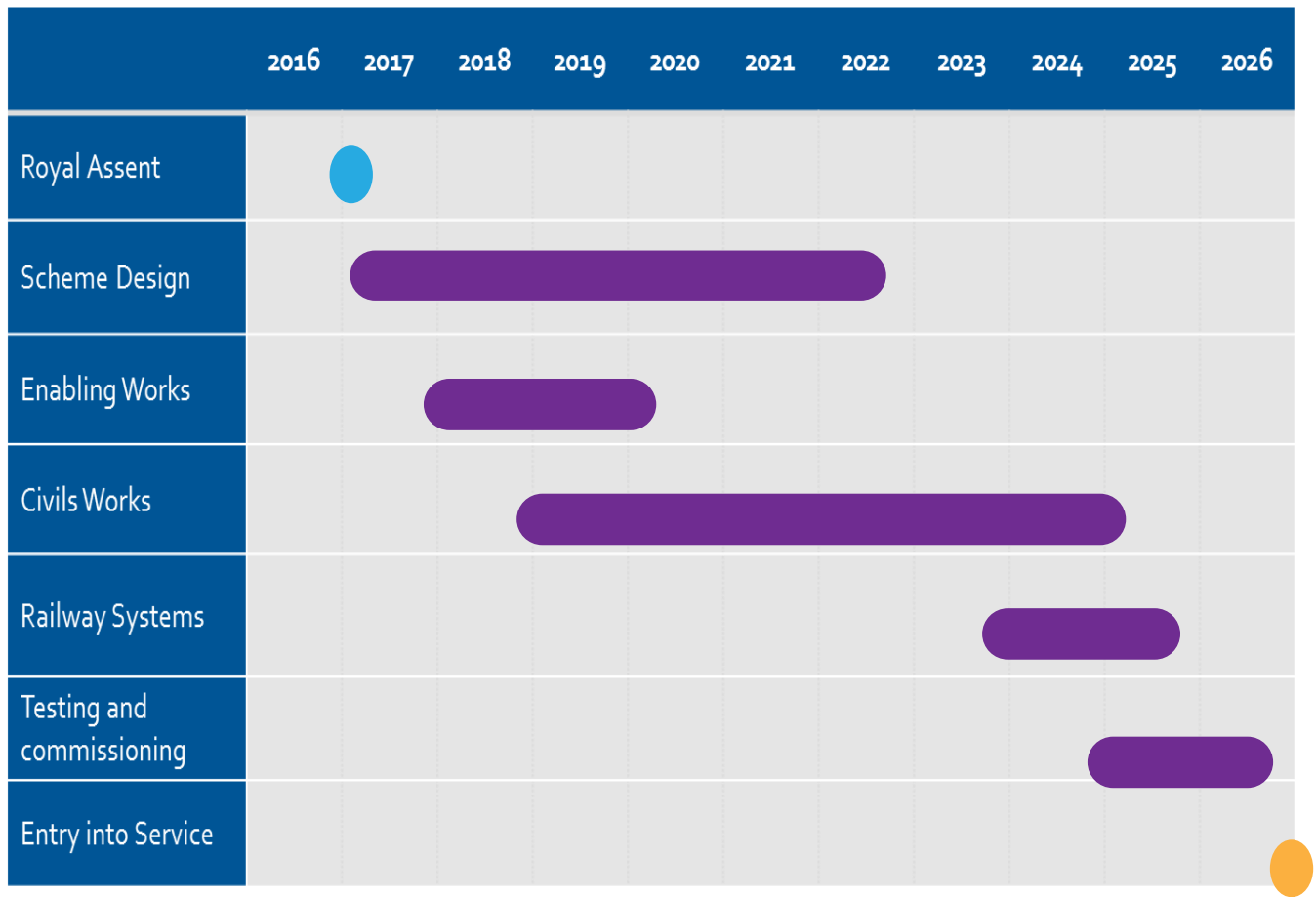
Timeline

The construction of the whole Phase One route will take approximately eight years. This will be

followed by a period of testing and commissioning before the first services commence in 2026. The Washwood Heath depot site will be used as the main construction site for the HS2 line from 2017 onwards.

Simon Casey, HS2 Ltd Lead for Environment Area North, Phase One reported to the timetable below, noting that it is imperative that green and blue infrastructure projects funded through this plan are deliverable in the timescales of the Enabling Works and Civil Works time periods set out below i.e 2018 – 2023. For projects that will enhance Enabling Works to be on the ground in 2018, the funding and procurement needs to be in place in 2016/17.

HS2 Ltd Phase 1 High Level Delivery Schedule



5. Partnership and governance arrangements

5.1 The Urban Authority

Birmingham City Council (BCC) will be the lead Urban Authority for this SUD strategy and will therefore take on the role as Intermediate Body. BCC has vast and considerable knowledge of EU structural fund programmes and the associated responsibilities that come with its management and governance. With respect to SUD, BCC is also familiar with the ERDF Article 7 regulations within which these arrangements sit and the technical requirements that are set out in Article 125(3) which appears to be the basis on which the limited IB status will be awarded.

This strategy has set out a wider Combined Authority footprint across which the scope of the SUD strategy could be extended. Should this be the case then the nature of the partnership and governance arrangements would change. However, with only a Birmingham and Solihull footprint within the GBSLEP area, the partnership and governance arrangements will be aligned and, where appropriate, embedded into the current GBSLEP ESIF Committee and partnership arrangements.

Track record and capacity

BCC has a long and successful track record in managing EU funds. This record illustrates the competence, knowledge and expertise required to take on the additional responsibilities associated with taking on limited IB status. Birmingham City Council was a European Social Fund (ESF) co-financing organisation in the 2000-2006 programming period and in the 2007-13 programme was designated IB status under ESF. In the most recent role as an IB, with delegated authority from the Department for Work and Pensions, the Council was required to oversee a c£60million Innovation and Transnational ESF programme across England which required BCC to conduct regular Article 13 monitoring visits to the 32 projects funded. Each project received a minimum of three visits over this period illustrating the vast number of verification visits it has successfully conducted. The Council itself was subject to a number of Article 16 visits, which reviewed its ability to manage such a delegation, and was awarded a category 1 rating, the best rating possible. Over both programming periods, the Council has not been subject to any problems or issues of irregularity in its management and delivery of these responsibilities. These responsibilities, that have spanned the last two programming periods, illustrate the competences and track record of Birmingham City Council who would provide the technical and human resource support for this SUD strategy. In addition to this, BCC has been the accountable body for a number of ERDF action plans and successful ERDF projects.

What we will do

As the IB for the SUD strategy, we see that four key responsibilities will need to be managed¹. Ensuring that the relevant transparent and compliant processes are in places. To enable BCC to effectively discharge its responsibility detailed under Article 125(3) with regards to the 'selection of operations'

- Fulfilling the requirements to ensure that it has put in place the appropriate management and control processes.
- Being able to demonstrate a sufficient separation of functions within BCC that will overcome any potential for conflict of interest.
- Ensuring that it maintains relevant and sufficient engagement and involvement of partners in its governance arrangements.
- Compliance – BCC will have a dedicated EU compliance officer to help ensure that the discharge of its duties are within the rules and regulations. This post will report directly to the Head of European and International Affairs who will assume the day-to-day IB responsibilities. This post will challenge all systems, processes and administrative arrangements to ensure all compliance issues associated with IB status are observed.

5.2 The selection of operations

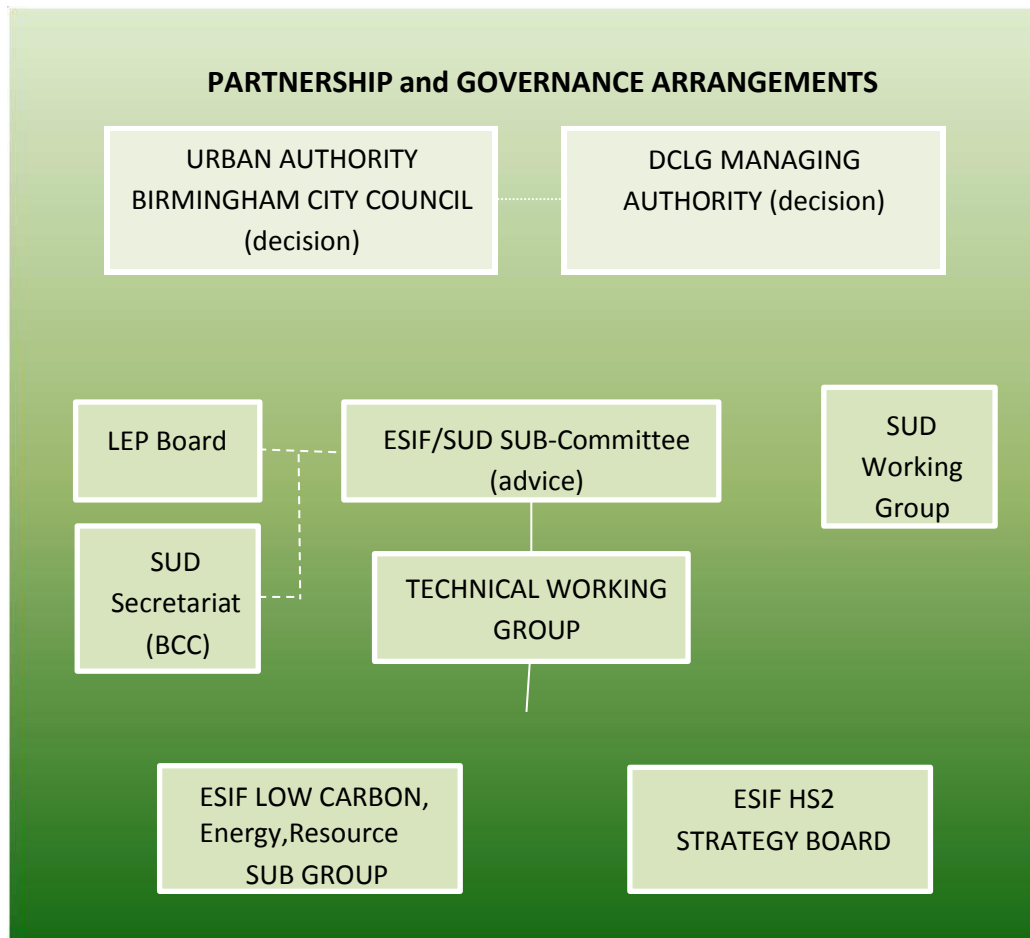
BCC understand its responsibilities under Article 125(3) and understands the remit within which decisions will be taken. It understands that this is limited to the strategic fit of the proposals. It understands that key decisions around compliance and eligibility will rest with the Managing Authority and therefore the management and control arrangements described below will illustrate how the separation of responsibilities between the MA and the IB will be respected.

In this context it should be noted that the existing ESIF committee infrastructure will be used as a basis for facilitating this decision. The flow diagram at chart 1 below illustrates a structure within which ESIF governance operates in GBSLEP, supplemented by additional support specific for SUD. Currently the ESIF committee provides advice on strategic fit to the appropriate MA. This advice is formulated by a Technical Working Group (TWG) which consists of technical experts representing the ESIF committee. The TWG effectively undertake assessments of applications against specific calls and provides the relevant analysis against the strategic fit to ESIF strategies on behalf of its committee members.

We would expect to use the same process but the TWG and ESIF committee would be supplemented by the inclusion of representatives of a new SUD sub-group and the existing HS2 Strategy Board. The fundamental difference is that the ESIF committee in this context will be providing advice to the Urban Authority rather than the MA for SUD. To facilitate this, ESIF committee meetings will be split into two parts: One for normal ESIF business and the other for SUD business.

There will also be regular consideration of the alignment of the delivery plan for this Strategy with the HS2 Environment Workstream programme. The work-stream representation will come from within the current HS2 governance structure and would sit on the HS2 Programme Co-ordination Group which oversees all of the activities within HS2 and reports to the HS2 Strategic Board. A first task of this group will be to develop a prospectus and funding plan for December 2015, followed by mobilisation of projects in 2016, which fits well with the start-up timing and open call timescales for the delivery of the SUD programme.

Chart 1



5.3 Management and control

Chart 1 above also provides an illustration of the various roles performed by key stakeholders. It is key to note here that the management and control responsibilities will be assumed by BCC in conjunction with the MA as per the terms of the delegation. In this respect BCC will assume the core responsibilities of the secretariat including the servicing of the SUD related ESIF committee, the preparation and circulation of relevant papers before and after meetings, the recording of minutes, recording of the decisions taken by the IB etc.

BCC will nominate a Chair for the SUD committee who will be authorised to take the key decisions for the IB. Solihull MBC will provide the Vice-Chair. All current ESIF committee members will remain on the SUD committee which will also be supplemented with representation from a newly formed SUD sub group and a representation from the HS2 strategy Board.

The TWG will continue to fulfil its role as the technical support for the ESIF committee members and extend its scope to include SUD business within its work. BCC, as suggested above will provide the secretariat function for the SUD committee and will oversee all the regulatory requirements associated with the delegated IB status.

5.4 Separation of functions

The secretariat function for these arrangements will be accommodated in BCC's European and International Affairs Division. This is not a front-line deliverer of projects. This Division sits at the centre of BCC's organisational structure rather than in any of the delivery Departments of the organisation. It has considerable experience in assuming the IB responsibilities requires as outlined under 'track record' above and is sufficiently removed from parts of the Council that may choose to bid into the SUD programme.

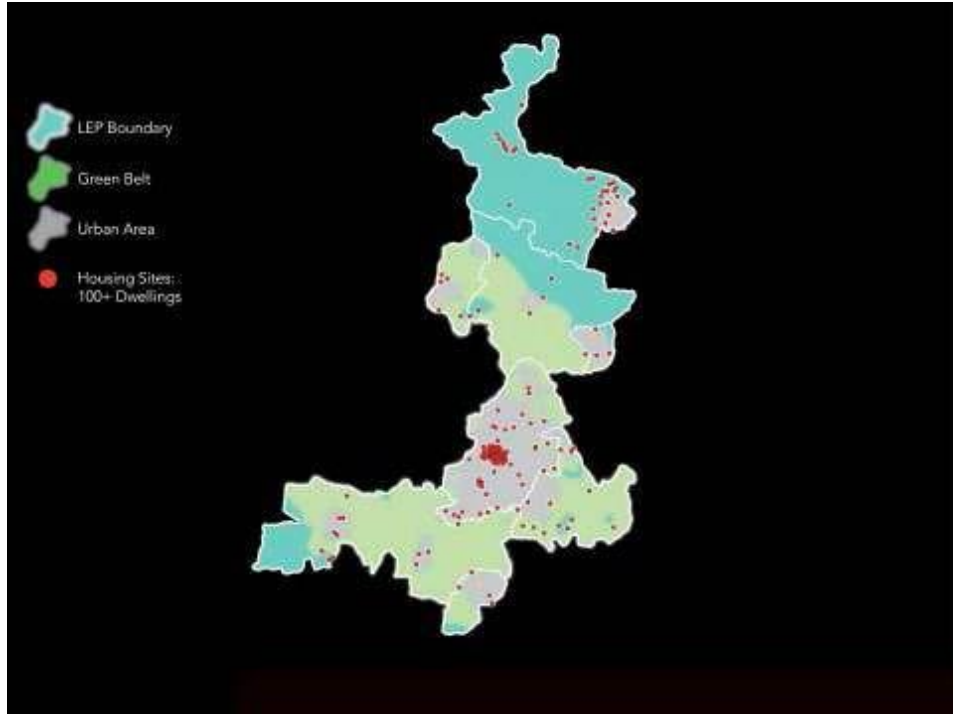
Whilst there can be sufficient evidence to illustrate a separation of functions in BCC, the Division taking on the responsibility for the secretariat function and oversight of the various functions in the governance arrangements will ensure that there will be a sufficient system in place to monitor and record any potential conflicts of interest. BCC will also seek advice from the MA or await any further guidance in respect of this matter

5.5 Engagement of partners

As already described in this section it is the ambition of BCC to sustain as much as possible the engagement and contribution of the existing ESIF committee members and thus maintain its commitment to the EU regulations and in particular the partnership principle. The arrangements described above will facilitate a seamless engagement and contribution of partners from ESIF to SUD. Similarly, and in the interests of alignment and complementarity, the new SUD committee will report its progress to the HS2 Strategy Board and LEP Board to ensure its investments decisions are consistent with the other growth activities outlined in the GBSLEP SEP and HS2 Growth Strategy.

Annex 1 Maps

Map 1. Housing proposals in the GBSLEP Spatial Planning for Recovery and Growth Consultation Draft September 2013.



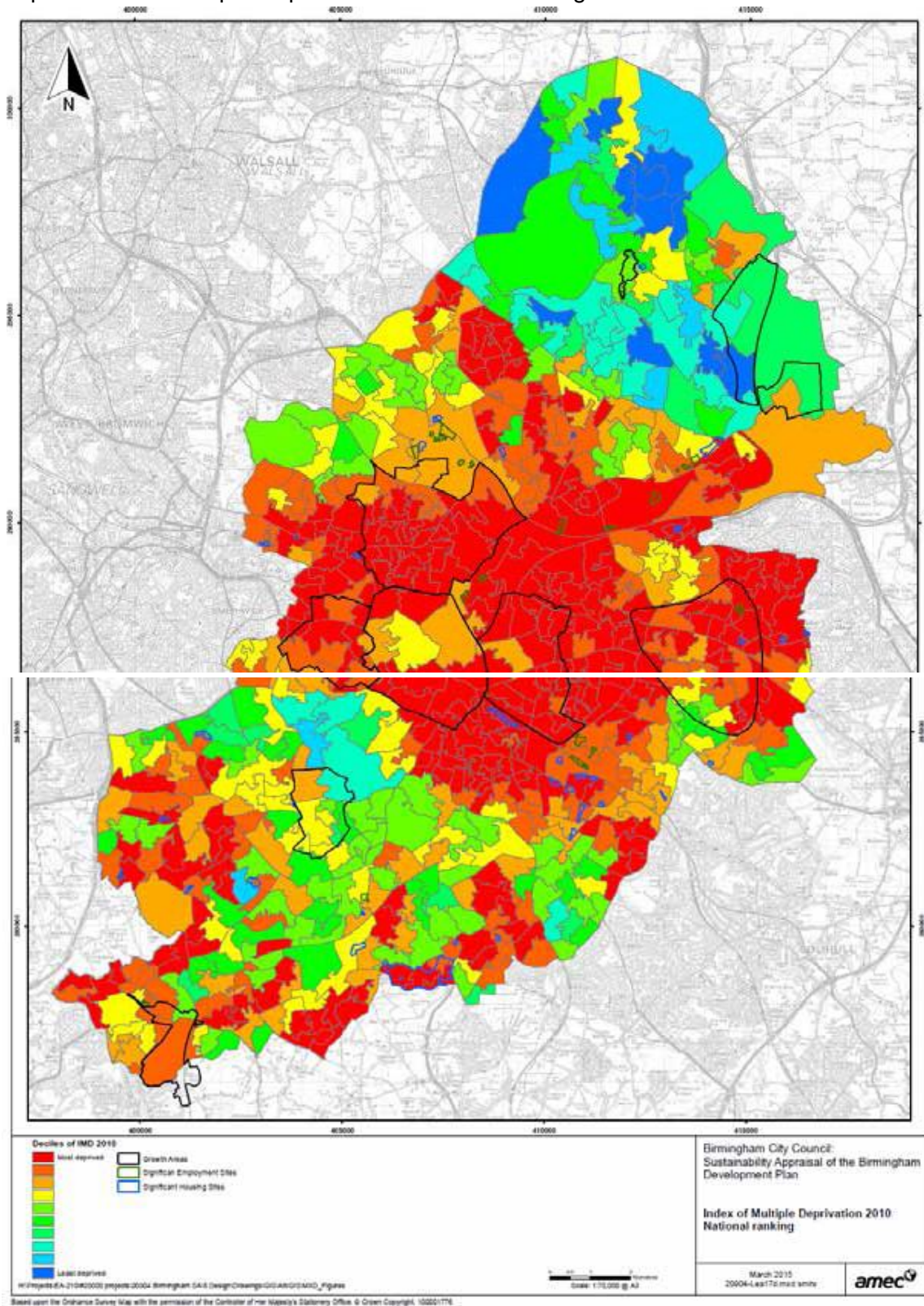
Map 2. Connectivity proposals in the GBSLEP Spatial Planning for Recovery and Growth Consultation Draft September 2013.



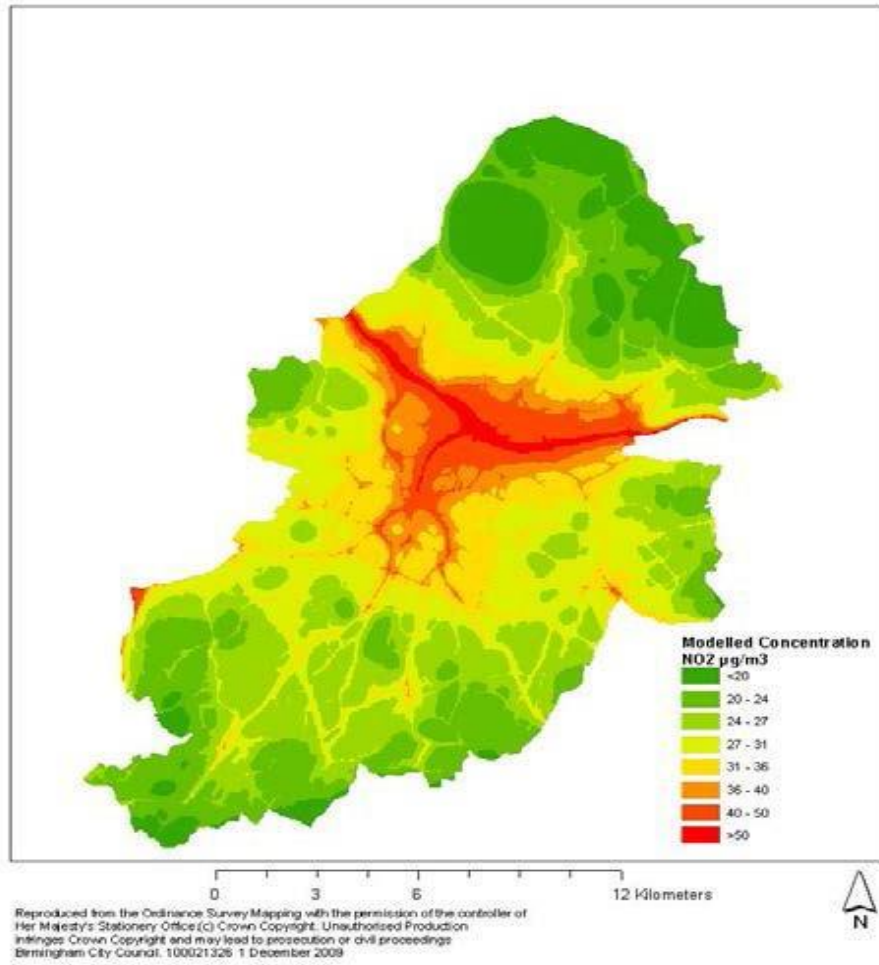
Map 3. Environmental initiatives proposals in the GBSLEP Spatial Planning for Recovery and Growth Consultation Draft September 2013.



Map 4. Index of Multiple Deprivation deciles in Birmingham 2010



Map 5. Modelled nitrogen dioxide concentrations across Birmingham 2008



Annex 2 GBSLEP and WMCA Full Socio Economic Data and GBSLEP SWOT Analysis

Overview

The Greater Birmingham & Solihull Local Enterprise Partnership (GBSLEP) economy produces £41.7bn of economic output per annum (3% of national output) and is home to 884,000 jobs. The wider West Midlands Combined Authority (WMCA) area⁸ had an economic output totaling £55.5bn in 2014 and over 1.2m workers are employed in the area. Economic output (as measured by GVA) per head, a common measure of an areas prosperity is lower than the national average in both the GBSLEP and the WMCA area⁹.

The GBSLEP area has a population of 1.98m (WMCA 2.8m) and is more diverse than the national average, Birmingham in particular being very ethnically diverse; the city has a larger proportion of BME residents than any other major city in the UK. The area also has a younger age profile than the UK as a whole, with over a third (33.7%) of the GBSLEP population age 0-24, the highest proportion of any LEP area¹⁰.

Using the 2015 Index of Deprivation (IOD) the GBSLEP ranks as one of the most deprived LEPs in the country. The GBSLEP ranks third behind Liverpool City region and the Black County LEP in the Index of Multiple Deprivation¹¹ (MD). The high levels of deprivation within the GBSLEP are largely driven by a concentration of deprived areas within Birmingham. The city is ranked the 6th most deprived local authority in the country whereas the other 8 areas are more affluent, ranked between 96 and 258 out of 326 local authorities. Deprivation rankings are not available at CA level but of the 7 local authority areas in the WMCA there are significant levels of deprivation with Birmingham, Sandwell, Wolverhampton and Walsall all ranked as in the top 20 most deprived local authorities in England.

Unemployment rates¹² in the GBSLEP area have been persistently high and well above the national average over a long period of time. In June 2015 the GBSLEP unemployment rate stood at 7.9%, well above the UK rate of 5.8% (as was the rate in the WMCA 8.9%); the GBSLEP also has the highest unemployment rate amongst the 8 core city LEP areas.

Employment rates in the area have also been persistently low and below the national average, the latest data highlights that 67.2% of GBSLEP working age residents are in employment compared to 72.9% at a UK level. The GBSLEP has the second lowest employment rate amongst the LEP core cities behind Liverpool City Region. As with deprivation the low employment rate and correspondingly high unemployment rate in the GBSLEP is mainly driven by issues within Birmingham's labour market with the other areas in the LEP having employment rates above or close to the national average.

Average earnings¹³ for Greater Birmingham & WMCA residents lag the national average, of the 9 areas that make up the GBSLEP only 3 have average weekly earnings that are above the national average (£518). Average resident earnings in Birmingham (£479) are amongst the lowest of the major UK cities and well below London (£618).

⁸ As defined by 7 Met areas

⁹ ONS Sub-national GVA estimates 2014 & ONS BRES 2014

¹⁰ ONS Mid-Year Population Estimates 2014

¹¹ IMD 2015 Rank of Extent

¹² ONS Annual Population Survey June 2015

¹³ ONS Annual Survey of Hours and Earnings 2015

Key Socio Economic Data for GBSLEP & WMCA

| Indicator | GBSLEP | | WMCA | | UK/England |
|------------------------------------|----------|-------|----------|-------|------------|
| | Number | % | Number | % | |
| Population | 1.98m | - | 2.81m | - | 64.6m |
| Working Age Population | 1.25m | 63.0% | 1.77m | 63.1% | 63.5% |
| 65+ Population | 319,592 | 16.1% | 438,130 | 15.6% | 17.7% |
| Young People (0-24) | 669,157 | 33.7% | 968,862 | 34.5% | 30.3% |
| BME Population | 505,591 | 26.0% | 817,322 | 29.9% | 14.6% |
| Employment | 834,000 | 67.2% | 1.13m | 64.5% | 72.9% |
| GVA per Head | £ 21,063 | | £ 19,778 | - | £ 24,958 |
| Productivity (GVA per hour worked) | £ 27.47 | - | £ 27.36 | - | £ 30.05 |
| NVQ4+ Skills | 357,900 | 29.1% | 474,400 | 27.3% | 35.8% |
| No Qualifications | 167,700 | 13.6% | 267,700 | 15.4% | 9.0% |
| Average Earnings | £ 26,944 | - | £ 25,775 | - | £ 27,645 |
| Unemployment | 71,400 | 7.9% | 110,800 | 8.9% | 5.8% |
| Worklessness | 180730 | 14.5% | 284820 | 16.1% | 8.9% |
| Youth Claimant Unemployment | 7,625 | 6.1% | 12,280 | 7.2% | 4.1% |
| Long Term JSA Claimants | 11,545 | 1.2% | 19,305 | 1.5% | 0.5% |

Five key challenges identified under Article 7 (economic, environmental, climate, social and demographic).

Challenges - the local economy is not performing to its full potential

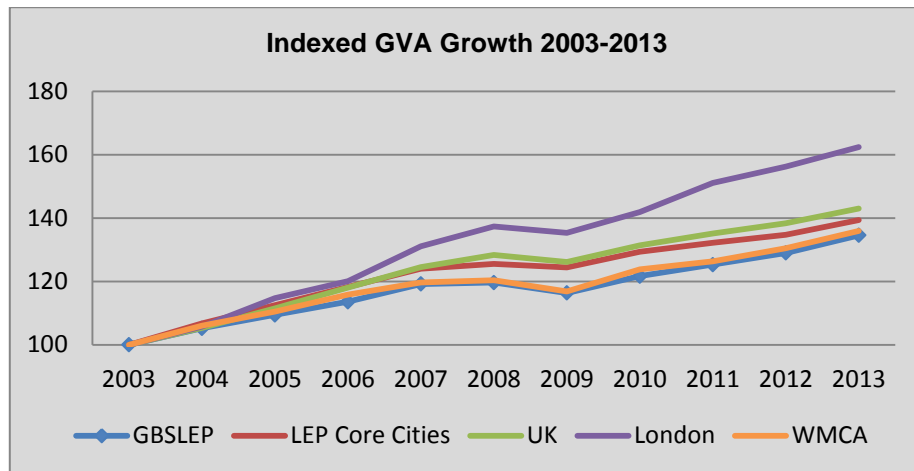
Whilst the local economy has emerged from recession and had been performing well on a number of key metrics of late, the economy and labour market locally still underperforms in comparison with the national average and a large output gap exists. The area has a number of strengths and major infrastructure investments such as HS2 offer game changing opportunities for the region. However, the area still face a number of key challenges; economic output and productivity in the local economy lag behind the UK and some other metropolitan areas. Too many local residents have low or no qualifications and are unemployed or economically inactive. This results in disproportionately high levels of deprivation in the area with some neighbourhoods amongst the most deprived in the country. Tackling these issues and ensuring residents benefit from public and private investment in the area will require new and innovative approaches to skills and training, enterprise and innovation and infrastructure.

1. Economic

The local area is not as productive or prosperous as it could be

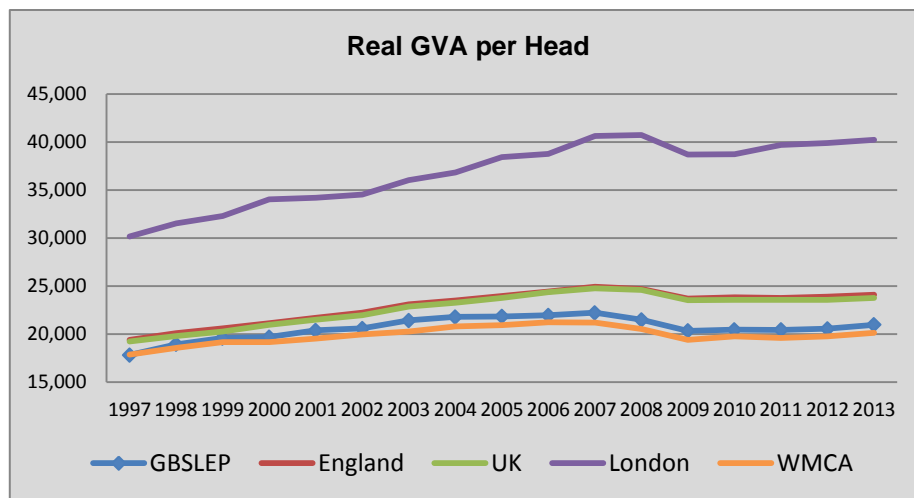
Economic output in the GBSLEP grew strongly in 2013 by over £1bn in real terms (2.5%),

outperforming growth in the UK of 1.6%. However, if we look at economic performance over a longer period we see that this was the exception rather than the rule. Over the last decade the GBSLEP and the WMCA area have seen their economic position deteriorate relative to the national average and some other areas with the area disproportionately suffering during the recession.



Source: ONS Sub-national GVA estimates

Looking at economic output per person (GVA per head) is way of comparing the relative prosperity of different areas. GVA per head in the GBSLEP stood at £20,969 in 2013 slightly above the WMCA (£20,137) but well below the UK (£23,735) and London (£40,215). GVA per head in the GBSLEP is therefore only 88% of the UK level and for the WMCA this drops to 85%.



Source: ONS Sub-national GVA estimates

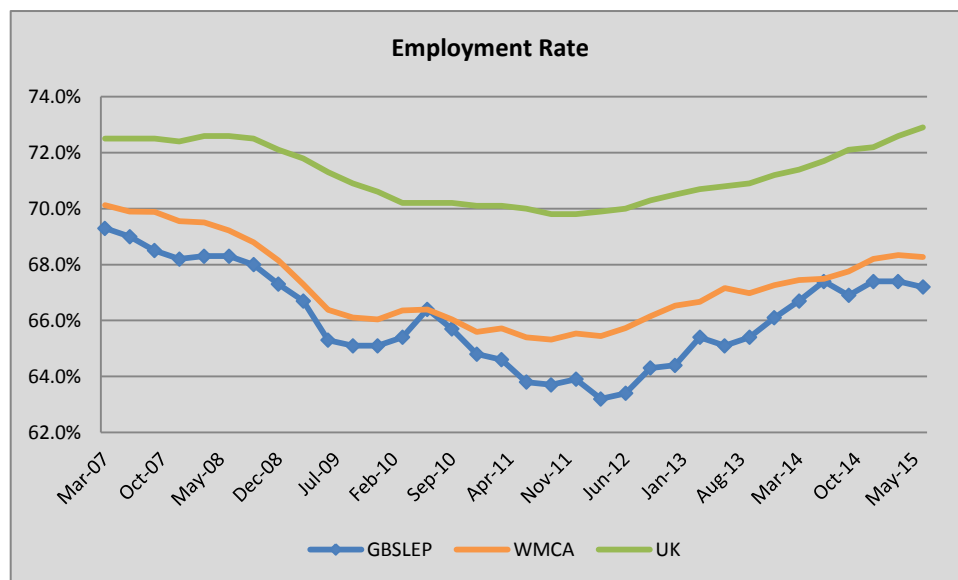
Productivity levels in the GBSLEP and WMCA as measured by GVA per hour worked are significantly lower than the national average, in 2013 GVA per hour worked in the GBSLEP was £27.47 compared to £30.05 and £38.84 in London. Productivity has declined in recent years and improving productivity locally is key to increasing economic output and prosperity. The local economy is not currently punching its weight and a productivity gap exists between the GBSLEP and the UK. If the GBSLEP were to have the same productivity levels as the UK as a whole there would be an additional £4bn of economic output generated annually in the local economy, if we were more ambitious and matched the productivity achieved in London the local economy would be £17bn larger. Increasing GVA by these large amounts would in

turn lead to a big upturn in GVA per head locally and a closing of the prosperity gap.

Unemployment is too high and resident employment rates should be higher

The GBSLEP and the WMCA labour markets were hit hard by the recession which exacerbated the persistent long term issue the region has had with high unemployment. Unemployment has fallen significantly during the recovery and employment has grown but unemployment rates and employment rates in both the GBSLEP and the WMCA are still to recover to their pre-recession levels. Prior to the downturn the unemployment rate in the GBSLEP stood at 7.1% and the employment rate was 68.3%, the latest figures for June 2015 show the unemployment rate at 7.9% and the employment rate at 67.2%. In other words the local labour market is in a poorer condition than it was 7 years ago.

Unemployment rates locally remain well above the national average (5.8%) and amongst the highest in the country. High unemployment and correspondingly low employment are a key causal factor in the areas persistent high levels of poverty and deprivation.



Source: ONS Annual Population Survey

Many residents are not sufficiently skilled to access the opportunities in the local economy

Too many of the local areas workforce has low or no qualifications and too few are qualified to degree level and above. The latest data for 2014 shows that 29.1% of the working age population in the GBSLEP are educated to degree level, compared to 35.8% in the UK (WMCA 28.6%). Nearly 14% of working age LEP residents has no qualifications, the highest rate amongst the core city LEP areas and well above the national average of 9%¹⁴. Improving the skills base of the local workforce will be key to reducing unemployment and deprivation levels and a vital component in driving improvements in productivity levels and economic output in the local economy.

¹⁴ ONS APS June 2015

The headline economic data shown in the summary table below highlights the challenges faced in the SUD area but also the latent potential within the area to grow, become more productive and prosperous and to improve outcomes for local people.

| Indicator | Performance |
|--------------|---|
| GVA | <p>Long term GVA growth below national rate and other metropolitan areas leading to a widening GVA gap</p> <p>GVA per head £20,969 in 2013 - 88% of UK level and only 52% of London level</p> <p>Productivity in the area is also lower than the UK and a large productivity gap exists</p> |
| Unemployment | <p>Unemployment in the area has been persistently high for many years; the recession exacerbated this trend further widening the gap with the UK.</p> <p>The area has high levels of youth & long-term unemployment</p> |
| Employment | <p>The employment rate is still to recover to its pre-recession level and the employment rate gap with the UK has widened since the beginning of the downturn (from 6.3% points to 8.5% points).</p> <p>The differential in employment rates between the GBSLEP and the UK has therefore increased by 33% since the start of the recession.</p> |
| Earnings | <p>Average earnings for local residents are below the national average for 6 of the local areas that make up the SUD area. In Birmingham the largest area resident earnings are 92% of the national average and this has declined since the onset of the recession</p> |
| Skills | <p>Nearly 14% of residents have no qualifications well above the national rate of 9%. Skills levels locally have improved but at a slower pace than nationally and in other areas resulting in a widening skills gap.</p> |

2. Social

Generating growth and creating employment is vital if the area is to reduce deprivation and social exclusion

The SUD area has a number of deep rooted socio-economic issues related to poor skills levels, low employment and high unemployment which result in lower levels of household income and high levels of deprivation and other related issues such as poorer health outcomes. The relative position of the local area on a number of key socio-economic indicators has also worsened since the beginning of the recession.

The 2015 Index of Deprivation shows that for the GBSLEP area as a whole 24% of Lower Super Output Areas (LSOAs) are among the 10% most deprived areas in the country. The most deprived communities are centred on the urban areas of Birmingham and North Solihull

with deprivation levels much less marked in some of the other districts that make up the SUD area.

| % of LSOAs in 10% Most Deprived in England | |
|---|-----|
| Birmingham | 40% |
| Solihull | 12% |
| Tamworth | 8% |
| Wyre Forest | 8% |
| Redditch | 7% |
| Cannock Chase | 3% |
| East Staffordshire | 1% |
| Lichfield | 0% |
| Bromsgrove | 0% |

The area suffers from disproportionately high levels of worklessness, engrained long term unemployment and higher than average levels of youth unemployment

Worklessness: There is a higher than average level of benefit dependency in the SUD area. Data from the DWP Working Age Client Group shows there were 143,600 residents of the SUD are in receipt of out of work benefits in May 2015, this accounted for 11.5% of the working age population of the area compared to 9.1% for England as a whole.

Long-term unemployment: There has been a very sharp decline in claimant unemployment in the SUD area since the height of the recession and there are now fewer claimant unemployed in the area than there were in the period prior to the start of the recession. However, the number of long term claimants (claiming for over 12 months) has increased during this period by around a third from just over 9,000 in June 2008 to approaching 12,000 in October 2015.

Youth Unemployment: 18-24 year olds in the GBSLEP area are more likely to be claimant unemployed than their counterparts at a national level. The latest data for October 2015 shows 4% of 18-24 years olds were unemployed compared to 3% nationally. The problem is most acute in Birmingham where the rate is 4.8%.

Child Poverty: The lower household income levels in the area result in a higher level of child poverty in the more deprived urban areas, with child poverty particularly concentrated in Birmingham which has the 8th highest level of any local authority in the country and 3 of the city’s constituencies are in the top 20 areas nationally for child poverty.

| Percentage of children in poverty Oct-Dec 2013 | |
|---|-------|
| Birmingham | 37.1% |
| Bromsgrove | 14.1% |
| Cannock Chase | 22.7% |
| East Staffordshire | 23.3% |
| Lichfield | 18.3% |
| Redditch | 23.0% |
| Solihull | 19.7% |
| Tamworth | 22.2% |
| Wyre Forest | 23.9% |
| UK | 25.1% |

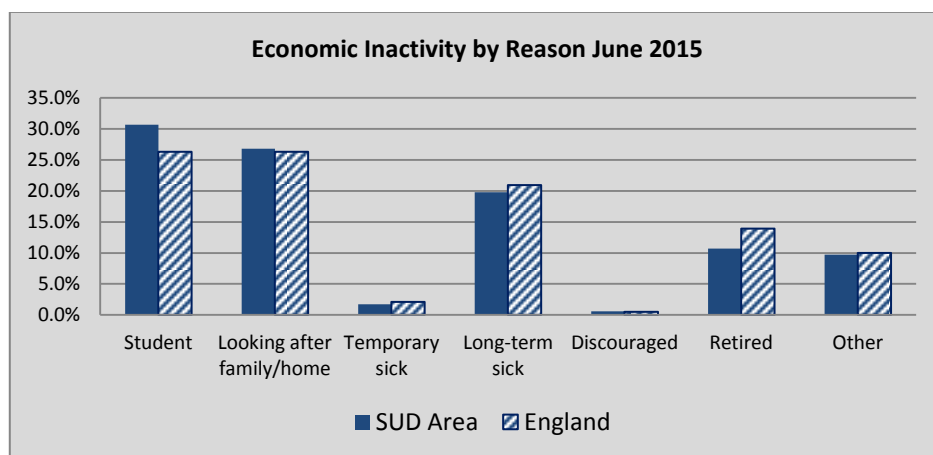
Source: End Child Poverty

3. Demographic

The GBSLEP area has a population of 1.98m and is more diverse than the national average; the area has a younger age profile than nationally but faces similar challenges to other areas with an ageing population. The population is forecast to grow to 2.23m by 2037 an increase of 13%, within this overall growth the working age population will grow by just 5% whilst the over 65 population is forecast to grow by 51%¹⁵. The working age population will shrink as a proportion of the overall population meaning in effect there will be fewer working residents providing a tax base to support a growing population.

The ageing population will add to the existing health challenges that the area faces. 2011 Census data shows that the SUD area (35.8%) has a slightly higher proportion of households with at least one member suffering with long term ill health or a disability than for England (32.4%) as a whole.

These health challenges have an effect on the levels of economic activity in the area. Over a quarter (27.1%) of the working age population in the SUD area are economically inactive, a higher proportion than in the UK (22.6%). Long-term health issues account for 20% of those who are inactive, with temporary sickness accounting for a further 2%.



Source: ONS Annual Population Survey June 2015

Looking at the Health Deprivation and Disability domain of the 2015 IOD the GBSLEP area is ranked as the 9th most deprived LEP area in relation to a basket of health indicators. Within the SUD area Birmingham again is the local authority with the highest concentrations of health deprivation ranking 46th in the country.

The area has a large migrant & BME population with complex socio-economic issues

The area is also home to a significant number of migrants. According to the 2011 Census, 15% of residents were foreign-born, with more than half of these being of Asian or Middle Eastern origin. The vast majority of migration in the GBSLEP is concentrated in Birmingham which accounts for 83% of all residents born outside the UK in the SUD area.

Some of these communities have distinct and particular socio-economic issues which make engagement in the labour market more challenging and result in disproportionate levels of social exclusion and deprivation. English is not the main language for nearly 10% of GBSLEP

¹⁵ ONS Sub-national population estimates

residents compared to 8% for England; the figure rises to 15% for Birmingham. Whilst there are exceptions for some migrant and BME communities in the area the majority have poorer skills levels, lower labour market participation and are more likely to live in areas with high levels of deprivation. Engaging with these communities to tackle their specific labour market issues will be a key component in tackling social exclusion and deprivation and increasing economic output and prosperity in the SUD area,

4 and 5 Climate and Environment

A recent study by Sustainability West Midlands¹⁶ found that 'There is an impressive array of low carbon projects to be funded by Greater Birmingham and Solihull (GBS) LEP's EU funding pot. By its own admission, the area is faced with a myriad of challenges relating to the environment, including being:

- One of the worst English regions in the UK for energy efficiency in its housing stock;
- One of the regions least likely to use more sustainable forms of transport;
- A very high net energy importer making it vulnerable to cost and supply shocks.

Existing and planned projects aim to address these issues, but it is not all about how much funding should be ploughed into resolutions. Critically, all of the projects aimed at reducing carbon emissions are steered by Birmingham City Council's led Green Commission, a partnership of individuals from a variety of organisations committed to rising to these challenges and achieving the ambitious target of reducing carbon emissions by 60% by 2027 from 1990 levels.³³

Existing, successful projects have already been implemented, such as the establishment of the Birmingham Energy Savers initiative, a partnership between public and private sector aimed at utilising the government's, now closed, Green Deal scheme to apply energy efficiency measures to hard-to-treat properties.

Using EU funding, GBS LEP now wants to address the remaining issues by focusing on:

- The scaling up of new technologies as part of existing schemes such as Energy Savers and support actions in non-domestic properties that directly achieve measureable carbon reductions, by interventions such as structural retrofit activities and ICT and smart technology rollout;
- Low carbon transport solutions, particularly the development of the cycling and walking infrastructure to connect people to work, along with promotion of and infrastructure for low carbon travel solutions, particularly relating to both plug-ins and hydrogen vehicles;
- ICT development and promotion of modal shift actions, for example, encouraging efforts to provide real-time information to public transport passengers;
- Establishing local low carbon energy supplies to encourage decarbonised local energy generation;
- Expanding the combined heat and power (CHP) and cooling network within the GB&S LEP area for both homes and businesses.'

According to the scoring system used in the report, compared to all other LEPs, GBSLEP ranked 8th for commitments to Climate Change mitigation and Low Carbon Economy actions,

¹⁶ <http://www.sustainabilitywestmidlands.org.uk/resources/fit-for-the-future-local-enterprise-partnerships-climate-ready-and-low-carbon-economy-good-practice/>

but a low 36th in terms of commitment to Climate Change adaptation.

Social and demographic

| STRENGTHS | WEAKNESSES |
|--|--|
| <p>Socio-Economic</p> <p>Economic powerhouse of the region £41bn economy (3% of UK) home to 884K jobs</p> <p>A well-connected location at the heart of the UK strategic road and rail network</p> <p>A diverse economic base with sectoral strengths in advanced manufacturing, financial and professional services, wholesale and retail trade and health and education.</p> <p>Significant investments in the Midlands Engine: Enterprise Zones, HS2 rail and college, the High Value Manufacturing Catapult, the Energy Systems Catapult and the Energy Research Accelerator.</p> <p>Strong universities with areas of national and international expertise and with significant combined economic added value.</p> <p>A track record of successful initiatives to stimulate small business innovation and growth such as innovation vouchers and the Goldman Sachs 10,000 small businesses programme</p> <p>Demographic</p> <p>A working age population of 1.25 million, with increasing skill levels</p> <p>A large student population providing a strong graduate pool</p> <p>A young age profile 34% of population under 25</p> <p>Environment and Climate Change</p> <ul style="list-style-type: none"> - Significant combined heat and power (CHP) schemes in Birmingham city centre, and active partnerships to link up heat network growth across the GBSLEP area through DECC Heat Network Distribution Unit-funded studies - Significant improvements to transportation infrastructure under way including New Street Station rebuild, Midland Metro Extension (and the newly completed Birmingham Airport Runway Extension). - A well connected region in terms of best practice through, for example, projects developed through the EU funded Climate KIC Programme and Innovate UK. - The Green Commission for the LEP area has high-level public-private and third sector members and has undertaken a mini-Stern review of Birmingham and established an ambitious carbon reduction roadmap, and an integrated travel and mobility plan (Birmingham Connected), as well as is driving forward on an Energy Management Plan for the city at LEP | <p>Socio-Economic</p> <p>Significant levels of unemployment, economic inactivity and social exclusion in parts of the LEP area.</p> <p>GVA per head (prosperity) and GVA per hour (productivity) are below the national average Unemployment is higher than the national average and employment is lower and the position relative to the national average has worsened since the recession began</p> <p>A weak skills profile with a low % of its working age population with degree or high qualification and a higher than average % with no qualifications.</p> <p>The % of people employed in the knowledge economy is below the UK average. Fewer people are employed in high skilled occupations than the national average</p> <p>Lower % of high growth companies than the national average, with % of businesses operating in lower value sectors being higher than elsewhere.</p> <p>The GBSLEP has a high proportion of non-exporting firms 75% of firms have a wholly local or UK market - Pockets of entrenched unemployment and worklessness in inner city areas of Birmingham and Solihull.</p> <p>Demographic</p> <p>Ageing population – over 65 population to increase by over 50% by 2037</p> <p>Significant health issues particularly in some communities of poor health accounts for 20% of economic inactivity.</p> <p>Pockets of entrenched unemployment and worklessness in inner city areas of</p> <p>Environment and Climate Change</p> <p>Climate and environment</p> <ul style="list-style-type: none"> - Internal connectivity problems with a relatively weak, although improving rapid transit network and road congestion. - Poor energy performance in our buildings relative to other regions. - High propensity for car based travel and lower than average use of cycling and walking compared to national averages. - Energy Efficiency: The West Midlands has more E rated homes than any other area <p>Poor biodiversity quality and links though the</p> |

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| <p>levels there is now a new ERDF funded LEP Low Carbon Strategy and the Low Carbon Energy Strategy will follow.</p> <p>- GBSLEP companies lead on internationally recognised industrial symbiosis approaches to waste reuse.</p> <p>- An £81m project to introduce more fuel efficient buses, more real time information systems and smart card technology in the Network WM area.</p> <p>Lack of climate change mitigation and adaptation proposals and actions at strategic levels</p> | <p>urban areas</p> <p>-Emissions indicators showing breached in EU regulatory levels in some areas.</p> |
| <p>OPPORTUNITIES</p> | <p>THREATS</p> |
| <p>Socio-Economic</p> <p>Raising productivity levels to the national average would add £5bn to the economy. If unemployment rates moved into line with the England average, there would be 14,500 fewer claimants resulting in a benefits saving in excess of £35 million per annum.</p> <p>HS2 offers game changing potential to boost economic output, productivity and employment The SUD area has a competitive offer in the following key growth sectors:</p> <ul style="list-style-type: none"> • Advanced Engineering – Automotive and Aerospace • Business, Financial and Professional Services • ICT & Digital Media • Life Sciences • Food and Drink <p>Sector strength supported by the spatial development of Enterprise Zone sites and developments in the enterprise belt & UK Central</p> <p>The new Birmingham Airport runway extension will lead to greater accessibility to overseas markets</p> <p>Good innovation infrastructure models established with current ERDF funding can be built on and rolled out further.</p> <p>- Development of Enterprise Zone sites and developments in the enterprise belt will create significant numbers of new jobs.</p> <p>- The new Birmingham Airport runway extension will lead to greater accessibility to overseas markets and potentially drive tourism in the LEP and wider area, with significant planned growth around the airport with UK Central proposals and infrastructure improvements to support this growth.</p> <p>- The Institute for Translational Medicine developed under the City Deal and the proposed Birmingham Bio-Medical Hub, as well as existing demonstrator assets offer real potential for commercialisation leading to new products, new services and new companies.</p> <p>- The growth of JLR and the re-shoring underway</p> | <p>Socio-Economic</p> <p>Constraints on the supply of employment land and premises as well as a shortage of housing for workers</p> <p>Potential over reliance on key firms for instance JLR, Cadburys, JCB & Molson Coors Brewing Co. The loss of these firms could be extremely detrimental to the local economy</p> <p>Out-migration of skilled talent, and inability to recruit in-migrant skills (Silk Report).</p> <p>Employment potentially growth too dependent on low value added services</p> <p>Being at the heart of the road and rail network does lead to congestion which constrains the movement of goods, services and workers Concentration in the major urban areas of problem issues including poor skills, low productivity and social exclusion</p> <p>Inability to generate sufficient higher paid and higher skilled employment.</p> <p>- Continued preponderance of low-value added manufacturing within the sub-regional economic profile.</p> <p>Demographic</p> <p>While the youthful age structure of the GBSLEP represents a long term strength; in the short term it places an extra requirement on the GBSLEP economy to create jobs to cater for the volume of young people joining the workforce each year (particularly in Birmingham).</p> <p>Failure to integrate migrant groups could lead to social exclusion and disadvantage</p> <p>The age structure of engineering employers will result in the departure of many possessing specialist skills and requires development of those who will 'replenish'.</p> <p>Lack of responsiveness of employers to invest in training of employees.</p> <p>- The age structure of engineering employers</p> |

in manufacturing generally has potential for growth in jobs in GBSLEP and neighbouring LEPS.

- The success of Business Birmingham in attracting inward FDI (foreign direct investment) gives a strong base to grow on.

Demographic

Area is one of the most youthful in the country with over a third of residents under 25 it is also very diverse with strong links to growth markets in Asia

The area is home to 5 universities and 9 FE colleges creating a large ready-made supply chain to skilled young people for the local labour market

Massive opportunity to improve resident skills base – younger residents re better qualified than older workers

Diverse population base consisting of higher than average proportion of ethnic minorities, which can be seen as an opportunity to draw research and development in the health and biomedical/life sciences fields.

- Developing international trade and investment opportunities through the breadth of established and emerging communities.

Environment and Climate Change

- HS2 in the longer term will improve the connectivity of the LEP with the rest of the UK and Europe, and will be catalyst for increases in low carbon travel connectivity options, boosted by the development of a blueprint for low carbon refueling infrastructure.

- The developing work of the Energy Systems Catapult and the Energy Research Accelerator to catalyse a paradigm shift towards low carbon energy solutions.

The recently announced success of Birmingham in accessing £17m of funding to promote cycling will be a springboard to promote sustainable transport in the LEP

The innovative procurement work being undertaken across the LEP to support green business and tackle inefficient buildings and homes through the development of innovative solutions.

Over the period 2005-13, the total energy consumption across all fuel types attributable to the GBS LEP area has reduced by 18.1% from 46,156 GWh in 2005 to 37,789 GWh in 2013. Further progress will be made with ESIF/SUD input in particular responding to joined up strategy for heat networks

The GBS LEP area already has 234,186 MWs of installed renewable power generation assets of varying size and type, also encouraged to expand.

will result in the departure of many possessing specialist skills and requires development of those who will 'replenish'.

Environment and Climate Change

- Environmental pressures on the LEP area e.g. the need to reduce energy use and waste generation.

- Low take-up of market-based solutions to retrofitting buildings, and decreasing values of central government feed-in tariffs and Energy Company Obligations.

- Poor public transport connectivity within LEP area and beyond it.

- Inability to invest to tackle air, water and soil quality issues.

- Climate change in particular the heat island effect in urban areas

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In 2014/15 the low carbon industry in the GBS LEP area comprised around 1,835 companies employing over 33,405 people and generating £4,500m sales for the region. The industry represents 11% of the area's Gross Domestic Product (GDP).

Annex 3 HS2 Environmental Landscape Prospectus.(see attached)