Realising the Potential of the M42 Corridor
Final Report to Advantage West Midlands
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ECOTEC

Vincent House
Quay Place
92-93 Edward Street
Birmingham
B1 2RA
United Kingdom

T +44 (0)845 313 7455
F +44 (0)845 313 7454
www.ecotec.com
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Executive Summary

ECOTEC Research and Consulting Limited, Mott MacDonal Limited, Ove Arup and Space Strategy were appointed in May 2008 by Advantage West Midlands (AWM) on behalf of a consortium of public and private sector partners including Birmingham City Council (BCC), Solihull Metropolitan Borough Council (SMBC), Government Office West Midlands (GOWM), the Highways Agency (HA), Birmingham International Airport (BIA), the National Exhibition Centre (NEC) and Goodman International to explore and determine the strong growth context associated with the M42 Corridor and the implications of this in respect of regional spatial planning and the provision of supporting infrastructure. Three principal drivers lie behind the study:

- Building on past work: The update of previous work exploring the economic impact and potential of the M42 Corridor which concluded that the area had the potential by 2030 to be the catalyst for the creation of 150,000 jobs and to contribute £13bn to regional Gross Domestic Product (GDP)
- Extending past work: The extension of previous work to include the consideration of housing and transportation issues.
- Influencing regional policy: The opportunity to influence regional planning and transport policy and secure a greater profile for the M42 Corridor in this as part of the ongoing review of the region's spatial strategy.

Defining the M42 Corridor……

The M42 in the West Midlands extends from Bromsgrove, through south west Birmingham and Solihull, and into north Warwickshire. However, it is the concentration of a series of 'strategic economic assets' located alongside or in close proximity to the motorway as it passes through Solihull: most specifically BIA, Birmingham Business Park, Blythe Valley Business Park, Land Rover's Lode Lane facility, the NEC, and Solihull Town Centre, that in concert serve to mark the locale as a primary economic driver of the wider regional economy. However, in considering the M42 Corridor as a locus for regional development, other aspects of its functional economic geography also need to be considered. By way of summary, and as a basis for better assessing both the current contribution and future potential economic, housing and transport impacts arising from the promotion of development in the M42 Corridor, recourse has been made to the following spatial definitions:

- West Midlands Region – the broadest geographical area over which the economic impact of the M42 Corridor has been formally assessed.
- Wider Functional Area – this constitutes a more functional spatial unit within which the strategic economic assets play a dominant role. It has been broadly defined by the areas of Solihull, Birmingham, Coventry, Bromsgrove, Redditch and Warwickshire, and is referred to as the wider 'M42 Corridor Functional Area'.
• M42 Corridor Growth Area – this relates to a ‘best fit’ ward based geographical definition that more closely encompasses the location of the strategic economic assets and is referred to as the ‘M42 Corridor Growth Area’.
• Three overlapping definitions of the M42 Corridor Growth Area have been adopted to take due account of spheres of influence relating to economic, housing and transport policy domains:
  • Economic: the narrowest definition is ward based and encompasses those wards that are adjacent to the M42 and within which the strategic economic assets sit.
  • Housing: a slightly wider definition has been adopted here and again is ward based but incorporates the three administrative wards that form North Solihull.
  • Transport: again a geographically wider definition based on the route of the M42 from Junction 3A to Junction 9 and reflecting transport movements within the area.

There is an opportunity to promote the M42 Growth Corridor as a Global Knowledge Hub……

In many respects the M42 Corridor Growth Area is unique particularly in terms of its strategic economic assets. Few other European city regions have an international airport, major international exhibition centre, business parks containing knowledge intensive industries, quality retail and leisure provision, an international centre for the automotives industry, mainline railway and station, and the national motorway network all in such close proximity to one another. This combination of strategic economic assets provides the opportunity to contribute to local, sub regional and regional economic development through the promotion of the M42 Corridor Growth Area as a ‘Global Knowledge Hub’. The realisation of this opportunity will, in part, depend on the degree to which regional policy is supportive of and enables the sustainable development of the strategic economic assets. Experience from other European city regions that have had some success in achieving transformational change driven by a vision of exploiting global connectivity and knowledge based activities suggests that a successful programme of policy and project interventions should incorporate:

• Shared ownership of the approach amongst local authorities, pan regional government agencies and the private sector.
• Delivery of development strategies that promote mixed use developments that provide a better quality of life, promote social inclusion and create attractive sites and conditions for new businesses.
• The development of housing in environments which are potentially attractive to professionals working in knowledge based sectors.
• Investment in improving all elements of the transport infrastructure to make the whole city region attractive to potential investors and to help local residents to access emerging employment opportunities.
• Investment in public transport routes connecting key employment sites to residential neighbourhoods, and links between international airports and the city region’s principal city centre.
• Customised training courses to help ensure that local people are able to access emerging employment opportunities and which can help to reduce inequality, and help ensure that additional spending is retained within the city region.
• Investment in public realm improvements to help improve the image of the city region both internally and externally.
• Support for culture and events as they can play an important role in regenerating city regions, particularly in terms of improving image.
• Place marketing campaigns based on the city region’s key assets and major cultural events held within the city region to change perceptions of the city region to both potential inward investors and tourists.

The public policy framework is to some extent already supportive of economic development in the M42 Corridor Growth Area……

The public policy framework is already generally supportive of the promotion of economic development in the M42 Corridor Growth Area. In turn, the strategic economic assets represent a key opportunity for achieving a range of regional, sub regional and local policy ambitions and aims:

• The promotion of development in the M42 Corridor Growth Area will need to take due cognisance of national economic development, housing, land use and transport policy.
• Regional policy consistently identifies the strategic economic assets as offering significant opportunity for economic growth. Specifically, managing the future development and expansion of BIA and the NEC is seen as fundamental to underpinning the region's competitive position.
• Regional policy places very considerable emphasis on the importance of further developing higher value, knowledge-based sectors and activities. The M42 Corridor Growth Area can be expected to be at the forefront of future growth in these.
• The Coventry, Solihull and Warwickshire and the Central Technology Belt High Technology Corridors (HTCs) and the East Birmingham North Solihull Regeneration Zone (EBNSRZ) and Coventry and Nuneaton Regeneration Zone (CNRZ) all promote the economic development of the wider M42 Corridor Functional Area.
• The wider M42 Corridor Functional Area includes the Major Urban Areas (MUAs) of Birmingham, Solihull and Coventry, and Settlements of Significant Development (SSDs) including Redditch, Rugby, Nuneaton/Bedworth and Warwick/Leamington Spa which are identified as important locations for prospective future employment and housing development.
• Strategic policies recognise the need for focusing major employment and housing development in those locations characterised by strong transport links. Wherever possible, the most effective use of existing transport infrastructure is emphasised, though, significantly, there is also recognition that some additional improvement schemes are required including the enhancement of public transport and improvements to the M42.
• Locally, the Solihull Unitary Development Plan (UDP) supports the development of the strategic economic assets but recognises that in doing so environmental and transport issues need to be addressed. Long established Green Belt boundaries abut some of the strategic economic
assets and under current policy are only due for amendment if a positive contribution to urban regeneration can be established.

The M42 Corridor is already a key driver of regional competitiveness……

The M42 Corridor Functional Area already makes an important contribution to the economic performance of the region. The M42 Corridor Growth Area and more specifically the strategic economic assets located within it provide a focus for the region's knowledge intensive industrial base. This provides a strong economic platform on which to build measures and promote development than can contribute to the narrowing of the West Midland's productivity gap. Critically, the strategic economic assets also provide local employment opportunities for residents of disadvantaged communities that lie in close proximity to the M42 Corridor Growth Area:

• The M42 Corridor Functional Area is an area of relative economic strength and performs well against the national average in respect of the key economic domains. GVA per head is 15 percentage points higher than the West Midlands average and a fraction above that of the UK as a whole. It has recorded a substantial growth in GVA over recent years rising by 6.1% per year compared to 5.7% across the region.
• Solihull represents a notably strong performer and is in the top 20% of English local authority local economies. GVA per capita is particularly strong and currently stands at some £21,200 – amongst the highest level in the region. Labour productivity and growth in this is also comparatively high in Solihull.
• The M42 Corridor Growth Area performs particularly well: growth in the size of the business base outstrips the regional and national average; enterprise density is relatively high; one in four residents have NVQ Level 4/5 skills; 52% of residents work in knowledge intensive sectors; and it is a focus for the receipt of inward investment into the region.
• More detailed sector analysis affirms the strength of the knowledge economy within the M42 Corridor Growth Area. The automotive, air transport, computer services, financial intermediation, renting of machinery and equipment and other business activity sectors are all over represented. These reflect important medium to high technology manufacturing and market and high technology knowledge intensive sectors and industries.
• It is estimated that the regional strategic economic assets represented by BIA, the NEC and the two business parks currently support some 47,400 jobs across the region and contribute over £2bn to regional GDP. The other strategic economic assets – Land Rover and Solihull Town Centre – are estimated to support a further 52,400 jobs across the West Midlands and contribute some £3.1bn to regional GDP.
• The M42 Corridor Growth Area therefore represents a key contributor and driver to the success of the regional economy. It should also be recognised that the strategic economic assets are also of considerable local importance – not least in providing a range of employment opportunities for local residents of the area and the deprived communities that either adjoin or lie in close proximity to it.
Housing in the wider area provides an important source of labour and the latter is a key factor of production for the economic activities that take place in the M42 Corridor Growth Area……

The M42 Corridor Growth Area forms part of or adjoins a number of distinct housing market areas. Some of these are the subject of renewal and restructuring activities as a mechanism to both regenerate deprived communities and meet forecast increases in both population and household numbers. The strategic economic assets provide employment opportunities for existing and new residential development to be promoted in the neighbourhoods that lie in close proximity to the M42 Corridor Growth Area. Existing and new residents provide an important source of local labour to service the needs of existing and future employers within the area:

• Population growth in the M42 Corridor Functional Area was largely static between 1991 and 2001 but has increased since, and is forecast to rise by 324,000 (14%) by 2026. Growth is also forecast in Solihull.
• Solihull has an attractive residential environment which creates a high level of demand for housing. Houses prices have been strong, home ownership is high and affordability remains an issue.
• Birmingham's population is set to grow as a result of natural change, particularly amongst BME communities. Owner occupation is less prevalent than in Solihull and the social rented sector of greater importance. Affordability issues continue as does demand for social housing.
• The Eastern Growth Corridor forms parts of the M42 Corridor Growth Area. This experiences a lack of sufficient housing supply to accommodate anticipated future household growth, and a lack of housing choice and quality.
• North Solihull is identified as a distinct housing market within the Eastern Growth Corridor. It has seen an increase in both population (10.5%) and households (3.0%) between 1991 and 2001.
• The age profile of residents of the M42 Corridor Growth Area is similar to that for Solihull as a whole. The occupational structure is also similar. Owner occupation is lower and the renting of local authority accommodation higher – reflecting tenure patterns in North Solihull.
• There are strong localised relationships between the workforce of the M42 Corridor Growth Area and the strategic economic assets. In particular, Solihull Town Centre, the NEC and BIA provide a significant number of job opportunities for local residents.

Infrastructure Constraints in the M42 Corridor Growth Area are not an Insurmountable Barrier to Future Development……

The initial scoping of infrastructure constraints in the M42 Corridor Growth Area suggests that these are not necessarily problematic although further investigation will be needed as more specific development proposals are brought forward:

• There are constraints to development in the M42 Corridor Growth Area within the transport network with regard to the proximity of buildings, restrictions such as power lines, rail lines, structures and water courses, and aerodrome safeguarding.
• Utilities, other than water, are not expected to represent fundamental constraints although this does not mean that as details of development come forward site specific constraints will not be identified and costs incurred.

• The physical location of services will need to be carefully considered with regard to any detailed design of infrastructure proposals.

• The concerns regarding water are more significant and need to be the subject of more detailed study as development plans emerge with an emphasis on the end user.

But transport issues will need to be addressed……

The stretch of the M42 between Junctions 3 and 7 in which the strategic economic assets lie has been identified as a current and future congestion 'hotspot'. Improvements to the transport infrastructure, transport provision and transport measures will need to be delivered if the full economic potential of the M42 Corridor Growth Area is to be realised:

• Planned development at several sites in and around the M42 Corridor Growth Area, including at BIA and the NEC, as well as a growth in through traffic are cumulatively expected to increase demand for use and congestion of the M42, particularly around Junction 6.

• Car remains by far the most dominant form of transport in the West Midlands. Each of the metropolitan boroughs in the region is forecast to be the destination of 15% more car trips by 2021. Solihull is expected to witness a particularly high increase at 34%.

• Each of the strategic economic assets is served by at least two bus services. Services to BIA and the NEC are more numerous but need improving, although north/south connectivity remains poor, particularly in relation to Solihull Rail Station.

• The regional rail network is based around the West Coast Main Line (WCML), with frequent and direct links to locations all around the country. There are now five railway stations within the M42 Corridor Growth Area, the most significant of which is Birmingham International Station.

• BIA is the region’s principal airport offering Domestic, European and Long Haul Flights. Its passenger numbers have risen steadily over the past two decades; it handled over 9.1 million passengers in 2006.

• Extension of the runway at BIA is one of the Regional Transport Priorities and is supported by the Future of Air Transport White Paper. The Airport Company submitted a planning application for a runway extension in 2008: the SMBC Planning Sub Committee is understood to be minded to approve the application. BIA believes that the runway extension would enable it to take a significantly higher share of its regional passenger market.

The M42 Growth Corridor Area offers the potential to make a significant contribution to transformational economic change in the region……

The strategic economic assets have the potential to deliver transformational change in respect of their future contribution to the performance of the regional economy. Critically, the characteristics and nature of development can complement rather than compete with development aspirations in
other potential growth areas including Birmingham City Centre and through the provision of connectivity improvements will provide spill over benefits to other parts of the region. In addition, local residents in adjacent deprived communities can be expected to benefit from employment creation at the strategic economic assets. In short, what is good for the M42 Corridor Growth Area is also good for the region and for the immediate locale:

- Under a 'Steady State' scenario the regional strategic economic assets are forecast to have the potential to provide in the order of 50,000 jobs and some £3.4 billion towards regional GDP by 2026. In addition, Land Rover and Solihull Town Centre can be expected to contribute a further 27,000 jobs and £2.5 billion towards GDP over the same period.
- Under a higher growth 'Global Knowledge Hub' scenario, it is estimated that the future economic contribution attributable to the regional strategic economic assets will increase significantly to nearly 90,000 jobs and over £6 billion in respect of regional GDP. Land Rover and Solihull Town Centre can be expected to contribute some 40,000 jobs and £3.8 billion towards regional GDP.
- Critically, it can be expected that improvements in connectivity will unlock more dynamic and far reaching impacts on the performance of the regional economy, and hence on the prospects for employment and GDP growth.
- Specifically, enhanced connectivity, in the form of improved access to international markets delivered through a greater range of Long Haul destinations, is likely to be instrumental in delivering further major competitive benefits to the region. At 2026, the catalytic effects associated with the runway extension at BIA are estimated at equivalent to 5,000 jobs and approaching £400 million of regional GDP.
- Realisation of the investments associated with the strategic economic assets will be critical to the effective narrowing of the region's productivity gap. The development of the strategic economic assets may be expected to attract a range of high productivity sectors which would serve to negate the negative 'distribution' effect associated with the region's industrial structure.
- More fundamentally, successfully realising planned investments may be anticipated to considerably improve the performance of existing businesses in the region on account of extending market reach and market potential, and thereby enhancing opportunities for improvement in 'pure' productivity amongst the West Midland's business base.
- Importantly therefore expansion associated with the regional strategic economic assets can also be expected to contribute significantly to growth in the regional economy outside of the M42 Corridor Growth Area itself – with 34% of regional employment impact and 29% of GDP impact likely to accrue outside of the locale.

Housing development, growth and impact will need to be carefully managed……

There are opportunities to promote housing development and growth in the neighbourhoods that lie in close proximity to the M42 Corridor Growth Area, particularly in the Eastern Growth Corridor and North Solihull. This will be important in promoting a larger labour pool from which employers within the M42 Corridor Growth Area can draw upon. It also provides an opportunity to assist in meeting the aspirations of New Growth Point status. The delivery and management of housing growth and capitalisation on the opportunity to link together employment and residential growth will require
careful planning. In particular, levels of housing provision should not compromise the environmental quality of Solihull and the M42 Corridor Growth Area in particular. The quality of the local environment is recognised as a critical component of the M42 Growth Corridor Area's offer, particularly in respect of the attraction of knowledge industries and workers:

- Limited housing growth provides an opportunity for both Birmingham and Solihull to accommodate and better provide an expanded future workforce to service the growth in employment arising from the promotion of economic development within the M42 Corridor Growth Area.
- A high housing growth scenario for Solihull that significantly exceeds the figures postulated in the Phase Two Revision can be expected to have considerable adverse implications for both environmental quality and transport infrastructure and over the longer term could have a detrimental impact on the investment potential and locational advantages of the M42 Corridor Growth Area and should not therefore be pursued.
- Realisation of a 'RSS Phase Two Revision' scenario with a focus for residential development in the Eastern Growth Corridor and North Solihull will assist in meeting urban renaissance objectives and stimulate the renewal of deprived communities – particularly if labour market access and skills development programmes are introduced by public and private sector partners to stimulate enhanced linkage with the economic growth opportunities available in the M42 Corridor Growth Area.
- Housing growth aspirations in Coventry also have the potential to contribute significantly towards meeting the increased demand for labour that will arise from the promotion of the strategic economic assets and could assist in accommodating any shortfall in housing provision in either Birmingham or Solihull.

Transport impacts arising from the promotion of economic development in the M42 Corridor Growth Area can be accommodated with appropriate infrastructure improvements.

The development and management of the strategic road network over the next 20 years will not be solely demand led. The Highways Agency (HA) is bound to maintain compliance with Department for Transport (DfT) Circular 2/07. Modelling of the potential impact of the increase in employment associated with the delivery of the 'Global Knowledge Hub' scenario on the transport network indicates that with appropriate hard and soft infrastructure improvements this can be accommodated. The delivery of the necessary hard and soft infrastructure improvements are however critical to this:

- With the provision of infrastructure improvements a 'Do Something Option' transport scenario which allows for levels of employment growth under the 'Global Knowledge Hub' scenario, would, overall, give rise to no greater level of stress on the M42 Corridor Growth Area than that predicted under a 'Do Minimum Option' transport scenario predicated on the employment and housing forecasts in the Phase Two Revision.
- Substantial investment and intervention will however be needed to accommodate this growth in traffic, together with a parallel and strong commitment to 'Smarter Choices' by both employers
and employees. Notwithstanding recent investment in the ATM on the M42 and the WCML, there will be a need for further enhancements to the ATM Scheme, M42 junctions and investment in Midland Metro and other public transport.

- Additional investment such as proposals for a new High Speed Rail Line from London to Birmingham and/or Manchester are welcomed and will support growth but their provision should not be regarded as a prerequisite for growth.
- Even so, some links would experience some increase in congestion: the increases are modest, but in order to satisfy the HA’s requirements, cumulative impacts on the network will need to be assessed before planning consent could be put in place for the full scale of employment growth envisaged.
- The realisation of the economic development opportunities available in the M42 Corridor Growth Area should not pose a problem in terms of likely support from the HA. Realisation of the ‘Global Knowledge Hub’ scenario is not expected to demand any additional infrastructure to that required to support levels of growth within the West Midlands envisaged under the Phase Two Revision.
- What will remain a concern to employers is that the foreseen growth will absorb almost all highway capacity released by substantial investment and therefore traffic congestion will remain a concern. Further improvements to rail, coach and bus capacity will be needed to support the promotion of public transport as part of the ‘Smarter Choices’ agenda.

A programme of hard and soft mitigation measures is required to accommodate transport impacts arising from the promotion of economic development in the M42 Corridor Growth Area……..

In order to mitigate the potential transport impacts associated with the delivery of the ‘Global Knowledge Hub’ scenario a range of short, medium and longer term transport infrastructure improvements need to be pursued and implemented. If these can be put in place then the stress placed on the M42 from higher levels of employment growth need not be any greater than that forecast under a lower employment growth scenario more closely aligned with that proposed under the Phase Two Revision. A range of complementary hard and soft infrastructure improvements are considered necessary:

- Measures already identified and approved under the West Midlands Regional Funding Allocation (RFA) together with the implementation of Phase 1 and 2 of the HA’s ATM programme will need to be pursued.
- Further major investment in the transport network will also be required including signalisation of the A45/A452 Junction, signalisation of Junction 5 of the M42, a dedicated BRT link to BIA and the NEC, Junction 6 Improvements, extension of Midland Metro from Birmingham City Centre to BIA and further development of ATM to achieve a 33% capacity increase in both directions along the M42 to replicate M42 widening. The cost of this package of improvements is estimated at £0.6 bn. Funding for this package is generally not in place, and will need to be assembled if the ‘Global Knowledge Hub’ scenario is to be delivered.
• Most of the schemes have a substantial lead in time and require early planning in order to be delivered. There are also issues over the ability to deliver multiple schemes concurrently or one after another due to both the funding required and also the operational impacts of construction works on business. A programme of short, medium and longer term transport infrastructure improvements therefore needs to be pursued.

• It should be noted that the HA is being encouraged to work with developers to secure delivery of their proposals in such a way that they minimise any additional burden on other users of the strategic network with Circular 02/07 placing a responsibility on developers to manage the traffic impact of their development and to think creatively about the implementation of sustainable demand management techniques.

• The softer demand management solutions associated with the above are typically smaller, lower in cost, less controversial and have shorter lead in times and the delivery of such softer and complementary improvements must be seen as part of an overall programme of improvements to mitigate traffic impact in the M42 Corridor Growth Area.

• An Area Wide Travel Plan could go some way to offsetting the demand growth that is expected from the expansion of the strategic economic assets. It could help businesses to collectively influence the travel habits of both employees and visitors in favour of more sustainable modes. A successful Travel Plan will not only help to address motorway demand issues but also result in more reliable journey times, reduced environmental impacts and reduced levels of employee stress. Improvements to rail, coach and bus service quality and frequency are likely to be needed to accommodate growth in demand and to reinforce the ‘Smarter Choices’ agenda.

• The development and delivery of a tiered package of Travel Plans as part of the overall transport infrastructure improvement programme is therefore critical. Indeed, it is one component of broader package of softer options that need to be delivered as part of a 'Smarter Choices' strategy that complements the harder and more costly infrastructure improvement measures that are needed if the M42 Corridor Growth Area is to realise its economic development potential.

Delivery – raising the profile of the M42 Corridor Growth Area in regional and local policy……

Paragraphs 3.30 to 3.33 of the Phase Two Revision draw attention to the role that Solihull plays in delivering the proposed spatial strategy for the development of the West Midlands and explicitly identifies the importance of regional assets including BIA, the NEC, Birmingham Business Park, Blythe Valley Business Park and Solihull Town Centre in making the borough an area that is attractive to new investment. It also notes that a careful balance needs to be maintained between realising the economic potential of the area, without harming urban renaissance or undermining the qualities of the area that are important in attracting investment in the first place.

A number of more specific policies in the Phase Two Revision provide guidance on the development of the strategic economic assets. Policy T11, for example, provides a framework for the development of BIA. Policy PA2 refers to the EBNSRZ and Policy PA3 refers to the HTCs. Policy PA7 refers to the Regional Investment Sites (RIS).
This is encouraging in that the Phase Two Revision recognises the important contribution that the strategic economic assets make to the economic performance of the region. It also provides a framework for the continued development of the strategic economic assets in order that they continue to contribute towards the delivery of economic and productivity growth across the region.

However, the Phase Two Revision is neither bold enough nor explicit enough in its consideration of the M42 Corridor Growth Area. The M42 Corridor Growth Area with its unique combination of strategic economic assets presents a major opportunity to address the region’s productivity gap and provide economic benefits at both a sub regional and local level. It offers the opportunity to complement this with investment in housing restructuring and renewal and in doing so link together local and sub regional regeneration and economic development priorities. Improvements to and investment in the transport network are required in the form of new infrastructure, improvements to existing infrastructure and soft transport measures in order to accommodate forecast levels of growth from development in the M42 Corridor Growth Area and these can support and reinforce economic development and housing investment proposals.

In order for local, sub regional, regional and national policy makers to actively support the promotion of the M42 Corridor Growth Area it would be advantageous for the Phase Two Revision to adopt a more coherent and complete consideration of the M42 Corridor Growth Area, including a single policy that draws together a succinct and supportive policy framework for the development of the M42 Corridor Growth Area and the recognition of this on the Spatial Strategy Diagram. This would provide greater policy weight to the promotion of the M42 Corridor Growth Area than the currently ad-hoc and disparate policy references to the area in the Phase Two Revision. More specifically, such a single policy should identify:

- The broad extent of the M42 Corridor Growth Area.
- The strategic economic assets located within it.
- Its role as a driver of the regional economy.
- Linkage to local and sub regional economic development, housing and urban renewal objectives.
- The need to protect areas of high environmental quality.
- The need for transport improvements including investment in new transport infrastructure, improvement to the existing transport infrastructure and investment in soft transport measures.

Clearly, and in terms of ensuring strong policy alignment at the regional level other strategic regional policy frameworks should also adopt a similar approach and stance towards the M42 Corridor Growth Area and be explicit in identifying its role and potential for reducing regional productivity differentials and the investment in the transport infrastructure that is necessary to realise this potential. The RFA therefore should also take due cognisance of the opportunities offered by the M42 Corridor Growth Area.

The Sub National Review of Economic Development and Regeneration (SNR) has introduced a policy push towards the preparation of a Single Integrated Regional Strategy (SIRS) and this has
been reinforced by a raft of subsequent Government 'policy advice' on the delivery of this. This also provides an opportune mechanism to identify the M42 Corridor Growth Area as location for the promotion of development that will address the regional productivity gap and to promote the transport infrastructure investments that are necessary to support this. This report provides a strong evidence base to support this approach and should be utilised by partners to inform the SIRS as the route map for the preparation of this becomes clearer.

There are further opportunities to reinforce the promotion of the M42 Corridor Growth Area as a locus for economic development through the preparation and delivery of local policy specifically that within the remit of SMBC and within whose administrative area the M42 Corridor Growth Area is principally located. The preparation of the Sustainable Community Plan (SCP) and the local authority's Local Development Framework (LDF) represent critical opportunities through which the M42 Corridor Growth Area should be promoted.

In respect of the latter the development potential of parts of the M42 Corridor Growth Area as it abuts the strategic economic assets is constrained by the application of Green Belt policy. The Green Belt will continue to play a key role in containment and the prevention of urban sprawl and the direction of development towards the MUAs. However, this needs to be balanced against the economic opportunities that are available in the M42 Corridor Growth Area and the need to maintain its environmental qualities.

In achieving this fine balance the full potential of the M42 Corridor Growth Area may only be realised if there is limited relaxation of Green Belt boundaries as they apply to the strategic economic assets of the M42 Corridor Growth Area. The detailed definition of Green Belt boundaries is a matter for the determination of SMBC as part of the LDF process, and the local authority should consider any detailed change to the boundary of the Green Belt as part of this.
1.0 Introduction

1.1 This Report

This report sets out the results and strategic conclusions of a study process managed by ECOTEC Research and Consulting for Advantage West Midlands (AWM) on behalf of a consortium of public and private sector partners to explore and determine the strong growth context associated with the M42 Corridor and the implications of this in respect of regional spatial planning and the provision of supporting infrastructure.

1.2 The Wider Team

The wider consortium of partners included Birmingham City Council (BCC), Solihull Metropolitan Borough Council (SMBC), Government Office West Midlands (GOWM), the Highways Agency (HA), Birmingham International Airport (BIA), the National Exhibition Centre (NEC) and Goodman International. Additional 'technical expert' inputs into the process were provided by Mott MacDonald (in respect of transport), Ove Arup and Partners Limited (in respect of infrastructure provision) and Space Strategy (in respect of workshop facilitation and spatial planning).

1.3 Study Drivers

There are two principal drivers that lie behind the study:

- **Building on past work**: A need to update previous work exploring the economic impact and potential of the M42 Corridor and the extension of this to include the consideration of housing and transportation issues.
- **Influencing regional spatial policy**: An opportunity to influence regional planning and transport policy and secure a greater profile for the M42 Corridor in this as part of the ongoing review of the region's spatial strategy.

1.3.1 Building on Past Work

Earlier work exploring the economic impact of the M42 Corridor concluded that it had the potential by 2030 to be the catalyst for the creation of 150,000 jobs in the West Midlands and to contribute £13bn to regional Gross Domestic Product (GDP). It postulated that there was a strong rationale for intervention in the M42 Corridor grounded in: meeting regional priorities; closing the 'productivity gap' between high and low performing regions; delivering the region's aspirations for Birmingham to be recognised as a 'World City'; exploiting the opportunity to increase productivity through enhanced connectivity; meeting the needs of priority business clusters and other high growth sectors; attracting inward investment; and, contributing to regional and local regeneration.

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objectives. The time is now considered opportune to revisit and update this work and also extend it further to consider not only issues of economy but also housing and transportation considerations.

1.3.2 Influencing Regional Spatial Policy

The West Midlands Regional Spatial Strategy (RSS) was published as Regional Planning Guidance in 2004, and is being revised in three phases. The first, covering the Black Country, has been finalised and was issued in January 2008. The second, covering housing, employment, waste and some transport issues was submitted by the West Midlands Regional Assembly (WMRA) in December 2007. The third, covering environmental issues, gypsies and travellers, and rural services is currently being prepared. The West Midlands Regional Transport Strategy (RTS) is encompassed within the RSS.

The Phase Two Revision, which updated regional housing allocations, identified the provision of 365,600 new homes in the period to 2026. In January 2008 Baroness Andrews, Parliamentary Under Secretary of State, wrote to the WMRA expressing concern that in the light of the Housing Green Paper and the level of housing indicated for the region in initial advice from the National Housing and Planning Advisory Unit (NHPAU) the Phase Two Revision was not making provision for sufficient housing. It was further indicated that GOWM would commission further work looking at options for delivering higher housing numbers, whilst maintaining as many of the principles of the RSS as possible.

This additional work was subsequently commissioned from Nathaniel Lichfield and Partners (NLP) with their report published in October 2008 and intended to form part of the evidence base for the Government's response to the Phase Two Revision. The process has led to a delay in the scrutiny and approval of the RSS with the Examination in Public (EIP) now scheduled for 2009 following the closure of the period for the submission of comments in December of last year.

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2 Regional Planning Guidance for the West Midlands - RPG11, (2004), Office of the Deputy Prime Minister
3 West Midlands Regional Spatial Strategy Phase One Revision – Black Country Sub Region, (2008), Communities and Local Government
4 West Midlands Regional Spatial Strategy Phase Two Revision – Draft Preferred Option, (2007), West Midlands Regional Assembly
6 Developing a Target Range for the Supply of New Homes in England, (2007), National Housing and Planning Advisory Unit
7 Letter from Baroness Andrews to West Midlands Regional Assembly, (2008), Communities and Local Government
8 Development of Options for the West Midlands RSS in Response to the NHPAU Report – Report to Government Office for the West Midlands, (2008), Nathaniel Lichfield and Partners
1.4 Outputs and Deliverables

The tender invitation\(^9\) identifies a number of anticipated key outputs and deliverables from this work set within the context of the above drivers:

- A summary document and associated documentation on the review and update of the 'economic characteristics', 'economic opportunity' and 'economic impact' assessments from the earlier ECOTEC report.
- A summary document and associated documentation on the review and update of national policy drivers, regional policy dynamics and local policy considerations.
- Expanded growth and impact assessments building on the previous ECOTEC study to take account of housing and transport as well as economic perspectives.
- Securing where agreed with AWM or liaising with AWM over the securing of updates of relevant supporting work.
- Organisation and delivery of 'master plan and strategy workshops' including briefing papers and supporting materials and summary report of workshops to inform the identification of a preferred development option.
- Written submission to GOWM for the close of the consultation period on the Phase Two Revision\(^10\).

1.5 Work Undertaken to Deliver the Outputs

A significant amount of work has been undertaken in response to the drivers and to meet the anticipated outputs of this study and this falls into three broad work streams:

- **Technical inputs**: ECOTEC, Mott MacDonald and Ove Arup and Partners have provided consultancy and technical input to the process in respect of the broad issues of economy, housing, infrastructure and transportation. Inputs have been provided in the form of free standing 'briefing papers' that have been used to inform, stimulate and engender individual decision making amongst the consortium partners. The suite of briefing papers prepared during the course of the delivery of the work extends to the following:
  - M42 Corridor Growth Area: Economic Geography and Operational Definition
  - Realising the Potential of the M42 Corridor: Policy Appreciation
  - M42 Corridor Growth Area: The Transformation of City Regions – Learning from European Success Stories
  - M42 Corridor Growth Area: Economic Characteristics
  - M42 Corridor Growth Area: Housing Characteristics
  - Realising the Potential of the M42 Corridor: Transport and Network Characteristics
  - M42 Corridor Growth Area: Economic Contribution of M42 Corridor Strategic Assets

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\(^9\) Realising the Potential of the M42 Corridor: Moving the Agenda Forward with a Managing Consultant – Tender Invitation, (2008), Advantage West Midlands

\(^10\) As part of its submission to GOWM Advantage West Midlands made comments on Paragraph Numbers 3.30 to 3.33 of the Phase Two Revision.
► Realising the Potential of the M42 Corridor: Infrastructure Constraints
► Realising the Potential of the M42 Corridor: Transport Opportunities and Constraints
► M42 Corridor Growth Area: Economic Development Opportunities and Potential Constraints
► M42 Corridor Growth Area: Future Housing Growth
► M42 Corridor Growth Area: Economic Futures
► M42 Corridor Growth Area: Housing Impact
► Realising the Potential of the M42 Corridor: Transport Impact
► Realising the Potential of the M42 Corridor: Transport and Infrastructure Mitigation

• **Partner inputs:** Over the course of the study the briefing papers have been presented to and explored at joint working meetings between partner representatives and members of the consultancy team. In total, five joint meetings have been held between the consultant team and the consortium partners in addition to other one to one and workshop meetings. The partner meetings have proven to be extremely valuable in respect of developing, testing and refining the outcomes of the study. The partners have also met independently to take decisions in respect of the direction and outcome of the study.

• **Stakeholder workshops:** Three scenario development workshops were also undertaken with partner representatives and a wider audience of stakeholders. These were co-ordinated and led by Space Strategy and were used to test out responses to emerging findings, explore potential development scenarios and their implications for the M42 Corridor, and to arrive at a selected scenario against which economic, housing and transportation impact could be tested and infrastructure and other mitigation measures identified.

All of the briefing papers and the summary report of the stakeholder workshop proceedings\(^{11}\) have been made available to the consortium partners as separate documents. This report draws together the key content and findings from the briefing papers and applies this to the outcomes from the stakeholder workshops. In doing so it provides a composite and coherent report of the study process and the strategic conclusions from this.

Critically, and as alluded to above, there has been a high level of joint working between all members of the consultant team and between the consultant team and the consortium partners over the course of delivering the study. This has been beneficial in terms of exploring, testing and refining both issues and the implications that arise from these. Ultimately, however, the content of this report is the independent work of the consultant team and is intended to provide an objective and transparent analysis of the growth potential and opportunities within the M42 Corridor and the implications of this in respect of infrastructure and transport provision and regional spatial policy. The consortium partners are at liberty to draw upon the content of this report and the briefing papers that have been prepared to inform it but will adopt their own positions in respect of the making of submissions in relation to the RSS or any other national, regional or local policy agendas.

\(^{11}\) **M42 Study Group – Summary Report on Stakeholder Workshops**, (2008), Space Strategy
1.6 Report Status and Structure

This is the Final Report of the study. It builds upon and takes due cognisance of comments received from partners in respect of the briefing papers and an earlier Draft Final Report\(^\text{12}\). The remainder of the report is structured as follows:

- **Section 2: Transformational Change in City Regions** – considers a number of European city regions that have successfully modernised, re-invented and transformed themselves from industrial to knowledge based economies, and sets out some transferable lessons for the West Midlands from this.
- **Section 3: Defining the M42 Corridor** – explores the functional economic and social geography of the M42 Corridor, and identifies an inter-linked and overlapping suite of operational definitions of the corridor to aid the analysis of both data and issues.
- **Section 4: Public Policy Appreciation** – describes and assesses the implications of key regional, sub regional and local public policy, strategy and plans for the development of the M42 Corridor with a focus on the broad policy domains of economic development, housing, planning and transportation.
- **Section 5: Economic Characteristics** – examines the economic architecture of the M42 Corridor, its relationship to a number of key drivers of productivity and models its current contribution to the regional economy.
- **Section 6: Housing Characteristics** – considers the demographic and housing characteristics of the M42 Corridor, and places a focus on the extent of linkage between place of residence and place of work.
- **Section 7: Transport Characteristics** – explores the network and transportation characteristics of the M42 Corridor, including road, rail and air links.
- **Section 8: Infrastructure Constraints** – provides an overview of the principal infrastructure constraints within the M42 Corridor with a focus on the transport network between Junction 3A and Junction 7 of the M42.
- **Section 9: Development Scenario** – explores the constraints and opportunities for economic, residential and transport development in the M42 Corridor and sets out an indicative scenario for its future development.
- **Section 10: Economic Impact** – considers the potential economic benefits and impacts arising from the delivery of the indicative development scenario.
- **Section 11: Housing Impact** – considers the potential demographic and housing impact arising from the delivery of the indicative development scenario.
- **Section 12: Transport Impact** – considers the potential transportation impact arising from the delivery of the indicative development scenario.
- **Section 13: Mitigation Measures** – outlines a programme of transport infrastructure mitigation measures to support the realisation of the economic and housing potential of the M42 Corridor and necessary to underpin the delivery of the indicative development scenario.

• **Section 14: The Case for the Corridor** - draws together the strategic conclusions from the study and advocates a stronger focus being placed on realising the development potential of the M42 Corridor in the RSS and other relevant regional policy and strategy.

The report is supported by the following annexes:

- Annex 1: Schedule of Infrastructure Mitigation Measures Proposed by Stakeholders.
- Annex 2: Costs and Deliverability of Major Infrastructure Schemes.
2.0 Transforming City Regions

2.1 Introduction

This section of the report considers a number of European city regions that have successfully modernised, re-invented and transformed themselves from industrial to knowledge based economies, and sets out some transferable lessons for the West Midlands from this.

2.2 The European Context

The State of the English Cities Report\textsuperscript{13} sets out key trends, policy principles and messages from Europe and identifies lessons that can be learned for the UK. The report identifies the importance of cities as engines for economic growth, and also recognises the increasing economic importance of key assets in city regions within a globalised economy. It also acknowledges the fact that European cities are diverse in their nature, and that there is no single developmental model of a European city region.

2.2.1 Developing a Typology of Urban Competitiveness

The issue of city typologies is debated in detail within the State of European Cities Report\textsuperscript{14}. The report proposes classifications for European cities based on their size, economic structure, economic performance, and drivers of competitiveness. It classifies Europe’s international hubs into three types. These are international centres (mainly capital cities) with a pan-European or global influence. Below this level, six types of ‘Specialised Poles’ have been identified, which play an important international role in at least some aspects of the urban economy. Birmingham has been classified as a ‘Transformational Pole’, which relates to “…city regions with a strong industrial past, but have made significant progress in reinventing themselves, managing change, and developing new economic activities…’.

Cities identified as ‘Transformational Poles’ have GDP per capita and GDP growth rates at the national average, but high unemployment rates, an average share of employment in manufacturing, and low employment rates amongst older people. These cities have undergone significant visual change; however, a key and ongoing challenge is for these cities to redefine their identity.

Within the ‘International Hubs’ typology, ‘Knowledge Hubs’ are classed as “…key players in the global economy, positioned above the national urban hierarchy and in the forefront of international industry, business and financial services based on high levels of talent and well-connected to the world…’.

\textsuperscript{13} State of the English Cities: A Research Study, (2006), Communities and Local Government

\textsuperscript{14} State of European Cities, (2007), ECOTEC Research & Consulting Limited, NordRegio and Eurofutures
knowledge city, which is successfully strong to generate sustainable economic growth for the whole of the surrounding region…’. By continuing to manage economic change, particularly in terms of growing knowledge intensive economic sectors, the long-term aspiration for the Birmingham’s city region could be to become a ‘Knowledge Hub’.

2.2.2 Contextualising the Economic Competitiveness of Birmingham’s City Region

Case study analysis undertaken to inform this report has focussed on Lille, Turin, Glasgow, Gothenburg and Frankfurt. Table 2.1 benchmarks Birmingham against each of these. The data indicates that although Birmingham experienced a slight population decline between 1996 and 2001, its average annual GDP growth exceeded those of Lille and Turin, and also Frankfurt (classified as a 'Knowledge Hub'). However, rates of growth were significantly lower than Gothenburg – Gothenburg’s annual GDP growth rates exceeded the national average, whilst Birmingham’s growth rates were lower.

In terms of employment rates, Birmingham compares relatively favourably with the other cities listed as 'Transformational Poles', but Gothenburg and Frankfurt both have significantly higher employment rates and lower unemployment rates than Birmingham's city region. With the exception of Turin, the other comparator city regions contain a higher share of employment in service sector industries.

A key factor dictating the development of the knowledge economy in many regions is the presence of a qualified workforce. The data illustrates that with the exception of Turin, Birmingham lags behind the other comparator cities in terms of the proportion of residents qualified at Levels 5 and 6 (i.e. degree level). This suggests that increasing the proportion of highly qualified workers is likely to be a key factor in increasing Birmingham’s competitiveness in respect of the knowledge economy.

One opportunity for the Birmingham city region, in terms of developing the knowledge economy is its level of multi-modal accessibility, for which Birmingham ranks significantly higher than other comparator cities. However, Frankfurt’s ranking, in terms of this indicator, is significantly higher, which suggests that Birmingham’s city region needs to further improve levels of multi-modal accessibility if the area is to become more competitive in the knowledge economy.
### Table 2.1 Birmingham City Region’s Economic Performance Benchmarked Against Other City Regions

<table>
<thead>
<tr>
<th>City Region</th>
<th>City Region Population</th>
<th>Average Annual Population Change 1996-2001 (%)</th>
<th>Real GDP Growth 1996-2001 (Annual Average)</th>
<th>Real Annual GDP Growth (% point deviation from national average)</th>
<th>GDP Per Capita 2001 (EU27 = 100)</th>
<th>GDP Per Capita 2001 (National Average = 100)</th>
<th>Employe-ment Rate 2001 (% of working population)</th>
<th>Employe-ment Rate Index (National Average = 100)</th>
<th>Unemploy-ment Rate (2001)</th>
<th>Share % Employme nt in Manufacturing</th>
<th>Share % Employme nt in Services</th>
<th>Residents Qualified at ISCED Levels 5-6 per 1,000 persons aged over 24</th>
<th>Multi-modal Accessibility Index* (ESPON Space = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>2,336,652</td>
<td>-0.3</td>
<td>2.9</td>
<td>-0.4</td>
<td>117</td>
<td>99</td>
<td>59</td>
<td>83</td>
<td>9.5</td>
<td>23.6</td>
<td>76.1</td>
<td>16.4</td>
<td>141</td>
</tr>
<tr>
<td>Lille</td>
<td>1,143,125</td>
<td>0.3*</td>
<td>2.3</td>
<td>-1.0</td>
<td>100</td>
<td>84</td>
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<td>90</td>
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<td>20.4</td>
<td>78.9</td>
<td>24.9</td>
<td>120</td>
</tr>
<tr>
<td>Turin</td>
<td>2,165,619</td>
<td>-0.5</td>
<td>1.5</td>
<td>-0.7</td>
<td>142</td>
<td>121</td>
<td>60</td>
<td>109</td>
<td>8.5</td>
<td>35.9</td>
<td>64.1</td>
<td>13.3</td>
<td>122</td>
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<td>Glasgow</td>
<td>1,749,154</td>
<td>-0.4</td>
<td>3.0</td>
<td>-0.4</td>
<td>115</td>
<td>97</td>
<td>56</td>
<td>78</td>
<td>10.8</td>
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<tr>
<td>Gothenburg</td>
<td>796,705</td>
<td>0.8*</td>
<td>4.5</td>
<td>1.1</td>
<td>121</td>
<td>100</td>
<td>73</td>
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<td>2.4</td>
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<td>156</td>
<td>67</td>
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<td>86.6</td>
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</tr>
</tbody>
</table>

*Source: State of European Cities, 2007

*City region figure not available – statistic relates to core city only

+ Multi modal transport initiatives encompass all modes of travel walking, cycling, bus, rail, and the private car – this Index therefore benchmarks each city region’s multi-modal transport network against the average for the European Spatial Planning Observation Network
2.3 The Need for Strong Local Leadership

Before outlining the key learning points emerging from the case studies of individual city regions, a key factor common to all city regions identified as success stories, is that they are characterised by strong local leadership, which has an entrepreneurial mentality, and where both the public and private sectors are engaged.

Whilst it is often the case that a single authority has taken the lead in developing strategy and subsequently implementing this vision, a critical success factor has been the close working relationship between the principal city's local authority and other local authorities within their city region, together with high levels of involvement by the private sector, and the involvement of regional government in overseeing the process. In short, success is galvanised by all parties working towards a shared vision.

The State of English Cities Report acknowledges this and states that UK regional capitals (including Birmingham) need to develop stronger local decision making structures that develop strategies building on the key unique assets within the city region, and work with their surrounding areas on key strategic issues, including improving transportation and infrastructure, promoting trade, and developing regional workforce training systems.

The first key lesson therefore emerging for the M42 Corridor is the need for one of the constituent local authorities to take 'ownership' of any strategy for the locale, but for the other local authorities to work collaboratively towards the same vision. The continued involvement of the private sector and AWM will also be paramount to realising the growth potential of the areas.

2.4 European City Region Case Studies

In many respects the M42 Corridor is unique particularly in terms of its strategic economic assets. Few other European city regions have an international airport, major international exhibition centre, business parks containing knowledge intensive industries, mainline railway and station, and the national motorway network all in close proximity to one another. However, some transferable examples of good practice exist from other city regions that have successfully reinvented themselves, particularly those areas classed as 'Transformational Poles' in the State of European Cities Report.

2.4.1 Gothenburg

Although Gothenburg is a port city, with a city region population significantly lower than that of Birmingham (796,705 compared to 2,335,652), they do have some similar characteristics. Gothenburg, Sweden's second city, experienced significant industrial decline during the 1970s, when its shipyards were forced to close. This resulted in around 15,000 direct job losses. Similar to Birmingham, the automotive sector has historically been a key employer in Gothenburg, given that it houses the headquarters of Volvo Group. The city's dockyard area is being re-invigorated by a mixed-use regeneration scheme, comprising new housing, high-tech industries, educational
facilities, a science park, and an accessible waterfront. The scheme's completion date is earmarked for 2025, and it is forecast to attract some 26,000 residents and students. The site will also have 40,000 people working there, which is significantly more than were working at the former shipyards on the same site. The success of the scheme is demonstrated by the fact that the dockyard area is now a place where people wish to live, and where business wish to invest (as of 2006, over £1 billion had been invested in the area).

The key success factors have been identified as:

- The collaborative approach used to drive the project.
- The use of customised training programmes to ensure that local people are able to access emerging job opportunities.
- Collaboration between higher education institutions and leading industrial companies to drive the development of knowledge intensive sectors.
- The development of workspace and new housing, alongside public realm improvements to enhance the area's image.
- The development of new housing formed an integral part of the programme, thereby creating desirable neighbourhoods for those potentially working in businesses locating in the regeneration area.
- The provision of an integrated public transport system (especially bus and tram services) to enable people to access the regeneration area from all parts of the city region.

2.4.2 Turin

Similar to Birmingham, the city region of Turin experienced decline in its automotive sector during the 1970s, with substantial lay-offs taking place at FIAT and associated firms, and the relocation of production activities to southern Italy. However, the city region's economy has been successfully diversified through the growth of a number of economic sectors, including industrial automation, aeronautical parts, information technology, banking and insurance, food and drink, and publishing. The area now has the highest proportion of private spending on Research and Development (R&D) in Italy, with Motorola in the process of building a new centre for wireless communications technology in the city. Between 1998 and 2001, unemployment rates within the Turin city region decreased rapidly. The city's masterplan (developed in 1986) focused new developments along a transport spine, which included putting railway lines underground and rebuilding roads. As part of the regeneration programme, FIAT's 'Lingotto Building', once the world's largest car factory, was converted into a public centre, including a convention centre, concert hall, art gallery, shopping centre and hotel.

The key success factors have been identified as:

- Ensuring that the region's technology parks became integrated within the existing university research base to stimulate R&D activity.

15 Regeneration in European Cities: Making Connections, (2008), Joseph Rowntree Foundation
• A major place marketing campaign to change perceptions of the Turin city region.
• Investment in high speed rail links, both with other cities in the same country, and overseas cities.
• The principal city's local authority taking the lead on implementing the regeneration strategy, but working in partnership with the private sector and local universities.

2.4.3 Lille
The regeneration of the Lille city region in northern France was also facilitated by major improvements to the transport infrastructure, most notably the routing of the London to Paris Eurostar railway line through the city. Building on this, flagship regeneration projects were developed to re-orientate the local economy away from a reliance on textiles towards growth sectors, such as ICT, business services, health and biotechnology.

The key success factors have been identified as:

• Improvement to tram and metro routes to connect the principal city with outlying towns.
• The role of culture in improving the city region's image and diversifying the economy.

2.4.4 Glasgow
As with Birmingham, Glasgow is Scotland's second city however the population of its city region is significantly smaller than England's counterpart (1,749,154). Both city regions demonstrate similar performance in areas such as population change, GDP growth/GDP per capita, and employment/unemployment rates. Glasgow's approach towards cultural regeneration and providing a high quality built environment and public realm are particularly noteworthy.

Key success factors have been identified as:

• The role of culture in diversifying the city region's economy.
• Investment in the public realm can stimulate a range of economic benefits for a city region.

2.4.5 Frankfurt
The population of Frankfurt's city region is comparable in size to that of Birmingham's (2,494,485) however their economic bases differ quite considerably. Frankfurt's economy is heavily based around financial services (given that it is home to the Bundesbank), whereas Birmingham has a significantly higher share of employment in manufacturing. Frankfurt can therefore be viewed as an aspirational example of city region transformation, particularly in terms of its approach towards transport infrastructure and connectivity, and the use of trade fairs and exhibition space.

Key success factors have been identified as:

• Continuous investment in improving the transport infrastructure to maintain the city region's competitiveness in terms of exhibitions/trade fairs and knowledge intensive activities.
• The staging of trade fairs and exhibitions can potentially generate wider economic benefits for a city region.
2.5 Strategic Conclusions

The strategic conclusions from this brief review of other European city regions that have had some success in respect of modernisation and transformation are:

- Local authorities, pan regional government agencies and the private sector need to work to a shared vision and drive forward strategies that promote mixed-use developments that provide a better quality of life, promote social inclusion and create attractive sites and conditions for new businesses.

- The development of housing in environments that are potentially attractive to professionals working in knowledge-based sectors should also form an integral part of any mixed-use regeneration programme.

- The need to continually invest in improving all elements of the transport infrastructure to make the whole city region attractive to potential investors, and help local residents to access emerging employment opportunities remains critical.

- Of particular importance is the need to invest in public transport routes connecting key employment sites to neighbourhoods housing the workforce, and the need to invest in high speed rail links, linking the airport with the city region's principal city centre, and the principal city with other cities nationally and cities overseas.

- The provision of customised training courses can act as an important tool for ensuring that local people are able to access emerging employment opportunities, helps to reduce inequality, and helps ensure that additional spending generated by new jobs created is retained within the city region.

- The importance of public realm improvements as a tool to help improve the image of the city region both internally and externally should not be under estimated.

- Recognition of the role that culture and events can play in regenerating city regions, particularly in terms of improving image.

- A need to develop place marketing campaigns based on the city region's key assets, and major cultural events held within the city region, to change perceptions of the city region to both potential inward investors and tourists.
3.0 Defining the M42 Corridor

3.1 Introduction

This section of the report explores the functional economic and social geography of the M42 Corridor, and identifies an inter-linked and overlapping suite of operational definitions of the corridor to aid the analysis of both data and issues.

3.2 M42 and the M42 Corridor Growth Area

In geographical terms, the M42 in the West Midlands extends from Bromsgrove, through south west Birmingham and Solihull, and into north Warwickshire. However, it is the concentration of major strategic economic assets located alongside or in close proximity to the motorway as it passes through Solihull: most specifically BIA, Birmingham Business Park, Blythe Valley Business Park, Land Rover's Lode Lane facility, the NEC, and Solihull Town Centre, that in concert serve to mark the locale as a primary economic driver to the wider regional economy.

However, in considering the M42 Corridor Growth Area as a locus for regional development, other aspects of the functional economic geography of the area need also to be considered. This is critical in terms of placing growth prospects within a wider spatial context. Importantly, it also provides a basis for better identifying an operational definition for the M42 Corridor Growth Area: a definition which combines recognition of the functional nature of the Corridor as a spatial entity whilst also being responsive to the practical requirements necessary for effective data capture and analysis.

3.3 Functional Economic Geography

3.3.1 Wider Functional Area

Although the primary focus of the study relates closely to the M42 Corridor Growth Area, it is the case that in terms of functional economic geography the area exhibits an appreciably wider operational sphere of influence, including housing and labour markets and patterns of transport accessibility. Analysis of the profile of this wider area allows for a stronger appreciation of the overarching economic architecture influencing and impacting on activities in the M42 Corridor Growth Area itself. For the purposes of this analysis, the combined areas of Solihull, Birmingham, Coventry, Bromsgrove, Redditch and Warwickshire have been taken as a ‘best fit’ definition for this wider functional area. In a number of key respects this wider functional area maintains a distinctive set of characteristics which serve to set it apart from the rest of the West Midlands.

3.3.2 Wedge City Growth

The earlier ECOTEC work in connection with the M42 Corridor highlighted a number of important dimensions to the evolving economic geography of the West Midlands. Arguably, it is possible to
conceptualise a distinctive ‘wedge’ of economic activity encircling and radiating out to the west and south (broadly encompassing an area extending across Stratford on Avon, Warwick and Bromsgrove) yet also retaining key economic and functional links to the region's central conurbation focusing on Birmingham.

This distinctive pattern of spatial development reflects a combination of factors which include accessibility (notably, to the growth areas of the South East), lifestyle and quality of environment, as well as the existence and development of a range of innovative manufacturing businesses and professional service activities. Economic activity is most typically characterised by high concentrations of new firm formation, individuals with higher qualifications, and higher concentrations of sectors with strong innovative capacity. Critically, the M42 Corridor Growth Area represents a central focus of this wider ‘wedge city’ development.

3.3.3 Knowledge Economy Triangle

Further analysis reveals that the M42 Corridor – as represented in terms of this wider functional area – comprises the primary focus of the region's expanding knowledge economy, possessing a comparatively strong concentration of technology based manufacturing and knowledge based business services. Indeed, the area may be characterised as a distinctive ‘knowledge economy triangle’ with knowledge intensive business activity and employment concentrated within the Birmingham-Solihull-Warwickshire axis. This knowledge economy hot spot contrasts sharply with many other parts of the region, including long standing industrial areas such as the Black Country and the North Staffordshire conurbations, as well as many of the remoter rural areas of the West Midlands. National research has also drawn attention to the importance of the knowledge economy in this part of the region in the promotion of regional economic development\(^\text{16}\). The figure overleaf illustrates the depth of the knowledge economy across the region, and clearly reveals the central importance of the M42 Corridor Growth Area as the primary focus of the region's expanding knowledge economy.

\(^\text{16}\) Regional Employment and Skills in the Knowledge Economy: A Report for the Department of Trade and Industry, (2005), Local Futures Group
3.3.4 Headline Economic Performance

This distinctive knowledge economy profile is also reflected in terms of the economic performance of the wider functional area. Latest figures (2005) suggest that overall Gross Value Added (GVA) levels in the West Midlands are currently only 87% of the England average, down from 92% in 1995. GVA measures the contribution to the overall economy of each individual producer, industry or sector and represents the difference between the total revenue arising from production, and the cost of bought in raw materials, services and components (i.e. the value added). A real increase in GVA is indicative of a general improvement in economic well-being. There are however large differences between localities and sub regions within the West Midlands. Notably, since 1995 only two parts of the region, both connected to the M42 Corridor Functional Area (Solihull and Warwickshire) have recorded economic growth above the UK average. Solihull, in particular, has experienced significant economic growth during recent years: on average 8% per annum over the period 1995 to 2005, compared to 6% on average in the UK. The impressive economic growth by Solihull is further highlighted in the figure overleaf.
3.4 Operational Definition

3.4.1 M42 Corridor Functional Area

The initial consideration of the functional economic geography of the M42 Corridor presented above clearly begins to highlight the particular value and contribution of the area to the economic development of the region. In short, the M42 Corridor Growth Area sits within a wider functional area that is characterised by:

- Strong headline economic performance and growth characteristics
- Appreciable depth of knowledge based sectors and economic activities
- Quality of life and environmentally based factors which, in combination with transport accessibility potential, serve to both underpin economic success and increase residential attractiveness and liveability.

This wider functional area serves as a useful framework for better understanding and appreciation of the broader processes and growth drivers acting on the M42 Corridor Growth Area. Figure 3.3

Source: ECOTEC Analysis based on ONS data, 2007
below illustrates this definition of the wider M42 Corridor Functional Area, with this definition also reflecting housing and labour market dynamics and transport accessibility as well as principal economic characteristics.

**Figure 3.3 M42 Corridor Functional Area**

![Map of M42 Corridor Functional Area](image)

*Source: ECOTEC Research and Consulting, 2008*

However, by definition, the wider functional area is less helpful in developing an understanding of the internal configuration of the M42 Corridor Growth Area, most notably in terms of corresponding more closely with the location of the strategic economic assets situated therein.

### 3.4.2 M42 Corridor Growth Area Strategic Economic Assets

The particular concentration of strategic economic assets located in close proximity to the motorway as it passes through Solihull within the M42 Corridor Growth Area more specifically encompass:

- Birmingham Business Park
- Birmingham International Airport
- Blythe Valley Business Park
- Land Rover Lode Lane Facility
- National Exhibition Centre
- Solihull Town Centre.
BIA and the NEC have both been identified as being of overall strategic importance to the delivery of the objectives of the West Midlands Regional Economic Strategy (WMRES)\(^{17}\), whilst Blythe Valley Business Park and Birmingham Business Park have been identified as Regional Investment Sites (RIS) in the RSS. Land Rover remains a highly significant employer in the regional economy, while Solihull Town Centre has been identified as a major economic driver and source of new business and job opportunities in the RSS.

For operational purposes it is necessary to utilise a 'best fit' definition of the M42 Corridor Growth Area, with this being built up from ward boundaries closely corresponding to the geographical location of the strategic economic assets set out above. Figure 3.4 overleaf illustrates this narrower definition of the M42 Corridor Growth Area.

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\(^{17}\) Connecting to Success – West Midlands Regional Economic Strategy, (2007), Advantage West Midlands, West Midlands Regional Assembly
Figure 3.4  M42 Corridor Growth Area

Source: ECOTEC Research and Consulting, 2008

Importantly, this operational definition of the M42 Corridor Growth Area aligns closely with an overview assessment of transport accessibility in the Corridor – illustrated in the figure overleaf.
Figure 3.5  M42 Corridor Growth Area: Transport Accessibility
It can be anticipated that future development of BIA and the NEC, in particular, will exacerbate pressure on this already congested stretch of the M42, especially at Junction 6. Transport investment to increase capacity is therefore likely to be required in order to help address future travel demands on this principal route and realise its economic potential. As such, in terms of transport and expected congestion levels the core area of the M42 Corridor that the study focuses on is the stretch between Junction 4 and Junction 7, (serving Birmingham Business Park at Junction 7, BIA and the NEC at Junction 6, Solihull Town Centre at Junction 5 and Blythe Valley Business Park at Junction 4). However, acknowledging that the sphere of economic influence permeates beyond these discrete boundaries it is also important to consider a wider stretch of the M42, from Junction 3a to Junction 9, which includes the likely A45 operational area and, in addition, the 2km buffer area around these junctions which allows for appreciation of congestion and queuing vehicles at junction approaches.

3.5 Summary of Spatial Definitions

By way of summary, and as a basis for better assessing both the current contribution and future potential economic, housing and transport impacts arising from the promotion of development in the M42 Corridor Growth Area, recourse will subsequently be made to the following spatial definitions in the remainder of this report:

- **West Midlands Region** – this is the broadest geographical area over which the economic impact of the M42 Corridor will be formally assessed.\(^{18}\)
- **Wider Functional Area** – this constitutes a functional spatial unit within which the strategic economic assets of the M42 Corridor Growth Area play a dominant role. It is broadly defined by the areas of Solihull, Birmingham, Coventry, Bromsgrove, Redditch and Warwickshire, and will henceforth be referred to as the wider 'M42 Corridor Functional Area'.
- **M42 Corridor Growth Area** – this definition relates to the 'best fit' ward based geographical definition that more closely encompasses the location of the major economic assets within the M42 Corridor Growth Area itself. Correspondingly, this will henceforth be referred to as the 'M42 Corridor Growth Area'. Where practical data limitations otherwise prohibit use of a narrow definition based on smaller ward based geographies, recourse may also be made to the SMBC area as a proxy definition for the M42 Corridor Growth Area.
- **Three overlapping definitions of the M42 Corridor Growth Area** have been adopted to take due account of spheres of influence relating to economic, housing and transport policy domains:
  - **Economic**: the narrowest definition is ward based and encompasses those wards that are adjacent to the M42 and within which the strategic economic assets sit.
  - **Housing**: a slightly wider definition is adopted here and again is ward based but incorporates the three administrative wards that form North Solihull.\(^{19}\)

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\(^{18}\) It should, of course, be noted that in certain aspects the sphere of influence of specific M42 Corridor economic assets – but most notably BIA and the NEC – will also extend beyond the region.

\(^{19}\) Chelmsley Wood, Fordbridge and Kinghurst
Transport: again a geographically wider definition based on the route of the M42 from Junction 3A to Junction 9 and reflecting transport movements within the area.
4.0 Public Policy Appreciation

4.1 Introduction

This section of the report describes and assesses the implications of key regional, sub regional and local public policy, strategy and plans for the development of the M42 Corridor with a focus on the broad policy domains of economic development, housing, planning and transportation. It pays particular attention to the M42 Corridor Functional Area. Business and development plans which relate specifically to the individual strategic economic assets within the M42 Corridor Growth Area are considered in later sections of the report.

4.2 Spatial Planning

4.2.1 Regional Spatial Strategy

The RSS seeks to promote the creation and development of sustainable communities across the region. It identifies four major challenges for the West Midlands:

- Urban Renaissance – developing the Major Urban Areas (MUA) in order to counter the unsustainable outward movement of population and economic activity.
- Rural Renaissance – supporting rural communities to achieve their economic and social potential.
- Diversifying and modernising the region's economy – ensuring that opportunities for growth are linked to meeting needs.
- Modernising transport infrastructure – supporting the sustainable development of the region.

The Phase Two Revision has revised and introduced new policies in relation to climate change, sustainable communities, future housing and employment land provision, towns and city centres, transport and waste, and potentially holds the most significance in the context of this study. This stage of the revision was undertaken concurrently with the revision to the WMRES, thereby ensuring a closer alignment of the two strategies in terms of their shared ambition in relation to housing and the economy, and in creating more sustainable communities.

4.2.1.1 Housing and New Growth Points

With regard to the wider M42 Corridor Functional Area, attention is drawn to the implications surrounding future housing and economic growth potential. In line with the Government’s housing growth agenda, new housing figures have been increased to above the current RSS levels, providing for 365,600 new homes from 2006 to 2026. It is proposed that this growth will continue to be focused on the MUAs which includes Birmingham, Solihull and Coventry.

Notably, the M42 Corridor Functional Area is the subject of two of the region's designated New Growth Points: Birmingham and Solihull, and Coventry, with these set to provide a focus for both
housing and employment growth. Outside of the MUAs, Settlements of Significant Development (SSDs) have also been designated, with these intended to provide additional concentrations for sustainable housing and employment growth. Redditch, Rugby, Nuneaton/Bedworth and Warwick/Leamington Spa, along with a number of other settlements, have been designated as SSDs, with future housing provision in relevant districts having been increased in order to better reflect this role. As a basis for accommodating anticipated further housing growth, another round of New Growth Point submissions has recently been submitted to the Government, including a New Growth Point submission for Warwick/Rugby/Nuneaton.

4.2.1.2 Employment and Regional Investment Sites

Turning to employment, the RSS aims to ensure that opportunities for sustainable economic growth are related to meeting needs and reducing social exclusion by linking new economic growth with both population and housing growth. The spatial focus of such activity identifies the role of the Regeneration Zones (RZ), High Technology Corridors (HTC) and a network of strategic town and city centres and the need to bring forward a portfolio of sites and premises. The MUAs are again proposed as the primary focus for additional investment in economic growth. Outside of the MUAs sustainable economic growth will also be promoted in the SSDs.

Ensuring a ready supply and appropriate stock of employment land and premises is a key part of the RSS, including a hierarchy of RIS, Major Investment Sites, Regional Logistic Sites and Sub-Regional Employment Sites. In designating regional employment sites, it is judged essential that sites are located close to motorways and trunks roads and possess good public transport links, as well as being situated within (or close to) areas of greatest need or a large pool of labour. The M42 Corridor Functional Area has a range of regionally significant sites, including, most significantly, RIS designated at the Blythe Valley Business Park and Birmingham Business Park (to serve the EBNSRZ and the Coventry, Solihull, Warwickshire HTC). Hams Hall in North Warwickshire is also recognised as a Regional Logistic Site.

Under the Phase Two Revision revised policies have recognised the planned extension of the Blythe Valley Business Park, the proposed re-designating of Ansty as a RIS (from a Major Investment Site), and that additional RIS provision may be required to serve the needs of the Coventry and Nuneaton Regeneration Zone (CNRZ) and EBNSRZ. With respect to the Birmingham to Worcester HTC, the Longbridge Area Action Plan proposes a RIS to serve this corridor. Finally, the RSS recognises the need to create a Regional Logistics facility at Birch Coppice near Tamworth in Staffordshire together with an extended Hams Hall.

The RSS recognises the importance of ensuring adequate strategic access to the key regional assets of BIA and the NEC. However, it also notes that in order to ensure that the limited capacity of the M42 is safeguarded and not taken up by local movements there is a need to improve public transport provision, whilst there should be a 'general restraint' on development that is not directly connected to BIA and/or the NEC or else has no regional or national significance.

20 West Midlands Regional Freight Study – Final Report, (2005), MDS Transmodal & Mott Macdonald
4.2.2 Coventry, Solihull and Warwickshire Sub-Regional Planning Strategy

In recognition of the strong links and common characteristics across Coventry, Solihull and Warwickshire, the CSW Partnership has recently produced a development strategy,\(^{21}\) with this intended to provide an effective mechanism for delivering the RSS across the sub-region. In line with the RSS, it aims to focus housing developments in the North-South Corridor and encourage a greater sub-regional focus on Rugby. As a result, employment land will also be developed in accordance with these principal growth areas. Underpinning the successful allocation of housing and employment land is an identified need for upgrading the strategic transportation infrastructure. In particular, the strategy notes that there needs to be far greater recognition of sub-regional linkages across highway authority boundaries.

4.2.3 Solihull Unitary Development Plan

The Solihull Unitary Development Plan\(^{22}\) sets out a range of land use policies that impact on the M42 Corridor Growth Area. It identifies the importance of the RIS at the Birmingham Business Park and the Blythe Valley Business Park. Policy E4 supports development at BIA and Policy E5 development at the NEC. Policy E6 supports development at the Land Rover plant. Policy T15 gives greater consideration to the need to address transport issues in supporting development at BIA. Policy C1 re-affirms the designation of a Green Belt in the borough with the supporting text explaining that boundaries have been long established and echoing the RSS that boundaries should only be relaxed where necessary to support urban regeneration. Green Belt boundaries abut BIA, NEC, the Birmingham Business Park and the Blythe Valley Business Park. Policy S3 supports development that maintains or strengthens the function of Solihull Town Centre.

4.3 Economic Development

4.3.1 West Midlands Economic Strategy

Building on previous regional economic strategies\(^{23}\), the WMRES sets an ambitious vision for the West Midlands “…to be a global centre where people and business choose to connect…”.

The strategy is structured around three main components of the economy – Business, Place and People, plus the need to provide a Powerful Voice for the Region:

- Business: seizing market opportunities, improving competitiveness and harnessing knowledge.
- Place: increasing Birmingham’s competitiveness, improving infrastructure and creating sustainable communities.
- People: encouraging sustainable living, raising ambitions and aspirations, achieving full potential and opportunities for all.

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\(^{21}\) A Vision for Sustainable Coventry, Solihull and Warwickshire Sub-Region in 2020, (2005), CSWP
\(^{22}\) Solihull Unitary Development Plan 2006, (2006), Solihull MBC
• Powerful Voice: creating a powerful voice for the West Midlands.

Spatially, intervention is targeted on three primary areas:

• Areas of multiple market failure: with concentrations of deprivation and disadvantage the RZs are identified as representing the areas of greatest need and market failure within the region.
• Concentrations of knowledge assets: including the HTCs, these represent agglomerations of innovative potential to support the diversification of the economy into higher value added sectors; and Birmingham Science City and assets such as the National Institute of Energy Technologies as well as the cluster of knowledge assets in North Staffordshire.
• Birmingham: as a major economic driver within the region’s economy.

However, additionally, the strategy recognises the need for more limited investment in a number of settlements and locations beyond the areas identified above, including market towns and locations facing economic change or responding to opportunity. Such areas are intended to complement the spatial hierarchy set out in the RSS.

4.3.1.1 Delivery Vehicles

Previous regional economic strategies have identified RZs, HTCs and Business Clusters as the mechanisms for economic development and regeneration. HTCs have a specific remit centred on the attraction and development of high tech, high value-added businesses, with the term ‘corridor’ intended to reflect functional linkages between activities. Significantly, the M42 Corridor Functional Area is in part the spatial focus of two of the three designated HTCs: principally the Coventry, Solihull, Warwickshire Technology Corridor, but also (in part) the Central Technology Belt, running from central Birmingham, through Worcester, to Malvern along the A38.

The WMRES identifies twelve priority business clusters24 supported through Cluster Opportunity Groups (COGs) – categorised variously, as established, growing, and embryonic. It is notable that the M42 Corridor Growth Area possesses a substantial endowment in respect of many of these priority sectors and activities, including: transport technologies, tourism and leisure, specialist business and professional services, and ICT and software. The clusters comprise the basis for a modernisation and diversification of the region’s business base, with this in turn underpinning desired productivity gains.

RZs are targeted at locations incorporating major areas of deprivation. Specifically, RZs are intended to have a specific remit around developing ‘bridges to success’ in terms of improving linkages between the need of deprived communities and economic opportunity in their proximity, with Zone Implementation Plans (ZIPs) providing the framework for local interventions and

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24 Transport Technologies now divided into Aerospace, Automotive and Rail, Building Technologies, Food & Drink, Tourism & Leisure, Interiors & Lifestyle (Established); Business & Professional Services, ICT, Environmental Technologies (Growing); Screen Image & Sound, Medical Technologies (Embryonic)
activities. Significantly, the M42 Corridor Functional Area includes two of the six designated RZs – the EBNSRZ, and the CNRZ.

4.3.1.2 Sub Regional Contributions
The WMRES recognises the varied functional economic relationships between the different parts of the region together with the contribution that particular sub regions can make to deliver the strategy. Predictably enough, it is the Birmingham and Solihull and Coventry and Warwickshire Sub Regions that are of most relevance in relation to the development potential of the M42 Corridor Growth Area.

The Birmingham and Solihull Sub Region lies at the heart of the city region and is a major centre for economic activity and major contributor to the regional and national economy. Spatially, the M42 Corridor Growth Area is encompassed within this sub region. Functional linkages are most apparent with adjacent sub-regions, notably Coventry and Warwickshire, South East Staffordshire, the Black Country, and Worcestershire. Importantly, the Birmingham and Solihull Sub Region is expected to make a highly significant contribution towards delivery of the WMRES. Critically, and in line with previous strategies, Connecting to Success identifies the need to maximise the benefit of BIA and the NEC as prime assets for the region, as well as the role of RIS, including Blythe Valley and Birmingham Business Parks. A need to focus investment in skills and training in the areas of greatest need (including East Birmingham and North Solihull) is also highlighted.

The Coventry and Warwickshire Sub Region comprises a strategically important area east of Birmingham and the region’s principal conurbation. Geographically, the sub region is the most proximate part of the West Midlands to London and the South East Region and the Milton Keynes South Midlands Growth Area, with this being reflected in the strong growth pressures especially evident in the southern part of the sub region.

Moreover, the sub region lies at the heart of the national strategic transport network. Principal motorway routes link the West Midlands with the east (Nottingham and Leicester M69) and the south east growth area of Milton Keynes and Northampton (M6, M1, M40, M42), while the West Coast mainline links the North West to London with major stations at Coventry, Rugby and Nuneaton. The Chiltern Line links Birmingham with London via Warwick, Leamington and Solihull, and there are additional trains linking Birmingham, BIA and London Euston. Furthermore, the West Midlands Route Utilisation Strategy\(^\text{25}\) aims to develop a better mix of services on the Birmingham to Coventry Corridor.

The area exhibits strong structural and functional relationships via a linear corridor from Atherstone in the north through Nuneaton and Bedworth, Coventry, Kenilworth, Leamington, Warwick and Stratford in the south. There is also evidence of an east west axis from the edge of the conurbation in Solihull (west) through Coventry to Rugby (east). Connecting to Success identifies the need to further develop business base assets in the sub region, particularly those linked to high technologies, digital technologies and high value added engineering and manufacturing, as well as

\(^{25}\) West Midlands Route Utilisation Strategy, (2005), Strategic Rail Authority
developing and maximising the knowledge bases arising from the sub region's two universities (Warwick and Coventry) and maximising employment and enterprise opportunities in both the RZ and HTC.

4.3.2 Birmingham, Coventry and Black Country City Region

The Birmingham, Coventry and Black Country City Region (BCBC), which also includes Telford, lies at the heart of the UK's transport network with strong accessibility potential to other parts of the UK by road and rail, and internationally via BIA. Overall, the BCBC economy accounts for more than one-half (55%) of total output generated in the West Midlands26. Notably, output in Solihull has grown particularly strongly over the past decade, with the area continuing to represent a strong focus for new investment.

To drive the city region forward partners27 have come together to develop proposals for the BCBC City Region. This initiative is underpinned by a desire to work in partnership across a range of strategic issues in order to achieve a more integrated approach to competitiveness and growth and urban planning. Such an approach seeks to better connect policies and interventions in areas such as economic development, regeneration, skills, transport and housing. The city region includes a number of the region's housing renewal priority areas in the form of the Urban Living Housing Market Renewal National Pathfinder (covering north west Birmingham and parts of Sandwell) and two further regionally significant housing market intervention areas of 'evolve' (Telford and Black Country) and the Eastern Corridor North Solihull (designated New Growth Point).

Work on the city region remains at a preparatory stage, and it should be noted that both policies and proposals have not at the time of writing been formally endorsed by partners28. However, the initial proposals set out in the draft BCBC City Region Growth and Prosperity Strategy29 are likely to hold a number of key implications for the M42 Corridor Growth Area should they be taken forward.

The draft strategy asserts that on-going expansion of BIA, especially the extension of the existing runway, is ‘…essential in order to strengthen the competitive advantage of the city region…30'. It argues, moreover, that this would also serve the purpose of permitting the greater use of BIA as the airport of first choice for increasing numbers of commercial and leisure passengers, including

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26 Birmingham, Coventry and Black Country City Region – Outline Strategic Economic Assessment, (2008), West Midlands Regional Observatory
27 Including local authority leaders of Birmingham, Coventry, Dudley, Sandwell, Solihull, Telford, Walsall and Wolverhampton
28 The City Region is in the early stages of developing a Business Support Alignment strategy. This aims to ensure consistency and coherence across all City Region partners in the provision of business support, with Business Link WM playing a leading role in provision. A Quality of Life Gap Analysis study is at an advanced stage of production and will be considered by the Board in July 2008. The findings from this study will inform potential investment priorities.
29 Birmingham Coventry and the Black Country City Region Growth and Prosperity Strategy Version One, (2006), BCBC Partners. (N.B. though this has not been formally adopted, it is illustrative of emerging thinking)
30 The Birmingham UDP asserts that future growth of the airport will also be central to the ambition of the city to be recognised as a 'world city'
from the South Midlands and Milton Keynes, as well as the city region and the Midlands, who currently use the congested London airports.

Support is pledged for planned investments designed to ensure that BIA will serve an increased range of European and worldwide destinations through the runway extension and further passenger terminal capacity. The strategy asserts that partners will also back improved access by 'all modes of transport to BIA from across the city region and beyond...', with such investments helping to attract employment related initiatives to be developed in close proximity to BIA. Specifically, support is pledged for the creation of new motorway link roads, other road realignments, a new Metro line, new bus lanes, a public transport hub/ interchange, and infrastructure upgrades on routes serving the airport area.

The draft strategy notes that partners will work together to ensure that residents of disadvantaged communities, and especially those in the EBNSRZ, gain better access to new and emerging employment opportunities at both BIA and the NEC.

4.3.3 Coventry, Solihull and Warwickshire High Technology Corridor

The CSWHTC Strategy Document 2006 - 2008 sets out a vision of creating an 'Intelligent, Imaginative and Competitive Corridor'. Thematically, the HTC is closely focused on the areas of innovation and design, global competitiveness, and digital technologies. It is identified as an area of high concentration of technology led and innovative businesses, together with research activity and business facing academic institutions. Such an asset base, the strategy notes, has the potential to:

- Support the development of locally initiated West Midlands' technology and innovation-led businesses.
- Attract technology led businesses to locate in the area.
- Justify the expansion of world class infrastructure in the public and private sectors to support the growth of leading edge technology businesses.

More specifically, the CSWHTC aims to develop strategic linkages with those business clusters that are relevant to the strengths of the HTC, namely: ICT; Medical Technologies; Building Technologies; and Automotive.

4.3.4 Central Technology Belt

The Central Technology Belt (CTB) covers the area running from Birmingham, through Worcester, to Malvern along the A38. The overall vision for the CTB, as outlined in its business plan, is to 'build on the knowledge and expertise inherent in the region's Universities, Research Centres,

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32 Central Technology Belt, Three Year Business Plan April 2006 – March 2009, (2006), Central Technology Belt
Science Parks and Businesses to create technology rich business opportunities'. The business plan identifies seven key themes\(^3\), which fit with the WMES, to prioritise actions:

- **Knowledge base/ skills/ culture**: the CTB aims to maximise technology rich business opportunities; in particular, it recognises strengths in medical and healthcare science, technology and services; advanced materials technology; sensors, signalling and telematics; and energy & environmental technologies.
- **Business development/ technology transfer**: the M42 Corridor has a key role to play in helping the CTB develop as an attractive location for inward investors and to encourage co-operative manufacturing within the sub-region.
- **Sites and infrastructure**: the M42 Corridor can also contribute to ensuring that the transport infrastructure in the sub-region meets the expectations of the developing Technology Belt.

### 4.3.5 East Birmingham and North Solihull Regeneration Zone

The EBNSRZ Implementation Plan\(^4\) sets out the investment priorities and key activities for the RZ between 2007 and 2010. The overall vision for the EBNSRZ is one of ‘a thriving place for people and enterprise to live, work, develop and succeed, and where opportunities are within everyone's reach’. This is underpinned by three key goals:

- **Thriving Enterprise**
- **Thriving People and Communities**
- **Thriving Environment and Infrastructure**

Supporting the ZIP, EBNSRZ has a number of strategic investment plans (SIPs) that support enterprise development. Although some of the SIPs focus on more localised areas, by offering significant opportunity for enabling economic and employment growth, the M42 Corridor Growth Area has an obvious role to play in delivering against many of the objectives outlined in these plans. Examples include: identifying key local employment centres where the RZ investment can produce the most effective economic benefit; recognising development opportunities that could create significant job opportunities; growing the environmental business sector; and seeking to develop skills for employment in growth sectors\(^5\).

### 4.3.6 Coventry Nuneaton Regeneration Zone

The CNRZ Implementation Plan\(^6\), which sets out the objectives and targets that will enable a transformational changes in the area, has the overall vision of matching *need and opportunity to bring about a marked reduction of inequality of economic performance, opportunity and quality of*...
life between the Regeneration Zone and the wider sub-region by 2010’. The ZIP identifies six strategic priorities; of which two are cross cutting:

- Spreading market confidence northwards
- Creating the conditions for vibrant city and town centres
- Creating the conditions for vibrant and sustainable communities
- Embracing the technology, innovation, enterprise and cluster agendas
- Cross cutting priorities
- Providing leadership on regeneration issues
- Adding value and maximising the impact of all regeneration work within the Zone

Supporting the ZIP, five Strategic Programme Areas (SPAs)\(^{37}\) have also been identified. These focus on manageable geographic areas or key economic development themes with the overall aim of capturing opportunities for wealth creation, better meeting the needs of disadvantaged communities and promoting their quality of life.

4.3.7 Local Economic Strategies

Supporting the WMRES, there are a number of more local economic development strategies which set out frameworks of action for addressing economic issues within their respective areas. Within the M42 Corridor Functional Area, strategies have been developed for Birmingham, Solihull, Coventry, Warwickshire and Worcestershire.

4.3.7.1 An Economic Strategy for the City

Developing Birmingham\(^{38}\) provides a framework for the future economic well being of Birmingham. The strategy aims to ‘build on Birmingham’s renaissance and secure a strong and sustainable economy’. Of particular importance to this study, this vision encompasses the need to ensure:

- Attractive and accessible employment opportunities.
- A well connected city with excellent international links, road infrastructure, public transport and communication services, enabling the efficient movement of people, goods and information into and around the city.
- A premier international business location and a major centre for professional services, with new and innovative enterprise in thriving sectors and high-technology industries.

Birmingham’s Big City Plan\(^{39}\) also seeks to promote the economic development of the city. The Economic Strategy for the City is structured around four key areas: ‘development and investment’,

\(^{37}\) The Strategic Programme Areas are: regenerating Nuneaton and Bedworth; Regenerating North Coventry; Linking Coventry City Centre and neighbourhoods; Promoting entrepreneurship; and Cluster development to drive the modernisation and diversification of the sub-region’s economy.


\(^{39}\) Big City Plan, (2008), Birmingham City Council
'creating a skilled workforce', 'fostering business development and diversification', and 'creating sustainable communities and vibrant urban villages'.

Within the 'development and investment' objective, key actions include a need to improve public transport links to major employment areas such as Birmingham City Centre, BIA and the NEC. Moreover, with specific reference to BIA and the NEC, a need for widening the M42 as a condition for enhancing visitor access and improving access to employment for local people is identified. Also under the 'development and investment' objective, a number of area based development opportunities are identified. Those of particular relevance to this study are:

- To stimulate new industrial and commercial activity and employment opportunities in north west Birmingham, by improving commercial centres along key transport corridors.
- To promote local development and employment opportunities within the most deprived areas of south east Birmingham, along the A45, A34 and A41 corridors which link the city centre with development activity alongside the M42.
- To secure the future of the NEC Group managed assets as a premier UK and European destination for exhibition, conference and event-related opportunities in order to maintain their continued regional significance.
- To deliver the long-term future and expansion of BIA, adding routes to increase the city's number of international connections and improving surface access to the airport.

4.3.7.2 An Economic Development Strategy for Solihull

The Economic Development Strategy for Solihull provides a framework for partners in response to the economic challenges facing Solihull. An overall vision is established whereby 'Solihull's economy continues to grow and prosper – being globally competitive, entrepreneurial, innovative and highly skilled; significantly reducing the gap of inequality facing some residents; and increasingly based on environmentally-sustainable forms of economic activity'. Headline priorities intended to support this vision are:

- To close the gap of inequality facing some of Solihull's residents; particularly residents of the North Solihull wards of Chelmsley Wood, Kingshurst and Fordbridge and Smith's Wood.
- To ensure Solihull's continued competitiveness as an investment location; including by safeguarding key assets including high quality employment sites and business premises, a highly qualified workforce and quality of life assets.
- To ensure the continued success of Solihull's strategic economic assets: BIA, the NEC, Land Rover, Birmingham and Blythe Valley Business Parks and Solihull Town Centre.
- To develop local enterprise and ensure the competitiveness of Solihull businesses in a global market place.
- To ensure a skilled, qualified and entrepreneurial workforce.
- To promote environmentally sustainable forms of economic activity (production and consumption) which reduce carbon emissions.

The strategic economic assets identified for Solihull all lie within the M42 Corridor Growth Area and, as consequence, will have a central role to play in achieving many of the wider objectives for Solihull (and the broader region). A core business objective aims to support the continued development of BIA and the NEC (subject to environmental safeguards and ensuring maximum regeneration benefits for North Solihull). More generally, the strategy intends to build on Solihull's existing industry strengths (business & professional services, ICT, construction, consumer services, business tourism, and transport and communications), plus target industries which currently have limited representation in Solihull but which offer significant opportunities (building technologies, medical technologies, creative industries, and environmental technologies).

4.3.7.3 Economic Development Strategy for Coventry
The vision of Innovative Coventry41 is one of ‘Coventry as a growing, accessible city; where people choose to live, work, and be educated, and where businesses choose to invest’. Specific strategy goals intend to: transform and extend the city centre; provide jobs to create prosperity; and build new homes and transform communities and neighbourhoods. The strategy recognises that increasing competition in the economy (but particularly around innovative and higher value added activity), and a sufficient level and quality of affordable housing, together with a flexible and responsive planning system and a reduction of transport costs and congestion, will all serve to improving the economic performance of the city.

4.3.7.4 Warwickshire Economic Development Strategy
The Regeneration and Competitiveness Strategy for Warwickshire42 identifies a specific focus on knowledge driven employment sectors, while also seeking to encourage and support businesses with a special focus on environmental technology, performance engineering, and medical technology. Critically, the M42 Corridor Functional Area has a key role to play in ensuring that the Warwickshire transport infrastructure plays its part in business growth through improved accessibility and distribution.

4.3.7.5 An Economic Strategy for Worcestershire
The Economic Strategy for Worcestershire43 seeks to enhance the position of Worcestershire as an economic driver for the region: one which is characterised as a prosperous and sustainable economy, driven by technology-led enterprises, offering well paid and highly skilled jobs and a high quality of life for its residents. Through the CTB, the strategy places an emphasis on developing medical technology and services, together with further development of both established industries (such as food and drink and tourism), and emerging industries (including creative industries). The strategy recognises a need for making appropriate land and property available, together with and with particular reference to the knowledge based industries, a requirement for good ICT and transport infrastructure.

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Housing

4.4.1 West Midlands Regional Housing Strategy

The key objectives of the West Midlands Regional Housing Strategy (WMRHS) are closely entwined with those of the RSS, with core aims being to:

- Create mixed, balanced and inclusive communities.
- Assists in the delivery of the RSS policies for urban and rural renaissance.
- Achieve social and affordable housing.

In order to deliver an effective strategy which takes into account the region's diversity, the WMRA has identified four Housing Market Areas (HMAs): Central, South, North and West. Each HMA has its own distinctive features. The South HMA is an area of notable housing demand, evidenced by the fact that it is characterised by a substantial overall net in-migration total (excluding international moves from the UK, of +7,365). In particular, there is a trend for inward migration from the South East and the West Midlands conurbation, with this making the area attractive to commuters and resulting in issues of affordability. This contrasts with the Central HMA, which has established patterns of commuting and migration between the conurbation and the adjoining settlements.

By working in Sub Regional Housing Market Area Partnerships, local authorities and other agencies are encouraged to develop policy solutions that address the diversity of trends and specific characteristics of their area, through focusing housing investment priorities and targeting resources. In the case of the West Midlands conurbation, priorities will seek to provide more affordable housing to reduce out migration and encourage the restructuring of the East Birmingham North Solihull housing market and Coventry to achieve its growth objectives. In relation to the South HMA, the areas of Warwick and Stratford will be focal points for social housing investment.

Transport

4.5.1 National Policy Considerations

The context for regional transport strategy is outlined in a number of national strategies. In particular the Transport White Paper sets out the factors which will shape the transport network over the coming years, and how the government will respond to these challenges. Key priorities include reducing CO2 emissions plus encouraging the use of public transport, walking and cycling.

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44 Wes Midlands Regional Housing Strategy (2005), West Midlands Regional Housing Board
45 2001 Census Special Migration Statistics
46 The Future of Transport – A Network for 2030, (2004), Department for Transport
This is supported by the Stern Review47 which states that there is a case for a reduction of more than 60% in CO2 emissions by 2050.

In highlighting the importance of the transport system to meet future economic challenges, the Eddington Report48 notes that '...to meet the changing needs of the UK economy, government should focus on improving the performance of existing transport networks...'. Eddington further identifies three strategic economic priorities: congested and growing urban areas and their catchments; key inter urban corridors; and, international gateways that are showing signs of increasing congestion and unreliability.

In response to Eddington and Stern49, the Department for Transport (DfT) published Towards a Sustainable Transport System which proposes a new five-step approach to longer term transport strategy and outlines the DfT's investment plans for the period to 2013/14. A final White Paper presenting policy priorities is programmed for publication in early 2009. The Future of Air Transport White Paper50 is also relevant.

4.5.2 Regional Transport Strategy

The Regional Transport Strategy (RTS), encompassed within the RSS, is directed at ensuring that the region's transport network provides for further economic growth. Policy T9 notes that the transport network must be maintained and managed in a way that preserves strategic routes and supports business efficiency and the competitiveness of the region. The strategy also has an explicit focus on issues connected to BIA, recognising the opportunity presented by future growth of BIA in benefiting the region's wider economy. Thus, under the Phase Two Revision, Policy T11 notes that BIA will '...continue to be developed as the West Midlands' principal passenger airport with appropriate facilities in order to increase the extent to which it serves a wider range of global destinations to meet the region's needs...'.

The revised Policy T11 recognizes that in order to serve more distant international destinations an extension to the main runway would be required, together with additional passenger terminal facilities. However, the strategy also notes that any development plans will necessarily be subject to rigorous assessment – economic and environmental – and that satisfactory provision will be required for 'improved surface access', including improvements where necessary to the M42 and an increase in the proportion of passengers, employees and visitors using public transport.

Critically, further development at BIA is also endorsed at the national level, with the Government's Air Transport White Paper supportive of runway extension, whilst emphasizing the need for continuing environmental controls and mitigation measures. More generally, the White Paper highlights the role of regional airports in supporting sustainable regional economic development.

47 The Stern Review of the Economics of Climate Change, (2006), Lord Stern
48 The Eddington Transport Study, (2006), Sir Rod Eddington
50 Future of Air Transport, (2003), DfT
and regeneration; in increasing regional choice for air travel; and relieving congestion in the South East by the 'clawing back' of traffic which currently travels to that region for access to air travel.

Under the Phase Two Revision, the Regional Transport Priorities for Investment (Policy T12) have also been updated to reflect the designation of SSD and the consequent infrastructure requirements. These priorities have been updated in recognition of recent progress set out in the West Midlands Transport Delivery Plan, and the region's response to the request by Government for advice on Regional Funding Allocations (RFA) – though, it should be noted that the Region's RFA is to be reviewed during 2008. In respect of the M42 Corridor Functional Area regional investment priorities include:

- Improvements to surface access (including public transport) to BIA.
- Improvements to the transport networks in the SSD including Nuneaton/Bedworth, Rugby, Redditch and Warwick/Leamington.

In addition, reference is made to widening of the M42 between Junction 3 and Junction 7. The potential for this scheme is under investigation, with feasibility work needing to be undertaken.

4.5.3 Local Transport Plans

Three Local Transport Plans (LTP) cover the M42 Corridor Functional Area covering the West Midlands Metropolitan Area, Warwickshire, and Worcestershire. Whilst the LTPs are directed at addressing local priorities, they encompass the four themes of the Transport Shared Priority, agreed between central and local government, to:

- Tackle congestion.
- Deliver improved accessibility.
- Improve road safety.
- Produce better air quality.

4.5.3.1 West Midlands Local Transport Plan

The West Midlands LTP\textsuperscript{51} sets out the transport strategy for Birmingham and the West Midlands, providing a framework for initiatives to be developed between 2006 and 2011. The seven local authorities\textsuperscript{52} comprising the West Midlands Metropolitan Area have a shared vision for:

- A thriving, sustainable and vibrant community where people want to live and where business can develop and grow.
- Town, city and local centres that are attractive and vibrant, where high-quality public transport is the norm and walking and cycling are common-place.
- Cleaner air and less congested traffic conditions.

\textsuperscript{51} West Midlands Local Transport Plan, (2006), West Midlands Metropolitan Districts
\textsuperscript{52} Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall, Wolverhampton
A safer community with fewer road accidents and with environments in which people feel secure.
Equal opportunities for everyone to gain access to services and facilities and enjoy a better quality of life, with travel choices that are attractive, viable and sustainable.

In delivering this vision, the LTP aims to maximise opportunities to make more efficient use of existing infrastructure by capitalising on the use of new technology, techniques and legislation. However, the level of regeneration and renewal planned for the West Midlands means that specific schemes to support proposals will also be needed. In particular, the LTP seeks to target investment in infrastructure to support regeneration, for example regenerating communities with high unemployment or poor living environments and supporting existing and new job opportunities.

A strategy for tackling congestion targets congestion hotspots and corridors for action in the short term. Additionally, a number of major schemes to improve capacity and tackle congestion issues are identified, including, for example, improved interchange facilities at Coventry Station, a Longbridge Link which will provide a direct connection to the M42, and quality bus network improvements within the EBNSRZ. Of particular note is the priority to improve access to BIA with the airport seen as a major gateway and generator of economic activity.

4.5.3.2 Warwickshire Local Transport Plan
The LTP for Warwickshire\(^53\) sets out how the County Council plans to improve transport in Warwickshire between 2006 and 2011. In the context of the wider priorities for the county, the key strategic priorities are:

- Accessibility.
- Regeneration and the long term economic stability and prosperity of the Coventry/Solihull/Warwickshire Sub Region.
- Safety and security.
- The environment.
- Peak hour school travel.

Accompanying the LTP for Warwickshire, 21 core strategies have been developed. Of particular relevance to this work are:

- Aviation (surface access) Strategy – aims to improve access to the two major airports that lie within or close to the County Boundary
- Land Use and Transportation Strategy – aims to encourage new development in Warwickshire to be sustainable by promoting patterns of development that make better use of land and reduces the need to travel through the better integration of land use and transport.

4.5.3.3 **Worcestshire Local Transport Plan**

Whilst only two Worcestershire District Councils - Bromsgrove and Redditch - fall within the M42 Corridor Functional Area, the Worcestershire LTP\(^{54}\) recognises that the M42 has '…contributed to making many employment sites and other trip generators such as the NEC easier to reach by car from Worcestershire…'. Junctions 2 and 3 of the M42 lie outside of the county area but the LTP recognises the potential need for improvements at these junctions in order to manage congestion, particularly in light of the Longbridge Access Strategy and the potential development at Abbey Stadium.

4.6 **Strategic Conclusions**

The strategic conclusions that can be drawn from the review of public sector policy are as follows:

- The promotion of development in the M42 Corridor Growth Area will need to take due cognisance of national economic, housing, land use and transportation policy. In respect of BIA the White Paper on Air Transport supports development at this strategic economic asset.

- Regional policy consistently identifies the strategic economic assets within the M42 Corridor Growth Area as offering significant opportunity for economic growth. Specifically, managing the future development and expansion potential of BIA and the NEC as strategic regional assets is seen as fundamental to underpinning the region's competitiveness performance.

- Regional policy places very considerable emphasise on the importance of further developing the region's higher value, knowledge-based sectors and activities. As a primary concentration of the region's emerging Knowledge Economy, the M42 Corridor Growth Area can be expected to be at the forefront of future growth in these priority sectors and activities, including: specialist business & professional services, ICT & software, and tourism & leisure, together with medical technologies, automotive, building technologies, environmental technologies, and creative industries.

- Development within the M42 Corridor Functional Area should be spatially concentrated in certain designated areas, with these including the HTC (Coventry Solihull and Warwickshire HTC, together with the Central Technology Belt), and the RZ (including the EBNSRZ and CNRZ). There is also an underlying strategic objective to ensure that the opportunities available in the M42 Corridor Growth Area link to neighbouring areas of need.

- Further, the MUAs of Birmingham, Solihull and Coventry, and the SSDs - including Redditch, Rugby, Nuneaton/Bedworth and Warwick/Leamington Spa - are also identified as important locations for prospective future employment and housing development under both regional and sub regional strategies.

\(^{54}\) Worcestershire Local Transport Plan, 2006 – 2011, (2006), Worcestershire County Council
- Strategic policies recognise the need for focusing major employment and housing development in those locations characterised by strong transport links. Wherever possible, the most effective use of existing transport infrastructure is emphasised, though, significantly, there is also recognition that some additional improvement/enhancement schemes are required. Together with a need to enhance public transport, improvements to the M42 are identified as a priority.

- Locally, the Solihull UDP supports the development of the strategic economic assets located in the M42 Corridor Growth Area but recognises that in doing so environmental and transportation issues need to be addressed. Long established Green Belt boundaries abut some of the key strategic assets and under current policy are only due for amendment if a positive contribution to urban regeneration can be demonstrated.
5.0 Economic Characteristics

5.1 Introduction

This section of the report examines the economic architecture of the M42 Corridor Functional Area. It continues to assess the performance of this and the M42 Corridor Growth Area with respect to a suite of productivity drivers. Lastly, it models the current contribution of the strategic economic assets of the M42 Corridor Growth Area to the regional economy.

5.2 Economic Architecture of the M42 Corridor Functional Area

5.2.1 Economic Domains and Indicators

The table below summarises the principal economic domains and indicators that have been used to inform the LEAM analysis.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Scale</td>
<td>Comparative size or ‘economic mass’ – including employment, population, and business rateable value</td>
</tr>
<tr>
<td>Dynamism</td>
<td>Recent growth performance and capacity; direction and pace of change – including employment, labour force, and business base</td>
</tr>
<tr>
<td>Sector Structure</td>
<td>Depth and composition of high growth and high value-added industrial sectors – including knowledge economy, high technology manufacturing and consumer services</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Profile and performance of small business sector (‘enterprise culture’) – including startups in financial and business services, business population rates, self employment and micro businesses</td>
</tr>
<tr>
<td>Labour Market</td>
<td>Skills base and workforce profile – including skills attainment, occupational structure, and economic activity</td>
</tr>
</tbody>
</table>

Source: ECOTEC Research and Consulting

The key results of the analysis are presented in the form of charts and statistical tables. The interpretation of research findings is used to identify and assess different attributes of the M42 Corridor Functional Area's economic profile and performance, set against a number of comparator areas.

55 LEAM is driven by a powerful indicator database drawing on available and extensive national data sets. It can be applied at the local, sub regional or regional level and allows performance benchmarking and profiling across key economic domains.
5.2.2 Economic Scale

'Scale' is a major factor in the classification of any local economy; overall size being important in determining a local economy's relative position within the wider economic system. Attaining a certain level of scale or economic 'mass' may also confer particular competitive advantage in terms of the composition of markets and the representation of key institutions and infrastructure.

The scale of the M42 Corridor Functional Area economy has been measured using key indicators relating to total workplace employment, resident working age population, and business rateable value. Individual values on these indicators have been combined to create a composite index score\(^{56}\) for scale. The results are set out in the table below.

### Table 5.2 Analysis of Economic Scale

<table>
<thead>
<tr>
<th>Area</th>
<th>Working Age Population, 2008 (score rank)</th>
<th>Business Rateable Value, 2005 (score rank)</th>
<th>Employment, 2006 (score rank)</th>
<th>Scale Composite (score rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solihull</td>
<td>138,708 (83)</td>
<td>£228,374,850 (317)</td>
<td>182,332 (43)</td>
<td>156.5 (63)</td>
</tr>
<tr>
<td>Birmingham</td>
<td>606,320 (891)</td>
<td>£467,304,211 (216)</td>
<td>419,289 (2)</td>
<td>726.8 (2)</td>
</tr>
<tr>
<td>Coventry</td>
<td>206,500 (214)</td>
<td>£275,643,564 (208)</td>
<td>217,9 (29)</td>
<td>213.7 (25)</td>
</tr>
<tr>
<td>North Warwickshire</td>
<td>41,900 (368)</td>
<td>£19,017,200 (67)</td>
<td>24,800 (196)</td>
<td>54.8 (293)</td>
</tr>
<tr>
<td>Nuneaton and Bedworth</td>
<td>79,700 (83)</td>
<td>£75,300,479 (60)</td>
<td>60,000 (230)</td>
<td>66.7 (228)</td>
</tr>
<tr>
<td>Rugby</td>
<td>66,000 (91)</td>
<td>£91,892,227 (69)</td>
<td>40,626 (42)</td>
<td>64.7 (245)</td>
</tr>
<tr>
<td>Sandwell-Avon</td>
<td>73,900 (212)</td>
<td>£112,026,593 (64)</td>
<td>65,205 (195)</td>
<td>62.7 (173)</td>
</tr>
<tr>
<td>Wednesbury</td>
<td>98,000 (94)</td>
<td>£145,327,029 (73)</td>
<td>75,530 (117)</td>
<td>107.3 (124)</td>
</tr>
<tr>
<td>Bromsgrove</td>
<td>59,200 (99)</td>
<td>£54,000,795 (66)</td>
<td>33,205 (312)</td>
<td>51.6 (211)</td>
</tr>
<tr>
<td>Redditch</td>
<td>54,600 (59)</td>
<td>£79,977,862 (61)</td>
<td>43,232 (227)</td>
<td>0 (281)</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>1,094,560</td>
<td>156.5</td>
<td>1,095,043,339</td>
<td>156.5</td>
</tr>
<tr>
<td>West Midlands</td>
<td>3,508,800 (40)</td>
<td>£3,379,192,154 (68)</td>
<td>2,941,080 (86)</td>
<td>95.8 (6)</td>
</tr>
<tr>
<td>Great Britain</td>
<td>56,914,200 (100)</td>
<td>£55,940,088,659 (100)</td>
<td>56,914,200 (100)</td>
<td>100.0 (100)</td>
</tr>
</tbody>
</table>

Source: ECOTEC Analysis, 2008

In summary, the data illustrates that:

- The Intermediate M42 Corridor Growth Area, as represented by Solihull, comprises a comparatively large centre of economic and business activity within the West Midlands. With an overall score of 156.5, the local economy scores appreciably above the national benchmark on all key 'scale' indicators. With a composite rank of 63, it sits in the top 20% of all GB local economies – as defined on the basis of LA areas (408 in total).
- Perhaps unsurprisingly, Birmingham and Coventry represent the principal economic centres in the M42 Corridor Functional Area, being ranked 2nd and 25th respectively in GB in terms of overall economic scale.
- Significantly, the scale of local economic and business activity in the M42 Corridor Functional Area is high in relation to the local population base – it accounts for 45% of regional employment, as opposed to 41% of regional population. Moreover, in terms of business rateable value, a good proxy for the aggregate 'weight' of the business base, the M42 Corridor Functional Area accounts for approaching 50% of the regional total.

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\(^{56}\) Composite scores for each factor represent un-weighted averages of underlying indicator scores. In all cases indicator scores are indexed against the national average (GB=100).
5.2.3 Dynamism

Dynamism refers to the growth performance and capacity of a local economy. This has been measured using the key indicators of change in employment, the labour force and business base during the period since 2000. The results are set out in the table below.

Table 5.3 Analysis of Dynamism

<table>
<thead>
<tr>
<th>Area</th>
<th>Employment Change 2000-06</th>
<th>Change in Business Stock 2000-06</th>
<th>Change in Working Age Population 2000-06</th>
<th>Dynamism Composite Score Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Range</td>
<td>Value</td>
<td>Range</td>
</tr>
<tr>
<td>Solihull</td>
<td>11.4%</td>
<td>807</td>
<td>83</td>
<td>16.4%</td>
</tr>
<tr>
<td>Birmingham</td>
<td>3.1%</td>
<td>809.4</td>
<td>231</td>
<td>5.3%</td>
</tr>
<tr>
<td>Coventry</td>
<td>-0.6%</td>
<td>85.7</td>
<td>291</td>
<td>-17.3%</td>
</tr>
<tr>
<td>North Warwickshire</td>
<td>36.4%</td>
<td>126.7</td>
<td>7</td>
<td>20.3%</td>
</tr>
<tr>
<td>Nuneaton &amp; Bedworth</td>
<td>17.7%</td>
<td>114.0</td>
<td>31</td>
<td>13.5%</td>
</tr>
<tr>
<td>Rugby</td>
<td>0.1%</td>
<td>66.4</td>
<td>284</td>
<td>17.5%</td>
</tr>
<tr>
<td>Stanford-on-Avon</td>
<td>13.8%</td>
<td>110.0</td>
<td>55</td>
<td>12.7%</td>
</tr>
<tr>
<td>Warwick</td>
<td>16.4%</td>
<td>106.7</td>
<td>97</td>
<td>14.3%</td>
</tr>
<tr>
<td>Bromsgrove</td>
<td>-3.1%</td>
<td>91.2</td>
<td>262</td>
<td>14.5%</td>
</tr>
<tr>
<td>Redditch</td>
<td>7.9%</td>
<td>104.2</td>
<td>130</td>
<td>13.9%</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>5.9%</td>
<td>191.5</td>
<td>N/A</td>
<td>11.4%</td>
</tr>
<tr>
<td>West Midlands</td>
<td>3.3%</td>
<td>99.5</td>
<td>9</td>
<td>10.1%</td>
</tr>
<tr>
<td>Great Britain</td>
<td>2.7%</td>
<td>100.0</td>
<td>N/A</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

Source: ECOTEC Analysis, 2008

In summary, the data illustrates that:

- The intermediate M42 Corridor Growth Area has a particularly strong dynamic profile, with the economy having experienced substantial growth in employment during recent years (+11.4% between 2000 and 2006). This is also mirrored by strong growth in the business base (+16.4%).
- Solihull is ranked in the top quartile of local economies on dynamism, with growth performance having been significantly stronger than nationally and regionally.
- Within the wider area, Birmingham has the weakest score, largely as a result of its poor performance in terms of generating new businesses.
- Significantly, all districts in Warwickshire have recorded above average rates of growth – most notably North Warwickshire, Nuneaton & Bedworth, and Warwick.

5.2.4 Sector Structure

The following chart provides an analysis of the sectoral base of the M42 Corridor Functional Area and Intermediate M42 Corridor Growth Area relative to Great Britain in order to identify over and under-represented sectors within the economy.
The chart indicates that:

- The M42 Corridor Functional Area possesses a relatively high concentration of employment in medium-high technology manufacturing and albeit to a lesser extent market knowledge intensive services (KIS), indicating a substantial knowledge economy base.
- The knowledge economy base is most pronounced in the Intermediate M42 Corridor Growth Area. In common with the wider area, the intermediate area has a notably high concentration of employment in medium-high technology manufacturing, whilst hi-tech KIS and market KIS are also substantially over-represented.
- Perhaps linked to the impressive economic performance of the area in recent years, the construction sector would also appear substantially over-represented in the Intermediate M42 Corridor Growth Area.
- Knowledge economy sectors that remain under represented in the M42 Corridor Functional Area and the Intermediate M42 Corridor Growth Area compared to GB and on the basis of LQ.

LQ is a standard measure of concentration. The LQ measures an area’s share of a given industry’s national business base relative to the area’s share of total national business base. An LQ >1 indicates that there is an above average proportion of businesses in a given industry in a given area; an LQ <1 indicates a below average representation.
analysis include high-technology manufacturing and financial KIS, although in the Intermediate M42 Corridor Growth Area employment in high technology manufacturing has increased significantly in recent years.

Building on the above analysis, the table below illustrates the employment structure of the M42 Corridor Functional Area. The analysis here focuses on those sectors most capable of sustaining local competitive advantage, both in terms of high value output and providing a broad range of employment opportunities. Increasingly, it will be the technology and knowledge based sectors, together with those driven by increasing consumption (e.g. tourism and recreation), that are likely to represent the strongest future growth and value added areas.

Table 5.4 Analysis of Sector Structure

<table>
<thead>
<tr>
<th>Area</th>
<th>% Consumer Services, 2006</th>
<th>Rank</th>
<th>% High and Medium High Tech Manufacturing, 2006</th>
<th>Rank</th>
<th>% Knowledge Intensive Services, 2006</th>
<th>Rank</th>
<th>Sector Structure Composite Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solihull</td>
<td>18.5%</td>
<td>56.7</td>
<td>240</td>
<td>6.1%</td>
<td>267.0</td>
<td>47</td>
<td>26.4%</td>
<td>111.8</td>
</tr>
<tr>
<td>Birmingham</td>
<td>20.5%</td>
<td>100.1</td>
<td>157</td>
<td>4.2%</td>
<td>168.9</td>
<td>171</td>
<td>22.8%</td>
<td>58.4</td>
</tr>
<tr>
<td>Coventry</td>
<td>17.1%</td>
<td>86.8</td>
<td>341</td>
<td>7.8%</td>
<td>165.7</td>
<td>53</td>
<td>21.9%</td>
<td>92.7</td>
</tr>
<tr>
<td>North Warwickshire</td>
<td>15.5%</td>
<td>79.7</td>
<td>300</td>
<td>6.6%</td>
<td>146.1</td>
<td>109</td>
<td>17.4%</td>
<td>73.0</td>
</tr>
<tr>
<td>Worcestershire</td>
<td>19.9%</td>
<td>95.1</td>
<td>223</td>
<td>6.6%</td>
<td>176.4</td>
<td>76</td>
<td>21.3%</td>
<td>94.4</td>
</tr>
<tr>
<td>Rugby</td>
<td>20.5%</td>
<td>94.6</td>
<td>222</td>
<td>6.5%</td>
<td>213.0</td>
<td>43</td>
<td>17.3%</td>
<td>75.2</td>
</tr>
<tr>
<td>Stratford-on-Avon</td>
<td>23.3%</td>
<td>117.4</td>
<td>50</td>
<td>7.7%</td>
<td>197.9</td>
<td>50</td>
<td>27.1%</td>
<td>114.0</td>
</tr>
<tr>
<td>Warwick</td>
<td>19.4%</td>
<td>92.6</td>
<td>246</td>
<td>6.9%</td>
<td>154.0</td>
<td>146</td>
<td>23.5%</td>
<td>111.0</td>
</tr>
<tr>
<td>Bromsgrove</td>
<td>19.4%</td>
<td>95.9</td>
<td>252</td>
<td>6.1%</td>
<td>129.5</td>
<td>130</td>
<td>23.3%</td>
<td>97.4</td>
</tr>
<tr>
<td>Redditch</td>
<td>15.5%</td>
<td>70.0</td>
<td>379</td>
<td>6.7%</td>
<td>222.3</td>
<td>36</td>
<td>27.7%</td>
<td>117.2</td>
</tr>
</tbody>
</table>

| Water M42 Corridor Functional Area | 19.7% | N/A | 6.8% | 147.1 | N/A | 23.8% | 101.8 | N/A | 99.9 | N/A |
| West Midlands | 19.3% | 95.1 | 10 | 5.4% | 135.7 | 10 | 18.9% | 84.1 | 7 | 84.2 | 9 |
| Great Britain | 20.3% | 100.0 | N/A | 3.5% | 100.0 | N/A | 23.6% | 100.0 | N/A | 100.0 | N/A |

Source: ECOTEC Analysis, 2008

In summary, the data illustrates that:

- The sector structure of the M42 Corridor Functional Area economy exhibits a strong profile, particularly in relation to employment in high and medium-high technology manufacturing (albeit that the focus here is in medium high technology manufacturing) and knowledge intensive services.
- Notably, six of the ten local authority areas within the M42 Corridor Functional Area are ranked in the top 20% of GB local economies in relation to employment in technology based manufacturing. Three of these areas (Solihull, Stratford-on-Avon and Redditch) are also ranked in the top 20% of GB local economies in relation to employment in knowledge based services.
- As signified by its composite score, the sector structure characteristics of the M42 Corridor Functional Area tend to be significantly more favourable than those exhibited by the West Midlands as a whole.

5.2.5 Enterprise

Whilst inward investment represents the most direct and immediate form of employment generation, increasingly, the impetus for future local economic and employment growth is likely to rest with the quality of indigenous small businesses. In measuring enterprise a focus has therefore
been placed on the strength of local ‘entrepreneurial culture’ together with the associated competitive performance of SMEs. The results are summarised in the table below.

**Table 5.5 Analysis of Enterprise**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Score</td>
<td>Rank</td>
<td>Value</td>
<td>Score</td>
</tr>
<tr>
<td>Solihull</td>
<td>48.1%</td>
<td>155</td>
<td>46</td>
<td>12.8%</td>
<td>105</td>
</tr>
<tr>
<td>Birmingham</td>
<td>38.2%</td>
<td>95.5</td>
<td>154</td>
<td>9.6%</td>
<td>77.8</td>
</tr>
<tr>
<td>Coventry</td>
<td>34.7%</td>
<td>89.3</td>
<td>155</td>
<td>8.5%</td>
<td>67.8</td>
</tr>
<tr>
<td>North Warwickshire</td>
<td>22.6%</td>
<td>84.7</td>
<td>221</td>
<td>6.5%</td>
<td>67.5</td>
</tr>
<tr>
<td>Nuneaton and Bedworth</td>
<td>32.7%</td>
<td>85.1</td>
<td>216</td>
<td>7.0%</td>
<td>55.6</td>
</tr>
<tr>
<td>Rugby</td>
<td>33.3%</td>
<td>86.7</td>
<td>205</td>
<td>13.9%</td>
<td>110.3</td>
</tr>
<tr>
<td>Stratford-on-Avon</td>
<td>41.9%</td>
<td>108.8</td>
<td>92</td>
<td>17.4%</td>
<td>138.1</td>
</tr>
<tr>
<td>Warwick</td>
<td>40.5%</td>
<td>127.6</td>
<td>36</td>
<td>19.5%</td>
<td>88.3</td>
</tr>
<tr>
<td>Birminghgam</td>
<td>30.4%</td>
<td>102.6</td>
<td>121</td>
<td>16.4%</td>
<td>121.2</td>
</tr>
<tr>
<td>Solihull</td>
<td>30.4%</td>
<td>94.6</td>
<td>159</td>
<td>10.0%</td>
<td>79.4</td>
</tr>
</tbody>
</table>

**Table 5.5 Analysis of Enterprise continued**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Score</td>
<td>Rank</td>
<td>Value</td>
<td>Score</td>
</tr>
<tr>
<td>Merthyr</td>
<td>38.4%</td>
<td>95.3</td>
<td>7</td>
<td>11.5%</td>
<td>51.1</td>
</tr>
<tr>
<td>Aneuryst</td>
<td>30.4%</td>
<td>100.9</td>
<td>104</td>
<td>12.5%</td>
<td>119.0</td>
</tr>
</tbody>
</table>

Source: ECOTEC Analysis, 2008

In summary, the data illustrates that:

- The M42 Corridor Functional Area exhibits a relatively strong entrepreneurial culture in comparison to the West Midlands, though it remains slightly inferior to the national economy overall.
- Notably, the M42 Corridor Functional Area has a significant proportion of business start-ups in financial and business services (a proxy for knowledge-based service sectors), with these representing almost two fifths (40%) of all local start-ups.
- Within the M42 Corridor Functional Area the strength of local ‘entrepreneurial culture’ varies significantly: while Stratford-on-Avon, Bromsgrove, Warwick and Solihull stand out as particularly strong performers, Nuneaton and Bedworth, Coventry and Birmingham remain appreciably weaker performers.

### 5.2.6 Labour Market

Higher skills levels are now considered an essential prerequisite to raising productivity, facilitating the shift towards higher value-added, higher wage economic specialisation. In assessing the M42 Corridor Functional Area’s stock of human capital focus has therefore been placed on the skills profile and occupational structure of the resident workforce, as well as mismatches between labour supply and labour demand. The results are summarised in the table below.
In summary, the data illustrates that:

- The M42 Corridor Functional Area possesses a relatively strong labour market profile, with a relatively high proportion of 'knowledge workers' and a large number of residents qualified to degree level or above (NVQ 4/5) compared to the regional average.

- Within the M42 Corridor Functional Area, Warwick and Stratford-on-Avon possess particularly strong labour market profiles, which rank them in the top 10% of GB local economies.

- In terms of overall profile, Birmingham, Nuneaton and Bedworth, and North Warwickshire typically exhibit weaker labour market characteristics, with a higher proportion of unskilled/semi-skilled workers and a lower proportion of residents qualified to degree level or above.

- It remains the case that the West Midlands as a whole is characterised by a relatively weak labour market profile, with the region only ranked 9th out of 11 GB regions.

### 5.2.7 Overall Economic Profile of the M42 Corridor Functional Area

The M42 Corridor Functional Area's 'economic footprint' in respect of a range of key competitiveness factors is summarised in the chart overleaf.
In summary:

- Judged against the rest of the West Midlands, it is the case that the M42 Corridor Functional Area possesses a favourable workforce profile (as represented by the concentration of knowledge workers and residents qualified to NVQ4+), constitutes a dynamic economy, and is characterised by an advantageous sector structure.
- The Intermediate M42 Corridor Growth Area is a notably strong performer, and, with the exception of sector structure, outperforms both the regional and national averages across all competitiveness domains.

5.3 Analysis of Productivity in the M42 Corridor Growth Area

While there is a broad range of potential indicators that could be used to assess levels of productive capacity within a local economy, research by HM Treasury and the former Office of the Deputy Prime Minister\[58\] highlights five principal drivers of productivity:

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\[58\] Productivity in the UK: 4 – The Local Dimension, (2003), HM Treasury and ODPM
This provides a convenient framework for further exploring the factors that underlie the productivity of the M42 Corridor Growth Area. Again, rather than applying a wide range of economic indicators focus has been placed on a small number of key measures that are particularly germane to each of the five productivity drivers.

5.3.1 Productivity Performance

Before examining individual drivers of local productivity it is instructive to focus briefly on overall productivity performance. Productivity growth, a vital determinant of long-term economic performance and rising living standards, can be assessed with reference to GVA per capita and GVA per employee.

5.3.1.1 Gross Value Added per Capita

The latest available data summarised in the figure overleaf reveals that GVA per head in the M42 Corridor Functional Area (covering Solihull, Birmingham, Coventry and Warwickshire)\(^{59}\) averages £18,269 – 115% of the West Midlands average and a fraction above the UK average. Notably, there is considerable variance within the M42 Corridor Functional Area, ranging from £21,206 (Solihull) to £17,748 (Warwickshire).

Significantly, the M42 Corridor Functional Area has recorded substantial growth in GVA per capita during recent years. Indeed, between 1995 and 2005 GVA per capita in the M42 Corridor Functional Area exhibited an annual average growth rate of 6.1% per year compared to 5.7% in the region and 6.0% in the UK. The Intermediate M42 Corridor Growth Area has experienced an annual average growth of 7.9%.

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\(^{59}\) Whilst Bromsgrove and Redditch comprise part of the wider M42 Corridor Functional Area, they have been omitted from the GVA analysis due to lack of data availability.
5.3.1.2 Gross Value Added per Employee

Labour productivity is determined both by overall numbers in employment and the value of output produced per worker. In order to compare the productivity performance of different areas it is necessary to transform GVA data so that it measures GVA per worker (employee job) rather than GVA per head (resident population).

While labour productivity levels in the M42 Corridor Functional Area remain slightly below the England average (£37,651 compared to £40,469), it is the case that there is considerable local variance across the area, ranging from £40,604 in Solihull to £36,356 in Birmingham. Between 1998 and 2005 productivity in the M42 Corridor Functional Area increased by 6.8% annually (and in Solihull by nearly 8%), compared to an overall growth rate for England of 6.9%. This is illustrated in the figure overleaf.
5.3.2 Enterprise

Enterprise is a key driver of productivity growth in the economy. The growth of new firms is often associated with the introduction of new technologies, innovative ways of working, and increased competitive pressure on other firms. Research also suggests that new firms entering the market account for a significant part of total productivity growth. The analysis of enterprise focuses specifically on business size and business density.

5.3.2.1 Business Size Profile

The M42 Corridor Growth Area is overwhelmingly a small firm economy, with 95% of firms having fewer than 50 employees. Nevertheless, it is the case that the area also has a higher proportion of firms with 50+ employees – 4.9% compared to 3.9% regionally and 3.6% nationally. The concentration of larger firms varies across the M42 Corridor Growth Area with Bickenhill, which includes BIA, the NEC and Birmingham Business Park, perhaps unsurprisingly having a notably high concentration of firms with 50+ employees. By contrast, more than 90% of businesses in Knowle and Packwood comprise micro businesses (10 or fewer employees).
**Table 5.7 Size of Businesses, 2006**

<table>
<thead>
<tr>
<th>Area</th>
<th>1-10 employees</th>
<th>11-49 employees</th>
<th>50-199 employees</th>
<th>200 or more employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>83.4%</td>
<td>11.6%</td>
<td>3.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>75.3%</td>
<td>16.0%</td>
<td>6.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Elmdon</td>
<td>87.2%</td>
<td>7.6%</td>
<td>2.9%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Knowle</td>
<td>92.8%</td>
<td>5.8%</td>
<td>1.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Packwood</td>
<td>91.1%</td>
<td>7.3%</td>
<td>1.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Shirley South</td>
<td>82.2%</td>
<td>11.4%</td>
<td>5.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Silhill</td>
<td>83.2%</td>
<td>11.7%</td>
<td>4.1%</td>
<td>1.0%</td>
</tr>
<tr>
<td>St. Alphege</td>
<td>79.4%</td>
<td>15.5%</td>
<td>3.6%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Solihull</td>
<td>84.8%</td>
<td>11.2%</td>
<td>3.3%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>83.5%</td>
<td>12.4%</td>
<td>3.3%</td>
<td>0.8%</td>
</tr>
<tr>
<td>West Midlands</td>
<td>83.5%</td>
<td>12.6%</td>
<td>3.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Great Britain</td>
<td>84.2%</td>
<td>12.2%</td>
<td>2.9%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

*Source: ABI, 2006*

5.3.2.2 **Business Base**

Encouragingly, the M42 Corridor Growth Area has seen a substantial increase in its business base over the last few years. Between 1998 and 2006 the business base in the M42 Corridor Growth Area increased annually by nearly 4% (compared to 1.6% both regionally and nationally). Within the M42 Corridor Growth Area business base growth has been particularly strong in Bickenhill and Packwood.
Table 5.8 Change in Business Stock, 1998-2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>3,644</td>
<td>4,894</td>
<td>3.8%</td>
<td>1,250</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>636</td>
<td>1,012</td>
<td>6.0%</td>
<td>376</td>
</tr>
<tr>
<td>Elmdon</td>
<td>143</td>
<td>172</td>
<td>2.3%</td>
<td>29</td>
</tr>
<tr>
<td>Knowle</td>
<td>572</td>
<td>635</td>
<td>1.3%</td>
<td>63</td>
</tr>
<tr>
<td>Packwood</td>
<td>446</td>
<td>878</td>
<td>8.8%</td>
<td>432</td>
</tr>
<tr>
<td>Shirley South</td>
<td>613</td>
<td>686</td>
<td>1.4%</td>
<td>73</td>
</tr>
<tr>
<td>Silhill</td>
<td>467</td>
<td>511</td>
<td>1.1%</td>
<td>44</td>
</tr>
<tr>
<td>St. Alphege</td>
<td>767</td>
<td>1,000</td>
<td>3.4%</td>
<td>233</td>
</tr>
<tr>
<td>Solihull</td>
<td>6,233</td>
<td>7,796</td>
<td>2.8%</td>
<td>1,563</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>72,479</td>
<td>83,431</td>
<td>1.8%</td>
<td>10,952</td>
</tr>
<tr>
<td>West Midlands</td>
<td>177,097</td>
<td>200,368</td>
<td>1.6%</td>
<td>23,271</td>
</tr>
<tr>
<td>Great Britain</td>
<td>2,061,767</td>
<td>2,348,429</td>
<td>1.6%</td>
<td>286,662</td>
</tr>
</tbody>
</table>

Source: ABI, 2006

NB: This involves comparing 1991 ward boundaries with 2003 Census Area Statistics (CAS) ward boundaries.

5.3.2.3 Enterprise Density

Enterprise density can be assessed by measuring the number of small enterprises per 1,000 of the adult population. Whilst Solihull and the M42 Corridor Functional Area have an 'enterprise gap' of some 2 businesses per 1,000 adults when compared to the GB average, it is encouraging to note that the enterprise density in the M42 Corridor Growth Area is significantly above the regional and national averages. Indeed, there are 13 more enterprises per 1,000 adults in the M42 Corridor Growth Area compared to the GB average. There are distinct 'hot spots' of enterprise activity across the area, specifically in Bickenhill, St Alphege, Knowle and Packwood.
Table 5.9 Enterprise Density

<table>
<thead>
<tr>
<th>Area</th>
<th>Small enterprises (1-49 employees)</th>
<th>Adult Population (aged 15+)</th>
<th>Enterprise density</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>4,653</td>
<td>77,286</td>
<td>60.2</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>924</td>
<td>11,455</td>
<td>80.7</td>
</tr>
<tr>
<td>Elmdon</td>
<td>163</td>
<td>8,238</td>
<td>19.8</td>
</tr>
<tr>
<td>Knowle</td>
<td>626</td>
<td>8,959</td>
<td>69.9</td>
</tr>
<tr>
<td>Packwood</td>
<td>864</td>
<td>12,548</td>
<td>68.9</td>
</tr>
<tr>
<td>Shirley South</td>
<td>642</td>
<td>11,689</td>
<td>54.9</td>
</tr>
<tr>
<td>Silhill</td>
<td>485</td>
<td>13,903</td>
<td>34.9</td>
</tr>
<tr>
<td>St. Alphege</td>
<td>949</td>
<td>10,494</td>
<td>90.4</td>
</tr>
<tr>
<td>Solihull</td>
<td>7,479</td>
<td>164,700</td>
<td>45.4</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>79,974</td>
<td>1,775,000</td>
<td>45.1</td>
</tr>
<tr>
<td>West Midlands</td>
<td>192,568</td>
<td>4,359,000</td>
<td>44.2</td>
</tr>
<tr>
<td>Great Britain</td>
<td>2,265,143</td>
<td>48,066,400</td>
<td>47.1</td>
</tr>
</tbody>
</table>

Source: ECOTEC Analysis, based on ABI, 2006, and Mid-year Population Estimate, 2005

5.3.3 Skills

Human capital is a key determinant of economic growth. Higher skilled workers are essential to both introducing and operating advanced production techniques. They adapt faster to new innovations, play a key role in knowledge creation, and are more able and likely to receive training at work. An increasing proportion of jobs in the economy require a higher level of skills, with this trend likely to intensify further. Understanding why localities vary in their skills composition and occupational structure is therefore central to an understanding of local economic performance.

5.3.3.1 NVQ Attainment

In Solihull the proportion of people qualified to degree level or above (NVQ Level 4/5) is broadly equivalent to the national average, though higher than the regional average (16.2%). Notably, the M42 Corridor Growth Area has a significantly higher proportion of residents with Level 4/5 skills – more than 1 in 4 (26%) compared to the national average of 1 in 5 (20%). Within the M42 Corridor
Growth Area, it is notable that a particularly strong concentration of people qualified to Level 4/5 can be found in the wards St Alphege, Knowle and Packwood.

Table 5.10 NVQ Attainment

<table>
<thead>
<tr>
<th>Area</th>
<th>No qualifications</th>
<th>Level 4/5</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>21.8%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>29.6%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Elmdon</td>
<td>34.3%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Knowle</td>
<td>15.5%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Packwood</td>
<td>16.5%</td>
<td>31.0%</td>
</tr>
<tr>
<td>Shirley South</td>
<td>23.0%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Silhill</td>
<td>22.9%</td>
<td>26.4%</td>
</tr>
<tr>
<td>St. Alphege</td>
<td>12.8%</td>
<td>35.5%</td>
</tr>
<tr>
<td>Solihull</td>
<td>28.0%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>32.5%</td>
<td>18.0%</td>
</tr>
<tr>
<td>West Midlands</td>
<td>34.0%</td>
<td>16.2%</td>
</tr>
<tr>
<td>England</td>
<td>28.9%</td>
<td>19.9%</td>
</tr>
</tbody>
</table>

Source: Census of Population, 2001

5.3.3.2 Occupational Structure

Knowledge intensive occupations, which are typically higher wage and higher skilled, are particularly concentrated in the M42 Corridor Growth Area. Indeed, the M42 Corridor Growth Area has a significantly high proportion of knowledge workers – 52% compared to 36% regionally and 40% nationally. Notably, within the M42 Corridor Growth Area all wards have a higher concentration of knowledge workers than regionally. This is especially the case in the southern part of the M42 Corridor Growth Area – in St Alphege, Knowle and Packwood some 60% of the resident workforce comprise knowledge workers.
### Table 5.11 Occupational Structure

<table>
<thead>
<tr>
<th>Area</th>
<th>Knowledge Workers</th>
<th>Unskilled/ Semi-skilled workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>51.7%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>41.8%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Elmdon</td>
<td>36.6%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Knowle</td>
<td>60.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Packwood</td>
<td>58.3%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Shirley South</td>
<td>48.4%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Silhill</td>
<td>50.7%</td>
<td>13.0%</td>
</tr>
<tr>
<td>St. Alphege</td>
<td>62.7%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Solihull</td>
<td>43.5%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>38.2%</td>
<td>22.5%</td>
</tr>
<tr>
<td>West Midlands</td>
<td>36.0%</td>
<td>23.9%</td>
</tr>
<tr>
<td>England</td>
<td>40.3%</td>
<td>20.2%</td>
</tr>
</tbody>
</table>

Source: Census of Population, 2001

5.3.4 Investment

Investment in physical capital is a significant factor underlying local economic performance, with investment expanding the capacity of the economy, and hence serving to facilitate economic growth. As a proxy measure analysis has been undertaken of the location of successful inward investment projects in Solihull and the West Midlands.

5.3.4.1 Location of Inward Investment Projects

Between 2000 and 2006, AWM recorded a total of 361 successful inward investment projects in the West Midlands: 32 of these were in Solihull, some 9% of the total. The table overleaf indicates that projects in Solihull are expected to create a total of 1,360 jobs, whilst safeguarding a further 14,012.
Table 5.12 Inward Investment Projects in Solihull and the West Midlands, 2000 – 2006

<table>
<thead>
<tr>
<th>Solihull</th>
<th>West Midlands</th>
<th>Solihull % of WM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects</td>
<td>32</td>
<td>361</td>
</tr>
<tr>
<td>New jobs created</td>
<td>1,360</td>
<td>17,453</td>
</tr>
<tr>
<td>Jobs safeguarded</td>
<td>14,012</td>
<td>36,559</td>
</tr>
</tbody>
</table>

Source: AWM, 2007

Geographically, it is significant that a substantial number of inward investments in Solihull are located in close proximity to key assets in the M42 Corridor Growth Area; there have been a number of successful projects at Birmingham Business Park, Blythe Valley Business Park, and in proximity to the NEC and BIA.

Figure 5.5 Location of Successful Inward Investment Projects in Solihull

Source: ECOTEC Research and Consulting, based on AWM data

Of the 32 projects, 9 were ICT related, with a further 6 in the automotive sector. Overall, almost half (15) of all projects were in manufacturing sectors. Latest figures (for 2007/08) made available
by AWM and Solihull MBC suggest a continuation of this healthy investment performance in the M42 Corridor Growth Area:

- A total of 1,919 jobs created/ safeguarded through successful expansion and relocation cases.
- An additional 5,830 jobs created/ safeguarded as a result of business acquisitions.

### 5.3.5 Competition

Competition plays a central role in driving productivity growth by providing strong incentives for firms to innovate and adopt new technologies and working practices. It is crucial in the re-organisation of market structures, by re-allocating resources away from inefficient firms or declining sectors, to more efficient firms and growing sectors. The analysis of competition in the M42 Corridor Growth Area focuses both on sector composition and economic concentration.

#### 5.3.5.1 Sector Composition

Solihull has a particularly high concentration of businesses in financial and business services (41%), with this being further pronounced in the M42 Corridor Growth Area (45%). The data also highlights that whilst manufacturing remains a key sector in the region, this is considerably less so in M42 Corridor Growth Area (<4% of businesses are in manufacturing compared to >9% in the West Midlands).

<table>
<thead>
<tr>
<th>Area</th>
<th>Agriculture and fishing</th>
<th>Energy and water</th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Distribution, hotels and restaurants</th>
<th>Transport and communications</th>
<th>Banking, finance and insurance, etc</th>
<th>Public administration, education &amp; health</th>
<th>Other services</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>0.2%</td>
<td>0.3%</td>
<td>3.8%</td>
<td>8.7%</td>
<td>22.8%</td>
<td>5.1%</td>
<td>45.0%</td>
<td>7.0%</td>
<td>7.3%</td>
<td>79,545</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>0.3%</td>
<td>0.4%</td>
<td>3.9%</td>
<td>7.7%</td>
<td>19.9%</td>
<td>10.7%</td>
<td>44.8%</td>
<td>5.9%</td>
<td>6.5%</td>
<td>20,320</td>
</tr>
<tr>
<td>Elmdon</td>
<td>0.0%</td>
<td>0.0%</td>
<td>5.2%</td>
<td>19.8%</td>
<td>23.8%</td>
<td>7.0%</td>
<td>24.4%</td>
<td>9.3%</td>
<td>10.5%</td>
<td>9,334</td>
</tr>
<tr>
<td>Knowle</td>
<td>0.5%</td>
<td>0.0%</td>
<td>2.2%</td>
<td>7.9%</td>
<td>21.7%</td>
<td>3.6%</td>
<td>50.4%</td>
<td>6.3%</td>
<td>7.4%</td>
<td>3,249</td>
</tr>
<tr>
<td>Packwood</td>
<td>0.1%</td>
<td>0.0%</td>
<td>3.1%</td>
<td>8.9%</td>
<td>19.4%</td>
<td>2.4%</td>
<td>53.2%</td>
<td>5.4%</td>
<td>7.6%</td>
<td>6,379</td>
</tr>
<tr>
<td>Shirley South</td>
<td>0.0%</td>
<td>0.3%</td>
<td>7.1%</td>
<td>11.5%</td>
<td>24.3%</td>
<td>4.8%</td>
<td>39.1%</td>
<td>6.0%</td>
<td>6.9%</td>
<td>9,817</td>
</tr>
</tbody>
</table>

---

60 Business and Investment Trends 07/08, (2008), Solihull MBC
5.3.5.2 Economic Concentration

A more detailed analysis of the business base at 2-digit SIC code level using LQs reveals the dominant sectors, or ‘clusters’ in the M42 Corridor Growth Area. Again, this tends to highlight the strength of the knowledge economy within the area. Perhaps unsurprisingly, given the presence of Land Rover and BIA, the automotive and air transport industries (both technology and knowledge based sectors) are significantly over represented in the M42 Corridor Growth Area. Notably, a number of other technology and knowledge based sectors are also over represented in the M42 Corridor Growth Area, including computer services, financial intermediation, renting of machinery and equipment, and other business activities.

Table 5.14 Over-Represented Sectors within the M42 Corridor Growth Area

<table>
<thead>
<tr>
<th>Industry</th>
<th>Sector</th>
<th>LQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture of motor vehicles, trailers and semi-trailers</td>
<td>Medium-high tech mfg</td>
<td>14.62</td>
</tr>
<tr>
<td>Air transport</td>
<td>Market KIS</td>
<td>5.70</td>
</tr>
<tr>
<td>Collection, purification and distribution of water</td>
<td>Electricity, Gas</td>
<td>4.80</td>
</tr>
<tr>
<td>Industry</td>
<td>Sector</td>
<td>LQ</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Manufacture of radio, television and communication equipment and apparatus</td>
<td>High tech mfg</td>
<td>3.12</td>
</tr>
<tr>
<td>Renting of machinery and equipment without operator and of personal and household goods</td>
<td>Market KIS</td>
<td>2.79</td>
</tr>
<tr>
<td>Computer and related activities</td>
<td>Hi-tech KIS</td>
<td>2.54</td>
</tr>
<tr>
<td>Supporting and auxiliary transport activities; activities of travel agencies</td>
<td>Less KIS</td>
<td>2.04</td>
</tr>
<tr>
<td>Construction</td>
<td>Construction</td>
<td>1.94</td>
</tr>
<tr>
<td>Electricity, gas, steam and hot water supply</td>
<td>Electricity, Gas and Water</td>
<td>1.78</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>Les KIS</td>
<td>1.08</td>
</tr>
<tr>
<td>Financial intermediation, except insurance and pension funding</td>
<td>Financial KIS</td>
<td>1.08</td>
</tr>
<tr>
<td>Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials</td>
<td>Low tech mfg</td>
<td>1.07</td>
</tr>
<tr>
<td>Other business activities</td>
<td>Market KIS</td>
<td>1.04</td>
</tr>
<tr>
<td>Land transport; transport via pipelines</td>
<td>Less KIS</td>
<td>1.04</td>
</tr>
<tr>
<td>Other service activities</td>
<td>Less KIS</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Source: ECOTEC Analysis; based on ABI, 2006

The figure overleaf sets out the LQ for 2006, the change in LQ between 1998 and 2006, and the overall size of the sector for a number of integrated sectors across the M42 Corridor Growth Area. It provides a useful framework for identifying sectors that are growing and declining in relative terms.
In summary, the analysis reveals that:

- The medium-high technology manufacturing sector has experienced a significant fall in employment in relation to the national average; likely to be a result of decline in the automotive industry. Notwithstanding this trend, the industry is still significantly over-represented in the M42 Corridor Growth Area.

- Significantly, the LQ analysis indicates that the high-tech knowledge intensive services sector is forging ahead (+0.72). This is particularly driven by the growing computer services industry, which although still a relatively small industry (5% of total employment), has increased its LQ from 1.55 to 2.54, representing more than 2,500 jobs.

- Whilst the high-technology manufacturing sector is still under-represented in the M42 Corridor Growth Area, it is encouraging to note that the sector is catching up with the rest of GB. Indeed, the LQ has increased from 0.05 to 0.54, representing more than 550 jobs.

- Linked to the strong economic performance of the M42 Corridor Growth Area and Solihull in recent years, the construction industry continues to be over represented.
5.3.6 Innovation

Innovation, the invention and application of new technologies, products and production processes, is estimated to have accounted for around two thirds of UK post war economic growth\(^61\). Notably, a number of studies\(^62\) have suggested that there are important barriers that may prevent the effective dissemination of technology between firms, so that the spread of more innovative ideas is sometimes highly localised. Analysis of the innovative capacity of the M42 Corridor Growth Area focuses on: employment in high and medium-high technology manufacturing; and employment in knowledge based services.

5.3.6.1 High and Medium High Technology Manufacturing Employment

Whilst there has been a significant decline in high and medium-high technology manufacturing employment, the M42 Corridor Growth Area continues to have a considerably higher proportion of employment within this sector than is the case both regionally and nationally. However, it is clear from the analysis below that this is primarily a result of the concentration of manufacturing jobs in Elmdon ward (74%).

**Table 5.15 Employment in High and Medium-High Technology Manufacturing**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number</td>
<td>%</td>
<td>number</td>
</tr>
<tr>
<td>M42 Corridor Growth Area</td>
<td>13,569</td>
<td>22.4%</td>
<td>8,152</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>517</td>
<td>4.5%</td>
<td>842</td>
</tr>
<tr>
<td>Elmdon</td>
<td>11,828</td>
<td>85.8%</td>
<td>6,942</td>
</tr>
<tr>
<td>Knowle</td>
<td>107</td>
<td>3.7%</td>
<td>196</td>
</tr>
<tr>
<td>Packwood</td>
<td>15</td>
<td>0.6%</td>
<td>25</td>
</tr>
<tr>
<td>Shirley South</td>
<td>966</td>
<td>10.9%</td>
<td>119</td>
</tr>
<tr>
<td>Silhill</td>
<td>49</td>
<td>0.7%</td>
<td>24</td>
</tr>
<tr>
<td>St.Alphege</td>
<td>87</td>
<td>0.6%</td>
<td>5</td>
</tr>
<tr>
<td>Solihull</td>
<td>15,032</td>
<td>16.2%</td>
<td>8,260</td>
</tr>
</tbody>
</table>

\(^61\) Productivity in the UK: 3 – The Regional Dimension, (2001), HM Treasury and DTI
\(^62\) Geographical Localisation of International Technology Diffusion, (2000), Keller W,
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>111,043</td>
<td>61,183</td>
<td>-49,860 (-5.3%)</td>
</tr>
<tr>
<td>West Midlands</td>
<td>220,039</td>
<td>128,561</td>
<td>-91,478 (-4.3%)</td>
</tr>
<tr>
<td>Great Britain</td>
<td>1,485,908</td>
<td>1,019,904</td>
<td>-466,004 (-2.3%)</td>
</tr>
</tbody>
</table>

Source: ABI, 1998 - 2006

NB: This involves comparing 1991 ward boundaries with 2003 CAS ward boundaries.

5.3.6.2 Knowledge Intensive Services Employment

The M42 Corridor Growth Area has a higher concentration of employment in KIS sectors (28%) than is the case regionally and nationally (20% and 24% respectively). Encouragingly, more than 7,000 jobs within the KIS sector have been created in the M42 Corridor Growth Area since 1998. The fact that some 5,550 have been created in Bickenhill Ward, which includes BIA, the NEC and Birmingham Business Park, further highlights the economic influence of the strategic assets of the M42 Corridor Growth Area on the wider area and the region as a whole.

Table 5.16 Employment in Knowledge Intensive Services

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 Corridor Growth Area</td>
<td>14,963</td>
<td>22,080</td>
<td>7,117 (3.1%)</td>
</tr>
<tr>
<td>Bickenhill</td>
<td>3,688</td>
<td>9,204</td>
<td>5,516 (12.9%)</td>
</tr>
<tr>
<td>Elmdon</td>
<td>1,216</td>
<td>755</td>
<td>-461 (-0.7%)</td>
</tr>
<tr>
<td>Knowle</td>
<td>696</td>
<td>1,071</td>
<td>375 (9.0%)</td>
</tr>
<tr>
<td>Packwood</td>
<td>706</td>
<td>2,498</td>
<td>1,792 (10.5%)</td>
</tr>
<tr>
<td>Shirley South</td>
<td>1,813</td>
<td>3,290</td>
<td>1,477 (12.9%)</td>
</tr>
<tr>
<td>Silhill</td>
<td>2,024</td>
<td>969</td>
<td>-1,055 (-19.1%)</td>
</tr>
<tr>
<td>St.Alphege</td>
<td>4,820</td>
<td>4,294</td>
<td>-526 (-12.4%)</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td>number</td>
<td>%</td>
<td>number</td>
</tr>
<tr>
<td>Solihull</td>
<td>28,424</td>
<td>30.7%</td>
<td>27,013</td>
</tr>
<tr>
<td>Wider M42 Corridor Functional Area</td>
<td>226,155</td>
<td>22.6%</td>
<td>250,945</td>
</tr>
<tr>
<td>West Midlands</td>
<td>399,351</td>
<td>17.6%</td>
<td>468,810</td>
</tr>
<tr>
<td>Great Britain</td>
<td>5,092,184</td>
<td>21.1%</td>
<td>6,174,654</td>
</tr>
</tbody>
</table>

Source: ABI, 1998 - 2006
NB: This involves comparing 1991 ward boundaries with 2003 CAS ward boundaries.

5.4 Economic Contribution of the M42 Corridor Growth Area Strategic Economic Assets

The strategic economic assets of the M42 Corridor Growth Area comprise:

- BIA.
- NEC.
- RIS (Blythe Valley and Birmingham Business Parks).
- Solihull Town Centre.
- Land Rover.

A number of previous economic impact studies have been undertaken in the past in relation to specific individual assets. However, whilst these studies in many cases comprise relatively robust assessments and serve to provide considerable insight into the nature and economic contribution of specific key assets, it is case that there remain a number of key gaps, deficiencies and inconsistencies in the existing evidence base. In seeking to overcome these identified gaps and deficiencies of past studies, and in order to establish a fully updated and consistent view of current contribution to the region, the REMI-ECOTEC Model has been applied to the strategic economic assets of the M42 Corridor Growth Area.

The REMI-ECOTEC Model is a powerful and highly specified spatial economic model which has been calibrated to the particular conditions of the West Midlands region. It features a suite of powerful tools for economic forecasting, impact assessment, policy analysis and simulations. As a structural model, it explicitly includes cause-and-effect relationships, with the forecasting and policy analysis system including key econometric estimates and inter-industry transactions, long run

63 Conceptually, economists make a distinction between the terms economic contribution, impact and benefits. However, in the previous studies that we have reviewed the terms have largely been used interchangeably.
equilibrium features, as well as new economic geography elements. It includes: substitution among factors of production in response to changes in relative factor costs; migration responses to changes in expected income; economic activity rate responses to changes in wage and employment conditions; wage rate responses to labour market changes; consumer consumption responses to changes in real disposable income and commodity prices; and local, regional, and market shares responses to changes in regional production costs and agglomeration economies.

Importantly, the Model allows users to answer the “what if” questions about the effects of regional or local policy in areas such as transportation, economic development, regeneration, and the labour market. Whilst the Model can be used to generate a forecast for the future of a local or regional economy (‘control forecast’), critically, it can also forecast the effects in that same economy when a change (such as an economic ‘shock’ or injection) is implemented by the user (‘alternative forecast’ or simulation). In short, the difference between these two forecasts represents the net effect of the specific policy or initiative in question. The Model enables the user to choose which input variables to be included in a specific simulation. This option allows for the running of multiple simulations with different combinations of variables included, and in doing so isolates the direct impact of individual variables. This is illustrated graphically overleaf.
5.5 Applying the REMI-ECOTEC Model

5.5.1 Counterfactual Approach

Given the structural characteristics of the Model a counterfactual approach to modelling the current contribution of the strategic economic assets of the M42 Corridor Growth Area as been adopted. As mentioned above, the REMI-ECOTEC Model makes use of a baseline forecast, one which presents a forward trajectory or projection of the economy across a wide range of measures – employment, GDP, workforce etc – with no random changes or ‘shocks’. In order to assess the net effect of an additional economic event or outcome – be it a new airport terminal, inward investment, or business park – inputs related to the economic asset in question are typically added to the baseline. These inputs then form the basis for running a simulation using the Model in order to assess resultant effects on the economy.

However, to the extent that most of the M42 Corridor Growth Area strategic economic assets are long established and have been integral components of the West Midlands’ economy for many years, they are already represented in the Model’s baseline forecast. It follows, therefore, that adding inputs (or shocks) relating to, say, BIA, on top of the baseline would in effect be like building a second airport right next to it and measuring that scenario.

In order to get around this misinterpretation, a counterfactual approach subtracts out the shocks of the M42 Corridor Growth Area strategic economic assets, and looks at the economic footprint left
behind. In other words, instead of the misleading results attained by looking at a positive shock of a replication of the current strategic economic assets, negative shocks that mimic that of the M42 Corridor Growth Area strategic economic assets are input into the Model. The results represent the absolute value of the strategic economic assets' contribution to the West Midlands economy.

5.5.2 Inputs and Assumptions

The principal data inputs and modelling assumptions that have been used in the study for the purpose of estimating and quantifying the current economic contribution of the strategic economic assets are summarised below. Specifically, data inputs relate to the identified direct contribution of individual M42 Corridor Growth Area strategic economic assets.

5.5.2.1 Birmingham International Airport

- As at 2006, direct on-site employment at BIA totalled an estimated 7,130 job opportunities, equivalent to 6,440 FTEs. Much of this employment was accounted for by handling agents and concessionaires, together with government agencies and contractors. Direct off-site employment totalled 1,180 job opportunities, equivalent to 1,060 FTEs.
- It is estimated that nearly 4 in 5 jobs (on-site and off-site) are taken by residents of Birmingham (48%) and Solihull (29%), with some 85% of all jobs taken by residents of the former County of the West Midlands and some 96% of jobs taken by residents of the West Midlands region.
- The procurement of goods and services at the Airport is estimated at £227.5 million. Approximately £91 million (40%) of total procurement expenditure is spent in the West Midlands region.

5.5.2.2 NEC and NEC Arena

- As at 2007, total direct expenditure associated with the NEC Group as a whole was estimated at £1,160m, with the NEC and NEC Arena accounting for £994m of this total.
- Assumed that all direct expenditure in the region attributable to the NEC and the NEC Arena accrues to Birmingham, Solihull and Coventry.

5.5.2.3 Regional Investment Sites

- It has been estimated that the Birmingham and Blythe Valley Business Parks currently employ some 7,400 (7,396) employees across a number of sectors, including high value-added sectors such as computer and related services; and business services.
- Based on the travel-to-work pattern in Packwood Ward, where Blyth Valley Business Park is located, and Bickenhill Ward, where Birmingham Business Park is located, it is assumed that approaching half (45%) of jobs are taken by residents of Coventry and Solihull, with some 74%

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64 The direct economic contribution refers to employment and income which is wholly or predominantly related to the operation of the asset or establishment itself.
66 Bespoke dataset provided to ECOTEC by York Aviation. 2006 prices.
67 NEC Group Economic Impact Assessment, (2008), KPMG.
68 It is understood that some 5,000 employees are currently working at Birmingham Business Park.
of all jobs taken by residents of the former County of the West Midlands and some 92% of jobs taken by residents of the West Midlands region\textsuperscript{69}.

5.5.2.4 \textit{Land Rover}

- As at 2007, it has been estimated that Land Rover directly supports 5,681 jobs at the Lode Lane (Solihull) site\textsuperscript{70}.
- It has been estimated that some 43% of employees are residents of Birmingham, whilst a further 26% are residents of Solihull and Coventry. Some 98% of jobs are taken by residents of the West Midlands region.

5.5.2.5 \textit{Solihull Town Centre}

- As a basis for estimating the impact of Solihull Town Centre ABI employment figures for St Alphege Ward in Solihull (as a proxy for representing the direct contribution of the town centre) have been used. In 2006, Solihull Town Centre provided in excess of 19,000 jobs.
- Travel to work data has been used to determine the residence pattern of employees in Solihull Town Centre.

5.5.3 \textbf{REMI Simulations}

The data inputs and modelling assumptions outlined above have formed the basis for the economic modelling. Data inputs have been incorporated into the REMI-ECOTEC Model through a range of policy variables, most notably industry employment and sales. The table below summarises the key policy variables used in the analysis.

\textbf{Table 5.17 REMI-ECOTEC Model Key Policy Variables}

<table>
<thead>
<tr>
<th>Policy variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry Employment</td>
<td>Enters the exogenous change in employment, which is subsequently converted it into sales based on the productivity of labour.</td>
</tr>
<tr>
<td>Nullify Intermediate Inputs Induced by Employment</td>
<td>Eliminates the endogenous effect of industry employment on intermediate inputs. It is used to override the model's default intermediate input response when specific information concerning material inputs is known.</td>
</tr>
<tr>
<td>Industry Sales</td>
<td>Enters the exogenous change in sales.</td>
</tr>
<tr>
<td>Residence Adjustment (Commuters)</td>
<td>Converts place-of-work income into place-of-residence income.</td>
</tr>
<tr>
<td>Compensation</td>
<td>Adjusts the compensation associated with exogenous employment. For example, a firm may have a different compensation rate than the REMI-ECOTEC Model's calculated industry average.</td>
</tr>
</tbody>
</table>

\textit{Source: REMI-ECOTEC Model, 2008}

\textsuperscript{69} 2001 Census Travel-to-Work data
\textsuperscript{70} Bespoke dataset provided by Land Rover
Once the data inputs have been incorporated in the Model they enter a number of different equations within the Model. There are thousands of simultaneous equations within the model, although the structure of these equations is relatively straightforward – and illustrated in the figure below.

**Figure 5.8 REMI-ECOTEC Model Structure**

5.6 M42 Corridor Growth Area Strategic Economic Assets

The total economic contribution has been estimated using the REMI-ECOTEC Model and represents a summation of direct, indirect and induced effects:

- **Direct Effects** – initial employment/income changes (1st round)
- **Indirect Effects** – procurement/supply chain effects (2nd round)
- **Induced Effects** – household expenditure effects (3rd round)

The total economic contribution is expressed in terms of three key measures: Employment, GDP and Real Personal Disposable Income (RPDI). These are defined in the table below.
**Table 5.18** Headline Economic Measures from the REMI ECOTEC Model

<table>
<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Domestic Product</td>
<td>GDP represents a measure of the total economic activity in a region. It is equal to output excluding the intermediate inputs, and thus represents wages and profits</td>
</tr>
<tr>
<td>Employment</td>
<td>Comprises estimates of the number of jobs, full-time and part-time, by place of work. Includes employees and self employed.</td>
</tr>
<tr>
<td>Real Personal Disposable Income</td>
<td>Personal income represents the sum of wages and other sources of income after deductions for tax and adjustments for inflation.</td>
</tr>
</tbody>
</table>

**5.6.1 Regional Strategic Economic Assets**

Total economic impact relating to the regional strategic economic assets of BIA, NEC and RIS is summarised in the table below.

**Table 5.19 Total Economic Contribution of M42 Corridor Regional Strategic Economic Assets**

<table>
<thead>
<tr>
<th></th>
<th>BIA</th>
<th>NEC</th>
<th>RIS</th>
<th>Strategic Regional Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (no. jobs)</td>
<td>11,739</td>
<td>23,870</td>
<td>11,753</td>
<td>47,362</td>
</tr>
<tr>
<td>GDP (million £)</td>
<td>£637.1</td>
<td>£919.2</td>
<td>£540.2</td>
<td>£2,096.5</td>
</tr>
<tr>
<td>Real Disposable Income (million £)</td>
<td>£208.5</td>
<td>£403.4</td>
<td>£185.0</td>
<td>£796.9</td>
</tr>
</tbody>
</table>

*Source: REMI-ECOTEC Model, 2008*

In summary:

- **BIA** - including indirect and induced impacts, it is estimated that BIA through its operational activity currently supports approximately 12,000 jobs (11,739) in the region. The contribution to the region's GDP is approximately £600m per annum, with this representing in excess of £200m in respect of real disposable income. Notably, the above estimate does not include the wider economic contribution of the airport, including catalytic and tourism effects.

- **NEC** – taking into account regional expenditure and income multiplier effects, it is estimated that the NEC and the NEC Arena currently supports some 24,000 (23,870) jobs in the West Midlands, and contribute in excess of £900 million to the region's GDP. Real disposable income generated is in excess of £400m.

- **RIS** – the total economic contribution of the two RIS business parks located in the M42 Corridor Growth Area is approaching 12,000 (11,753) jobs, and some £540m in terms of regional GDP.
• Regional strategic economic assets (BIA+NEC+RIS) – the combined economic contribution of the three regional strategic economic assets is therefore estimated to be approximately 47,000 jobs and over £2bn in respect of regional GDP.

5.6.2 Other Strategic Economic Assets

The additional economic contribution to the region of the other strategic economic assets in the M42 Corridor Growth Area (Solihull Town Centre and Land Rover) is summarised in the table below.

Table 5.20  Total Economic Contribution of M42 Corridor Other Strategic Economic Assets

<table>
<thead>
<tr>
<th></th>
<th>Solihull Town Centre</th>
<th>Land Rover</th>
<th>Other Major Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (no. jobs)</td>
<td>36,570</td>
<td>15,790</td>
<td>52,360</td>
</tr>
<tr>
<td>GDP (million £)</td>
<td>£2,138.0</td>
<td>£957.6</td>
<td>£3,095.6</td>
</tr>
<tr>
<td>Real Disposable Income (million £)</td>
<td>£819.2</td>
<td>£317.3</td>
<td>£1,136.5</td>
</tr>
</tbody>
</table>

Source: REMI-ECOTEC Model, 2008

In summary:

• Solihull Town Centre – the overall economic contribution of Solihull Town Centre represents some 37,000 (36,570) jobs and approximately £2.1 billion to the region's GDP.
• Land Rover – an economic contribution equivalent to approximately 16,000 jobs in the region, and £1 billion in GDP.

5.7 Strategic Conclusions

The strategic conclusions that can be drawn from the analysis of the current economic architecture of the M42 Corridor and its contribution to the regional economy are:

• The M42 Corridor Functional Area is an area of relative economic strength and performs well against the national average in respect of the key economic domains of scale, dynamism, sector profile, enterprise and skills. Perhaps not surprisingly therefore GVA per head in Corridor is 15 percentage points higher than the West Midlands average and a fraction above that of the UK as a whole. Significantly, the M42 Corridor Functional Area has recorded a substantial growth in GVA over recent years rising by 6.1% per year compared to 5.7% across the region.

• The Intermediate M42 Corridor Growth Area, focussed on Solihull, represents a notably strong performer, particularly with regard to its recent growth trajectory, enterprise culture and skills base – placing it in the top 20% of English local authority local economies. GVA per capita is particularly strong in the Intermediate M42 Corridor Growth Area and currently stands at some
£21,200 – amongst the highest level in the region. Labour productivity and growth in this is also comparatively high in Solihull.

- Within this wider economy the M42 Corridor Growth Area performs particularly well: growth in the size of the business base at nearly 4% per annum outstrips the regional and national average; enterprise density is relatively high with 13 more businesses per 1,000 adults than the GB average; one in four residents have NVQ Level 4/5 skills compared to 20% across England; 52% of residents work in knowledge intensive sectors compared to 36% regionally and 40% nationally; and the area is a focus for the receipt of inward investment into the region.

- More detailed sector analysis affirms the strength of the knowledge economy within the M42 Corridor Growth Area. The automotive, air transport, computer services, financial intermediation, renting of machinery and equipment and other business activity sectors are all over represented in the area. These reflect important medium to high technology manufacturing and market and high technology knowledge intensive sectors and industries.

- The M42 Corridor Growth Area contains a suite of strategic economic assets – BIA, the NEC, Blythe Valley Business Park, Birmingham Business Park, Land Rover and Solihull Town Centre. It is estimated that the regional strategic economic assets represented by BIA, the NEC and the two business parks currently support some 47,400 jobs across the region and contribute over £2bn to regional GDP.

- The other strategic economic assets in the M42 Corridor Growth Area – Land Rover and Solihull Town Centre – are estimated to support a further 52,400 jobs across the West Midlands and contribute some £3.1bn to regional GDP.

- It is therefore clear that the M42 Corridor Growth Area represents a key contributor and driver to the success of the regional economy. It should also be recognised that the strategic economic assets within it are also of considerable local importance – not least in providing a range of employment opportunities for local residents of the area and the deprived communities that either adjoin or lie in close proximity to it.
6.0 Housing Characteristics

6.1 Introduction

This section of the report considers the demographic and housing characteristics of the M42 Corridor Functional Area and the M42 Corridor Growth Area, including an analysis of North Solihull and Birmingham's Eastern Corridor area. It considers the housing market areas, which operate across the area including their demographic and household characteristics, housing profile and housing market drivers.

6.2 Demographic Drivers

6.2.1 Population

The West Midlands is home to some 5.3 million people and at its heart lies the conurbation of Birmingham, Solihull, Black Country and Coventry, the most densely populated area of the region with a population of some 2.25 million people.

Changes in population size and age structure are an important determinant of likely future housing demand. Across the region, the population grew by approximately 1% between 1991 and 2001, an overall total of 51,000\textsuperscript{71}. This growth in population was not evenly distributed across the region. The MUAs experienced a loss in population of around -2% (58,000) where as elsewhere across the region there was a population gain of 4.9% (109,000). The figure overleaf illustrates the pattern of population change across the region.

\textsuperscript{71} West Midlands Regional Spatial Strategy Phase Two Revision Preferred Option: Communities for the Future - Housing Background Paper, (2008), WMRA
In 2006, the Government published the 2004 based population projections\textsuperscript{72}. These projections, based upon past trends, implied a population growth across the region of 6.6% (336,600) between 2006 and 2026. The Government has since published the 2006-based\textsuperscript{73} national population projections, which imply that the region’s future population growth could exceed the 2004-based estimates, and that the region’s population could increase by some 609,800 (11.4%). These are illustrated in the figure overleaf.

\textit{Source: ONS 1991- 2001}

\textsuperscript{72} 2004-based population projections, (2006), ONS
\textsuperscript{73} 2006-based population projections, (2008), ONS
Within the M42 Corridor Functional Area, the population is some 2,210,000 people, which equates to 41% of the region's population. It contains three of the MUAs (Birmingham, Solihull and Coventry), which make up the West Midlands conurbation. Between 1991 and 2001, the population of the M42 Functional Area grew from 2,157,900 to 2,159,900 (with an annual growth rate of 0.01%). This was largely fuelled by population growth in Rugby, Stratford on Avon, Warwick and Bromsgrove. However, since 2001 the area has experienced further population growth, which has been fuelled in part by positive net migration and in particular in parts of the conurbation, which had previously experienced population loss. For example Coventry has grown to the extent that its population is 0.9% higher than in 1991. Birmingham has experienced rapid growth in its population for the first time in over 25 years. In 2001 its population stood at 984,000 and is now in the region of 1,006,500 and is projected to increase to just below 1.1 million by 2029.

The future population of the M42 Corridor Functional Area is projected to increase by 324,200 (14%), this is in comparison to the West Midlands figure of 11.4%. As illustrated in the figure overleaf at the individual district level across the area, the 2006-based population projections suggest that the highest level of growth will take place in Warwick followed by Stratford-on-Avon, Rugby, and Bromsgrove. These areas to the south east of the region have experienced a strong and continuous growth over a number of decades, which has been fuelled by in-migration from the conurbation and adjacent regions. Bromsgrove is another district, which is projected to experience population growth and is followed by Redditch, both of these areas were developed as an expanded town and New Town in the 1960s and 1970s to accommodate Birmingham’s overspill.
6.2.2 Household Formation

As well as overall population growth, changes in age structure are an important determinant of future household demand. Household growth is generated in part by population growth and in part by a tendency for people to live in smaller households. The current demographic profile across the country and the region has seen a significant increase in smaller households which has been generated by an increasingly elder population, a tendency for more couples to co-habit and an increase in single –person households. Across the region the age breakdown of the population between 2006 and 2026 suggests that the population aged between the 45-64 is expected to increase by over 6% and by 39% for the 65+ age group. The figure overleaf illustrates forecast changes in household numbers across the M42 Corridor Functional Area.
6.2.3 Migration

Migration changes impact upon future housing requirements. The West Midlands has traditionally lost population to other regions for both employment and retirement reasons. Housing Background Paper to the Phase Two Revision indicates that since 2001 the net loss arising from inter-regional migration has averaged at 5,576 people per annum. The patterns associated with international migration across the country as a whole has changed significantly since 2000. Since 2000 there has been a rise in the net inflow of migrants, and in the West Midlands this has averaged some 16,400 people per annum. The 2004 based projections imply a net inflow of 8,200 international migrants into the region per annum between 2006 and 2029. However, the increased 2006 based population projections suggest a higher population level than the 2004 based figures, which implies that international migration will be higher.

6.2.4 Housing Demand

The increased population projections will have implications in terms of the future workforce and the demand for housing. The number of households across the region is expected to increase by 371,000 between 2006 and 2026 (16.5%). This figure is based upon the 2004 based estimates but is likely to increase once they have been revised to take account of the 2006 based population projections. Across the M42 Corridor Functional Area the number of households is expected to increase by 173,000, based on the 2004 based household projections.
6.3 **Housing Market Areas**

The increasing importance of housing affordability within housing policy, the continuing growth of both owner occupation and private renting, and the growing awareness of the role of housing in contributing to economic development and prosperity, have emphasised the importance of understanding housing markets. Without such understanding, there is a likelihood that housing interventions will fail to anticipate or even to address key developments in the market, or that they will address the symptoms of problems rather than the underlying causes. In the past, housing research and housing policy have mainly focused on identifying, measuring and dealing with a range of housing problems identified as priorities for public investment and intervention. However, in recent years awareness has grown of the need for a wider and deeper understanding of the operation of housing markets from which policies and interventions are developed.

The WMRA has previously undertaken work to identify housing market boundaries across the region and this is reported in the WMRHS. The outcome of this research was to identify four sub-regional Housing Market Areas (HMAs) in the region: North HMA which is centred on North Staffordshire, the South HMA which focuses on the south of the region, the dominant Central HMA which is centred on the West Midlands conurbation and the West HMA which focuses on the predominately rural area to the west of the region. The HMAs are illustrated on the figure below.

**Figure 6.5 West Midlands Sub Regional Housing Market Areas**

![Map of West Midlands Sub Regional Housing Market Areas](source: The West Midlands Regional Housing Strategy, 2005)

The Central HMA has been further divided into three areas: C1, C2 and C3. The table overleaf identifies which local authorities sit within the four HMAs.
Table 6.1 West Midlands Housing Market Areas

<table>
<thead>
<tr>
<th>Central</th>
<th>North</th>
<th>South</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Birmingham</td>
<td>Bromsgrove</td>
<td>Bridgnorth</td>
</tr>
<tr>
<td></td>
<td>Lichfield</td>
<td>Malvern Hills</td>
<td>Herefordshire</td>
</tr>
<tr>
<td></td>
<td>Solihull</td>
<td>Redditch</td>
<td>North Shropshire</td>
</tr>
<tr>
<td></td>
<td>Tamworth</td>
<td>Stratford on Avon</td>
<td>Oswestry</td>
</tr>
<tr>
<td>C2</td>
<td>Coventry</td>
<td>Warwick</td>
<td>Shrewsbury &amp; Atcham</td>
</tr>
<tr>
<td></td>
<td>North Warwickshire</td>
<td>Worcester</td>
<td>South Shropshire</td>
</tr>
<tr>
<td></td>
<td>Nuneaton &amp; Bedworth</td>
<td>Wychavon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rugby</td>
<td>Wyre Forest</td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>Cannock</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dudley</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sandwell</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Staffordshire</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Telford &amp; Wrekin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Walsall</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wolverhampton</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: West Midlands Regional Housing Strategy, 2005

The research undertaken drew mainly upon house price data across the region to identify areas where similar dwellings commanded similar prices. It also considered areas which had a functional connection, demonstrated through travel to work patterns and other interactions (i.e. migration). In respect to the M42 Corridor Functional Area, two of the four HMAs cut across the area and are included in parts of the South HMA (Bromsgrove, Redditch, Warwick, Stratford-on-Avon), the C2 HMA (Coventry, Rugby, Nuneaton & Bedworth, North Warwickshire) and finally the C1 HMA (Birmingham and Solihull). Each of these areas have different housing market characteristics from one another and therefore the housing markets that cuts across the M42 Corridor Functional Area differ in terms of their household formation, demographic profile, housing stock and house prices and supply and demand.
6.4 Housing Market Characteristics

A key challenge for the region and the districts that make up the M42 Corridor Functional Area is to ensure that the right mix of housing stock in terms of size, type and tenure is available to meet the needs and aspirations of an increasing number of households. Affordability too remains an issue in some locations. The following section provides an overview of the key housing characteristics of the HMAs that sit within the M42 Corridor Functional Area. This information has been taken from the Strategic Housing Market Assessments that have been undertaken for the South HMA\(^{74}\) and the Draft findings of the C2 HMA\(^{75}\).

6.4.1 South HMA

Eight local authority districts make up the South HMA, four of which lie within the M42 Corridor Functional Area (Bromsgrove, Redditch, Warwick and Stratford-on-Avon). Overall the South HMA has been subject to an increase in in-migration from both the adjacent south as well as the north. The most acute areas are in South Warwickshire where long distance commuting by higher paid employees has impacted upon overall house prices in both Warwick and Stratford-on-Avon. This effect has started to spread to south Worcestershire including Bromsgrove.

Regional policy in both the RSS and WMRHS has been directed at addressing (and reversing) the out migration of population from the region’s conurbation. However, despite this policy drive there appears to be little prospect of the overall migration pressures being relieved in the foreseeable future. This is a result of a combination of lifestyle choices and the demographic growth in the South HMA, which is particularly increasing the size of the older population. The knock on effect of this increase in migration and increasing elderly population is that the lower paid and locally employed people are becoming excluded from the local housing market which is evidenced from the assessment undertaken on the South HMA by the number of households on waiting lists and living in inadequate accommodation.

When considering the level of new housing supply, the level of new house building in recent years has been well ahead of the rates set within the RSS and was set to reduce substantially as a means of reversing the outflow of population from the conurbation. Areas of constraint have been enforced in Bromsgrove and Stratford as means of accommodating local needs and resisting in-migration. However, it is considered that this level of supply is far less than required to accommodate newly forming households, thus displacing many households into adjoining areas. The problems experienced in the levels of housing supply across the south HMA has been exacerbated by an increase in the proportion of smaller units of accommodation, such as flats and apartments. These dwelling types not only accommodate smaller households but have a tendency to have higher levels of vacancies.

Affordability is a significant issue within the South HMA and there is an increasing gap between incomes of those households who are able to access social rented housing and the incomes of

\(^{74}\) A Strategic Housing Market Assessment for the South HMA of West Midlands (2007), Rupert Scott

\(^{75}\) West Midlands C2 HMA, Strategic Housing Market Assessment, (2008), Outside Consultants
those who are able to buy or rent in the open market. The proportion of new and existing households who are unable to afford to purchase a property at the lower quartile price is 40%, the lower quartile price averaged at £134,000.

The proportion of new private rented sector accommodation that is in the form of small apartments has increased and looks set to continue. A large proportion of this accommodation is above the lower quartile costs and is too expensive to meet the needs of local families who are on both average and below average incomes.

6.4.2 C2 HMA

The districts that lie within the C2 HMA fall entirely within the M42 Corridor Functional Area. The area has a population of 579,800, which makes up 10.8% of the West Midlands total population. Between 1991 and 2001, the population of the HMA grew slightly by 0.7% which was largely driven by national change across the sub region. However, each of the districts has experienced population growth, which collectively equates to 1.5% and is almost equivalent to the West Midlands as a whole. Unlike the previous decade this growth has been fuelled by positive net migration. As previously mentioned, Coventry's population has grown by 0.9% and Rugby's population is 6.1% larger than it was in 1991.

When considering patterns of migration flows, Coventry has significant ties with areas beyond the West Midlands, most notable with London, and this is where it gains from in-migration. However, in terms of out-migration the district loses population to Warwick, Nuneaton and Bedworth and Rugby. In comparison, North Warwickshire's housing market is heavily localised which reflects its size and it rural nature and in-migration tends to come from Birmingham, Tamworth, Nuneaton and Bedworth and Solihull. Nuneaton and Bedworth experiences the majority of its in-migration from Coventry. Rugby has ties with both the West and East Midlands and makes the majority of its population gains from Coventry, Warwick, Nuneaton and Bedworth, Stratford and Birmingham.

In terms of international migration, there has been a significant growth in population from the A8 Accession states. While, nationally, the proportion of migrants from Poland was 25.9%, the proportion was much higher in North Warwickshire (57.9%); Ruby (46.5%); Nuneaton and Bedworth (45.3%) and Coventry (32.1%).

In terms of the age profile of the population, Coventry and Nuneaton have the highest proportion of 0-14 years. Coventry has a much lower age profile than any of the three districts with half its population under the age of 34. This would suggest a greater pressure in Coventry for starter homes than elsewhere across the C2 area. In contrast, North Warwickshire, Nuneaton and Bedworth and Rugby have greater proportions of 35-49 year olds. This coupled with high proportions of 0-14 year olds in Nuneaton and Bedworth would suggest greater demand for family housing. An increasing ageing population has implications for future accommodation. In Rugby, the high proportion of over 65s has the potential to lead to under occupancy of larger stock creating a potential blockage in the market.
Turning to housing tenure, owner-occupation is significantly higher in the less urban districts: owner occupation in North Warwickshire is in the region of 75.4%, Rugby 76.7% and Nuneaton and Bedworth 77.1%, this is comparison to the regional average of 69.6% and the national average of 68.7%. The proportion of households in social rented accommodation is highest in Coventry at 18.2%, 15.6% in North Warwickshire and 14.5% in Rugby, this compares to regional average of 9.8% and national average of 12.0%. Again across the C2 area, Coventry has the highest proportion of households in private rented accommodation (12.6%), which is higher than the regional average of 9.8% and the national average of 12.0%. Nuneaton and Bedworth has the lowest level of private rented accommodation, which stands at 7.5% of the overall housing stock.

The predominant dwelling type within three of the districts is semi-detached (North Warwickshire 40.0%, Nuneaton and Bedworth 38.6% and Rugby 35.5%). Terraced housing is the predominant dwelling type in Coventry with almost half of the City's stock (47.7%) being terraced housing and 15.4% being flats.

The cost of housing varies across the C2 area with the highest mean price being in Rugby at £181,903 and the lowest in Nuneaton and Bedworth at £139,903. Prices vary where an area borders a neighbouring housing market. For example, in Coventry house prices are highest to the south and west of the City where it borders Solihull and Warwick and are lowest in the inner city. As with most housing markets, prices have increased substantially since 2001. The relative price of smaller properties in cheaper areas has risen the most, with this having implications for those entering the housing market for the first time, placing increased pressure on affordability and supply. When compared to gross annual incomes, a single person would need to earn in the region of £34,500 to £40,700 to be able to purchase an entry-level dwelling. The proportion of people unable to afford entry-level dwellings is 57.3% in Coventry, 66% in North Warwickshire and 68.3% in Rugby.

When considering the future housing market dynamics the population across the C2 area is predicted to grow with Nuneaton and Bedworth and Rugby growing above the West Midlands average (78.3% and 15.9% respectively). The number of households is predicted to grow between 2006 and 2029 and when broken down at the individual district level this implies:

- 12,000 additional households in Rugby
- 16,000 additional households in Coventry
- 9,000 additional households in Nuneaton and Bedworth
- 4,000 additional households in North Warwickshire

These changes will have significant impacts upon the housing markets in the four districts, in particular there will be increasing pressure on both Nuneaton and Bedworth and Rugby to meet the needs of both their existing and increasing populations.
6.4.3 C1 HMA

At the time of writing the Strategic Housing Market Assessment for the C1 HMA is still awaiting formal sign off and for this reason a summary of the housing characteristics for Birmingham and Solihull has been included using Birmingham’s recent Strategic Housing Market Assessment\(^76\) and Solihull’s Housing Market Summary\(^77\). In addition more detailed information has been included for the Solihull wards which fall within the M42 Growth Corridor Area (including North Solihull) and the Eastern Corridor area.

Firstly turning to Solihull, the area has an attractive residential environment, which creates a high level of demand for housing. This demand is reflected in the level of house prices, which are strong when compared to the rest of the West Midlands. The area has high levels of home ownership at 78%, compared to a regional average of 69%, a smaller private rented sector at 4% compared to 7% regionally and a small amount of affordable housing at 18% compared to a regional average of 21%.

The predominant property type is semi-detached dwellings (40%) followed by detached (30%) and then flats and terraced (both 15%). The majority of houses within the district fall within the higher Council Tax bands, with the exception of Chelmsley Wood, Kingshurst and Smiths Wood, which form the North Solihull Regeneration Area and form part of the East Birmingham/North Solihull New Growth Point. In excess of 89% of all properties within these wards fall within Council Tax Bands A and B.

Affordability is a significant issue in Solihull, which is reflected in the shortage of affordable housing and rising cost of housing. The area has one of the most severe housing shortage problems across the region with a house price to income ratio of 7:1. The issue is likely to become worse as house prices continue to increase more quickly than household incomes. The average household income for a first time buyer wishing to enter the property market would need to be in the region of £34,200.

As previously mentioned the population of Birmingham is currently 1,006,500 and is set to increase over the next 20 years. This growth is a result of natural change and the city is expected to experience an increase in net out-migration as more people move out of the city than in. The city has witnessed significant demographic change particular with regard to its BME population. Both the Eastern Corridor (which forms the Eastern Corridor Growth Area) and the Western Corridor which makes up the Urban Living Housing Market Renewal Pathfinder have experienced high growth in the BME population and birth rates, thus leading to an increasing younger population. Over the past five years the city has lost some 21,700 adults aged between 25-44 years and 11,500 children through migration. The population has therefore seen a significant out migration of families with young children.

\(^{76}\) Birmingham Strategic Housing Market Assessment 2007, (2008), Opinion Research Service
\(^{77}\) Solihull Housing Market Summary, (2008), Solihull Metropolitan Borough Council
Owner-occupation forms 60% of the city’s housing stock, with 27% social rented and 11% private rented. Over three-quarters of owner-occupiers live in houses: mainly semi-detached and detached properties. In contrast, 40% of all social rented properties and 45% of the private rented are flats. The income required to purchase an average price property is greater than the average income. The city has a need for additional social housing with some 20,444 households applying for social housing.

6.4.4 North Solihull and the Eastern Corridor

The analysis presented below draws on research that has been previously undertaken by ECOTEC. Eastern Birmingham (East Birmingham and Eastern Periphery) together with North Solihull make up the East Birmingham and North Solihull Housing Market Renewal Area and Growth Corridor, which have received new Growth Point Status. The Eastern Corridor, as the overall area is referred to, is home to over a quarter of a million people with some 100,000 households. The area is strategically positioned between a number of key regional employment and economic assets such as Birmingham City Centre and Eastside, and the strategic economic assets of the M42 Corridor Growth Area. It therefore has the potential to take advantage of economic growth generated from within both Birmingham and Solihull. However, despite the size of the area’s population and its proximity to regional employment assets it contains some of the most deprived communities in the region, which is largely due to the outcomes of economic restructuring, the changing demographic characteristics and limited skills base of existing and incoming residents.

Over the past decade the area has seen significant population growth in its BME communities, which is forecast to grow and will impact upon Birmingham the most. Overall, demographic trends in the corridor have resulted in a younger age profile, which will impact upon the future level of birth rates. However, the changing demographic structure and ethnic make up of the population has led to a polarisation of communities. Many white lower income households remain in the outer local authority estates of Birmingham (Eastern Periphery) and North Solihull, whilst black and minority ethnic households tend to be concentrated in the inner city of Birmingham (East Birmingham). Over a number of years higher income household groups have chosen to leave the Eastern Corridor.

Overall, it experiences a lack of sufficient housing supply to accommodate its anticipated future household growth and a lack of housing choice and quality. Combined, these factors form a dysfunctional housing market which is in need of restructuring. The restructuring of the Eastern Corridor housing market area will significantly contribute to the major housing growth potential for the region, in line with the RSS as well as Birmingham's and Solihull's growth and regeneration agendas. Key to this is the area’s ability to address its problematic housing market and release its potential and capacity to accommodate the expected growth in households and related socio-economic issues.

6.4.5 Eastern Corridor Housing Market Area

The research conducted by ECOTEC identified three separate housing market areas within the wider Eastern Corridor – East Birmingham, Eastern Periphery and North Solihull. These are illustrated on the figure below.

**Figure 6.6 M42 Growth Corridor Area, North Solihull and Birmingham Eastern Corridor**

The housing market in the Eastern Corridor was predominately built for lower income households who were largely employed within the immediate area. Whilst the economic function of the area has changed it still remains an important public and private sector housing source for lower income
households. As such the area has been attractive to households entering the lower end of the market, but due to a lack of housing choice and negative equity there is little opportunity to ‘trade upwards’. Across the Eastern Corridor there is a general lack of high value private housing and this is a driving force for households to leave the area if their economic circumstances change. In-migration has been a key driver for the growth in households and the area will continue to a have an important role as a reception area.

Currently within the Eastern Corridor, household growth has led to demand for housing outstripping supply. By way of example, between 1991 and 2001, the Eastern Corridor experienced a 0.6% increase in population and an 8.7% increase in households. When broken down to the individual housing market area level within the Eastern Corridor, East Birmingham experienced a 6.5% increase in population and a 17% increase in households; the Eastern Periphery experienced a 2.1% decrease in population and a 3.3% increase in households whereas North Solihull experienced a 10.5% increase in population and a 3% increase in households. These figures illustrate the role of East Birmingham as an important reception area to newly forming households.

The lack of available sites has prevented the public and private sector responding with new build creating an imbalance between supply and demand. Between 1991 and 2001 the area has seen a 12.1% increase in owner occupation and a 71% increase in private rented with a 16% decline in Local Authority renting. Whilst tenure change has been achieved through ‘right to buy’ this has removed the most popular type of housing from the social rented sector (i.e. family housing with most demand). The private rented sector has grown significantly and this has been focused on the lower value end of the market. The growth in private rented has been regarded as a substitute for social housing.

The key to creating more balanced communities in the Eastern Corridor will be a new supply of higher value housing which is aimed at the more the economically mobile households, who have been moving to adjacent or more successful housing market areas. There are a number of opportunities to introduce new markets into the area, including the revitalizations of the outer estates to provide a location for higher income households. Attracting new households into the area and encouraging existing ones to stay will depend upon the choice of housing and the quality of the living environment and amenities – in particular local schools.

Household growth is already impacting upon the Eastern Corridor, as previously mentioned the area has seen a growth in the number of younger households particularly in the East Birmingham Housing Market Area. Recent population and household projections for Birmingham suggest that this growth will continue to increase. Population modelling suggests a potential population increase across the Eastern Corridor area of around 15.6% between 2001 and 2026. This could create the potential demand for somewhere in the region of 20,000 additional households.

6.4.6 M42 Corridor Growth Area including North Solihull

The table overleaf sets out the age profile of residents of the M42 Corridor Growth Area (including North Solihull). The profile suggests that the characteristics between the wards within the M42 Corridor Growth Area and North Solihull and Solihull as a whole are similar with the exception of
the 0-14 age group which is slightly higher within the corridor than Solihull and the 65-74 age group which is slightly less across Solihull than in the corridor area.

Table 6.2 M42 Corridor Growth Area (including North Solihull) Age Profile

<table>
<thead>
<tr>
<th>Age profile within reference area</th>
<th>Number</th>
<th>%</th>
<th>Solihull %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All people</td>
<td>130,746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 14</td>
<td>26,618</td>
<td>20.4</td>
<td>19.6</td>
</tr>
<tr>
<td>15 – 19</td>
<td>8,192</td>
<td>6.3</td>
<td>6.1</td>
</tr>
<tr>
<td>20-34</td>
<td>21,857</td>
<td>16.7</td>
<td>16.4</td>
</tr>
<tr>
<td>35 – 49</td>
<td>27,761</td>
<td>21.2</td>
<td>21.5</td>
</tr>
<tr>
<td>50 – 64</td>
<td>25,573</td>
<td>19.6</td>
<td>19.5</td>
</tr>
<tr>
<td>65 – 74</td>
<td>11,444</td>
<td>8.8</td>
<td>9.2</td>
</tr>
<tr>
<td>75 and over</td>
<td>9,301</td>
<td>7.1</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Source: Census of Population. 2001

Turning to the socio-economic characteristics of the population within the M42 Growth Corridor Area, again the characteristics within the area and Solihull as a whole are very similar with a number of exceptions. The corridor has slightly less people employed in the lower managerial and professional occupations than in comparison to Solihull. However it has a higher percentage of people employed in routine and semi-routine occupations. The percentage of people who have never worked or are long-term unemployed is slightly higher in the M42 Growth Corridor Area (including North Solihull). It is likely that these figures are skewed by the characteristics for those wards situated within North Solihull.
Table 6.3  M42 Growth Corridor Area (including North Solihull) Socio-Economic Groups

<table>
<thead>
<tr>
<th>Household Reference</th>
<th>Number</th>
<th>%</th>
<th>Solihull %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons 16-74</td>
<td>46,904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher managerial and professional occupations</td>
<td>7,289</td>
<td>15.5</td>
<td>15.4</td>
</tr>
<tr>
<td>Lower managerial and professional occupations</td>
<td>9,751</td>
<td>20.8</td>
<td>21.5</td>
</tr>
<tr>
<td>Intermediate occupations</td>
<td>3,417</td>
<td>7.3</td>
<td>7.5</td>
</tr>
<tr>
<td>Small employers and own account workers</td>
<td>3,630</td>
<td>7.7</td>
<td>8.2</td>
</tr>
<tr>
<td>Lower supervisory and technical occupations</td>
<td>3,664</td>
<td>7.8</td>
<td>7.9</td>
</tr>
<tr>
<td>Semi-routine occupations</td>
<td>4,701</td>
<td>10.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Routine occupations</td>
<td>3,731</td>
<td>8.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Never worked or long term unemployed</td>
<td>1,173</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Not classified.</td>
<td>9,548</td>
<td>20.4</td>
<td>20.6</td>
</tr>
</tbody>
</table>

Source: Census of Population, 2001

The figures in relation to housing characteristics display differences between the M42 Growth Corridor Area (including North Solihull) and average figures across Solihull as a whole. The table below shows the percentage of households living within the different housing tenures. What is noticeable is that the percentage of households who are owner occupiers is lower in the corridor area (74.8%) than Solihull (78.6%). It also suggests that the percentage of households who are living in Council owned accommodation is higher in the corridor area (17.6%) than in Solihull as a whole (13.6). Again, these figures reflect the housing tenure characterises of North Solihull, which has a lower level of owner occupancy and a higher level of Council rented stock.

Table 6.4  M42 Growth Corridor Area (including North Solihull) Household Tenure

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
<th>Solihull %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households</td>
<td>52,865</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner occupied</td>
<td>39,569</td>
<td>74.8</td>
<td>78.6</td>
</tr>
<tr>
<td>Rented from Council</td>
<td>9,284</td>
<td>17.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>
The table below illustrates housing type characteristics. The data suggests that the corridor has a higher number of detached dwellings (32.25%) in comparison to Solihull as a whole (29.5%). This could potentially be skewed by the number of detached properties being higher in wards such as Packwood, Knowle and Shirley as North Solihull has one of the lowest percentages of detached dwellings across the borough. The corridor has a lower number of semi-detached dwellings and the proportion of terraced and flats and maisonettes are higher in the corridor than in Solihull as a whole.

Table 6.5 M42 Growth Corridor Area (including North Solihull) Housing Type

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>Number</th>
<th>%</th>
<th>Solihull %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households</td>
<td>52,836</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detached</td>
<td>17,081</td>
<td>32.3</td>
<td>29.4</td>
</tr>
<tr>
<td>Semi-detached</td>
<td>16,701</td>
<td>31.6</td>
<td>39.3</td>
</tr>
<tr>
<td>Terraced</td>
<td>10,295</td>
<td>19.5</td>
<td>16.0</td>
</tr>
<tr>
<td>Flat, maisonette or apartment</td>
<td>8,723</td>
<td>16.5</td>
<td>15.1</td>
</tr>
<tr>
<td>Caravan or other mobile structure</td>
<td>36</td>
<td>0.1</td>
<td>0.2</td>
</tr>
</tbody>
</table>

6.5 Travel to Work

The analysis of travel to work patterns is helpful in identifying the relationships between economic activity and place of residence in the M42 Corridor Growth Area. The figure overleaf shows the number of people who travel to work within the M42 Corridor Growth Area. It illustrates that there are very strong travel to work linkages between the M42 Corridor Growth Area and Birmingham and Solihull. In the case of Solihull, 44% of the borough’s workforce is employed in the M42 Corridor Growth Area which accounts for 2 in 5 employees. In Birmingham, 27% of its workforce travel to work in the M42 Corridor Growth Area. However, in Coventry only 3% of the workforce travel to work in the M42 Corridor Growth Area and across the M42 Corridor Functional Area.
between 2% and 1% of the workforce at the district level travel to work in the M42 Corridor Growth Area.

**Figure 6.7 Travel to Work within the M42 Corridor Growth Area**

The more detailed analysis of travel to work patterns amongst people who live in the M42 Corridor Growth Area (including North Solihull) and are employed at one of the identified strategic economic assets reinforces the extent of local demographic and economic linkage.

The figure overleaf shows the travel to work patterns of people living in the M42 Corridor Growth Area (including North Solihull) and working within Solihull Town Centre. This illustrates a strong linkage between those wards surrounding the town centre, Silhill, St Aphege, parts of Knowle, and the south west corner of Bickernill. Within each of these wards there are 60 plus people who live within the ward and who work in the town centre. As an area of employment the town centre’s influence spreads to the surrounding wards of Shirley South, Packwood, Knowle, Elmdon and Bickernill. However, there are less people living in the wards within North Solihull and working within the town centre.
Birmingham Business Park and the NEC sit within the same Super Output Area and therefore are unable to be separated out for analysis purposes. The figure below shows that together both of these assets have a strong linkage with the M42 Growth Area Corridor and the adjacent areas to the north and east. Bickernill ward has the largest concentration of people working at both Birmingham Business Park and the NEC. Unlike Solihull Town Centre, both the NEC and
Birmingham Business Park have a higher number of people who travel to work from North Solihull as well Birmingham's Eastern Periphery.

**Figure 6.9 Travel to Work Patterns for Birmingham Business Park and NEC**

The pattern is different for BIA as illustrated in the figure overleaf. This shows that largest the concentration of people working at the airport live within Bickernill Ward. However the airport has less linkage with North Solihull, the Eastern Corridor and the rest of the M42 Corridor Growth Area.
The figure overleaf provides the same analysis but in respect of Land Rover. It shows that Land Rover generally has less people travelling to work from the wards within the M42 Corridor Growth Area. However, the largest concentrations of people living in the corridor and working at Land Rover are located within Silhill Ward, followed by parts of Bickenhill and Elmdon Wards.
Finally turning to the Blythe Valley Business Park (illustrated in the figure overleaf), this asset demonstrates the least linkage with the M42 Corridor Growth Area and the wider Eastern Corridor. The Blythe Valley Business Park demonstrates some linkage with the ward in which it is located with some 20-40 people residing in this ward and working at the Business Park.
6.6 Strategic Conclusions

The strategic conclusions that can be drawn from the analysis of the demographic and housing characteristics of the M42 Corridor are:

- The residential population of the M42 Corridor Functional Area is 2,210,000 or 41% of the region's population. Population growth in this area was largely static between 1991 and 2001.
but has increased since, and is forecast to rise by 324,000 (14%) by 2026. Growth is also forecast in the M42 Corridor Intermediate Area – focussed on Solihull.

- The M42 Corridor Functional Area forms part of the South HMA, the C1 HMA and the C2 HMA. The C1 HMA includes the local authority areas of Birmingham and Solihull which abut the M42 Corridor Growth Area.

- Solihull – the focus of the M42 Corridor Intermediate Area – has an attractive residential environment which creates a high level of demand for housing. Houses prices have been strong, home ownership is high and affordability remains an issue.

- Birmingham’s population is set to grow as a result of natural change, particularly amongst BME communities. Owner occupation is less prevalent than in Solihull and the social rented sector is of greater importance. Affordability issues continue as does demand for social housing.

- The Eastern Corridor forms parts of the M42 Corridor Growth Area (including North Solihull). This experiences a lack of sufficient housing supply to accommodate anticipated future household growth, and a lack of housing choice and quality.

- North Solihull is identified as a distinct housing market within the Eastern Corridor (together with East Birmingham and the Eastern Periphery). It has seen an increase in both population (10.5%) and households (3.0%) between 1991 and 2001.

- The age profile of residents of the M42 Corridor Growth Area (including North Solihull) is similar to that for Solihull as a whole. The occupational structure is also similar. Owner occupation is lower and the renting of local authority accommodation higher – reflecting the inclusion of North Solihull in this slightly wider operational definition of the M42 Corridor Growth Area.

- Travel to work patterns demonstrate strong linkages between the M42 Corridor Growth Area and Birmingham and Solihull. Some 44% and 27% of Solihull’s and Birmingham’s workforce is employed in the corridor. There are also strong localised relationships between the workforce of the M42 Corridor Growth Area and its strategic economic assets. In particular, Solihull Town Centre, the NEC and BIA provide a significant number of job opportunities for local residents.

- It is clear that there are strong links between employment opportunities and housing within the M42 Corridor Functional Area, and, in particular, the M42 Corridor Growth Area. Birmingham and Solihull have secured New Growth Point status and the Eastern Corridor (which includes part of the M42 Corridor Growth Area) represents a significant opportunity for housing growth.
7.0 Transport Characteristics

7.1 Introduction

This section of the report explores the network and transportation characteristics of the M42 Growth Corridor Area and the M42 Corridor Functional Area, including road, rail and air links.

7.2 West Midland's Transport Network

The region's geographical location at the heart of England’s strategic network for both road and rail, means its transport systems are required to deal with high levels of traffic that serve national as well as local and regional demand.

The regional transport network is based around the North South corridor of the M6 and the West Coast Main Line (WCML) which connects London to Manchester and the North West. Regional motorways connect the West Midlands to the South West, West and North East, broadly originating from the West Midlands Metropolitan Area (WMMA) which has a Motorway Box (M42, M5, and M6).

The West Midlands has a fairly extensive regional and suburban rail network focussed upon Birmingham with one Metro line and an extensive bus network, particularly within the MUAs. The Birmingham to London route has a major station well located at Birmingham International adjacent to the M42.

The region is served by BIA with a number of minor airport sites, the most significant of which is in Coventry. Nottingham East Midlands Airport is situated near to the regional boundary.

7.3 Role of the M42 Corridor

The M42 connects the M5 motorway in the west (near the village of Catshill) to the A42 in the north east (near the village of Appleby Magnor). It is approximately 40 miles in length from the M5 interchange to the A42 and has generally 3 traffic lanes in each direction and a 70 mph speed limit. The M42 is characterised by major interchanges with the M40 motorway (Junction 3A) and the M6 motorway (Junction 7) and Active Traffic Management (ATM) operation providing for variable speed limits between these two key interchanges. The table overleaf provides a summary of road characteristics of the M42 between the M5 and A42.
<table>
<thead>
<tr>
<th>Sector</th>
<th>Description</th>
<th>Length (miles)</th>
<th>Number of Lanes Northbound</th>
<th>Number of Lanes Southbound</th>
<th>Speed Limit (mph) Northbound</th>
<th>Speed Limit (mph) Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M5 / M42 Interchange to M42 J1</td>
<td>1.2</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>J1 to J2</td>
<td>4.3</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>J2 to J3</td>
<td>2.9</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>J3 to J3a</td>
<td>3.0</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>J3a (M42 to M42 Slips)</td>
<td>0.5</td>
<td>2 plus HS</td>
<td>2 plus HS</td>
<td>ATM</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>J3a (M42 to M40 Slips)</td>
<td>0.5</td>
<td>2 plus HS</td>
<td>2 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>J3a (M42 to M40 Mainline)</td>
<td>0.5</td>
<td>2 plus HS</td>
<td>2 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>8</td>
<td>J3a to J4</td>
<td>2.5</td>
<td>3+1</td>
<td>3+1</td>
<td>ATM</td>
<td>ATM</td>
</tr>
<tr>
<td>9</td>
<td>J4 to J5</td>
<td>2.4</td>
<td>3+1</td>
<td>3+1</td>
<td>ATM</td>
<td>ATM</td>
</tr>
<tr>
<td>10</td>
<td>J5 to J6</td>
<td>3.6</td>
<td>3+1</td>
<td>3+1</td>
<td>ATM</td>
<td>ATM</td>
</tr>
<tr>
<td>11</td>
<td>J6 to J7</td>
<td>2.5</td>
<td>3+1</td>
<td>3+1</td>
<td>ATM</td>
<td>ATM</td>
</tr>
<tr>
<td>12</td>
<td>J7 to J7a</td>
<td>0.3</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>13</td>
<td>J7a to M6 Toll (Slip Merge / Diverge)</td>
<td>2.1</td>
<td>3 plus HS</td>
<td>3 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>14</td>
<td>M6 Toll (Slip Merge / Diverge) to J8</td>
<td>2.1</td>
<td>4 plus HS</td>
<td>4 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>15</td>
<td>J8 to T1 (Slip Merge / Diverge)</td>
<td>2.1</td>
<td>Varies btw 3 – 7</td>
<td>Varies btw 3 – 7</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>16</td>
<td>T1 (Slip Merge / Diverge) to J9 (Slip Merge / Diverge)</td>
<td>1.5</td>
<td>4 plus HS</td>
<td>4 plus HS</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Length</td>
<td>Number of Lanes *</td>
<td>Speed Limit (mph) **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>J9 (Slip Merge / Diverge) to Junction</td>
<td>1.5</td>
<td>2 plus HS</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>J9 to J10</td>
<td>6.1</td>
<td>2 plus HS</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>J10 to J11</td>
<td>6.9</td>
<td>2 plus HS</td>
<td>70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* HS – hard shoulder; 3+1 – 3 lanes plus auxiliary lane for ATM

* ATM – Active Traffic Management (variable speed limits)

For much of its length the M42 runs through the Metropolitan Borough of Solihull and is particularly significant to the West Midlands transport network as it serves a high proportion of the region’s strategic economic assets (BIA, NEC, Land Rover, Solihull Town Centre, Birmingham Business Park and Blythe Valley Business Park) as well as serving major road and rail routes.

The focus of this study is the M42 Corridor Growth Area which is broadly defined as the stretch of the M42 between Junction 4 and Junction 7 (serving, in terms of the strategic economic assets, BIA, the NEC and Birmingham Business Park at Junction 6; Solihull Town Centre at Junction 5; and the Blythe Valley Business Park at Junction 4).

Acknowledging, however, that the sphere of economic influence of the strategic economic assets permeates beyond these boundaries, a wider stretch of the M42 from Junction 3a to Junction 9 is also considered, which includes the likely A45 operational area and, in addition, a 2km buffer area around these junctions which allows for appreciation of congestion and queuing vehicles at junction approaches.

Not only is the M42 Corridor Growth Area the location of some of the region’s most strategic economic assets, but further economic development activity is planned in the corridor up until 2021.

The figure below highlights the range of identified growth sites in the region within or in close proximity to the M42 Growth Corridor Area at which investment is planned. There are also expansion plans at the Land Rover site, BIA and the NEC, which unveiled plans earlier this year for a new £90 million conference and leisure development expected to include a number of restaurants and bars, a hotel and state-of-the-art events and conferencing facilities with up to 1,000 additional jobs.
The Coventry Solihull Warwickshire Sub Region is one of the main drivers of the regional economy and many other developments in that area lie in the hinterlands of the M42 Corridor Growth Area. In addition, the RSS is currently under review, and is anticipated to propose substantial increases in the housing stock of which some are likely to be proposed for the Solihull area. All of these...
Developments will reaffirm Birmingham and Solihull as key business destinations but are also likely to have an impact on M42 transport volumes and congestion along the corridor, not least road access issues around Junction 6.

### 7.4 Road Transport

#### 7.4.1 Travel Patterns in the West Midlands

Car remains the predominant mode of transport in the region. Car ownership continues to increase with fewer households having no car, whilst increasing numbers have multiple cars and recent research indicates that 68% of those making trips are car drivers and/or car passengers\(^7\). The Transport Statistics Great Britain 2007 estimates that, within the WMMA at present, 74% of trips to work are made by car, with 12% by bus/coach. A total of 8% of trips are made by walking and 3% by rail with only 1% each by motorcycle and cycle.

Motorway traffic forms a significant proportion of total traffic, although internal transport linkages are also heavily used with large numbers of trips taking place within the region itself – illustrated in the figure overleaf.

\(^7\) Towards a Strategic Transport Vision for the Region: Phase 1 Study – Draft Report to Advantage West Midlands, (2008), ECOTEC Research and Consulting and Mott MacDonald
Figure 7.2 Extent of Sub-Regional Self Containment in Commuting Terms
7.4.2 Function of the Network

The M42 represents an outer orbital to the south-east of the West Midlands conurbation. Much of the vehicular traffic to Birmingham enters the city via the A38 (M) Aston Expressway, and traffic from the M40 which connects London to the Midlands also uses the M42. In addition, the M42 provides a linkage from the M40 and the M5 to the South West to the M42 and A38 which link to the North and North East as well as the East Midlands.

As a result of high usage and congestion on this section, the West Midlands Area Multi Modal Study (WMAMMS) indicated that permanent lanes would be required to ensure the M42’s resilience. In addition, it was selected for the first trial of ATM. This trial which includes hard shoulder running and variable speed limits at times of congestion is still ongoing but has been deemed a success by the HA who will roll out similar schemes elsewhere. ATM has helped to boost highway capacity on the M42 although this will not prevent congestion growing in the future.

7.4.3 Current and Forecast Demand

The two figures overleaf highlight the current traffic flows along the M42 between Junctions 4 and 7. The maps have been produced using the Policy Responsive Integrated Strategic Model (PRISM). This is a tool that was established for the analysis of the West Midlands strategic road network. It operates at a high level of detail within the main urban conurbation, but is also enabled to provide traffic projections for the wider region. Employment and network data are fed into the model, which then generates projections on traffic flows, delays and congestion on the road network\(^80\). The width of the shading along each of the roads highlights the extent of traffic travelling along that particular stretch. A wider bar indicates more vehicles.

\(^80\) More details on PRISM can be found in [http://www.prism-wm.com](http://www.prism-wm.com).
Figure 7.3  Southbound traffic flows between M42 Junctions 4 and 7 (Base Year 2001 – AM Peak)
Figure 7.4  Northbound traffic flows between M42 Junctions 4 and 7 (Base Year 2001 – AM Peak)

The maps indicate that between certain junctions well over 5,000 vehicles use this stretch of the M42 between 7am and 9.30am. In the southbound direction the busiest stretch is between Junctions 7 and 6, which accommodates 5,595 vehicles during a typical morning peak period. This amounts to approximately 37 vehicles per minute. Northbound, demand is highest between Junctions 4 and 5, which sees the passage of nearly 6,000 vehicles in the morning peak – nearly 40 vehicles per minute.

Recent research undertaken by ECOTEC and Mott MacDonald (2008) considered the likely growth in travel demand taking account of the impact of the RSS and WMES, as well as the schemes programmed to be implemented under the current RFA. The key findings from this were:
• The number of daily trips made across the West Midlands is expected to rise by approximately 20% by 2021 to 8,754,440. This 20% increase will be evident for both car and public transport modes.

• Modal split figures for daily trips within Solihull show that the borough accords with regional trends, with nearly 87% of journeys being made car. Bus trips account for only 11.6%, whilst the collective total for Metro and light rail is only 1.8%.

• Each of the metropolitan boroughs will be the destination of 15% more car trips and over 10% more public transport trips by 2021.

• Trips to Coventry and, particularly, Solihull by both car (28% and 34% respectively) and public transport (35% and 43%), are expected to see a level of growth well above the WMMA average.

• This is partly attributable to the concentration of employment sites in and around the centres, combined with significant projected household and population increases on the outskirts.

The expected growth in Solihull is highly relevant for the M42 Corridor Growth Area. The Regional Infrastructure Capacity Study81, which looked at AWM’s planned economic development sites, revealed several congestion hotspots where network capacity would be put under strain should developments take place. Of particular note for this study is that there is potential for expansion at Birmingham Business Park, Blythe Valley Park and the Solihull Business Park to cumulatively add to M42 congestion between Junction 4 and Junction 6.

Whilst all the proposed development will conform to planning requirements and seek to promote sustainable transport modes, the plots below illustrate the fact that the M42, between Junctions 3 and 7, is already a congestion ‘hotspot’ and that this situation is likely to deteriorate in the longer term despite the respite which ATM has delivered when it is operational.

81 Regional Transport Capacity Study Final Report, (2007), Mott MacDonald and /GVA Grimley
Figure 7.5 Road Congestion in the West Midlands Region (Base Year 2001 – AM Peak)
Figure 7.6 Road Congestion in the West Midlands Region (2021 – AM Peak)
### 7.4.4 Bus Network

The table below shows that the strategic economic assets along the M42 Corridor Growth Area are each served by numerous bus services, which do offer a way in which to get to work by employees. The bus is the main form of public transport used across the West Midlands, but is perceived to be relatively slow and unattractive by many users. Journey times are generally not competitive with rail services or the private car. Whilst considerable investment in bus priority measures is planned across the West Midlands, few of the routes of relevance to M42 Growth Corridor Area will be affected. At present, north/south connectivity to BIA and the NEC remains poor, particularly to Solihull Rail Station. It should be noted, however, that Solihull does have major proposals for a scheme to improve public transport (primarily bus access) around the BIA/NEC area.

<table>
<thead>
<tr>
<th>Economic Site</th>
<th>Service</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham Business Park⁸²</td>
<td>73</td>
<td>International Station – Birmingham Business Park</td>
</tr>
<tr>
<td></td>
<td>694</td>
<td>Chemsley Wood – Birmingham Business Park</td>
</tr>
<tr>
<td>Birmingham International Airport</td>
<td>38</td>
<td>Birmingham – Birmingham Airport via Acocks Green</td>
</tr>
<tr>
<td></td>
<td>58A</td>
<td>Birmingham – Birmingham Airport via Coventry Road</td>
</tr>
<tr>
<td></td>
<td>58N</td>
<td>Birmingham – Birmingham Airport via Coventry Road</td>
</tr>
<tr>
<td></td>
<td>73</td>
<td>International Station – Birmingham Business Park</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>Birmingham Airport – Chemsley Wood Loop</td>
</tr>
<tr>
<td></td>
<td>676</td>
<td>International Station – Chemsley Wood via Marston Green</td>
</tr>
<tr>
<td></td>
<td>717</td>
<td>Airport – Nuneaton via Coleshill Parkway</td>
</tr>
<tr>
<td></td>
<td>757</td>
<td>Sutton – BIA</td>
</tr>
<tr>
<td></td>
<td>767</td>
<td>Tamworth – BIA</td>
</tr>
<tr>
<td></td>
<td>777</td>
<td>Birmingham Airport – Atherstone via Hams Hall</td>
</tr>
<tr>
<td></td>
<td>900</td>
<td>Birmingham – Coventry via Sheldon, Airport and Meriden</td>
</tr>
<tr>
<td></td>
<td>966</td>
<td>Erdington – Solihull Station via Airport</td>
</tr>
</tbody>
</table>

⁸² It should be noted that services 59a, 90, 717, 757, 767, 777 and 966 all pass nearby Birmingham Business Park. Route 97 is a showcase route and also passes nearby.
<table>
<thead>
<tr>
<th>Economic Site</th>
<th>Service</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>966A</td>
<td>Erdington – Solihull Station via Airport</td>
</tr>
<tr>
<td>Blythe Valley Park</td>
<td>166</td>
<td>Solihull – Blythe Valley Business Park</td>
</tr>
<tr>
<td></td>
<td>X20</td>
<td>Birmingham – Stratford upon Avon via Hockley Heath</td>
</tr>
<tr>
<td></td>
<td>173</td>
<td>Solihull – Stratford Road/Kineton Lane</td>
</tr>
<tr>
<td>NEC</td>
<td>73</td>
<td>International Station – Birmingham Business Park</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>Birmingham Airport – Chelmsley Wood Loop</td>
</tr>
<tr>
<td></td>
<td>676</td>
<td>International Station – Chelmsley Wood via Marston Green</td>
</tr>
<tr>
<td></td>
<td>717</td>
<td>Birmingham Airport – Nuneaton via Coleshill Parkway</td>
</tr>
<tr>
<td></td>
<td>757</td>
<td>Sutton – BIA</td>
</tr>
<tr>
<td></td>
<td>767</td>
<td>Tamworth – BIA</td>
</tr>
<tr>
<td></td>
<td>777</td>
<td>Birmingham Airport – Atherstone via Hams Hall</td>
</tr>
<tr>
<td></td>
<td>966</td>
<td>Erdington – Solihull Station via Airport</td>
</tr>
<tr>
<td></td>
<td>966A</td>
<td>Erdington – Solihull Station via Airport</td>
</tr>
</tbody>
</table>

### 7.5 Rail Transport

#### 7.5.1 Network Characteristics

The regional rail network is based around the WCML with the region well linked with frequent direct services to destinations across the UK including London, Liverpool, Manchester, Glasgow, and Edinburgh.

Within the M42 Corridor Growth Area itself, there are four established railways stations – Birmingham International, Hampton-in-Arden, Water Orton and Widney Manor. A new station, Coleshill Parkway was completed in 2007. Each of these stations is highlighted on the map overleaf. Water Orton and Coleshill Parkway lie on the line from Birmingham to Leicester, which goes through to Cambridge and Stansted Airport. Direct services to London are available from both Hampton-in-Arden and Widney Manor via the Chiltern Line.

Birmingham International station was constructed at the same time as the NEC. It is directly connected not only to London, but also to other major cities such as Manchester and Leeds via the Cross Country network, reflecting its strategic network importance. The station is a significant
interchange facility; it accommodated nearly 40,000 interchanges in 2006/07. However, it is worth noting that, due to its proximity to BIA and the NEC, Birmingham International remains very much a ‘destination ‘station’ in itself.

Figure 7.7 Railway Stations in the M42 Corridor Growth Area
7.5.2 Current and Forecast Demand

Of the four stations for which data is available\textsuperscript{83}, all witnessed a growth in passenger volumes between 2005/06 and 2006/07. The following table highlights station footfall (entries and exits combined) at the four locations\textsuperscript{84}.

<table>
<thead>
<tr>
<th>Station</th>
<th>2005/06</th>
<th>2006/07</th>
<th>Footfall increase</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham International</td>
<td>2,201,350</td>
<td>2,448,241</td>
<td>246,891</td>
<td>11%</td>
</tr>
<tr>
<td>Hampton-in-Arden</td>
<td>51,573</td>
<td>54,850</td>
<td>3,277</td>
<td>6%</td>
</tr>
<tr>
<td>Water Orton</td>
<td>35,264</td>
<td>39,324</td>
<td>4,060</td>
<td>12%</td>
</tr>
<tr>
<td>Widney Manor</td>
<td>116,676</td>
<td>119,461</td>
<td>2,785</td>
<td>2%</td>
</tr>
</tbody>
</table>

The most recent comprehensive analysis of passenger demand was the West Midlands Route Utilisation Strategy (WMRUS). This identified that rail use in the West Midlands had grown faster than the national average during the period 1995 to 2004 with journeys up by 44\% compared to 34\% nationally. Since 1995 there have been a number of significant service improvements. The Jewellery Line opened in June 1995 and service improvements since 2002 have resulted in more frequent services on the Cross City and Snow Hill Lines and to London Marylebone. The Cross Country line and WCML has also had upgrades. Other factors include retail expansion in Birmingham, especially the Bull Ring in September 2003 and employment growth in Birmingham City Centre\textsuperscript{85}.

Demand is expected to continue to rise strongly; by 3.9\% per annum for the next five years. Key potential drivers include:

- Increased frequency/capacity/speed of services to London and other areas;
- Continuing employment growth in central Birmingham;
- Population growth in rail served settlements across the Region;
- Rising congestion and the environmental drive to reduce car usage; and
- Provision of a full seven day timetable.

7.5.3 Freight

Rail freight has grown rapidly in the last ten years. The Network Rail Freight RUS forecasts growth of up to 30\%, which is the equivalent of an extra 240 freight trains per day over the next ten years.

\textsuperscript{83} Data for Coleshill Parkway is not yet available.
\textsuperscript{84} \url{http://www.rail-reg.gov.uk/upload/xls/station-usage-2006-07.xls}
\textsuperscript{85} The Network Rail Route Plan 2007 – Route 17 West Midlands, (2007), Network Rail
It also notes that for this additional demand to be met by road freight, it would lead to around an extra 1.5 million lorry journeys on the roads each year. The Hams Hall Freight facility is adjacent to the northern end of the M42 Corridor Growth Area and offers a range of connections for freight shipment although at present, freight generated along the M42 itself still needs to be transported to Hams Hall by road.

7.6 Air Transport

7.6.1 Current Services and Facilities

There are two commercial airports in the West Midlands; these are BIA, which is the main regional airport and situated in the M42 Corridor Growth Area, and Coventry Airport.

7.6.1.1 Birmingham International Airport

Birmingham Airport opened in 1939 and modern passenger terminal facilities have been in operation since 1984. It is the principal, international airport for the region and has a 2,600 metre runway, two passenger terminals and facilities for business aviation, processing freight and aircraft maintenance hangars. It offers by far the most comprehensive network of routes and frequencies in the region, providing a combination of ‘full service’, ‘low cost’ and ‘hybrid low cost’ airlines. BIA operates scheduled services to a network of UK domestic and European destinations and is the only airport in the region to offer long haul passenger services to destinations in the USA, the Middle East and the Asian Sub-Continent. It also provides a large variety of charter passenger services.

Being at the centre of the national motorway system, BIA enjoys excellent surface access by road, principally via the M42 and the A45. BIA’s unique location means that it can serve the entire ‘Midlands Region’, but also attract significant numbers from a wider catchment area including Central Wales and the Bristol Gloucester Sub Region. It should be recognised that eight million people live within one hour travel time of BIA. The figures overleaf highlight regional accessibility to the airport (and NEC) site by car and public transport.

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86 Birmingham International Airport ‘Airport Master Plan: Towards 2030: Planning a Sustainable Future for Air Transport in the West Midlands’ (2007), Birmingham Airport Company
Figure 7.8 Car Accessibility to BIA

15 Minute Isochrones from the NEC/Birmingham International Airport - AM Peak Inbound

Corridor of Interest
CJAMS Isochrones
- 00 Minute Isochrone
- 45 Minute Isochrone
- 90 Minute Isochrone
- 15 Minute Isochrone
- Isochrone Limits

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The airport also has an excellent rail link via the WCML – there is an interchange between Birmingham International Station and BIA via the Air-Rail Link people mover system.

Since 2000, numerous significant transport developments have been funded by the Airport Company, including a new bus and coach terminus at the airport, the new A45 inbound/ outbound access roads, local bus services, the introduction of real time bus, rail and highway information and the enhancement of the staff Travelwise scheme. In addition, following the completion of Coleshill Parkway railway station in 2007, 15 minute bus services have been established between the station and BIA, subsidised by Warwickshire County Council. The importance of Junction 6 operating effectively and efficiently is well recognised by BIA in its Master Plan and Airport Surface Access Strategy.

7.6.1.2 Coventry Airport
Coventry Airport does not currently function as a passenger airport. It has a 2008m runway, but a recent planning application for expansion to include permanent passenger facilities was rejected, and refused on appeal. The airport is primarily accessed from the A45. The nearest railway station is Coventry; an hourly bus service operates between the station and the airport, which takes 15 minutes.

7.6.2 Current and Forecast Demand
BIA’s growth of passenger numbers has been relatively steady over the last couple of decades. Its share of the UK market has increased from 2.9% in 1986 to 3.9% in 2006. BIA is currently the sixth largest in the UK (the second largest outside London); in 2006 it handled over 9.1 million passengers and 109,000 Air Transport Movements in 2006. BIA’s share of the Midlands’ regional market is currently estimated to be 36%.

The Future of Air Transport White Paper identified that, in the year 2000, less than half of the passengers travelling to or from the Midlands used one of the three main airports in the region. To ‘claw back’ some of this passenger leakage and reduce the number of unsustainable long-distance journeys to airports outside the region it highlighted that a wider range and greater frequency of services should operate out of the West Midlands. It was concluded that an extension to the existing runway was required at BIA and also suggested the need for a new runway before 2030 to meet the expected growth in demand.

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88 The three main airports within the Midlands Region are BIA, Coventry and Nottingham East Midlands Airport
Figure 7.9 Public Transport Accessibility to BIA
The runway extension is one of the region's Transport Priorities (currently listed as second to the Birmingham New Street Gateway Project). It is regarded as 'critical' to the region's future competitiveness and underpinning Birmingham’s role as a global city. The extension is a key scheme in the Airport Master Plan\(^9\); the Airport Company submitted a planning application in 2008 to take the plans forward. Also included within the Master Plan are proposals for a third passenger terminal and further airside and landside facilities. The proposed runway extension is expected to realise the following step changes in terms of demand at BIA:

- Share of the Midlands market is forecast to grow from 36% to 57% by 2030
- Share of the UK passengers market is expected to rise from 3.9% to 5.8% by 2020.
- By 2030, air passenger numbers are forecast to be 155% higher than in 2006, even without any runway extension. The runway extension will add a further 17% to this.

Passenger numbers at Coventry Airport are currently negligible following withdrawal of commercial passenger flights. In 2006 Coventry’s annual passenger count was just over 610,000, whilst its freight throughput was 12,272 tonnes. The airport reported nearly 62,000 Air Transport Movements. In 2007, however, Coventry had an application to build a new terminal, able to accommodate 2 million passengers per annum, turned down by the Secretary of State for Communities and Local Government. The primary reasons for refusal were:

- Impact of noise on the local community
- The potential diminishing of the airport’s role as complementary to BIA
- Inability to meet sustainability objectives in terms of reducing the need to travel to the airport by car

The airport sought to appeal but was unsuccessful in the process.

### 7.7 Strategic Conclusions

The strategic conclusions that can be drawn from the review of the transport characteristics of the M42 Corridor Growth Area are:

- Some of the region’s most strategic economic assets, including BIA, the NEC, Birmingham Business Park, Blythe Valley Business Park, Land Rover and Solihull Town Centre are all situated adjacent or in close proximity to the M42. The stretch of the M42 between Junctions 3 and 7 has however been identified as a current and future congestion ‘hotspot’.

\(^9\) It should be noted that the Master Plan does not include proposals for a second runway.
• Planned development at several sites in and around the M42 Corridor Growth Area, including at BIA and the NEC, as well as a growth in through traffic are cumulatively expected to increase demand for use and congestion of the M42, particularly around Junction 6.

• Car remains by far the most dominant form of transport in the West Midlands. Each of the metropolitan boroughs in the region is forecast to be the destination of 15% more car trips and over 10% more public transport trips by 2021. Solihull is expected to witness particularly high increases at 34% and 43% respectively.

• Each of the strategic economic assets within the M42 Corridor Growth Area is served by at least two bus services. Services to BIA and the NEC are particularly numerous, although north/south connectivity remains poor, particularly in relation to Solihull Rail Station.

• The regional rail network is based around the WCML, with frequent and direct links to locations all around the country. There are now five railway stations within the M42 Corridor Growth Area, the most significant of which is Birmingham International Station. This is a significant destination, parkway and interchange station. It accommodated nearly 2.5 million passengers during the financial year 2006/07. Solihull Rail Station is valuable for commuter services but offers less attractive long-distance connections and is not well connected to regional assets.

• BIA, located within the M42 Corridor Growth Area, is the region’s principal airport offering Domestic, European and Long Haul flights. Its passenger numbers have risen steadily over the past two decades; it handled over 9.1 million passengers in 2006.

• Extension of the runway at BIA is one of the Regional Transport Priorities and is supported by the Future of Air Transport White Paper. The Airport Company submitted a planning application for the runway extension in 2008 and the Solihull MBC Planning Sub-Committee is understood to be “minded to approve” the application. BIA believes that the runway extension would enable it to take a significantly higher share of its regional passenger market.
8.0 Infrastructure Constraints

8.1 Introduction

This section of the report provides an overview of the principal infrastructure constraints within the M42 Corridor Growth Area with a focus on the transport network between Junction 3A and Junction 7 of the M42, the area of the M42 Corridor Growth Area where the principal transportation impacts may be expected to occur.

8.2 Consideration of Principal Constraints

This section aims to consider the issues and constraints that could influence any development of infrastructure within the M42 Corridor Growth Area. At a general level, it is recognised that development of infrastructure would need to have due regard to factors such as Green Belt policy and equally, at any detailed design level, consideration would need to be given to factors such as the location of 'stats' and Tree Preservation Orders (TPOs).

The following are identified as the principal constraints to any development of the existing infrastructure:

- **Infrastructure and Transport** – Bridges, underpasses, overpasses, watercourses, other transport infrastructure.
- **Land Use** – Particularly significant built up development and other buildings.
- **Environmental** – Statutory constraints including local nature reserves, biosphere reserves, national nature reserves, special protection areas, special areas of conservation, sites of specific scientific interest, areas of outstanding natural beauty and environmentally sensitive areas.
- **Utilities** – electricity, gas, water and waste

8.3 Junction 3A to Junction 4

Junction 3A is the interchange of the M42 and M40 Motorways. Junction 4 is a grade separated junction with the A34 Stratford Road. Figure 8.1 shows the infrastructure constraints within this section of the M42 Growth Corridor Area.

8.3.1 Infrastructure and Transport

Junction 3A is a free flow diverge-merge interchange. The junction comprises of elevated sections and any need to upgrade this component of the infrastructure would incur substantial costs. Approximately 0.7 miles north of Junction 3A (close to Ilshaw Heath), the M42 Motorway passes over the Stratford-upon-Avon Canal and School Road. This is a significant bridge structure.

Junction 4 is a grade separated roundabout junction with the M42 passing under the junction. On
and off slips exist enabling full movement. Junction 4 is a fully signalised roundabout junction and there is limited opportunity to develop Junction 4 further (without substantial cost penalties). The M42 under Junction 4 is also constrained by the retaining structure for Junction 4. There is approximately 2.5 miles between Junction 3A and Junction 4. The opportunity for any new junction between Junction 3A and Junction 4 is in part prohibited by this spacing (the need for the space for the junction, on and off slips etc would make the likelihood of any new junction remote). Between the two junctions there are a further three road bridges that pass either under or over the M42 and a pedestrian bridge.

8.3.2 Land Use

There are no significant land constraints (buildings) over this section of the M42 Growth Corridor Area. Generally, there are no major buildings within 100 metres of the M42 motorway.

8.3.3 Environmental

There is a scheduled monument at Salter Street Farm (moated site and fishpond).

8.4 Junction 4 to Junction 5

Junction 5 is a grade separated junction with the A41 Solihull Bypass. Figures 8.1 and 8.2 show the infrastructure constraints within this section of the M42 Corridor Growth Area.

8.4.1 Infrastructure and Transport

Junction 5 is a grade separated roundabout junction with the M42 passing under the junction. On and off slips exist enabling full movement. The M42 under Junction 5 is constrained by the retaining structure for Junction 5. Approximately 1 mile north of Junction 4 the M42 passes under a rail bridge. There is approximately 2.4 miles between Junction 4 and Junction 5. Again, the opportunity for any new junction between Junction 4 and Junction 5 is in part prohibited by this spacing (the need for the space for the junction, on and off slips etc would make the likelihood of any new junction remote). Between the two junctions there is one further road bridge that passes over the M42, a pedestrian bridge that passes over the M42 and the River Blythe passes under the carriageway. Overhead power cables run parallel to the western side of the M42 between Widney Manor Rail Station and Junction 5.

8.4.2 Land Use

There are a number of properties (commercial and residential) in close proximity to M42 Junction 5.

8.4.3 Environmental

The River Blythe runs in close proximity to the M42 between Junction 4 and Junction 5. The River Blythe is designated a Site of Special Scientific Interest. There is a scheduled monument at Tilehouse Green (moated site) and a local nature reserve at Jobs Close, Tilehouse Green.
8.5 Junction 5 to Junction 6

Junction 6 is a grade separated junction with the A45 Coventry Road. Figures 8.2 and 8.3 show the infrastructure constraints within this section of the M42 Corridor Growth Area.

8.5.1 Infrastructure and Transport

Just to the east of M42 Junction 5, there are local roads that run parallel to the main carriageway of the M42 motorway. On the north side of the M42, Ravenshaw Way and Barston Lane run within 20 to 40 metres of the carriageway for approximately 0.4 miles. On the southern side of the M42, Jacobean Lane / Barston Lane run within 10 metres of the carriageway for a length of 0.7 miles. Junction 6 is a three level grade separated signalised roundabout. There is limited opportunity to develop Junction 6 further within the existing design layout. Immediately to the south and west of Junction 6, the M42 and the A45 Coventry Road pass over the West Coast Main Line. In close proximity to M42 Junction 6 on the A45 Coventry Road are two further grade separated junctions – Clock Roundabout (and the airport access roads) and Stonebridge Roundabout. These are potential constraints to any development of Junction 6. Between the two junctions there are a further five road bridges that pass either under or over the M42, a pedestrian bridge and a bridge over the River Blythe. Overhead power cables also run parallel to the M42 between Junction 5 and Junction 6 on both the east and west sides of the carriageway. Critically, the power lines cross the M42 close to the northbound off slips and the West Coast Main Line as it passes under the M42.

8.5.2 Land Use

There are a number of properties (commercial and residential) in close proximity to M42 Junction 5. There are further residential properties adjacent to Barston Lane. There are a number of land use constraints adjacent to Junction 6 including residential properties, the NEC, BIA, Birmingham International Station and the Motorcycle Museum. In addition, Aerodrome Safeguarding is a constraint on any development within this area.

8.5.3 Environmental

There are a number of environmental constraints including: Bickenhill Meadows (site of special scientific interest); Catherine De Barnes Common (registered common land); Moated site at Eastcote Hall (scheduled monument); Moated Site at Moat House (scheduled monument); River Blythe (site of special scientific interest); and, Malvern & Brueton Park (local nature reserve).

8.6 Junction 6 to Junction 7

Junction 7 is the interchange of the M42 and M6 motorways. Figure 8.3 shows the infrastructure constraints within this section of the M42 Corridor Growth Area.

8.6.1 Infrastructure and Transport

Junction 6 is a three level grade separated signalised roundabout. There is limited opportunity to develop Junction 6 further within the existing design layout. Junction 7 is a free flow diverge-merge.
interchange. The junction comprises of elevated sections and any need to upgrade this component of the infrastructure would incur substantial costs. Some 1.4 miles north of Junction 6 is the junction of the A452 Chester Road and the A446. There is no interchange between the M42 and the junction. Between Junction 6 and the junction of the A452 Chester Road and the A446, Northway runs parallel to the western edge of the M42. Between Junction 6 and Junction 7 there is one further over bridge. Overhead power cables also run parallel to the M42 between Junction 6 and Junction 7 and critically, the power lines cross the M42 carriageway immediately north of Junction 6 and again either side of the junction of the A452 Chester Road and the A446.

8.6.2 Land Use

To the west of the M42 is the NEC car parks and Birmingham Business Park. There is also some commercial uses close to the main line of the motorway.

8.6.3 Environmental

There is a site of special scientific interest at Coleshill and Bannerly Pools.

8.7 Utilities

Other infrastructure considerations include the availability of utilities (gas, water, electricity etc). It is not possible to undertake a full assessment of the requirement for utilities as these are heavily dependant on end users and the submission of detailed plans of development within the M42 Corridor Growth Area. However, work undertaken by Mott MacDonald for the WMRA considered the strategic implications of the RSS and concluded:

- The main utilities (gas, electricity and telecommunications) are all considered to have adequate capacity to meet emerging demand.
- Development of new water resources, treatment and distribution infrastructure will be required in the future to serve the projected housing demand, although the analysis did not consider more localised capacity constraints.
- There is also the need to develop housing in locations which are not protected or at risk of flooding, as well as ensuring the necessary enabling infrastructure is provided as part of the development process.

There are a plethora of utilities services that run across the M42 Corridor Growth Area. Of particular note is the proximity of an Esso oil pipeline which is located on the northbound side of the M42 Motorway between Junction 3A and Junction 5 at a distance of between 10 metres and 70 metres. Additionally, a gas pipeline is located on the northbound side of the M42 Motorway between Junction 4 and the Widney Manor rail line at a distance of between 30 metres and 70 metres. Any detailed design of mitigation measures would require further consideration of issues with regard to services and potential impact.
Figure 8.1 Infrastructure Constraints Junction 3A to 4
Figure 8.2 Infrastructure Constraints Junction 4 to 5
Figure 8.3 Infrastructure Constraints Junction 6 to 7
8.8 **Strategic Conclusions**

The strategic conclusions that can be drawn from the review of infrastructure constraints are:

- There are constraints to development in the M42 Corridor Growth Area within the transport network with regard to the proximity of buildings, aerodrome safeguarding, restrictions such as power lines, rail lines, structures and water courses.

- Utilities, other than water, are not expected to represent fundamental constraints although this does not mean that as details of development come forward site specific constraints will not be identified and costs incurred.

- Physical location of services will need to be carefully considered with regard to any detailed design of infrastructure proposals.

- The concerns regarding water are more significant and need to be the subject of more detailed study as development plans emerge with an emphasis on the end user.
# 9.0 Development Scenario

## 9.1 Introduction

This section of the reports explores the constraints and opportunities for economic, residential and transportation development in the M42 Corridor Growth Area and sets out an indicative scenario for its future development. It draws extensively on debate and discussions at a series of stakeholder workshops designed to explore, test out and arrive at a potential development scenario for the area. It should be noted that this section of the report only outlines the general framework behind the indicative development scenario – more specific detail in respect of the assumptions that underpin it are provided in the subsequent sections of the report which assess the economic, housing and transport impact of the development scenario. Similarly, in framing the development scenario due cognisance has been taken of more broadly identified infrastructure constraints – as reported in the previous section of the report.

## 9.2 Developing Scenarios

It is not the purpose of a scenario exercise to predict an actual future. Rather, it is about the use of best evidence and knowledge of trends to outline possible futures, and to further identify and highlight strategic interventions or investments which could make a difference – in terms of stimulating or unlocking future potential, or taking advantage of economic, housing and transport opportunities.

Given that events are uncertain, it is important to view scenarios as indicative of things that could happen, based on a range of available evidence, rather than a clear projection of what will happen, given the inherent unpredictability of forecasting techniques.

In developing an indicative development scenario (and alternative comparative development scenarios) for the M42 Corridor Growth Area a range of documentary evidence together with consultations with stakeholder to define key drivers and determine underlying scenario logics has been drawn upon. The results of this process have then been further tested and refined with stakeholders through a series of iterative stakeholder workshops.

## 9.3 Economic Constraints and Opportunities

The M42 Corridor Growth Area has experienced significant economic growth in recent years, with this having been driven by a number of socio-economic factors, including connectivity potential (domestic and international), access to a skilled workforce, enterprise, and quality of life attractors. Going forward, prospects for further growth and economic expansion would appear strong, with significant development opportunities likely to arise in connection with the corridor's strategic economic assets. However, there are also a range of barriers and constraints to the realisation of the development potential of each of the strategic economic assets.
9.3.1 Birmingham International Airport

Future growth proposals for the airport are set out in the Airport Master Plan. Most significantly, the Master Plan proposes an extension of the existing runway, to develop the Long Haul sector. On the basis of the development proposals in the Master Plan it is forecast that passenger numbers will treble from the current level of 9.2 million to 27.2 million passengers per annum in 2030. Notably, the short-haul international and 'no frills' sectors are forecast to continue the strong growth exhibited in recent years. The proposed addition of more Long Haul destinations is also forecast to contribute significantly to the growth in activity, particularly by satisfying currently constrained demand for these destinations and retaining passengers currently using other airports. Indeed, it is forecast that BIA's share of the Midlands' regional market will increase from 36% to 57% by 2030. The charter and domestic sectors, on the other hand, are relatively mature and are not forecast to grow as fast as the other sectors.

The Master Plan identifies a number of specific development investments which will be required if BIA is to satisfy the forecast demand for air transport:

- An extension to the existing main runway.
- Additional airfield capacity.
- Additional terminal capacity.
- Additional airside facilities to support activities at the airport.
- Additional landside facilities to support activities at the airport.
- Improvements to surface access for the airport, by all modes.
- Development of the Elmdon Terminal Site where business aviation, aircraft maintenance, freight facilities and facilities for preparing in flight catering are provided, together with BIA air traffic control facilities.

Whilst the Future of Air Transport White Paper suggested that a new second runway may be needed at BIA around 2016, the Master Plan proposes that a second runway should not be needed before 2030. Proposals for a second runway are therefore not included in the Master Plan. Should projected growth proceed in accordance with Master Plan forecasts, by 2030 it is estimated that BIA will support a total of 19,090 jobs (including multiplier impacts). The table below provides a summary of the development opportunities and barriers and constraints associated with BIA.

### Table 9.1 Potential Development Opportunities and Constraints at BIA

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Barriers and Constraints</th>
</tr>
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<tbody>
<tr>
<td>Already one of the West Midlands' largest employers, the scale of additional</td>
<td>The expansion of the Airport is likely to occur within the context of a primary labour</td>
</tr>
<tr>
<td>employment opportunities and income generation connected to expansion at the</td>
<td>market catchment area that will remain relatively tight. Going forward, it may be</td>
</tr>
<tr>
<td>Airport can be expected to increase significantly, in line with future growth</td>
<td>difficult to secure the required labour with the appropriate skills and at competitive</td>
</tr>
<tr>
<td>proposals. According to the BIA</td>
<td>wage rates. A further potential threat to securing the necessary labour supply is the</td>
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<tr>
<td></td>
<td>fact that if the expansion of other assets occurs, they will be also be seeking a labour</td>
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130  ECOTEC  M42 Growth Corridor
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<thead>
<tr>
<th>Opportunities</th>
<th>Barriers and Constraints</th>
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<tbody>
<tr>
<td>Masterplan of 2007, the development proposals will directly and indirectly support 2,770 full time equivalent jobs in the West Midlands region, and generate £60 million of income at 2006 prices.</td>
<td>Future growth proposals would require acquisition of land currently outside the Airport Company’s ownership, including land to the south of the A45 Coventry Road for the proposed extension to the main runway and related infrastructure; and the NEC Western Car Park for the proposed expansion of the passenger terminal facilities and related infrastructure.</td>
</tr>
<tr>
<td>With an extension of the main runway, existing, new and emerging markets in the Asian Sub-Continent, South East Asia, China, the Far East, the Pacific Rim and South Africa could be served, together with the Canadian Mid West and the West Coast of Canada, and West USA and the West Coast of the USA. Importantly, enhanced connectivity can be expected to enable indigenous businesses to better access expanded international markets and connect potential overseas investors to the West Midlands region.</td>
<td>Once the maximum capacity of the current passenger terminals has been exhausted, it would be necessary to develop a third passenger terminal. On an incremental basis, this new facility would need to be developed to accommodate a throughput of 9 million passengers per annum by 2030. On the basis of forecasts the Phase 1 of a third passenger terminal would need to be completed by 2018 (Phase 2 completion by 2025) but it is included in the Master Plan.</td>
</tr>
<tr>
<td>The Airport’s strategic location in relation to the national motorway system - including the M1, M5, M6, M40 and the M42 – means that some 8 million people reside within a one hour travel time to BIA (36 million within a two hour travel time).</td>
<td>The fact that Birmingham International Airport and Coventry Airport will continue to use the same airspace, may lead to potential conflicting demand for access and consequently delays to some traffic at peak periods, should Coventry Airport continue to develop.</td>
</tr>
<tr>
<td>The planned improvements to BIA, earmarked in the Master Plan and the Airport Surface Access Strategy, could also generate opportunities for improving surface access to the airport by public transport, particularly bus, coach and rail. Any resultant improvements in public transport provision would then present opportunities for the increased usage of public transport.</td>
<td>Junction 3 to 7 on the M42 has been identified as a current congestion hotspot, with this predicted to remain the case over the next decade. Future growth proposals at BIA, together with economic development taking place elsewhere in the Corridor, can be expected to exacerbate pressure on this already congested stretch, especially at Junction 6, unless traffic restraint measures are introduced.</td>
</tr>
<tr>
<td>Improvements to WCML and Birmingham International an opportunity to deliver better surface access to BIA</td>
<td>Interestingly, past assessments undertaken in 2007 suggest that the proposed runway extension may, in of itself, directly add relatively little additional traffic to M42 Junction 6 over the medium to long term. Nevertheless, total traffic at M42 Junction 6 is forecast to grow by 36% between 2006 and 2017 during the AM peak period and 26% during the PM peak period. The most significant influence may relate to ‘background’ traffic, itself heavily conditioned by cumulative development effects.</td>
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<td></td>
<td>To cater for the anticipated increase in passenger numbers, there is a need to explore potential means of increasing the frequency of rail services from Birmingham International Station and levels of capacity on the services, particularly early mornings, evenings, late nights and weekends (especially Sundays. Finite timescales of rail franchises (Virgin) currently serves to inhibit infrastructure investment in stations, together with significant increases in service supplies with similar skills to those required by BIA (e.g. customer service, catering and cleaning).</td>
</tr>
</tbody>
</table>
There is a need to increase the capacity and resilience of the rail network serving Birmingham International Station. Any future "four tracking" of the West Coast Mainline between Rugby and Birmingham could help address this issue.

A further requirement is to physically improve and modernise Birmingham International railway station, as the main public transport gateway to BIA, the NEC and wider M42 Corridor: specifically to help enhance the 'visitor experience' of BIA and the NEC, and more generally to improve Corridor image to visitors and investors.

### 9.3.2 National Exhibition Centre

The NEC is currently in the process of developing a draft master plan directed at modernising existing facilities on the site, together with expanding its range of uses. The model for the Destination NEC master plan seeks not only to maintain the NEC’s competitive position in the market place for hosting major international events, but to significantly grow the economic benefit to the West Midlands region. The NEC intends to widen its product offer to encompass a considerable range of major leisure and entertainment uses alongside an expanded work appeal. The draft master plan is currently in development, but will seek to extract much greater economic wealth creation from the full estate of the NEC. The intention is that the NEC will fulfil its 'work, rest and play' ambitions to create a true 'destination'. In summary, the objectives of Destination NEC are to:

- Maximise the commercial opportunities of the current footfall by enhancing activities – thereby increasing customer dwell time on the site.
- Creating new footfall by introducing new facilities as a further attractor to the site.
- Deliver a more compelling sense of arrival to the region.
- Increasing reputation and brand of NEC and the region through partnerships.
- Deliver a site that has broad appeal across ages, culture, socio-demographics.

The table below summarises development opportunities and constraints and barriers in relation to the NEC.
### Table 9.2 Potential Development Opportunities and Constraints at the NEC

<table>
<thead>
<tr>
<th>Development Opportunities</th>
<th>Barriers and Constraints</th>
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<tbody>
<tr>
<td>Commencing in September 2008, the NEC (LG) Arena will benefit from a £29 million refurbishment. The Arena's refurbishment is due to be completed in 2009.</td>
<td>A shortage of late night rail services currently an issue for some attendees at Arena events, and therefore restricting levels of potential additional spending and audience reach.</td>
</tr>
<tr>
<td>Phase One: Destination NEC will involve developing a leisure and entertainment complex on a four-acre site. A gaming element is proposed to comprise 10% of this new development; Other elements will include a new hotel, conferencing and banqueting, spa, and other leisure facilities, as well as additional bars and restaurants; The new development is expected to attract £90 million in investment; The Phase One development scheme could potentially be completed by 2012, subject to the SMBC/DCMS Licensing process; Phase One is expected to create approximately 1,000 direct new jobs.</td>
<td>Planning objections could serve to restrict the scope and scale of future developments. As stated in Table 1, a requirement to physically improve and modernise Birmingham International railway station, as the main public transport gateway to the NEC, BIA and wider M42 Corridor: specifically to help enhance the 'visitor experience' of the NEC, and more generally to improve Corridor image to visitors and investors. There is a need to explore potential means of increasing the frequency of rail services from Birmingham International Station and levels of passenger capacity on these services, particularly at evenings and weekends (especially Sundays, given that this is when the NEC often receives its highest share of visitors). Finite timescales of rail franchises (Virgin) currently serves to inhibit infrastructure investment in stations, together with significant increases in service frequencies. Arguably, NEC is poorly served at present in terms of 'seamless' linking of exhibitions and associated activities to transport provision and entertainment facilities (relative to other venues in mainland Europe). In part this may relate to organisational complexities and financial constraints amongst public sector partner organisations. Therefore, addressing this issue would require significant engagement from city and regional-level organisations operating in these fields.</td>
</tr>
<tr>
<td>Phase Two: Destination NEC Expansion will involve the further enhancement of the NEC's work appeal, and development of the estate's leisure and entertainment uses. It will also reinforce the NEC's competitive position in the market place for hosting international events. The outline Destination NEC plans suggest that Phase Two developments will focus on both the corporate and consumer markets, and potential developments could include</td>
<td>Failure to proceed with Master Plan at BIA could serve to limit the future competitiveness of the NEC on an international level. Enhanced competition from other exhibition facilities in the UK, Europe and Middle East could present a threat to the long-term success of NEC growth ambitions (including ExCeL). Transport connectivity and accessibility potential of NEC likely to remain critical factors. Notwithstanding ATM, the inability of the M42 to cope with</td>
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http://www.necgroup.co.uk/aboutus/insidethegroup/ourfuture/destinationnec/
<table>
<thead>
<tr>
<th>Development Opportunities</th>
<th>Barriers and Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>conferencing and training facilities, enhanced exhibition space, and start-up units.</td>
<td>anticipated increases in levels of road traffic could act as a serious constraint (NB. many exhibitors, suppliers and contractors are necessarily depend on road travel).</td>
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<td></td>
<td>Anticipated background traffic growth at M42 Junction 6 of 36% between 2006 and 2017 may restrict transport access to the NEC.</td>
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<tr>
<td></td>
<td>Capacity and resilience of the rail network serving Birmingham International Station.</td>
</tr>
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<td></td>
<td>Planning objections to Phase Two, possibly relating to concerns over perceived displacement affects (Solihull town centre), may constrain development plans.</td>
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<tr>
<td>Phase Two has the potential to create substantial numbers of new direct and indirect jobs.</td>
<td>Finding a ready supply of workers possessing the necessary skills to fill new vacancies may represent a notable challenge. Requirement for custom training initiatives directed at further helping local residents to access jobs opportunities, together with expanded linkages with training and educational providers (e.g. NEC currently has close linkages with catering colleges, and BCU for selected technical skill sets).</td>
</tr>
<tr>
<td>Creation of a considerable range of further accessible employment opportunities connected to new leisure and entertainment facilities: hospitality, catering and customer service.</td>
<td>As stated in Table 1, competition to the current supply of service sector workforce may be an issue in light of the significant increased requirements for BIA as their Master Plan is realised (e.g. additional cleaning, catering and security staff).</td>
</tr>
<tr>
<td>As part of the East Birmingham North Solihull Regeneration Zone plans, BIA, the NEC, and other key Corridor assets are committed to further improving bus services to serve Regeneration Zone residents, and residents of Birmingham and Solihull who work on the sites of the M42 key assets.</td>
<td></td>
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<tr>
<td>Creation of substantial wider wealth generation for the region, through the creation of a unique national scheme.</td>
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9.3.3 Birmingham Business Park

The planned expansion of Birmingham Business Park has the potential to further attract businesses and employers from a range of priority sectors to the M42 Corridor Growth Area. Expansion of the Business Park may also be considered an important further opportunity in relation to the on-going regeneration of North Solihull, both in terms of the provision of new employment opportunities, and improvements in public transport provision. The proposed expansion of the Business Park would consist of two phases that would significantly diversify the range of uses on the site.
An outline planning application for Phase One of the business park expansion was originally submitted in November 2006, following six months of pre-planning application consultation. Despite a Planning Committee Report submitted in July 2007 recommending approval of the planning application, the application was subsequently refused by SMBC.

A principal reason for refusal of the planning application centred on the view that the likely regeneration impacts for the local population were not considered sufficiently high to justify the development, especially on a site which had been earmarked for Green Belt land. Following an Appeal lodged by the developers, an eight day public enquiry took place in June 2008. This has subsequently upheld the decision of SMBC. The table below provides a summary of key development opportunities and potential constraints in relation to the Birmingham Business Park.

**Table 9.3 Potential Development Opportunities and Constraints at the Birmingham Business Park**

<table>
<thead>
<tr>
<th>Development Opportunities</th>
<th>Barriers and Constraints</th>
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<tbody>
<tr>
<td>The planned extension of Birmingham Business Park is scheduled in two phases.</td>
<td>Plainly, an obvious and immediate barrier to realising the growth potential of Birmingham Business Park relates to the securing of planning permission. Given that the development site is earmarked for Green Belt land, it can be expected that planning approval will be dependent to a considerable extent on the scale of prospective local regeneration benefits.</td>
</tr>
<tr>
<td>Phase One of the planned extension relates to a new mixed use development of 41,790 square metres in total, which would create 1,809 direct jobs and 270 indirect jobs. Subject to the extension receiving planning consent, each individual proposal has a different completion date. The proposals include:</td>
<td>In common with the proposed NEC expansion plans, one factor potentially restricting the impacts of the Business Park expansion could relate to the extent to which local residents possess the necessary skills to access new job opportunities. To help address this issue, certain SMBC posts may be developer funded to establish the skills requirements of inward investors, and to work with training providers to ensure that skills requirements are met. Some business support workers would also be based at the Innovation Centre.</td>
</tr>
<tr>
<td>25,450 square metres of B1 offices, of which:</td>
<td></td>
</tr>
<tr>
<td>3,825 square metres could be completed by January 2011, creating 191 direct jobs and 29 indirect jobs;</td>
<td></td>
</tr>
<tr>
<td>14,050 square metres could be completed by January 2013, creating 894 direct jobs and 134 indirect jobs;</td>
<td></td>
</tr>
<tr>
<td>3,450 square metres could be completed by January 2014, creating 173 direct jobs and 26 indirect jobs;</td>
<td></td>
</tr>
<tr>
<td>4,125 square metres could be completed by January 2015, creating 206 direct jobs and 31 indirect jobs.</td>
<td></td>
</tr>
<tr>
<td>An Innovation Centre (3,750 square metres of B1 office units, due for completion in January 2011) to house business start-ups (this is intended to help reduce the low levels of enterprise prevalent in East Birmingham and North Solihull, creating 123 direct jobs and 18 indirect jobs);</td>
<td></td>
</tr>
<tr>
<td>The provision of grow-on units to support businesses graduating from the Innovation Centre (this 3,825 square metre B1 development is expected to create 191 direct jobs and 29 indirect jobs);</td>
<td></td>
</tr>
<tr>
<td>Development Opportunities</td>
<td>Barriers and Constraints</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Three five-a-side football pitches (165 square metres, due for completion January 2011, which would create three direct jobs);</td>
<td></td>
</tr>
<tr>
<td>3,750 square metres of hotel and restaurant facilities (due for completion in January 2011), which would create 114 direct jobs and 17 indirect jobs);</td>
<td></td>
</tr>
<tr>
<td>1,350 square metres of retail space (due for completion in January 2011), which would create 53 direct jobs and 7 indirect jobs);</td>
<td></td>
</tr>
<tr>
<td>A 200 square metre crèche (due for completion in January 2011), which would create 10 direct jobs and 2 indirect jobs);</td>
<td></td>
</tr>
<tr>
<td>3,300 square metres of Sui Generis work studios (due for completion in January 2011), which would create 42 direct jobs and 6 indirect jobs;</td>
<td></td>
</tr>
<tr>
<td>A bus interchange, with 50 new services per hour accessing the Business Park, offering reduced fares for Regeneration Zone residents.</td>
<td></td>
</tr>
</tbody>
</table>

Phase Two of the extension of Birmingham Business Park would involve the development of 47.5 acres of land, of which 21.7 acres are owned by Goodman and 25.8 acres which Goodman has under option to Development Securities. The exact proposed land uses for this Phase are not yet known. However, if planning permission were granted for Phase Two, the development of a second general vehicular access road into the Business Park would be possible. It is anticipated by Goodman that Phase Two of the Business Park extension would further broaden the mix of uses, and could potentially include logistics/warehouse development, residential development, and educational facilities. It is anticipated that, subject to planning policies, some of the development could have been delivered simultaneously with Phase 1 of the expansion.

9.3.4 Blythe Valley Business Park

Blythe Valley Business Park is currently home to a number of large corporate occupiers, including Regus, Ove Arup, UK Athletics, Vodafone, and British Gas. In common with Birmingham Business Park, Blythe Valley Business Park has aspirations to expand, with developers scheduled to submit plans for expansion in late 2008. In total, the Business Park contains 2 million sq ft of space that has received outline planning consent, of which 600,000 sq ft has already been developed. Liberty Property Trust anticipates that the remaining 1.4 million sq ft would be developed by 2023. Based
on national guidelines of employment densities of 1 employee per 170 sq ft\textsuperscript{91}, the expansion could potentially create more than 8,000 jobs by 2023. The table below illustrates the key development opportunities and constraints associated with the Blythe Valley Business Park.

### Table 9.4 Potential Development Opportunities and Constraints at the Blythe Valley Business Park

<table>
<thead>
<tr>
<th>Development Opportunities</th>
<th>Barriers and Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outline planning consent exists for the development of a further 1.4 million sq ft of floorspace. Although the precise uses of the potential future developments have not been published, it is anticipated that the future expansion would essentially be targeted at high-tech sectors (including ICT) and professional/financial services. Blythe Valley Business Park already possesses a number of on-site amenities, including a gymnasium and park facilities.</td>
<td>Public transport connectivity will need to further improve between Birmingham International and Solihull railway stations and Blythe Valley Business Park if growth opportunities are to be fully realised. Highlights the desire for a metro system linking the railway stations and the key assets?</td>
</tr>
<tr>
<td>Restrictions placed on the number of on-site car parking spaces could represent a development issue on account of many employees likely to continue to remain dependent on cars for work travel.</td>
<td>The need to attract a skilled labour force from outside the M42 Corridor, in the event that a sufficiently large labour force with the appropriate skills does not exist locally.</td>
</tr>
<tr>
<td>Viewed more widely, the M42's on-going future capacity to handle additional traffic volumes.</td>
<td>The success of such mixed use developments may be dependent on wider culture changes taking place (including the willingness of people to live in close proximity to their place of work).</td>
</tr>
<tr>
<td>Future phases of the Business Park's expansion may be expected to include the development of food, retail facilities and a hotel.</td>
<td></td>
</tr>
</tbody>
</table>

#### 9.4 Solihull Town Centre

Solihull Town Centre has recently undergone considerable expansion reflecting its role as a key sub regional centre within the West Midlands, with the town centre having experienced pronounced growth, particularly in the consumer service sectors. The Solihull UDP is supportive of further development in Solihull Town Centre, and notes that the Council will support proposals that will '

\textit{...maintain or strengthen the function of the town centre in offering a wide choice of shops, employment and leisure...}'. The table overleaf summarises key future opportunities, together with the barriers and constraints impacting on Solihull Town Centre.

Table 9.5 Potential Development Opportunities and Constraints at Solihull Town Centre

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mell Square could provide a major catalyst for securing further physical and environmental improvements within the town centre.</td>
<td>There is a lack of road capacity within the town centre to accommodate additional traffic.</td>
</tr>
<tr>
<td>Extension of the Touchwood Shopping Centre (with Mell Square), could serve to maintain and enhance the quality of Solihull's future retail offer.</td>
<td>Access to suitably qualified labour will be a principal requirement and in this context there remain some key barriers to the employability of local people in parts of the M42 Corridor.</td>
</tr>
<tr>
<td>Whilst retail activity has been the principal impetus for growth in the town centre, opportunities for office, leisure and residential expansion would appear to be strong and could support new retail development.</td>
<td>In order to successfully respond to and better harness growth opportunities it will be contingent on Solihull MBC and other local partners to ensure that an appropriate planning framework for future development is in place as a basis for setting the underlying conditions for growth in the town centre.</td>
</tr>
<tr>
<td>There is scope to extend the evening economy, through the provision of quality bars and restaurants, and making Solihull a &quot;24 hour destination&quot;.</td>
<td>There is a need to recognise the cheek by jowl relationship of the town centre and residential areas.</td>
</tr>
</tbody>
</table>

9.4.1 Identified Strategic Issues

It is clear from the above that there are major development opportunities associated with the strategic economic assets located in the M42 Corridor Growth Area. As might be expected there are also potential constraints and barriers that could serve to stymie the delivery of these. In addition, and in respect of the framework for the indicative development scenario a number of further strategic issues are also pertinent:

- The need for any future development proposals in the M42 Corridor Growth Area to complement – rather than compete with – planned developments in Birmingham City Centre. The articulated ‘investment offer’ of the M42 Corridor Growth Area therefore, necessarily needs to be appreciable different and distinct to that of Birmingham City Centre.
- A requirement for future economic development within the M42 Corridor Growth Area to accord closely with principal sustainability criteria. A key strategic priority therefore relates to maintaining (and enhancing) the environmental quality of Solihull, not least because a major contributory factor to the corridor’s attraction as a business and investment location relates to the quality of the surrounding environment (with this of particular appeal to high value-added sectors and knowledge workers).
• All future developments relating to the strategic economic assets of the M42 Corridor Growth Area will need to link closely to the on-going regeneration of adjacent disadvantaged communities, principally North Solihull and Birmingham's Eastern Corridor. Economic expansion in the M42 Corridor Growth Area can be expected to generate very considerable job opportunities, with a key objective centred on ensuring that local people are properly equipped to access new employment opportunities. Such outcomes will likely require ensuring the removal of both skills and transport access barriers.

• Future developments must also clearly contribute towards increasing the economic competitiveness of the West Midlands region, and reducing the productivity gap between the West Midlands and overall national average. The development of the M42 Corridor Growth Area's strategic economic assets, together with the growth of knowledge intensive economics sectors, has the potential to make a significant contribution to addressing this issue.

9.5 Housing Constraints and Opportunities

With the emerging policy shift towards more integrated regional strategy bringing together both economic and spatial perspectives it is important that this study gives consideration to the linkages between economic and residential development in the M42 Corridor Growth Area. The potential for significant job creation based on the development of the strategic economic assets can be expected to provide employment opportunities for the existing residents of adjacent communities and provide a source of employment for the residents arising from forecast growth in the number of households in these areas. The focus of the framework behind the indicative development scenario in respect of housing is therefore on Birmingham and Solihull, and more specifically the Eastern Corridor and North Solihull.

9.5.1 Opportunities in Birmingham

Birmingham has experienced recent growth in its resident population with the population of the city forecast to grow significantly over the next two decades: the Birmingham Prospectus\(^2\) has set a 20 year vision to secure long term, sustainable population growth rising to around 1.1 million, although the 2006 based ONS Population Projections point to a slightly higher population of 1,148,000. In order to achieve this level of growth BCC has estimated that the number of households in the city over the next 20 years will increase by over 50,000 requiring provision for around 50,600 properties. This is broadly in line with the Phase Two Revision.

This growth is intended to be matched with increased investment and new employment opportunities. In order to achieve this ambition BCC is looking to focus population and employment related growth in east Birmingham, south west Birmingham, the Urban Living Pathfinder as well as further growth of the city centre. In realising this growth, the city will need to undergo a transformational change to ensure that its existing and new neighbourhoods have the ability to retain and attract residents in order to stem the flow of out migration which Birmingham has experienced over previous decades.

\(^2\) The Birmingham Prospectus, (2007), Be Birmingham Strategic Partnership
BCC has recently produced a Core Strategy Issues and Options Paper\textsuperscript{93} as part of the evolution of its Local Development Framework (LDF). This identifies three broad options for spatial development. The first option looks to continue existing development plan policies and provide an additional 50,000 dwellings by 2026. It is considered that this could be achieved without the re-allocation of employment land and the need for the release of areas of Green Belt. The second option seeks to provide for an increase of between 55,000 and 60,000 dwellings and would provide for a higher level of growth than that suggested in the Phase Two Revision. It would also assist in meeting Birmingham’s growth agenda articulated through its New Growth Point designation but without any significant expansion of the built up area of the city. Under this option the Eastern Growth Corridor would be focus of regeneration activities involving the restructuring of the existing housing stock and the creation of Sustainable Urban Neighbourhoods (SUNs). In the Eastern Corridor, potential locations for neighbourhood development could include Meadoway, Shard End and the Birmingham Wheels site. The third option suggests a significantly higher level of growth of around 65,000 dwellings. This would require expansion of the built up area of the city and the release of Green Belt land.

In seeking to respond to the housing agenda Birmingham has secured New Growth Point status with the Eastern Growth Corridor (which includes both East Birmingham and North Solihull) identified as New Growth Point. Previous work undertaken by ECOTEC indicates that the Eastern Corridor exhibits potential demand for an additional 20,000 households. Parts of the M42 Corridor Growth Area are situated in or in close proximity to the Eastern Growth Corridor and as such there are opportunities here for linking together employment and housing development.

9.5.2 Opportunities in Solihull

Whilst the M42 Growth Corridor Area is an investment priority for SMBC it is clear from the local authority’s policy approach articulated in its regeneration strategies and development plan that there is a need to achieve a balance between achieving and realising the economic potential of the area whilst maintaining and protecting its environmental quality – one of the key factors that makes it an attractive area to live and invest.

Under the current RSS, Solihull has a target of accommodating 8,700 new homes over the period to 2021. The Phase Two Revision increases this to a gross figure (i.e. includes the replacement of demolished properties) of in the region of 12,139 dwellings or a net figure of 7,600 dwellings over the period to 2026. It is understood that SMBC, like Birmingham, will develop a series of broad spatial options to guide development in the borough. One option will be to increase housing provision in the MUA at a level broadly compatible with the level of housing growth set out in the Phase Two Revision and commensurate with its New Growth Point status. Under this option North Solihull would be a focus for housing renewal and development to realise its potential to accommodate some 4,000 new dwellings.

\textsuperscript{93} Birmingham Local Development Framework: Core Strategy Issues and Options, (2008), Birmingham City Council
Protecting the character of the locale, its environmental assets (including its mature suburbs and the Green Belt which separates Solihull from Coventry and the Birmingham conurbation), are key priorities for SMBC. Alongside this is the ambition to secure the long term regeneration of North Solihull as a mechanism to help Solihull achieve the levels of housing growth proposed in the Phase Two Revision and in maintaining the urban renaissance principles as set out in the RSS. A key priority is to ensure that the regeneration of North Solihull and its growth potential is linked to the employment opportunities arising from strategic economic assets of the M42 Growth Corridor particularly BIA, the NEC and the Birmingham Business Park.

9.5.3 Constraints and Barriers in Birmingham and Solihull

It is clear from the above that both Birmingham and Solihull have significant potential to contribute to the housing growth agenda for the region and that of the city region. More specifically, both North Solihull and the wider Eastern Growth Corridor have the potential to accommodate increased household growth and provide an improved housing offer through the revitalisation and restructuring of existing housing areas. What is also important is that this growth will provide a labour supply living adjacent to the employment opportunities created from the development of the strategic economic assets located in the M42 Corridor Growth Area.

However, despite the indication that both of these areas have the potential to deliver housing growth, there are a number of barriers and constraints which could act to stymie future growth:

- Impact of the credit crunch: the ongoing current economic climate will impact upon the level of house building undertaken by both the public and private sector. Current estimates at the time of writing suggest that the level of house building across the country has started to decline and there is a risk that the region, and its local authority areas, will not achieve their level of annual housing provision.
- Failure to deliver regeneration programmes and priorities: a reduction in housing investment and related funding could impact upon the delivery of key regeneration programmes including those planned for North Solihull and the wider Eastern Growth Corridor. An inability to restructure housing market areas will impact upon the ability to deliver an improved range of housing choice, to accommodate household growth and provide links with key employment opportunities.
- Increased growth outside the MUAs: the EIP of the Phase Two Revision will consider the outcome from the work undertaken by NLP. There is a risk that the outcome of this will be a higher level of growth which could result in settlement extensions to the existing urban areas, the development of new settlements outside the major conurbation as well as the release of Green Belt land. These factors could impact upon the delivery of housing within the MUAs, including Birmingham and Solihull.
- Phased land release: the Phase Two Revision places a key emphasis on the requirement to manage the release of housing land to secure the development of brown field sites. This policy requirement has fed through into BCC's Issues and Options Paper and is established within the Solihull UDP. A key issue for both local authorities will be an ability to manage the release of brown field sites over and above green field sites.
• Transport links: improving the transport links between the outer/peripheral estates and the major employment centres such as Birmingham City Centre, BIA, the NEC and the Birmingham Business Park will be necessary to ensure the maximum linkage between household growth and the creation of new employment opportunities.

9.6 Transport Constraints and Opportunities

A range of constraints and opportunities relating to road, rail, air, other surface and sustainable modes of transport in the M42 Corridor Growth Area are identifiable and are summarised below.

9.6.1 Road

A range of network improvements are being pursued in accordance with the investment priorities set out in the RSS and which are likely to have some positive effect on the operation of the transport network in the M42 Corridor Growth Area. However, funding has not been approved for all of these schemes. Furthermore, congestion along the M42, notwithstanding the benefits currently delivered by ATM, particularly between Junctions 3 and 7 looks set to be a major longer term constraint to the effective operation of the road network. Although road user charging has been investigated, it is not regarded as a solution for the problems that the region is facing. Improvements to Junction 6 and further development of the ATM concept will help to increase capacity. As such, tackling mounting demand for the motorway network remains unresolved, with possible detrimental consequences for economic investment and regeneration in the area.

9.6.2 Rail

Again, a range of developments are planned for the rail network in the RSS, the central plank of which is the regeneration of Birmingham New Street Station. This will improve passenger capacity and help to relieve service constraints in the West Midlands. The major constraints which exist are around network capacity not just at Birmingham New Street Station but also around Birmingham Snow Hill, Moor Street, Landor Street, Water Orton and Birmingham International. This can have knock on consequences for overcrowding and a limiting of the opportunities for more freight traffic to pass through the region. Securing funding for the necessary network developments also remains a continuing challenge. Further improvements may be identified when the West Midlands and Chiltern Route Utilisation Strategy is published.

9.6.3 Air

There is a major opportunity within the region to improve air transport facilities and connections. Expansion plans are supported by national, regional and local policies and are also endorsed locally by BCC and SMBC. BIA has submitted a planning application for a runway extension which will enhance the range of destinations that can be served from the airport, which SMBC is minded to approve. It is also proposing a third passenger terminal and a range of surface access improvements to increase the efficiency of operations. However, many constraints to the realisation of this development intent also remain to be overcome. Congestion on the road network, particularly around Junction 6 of the M42, could pose difficulties in realising the quality of
airport access and egress that BIA would need. At present, the A45 represents a physical barrier to the runway extension (although realignment is included in the submitted planning application) whilst Coventry Airport's location may present space issues without careful future management.

9.6.4 Other Surface Transport

In the short term it appears unlikely that a Metro link will be developed within the M42 Corridor Growth Area. Buses, coaches and cycling will play a role in access to new and existing developments but the extent to which these will substantially alter car dependency may well be variable. Buses in particular will play a significant role in terms of employee access to BIA and potentially to other major developments, but air passengers and visitors to the NEC will remain largely dependent on car and rail access.

9.6.5 Segmented and Targeting Marketing of Sustainable Development

There is unlikely to be a single, simple solution to congestion within the M42 Corridor Growth Area. Therefore a disaggregated approach built upon a package of 'Smarter Choice' measures is more likely to succeed than a solution based upon any specific travel mode.

9.7 Determining the Indicative Development Scenario

The stakeholder workshops drew on briefing papers that detailed much of the material outlined in the earlier sections of this report and were framed around three activity areas:

- Identification of character and opportunity
- Identification of principles and issues
- Scoping of the way forward

The indicative development scenario for the M42 Corridor Growth Area arising from this process is framed by a number of key parameters. In summary:

- The strategic economic assets of the M42 Corridor Growth Area do not appear to be sufficiently recognised in the Phase Two Revision – even though BIA and the NEC are explicitly mentioned. This may be because they are performing well – unlike the RZs and HTCs where the policy agenda is one of promotion. There is potential within the M42 Corridor Growth Area to promote a development scenario based on a programme that builds on gifted and talented sites.
- The strategic economic assets provide an opportunity to plug the region's productivity gap through additional economic growth building on international trade and the catalytic effects of enhanced connectivity. This should promote consideration of a revised policy framework for the M42 Corridor Growth Area.
- Using the M42 Corridor Growth Area to create a 'place' to attract world class businesses effectively puts the locale on the 'world stage' and provides an opportunity to parallel BCC's
aspirations for Birmingham under the Big City Plan. The realisation of this will require careful local planning and further public funding.

- The regional strategic assets in the M42 Corridor Growth Area and the platform that they provide have a symbiotic relationship with Birmingham. In this sense, the M42 Corridor Growth Area relates directly to the aspirations of the core city and should appeal directly to regional policy – the latter is critical in facilitating access to regional and national funding opportunities.
- On this basis there is a strong case for the promotion of an economic growth pole focussed on the M42 Corridor Growth Area as what is good for the locale is also positive for the region.
- Housing development can be expected to follow the employment opportunities generated by strong levels of economic growth. However, it is critical that this does not have an adverse impact on the advantages of the area, such as a high quality environment, that make it an attractive location for economic investment. Housing development should therefore follow the trajectory outlined in the RSS Phase Two Revision and should be focussed on renewal opportunities in North Solihull and the wider Eastern Growth Corridor.
- Physical development must also link into softer economic development programmes to promote access for local residents through the labour market to the new job opportunities to be created in the M42 Corridor Growth Area – the importance of this to North Solihull needs to be recognised.
- The M42 Corridor Growth Area can be a key location for the receipt of new inward investment into the region. This provides an opportunity to secure economic 'wins' in the short term and over a longer time frame.
10.0 Economic Impact

10.1 Introduction

This section of the report considers the potential economic benefits and impacts arising from the delivery of the indicative development scenario.

10.2 Developing Scenarios

As alluded to earlier in the report it is not the purpose of a scenario exercise to predict an actual future. The economic impact of two development scenarios for the M42 Corridor Growth Area on the region has been modelled by the reapplication of the REMI – ECOTEC Model to each. In summary, the two development scenarios that have been the subject of additional economic modelling have been defined as:

- ‘Steady State’ – in terms of the strategic economic assets of the M42 Corridor Growth Area this is predicated on the extrapolation of current trends: some loss of market share for the regional strategic economic assets, including BIA and the NEC.
- ‘Global Knowledge Hub’ – in terms of the strategic economic assets of the M42 Corridor Growth Area this is predicated on a more high performance scenario: enhanced competitiveness, based on major investments connected to the regional strategic economic assets in particular.

The second of the two scenarios – ‘Global Knowledge Hub’ – broadly reflects the indicative development scenario described in the previous chapter of the report. The ‘Steady State’ scenario has been included in the report to provide a baseline against which the more ambitious scenario can be compared.

10.3 The Steady State Scenario

Under this scenario the regional strategic economic assets will continue to contribute substantially to the West Midlands economy. However, and on account of the continuation of various barriers to development, levels of potential economic activity and future growth will be severely constrained. Consequently, it can be anticipated that the potential economic impact contribution of the M42 Corridor Growth Area to the region will not be optimised. The tables overleaf highlight the key assumptions and inputs to the REMI – ECOTEC Model in respect of the ‘Steady State’ scenario.
Table 10.1 Steady State Scenario Key Assumptions

Key assumptions

Use of existing runway at BIA up to capacity only (no runway extension)

NEC visitor and participant expenditure subject to relative decline as a result of increasing competition from other exhibition centres in the UK and Europe (loss of market share)

Planned expansions at Birmingham Business Park and Blythe Valley Business Park do not proceed.

Land Rover constrained at current production levels

Modest employment growth in Solihull Town Centre

Table 10.2 Steady State Scenario Model Inputs

Model inputs

BIA: an additional 4,610 people are directly employed at the airport by 2030 compared to the baseline (8,310 jobs). Travel to work pattern of employees remains same as in the base year.

NEC: current levels of visitor and participant expenditure is sustained (in real terms) to 2026

RIS: current employment levels and sector mix sustained to 2026.

Land Rover: constrained at current production levels and as a result employment falls to 2,870 by 2026 (currently 5,681).

Solihull Town Centre: direct employment reaches 25,961 by 2026 (currently in excess of 19,000). Limited growth in knowledge and technology intensive sectors.

10.3.1 Economic Impact of Steady State Scenario

10.3.1.1 Regional Strategic Economic Assets

The table below highlights the employment impact of the regional strategic economic assets at 2026 arising from the 'Steady State' scenario.

Table 10.3 Total Employment Impact of Steady State Scenario (number of jobs)

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham International Airport</td>
<td>11,620</td>
<td>16,209</td>
</tr>
<tr>
<td>National Exhibition Centre</td>
<td>30,040</td>
<td>18,230</td>
</tr>
<tr>
<td>Blythe Valley Business Park</td>
<td>3,964</td>
<td>3,849</td>
</tr>
</tbody>
</table>
The table illustrates that:

- As a result of multiplier effects (indirect and induced) the total economic contribution of the regional strategic economic assets is forecast at 48,738 jobs in 2026. In effect, future employment contribution will be slightly lower than the current contribution.
- Significantly, the economic contribution of the NEC, in terms of jobs, will be reduced considerably, as a result of loss of market share.

The table below highlights the GDP impact of the regional strategic economic assets at 2026 arising from the 'Steady State' scenario.

### Table 10.4 Total GDP Impact of Steady State Scenario (£m)

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham International Airport</td>
<td>632.0</td>
<td>1,324.2</td>
</tr>
<tr>
<td>National Exhibition Centre</td>
<td>1,157.0</td>
<td>954.5</td>
</tr>
<tr>
<td>Blythe Valley Business Park</td>
<td>206.1</td>
<td>272.6</td>
</tr>
<tr>
<td>Birmingham Business Park</td>
<td>626.2</td>
<td>843.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,621.3</strong></td>
<td><strong>3,394.4</strong></td>
</tr>
</tbody>
</table>

The table illustrates that:

- In terms of GDP, the regional strategic economic assets can be expected to contribute over £3 billion towards the regional economy in 2026: a modest 30% increase (in absolute terms) by 2026 compared to the current contribution.
- Thus, whilst overall employment is forecast to fall slightly, the regional strategic economic assets will continue to increase their regional economic contribution in respect of GDP, broadly in line with the anticipated growth in the regional economy as a whole.
10.3.1.2 Other Strategic Economic Assets

The table below highlights the employment impact of the other strategic economic assets at 2026 arising from the 'Steady State' scenario.

Table 10.5 Total Employment Impact of Steady State Scenario (number of jobs)

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Rover</td>
<td>15,780</td>
<td>8,811</td>
</tr>
<tr>
<td>Solihull Town Centre</td>
<td>12,250</td>
<td>17,770</td>
</tr>
<tr>
<td>Total</td>
<td>28,030</td>
<td>26,581</td>
</tr>
</tbody>
</table>

Source: REMI-ECOTEC Model, 2008

The table illustrates that:

- It is forecast that the total employment impact of the Land Rover site will fall from 15,780 to 8,811 by 2026, notwithstanding current levels of production being sustained through to 2026.
- With modest employment growth in Solihull Town Centre, the total employment impact is forecast at 17,770 by 2026. This represents an increase of some 45% compared to the current contribution.

The table below highlights the GDP impact of the other strategic economic assets at 2026 arising from the 'Steady State' scenario.

Table 10.6 Total GDP Impact of Steady State Scenario (£m)

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Rover</td>
<td>957.3</td>
<td>888.8</td>
</tr>
<tr>
<td>Solihull Town Centre</td>
<td>744.9</td>
<td>1,575.0</td>
</tr>
<tr>
<td>Total</td>
<td>1,702.2</td>
<td>2,463.8</td>
</tr>
</tbody>
</table>

Source: REMI-ECOTEC Model, 2008

The table illustrates that:

- Whilst employment at the Land Rover site would fall significantly, its contribution to the West Midlands economy in terms of GDP would only fall slightly. It is forecast that the total GDP contribution of Land Rover will be some £900 million in 2026, compared to its current contribution of £957 million.
- As a result of a modest growth in employment, together with advances in technology and increases in labour productivity, the economic contribution of Solihull Town Centre in terms of
GDP is forecast to contribute £1.6 billion to the West Midlands economy in 2026 compared to its current contribution of £700 million.

10.4 The Global Knowledge Hub Scenario

This scenario is predicated on the successful realisation of particular growth assumptions rooted in planned or proposed developments and outcomes connected to the strategic economic assets situated in the M42 Corridor Growth Area. As such, it is intended to more closely represent the full potential of the locale, whereby the economic enabling role of the regional strategic economic assets and other strategic economic assets is successfully unlocked and major barriers and constraints to development removed. The tables below highlight the key assumptions and inputs to the REMI – ECOTEC Model associated with the 'Global Knowledge Hub' scenario.

Table 10.7 Global Knowledge Hub Scenario Key Assumptions

<table>
<thead>
<tr>
<th>Key assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway extension completed by 2012; Use of runway up to capacity</td>
</tr>
<tr>
<td>NEC successfully enhances its competitive offer (Destination NEC), with a consequent increase in market share and a relatively higher share of overall visitor and participant expenditure on site</td>
</tr>
<tr>
<td>Planned major expansions at Birmingham Business Park and Blythe Valley Business Park are completed. Strong demand and take up for business space at the two RIS.</td>
</tr>
<tr>
<td>Employment at the Land Rover assembly site is sustained as a result of increased production levels</td>
</tr>
<tr>
<td>Significant employment growth in Solihull Town Centre</td>
</tr>
</tbody>
</table>

Table 10.8 Global Knowledge Hub Scenario Model Inputs

<table>
<thead>
<tr>
<th>Model inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA: a further 6,582 are directly employed at the Airport by 2030 compared to the baseline (8,310 jobs)</td>
</tr>
<tr>
<td>NEC: visitor and participant expenditure increase by 67% (in real terms) by 2026</td>
</tr>
<tr>
<td>RIS: Blythe Valley Business Park and Birmingham Business Park are extended, resulting in a further 11,000 jobs being located at the two business parks by 2026.</td>
</tr>
<tr>
<td>Land Rover: production levels increase, with the result that employment is sustained at 5,681.</td>
</tr>
<tr>
<td>Solihull Town Centre: direct employment in Solihull Town Centre reaches 31,996 by 2026 (currently 19,000). Strong growth in knowledge and technology intensive sectors.</td>
</tr>
</tbody>
</table>
10.4.1 Economic Impact of the Global Knowledge Hub Scenario

10.4.1.1 Regional Strategic Economic Assets

The table below highlights the employment impact of the regional strategic economic assets at 2026 arising from the 'Global Knowledge Hub' scenario.

**Table 10.9 Total Employment Impact of the Global Knowledge Hub Scenario (number of jobs)**

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham International Airport</td>
<td>11,620</td>
<td>23,339</td>
</tr>
<tr>
<td>National Exhibition Centre</td>
<td>30,040</td>
<td>31,218</td>
</tr>
<tr>
<td>Blythe Valley Business Park</td>
<td>3,964</td>
<td>13,300</td>
</tr>
<tr>
<td>Birmingham Business Park</td>
<td>10,940</td>
<td>18,530</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56,564</td>
<td>86,387</td>
</tr>
</tbody>
</table>

*Source: REMI-ECOTEC Model, 2008*

The table illustrates that:

- Within a context of increased connectivity and market demand, the total employment contribution is forecast to increase from 56,564 jobs to 86,387 jobs in 2026. In effect, this means that the future economic contribution will be some 53% higher than the current contribution.

The table below highlights the GDP impact of the regional strategic economic assets at 2026 arising from the 'Global Knowledge Hub' scenario.

**Table 10.10 Total GDP Impact of the Global Knowledge Hub Scenario (£m)**

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham International Airport</td>
<td>632.0</td>
<td>1,886.4</td>
</tr>
<tr>
<td>National Exhibition Centre</td>
<td>1,157.0</td>
<td>1,805.0</td>
</tr>
<tr>
<td>Blythe Valley Business Park</td>
<td>206.1</td>
<td>942.8</td>
</tr>
<tr>
<td>Birmingham Business Park</td>
<td>626.2</td>
<td>1,418.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,621.3</td>
<td>6,052.2</td>
</tr>
</tbody>
</table>

*Source: REMI-ECOTEC Model, 2008*
The table illustrates that:

- In terms of GDP, the regional strategic economic assets can be expected to contribute in excess of £6 billion towards the regional economy in 2026. This represents a significant increase compared to the current contribution, both in absolute and relative terms. Indeed, in 2026 the regional strategic economic assets are estimated to contribute almost 5% of the regional economy compared to 2.5% in 2007.
- Notably, as a result of improved connectivity, together with advances in technology, BIA, in particular, is forecast to contribute a relatively larger share of regional GDP by 2026.

10.4.1.2 Other Strategic Economic Assets

The table below highlights the employment impact of the other strategic economic assets at 2026 arising from the 'Global Knowledge Hub' scenario.

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Rover</td>
<td>15,780</td>
<td>17,450</td>
</tr>
<tr>
<td>Solihull Town Centre</td>
<td>12,250</td>
<td>22,710</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28,030</td>
<td>40,160</td>
</tr>
</tbody>
</table>

Source: REMI-ECOTEC Model, 2008

The table illustrates that:

- On account of labour productivity gains and other operational efficiencies, it is forecast that the total employment impact of the Land Rover site will increase slightly from 15,780 to 17,450 by 2026, even if current direct levels of employment are maintained until 2026.
- With a strong growth in knowledge and technology intensive sectors, the total employment impact of Solihull Town Centre is forecast at 22,710 by 2026. This represents an increase of some 85% compared to the current contribution.

The table below highlights the GDP impact of the other strategic economic assets at 2026 arising from the 'Global Knowledge Hub' scenario.

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Rover</td>
<td>957.3</td>
<td>1,761.0</td>
</tr>
<tr>
<td>Solihull Town Centre</td>
<td>744.9</td>
<td>2,052.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,702.2</td>
<td>3,813.0</td>
</tr>
</tbody>
</table>

Source: REMI-ECOTEC Model, 2008
The table illustrates that:

- Whilst the total employment impact of the Land Rover site may be anticipated to increase only slightly, its contribution to the West Midlands economy in terms of GDP will increase significantly – from less than £1 billion currently to approaching £1.8 billion in 2026.
- As a result of a strong growth in knowledge and technology intensive sectors (typically high income and value added sectors), in addition to advances in technology and increases in labour productivity, the economic contribution of Solihull Town Centre in terms of GDP contribution is forecast to grow at a much faster rate than employment. Indeed, it is forecast that Solihull Town Centre’s contribution to the West Midlands economy will be over £2 billion in 2026 compared to its current contribution of £700 million – a 175% increase.

10.5 Comparing the Steady State and Global Knowledge Hub Scenarios

Headline regional impacts arising from the regional strategic economic assets in terms of the key economic measures of employment and GDP for the two scenarios are illustrated in the figures below and overleaf.

Figure 10.1 Employment Impact of Regional Strategic Economic Assets (BIA + NEC + RIS)

Source: REMI-ECOTEC Model, 2008
This analysis suggests that there is real opportunity for the regional strategic economic assets within the M42 Corridor Growth Area to deliver a potentially transformational change in respect of their future economic role and contribution to the region's economy:

- Under the 'Steady State' scenario, it is estimated that the future economic contribution attributable to the regional strategic economic assets in the M42 Corridor Growth Area will be in the order of 50,000 jobs and some £3.4 billion towards GDP (by 2026). In addition, Land Rover and Solihull Town Centre can be expected to contribute a further 27,000 jobs and £2.5 billion towards GDP.
- Under the 'Global Knowledge Hub' scenario, which, critically, would be dependent on runway extension at BIA, the economic contribution of the regional strategic economic assets in the M42 Corridor Growth Area can be expected to increase significantly: to nearly 90,000 jobs and over £6 billion in respect of regional GDP. In addition, the contribution of other strategic economic assets can be anticipated to increase to some 40,000 jobs and £3.8 billion in GDP.
- In total the strategic economic assets of the M42 Corridor Growth Area under the 'Global Knowledge Hub' scenario may be anticipated to contribute some 130,000 jobs and £10 billion towards the region's GDP by 2026.
Reducing the Productivity Gap

Sub regional analysis using official ONS data of recent productivity performance highlights major differences within the West Midlands. Indeed, the M42 Corridor Growth Area (as represented by Solihull), the M42 Corridor Functional Area, and Warwickshire represent the only areas within the region that have effectively narrowed the productivity gap with the UK average over the period 1995-2005.

Conversely, and during the same period, much of the western part of the region, including the Black Country, Telford and Wrekin and Herefordshire, has been characterised by a significant widening of the productivity gap. Notably, the strong recent productivity performance of the M42 Corridor Growth Area has not been sufficient to prevent a widening of the productivity gap between the West Midlands and the UK average (from 94% to 89% of the UK average).

More fully realising the economic potential of the regional strategic economic assets and other strategic economic assets of the M42 Corridor Growth Area can be expected to reduce the 'distribution' effect on productivity by attracting more knowledge and technology intensive sectors. This can be anticipated to be particularly important in relation to the manufacturing sector: recent work on the factors influencing the relative performance of the West Midlands suggests that on average over a quarter of the relatively lower productivity in the manufacturing sector in the West Midlands can be explained by an above average concentration of low productivity manufacturing industries in the region.

Notably, the 'distribution' effect is significantly lower for the service sector, indicating that it is not solely the distribution of sectors that causes productivity to be lower than the national average. Rather, it is the 'pure' productivity of businesses within a range of sectors that is most significant in understanding why the West Midlands continues to lag behind the UK average in respect of productivity performance.

Whilst further investment in the M42 Corridor Growth Area may be expected to attract a range of high productivity sectors which would positively serve to reduce the 'distribution' effect, more fundamentally, successfully realising planned investments including the runway extension at BIA, may be anticipated to considerably improve the performance of existing businesses in the region on account of an extension of market reach and market potential (and through this enhancements of 'pure' productivity).

Whilst the M42 Corridor Growth Area has recorded an impressive productivity performance during recent years it is the case that many other parts of the region have exhibited rather weaker output gains. In order for the West Midlands to successfully narrow the productivity gap with the national average.

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94 The ‘distribution’ productivity effect represents the effect that the distribution of industries present in the region has on productivity as opposed to the efficiency of those industries compared with similar industries elsewhere.
95 Factors Influencing the Relative Performance of the West Midlands, (2006), West Midlands Regional Observatory
96 The ‘pure’ productivity effect represents the effect of the efficiency of industries compared to similar industries elsewhere.
average it will be important that this further widening of the productivity gap in other parts of the region is also addressed.

Within this context, and with specific regard to potential future developments in the M42 Corridor Growth Area, it should be noted that whilst a substantial proportion of the direct impact, particularly with regards to employment, can be expected to be relatively concentrated in close proximity to the M42 Corridor Growth Area, the regional strategic economic assets also possess strong connections with other parts of the region through supply chain linkages (indirect impact) and staff spending (induced impact).

Indeed, more fine grained analysis of the economic impact anticipated to accrue under the 'Global Knowledge Hub' scenario suggests that development associated with the regional strategic economic assets can be expected to contribute significantly to growth in the wider economy outside the M42 Corridor Growth Area. The application of the REMI – ECOTEC Model to different parts of the West Midlands conurbation summarised in the table below shows that 34% of the regional employment impact and 29% of the regional GDP impact from development within the M42 Corridor Growth Area will be felt outside of the locale. Most specifically, it is the NEC and BIA that have the most substantial combination of regional and local impacts.

**Table 10.13  Employment and GDP Impact by Sub Regions of the Global Knowledge Hub Scenario, 2026**

<table>
<thead>
<tr>
<th></th>
<th>Birmingham</th>
<th>Black Country</th>
<th>Coventry &amp; Solihull</th>
<th>Rest of West Midlands</th>
<th>West Midlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA</td>
<td>Employment</td>
<td>2,544</td>
<td>1,744</td>
<td>15,277</td>
<td>3,774</td>
</tr>
<tr>
<td></td>
<td>GVA (£m)</td>
<td>£185</td>
<td>£111</td>
<td>£1,308</td>
<td>£283</td>
</tr>
<tr>
<td>NEC</td>
<td>Employment</td>
<td>12,391</td>
<td>605</td>
<td>16,514</td>
<td>1,708</td>
</tr>
<tr>
<td></td>
<td>GVA (£m)</td>
<td>£635</td>
<td>£39</td>
<td>£1,011</td>
<td>£120</td>
</tr>
<tr>
<td>BVBP</td>
<td>Employment</td>
<td>667</td>
<td>208</td>
<td>11,504</td>
<td>921</td>
</tr>
<tr>
<td></td>
<td>GVA (£m)</td>
<td>£46</td>
<td>£13</td>
<td>£822</td>
<td>£62</td>
</tr>
<tr>
<td>BBP</td>
<td>Employment</td>
<td>1,366</td>
<td>441</td>
<td>15,107</td>
<td>1,616</td>
</tr>
<tr>
<td></td>
<td>GVA (£m)</td>
<td>£94</td>
<td>£27</td>
<td>£1,187</td>
<td>£110</td>
</tr>
<tr>
<td>Total</td>
<td>Employment</td>
<td>16,968</td>
<td>2,998</td>
<td>58,402</td>
<td>8,019</td>
</tr>
</tbody>
</table>
10.7 Catalytic Impact of the Runway Extension

Air transport links are important to different sectors of the economy to varying degrees. Specifically, there is a clear tendency for knowledge intensive sectors and economic activities to be most reliant on access to a range of air travel services. Recent research shows that transport and communications represent a ‘first tier’ factor in choice of location for many businesses. Similarly, a study commissioned by the Corporation of London indicates that average spending per employee on air services by the financial services sector is six times the average for all UK businesses.

Notably, sectors with a high degree of research activity – including many branches of advanced manufacturing – may require easy access to air services on account of high staff mobility requirements and a competitive position which is often dependent on accessing external sources of expertise and information. The fastest growing manufacturing sectors are typically those which are also the most international, either in terms of their export dependence or the degree of foreign ownership, and are therefore likely to be the most reliant on air services.

Looking to the future, many of the key business sectors that the national and regional economy will likely be dependent are characterised by a high level of use and dependency on air services. Indeed, as the table below reveals there is a very strong association between GVA growth and the propensity to use air travel services. Among the 20 fastest growing sectors in the UK, no fewer than 15 also rank in the top 20 in respect of their propensity to use air travel services.

### Table: GVA (£m) by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>GVA (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Country</td>
<td>£190</td>
</tr>
<tr>
<td>Coventry &amp; Solihull</td>
<td>£4,328</td>
</tr>
<tr>
<td>Rest of West Midlands</td>
<td>£574</td>
</tr>
<tr>
<td>West Midlands</td>
<td>£6,052</td>
</tr>
</tbody>
</table>

*Source: REMI-ECOTEC Model, 2008*

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97 European Cities Monitor, (2005), Cushman and Wakefield

98 The Use of Aviation Services in the City of London and the Central London Business District and the Implications for Future Aviation Policy, (2002), Corporation of London
### Table 10.14  GVA growth (1992-2003) and Air Services Demand

<table>
<thead>
<tr>
<th>Sector</th>
<th>Rank GVA growth</th>
<th>Rank Air Travel Services Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer &amp; related activities</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Insurance &amp; pens. Funding</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other business activities</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Recreational, cultural &amp; sporting</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Activities auxiliary to fin. Intermed.</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Renting of mach. &amp; equipment</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Other service activities</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Hotels &amp; restaurants</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Activities of membership orgs.</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Oil &amp; gas extraction</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Construction</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>Water transport</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Supporting transport activities</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Manufacturing n.e.c.</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Trade; Sale &amp; repair of mv</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td>Post &amp; telecommunications</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Banking &amp; finance</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Wood &amp; wood products</td>
<td>19</td>
<td>47</td>
</tr>
<tr>
<td>Other transport equipment</td>
<td>20</td>
<td>8</td>
</tr>
</tbody>
</table>

*Source: REMI-ECOTEC Model, ONS*

In the impact analysis presented in this chapter of the report the total economic impact of BIA under the 'Global Knowledge Hub' scenario includes a category of impact – 'catalytic' effects –
which is an outcome of enhanced connectivity; in this case predicated on the runway extension at BIA.

Economic growth theory highlights that improvements in connectivity can have more dynamic impacts on productivity in the rest of the regional economy and hence on potential GVA growth\(^{99}\). This reflects important spillover effects – ‘externalities’ – that will be generated on account of business travel being cheaper and/or faster. There are a number of mechanisms through which these spillovers operate:

- Improved connectivity will effectively create larger markets: in terms of access to potential customers, suppliers and partners, allowing greater scope for economies of scale, and increased specialisation in areas of comparative advantage.
- Improved connectivity will enhance innovation: as a result of facilitating better collaboration between indigenous companies and those abroad by allowing more effective networking.
- Improved connectivity will increase the profitability of investment within sectors and so encourage greater innovation by companies: increasing the size of potential markets could allow the fixed costs of innovation to be spread over larger sales, for example.

Modelling potential catalytic effects is far from straightforward, with the majority of conventional impact studies typically providing a qualitative rather than quantitative assessment of such wider economic benefits. However, in seeking to provide a quantitative treatment of catalytic effects associated with connectivity improvements, the REMI-ECOTEC Model has the advantage of enabling the user to specify particular changes in transport access (and hence market access) within its structure.

The overall approach taken to estimating connectivity improvements has involved calculation of potential travel time savings in relation to a selection of key long haul business destinations\(^{100}\) not currently served by BIA. Under this analysis it is estimated that connectivity improvements resulting from construction of an extended main runway at BIA could ultimately deliver a 14% relative improvement in access to the region’s business community (by 2026). Using the Model’s structural mechanism, such improvements in access can be seen to trigger a series of positive economic feedbacks with resultant productivity gains, thereby effectively increasing relative market share for West Midlands’ businesses, and ultimately increasing levels of output and employment in the region.

The estimated wider economic competitiveness or catalytic effects to the region resulting from enhanced connectivity through the runway extension at BIA are presented in the figures overleaf.


\(^{100}\) Los Angeles, Denver, Hong Kong, Shanghai, Bangkok, Singapore, Bangalore, Mumbai, Chicago, Washington DC
Figure 10.3 Catalytic Effects (Enhanced Connectivity) - Employment

Source: REMI-ECOTEC Model, 2008
In summary:

- Improved connectivity (air access) to key markets resulting from runway extension at BIA can be expected to contribute towards an estimated 4,823 jobs by 2026. Importantly, these jobs are additional to those already supported through operational activity associated with BIA.
- In addition, the runway extension at BIA can be expected to contribute an estimated £374 million to regional GDP. This income is additional to that already supported through operational activity associated with BIA.

### 10.8 Strategic Conclusions

The strategic conclusions that can be drawn from the assessment of the potential future economic impact of the strategic economic assets within the M42 Corridor Growth Area are:
• Under a 'Steady State' scenario the regional strategic economic assets are forecast to have the potential to provide in the order of 50,000 jobs and some £3.4 billion towards regional GDP by 2026. In addition, Land Rover and Solihull Town Centre can be expected to contribute a further 27,000 jobs and £2.5 billion towards GDP over the same period.

• Under a higher growth 'Global Knowledge Hub' scenario, it is estimated that the future economic contribution attributable to the regional strategic economic assets will increase significantly to nearly 90,000 jobs and over £6 billion in respect of regional GDP. Land Rover and Solihull Town Centre can be expected to contribute some 40,000 jobs and £3.8 billion towards regional GDP.

• The two scenarios afford considerable insight in relation to the general scope and scale of future economic impacts based on various growth and investment assumptions with these estimates rooted in changes in operational activity associated with the particular strategic economic assets of the M42 Corridor Growth Area. Critically, it can be expected that improvements in connectivity will unlock more dynamic and far reaching impacts on the performance of the regional economy, and hence on the prospects for employment and GDP growth.

• Specifically, enhanced connectivity, in the form of improved access to international markets delivered through a greater range of long haul destinations, is likely to be instrumental in delivering further major competitive benefits to the region. At 2026, the catalytic effects associated with runway extension at BIA are estimated at equivalent to 5,000 jobs and approaching £400 million of regional GDP.

• Realisation of the investments associated with the strategic economic assets of the M42 Corridor Growth Area will be critical to the effective narrowing of the region's productivity gap. The development of the strategic economic assets may be expected to attract a range of high productivity sectors which would serve to negate the 'distribution' effect associated with the region's industrial structure.

• More fundamentally, successfully realising planned investments in the locale may be anticipated to considerably improve the performance of existing businesses in the region on account of extending market reach and market potential, and thereby enhancing opportunities for improvement in 'pure' productivity amongst West Midland's business base.

• Importantly, expansion associated with the regional strategic economic assets can also be expected to contribute significantly to growth in the regional economy outside of the M42 Corridor Growth Area itself – with 34% of regional employment impact and 29% of GDP impact likely to accrue outside of the locale. The NEC and BIA in particular provide an opportunity to secure both localised and regional economic benefits from their continued development.

• The M42 Corridor Growth Area and the regional strategic economic assets and other strategic economic assets contained within it therefore provides a real opportunity to deliver
transformational change in respect of the future economic performance of the regional economy. Benefits can be expected to accrue to the immediate locale and to other areas of the region that continue to lag behind in respect of their productivity performance.
11.0 Housing Impact

11.1 Introduction

This section of the report highlights the potential residential and demographic impacts arising from the delivery of the indicative development scenario.

11.2 Developing Scenarios

It is clear from the previous chapter of the report that the strategic economic assets located in the M42 Corridor Growth Area offer considerable potential for the promotion of employment and productivity growth across the region – particularly in respect of the ‘Global Knowledge Hub’ scenario. The realisation of this level of employment growth will bring with it significant demographic and housing implications – not least for Birmingham, Coventry and Solihull which are identified as the potential location of around 75,000 of the jobs accruing from the promotion of development in the M42 Corridor Growth Area. Ensuring access to a sufficiently sized and skilled labour force could represent a key challenge for ensuring the success of the M42 Corridor Growth Area and the level of future housing supply will be a key determinant of future labour force expansion to meet employer demands. However, in delivering the ‘Global Knowledge Hub’ scenario there is a clear premise that future economic development should not undermine the environmental quality of Solihull, given that this is a major contributory factor to the M42 Corridor Growth Area’s attraction as an investment location, and that development should align with the regeneration priorities of adjacent disadvantaged communities, in particular the EBNSRZ and the Eastern Growth Corridor. In response three housing scenarios have been considered as part of this study:

- ‘Business as Usual’ – broadly representing a continuation of existing development plans.
- ‘RSS Phase Two Revision’ – consistency with the aspirations outlined in the Phase Two Revision.

The second of the three scenarios – ‘RSS Phase Two Revision’ – broadly reflects the indicative development scenario described in chapter nine of the report. The other scenarios have been included for comparison.

11.3 Business as Usual Scenario

The table overleaf provides an overview of the ‘Business as Usual’ scenario.
Table 11.1 Business as Usual Scenario

<table>
<thead>
<tr>
<th>Scenario One: Low Growth “Business as usual” – continuation of existing development plans</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario one is based around the continuation of existing strategies and plans i.e. existing RSS and Development Plans.</td>
<td>If BCC and SMBC were to pursue housing numbers in line with their existing strategies it is unlikely that they would achieve their New Growth point status.</td>
</tr>
<tr>
<td>Housing growth potential under existing plans is 64,500 gross dwellings which is equivalent to 25,100 dwellings below the revised RSS Phase Two housing figures.</td>
<td>Neither authority would be able to accommodate their regeneration aspirations and housing market restructuring programmes including those for the Eastern Corridor of Birmingham or North Solihull, where improvement to housing choice are essential.</td>
</tr>
<tr>
<td>Birmingham would be unable to meet its newly arising household demand or stem outward migration into adjacent areas.</td>
<td></td>
</tr>
</tbody>
</table>

11.4 RSS Phase Two Revision Scenario

The table below provides an overview of the 'RSS Phase Two Revision' scenario.

Table 11.2 RSS Phase Two Revision Scenario

<table>
<thead>
<tr>
<th>Scenario Two: Medium Growth in line with West Midlands RSS Phase Two Revision</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under the RSS Phase Two Revision Birmingham has been allocated 50,600 additional net dwellings to 2026 and Solihull 7,600, providing an overall total of 58,200. In the case of Birmingham the revised housing figures are 38.9% above existing RSS housing numbers and 39.5% in the case of Solihull. MUA figures are minima figures and therefore could potentially increase.</td>
<td>There are a number of constraints in relation to the RSS Phase Two figures established for both Birmingham and Solihull in terms of meeting future household growth requirements:</td>
</tr>
<tr>
<td>Birmingham’s Strategic Land Availability Assessment indicates that the City could accommodate up to 50,600 dwellings under its existing policy approach. However, housing growth above this level would be accommodated in key priority areas such as the Eastern Corridor, which has the potential to accommodate 8,000 dwellings. Birmingham could potential exceed its housing figures to 55,000 dwellings plus. In its recent Core Strategy Issues and Options the City Council put</td>
<td>2004-based household projections for Birmingham suggested an estimated housing demand for 65,000. Under the RSS Phase Two figure of 50,600 there is a shortfall of some 14,400 dwellings. However, the revised 2004-based household forecast issued in February 2008 suggest that the shortfall is 21,400. It could be argued that Birmingham will exceed the provision of 50,600 but is unlikely to be able to achieve somewhere in the region of an additional 10-20,000 homes without expanding the existing built up area through the provision of urban extensions into the green belt.</td>
</tr>
<tr>
<td>The 2004-based household projections for Solihull</td>
<td></td>
</tr>
</tbody>
</table>
Scenario Two: Medium Growth in line with West Midlands RSS Phase Two Revision

<table>
<thead>
<tr>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>suggested an estimated housing demand for 11,000. Under the RSS Phase Two Revision housing figure for Solihull of 7,600 this leaves a shortfall of some 3,400 dwellings. However, the revised 2004-based household forecasts issued in February 2008 suggest that the shortfall is 5,400. Again it could be argued that the shortfall could be met to some extent by additional housing provision as Solihull’s RSS figures are based on minima figures. However, it is difficult to estimate what additional capacity Solihull has available until its Core Strategy Issues and Options Paper and Strategic Land Availability Assessment is made available for consultation. There is a strong possibility that to accommodate growth in line with its projected household forecast this may require development outside the Borough’s main urban area into its existing green belt in the form of extensions or new settlements.</td>
</tr>
</tbody>
</table>

Solihull’s target under the revised RSS Phase Two is 7,600 additional dwellings. Capacity has been identified in North Solihull to accommodate 4,000 additional dwellings in North Solihull as part of the wider regeneration of this area. It is anticipated that provision will be made within its main urban area including its main towns.

Table 11.3 High Growth Agenda Scenario

<table>
<thead>
<tr>
<th>Scenario Three: High Growth to reflect the Government Growth Agenda</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>This scenario suggested a higher level of housing growth in Birmingham and Solihull to reflect the Government’s housing growth agenda and its targets as set out in the Housing Green Paper to</td>
<td>Both Birmingham and Solihull have identified that a significant increase in the expected housing provision will have implications for existing and future land capacity. Neither authority has ruled out</td>
</tr>
</tbody>
</table>

11.5 High Growth Agenda Scenario

The table below provides an overview of the ‘High Growth Agenda’ scenario.

Table 11.3 High Growth Agenda Scenario

<table>
<thead>
<tr>
<th>Scenario Three: High Growth to reflect the Government Growth Agenda</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>This scenario suggested a higher level of housing growth in Birmingham and Solihull to reflect the Government’s housing growth agenda and its targets as set out in the Housing Green Paper to</td>
<td>Both Birmingham and Solihull have identified that a significant increase in the expected housing provision will have implications for existing and future land capacity. Neither authority has ruled out</td>
</tr>
</tbody>
</table>
### Scenario Three: High Growth to reflect the Government Growth Agenda

| deliver 2 million additional homes by 2016 and 3 million by 2020. | the potential use of greenbelt land for the development of new settlements and urban extensions. |
| The Revised RSS Phase Two figure of 365, 600 fell short of 2004-based household projection by 16,400 dwellings. In the case of Solihull and Birmingham this shortfall is 17,800. However, the revised 2004-based household forecasts which were issued post RSS Phase Two submission suggest that this shortfall is now in the region of 26,000. | The allocation of greenbelt land for housing development could potentially lead to cherry picking of prime development sites by developers which could have implications upon the development of brownfield sites in key regeneration areas. The phasing of housing land release will be a crucial factor. |
| Housing affordability and housing choice are issues which have been identified across the M42 Corridor Growth Area and M42 Corridor Functional Area. In order to address issues around affordability the NHPAU in its advice to Government that if issues around affordability are to be addressed then housing supply for regions will need to go beyond the estimated level of household forecasts and to those areas that are least affordable. It has indicated that the potential supply range for the region should be between 377,000 and 477,000 which equates to an additional 12,300 to 80,700 dwellings than proposed under the revised RSS. This advice could imply that Birmingham and Solihull’s provision could increase significantly if the region is to achieve the upper end of the supply range. | Infrastructure as a result of increased housing provision will be a major factor to consider – including transport networks (road, rail, and public transport), community facilities and environmental impact. |
| The economic growth potential of the M42 Corridor Growth Area acknowledges that a key investment priority is the need to maintain and enhance the environmental quality of Solihull as a location for business investment. |

### 11.6 Other Housing Growth Scenarios

During the course of the preparation of this study NLP published the results of a study exploring development options for accommodating higher housing numbers in the region above those identified in the Phase Two Revision. The study developed nine options, and from these three potential growth scenarios to demonstrate how the region might increase its housing provision. It should be noted that these scenarios do not represent the position of the Government but are to be used as additional evidence at the EIP into the Phase Two Revision.

#### 11.6.1 South East Focus

This scenario proposes an additional 51,500 units on top of the 365,600 providing an overall provision of some 417,000 net additional dwellings up to 2026. The additional growth is focused on the south east of the region and in the rural west. The table below illustrates the distribution of the potential increase in housing provision across the south east of the region.
### Table 11.4  Distribution of Housing Growth in the South East of the Region under South East Focus Scenario

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>RSS Phase 2 Preferred Option</th>
<th>NLP Suggested Additional Housing Figure</th>
<th>Overall Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>50,600</td>
<td>10,000</td>
<td>60,600</td>
</tr>
<tr>
<td>Solihull</td>
<td>7,600</td>
<td>13,000</td>
<td>20,600</td>
</tr>
<tr>
<td>Rugby</td>
<td>10,800</td>
<td>5,000</td>
<td>15,800</td>
</tr>
<tr>
<td>Stratford –on-Avon</td>
<td>5,600</td>
<td>4,500</td>
<td>10,100</td>
</tr>
<tr>
<td>Warwick</td>
<td>10,800</td>
<td>5,000</td>
<td>15,800</td>
</tr>
<tr>
<td>Bromsgrove</td>
<td>2,100</td>
<td>5,000</td>
<td>7,100</td>
</tr>
<tr>
<td>South Worcestershire</td>
<td>25,500</td>
<td>5,500</td>
<td>31,000</td>
</tr>
<tr>
<td>Wyre Forest</td>
<td>3,400</td>
<td>400</td>
<td>3,800</td>
</tr>
</tbody>
</table>

*Source: NLP, 2008*

The additional housing growth focused in the south east of the region is based upon the need to support further economic growth, which is currently being hampered and addresses issues of affordability and household demand. The proposal suggests a new freestanding settlement for Solihull which could accommodate up to 13,000 new dwellings. The additional housing growth will have implications for Green Belt amendments, environmental implications for Solihull as well as transport infrastructure implications. At the time of writing the location of a new settlement in Solihull has not been identified. However, the study does suggest that a freestanding settlement of the size indicated could potentially have an adverse impact upon the M42 at Junction 4 and Junction 6 if situated nearby and that public transport improvements would be essential to support a new settlement of this size.

### 11.6.2 Spreading Growth

This scenario proposes an increase of 54,000 units on top of the 365,500 thus providing an overall total of 419,600 units. Again additional provision is made to the south east of the region where economic growth is strongest but is less than in South East Focus scenario. The second scenario also allocates additional growth for Telford, East and North Staffordshire in order to utilise additional capacity and to support regeneration and economic growth objectives. In comparison to the first scenario, the housing growth provision for Solihull has reduced to 5,000 units, Rugby to 3,000 units and South Worcestershire to 3,000 units. The table below illustrates the potential distribution of housing across the south east of the region.
Table 11.5  Distribution of Housing Growth in the South East of the Region under the Spreading Growth Scenario

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>RSS Phase 2 Preferred Option</th>
<th>NLP Suggested Housing Figure</th>
<th>Overall Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>50,600</td>
<td>10,000</td>
<td>60,600</td>
</tr>
<tr>
<td>Solihull</td>
<td>7,600</td>
<td>5,000</td>
<td>12,600</td>
</tr>
<tr>
<td>Rugby</td>
<td>10,800</td>
<td>3,000</td>
<td>13,800</td>
</tr>
<tr>
<td>Stratford –on-Avon</td>
<td>5,600</td>
<td>4,500</td>
<td>10,100</td>
</tr>
<tr>
<td>Warwick</td>
<td>10,800</td>
<td>5,000</td>
<td>7,100</td>
</tr>
<tr>
<td>Bromsgrove</td>
<td>2,100</td>
<td>5,000</td>
<td>7,100</td>
</tr>
<tr>
<td>South Worcestershire</td>
<td>25,500</td>
<td>3,000</td>
<td>28,500</td>
</tr>
<tr>
<td>Wyre Forest</td>
<td>3,400</td>
<td>400</td>
<td>3,800</td>
</tr>
</tbody>
</table>

Source: NLP, 2008

11.6.3 Maximising Growth Scenario

The third scenario suggested an increase of 80,000 units on top of 365,600 which would deliver a total of 445,600 units to 2026. This increased provision proposes higher levels of growth across a range of broad locations in the region: the south east, the southern area of the conurbation, Telford and Wrekin, North and East Staffordshire, Stafford, and the rural west. This scenario would be regarded as being ambitious in the light of the increased outputs required from the development industry. Under this scenario the distribution of housing growth in the south east increases provision for Solihull to 10,000, Rugby to 5,000, and Stratford on Avon to 4,500 and Warwick to 10,000. In the case of Solihull there will be infrastructure and capacity implications similar to those that would apply to the first of the three scenarios.

Table 11.6  Distribution of Housing Growth in the South East of the Region under the Maximising Growth Scenario

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>RSS Phase 2 Preferred Option</th>
<th>NLP Suggested Housing Figure</th>
<th>Overall Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>50,600</td>
<td>10,000</td>
<td>60,600</td>
</tr>
<tr>
<td>Solihull</td>
<td>7,600</td>
<td>10,000</td>
<td>17,600</td>
</tr>
<tr>
<td>Rugby</td>
<td>10,800</td>
<td>5,000</td>
<td>15,800</td>
</tr>
</tbody>
</table>
### Comparing the Housing Development Scenarios

Each of the three scenarios set out by NLP study acknowledge a need to accommodate increased provision in the south east of the region in order to address issues around affordability and economic growth potential. In relation to the M42 Corridor Growth Area each of the scenarios also identifies a need to increase housing provision above the Phase Two Revision figures for both Solihull and Birmingham. The level of increase in Birmingham is an additional 10,000 dwellings across each of the three scenarios whereas for Solihull the increase ranges from 5,000 to 13,000 dwellings.

As part of its Core Strategy Issues and Option consultation, BCC has already suggested that additional housing growth of up to 55,000 to 60,000 dwellings will be focused within its main regeneration priority areas such as East Birmingham and North West Birmingham. However, if housing numbers were to substantially increase above this level then the need for urban extensions may well be required.

In the case of SMBC, the regeneration of North Solihull is a priority location for additional housing growth as well as its main towns. In accommodating any additional growth, Solihull cannot rule out the possibility of expanding into the existing green belt through settlement extensions or free standing new settlements. If Solihull is required to accommodate growth in the range of 10,000 to 13,000 additional dwellings the prospect of new settlements in the borough cannot be ruled out and is likely to have significant impacts upon the existing environmental quality of the area as well as the transport infrastructure, particularly if a settlement is located in close proximity to the M42.

The table overleaf provides a comparison and overview of the three broad scenarios that have emerged from the NLP study together with the three housing scenarios considered for the M42 Corridor Growth Area. Particular consideration is given in respect to each of their potential impact on regional objectives, addressing housing requirements, the release of economic potential and adjacency benefits.
<table>
<thead>
<tr>
<th>Policy Objectives</th>
<th>Scenario Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Objectives</strong></td>
<td><strong>Growth Scenario 1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Growth Scenario 2</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Growth Scenario 3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NLP Scenario One</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NLP Scenario Two</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NLP Scenario Three</strong></td>
</tr>
<tr>
<td><strong>Addressing Housing Requirements</strong></td>
<td><strong>Existing RSS policy approach unlikely to achieve housing demand for Birmingham/Solihull and potential growth aspirations</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Increased housing provision to support regeneration and housing growth potential. Numbers are below household projections and could impact upon the ability to meet future housing demand. Black Country and Coventry allocated high housing to reflect regeneration</strong></td>
</tr>
<tr>
<td></td>
<td><strong>High housing growth will achieve future household requirements but is likely to require development on the edge/outside of the MUAs.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>High housing growth will achieve future household requirements. Will lead to increased development outside MUAs and potentially impact upon regeneration aspirations of Solihull, Birmingham and Coventry.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>High housing growth will achieve future household requirements. Will lead to increased development outside MUAs i.e. Warwickshire but it is envisaged that for Solihull this will not be as detrimental Scenarios 1 and 3.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>More focus outside MUAs i.e. New Settlement for Solihull and increased provision in Warwickshire. Could impact on outward migration from MUAs and environmental quality of Solihull. Infrastructure implications (potentially M42 and rail).</strong></td>
</tr>
</tbody>
</table>
## Ability to release Economic Potential

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low housing growth will impact upon the economic potential of the Corridor by failing to produce an adequate workforce in close proximity to the strategic assets, adequate provision of housing choice and to address affordability issues</td>
<td>Increased housing provision and household growth adjacent to the Growth Corridor will provide a ready labour force. Potential to link in employment opportunities with regeneration and skills investment.</td>
<td>North Solihull and Eastern Corridor of Birmingham have significant potential to benefit from the Corridor's economic growth provided to adjacent communities in some of the most deprived communities.</td>
</tr>
<tr>
<td>Increased housing provision and household growth adjacent to the Growth Corridor will provide a ready labour force. Potential to link in employment opportunities with regeneration and skills investment.</td>
<td>Provision of significant number of additional housing in the south east part of the Region has the potential to aid economic growth. However, potential to place significant infrastructure pressures on the area and will require a new settlement for Solihull which will affect the environmental quality of the area.</td>
<td>This scenario is most in line with RSS Phase Two housing numbers and potential to meet household projections as well as potential for each LA to achieve numbers above RSS minimum requirements. Growth will be focused in areas such as E Corridor and Solihull. However, Solihull may require some provision outside its MUA but is unlikely to have the same environmental impact as Scenarios 1 &amp; 3.</td>
</tr>
<tr>
<td>Provision of significant number of additional housing in the south east part of the Region has the potential to aid economic growth. However, potential to place significant infrastructure pressures on the area and will require a new settlement for Solihull which will affect the environmental quality of the area.</td>
<td>Provision of significant number of additional housing in the south east part of the Region has the potential to aid economic growth. However, potential to place significant infrastructure pressures on the area and will require a new settlement for Solihull which will affect the environmental quality of the area.</td>
<td>Potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
</tr>
</tbody>
</table>

## Adjacency Benefits

<table>
<thead>
<tr>
<th>Corridor Benefits</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Solihull and Eastern Corridor of Birmingham have significant potential to benefit from the Corridor's economic growth provided to adjacent communities in some of the most deprived communities.</td>
<td>Potential to link economic growth arising from the Growth Corridor with adjacent communities may be impacted upon if</td>
<td>Significant potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
</tr>
<tr>
<td>Significant potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
<td>Potential to link economic growth arising from the Growth Corridor with adjacent communities may be impacted upon if</td>
<td>Potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
</tr>
<tr>
<td>Potential to link economic growth arising from the Growth Corridor with adjacent communities may be impacted upon if</td>
<td>Significant potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
<td>Potential to link economic growth potential arising from the Growth Corridor with adjacent communities in some of the most deprived communities.</td>
</tr>
<tr>
<td>improve its housing offer and accommodate potential household growth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>of the most deprived areas of Solihull and Birmingham. Potential to link opportunities with Coventry’s growth aspirations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>housing growth is situated on the edge and outside MUAs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>housing growth is situated on the edge and outside MUAs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>areas of Solihull and Birmingham. Potential to link opportunities with Coventry’s growth aspirations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>housing growth is situated on the edge and outside MUAs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11.8 Impact of RSS Phase Two Revision Scenario

The indicative development scenario for housing arrived at through this study for the M42 Corridor Growth Area is the ‘RSS Phase Two Revision’ scenario. This proposes that housing growth for Birmingham and Solihull and more specifically the M42 Corridor Growth Area should occur broadly in line with the Phase Two Revision housing figures but acknowledges that these are minimal figures and that there could be potential for these to be exceeded.

Options are being tested by BCC to consider the capacity to accommodate an additional 60,000 dwellings in the city without any physical expansion of the built up area but with a focus on the Eastern Growth Corridor as well as other regeneration priority areas. This provides an opportunity for the regeneration of the Eastern Growth Corridor and increased housing growth to be closely aligned to the investment and economic growth potential arising from the M42 Corridor Growth Area.

In the case of SMBC, options will need to be tested to determine how housing growth in line with and above the Phase Two Revision figures can best be met. Again, whilst potential exists for accommodating housing provision above the Phase Two Revision requirements, it remains uncertain whether Solihull will be able to achieve an additional 5,000 dwellings without encroaching into the Green Belt or through extensions to existing settlements. Growth above an additional 5,000 dwellings is likely to require the provision of new settlements.

The impact of this scenario in respect of the M42 Corridor Growth Area can be summarised as:

- Residential development will be focussed on the MUAs and will thereby contribute to urban renaissance objectives.
- Housing provision adjacent to the M42 Corridor Growth Area will assist in providing a readily available labour force to meet employer demands and increased employment opportunities in the locale.
- There is strong potential to link the growth in employment opportunities to the regeneration of residential areas in the Eastern Growth Corridor and North Solihull in particular – the development of labour market access programmes will be critical to this.
- There are broader opportunities across the M42 Corridor Functional Area to contribute to the growth aspirations of other areas including Coventry.

11.9 Strategic Conclusions

The strategic conclusions that can be drawn from the assessment of the potential housing impact of development within the M42 Corridor Growth Area are:

- Limited housing growth provides an opportunity for both Birmingham and Solihull to accommodate and better provide an expanded future workforce to service the growth in
employment arising from the promotion of economic development within the M42 Corridor Growth Area.

- A high housing growth scenario for Solihull that significantly exceeds the figures postulated in the Phase Two Revision can be expected to have considerable adverse implications for both environmental quality and transport infrastructure and over the longer term could have a detrimental impact on the investment potential and locational advantages of the M42 Corridor Growth Area.

- Realisation of the 'RSS Phase Two Revision' scenario with a focus for residential development in the Eastern Growth Corridor and North Solihull will assist in meeting urban renaissance objectives and stimulate the renewal of deprived communities – particularly if labour market access and skills development programmes are introduced by public and private sector partners to stimulate enhanced linkage with the economic growth opportunities available in the M42 Corridor Growth Area.

- Housing growth aspirations in Coventry also have the potential to contribute significantly towards meeting the increased demand for labour that will arise from the promotion of the strategic economic assets located in the M42 Corridor Growth Area and could assist in accommodating any shortfall in housing provision in either Birmingham or Solihull.

- It is clear that there is an excellent opportunity for linking the economic development potential of the M42 Corridor Growth Area with housing needs in both Birmingham and Solihull. Housing renewal in both the Eastern Growth Corridor and North Solihull in particular will assist in providing the necessary labour to meet the demands of rising employment opportunities in the M42 Corridor Growth Area. Employment growth in the M42 Corridor Growth Area arising from the 'Global Knowledge Hub' scenario will provide economic opportunities for residents of both Birmingham and Solihull and specifically those deprived communities that lie adjacent to locale. In housing terms the 'RSS Phase Two Revision' scenario unlike higher growth scenarios is more capable of being accommodated without running the risk of an adverse impact on the investment and locational attractiveness of M42 Corridor Growth Area.
12.0 Transport Impact

12.1 Introduction

This section of the report highlights the potential transportation impacts arising from the delivery of the indicative development scenario.

12.2 Developing Scenarios

The strategic economic assets located in the M42 Corridor Growth Area offer considerable potential for the promotion of employment and productivity growth across the region together with opportunities to contribute towards the accommodation of housing growth and neighbourhood renewal in adjacent deprived communities, – particularly in respect of the 'Global Knowledge Hub' and 'RSS Phase Two Revision' scenarios that have been applied to economic and residential development respectively. The realisation of this level of employment growth will undoubtedly have impacts on the operation of the transport network and it is to this issue that the report now turns.

In order to test the impact of the 'Global Knowledge Hub' scenario on the transport network the PRISM Model has been used. Long terms impacts have been forecast up to for 2026. This is the year that the Phase Two Revision runs until. In addition, the DfT TASTs agenda is planned to see substantial increased investment from 2014 onwards, and as such, 2026 is considered to be a realistic test date. Two transport scenarios have been used to test the impact of the 'Global Knowledge Hub' scenario:

- 'Do Minimum Option' – this represents transport investment that is already almost certain to go ahead. Essentially, this scenario therefore assumes that no further investment than that already planned will go ahead.
- 'Do Something Option' – this assumes that further transport investment including three major infrastructure measures are carried out over the next 15 to 20 years.

12.3 Do Minimum Option Scenario

12.3.1 Transport Data

The 'Do Minimum Option' scenario includes:

- Measures that are identified and approved within the West Midlands' RFA. All of these schemes have approval, provisional approval or are expected to gain approval in the near future and are summarised in the table overleaf.
<table>
<thead>
<tr>
<th><strong>Table 12.1 Transport Schemes included in the Do Minimum Option Scenario</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A41 Expressway/All Saints Way Junction Improvements</td>
</tr>
<tr>
<td>A4123/A461 Burnt Tree Island</td>
</tr>
<tr>
<td>A45/A46 Tollbar End</td>
</tr>
<tr>
<td>ATM on Motorway Box</td>
</tr>
<tr>
<td>BIA and NEC Enhanced Public Transport Access</td>
</tr>
<tr>
<td>Birmingham Outer Circle Junction Improvements (Route 11)</td>
</tr>
<tr>
<td>Brierley Hill Sustainable Access Network</td>
</tr>
<tr>
<td>Burntwood Bypass</td>
</tr>
<tr>
<td>Bus Showcase Corridors</td>
</tr>
<tr>
<td>Chester Road Access Improvements</td>
</tr>
<tr>
<td>Coleshill Multimodal Interchange</td>
</tr>
<tr>
<td>Coventry Quality Bus Network</td>
</tr>
<tr>
<td>Coventry Station Interchange</td>
</tr>
<tr>
<td>Cradley Heath Town Centre Strategy</td>
</tr>
<tr>
<td>Darlaston SDA Access Project</td>
</tr>
<tr>
<td>Hagley Road Bus Routes</td>
</tr>
<tr>
<td>Northfield Regeneration</td>
</tr>
<tr>
<td>Owen Street Level Crossing Relief Road</td>
</tr>
<tr>
<td>Red Routes Packages 1 and 2</td>
</tr>
<tr>
<td>Selly Oak Access Road</td>
</tr>
</tbody>
</table>
A41 Expressway/All Saints Way Junction Improvements

Walsall Town Centre Transport Package

Wolverhampton Centre Access Interchange

Wolverhampton I54 Access

Source: Mott MacDonald, 2008

- Assumes the implementation of Phase 1 and 2 of the Highways Agency’s ATM programme. This is summarised in the table below.

Table 12.2 Phase 1 and 2 of Highway Agency ATM Programme

<table>
<thead>
<tr>
<th>Section</th>
<th>Proposed Scheme</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>M40 (J16 – M42)</td>
<td>CM</td>
<td>2009</td>
</tr>
<tr>
<td>M42 (J7-9)</td>
<td>CM</td>
<td>2009</td>
</tr>
<tr>
<td>M42 (J9-7)</td>
<td>ATM</td>
<td>2009</td>
</tr>
<tr>
<td>M6 (J4a-5)</td>
<td>ATM</td>
<td>2010</td>
</tr>
<tr>
<td>M6 (J5-4a)</td>
<td>ATM</td>
<td>2010</td>
</tr>
<tr>
<td>M6 (J4-4a)</td>
<td>CM</td>
<td>2010</td>
</tr>
<tr>
<td>M6(J4a-4)</td>
<td>ATM</td>
<td>2009</td>
</tr>
<tr>
<td>M6 (J8W-10a)</td>
<td>ATM</td>
<td>2011</td>
</tr>
<tr>
<td>M6(J10a-J8W)</td>
<td>CM</td>
<td>2011</td>
</tr>
</tbody>
</table>

Source: Mott MacDonald, 2008

CM = Controlled Motorway; ATM = Active Traffic Management

- A reversible lane configuration at Junction 6 of the M42 whereby four lanes are used southbound in the morning, whilst four lanes are used northbound in the evening.
12.3.2 Land Use Data

This scenario assumes the level of growth associated with the Phase Two Revision which in the absence of other policy guidance is adjudged to provide the most realistic current set of population and employment forecasts.

12.4 Do Something Option Scenario

12.4.1 Transport Data

This scenario assumes a higher level investment strategy includes major infrastructure measures which, if implemented, would be expected to result in significant capacity improvement within the M42 Corridor Growth Area. These represent longer term options and do not represent current policy at a regional or national level. However, they do provide a good indication of the ability of large scale transport capacity investment to deal with the growth implications of the ‘Global Knowledge Hub’ scenario.

The ‘Do Something Option’ scenario therefore includes the following:

- Signalisation of A45/A452 Junction.
- Signalisation of M42 Junction 5 (M42 / A4141).
- Improvement of M42 Junction 6 including widened circulatory carriageway to 5 lanes along M42/A45 junction
- Dedicated BRT link to NEC/BIA
- Metro line extension from Birmingham City Centre to BIA (includes the extension from Snow Hill to Stephenson Street).
- 33% capacity increase in both directions along M42 to replicate M42 widening\(^{101}\)
- Updated planning information to reflect the 2026 build out for the ‘Do Something Option’ scenario.

In addition the modelling work has assumed an additional 10% reduction in demand at each employment site to reflect the impact of a package of ‘Smarter Choice’ initiatives and related measures such as improved local bus services and railway station enhancements.

It should be noted that even though there is neither committed funding nor planning powers to enable delivery of the ‘Do Something Option’ scenario the transport infrastructure improvements associated with it are well understood and as such it reflects a reasonable working assumption regarding what might be delivered.

\(^{101}\) M42 widening is not currently part of the HA plans but ongoing development of ATM is intended to continue to deliver capacity benefits and as such could tend towards a 33% increase in motorway capacity anyway. Clearly the challenge to the Highways Agency is to demonstrate that technology solutions can be used to achieve this level of increase without the need for full widening.
12.4.2 Land Use Data

Under this scenario the assumed employment growth levels in the PRISM model zones (which correspond to the key destinations along the M42 Corridor Growth Area) have been based on the overall levels of employment growth predicted from 2007 to 2026 by the REMI – ECOTEC Model under the 'Global Knowledge Hub' scenario. The REMI – ECOTEC Model does not distinguish between direct and indirect employment and so the overall growth level has been taken as a proxy for the change in direct employment. The growth factors derived have been applied to the base year (2006) employment assumptions for those PRISM model zones. For all other Prism Model zones, the Phase Two Revision levels of growth in employment and housing have been used, recognising that these represent significant increases over current levels. The assumed increases in employment have been reduced by 10% to reflect the impact of 'Smarter Choices' investment which cannot be readily modelled. Such a reduction is substantial and will prove challenging but lies within the range that is recognised as being potentially deliverable if there is strong commitment to it.

12.5 Comparison of Impact

The PRISM Model has been used to produce a comparison between the 'Do Minimum Option' scenario and the 'Do Something Option' scenario for the M42 Corridor Growth Area from its intersection with the M5 and Junction 7, where the M42 meets the M6. The A45, to the east and west of Junction 6 on the M42 has also been modelled due to its primacy as a link to BIA and the NEC.

The outputs from the PRISM Model provide an indication of how congested the M42 will be by looking at the predicted volumes along a given stretch of road and comparing these against its capacity. The volume versus capacity can then be expressed as a ratio or a percentage where the higher the ratio/percentage the higher degree of saturation. The following figures provide a graphic illustration of the outputs from the PRISM Model.
Figure 12.1 AM Northbound Comparisons of Do Minimum and Do Something Scenarios

M42 Northbound Do Minimum v/s Do Something V/C (AM)
Figure 12.2 AM Northbound Comparisons of Do Minimum and Do Something Scenarios

M42 Northbound Do Minimum v/s Do Something V/C (PM)

SEGMENTS

- M42 (M5-A38(J1)) NB
- M42 (J1-J2) NB
- M42 (J2-J3) NB
- M42 (J3-J3a) NB
- M42 (J3a-J4) NB
- M42 (J4-J5) NB
- M42 (J5-J6) NB
- M42 (J6-M6) NB
- A45 (East M42) EB
- A45 (West M42) EB

V/C Ratio

- 2026 Do Minimum PM
- 2026 Do Something PM
Figure 12.3 AM Southbound Comparisons of Do Minimum and Do Something Scenarios

M42 Southbound Do Minimum v/s Do Something V/C (AM)
Figure 12.4 PM Southbound Comparisons of Do Minimum and Do Something Scenarios

M42 Southbound Do Minimum v/s Do Something V/C (PM)

SEGMENTS

<table>
<thead>
<tr>
<th>SEGMENTS</th>
<th>V/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 (M5-A38(J1)) SB</td>
<td>0.60</td>
</tr>
<tr>
<td>M42 (J1-J2) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J2-J3) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J3-J3a) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J3a-J4) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J4-J5) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J5-J6) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>M42 (J6-M6) SB</td>
<td>0.90</td>
</tr>
<tr>
<td>A45 (East M42) WB</td>
<td>0.30</td>
</tr>
<tr>
<td>A45 (West M42) WB</td>
<td>0.30</td>
</tr>
</tbody>
</table>

2026 Do Minimum PM
2026 Do Something PM
12.5.1 Impact on the M42

In respect of transportation impact on the M42 the PRISM Model forecasts:

- Highlight that the growth and transport combinations considered under the 'Do Something Option' scenario will not generate more overall congestion on the M42 than that likely to be experienced under the growth and transport combinations utilised to inform the 'Do Minimum Option' scenario. There are some links which show improvement and some which show deterioration but the differences between the two scenarios are extremely marginal.

- In the morning, both northbound and southbound on the corridor, the 'Do Something Option' scenario is likely to reduce congestion between the intersection with the M5 and Junction 3a, and Junction 6 to 7. On the other hand, it is likely to produce more congestion between Junctions 3a to 6.

- In the evening, northbound on the corridor, the 'Do Something Option' scenario will result in marginally more congestion on every link, with the exception of Junction 3a to 4 and 6 to 7. Southbound, the situation will be reversed with less saturation along the entire corridor apart from between the M5 and Junction 1 and Junction 4 to 5.

- Overall, Junctions 1 to 3a, under both the 'Do Minimum Option' scenario and the 'Do Something Option' scenario, northbound and southbound and in the morning and evening peaks are predicted to be the busiest stretches of the M42 corridor with saturation consistently at 90% or above.

- Congestion will therefore remain an issue within the M42 Corridor Growth Area, but the proposed improvements, together with the commitment to a strong 'Smarter Choices' policy, should ensure that growth can be accommodated without a significant increase in congestion.

12.5.2 Impact on the A45

In respect of transportation impact on the A45 the outputs from the PRISM Model indicate that:

- On the A45, to the east and west of the M42 at Junction 6, there is much more of a divergence between the likely saturation that will be witnessed under the 'Do Minimum Option' scenario and the 'Do Something Option' scenario.

- To the west of the M42, the A45 is likely to experience a considerable reduction in congestion under the 'Do Something Option' scenario. Northbound this discrepancy is around 20 percentage points, but southbound the difference is much higher – over 70 percentage points in the morning peak and around 45 in the evening.
• To the east of the motorway predicted saturation levels are more even. However, congestion should reduce under the 'Do Something Option' scenario; results are typically around five percentage points lower.

• It is not surprising that the A45 fares better under the 'Do Something Option' scenario than the 'Do Minimum Option' scenario, particularly to the west, considering the presumed investment in the A45/A452 junction, the dedicated link to BIA and a widened carriageway around Junction 6.

12.6 Strategic Conclusions

The strategic conclusions that can be drawn from the assessment of the potential transportation impact of development within the M42 Corridor Growth Area are:

• It is acknowledged that development and management of the strategic road network over the next 20 years will not be solely demand led (i.e. 'predict and provide'). The HA is bound to maintain compliance with DfT Circular 2/07\(^{102}\) which states that Government policy is not predicated on catering for unrestricted road traffic growth, regardless of whether this is a result of planned regional economic development.

• The results of the modelling exercise have highlighted that with the provision of infrastructure improvements the 'Do Something Option' scenario which allows for levels of employment growth under the 'Global Knowledge Hub' scenario, would, overall, give rise to no greater level of stress on the M42 Corridor Growth Area than that predicted under the 'Do Minimum Option' scenario which is predicated on employment and housing forecasts in the Phase Two Revision.

• Substantial investment will however be needed to accommodate this growth in traffic, together with a parallel and strong commitment to 'Smarter Choices' by both employers and employees. Notwithstanding recent investment in the ATM scheme on the M42 and the WCML, there will be a need for further enhancements to the ATM scheme and M42 Junctions, and investment in Midland Metro and other public transport. Additional investment, such as the proposals for a new High Speed Rail line from London to Birmingham and/or Manchester, are welcome and will support growth but their provision should not be regarded as a prerequisite for growth.

• Even so, some links would experience some increase in congestion: the increases are modest, but in order to satisfy the HA's requirements, cumulative impacts on the network would need to be assessed before planning consent could be put in place for the full scale of employment envisaged.

\(^{102}\) Circular 2/07, (2007), DfT
The exploitation of the economic development opportunities available in the M42 Corridor Growth Area should not pose a problem in terms of likely support from the HA. Realisation of the 'Global Knowledge Hub' scenario is not expected to demand any additional infrastructure to that required to support levels of growth within the West Midlands envisaged under the Phase Two Revision.

What will remain a concern to employers is that the foreseen growth will absorb almost all highway capacity released by substantial investment and therefore traffic congestion will remain a concern. Further improvements to rail, coach and bus capacity will be needed to support the promotion of public transport as part of the ‘Smarter Choices’ agenda.
13.0 Infrastructure Mitigation Measures

13.1 Introduction

This section of the report outlines a programme of transport infrastructure mitigation measures to support the realisation of the economic potential of the M42 Corridor and underpin the delivery of the indicative development scenario. The proposed strategy and the specific measures within it are critical to the delivery of the transportation impacts arising from the 'Do Something Option' scenario and as a result the delivery of the economic and housing benefits arising from the 'Global Knowledge Hub' and 'RSS Phase Two Revision' scenarios respectively.

13.2 Stakeholder Proposals

As part of the process of developing the indicative development scenario stakeholders were invited to prioritise mitigation schemes in order of their desirability. The results of this process are reported in full in Annex 1 and summarised below.

13.2.1 Must Haves

The schemes identified as 'must haves' have been deemed by stakeholders as prerequisites to the effective and sustainable operation of the M42 Corridor Growth Area. Typically, they are short term in nature and do not make significant investment demands. Many of the measures can be classified as 'soft' measures, in that they seek to influence travel behaviour and modal choice, rather than 'hard' measures which require significant infrastructure work. Some reflect more general policies rather than specific schemes. Identified schemes include:

- Intermodality – avoiding 'car dominance' of movement along the M42
- Area wide travel plan and Smarter Choices
- Demand mitigation
- Car sharing and campus car sharing
- Linkage to Regeneration Zones
- North south linkage
- Active Traffic Management
- Public Transport brokerage
- Intelligent transport and real time travel information
- ATM reliability
- Improving rail resilience
- Bus rapid transit system
- Junction capacity improvements to M42 and A45
- BIA Runway Extension
- BIA Terminal 3
13.2.2 Should Haves

The 'should have' category includes those measures which stakeholders felt should be in place. They are considered by stakeholders to be relatively deliverable but not essential. The measures include:

- Parking cost framework
- Demand responsive buses and rural penetration

13.2.3 Could Haves

The 'could have' category includes measures which stakeholders would like to see but also recognise as being both challenging and not fundamental requirements for the delivery of the economic development aspirations associated with the M42 Corridor Growth Area. Measures include:

- Four tracking Rugby to Birmingham
- Freight consolidation and shared facilities

13.2.4 Would Like to Have

The schemes identified by stakeholders as 'would like to have' were generally regarded as those which would make a substantial difference to transport capacity in the M42 Corridor Growth Area. However, they were also acknowledged as requiring significant investment or shifts in national policy in order for them to be realised. They are relatively well understood and developed concepts but due to their scale and size are typically long term schemes that are far from realisation. Measures include:

- Second runway at BIA
- BIA remote parking and check in
- M42 widening
- Midland Metro
- High Speed Two Rail
- Birmingham International Station railhead

13.3 Analysis of Key Modal Trends

It is clear that there are a number of transport improvement schemes for which there is a desire for implementation along the M42 Corridor Growth Area. However, whilst mentioned above as desirable, they are not all likely to be realised in the short or medium term future. Below, options for the different modes are discussed in turn, and in doing so the likely scenarios for improvement are highlighted.
13.3.1 Road

Extension of the ATM system to the rest of the Birmingham Motorway Box is almost certain. A detailed study of the results of the pilot scheme is currently underway, but improvements to the M42 Corridor Growth Area between Junctions 7 and 9 are phased for 2009. The reliability of ATM has been raised as an issue and it is anticipated that this will need to be addressed as roll out proceeds.

Other major infrastructure improvements, particularly M42 widening, are longer-term aspirations. M42 widening is a well understood scheme but there is, as yet, no commitment or funding. However, to allow for extension of the main runway at BIA there will need to be re-modelling of the A45: this provides a potential opportunity for further remodelling of Junction 6 if that is required. There is likely to be a need to continue to maximise the capacity of the M42 and this may require improvements to some of the junctions, including M42 Junction 6 and M42 Junction 5.

13.3.2 Public Transport

13.3.2.1 Rail

With the exception of the WCML improvements, which are nearing delivery, most other rail capacity measures are long term goals. Major development of Birmingham New Street Station is a key regional transport priority and there is commitment to substantial investment in passenger facilities. This is likely to encourage more rail use, but a substantial increase in the availability of train paths into Birmingham New Street Station is less likely to be realised in the medium term.

Other rail ‘solutions’ require significant investment and are also more problematic and long term, with regard to local and national support, operational issues and the substantial investment involved. The widening of the Rugby to Birmingham Rail Corridor, a High Speed Line between London and Birmingham and development of a railhead facility at Birmingham International Station are all subject to these issues. As such, whilst these may be delivered in due course, it would be unwise to base an investment strategy for economic growth upon the assumption that they will proceed.

13.3.2.2 Bus

The extension of bus services in the M42 Corridor Growth Area to provide more capacity, unlike options for other modes, could be achieved relatively quickly and would be less resource intensive as bus services require little infrastructure and are flexible in their operation.

There is scope in the short to medium term to increase north south linkage throughout the M42 Corridor Growth Area and secure improved links from BIA/NEC to the EBNSRZ and other employment catchments areas including more rural areas of the region. Provision of a rapid transit bus system could also respond to some demand for the NEC and BIA and be implemented in the short term.

It is worth noting, however, that any investment in bus services would need to be demand led (i.e. through analysis of where and what times services are required), receive full developer/land-owner
support and be accompanied by targeted marketing to encourage people to see buses as a viable mode of travel to out-of-town venues.

13.3.2.3 Metro

Extension of the Midland Metro from Birmingham City Centre to BIA and the NEC has local support from BIA and NEC, AWM, BCC, SMBC. West Midlands City Region, which comprises the seven metropolitan authorities and their respective chambers of commerce, has also lent its support to the prospect of the Metro line extension. It is seemingly amongst emerging plans for a £500 million Accelerated Development Zone (ADZ)\(^{103}\).

Despite local support Metro, however, there is presently little indication that it is a national priority. In addition the scheme would cost over £375 million and take 10 to 15 years to implement. However the ADZ, if successful could be a way in which to lever in funding to support delivery of the scheme. This remains a longer term proposal, however, and a Transport and Works Act and funding package remain to be prepared.

13.3.3 Air

The runway extension is the priority project within BIA’s Master Plan. An extended runway would enhance the airport’s existing capability, enabling it to serve a far wider range of destinations, markets and routes. The DfT’s 2006 report\(^{104}\) on the progress of the Future of Air Transport White Paper indicated that the runway should be operational by 2012.

A third passenger terminal is also part of the BIA Master Plan which would increase passenger terminal capacity significantly. A second runway, which was identified in the Future of Air Transport White Paper would increase runway capacity, but does not form part of BIA’s Masterplan to 2030.

In the long term consideration of the impact of a third terminal and a second runway on the surrounding surface transport would be required as both developments would be likely to give rise to more passengers.

13.3.4 Softer Measures

In addition to the more substantive infrastructure and system changes mentioned above, there are several ‘softer’ measures which have been identified which could be implemented to tackle demand. Measures such as area-wide travel plans, car sharing schemes and co-ordinated parking policies are often reliant on the backing and co-ordination of employers, but could easily be implemented in the short term to address demand on the motorway network.

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\(^{103}\) Accelerated Development Zones are an idea imported from the USA which use business rates to deliver improvements within the local area. In October 2008 the West Midlands City Region commissioned a study into establishing an ADZ submission to the Government. It would be a £500 million package with funds earmarked for public transport schemes. The intention is to deliver a step change in the quality of public transport in the metropolitan area.

\(^{104}\) Progress Report on the Future of Air Transport, (2006), DfT
13.4 Strategy for Transport Infrastructure Investment

The analysis of the deliverability of transport infrastructure combined with that considered appropriate and necessary for the realisation of the transport impacts forecast under the 'Do Something Option' scenario suggests that it would be sensible to structure a programme for investment in transport infrastructure within the M42 Corridor Growth Area around short (up to 2012), medium (up to 2026) and long term (beyond 2026) actions. The table below illustrates such a programme of short, medium and long term transport infrastructure investments.

Table 13.1 Transport Infrastructure Investment Programme

<table>
<thead>
<tr>
<th>Mode</th>
<th>Measure</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short term</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road</td>
<td>Expansion of intelligent transport systems</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Variable speed limits to help manage demand safely.</td>
<td>HA</td>
</tr>
<tr>
<td>Public transport</td>
<td>Public transport brokerage to ensure accessibility to skill levels at the right time of day.</td>
<td>Land Owners, Developers and Centro</td>
</tr>
<tr>
<td></td>
<td>Provision of real time travel information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linkage between the north and south of the corridor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linkage to Regeneration Zone in East Birmingham / North Solihull</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Differential pricing to encourage use of non-peak services, hence diffusing demand.</td>
<td>HA</td>
</tr>
<tr>
<td>Planning / soft measures</td>
<td>Developing a parking cost framework for a co-ordinated parking policy</td>
<td>Land Owners, Developers and Operators</td>
</tr>
<tr>
<td></td>
<td>Car Sharing &amp; Campus Car Sharing</td>
<td>Land Owners, Developers and Transport Authorities</td>
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<td></td>
<td>Area Wide Initiative/Green Travel Plan</td>
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<tr>
<td><strong>Medium term</strong></td>
<td></td>
<td></td>
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<tr>
<td>Road</td>
<td>Freight consolidation and shared facilities</td>
<td>SMBC / BCC / BIA / NEC</td>
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<td></td>
<td>Junction capacity to address any potential issues of bottle-necking</td>
<td>HA</td>
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<td></td>
<td>Improving ATM reliability</td>
<td>HA</td>
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<td>Mode</td>
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<td>Public transport</td>
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<td>Network Rail</td>
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<td>High quality public transport / express buses to BIA and NEC</td>
<td>Centro</td>
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<td></td>
<td>Demand responsive buses and penetrating rural communities that may have commuting requirements</td>
<td>SMBC / BCC / Land Owners</td>
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<tr>
<td>Air</td>
<td>Terminal 3</td>
<td>BIA</td>
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<td>M42 widening</td>
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<tr>
<td>Public transport</td>
<td>Midland Metro extension</td>
<td>Centro</td>
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<tr>
<td></td>
<td>High Speed 2 Rail</td>
<td>DfT / Network Rail</td>
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<tr>
<td></td>
<td>Expanding to four rail tracks between Rugby and Birmingham</td>
<td>DfT / Network Rail</td>
</tr>
<tr>
<td>Air</td>
<td>Railhead at Birmingham International rail station</td>
<td>Network Rail</td>
</tr>
<tr>
<td></td>
<td>2nd runway (not in BIA MasterPlan so not envisaged until after 2030)</td>
<td>BIA</td>
</tr>
<tr>
<td></td>
<td>Remote parking and check-in</td>
<td>BIA</td>
</tr>
</tbody>
</table>

Source: Mott MacDonald, 2008

Short term measures include those schemes which are relatively deliverable. The costs are generally within a realistic range; the solutions are consistent with current objectives; and are sometimes in line with existing investment aspirations.

Medium term schemes are also largely in line with current policy and should also all be deliverable. The costs of such schemes will, however be more significant and, as such, a longer lead in time is anticipated. It is likely that delivery and funding will run in tandem with economic growth and that some sort of funding mechanism to capture future increases in land value will be needed in order to enable the provision of pre-requisite infrastructure.

Long terms solutions are likely to be more challenging to implement as they are, in general not consistent with current governmental policy priorities and may require a shift in thinking before they can be realised. Other schemes have significant funding requirements, which also make them unlikely to proceed in the foreseeable future. This is not to say, however, that the impact of such long term schemes is insignificant.
13.4.1 Importance of Complementary Measures

Within the short term measures above, are a range of ‘softer’ measures which could be employed to complement any capital investment schemes which are progressed. These ‘softer’ demand management solutions are typically smaller, lower in cost, less controversial and have shorter lead times. They are also supported by Circular 2/07, which very much places the responsibility on developers to think more creatively about the implementation of sustainable demand management techniques.

Considering that trips from the NEC, BIA and other business sites compound the challenge posed by heavy traffic flows on the M42 and surrounding areas, softer employer led measures are considered to certainly have a role to play in the M42 Corridor Growth Area.

An Area Wide Travel Plan, therefore, could assist businesses located around the M42 to influence the travel habits of both employees and visitors, in favour of more sustainable modes. A three tier structure which an Area Wide Travel Plan for the M42 Corridor Growth Area might take is outlined in the table below.

Table 13.2 M42 Corridor Area Wide Travel Plan

| Phase 1 - Area-Wide Travel Plan | High level travel plan framework set at a strategic level that identifies the area’s collective transport objectives. It would be recommended that key organisations surrounding the M42 set up an Area Wide Travel Plan to combine their efforts in tackling key issues, and to establish strong relationships with public transport operators and Local Authorities to negotiate particular transport measures to help mitigate traffic growth within their local area and to combine the area wide targets and objectives. |
| Phase 2 – Business Travel Networks | Geographical or sector based clusters of businesses join together and develop an over-arching plan for their members. This reflects the area-wide objectives, whilst also including more local specific issues. A Business Travel Network (BTN) is a type of Local Travel Plan Group (LTPG) in which a group of organisations work together to share resources and ideas for developing and implementing an area wide travel plan in their local area. BTNs are particularly useful in facilitating a sustainable travel commitment from small or medium-sized businesses that may not have the financial backing or planning incentive to adopt a personal travel plan. They also benefit from the financial and management support of larger businesses, especially when dealing with particular problems or issues. |
| Phase 3 - Individual Travel Plans | Each organisation develops its own site specific travel plan, reflecting the local area and area wide objectives, whilst taking forward their own site specific key themes. |

Source: Mott MacDonald, 2008
The main organisations that might be expected to participate in this process will clearly be the NEC, BIA, Birmingham Business Park and potentially Blyth Valley Business Park, Landrover and SMBC. However within the key sites there are a much wider range of organisations who should be encouraged to participate at the Individual Travel Plan level.

Ultimately all sites and organisations within the M42 Corridor Growth Area should be encouraged to develop an Individual Travel Plan which sets out their own specific objectives and targets. All sites and organisations will have different issues to resolve specific to the site and travel demand.

However, participating in a collaborative Area Wide Travel Plan that encompasses many different organisations, sites and developments will then enable all parties to combine, creating economies of scale. These economies of scale help take individual site objectives further forward, as well as contributing to wider area collective key themes.

An Area Wide Travel Plan that has the support of a number of high profile businesses from around the area has potential to:

- Create the opportunity to exchange information and ideas, on how to promote sustainable travel to their employees.
- Increase collective bargaining power with local public transport providers and Local Authorities in terms of infrastructure needed to support the Travel Plan.
- Provide a co-ordinated point of contact for liaison with other entities such as JobCentre Plus and education establishments.
- Develop more cost effective Travel Plan measures.
- Enhance relationships and mutual understanding.
- Secure greater sources of funding.

As well as a reduction in single occupancy car trips, the successful implementation of Travel Plans should lead to improved, more reliable journey times, reduced environmental impacts and reduced levels of employee stress. It should also support access to employment thus aiding recruitment and retention of staff. Together with the Local Authority and other key stakeholders, surrounding businesses can secure greater travel choices for existing car users and thus promote the use of more sustainable modes.

It has been shown that the implementation of travel plans can reduce car use by up to 20%\textsuperscript{105} and the DfT has found that each £1 spent on these measures brings up to £10 in benefit from reduced congestion\textsuperscript{106}. Whilst the level of benefits achievable depends heavily on the context, this provides a benchmark with which to consider the M42 Corridor Growth Area and the ability of such measures to help address congestion.

\textsuperscript{105} Highways Agency News Release 659/SW/07, (2007), Highways Agency  
\textsuperscript{106} Smarter Choices: Changing the Way we Travel, (2004), Cairns etc al for DfT
Within a Travel Plan certain initiatives and measures can be built in to ensure that the negative impacts of traffic congestion will be reduced. The stakeholder workshops undertaken as part of this study identified a range of measures to ease traffic congestion on the M42. The measures that should be built into a Travel plan (and benefit from employers working collectively) include:

- **Car Sharing and Car Pooling**: Forming a cross-area Car Sharing scheme which all organisations sign up to, for employees commuting to and from the workplace has benefits over individual schemes as the overall number of participants and journey pool is of a greater mass therefore ensuring a better database for match success.

- **Demand Responsive Public Transport**: A combined approach by organisations such as BIA and the NEC could lead to the development of a Demand Responsive Transport scheme. This scheme could be available to both the public and employees and can be designed to be more flexible to shift patterns than a conventional scheduled bus service. Similarly, the use and associated cost of running a smaller vehicle may help improve the service viability.

- **Dedicated website**: Providing local transport information and advice through the BTN a collaborative website could be built for the area surrounding the M42 for the general public to find out travel information to key places such as NEC, BIA for bus and train travel, Car Sharing and other travel initiatives.

- **Real Time Traffic Information**: This could be made available through the group website to provide employees and members of the public with real time traffic issues on the motorway network so they can plan their journeys before travel. This information could also be sent via mobile phone direct to subscribers.

- **Cycle Facilities**: Parking in key locations for businesses also development of changing facilities and showers which would also include safe storage for bike equipment and also encouraging healthy lifestyles within the workforce and local community. Cycle training and repair facilities can also be offered across network members. Such facilities will also be of value for travel within the larger sites, thus reducing internal circulation.

- **Car Park Management Plans**: Key sites could collaborate to find a more coherent way of managing car parks, also providing enhanced staff car parking facilities for car sharers and cyclists.

- **Personalised Travel Planning for Employees at Organisations**: Key organisations could collaborate with Local Authorities and public transport providers to give staff and visitors more personalised travel information and to make the public aware of all the available options.

- **Smarter Working Initiatives**: Network members can jointly investigate the potential impact of telephone and video conferencing to reduce business travel.

- **Flexible Working**: Network members can jointly investigate the potential impact of introducing flexi time options or compressed working hours. This has the potential of reducing demand / spreading demand outside peak hours.

- **Negotiations with Public Transport Operators**: By forming a BTN and achieving ‘strength in numbers’ organisations will have more influence when negotiating with transport operators to encourage them to consider new services or timetable alterations to meet the needs of staff and visitors to their site. Discounted fares and ticketing is also more likely when benefits of scale can be proven. With there not being a North – South Linkage negotiations and funding can be
tackled by the BTN to discuss requirements, a Public Transport Brokerage can help accessibility and increase jobs in the area and frequent bus services to the NEC and BIA can also be negotiated to again ease accessibility.

- **Negotiations with Local Authorities:** Through the development of a BTN, Local Authorities may also wish to join to help develop travel initiatives to set, monitor and attain targets.

The positive impacts that these measures could have on traffic levels on the M42 correlate with some of the key issues raised by stakeholders in the preparation of this study including:

- **Intermodality** – improving modal share for more sustainable modes on the M42 Corridor Growth Area can be encouraged by providing a different range of transport and interchange options for the public. This could be achieved by holding discussions with public transport operators such as Centro and train operators, and could include input to the design of enhanced rail facilities including the new gateway station concept for Birmingham New Street Station, plans to extend the Metro to the NEC and BIA and quality bus and long distance coach schemes to further enhance mobility. The BTN can make a significant difference when negotiating terms and predicting trip numbers with these organisations.

- **Linkages to RZs** – the M42 Corridor Growth Area borders onto the EBNSRZ and as such is a key feeder route into the area. Negotiations can be held with public transport operators to discuss allowing more buses to connect with these areas requiring little infrastructure investment. This would have a relatively short implementation timescale as developers are being asked to make provision for public transport to access these developments.

- **Marketing, Branding and Promotion** – it will be imperative to promote any scheme or initiative that is developed. All scheme information should be publicised through posters, information leaflets and information points at key locations throughout the area of operation to communicate travel options and initiatives. The development of a brand which encompasses the many aspects of the Area Wide Travel Plan would be helpful in creating a uniform identity under which all activities can sit. This makes the Area Wide Travel Plan more easily identifiable, and presents a scheme which is bigger than the sum of its parts. A successful brand can also create a feeling of trust and security amongst users and raise the profile of the work as a whole. The Area Wide Travel Plan can also be used to promote a number of themes – environment, health, economy etc.

### 13.4.2 Deliverability and Funding

During the course of this study a number of major transport infrastructure improvements schemes have been identified as being important to the future development of the M42 Corridor Growth Area. It is estimated that the delivery of all the identified major infrastructure schemes could cost in the region of £13bn comprising of:

- **Rail 4-tracking:** £900.0m
- **High Speed Rail 2:** £11.0bn
• M42 widening: £545.0m
• Midland Metro: £375.6m
• Junction Improvements: £83.0m
• Bus Rapid Transit System: £10.0m

TOTAL COST: £12.9bn

A smaller package of measures drawn from the above which is felt to be a realistic scale of investment and which is deliverable within the RSS timescale has, however, been assessed in developing and testing the transport impact of the ‘Do Something Option’ scenario. This includes the following major infrastructure improvements:

• M42 enhanced ATM: £100.0m
• Midland Metro: £375.6m
• Junction Improvements: £83.0m
• Bus Rapid Transit System: £10.0m

TOTAL COST: £0.6bn

Annex 2 provides further details on the cost, programming, operational implications, environmental impact and ‘buildability’ of each of these proposed improvements. A critical consideration generally common to all is that most of the schemes have a substantial lead in time and would require early planning in order to secure their delivery. There are also issues over the ability to deliver multiple schemes concurrently or one after another due to the funding required and also the likely operational impacts of the construction works on local businesses. The table below provides an overview of potential funding opportunities that may be available to promote the delivery of the necessary transport improvement schemes.

### Table 13.3 Potential Funding Opportunities for Transport Improvement Schemes

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Commentary</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADZ</td>
<td>This is a relatively new concept. ADZ status might enable rapid development and bring funding, but this is neither committed nor well understood. It seems that ADZ is largely a tool to enable borrowing against land value capture and developer contribution and as such represents a streamlined alternative to the RIF, PFI or Prudential Borrowing,</td>
<td>ADZ status being explored at City Region level with the M42 identified as a potential priority for investment</td>
</tr>
<tr>
<td>Funding Source</td>
<td>Commentary</td>
<td>Delivery</td>
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<tr>
<td><strong>LTP</strong></td>
<td>LTP funds already support transport investment and will continue to do so, but demand remains high and LTP3 is not yet clear</td>
<td>LTP2 funds are largely committed. Partnership may wish to focus on LTP3.</td>
</tr>
<tr>
<td><strong>RFA</strong></td>
<td>RFA will support committed schemes which have already been evaluated. This includes some M42 aspirations</td>
<td></td>
</tr>
<tr>
<td><strong>CIF</strong></td>
<td>CIF offers potential to support schemes which unlock development potential and thus could be a productive funding sources of funds which comply with CIF rules</td>
<td>A recent round of CIF bids have been submitted. Further opportunities should be awaited</td>
</tr>
<tr>
<td><strong>TIF</strong></td>
<td>The West Midlands has withdrawn from the Congestion TIF process. Productivity TIF will provide potential funds for measures which can be shown to boost productivity</td>
<td>Productivity TIF offers a mechanism to support investment</td>
</tr>
<tr>
<td><strong>PFI</strong></td>
<td>Private Finance is well established in transport and other sectors. PFI offers an excellent mechanism for funding measures which could not be funded under PSBR rules. The Private Sector, however, is highly risk averse and so Private Finance can be costly to service and particularly hard to win in the current economic climate</td>
<td>PFI could be a mechanism to fund a scheme for which no other finance is available but preparation can be expensive and market conditions are not favourable</td>
</tr>
<tr>
<td><strong>CIL</strong></td>
<td>There are a range of existing and potential mechanisms to help to gather funding from developers</td>
<td>These offer the potential to release value but in the current climate may not lend themselves to achieving up-front investment</td>
</tr>
<tr>
<td><strong>Developers Own Funds</strong></td>
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<tr>
<td><strong>S106</strong></td>
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<tr>
<td><strong>Land Value Tax</strong></td>
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<tr>
<td><strong>Prudential Borrowing</strong></td>
<td>Local authorities can borrow additional funds to support investment. Such funds might support local investment but would need a clear plan to achieve repayment</td>
<td>This may be a mechanism to enable a time-shift to bring potential developer contributions forward</td>
</tr>
</tbody>
</table>
### Funding Source | Commentary | Delivery
--- | --- | ---
RIF | A Regional Infrastructure Fund would use a central funding pot to assist in bringing economic regeneration sites to market readiness. | Like Prudential Borrowing, the RIF enables investment to be offset against future income. If capital funds enable a RIF to be established then the need to service debt interest repayments can be avoided. |
Land Sales | Where land is in local authority ownership there may be scope for judicious land sales to fund infrastructure investment | Scale of land-holding is uncertain and income is not likely to be maximised in the current economic climate |
DFT | DfT operates a number of funding sources which may support different aspects of any strategy | Funding for major schemes is subject to very clear requirements |
ERDF | ERDF has diminished significantly in scale in the UK since the completion of the 2000-2006 programme but £270 million remains in the 2007-2013 programme for the West Midlands | ERDF may support technical research but is unlikely to provide major capital support |
TASTs | TASTs is intended to establish a 5-year transport investment plan from 2014. | Inclusion of key items from the M42 Corridor within TASTs is a priority |

*Source: Arup and Mott MacDonald, 2008*

### 13.4.3 Moving Delivery Forward

The short, medium and long term transport infrastructure investment priorities outlined for the M42 Corridor Growth Area provide a basis from which to develop a strategy for ensuring that the transport network can deal with the levels of employment growth forecast under the ‘Global Knowledge Hub’ scenario. The modelled results for the ‘Do Something Option’ scenario in respect of transport impact, however, do highlight that when the growth predictions from the ‘Global Knowledge Hub’ scenario are applied, even widening the M42 may not mitigate rising demand. The most pragmatic way forward, therefore, seems likely to involve acknowledgement and action on the following strategies.

- **Challenge for the Highways Agency**: It remains likely that M42 widening will not be an immediate priority the HA, due to the investment required and concern to remain compliant with Circular 2/07. There is a challenge, therefore, to proceed with the ATM programme and work to make sure that it is able to provide a capacity increase in the order of 33%, thereby dealing with increases in traffic volumes. Improving the reliability of ATM systems will help in this task.
- **Challenge for developers**: There is also a challenge to developers and land owners to establish a package of soft demand measures, for example through a co-ordinated Area Wide
Travel Plan. For comparatively little ‘Smarter Choice’ schemes could make a significant contribution to easing pressure on the M42 Corridor Growth Area in the short, medium and long term and thereby mitigate the impact of higher employment growth in the area. There is a role for local authorities in encouraging / requiring developers to embrace these responsibilities.

- **Continued monitoring:** In terms of road capacity, a key action going forward is to better understand the impact on travel demand of the NEC and BIA development plans, particularly on the M42 and Junction 6. In addition, trends in demand from the EBNSRZ will also need to be monitored closely. A primary aim of the Regeneration Zone is to improve employment opportunities for people who live within East Birmingham and North Solihull, but an increase in business is likely to lead to some increase in zone in-commuting. The impacts of the West Coast Main Line will also need to be reviewed in due course as well as a consideration of the consequences for travel demand of the anticipated recession.

- **Revisiting mitigation measures:** The programme of transport infrastructure improvements provides for delivery over the period up to 2026. Results from a continued programme of monitoring will identify if and where levels of generated demand fail to remain within anticipated ranges. Where operational efficiency is being challenged by excessive demand, there may well be the need to reassess the mitigation measures proposed and develop supplementary solutions or alternatives.

- **Implementation of Smarter Choice measures:** this should achieve a reduction in demand of around 10% to further mitigate the impact of traffic growth. This will be reflected by a reduction in 10% of the employment level at each site. Should the modelling reveal any increase in traffic congestion when compared to the ‘Do Minimum Option’ scenario in respect of the assessment of transport impact then there will be a requirement to demonstrate additional ‘Smarter Choice’ mechanisms, or provide additional public transport investment in order to demonstrate that such traffic growth can be avoided or mitigated before the full extent of the ‘Global Knowledge Hub’ scenario can be achieved.

### 13.5 Strategic Conclusions

The strategic conclusions that can be drawn in respect of the delivery of a programme of transport impact infrastructure mitigation measures are:

- In order to mitigate the potential transport impacts associated with the delivery of high levels of employment growth under the ‘Global Knowledge Hub’ scenario a range of short, medium and longer term transport infrastructure improvements need to be pursued and implemented. If these can be put in place then the stress placed on the M42 from higher levels of employment growth need not be any greater than that forecast under a lower employment growth scenario more closely aligned with that proposed under the Phase Two Revision.

- In order to mitigate the transportation impact of the ‘Global Knowledge Hub’ scenario measures already identified and approved under the West Midlands RFA together with the implementation of Phase 1 and 2 of the HA’s ATM programme will need to be pursued.
• Further major investment in the transport network will also be required including signalisation of the A45/A452 Junction, signalisation of Junction 5 of the M42, a BRT link to BIA, M42 Junction 6 improvements, extension of Midland Metro from Birmingham City Centre to BIA and further development of ATM to achieve a 33% capacity increase in both directions along the M42 to replicate M42 widening. The cost of this package of improvements is estimated at £0.6bn. Funding for this package is generally not in place, and will need to be assembled if the recommendations are accepted.

• Most of the schemes have a substantial lead in time and require early planning in order to be delivered. There are also issues over the ability to deliver multiple schemes concurrently or one after another due to both the funding required and also the operational impacts of construction works on business. A programme of short, medium and longer term transport infrastructure improvements therefore needs to be pursued.

• In addition to this it should be noted that the HA is being encouraged to work with developers to secure delivery of their proposals in such a way that they minimise any additional burden on other users of the strategic network with Circular 02/07 placing a responsibility on developers to manage the traffic impact of their development and to think creatively about the implementation of sustainable demand management techniques.

• The softer demand management solutions associated with the above are typically smaller, lower in cost, less controversial and have shorter lead in times and the delivery of such softer and complementary improvements must be seen as part of an overall programme of improvements to mitigate traffic impact in the M42 Corridor Growth Area.

• An Area Wide Travel Plan could go some way to offsetting the demand growth that is expected form the expansion of the strategic economic assets of the M42 Corridor Growth Area. It could help businesses to collectively influence the travel habits of both employees and visitors in favour of more sustainable modes. A successful Travel Plan will not only help to address motorway demand issues but also result in more reliable journey times, reduced environmental impacts and reduced levels of employee stress. Improvements to rail, coach and bus service quality and frequency are likely to be needed to accommodate growth in demand and to reinforce the Smarter Choices agenda.

• The development and delivery of a tiered package of Travel Plans as part of the overall transport infrastructure improvement programme is therefore critical. Indeed, it is one component of broader package of softer options that need to be delivered as part of a 'Smarter Choices' strategy that complements the harder and more costly infrastructure improvement measures that are needed if the M42 Corridor Growth Area is to realise its economic development potential. Further improvements to rail, coach and bus capacity will be needed to support the promotion of public transport as part of the 'Smarter Choice' agenda.
14.0 Case for the Corridor

14.1 Introduction

This final section of the report draws together the strategic conclusions from the study and in doing so articulates a case for stronger focus being placed on realising the development potential of the M42 Corridor Growth Area in the RSS and other relevant regional policy and strategy.

14.2 A Unique Mix of Strategic Economic Assets

In many respects the M42 Corridor Growth Area is unique particularly in terms of its strategic economic assets. Few other European city regions have an international airport, major international exhibition centre, business parks containing knowledge intensive industries, quality retail and leisure provision, an international centre for the automotives industry, mainline railway and station, and the national motorway network all in such close proximity to one another. This combination of assets provides the opportunity to contribute to local, sub regional and regional economic development through the promotion of the area as a 'Global Knowledge Hub'. The realisation of this opportunity will, in part, depend on the degree to which regional policy is supportive of and enables the sustainable development of the area's strategic economic assets. Experience from other European city regions that have had some success in achieving transformational change driven by a vision of exploiting global connectivity and knowledge based activities suggests that a successful programme of policy and project interventions should incorporate:

- Shared ownership of the approach amongst local authorities, pan regional government agencies and the private sector.
- Delivery of development strategies that promote mixed-use developments that provide a better quality of life, promote social inclusion and create attractive sites and conditions for new businesses.
- The development of housing in environments which are potentially attractive to professionals working in knowledge-based sectors.
- Investment in improving all elements of the transport infrastructure to make the whole city region attractive to potential investors and to help local residents to access emerging employment opportunities.
- Of particular importance is the need to invest in public transport routes connecting key employment sites to residential neighbourhoods, and the need to invest in links between international airports and the city region's principal city centre.
- Customised training courses are an important tool for ensuring that local people are able to access emerging employment opportunities, help to reduce inequality, and helps ensure that additional spending is retained within the city region.
• The importance of public realm improvements as a tool to help improve the image of the city region both internally and externally should not be underestimated.
• Culture and events can play an important role in regenerating city regions, particularly in terms of improving image.
• Place marketing campaigns based on the city region’s key assets and major cultural events held within the city region need to be delivered to change perceptions of the city region to both potential inward investors and tourists.

14.3 A Supportive Public Policy Framework

The public policy framework is already generally supportive of the promotion of economic development in the M42 Corridor Growth Area. In turn, the strategic economic assets represent a key opportunity for achieving a range of regional, sub regional and local policy ambitions and aims:

• The promotion of development in the M42 Corridor Growth Area will need to take due cognisance of national economic development, housing, land use and transportation policy. In respect of BIA the White Paper on the Future of Air Transport supports development at this strategic economic asset.

• Regional policy consistently identifies the strategic economic assets as offering significant opportunity for economic growth. Specifically, managing the future development and expansion potential of BIA and the NEC as regional strategic economic assets is seen as fundamental to underpinning the region’s competitiveness performance.

• Regional policy places very considerable emphasis on the importance of further developing the region’s higher value, knowledge-based sectors and activities. As a primary concentration of the region’s emerging Knowledge Economy, the M42 Corridor Growth Area can be expected to be at the forefront of future growth in these priority sectors and activities, including: specialist business & professional services, ICT & software, and tourism & leisure, together with medical technologies, automotive, building technologies, environmental technologies, and creative industries.

• Development within the M42 Corridor Functional Area should be spatially concentrated in certain designated areas, with these including the HTCs (Coventry Solihull and Warwickshire HTC, together with the Central Technology Belt), and the RZ (including the EBNSRZ and CNRZ). There is also an underlying strategic objective to ensure that the opportunities available in the M42 Corridor Growth Area link to neighbouring areas of need.

• Further, the MUAs of Birmingham, Solihull and Coventry, and the SSDs - including Redditch, Rugby, Nuneaton/Bedworth and Warwick/Leamington Spa - are also identified as important
locations for prospective future employment and housing development under both regional and sub regional strategies.

- Strategic policies recognise the need for focusing major employment and housing development in those locations characterised by strong transport links. Wherever possible, the most effective use of existing transport infrastructure is emphasised, though, significantly, there is also recognition that some additional improvement schemes are required. Together with a need to enhance public transport, improvements to the M42 are identified as a priority.

- Locally, the Solihull UDP supports the development of the strategic economic assets but recognises that in doing so environmental and transport issues need to be addressed. Long established Green Belt boundaries abut some of the strategic economic assets and under current policy are only due for amendment if a positive contribution to urban regeneration can be demonstrated.

14.4 Strong Existing Economic Contribution

The M42 Corridor Functional Area already makes an important contribution to the economic performance of the region. The M42 Corridor Growth Area and more specifically the strategic economic assets provide a focus for region’s knowledge intensive industrial base. This provides a strong economic platform on which to build measures and promote development than can contribute to the narrowing of the West Midland’s productivity gap. Critically, the strategic economic assets also provide local employment opportunities for residents of disadvantaged communities that lie in close proximity to the M42 Corridor Growth Area:

- The M42 Corridor Functional Area is an area of relative economic strength and performs well against the national average in respect of the key economic domains of scale, dynamism, sector profile, enterprise and skills. Perhaps not surprisingly therefore GVA per head in the corridor is 15 percentage points higher than the West Midlands average and a fraction above that of the UK as a whole. Significantly, the M42 Corridor Functional Area has recorded a substantial growth in GVA over recent years rising by 6.1% per year compared to 5.7% across the region.

- The Intermediate M42 Corridor Growth Area, focussed on Solihull, represents a notably strong performer, particularly with regard to its recent growth trajectory, enterprise culture and skills base – placing it in the top 20% of English local authority local economies. GVA per capita is particularly strong in the Intermediate M42 Corridor Growth Area and currently stands at some £21,200 – amongst the highest level in the region. Labour productivity and growth in this is also comparatively high in Solihull.
• The M42 Corridor Growth Area performs particularly well within Solihull: growth in the size of the business base at nearly 4% per annum outstrips the regional and national average; enterprise density is relatively high with 13 more businesses per 1,000 adults than the GB average; one in four residents have NVQ Level 4/5 skills compared to 20% across England; 52% of residents work in knowledge intensive sectors compared to 36% regionally and 40% nationally; and the area is a focus for the receipt of inward investment into the region.

• More detailed sector analysis affirms the strength of the knowledge economy within the M42 Corridor Growth Area. The automotive, air transport, computer services, financial intermediation, renting of machinery and equipment and other business activity sectors are all over represented in the area. These reflect important medium to high technology manufacturing and market and high technology knowledge intensive sectors and industries.

• It is estimated that the regional strategic economic assets represented by BIA, the NEC and the two business parks currently support some 47,400 jobs across the region and contribute over £2bn to regional GDP. The other strategic economic assets – Land Rover and Solihull Town Centre – are estimated to support a further 52,400 jobs across the West Midlands and contribute some £3.1bn to regional GDP.

• It is therefore clear that the M42 Corridor Growth Area represents a key contributor and driver to the success of the regional economy. It should also be recognised that the strategic economic assets are also of considerable local importance – not least in providing a range of employment opportunities for local residents of the area and the deprived communities that either adjoin or lie in close proximity to it.

14.5 Housing in the Wider Area Provides an Important Source of Labour

The M42 Corridor Growth Area forms part of or adjoins a number of distinct housing market areas. Some of these are the subject of renewal and restructuring activities as a mechanism to both regenerate deprived communities and meet forecast increases in both population and household numbers. There are clear inter linkages between employment and housing development. The strategic economic assets provide employment opportunities for existing and new residential development to be promoted in the neighbourhoods that lie in close proximity to the M42 Corridor Growth Area. Existing and new residents provide an important source of local labour to service the needs of existing and future employers within the area:

• The residential population of the M42 Corridor Functional Area is 2,210,000 or 41% of the region’s population. Population growth in the corridor was largely static between 1991 and 2001 but has increased since, and is forecast to rise by 324,000 (14%) by 2026. Growth is also forecast in the M42 Corridor Intermediate Area – focussed on Solihull.
The M42 Corridor Functional Area forms part of the South HMA, the C1 HMA and the C2 HMA. The C1 HMA includes the local authority areas of Birmingham and Solihull which abut the M42 Corridor Growth Area.

Solihull – the focus of the M42 Corridor Intermediate Area – has an attractive residential environment which creates a high level of demand for housing. Houses prices have been strong, home ownership is high and affordability remains an issue.

Birmingham's population is set to grow as a result of natural change, particularly amongst BME communities. Owner occupation is less prevalent than in Solihull and the social rented sector is of greater importance. Affordability issues continue as does demand for social housing.

The Eastern Growth Corridor forms parts of the M42 Corridor Growth Area (including North Solihull). This experiences a lack of sufficient housing supply to accommodate anticipated future household growth, and a lack of housing choice and quality.

North Solihull is identified as a distinct housing market within the Eastern Growth Corridor (together with East Birmingham and the Eastern Periphery). It has seen an increase in both population (10.5%) and households (3.0%) between 1991 and 2001.

The age profile of residents of the M42 Corridor Growth Area (including North Solihull) is similar to that for Solihull as a whole. The occupational structure is also similar. Owner occupation is lower and the renting of local authority accommodation higher – reflecting the inclusion of North Solihull in this slightly wider operational definition of the M42 Corridor Growth Area.

Travel to work patterns demonstrate strong linkages between the M42 Corridor Growth Area and Birmingham and Solihull. Some 44% and 27% of Solihull's and Birmingham's workforce is employed in the corridor. There are also strong localised relationships between the workforce of the M42 Corridor Growth Area and its strategic economic assets. In particular, Solihull Town Centre, the NEC and BIA provide a significant number of job opportunities for local residents.

It is clear that there are strong links between employment opportunities and housing within the M42 Corridor Functional Area, and, in particular, the M42 Corridor Growth Area. Birmingham and Solihull have secured New Growth Point status and the Eastern Growth Corridor (which includes part of the M42 Corridor Growth Area) represents a significant opportunity for housing growth.

14.6 Transport Issues Need to be Tackled

The stretch of the M42 between Junctions 3 and 7 has been identified as a current and future congestion 'hotspot'. Improvements to the transport infrastructure will need to be delivered if the full economic potential of the M42 Corridor Growth Area is to be realised:
• Planned development at several sites in and around the M42 Corridor Growth Area, including at BIA and the NEC, as well as a growth in through traffic are cumulatively expected to increase demand for use and congestion of the M42, particularly around Junction 6.

• Car remains by far the most dominant form of transport in the West Midlands. Each of the metropolitan boroughs in the region is forecast to be the destination of 15% more car trips and over 10% more public transport trips by 2021. Solihull is expected to witness particularly high increases at 34% and 43% respectively.

• Each of the strategic economic assets is served by at least two bus services. Services to BIA and the NEC are particularly numerous, although north/south connectivity remains poor, particularly in relation to Solihull Rail Station.

• The regional rail network is based around the WCML, with frequent and direct links to locations all around the country. There are now five railway stations within the M42 Corridor Growth Area, the most significant of which is Birmingham International Station. This is a significant destination, parkway and interchange station. It accommodated nearly 2.5 million passengers during the financial year 2006/07. Solihull Rail Station is valuable for commuter services but offers less attractive long distance connections and is not well connected to the strategic economic assets.

• BIA is the region’s principal airport offering Domestic, European and Long Haul flights. Its passenger numbers have risen steadily over the past two decades; it handled over 9.1 million passengers in 2006.

• Extension of the runway at BIA is one of the Regional Transport Priorities and is supported by the Future of Air Transport White Paper. The Airport Company submitted a planning application for the runway extension in 2008 and the Solihull MBC Planning Sub Committee is understood to be "minded to approve" the application. BIA believes that the runway extension would enable it to take a significantly higher share of its regional passenger market.

### 14.7 Other Infrastructure Constraints are Less Problematic

The initial scoping of other infrastructure constraints in the M42 Corridor Growth Area suggests that these are not necessarily problematic although further investigation is needed as more specific development proposals are brought forward:

• There are constraints to development in the M42 Corridor Growth Area within the transport network with regard to the proximity of buildings, aerodrome safeguarding, restrictions such as power lines, rail lines, structures and water courses.
• Utilities, other than water, are not expected to represent fundamental constraints although this does not mean that as details of development come forward site specific constraints will not be identified and costs incurred.

• The physical location of services will need to be carefully considered with regard to any detailed design of infrastructure proposals.

• The concerns regarding water are more significant and need to be the subject of more detailed study as development plans emerge with an emphasis on the end user.

14.8 Potential for Transformational Economic Change

The strategic economic assets have the potential to deliver transformational change in respect of their future contribution to the performance of the regional economy. Critically, the characteristics and nature of development can complement rather than compete with development aspirations in other potential growth areas including Birmingham City Centre and through the provision of connectivity improvements will provide spill over benefits to other parts of the region. In addition, local residents in adjacent deprived communities can be expected to benefit from employment creation at the strategic economic assets. In short, what is good for the M42 Corridor Growth Area is also good for the region and for the immediate locale:

• Under a 'Steady State' scenario the regional strategic economic assets are forecast to have the potential to provide in the order of 50,000 jobs and some £3.4 billion towards regional GDP by 2026. In addition, Land Rover and Solihull Town Centre can be expected to contribute a further 27,000 jobs and £2.5 billion towards GDP over the same period.

• Under the higher growth 'Global Knowledge Hub' scenario, it is estimated that the future economic contribution attributable to the regional strategic economic assets will increase significantly to nearly 90,000 jobs and over £6 billion in respect of regional GDP. Land Rover and Solihull Town Centre can be expected to contribute some 40,000 jobs and £3.8 billion towards regional GDP.

• Critically, it can be expected that improvements in connectivity will unlock more dynamic and far reaching impacts on the performance of the regional economy, and hence on the prospects for employment and GDP growth.

• Specifically, enhanced connectivity, in the form of improved access to international markets delivered through a greater range of Long Haul destinations, is likely to be instrumental in delivering further major competitive benefits to the region. At 2026, the catalytic effects associated with runway extension at BIA are estimated at equivalent to 5,000 jobs and approaching £400 million of regional GDP.
• Realisation of the investments associated with the strategic economic assets will be critical to the effective narrowing of the region's productivity gap. The development of the strategic economic assets may be expected to attract a range of high productivity sectors which would serve to negate the 'distribution' effect associated with the region's industrial structure.

• More fundamentally, successfully realising planned investments in the locale may be anticipated to considerably improve the performance of existing businesses in the region on account of extending market reach and market potential, and thereby enhancing opportunities for improvement in 'pure' productivity amongst the West Midland's business base.

• Importantly therefore expansion associated with the regional strategic economic assets can also be expected to contribute significantly to growth in the regional economy outside of the M42 Corridor Growth Area itself – with 34% of regional employment impact and 29% of GDP impact likely to accrue outside of the locale. The NEC and BIA in particular provide an opportunity to secure both localised and regional economic benefits from their continued development.

14.9 Housing Development and Impact Needs to be Carefully Managed

There are opportunities to promote housing development and growth in the neighbourhoods that lie in close proximity to the M42 Corridor Growth Area, particularly in the Eastern Growth Corridor and North Solihull. This will be important in promoting a larger labour pool from which employers within the M42 Corridor Growth Area can draw upon. It also provides an opportunity to assist in meeting the aspirations of New Growth Point status. However, the delivery and management of housing growth and capitalisation on the opportunity to link together employment and residential growth will require careful planning. In particular, levels of housing provision proposed should not compromise the environmental quality of Solihull and the M42 Corridor Growth Area in particular. The quality of the local environment is recognised as a critical component of the M42 Corridor Growth Area's offer, particularly in respect of the attraction of knowledge industries and workers:

• Limited housing growth provides an opportunity for both Birmingham and Solihull to accommodate and better provide an expanded future workforce to service the growth in employment arising from the promotion of economic development within the M42 Corridor Growth Area.

• A high housing growth scenario for Solihull that significantly exceeds the figures postulated in the Phase Two Revision can be expected to have considerable adverse implications for both environmental quality and transport infrastructure and over the longer term could have a detrimental impact on the investment potential and locational advantages of the M42 Corridor Growth Area.

• Realisation of the 'RSS Phase Two Revision' scenario with a focus for residential development in the Eastern Growth Corridor and North Solihull will assist in meeting urban renaissance
objectives and stimulate the renewal of deprived communities – particularly if labour market access and skills development programmes are introduced by public and private sector partners to stimulate enhanced linkage with the economic growth opportunities available in the M42 Corridor Growth Area.

- Housing growth aspirations in Coventry also have the potential to contribute significantly towards meeting the increased demand for labour that will arise from the promotion of the strategic economic assets and could assist in accommodating any shortfall in housing provision in either Birmingham or Solihull.

14.10 Transport Impact can be Accommodated with Infrastructure Improvements

It is acknowledged that development and management of the strategic road network over the next 20 years will not be solely demand led. The HA is bound to maintain compliance with DfT Circular 2/07 which states that Government policy is not predicated on catering for unrestricted road traffic growth, regardless of whether this is a result of planned regional economic development. Modelling of the potential impact of the increase in employment associated with the delivery of the 'Global Knowledge Hub' scenario on the transport network indicates that with appropriate hard and soft infrastructure improvements this can be accommodated. The delivery of the necessary hard and soft infrastructure improvements are however critical to this:

- With the provision of infrastructure improvements the 'Do Something Option' transport scenario which allows for levels of employment growth under the 'Global Knowledge Hub' scenario, would, overall, give rise to no greater level of stress on the M42 Corridor Growth Area than that predicted under a 'Do Minimum Option' transport scenario which is predicated on employment and housing forecasts in the Phase Two Revision.

- Substantial investment will however be needed to accommodate this growth in traffic, together with a parallel and strong commitment to 'Smarter Choices' by both employers and employees. Notwithstanding recent investment in the ATM Scheme on the M42 and WCML, there will be a need for further enhancements to the ATM Scheme and M42 junctions, and investment in Midland Metro and other public transport. Additional investment, such as the proposals for a new High Speed Rail Line from London to Birmingham and/or Manchester are welcome and will support growth but their provision should not be regarded as a prerequisite for growth.

- Even so, some links would experience some increase in congestion: the increases are modest, but in order to satisfy the HA's requirements, cumulative impacts on the network would need to be assessed before planning consent could be put in place for the full scale of employment growth envisaged.

- The realisation of the economic development opportunities available in the M42 Corridor Growth Area should not pose a problem in terms of likely support from the HA. Realisation of the 'Global
Knowledge Hub' scenario is not expected to demand any additional infrastructure to that required to support levels of growth within the West Midlands envisaged under the Phase Two Revision.

- What will remain a concern to employers is that the foreseen growth will absorb almost all highway capacity released by substantial investment and therefore traffic congestion will remain a concern. Further improvements to rail, coach and bus capacity will be needed to support the promotion of public transport as part of the 'Smarter Choices' agenda.

14.11 Hard and Soft Transport Mitigation Measures are Required

In order to mitigate the potential transport impacts associated with the delivery of high levels of employment growth under the 'Global Knowledge Hub' scenario a range of short, medium and longer term transport infrastructure improvements need to be pursued and implemented. If these can be put in place then the stress placed on the M42 from higher levels of employment growth need not be any greater than that forecast under a lower employment growth scenario more closely aligned with that proposed under the Phase Two Revision. **A range of complementary hard and soft infrastructure improvements are considered necessary:**

- In order to mitigate the transportation impact of the 'Global Knowledge Hub' scenario measures already identified and approved under the West Midlands RFA together with the implementation of Phase 1 and 2 of the HA's ATM programme will need to be pursued.

- Further major investment in the transport network will also be required including signalisation of the A45/A452 Junction, signalisation of Junction 5 of the M42, a BRT link to BIA, Junction 6 improvements, extension of Midland Metro from Birmingham City Centre to BIA and further development of ATM to achieve a 33% capacity increase in both directions along the M42 to replicate M42 widening. The cost of this package of improvements is estimated at £0.6 bn. Funding for this package is generally not in place and will need to be assembled if the recommendations are accepted.

- Most of the schemes have a substantial lead in time and require early planning in order to be delivered. There are also issues over the ability to deliver multiple schemes concurrently or one after another due to both the funding required and also the operational impacts of construction works on business. A programme of short, medium and longer term transport infrastructure improvements therefore needs to be pursued.

- In addition to this it should be noted that the HA is being encouraged to work with developers to secure delivery of their proposals in such a way that they minimise any additional burden on other users of the strategic network with Circular 02/07 placing a responsibility on developers to
manage the traffic impact of their development and to think creatively about the implementation of sustainable demand management techniques.

- The softer demand management solutions associated with the above are typically smaller, lower in cost, less controversial and have shorter lead in times and the delivery of such softer and complementary improvements must be seen as part of an overall programme of improvements to mitigate traffic impact in the M42 Corridor Growth Area.

- An Area Wide Travel Plan could go some way to offsetting the demand growth that is expected from the expansion of the strategic economic assets. It could help businesses to collectively influence the travel habits of both employees and visitors in favour of more sustainable modes. A successful Travel Plan will not only help to address motorway demand issues but also result in more reliable journey times, reduced environmental impacts and reduced levels of employee stress. Improvements to rail, coach and bus service quality and frequency are likely to be needed to accommodate growth in demand and to reinforce the 'Smarter Choice' agenda.

- The development and delivery of a tiered package of Travel Plans as part of the overall transport infrastructure improvement programme is therefore critical. Indeed, it is one component of broader package of softer options that need to be delivered as part of a 'Smarter Choices' strategy that complements the harder and more costly infrastructure improvement measures that are needed if the M42 Corridor Growth Area is to realise its economic development potential. Further improvements to rail, coach and bus capacity will be needed to support the promotion of public transport as part of the 'Smarter Choice' agenda.

14.12 Raising the Policy Profile of the M42 Corridor Growth Area

Paragraphs 3.30 to 3.33 of the Phase Two Revision draw attention to the role that Solihull plays in delivering the proposed spatial strategy for the development of the West Midlands and explicitly identify the importance of regional assets including BIA, Birmingham Business Park, Blythe Valley Business Park and Solihull Town Centre in making the borough an area that is attractive to new investment. It also notes that a careful balance needs to be maintained between realising the economic potential of the area, without harming urban renaissance or undermining the qualities of the area that are important in attracting investment in the first place.

A number of more specific policies in the Phase Two Revision provide guidance on the development of the strategic economic assets. Policy T11, for example, provides a framework for the development of BIA. Policy PA2 refers to the EBNSRZ and Policy PA3 refers to the HTCs. Policy PA7 refers to RIS.

This is encouraging in that the Phase Two Revision recognises the important contribution that the M42 Corridor Growth Area makes to the economic performance of the region. It also provides a framework for the continued development of the strategic economic assets in order that they continue to contribute towards the delivery of economic and productivity growth across the region.
However, the Phase Two Revision is neither bold enough nor explicit enough in its consideration of the M42 Corridor Growth Area. The M42 Corridor Growth Area with its unique combination of strategic economic assets presents a major opportunity to address the region's productivity gap and provide economic benefits at both a sub regional and local level. It offers the opportunity to complement this with investment in housing restructuring and renewal and in doing so link together local and sub regional regeneration and economic development priorities. Improvements to and investment in the transport network are required in the form of new infrastructure, improvements to existing infrastructure and soft transport measures in order to accommodate forecast levels of growth from development in the M42 Corridor Growth Area and these can support and reinforce economic development and housing investment proposals.

In order for local, sub regional, regional and national policy makers to actively support the promotion of the M42 Corridor Growth Area it would be advantageous for the Phase Two Revision to adopt a more coherent and complete consideration of the area, including a specific policy that draws together a succinct and supportive policy framework for the development of the M42 Corridor Growth Area and the recognition of this on the Spatial Strategy Diagram. This would provide greater policy weight to the promotion of the M42 Corridor Growth Area than the currently ad-hoc and disparate policy references to the area in the Phase Two Revision. More specifically such a policy should identify:

- The broad extent of the M42 Corridor Growth Area.
- The strategic economic assets located within it.
- Its role as a driver of the regional economy.
- Linkage to local and sub regional economic development, housing and urban renewal objectives.
- The need to protect areas of high environmental quality.
- The need for transport improvements including investment in new transport infrastructure, improvements to the existing transport infrastructure and investment in soft transport measures.

Clearly, and in terms of ensuring strong policy alignment at the regional level other strategic regional policy frameworks should also adopt a similar approach and stance towards the M42 Corridor Growth Area and be explicit in identifying its role and potential for reducing regional productivity differentials and the investment in the transport infrastructure that is necessary to realise this potential. The RFA therefore should also take due cognisance of the opportunities offered by the M42 Corridor Growth Area.

The Sub National Review of Economic Development and Regeneration (SNR) introduced a policy push towards the preparation of a Single Integrated Regional Strategy (SIRS), and this has been reinforced by a raft of subsequent Government 'policy advice' on the delivery of this. This also provides an opportune mechanism to identify the M42 Corridor Growth Area as a location for the promotion of development that will address the regional productivity gap and to promote the transport infrastructure investments that are necessary to support this. This report provides a
strong evidence base to support this approach and should be utilised by partners to inform the SIRS as the route map for the preparation of this becomes clearer.

There are further opportunities to reinforce the promotion of the M42 Corridor Growth Area as a locus for economic development through the preparation and delivery of local policy specifically that within the remit of SMBC and within whose administrative area the M42 Corridor Growth Area is principally located. The preparation of the Sustainable Community Plan (SCP) and the local authority's Local Development Framework (LDF) represent critical opportunities through which the M42 Corridor Growth Area should be promoted.

In respect of the latter the development potential of parts of the M42 Corridor Growth Area as it abuts the strategic economic assets is constrained by the application of Green Belt policy. The Green Belt will continue to play a key role in containment and the prevention of urban sprawl and the direction of development towards the MUAs. However, this needs to be balanced against the economic opportunities that are available in the M42 Corridor Growth Area and the need to maintain its environmental qualities.

In achieving this fine balance the full potential of the M42 Corridor Growth Area may only be realised if there is limited relaxation of Green Belt boundaries as they apply to the strategic economic assets. The detailed definition of Green Belt boundaries is a matter for the determination of SMBC as part of the LDF process, and the local authority should consider and change to the detailed boundary of the Green Belt as part of this.
Annex One: Schedule of Infrastructure Mitigation Measures Proposed by Stakeholders
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<th>Measure</th>
<th>Rationale</th>
<th>Delivery</th>
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<td>MUST HAVE</td>
<td>There is an overall desire, reflected in all local and national planning policy and guidance to reduce the dependence on the car. A range of transport options needs to be provided for the parts of the corridor where and when traffic volumes are high. Public Transport options would need to facilitate journeys passing through the corridor and reaching destinations within it.</td>
<td>There are a number of public transport schemes that are either nearly delivered (West Coast Mainline) or have potential to be developed, which would improve either flow through the area or penetration to attractions within it. Centro has plans for enhanced rail facilities throughout the West Midlands including a new gateway station concept for Birmingham New Street and new chords to make better use of Birmingham Moor Street. Plans for an extension of the Midland Metro to the NEC and BIA also exist. Whilst they have stakeholder support, little headway is presently being made. Quality bus schemes have also been mooted to enhance mobility.</td>
<td>Medium term</td>
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<td>Area Wide Travel Plan / Smarter Choices</td>
<td>Travel Plans are generally prepared in support of planning applications. They primarily deal with the travel needs of employees. Implementation of Travel Plans can realise economies of scale.</td>
<td>There is clear merit in developing an area-wide approach to promotion of Smarter Choices. Some measures, such as car-sharing, can be rolled out across different employers. This offers particular value in terms of the M42 Corridor, because it is occupied by numerous employers, which could co-ordinate to benefit from such a scheme – notably BIA, the NEC and Birmingham Business Park which are in close geographical proximity to each other.</td>
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<td>Demand Mitigation</td>
<td>Demand mitigation in the public transport system involves differential pricing of services within the peak period helping to push commuters onto shoulder peak trains and hence spread the demand – unloading overloaded peak services and filling under-used services. In motorway terms this involves the use of the variable speed limits to reduce overall speeds at busy times.</td>
<td>Differential pricing on public transport is already a possibility and the use of smart cards could enhance this further by simplifying the process of charging different prices depending on time of day of travel. An extension of the variable speed limits to elsewhere within the Birmingham motorway box is also receiving detailed study and is planned for roll-out. This scheme in particular is seen as managing congestion effectively.</td>
<td>Short – medium term</td>
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<td>Car Sharing &amp; Campus Car Sharing</td>
<td>The establishment of car sharing schemes based on people travelling to a specific location (e.g. office, town centre, business or academic campus) is intended to reduce the number of single occupancy car journeys and hence reduce motorway demand.</td>
<td>Car sharing schemes are generally co-ordinated by businesses or institutions. The biggest difficulty is in maintaining workforce flexibility while making the scheme viable. Reduction in work-based car parking places can encourage people to accept this loss of flexibility.</td>
<td>Short term</td>
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<td>Linkage to Regeneration Zones/ Solihull</td>
<td>The M42 corridor borders onto the East Birmingham and North Solihull Regeneration Zone and, as such, must be a key feeder route into the area.</td>
<td>Buses offer a key opportunity to connect with the Regeneration Zone because they are flexible, require little infrastructure investment and can be established quickly. Scheme promoters are being encouraged to ensure provision is made for buses to serve their developments.</td>
<td>Short term</td>
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<td>North-South Linkage</td>
<td>North-South linkage in the area is poor other than by motorway. Most public transport corridors radiate from central Birmingham or a little more locally from Solihull town centre.</td>
<td>There are no North-South rail lines and the proposed Metro extension will radiate from Birmingham. As such provision of public transport for this sort of flow will have to be through bus service improvements. These can be relatively cheaply implemented if there is demand.</td>
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<td>Active Traffic Management</td>
<td>The M42 is congested and operating speeds are often below the national speed limit. ATM has helped to increase capacity and reduce the number of occurrences of delay but this is often achieved by the imposition of reduced speed limits.</td>
<td>It is unlikely that substantial improvements to the M42 will be achieved in the foreseeable future. Whilst it may be felt desirable to promote such investment it is important to develop a strategy within which M42 widening is not a pre-requisite. As such, further improvements to the ATM concept could offer a way to help increase/manage capacity.</td>
<td>Short-medium term</td>
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<td>Public Transport Brokerage</td>
<td>A number of the jobs in the area, most notably those at the Airport, depend on access at times of day when public transport services are limited. The Airport does already operate a significant fleet of buses, but improved service levels could reduce car dependency amongst employees.</td>
<td>A Public Transport Brokerage approach would seek to quantify the demand for, and availability of, public transport at different times for the various sites along the corridor and provide a cost-effective collective service to meet these needs.</td>
<td>Short term</td>
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<td>Intelligent Transport / Real time travel information</td>
<td>Intelligent transport is a system of alerting the general public in real time to the prevailing traffic and travel conditions allowing them to change their travel plans to avoid areas of congestion. Information that can be distributed by web, e-mail and mobile phone.</td>
<td>Early dissemination of information on events could help to divert minor journeys away from the M42 at times of expected high usage. The system could also use traffic metering to regulate flows at motorway entrances or allocate motorway space to vehicles which contribute more to the economy (i.e. buses and goods vehicles.</td>
<td>Short-Medium Term</td>
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<td>ATM Reliability</td>
<td>Any installed ATM equipment needs to be reliable or the benefits will not be achieved</td>
<td>The current M42 equipment is still in the trial period and has experienced periodic technical problems. In the longer term it is expected that reliability will improve and thus ensure improved motorway reliability.</td>
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<td>Improving rail resilience</td>
<td>Because much of the network is near capacity and only two track it is difficult to recover from disruption.</td>
<td>This issue is very difficult to mitigate – it requires increased capacity to be provided so that greater resilience can be achieved. Effort will need to be put into increasing equipment reliability such that the occurrence of failures and disruption is minimised in the first place</td>
<td>Medium term</td>
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<td>Bus Rapid Transit System</td>
<td>Provision of a high frequency bus service connecting Solihull Town Centre and the major land uses at Land Rover, BIA, the NEC and Birmingham Business Park and onwards to the North Solihull and East Birmingham Regeneration Zone.</td>
<td>The service would use the existing highway network but include bus priority measures along the route and provide a high frequency service throughout the day and into the evening. Plans for better bus provision to BIA and NEC are already provided for with the airport masterplan. Costs are estimated at around £10 million and the project could be delivered in phases, with the overall scheme taking 2-3 years to complete. One drawback is that local surveys show considerable resistance to using buses to get to these sites with a preference for train or tram travel.</td>
<td>Short – medium term</td>
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<td>Junction capacity improvements</td>
<td>There are strategically important junctions in the corridor which should be enhanced to protect the operation of the strategic network. A key issue is the capacity at Junction 6 where the A45, NEC, BIA and Birmingham International station all join the M42. This can be particularly problematic during popular exhibitions. Junction 5 and the Stonebridge Roundabout (A45/452) also witness flow problems.</td>
<td>It may be possible to re-model this junction to improve flow. Improving the three junctions mentioned would cost in the region of £83 million, plus there would be a cost in terms of the severe disruption for businesses during the construction period. Each junction improvement could be expected to require a 5-7 year construction period.</td>
<td>Medium - long term</td>
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<td>BIA runway extension</td>
<td>Extending the runway at BIA will enable the airport to cater for a wider range of destinations and markets.</td>
<td>Runway extension is the key project in BIA’s Master Plan. It has national support; the government promotes the strengthening flight offers from BIA and suggests that a new runway should be operational by 2012.</td>
<td>Medium term</td>
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<td>Air Terminal 3</td>
<td>Increasing capacity at BIA may require a new terminal. The National Air Travel Strategy expects BIA to be a major regional hub airport.</td>
<td>A proposed new terminal is part of the BIA masterplan to accommodate growth in air travel.</td>
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<td>Parking Cost Framework</td>
<td>At present car parking policy is not consistent across the area. This is inevitable with a variety of land-owners and operators but can result in illogical behaviour such as air passengers parking at the railway station. Parking charges also offer the potential to raise revenue to improve other services.</td>
<td>Delivery of co-ordinated parking charges is complicated by the involvement of private operators but, in the longer term, some form of improved strategic planning would be valuable and could simplify options such as shared parking spaces (for example used by air passengers in the summer holidays and NEC visitors for key events).</td>
<td>Short-medium term</td>
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<td>Demand Responsive Buses / Rural Penetration</td>
<td>Whilst some employment opportunities will attract staff from higher density areas in East Birmingham/North Solihull, others will be attractive to residents of rural Warwickshire and so travel to work will be car reliant. Rural demand responsive transport could provide access for these groups.</td>
<td>This is a comparatively low priority until high quality bus access is in place for those workers in higher density areas with lower levels of car availability as the latter is likely to be a more effective form of investment.</td>
<td>Medium term</td>
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<td>Tracking Rugby to Birmingham</td>
<td>The Birmingham to Coventry corridor is very close to capacity during peak times. One potential solution to the capacity constraint is increase the number of tracks in this section of railway from two to four, which would increase capacity by allowing local and fast</td>
<td>Current schemes have been proposed around train and platform lengthening to enhance capacity without increasing paths. There is currently no commitment to 4-tracking, and any delivery programme is likely to be in excess of 15 years. The cost of the project is estimated at around £900</td>
<td>Long term</td>
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<td>Freight Consolidation &amp; Shared Facilities</td>
<td>Businesses throughout the corridor do not benefit from direct freight access but could benefit from consolidating freight delivery in one place and the using full small local delivery vehicles.</td>
<td>This would have some impact in reducing the size and number of freight vehicles on the motorway and surrounding roads. It is also more efficient in that the smaller trucks would be more fully loaded. It might encourage the use of the local freight terminal at Hams Hall generally.</td>
<td>Long term</td>
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<td><strong>WOULD LIKE TO HAVE</strong></td>
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<td>Second runway at BIA (&gt;2030)</td>
<td>Expansion of BIA ultimately requires a second runway. This would be required when a proposed extension to the current runway reaches capacity.</td>
<td>A second runway is a long way from realisation and is likely to (has already) receive considerable protest and opposition. Recent refusal of permission for expansion at Coventry may bring this higher up the agenda.</td>
<td>Long term</td>
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<td>BIA Remote Parking or Check-in</td>
<td>Remote parking from the airport will reduce pressure on junction 6. Coupling it with remote check in will mitigate people’s concerns about transporting their luggage from the remote location.</td>
<td>There is already some provision of remote long stay parking. BIA is obliged to cooperate with long term parking provision and the airport’s strategy is to work more closely with its local parking partner. However, remote check-in facilities at other airports in the UK have been closed due to lack of use and distrust by travellers. In the current security climate remote check-in is not favoured by Government as they prefer passengers to be with their luggage as long as possible.</td>
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<td>M42 widening</td>
<td>Symmetrical widening of the carriageway in each direction, between junctions 3a and 7 would provide additional capacity for the M42 corridor.</td>
<td>Widening of the motorway is part of local plans but is not yet funded; however, it is clearly counter to public policy of moving away from the private car towards public transport. The scheme could cost in the region of £545 million and it could take between 15 and 20 years before it was operational. There are also potentially major implications and disruption for businesses within the corridor during construction, when existing capacity would be significantly reduced. Currently it is thought unlikely that this will be considered prior to the full implications of the ATM being understood and the extra capacity that this generates being consumed.</td>
<td>Long term</td>
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<td>Midland Metro</td>
<td>There are proposals that the Midland Metro should be extended out to BIA/NEC from the city centre. The scheme would be predominantly on-street and follow the alignment of the A45 corridor.</td>
<td>It is unlikely that this will be undertaken in the medium term – it could take between 10-15 years to become operational and would cost an estimated £375.6 million. There are higher priority lines than this which are struggling to get funding. The scheme does have local support from BIA, NEC, Solihull MBC and Birmingham City Council. However, there is limited appetite nationally for metros. It is likely that government would look for substantial developer contributions for such a scheme.</td>
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<td>High Speed 2 Rail</td>
<td>This is a high speed line to connect the Midlands with London. Only very high level studies have been undertaken at the moment. Such a scheme would provide additional capacity for travel between the UK’s city regions, providing effective links to international gateways.</td>
<td>Nationally the mood seems to be changing in favour of new High Speed lines generally. Network Rail is looking at this line and others. However, it is however unlikely that there will be significant progress in the medium term. The investment required is estimated to be around £11 billion, with a long lead and construction period. It could take 15 years before the first phase was operational. There is likely to be extensive CPO requirements and possibly new rail stations, plus businesses could expect disruption during construction. In addition, if built, the High Speed line between Birmingham and London is more likely to improve the opportunities for goods and people to travel into and out of the area rather than move around the M42 Corridor. There is also a possibility that it might lead to abstraction as it becomes easier to get to the south east.</td>
<td>Long term</td>
</tr>
<tr>
<td>Railhead</td>
<td>Birmingham International is already a significant rail head for travel into London in particular due to the provision of large amounts of car parking and the easy access via the motorway. It is easier to get from eastern Birmingham to Birmingham International than New Street and there is significant patronage from the southern side of the M42 for direct fast trains to London.</td>
<td>To some degree Birmingham International already provides a Parkway function for services to London. This could be further enhanced to complement High Speed Rail 2 in due course.</td>
<td>Long term</td>
</tr>
</tbody>
</table>
Annex Two: Costs and Deliverability of Major Infrastructure Schemes
Bus Rapid Transit System

A high quality high frequency bus service connecting Solihull Town Centre and the major land uses at Land Rover, Birmingham International Airport, NEC and Birmingham Business Park and onwards to the North Solihull East Birmingham Regeneration Zone.

The service would use the existing highway network but include bus priority measure along the route and provide a high frequency service throughout the day and into the evening (exact operational details to be defined).

| Cost                        | Allow £10.0m in total. Circa £2m for infrastructure improvements plus operational costs (provision of the buses, drivers, insurance etc). Operational costs dependant on frequency of service and take-up of patronage.
|                            | Estimate based on a single route with high frequency services.
| Programme                  | Improvements could be delivered in phases although overall scheme would likely take 2-3 years to implement.
| Operational Implications   | Localised problems during the improvements to individual junctions.
| Environmental Impacts      | Minor impact.
| CPO / Buildability         | Generally within existing carriageway.
Junction Capacity Improvements

The future growth and expansion of developments along the corridor will be most likely be supported by planning applications which will address the impacts of the developments on the local junctions. However, there are strategically important junctions in the corridor which should be enhanced to protect the operation of the strategic network. These include:

- M42 J6 – widening of the circulatory sections of the roundabout (from 3 to 5 lanes) effectively resulting in the rebuild of the junction.
- M42 J5 – potential signalisation of maintain flow on the junction.
- Stonebridge Roundabout – potential signalisation of maintain flow on the junction.

### Cost

<table>
<thead>
<tr>
<th>Cost</th>
<th>Circa £83m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated costs of M42 J6 improvements of £75m. Estimated build cost from 2003 prices indexed to 2008 and including optimism bias.</td>
</tr>
<tr>
<td></td>
<td>Estimated cost of signalisation of M42 J5 £5m.</td>
</tr>
<tr>
<td></td>
<td>Estimated cost of signalisation of Stonebridge Roundabout £3m.</td>
</tr>
</tbody>
</table>

### Programme

| Programme             | Approximate delivery of each of the junction improvements between 5-7 years. |

### Operational Implications

| Operational Implications | Potentially major implications for businesses within the corridor during construction particularly at M42 J6 where widening works could extent over a substantial period of time. |

### Environmental Impacts

| Environmental Impacts | Minor negative impact. |

### CPO / Buildability

| CPO / Buildability | Localised issues on buildings and land ownership would need to addressed. Overhead power cables and proximity of rail line (M42 J6) potential issues. |
## Rail Four-Tracking – Rugby to Birmingham

The scheme is would provide enhanced capacity between Rugby and Birmingham with associated service improvements to Birmingham International Rail Station.

### Cost

Circa £900m

The Rail Four-Tracking (Rugby to Birmingham) costs are based on Four-Tracking Trent Valley data. Trent Valley Four-Tracking costs circa £300M (2008 cost figures) for 12 miles of four track widening through mainly rural and light urban area. This cost has been used to estimate the potential cost for the 30 mile section between Rugby and Birmingham. The costs have been adjusted to include an urban bias due to the nature of the line between Rugby and Birmingham.

### Programme

There is no commitment currently to the delivery of Rail Four-Tracking between Rugby and Birmingham however, any programme is likely to be 15 years plus in total (to allow for design, TWA, inquiries, CPO, construction etc).

### Operational Implications

The construction of Rail Four-Tracking is likely to have implications of the businesses within the corridor through the need for likely weekend working and disruption at stations thorough construction, bridging, signalling, widening of embankments and cuttings required. These impacts are likely to extend over a significant period of time and as a result may place additional pressure on the road network.

### Environmental Impacts

Without a detailed design of the scheme, the full environmental impacts are difficult to quantify. However, it is anticipated that on a scheme wide basis, the impacts would be minor negative impact. There may be localised impacts where widening may be required in locally sensitive areas.

### CPO / Buildability

Based on existing route corridor, there will be potentially the requirement for extensive CPO (minor land portions – many land owners) through urban stretches. This is likely to have implications not only for buildability but also programme (extend programme further).
**M42 Widening**

The scheme is would provide additional capacity for the M42 corridor between Junction 3A and Junction 7 by symmetrical widening of the carriageway in each direction.

<table>
<thead>
<tr>
<th>Cost</th>
<th>£545m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>Given the long lead times for planning, consultation, design, construction and testing, it could be expected to take 15-20 years before operational. However, it should also be noted that M42 widening is not anticipated to be needed until after 2020.</td>
</tr>
<tr>
<td>Operational Implications</td>
<td>Potentially major implications for businesses within the corridor during construction. Existing capacity would be reduced through the period of construction.</td>
</tr>
<tr>
<td>Environmental Impacts</td>
<td>The operational constraints paper identified a number of environmental sites locally and these would need to be addressed in any detailed proposals.</td>
</tr>
<tr>
<td>CPO / Buildability</td>
<td>36 Over bridges, 19 Under bridges, 12 culverts and 12 retaining walls require consideration along with electricity sub stations, oil and gas pipelines and pylons. There are also a number of properties along the alignment of the M42 and these would also need to be addressed.</td>
</tr>
</tbody>
</table>
**Midland Metro Extension**

The scheme is to provide an LRT system between Birmingham City centre and Birmingham International. The scheme would be predominantly on-street and follow the alignment of the A45 corridor.

<table>
<thead>
<tr>
<th>Cost</th>
<th>£375.6m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>In the order of 10-15 years.</td>
</tr>
<tr>
<td>Operational Implications</td>
<td>Some localised implications as the works are undertaken in the vicinity of the study area.</td>
</tr>
<tr>
<td>Environmental Impacts</td>
<td>Unable to quantify until proposals for preferred arrangements have been finalised.</td>
</tr>
<tr>
<td>CPO / Buildability</td>
<td>Likely to some CPO and buildability issues as the route is planned to be on-street.</td>
</tr>
</tbody>
</table>
# Rail High Speed 2

The scheme is would provide additional capacity for travel between the UK’s city regions, providing effective links between the city regions and the international gateways.

The costs and implications of High Speed 2 have been considered in the Greengauge 21 report of June 2007 and have been used to inform this study. Although a fixed alignment has not been identified, the study advocates a route connecting London, the South East and mainland Europe to Birmingham and the North West.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Circa £11.0bn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total build costs estimate of £6.642bn (2007). A 66% optimism bias allowance applied results in Phase 1 resulting in a total build cost of £11.0bn.</td>
</tr>
</tbody>
</table>

| Programme     | Given the long lead times for planning, consultation, design, construction and testing, it could be expected to take 15 years before the first phase (London to Birmingham) is operational. |

| Operational Implications | As with the construction of Rail Four-Tracking it is likely to have implications of the businesses within the corridor through the need for likely weekend working and disruption at stations thorough construction, bridging, signalling, widening of embankments and cuttings required. These impacts are likely to extend over a significant period of time and as a result may place additional pressure on the road network. |

| Environmental Impacts | Without a detailed design of the scheme, the full environmental impacts are difficult to quantify. However, the environmental impacts can be minimised by following existing railway and motorway corridors. |

| CPO / Buildability | There will be potentially the requirement for extensive CPO through urban stretches and possibly the need for new rail stations. This is likely to have implications not only for buildability but also programme (extend programme further). |